

# Critical Synthesis of Wellness Literature

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# Foreword

In 2006, the British Columbia Ministry of Health provided resources to the University of Victoria to develop and publish *The BC Atlas of Wellness*. While many health related atlases have been produced over the last 15 years, British Columbia has been a leader within Canada in developing such atlases. Health mapping provide a good tool to examine geography of health inequities and also use of the health care system. Most atlases, however, have tended to focus on morbidity or mortality, rather than health, and factors that promote health generation or maintenance among the population. Our task was to look at assets, rather than deficits, to take a half full approach rather than the traditional half empty approach to health mapping and to find readily accessible collected data that could be made into useful indicators to map “wellness” throughout British Columbia.

One of the key challenges was to define “wellness”. This report was drafted initially in 2007 as an internal background paper to support *The BC Atlas of Wellness* by collecting and reviewing the literature related to defining wellness. A much abridged summary was included in the *Atlas* but there have been repeated requests for copies of the complete paper, so we decided to make it more available by printing a limited number of copies, adding more recent literature, and also placing it on the same website as *The BC Atlas of Wellness*.

The *Atlas* can be found at: <http://www.geog.uvic.ca/wellness> along with a *Seniors Supplement*, *The Geography of Wellness and Well-being Across Canada Supplement*, *The Geography of Wellness and Well-being Across British Columbia Supplement* and this *Critical Synthesis of Wellness Literature*.

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## **Literature Search Strategy**

Many authors have made attempts to define wellness. An extensive review of the wellness literature was conducted, involving on-line database keyword searches, additional searches for other studies, screening of abstracts, assessing the relevance to the review and integrating the findings. Over three hundred journal articles, books and web sites were examined or accessed to determine how wellness was defined and to find research and wellness models to support the BC Wellness Mapping Project.

The literature search process included the following major steps:

- Development of keywords and search strategies;
- Review of the references sections of articles in possession to identify potentially useful studies;
- On-line searches of databases for potentially relevant articles;
- Review of government departments and NGO websites and related links for additional studies and/or unpublished documents;
- Screening of the abstracts to identify studies for further review; and,
- Canvassing of selected academic experts, organizations and government departments for additional studies and/or unpublished documents.

## **Search Terms**

The search terms originally developed were refined during the course of the on-line searches to reflect the terms and keywords used by various on-line services and authors. Searches were conducted on the following databases:

- PsycInfo
- Academic Search Elite
- ERIC
- General Science
- Social Sciences
- Web of Science
- Humanities
- Grey Literature
- Health Canada Resources; and,
- National and International Health Promotion Web Sites.

Database	Wellness	Well-being	Subjective Well-being	Quality of Life	Life Satisfaction
Psyc Info	20,173	24,291	1,987	17,894	6,233
Academic Search Elite	14,496	74,781	1,863	60,883	4,147
Eric	1,000	5,880	117	4,697	1,456
General Science	29,989	4,378	190	2,366	545
Social Sciences	26,623	7,678	685	3,319	5,239
Web of Science	1,641	100,000	8,723	86,795	10,085
Humanities	1,050	2,212	189	621	181
Grey Literature	Wellness	Well being	Subjective well being	Quality of life	Life satisfaction
Scirus	1,299,420	12,868,834	424,005	5,379,868	968,615
Google Scholar	74,700	5,500,000	461,000	2,860,000	750,000

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# WELLNESS REVIEW

## Introduction

Health care costs are burgeoning as people are living longer than ever before. Simultaneously, there is a growing interest and emphasis on wellness within Canadian culture. To support both of these trends, a review of literature was conducted to better define, conceptualize, and determine a preferred means of assessment of wellness for the purpose of mapping wellness in British Columbia, Canada. The following sections are an effort to clarify the wellness constructs from a holistic perspective; review definitions and conceptualizations of wellness within the literature from the past thirty years; and, utilize the most comprehensive studies to identify dimensions and indicators of wellness.

## Wellness from a Holistic Perspective

Holism emerged from the approach used by scientists to study complex phenomena such as organisms and ecosystems (Richards & Bergin, 1997) and a shift in society toward a worldview that is more holistic and relational (Larson, 1999). The term wellness appeared as part of a parallel transformation in the definition of health toward a more holistic perspective that is inter-relational and positive in focus, namely, to examine healthy human functioning (Westgate, 1996). Previous definitions of health held the view that health was concerned with illness and the body was considered in terms of isolated physiological systems (McSherry & Draper, 1998; Panelli & Tipa, 2007). The holistic perspective which is generally agreed upon as the preferred model, completely transformed this notion of health and the wellness movement was perhaps the catalyst that began this transformation (Anspaugh, et al., 2004; Corbin & Pangrazi, 2001; Hales, 2005; Kindig, 2007; Myers et al., 2005; Panelli & Tipa, 2007; Travis & Ryan 2004).

The wellness movement began after the end of the Second World War largely because society's health needs changed. Advances in medicines and technology meant vaccines and antibiotics reduced the threat of infectious diseases as the leading cause of death (Seaward, 1997, 2002). Instead chronic and lifestyle illnesses (e.g., heart disease, diabetes, cancer), associated with numerous stressors in life and the workplace, became the primary health concern. Dunn (1959) was considered the first author to provide a modern-day definition of wellness, namely, maximization of health through an integrated method of functioning, keeping in consideration an individual's environment.

As the wellness movement evolved, Lalonde (1981) suggested much more could be done to increase freedom from disease and disability, promoting a state of well-being to develop adequate levels of physical, mental, and social activity. Ardell (2005) a lifetime devotee to wellness research, describes the conscious choice involved in taking responsibility for improving the quality of one's life by adopting changes in various areas of lifestyle, resulting in a high level of well-being. Hatfield & Hatfield (1992) emphasized the cognitive processes involved in enhancing overall well-being within various domains: intellectual, physical, social, emotional, occupational, and spiritual.

An expanded concept of health has continued to develop to the point that it is seen as encompassing all aspects of the person (mind, body, spirit) (Donatelle, Snow & Wilcox, 1999). Coulter (1993) includes Canada in this view, describing wellness as a way of life where harmony of the mind, body and spirit is achieved through adopting a healthy lifestyle. Some have suggested this concept has been lost by western but not by indigenous societies (Elliot & Foster, 1995). Corbin & Pangrazi (2001) also view wellness as a multidimensional state evident in sense of well-being and quality of life.

Travis (one of the first health promotion experts in North America) & Ryan (2004) believe wellness involves a process of integration involving awareness, education and growth. Gatterman & Brimhall (2006) define the action of being well as being able to creatively adapt in all aspects of life resulting in an optimal level of functioning. They view the term 'wellness' as something separate and relating more to values and behaviours that promote health.

This evolving and vastly expanded view of the positive aspects of health allowed the development of preventive health measures and a focus on optimal health as practitioners address the whole person, and consider the causes of lifestyle illnesses rather than just symptoms. However, the language used to describe health and similarly, wellness, has become more complex and confusing. Current literature reveals additional terms corresponding and inter-relating to the notion of wellness, namely, well-being, quality of life, life satisfaction, and happiness and general satisfaction, the latter being a term similarly understood by many cultures and used in international studies. Research studies in these areas support a secondary purpose of this paper, namely to examine ways of assessing the wellness of individuals, communities, cities, and countries.

### **Conceptualizing Wellness**

The dominant view of wellness is that it is holistic and that an absence of illness and a state of well-being are both essential (World Health Organization, 1986). Wellness is seen as more than just the absence of the negative elements (illness and disease) but also the presence of positive elements (physical health and happiness) (Anspaugh et al., 2004; Corbin & Pangrazi, 2001; Hales, 2005; Kindig, 2007; Myers et al., 2005; Panelli & Tupa, 2007; Travis & Ryan 2004).

The term 'wellness' emerged following the Second World War, as advances in medical technology meant health included not just illness but also wellness (Panelli & Tupa, 2007). As health care costs continue to increase as a result of the prevalence of diseases associated with lifestyle factors and socio-economic policy, it has become increasingly important to examine the factors that make populations well (Health Council of Canada, 2007). An important step in creating policies that support well communities is to define what wellness is so that the factors that make up a well individual can be supported by communities and aid society as a whole (Dolan et al., 2008). The most common definitions of wellness create the theoretical framework that views individuals within a holistic perspective and consists of many dimensions. Kirsten et al., (2009) point out that the bio-medical model must catch-up and use a holistic approach as human wellness

includes, among others things, mind, body, spirit, and community interactions and the many dimensions of wellness are all very much interconnected.

As 'health' became known for more than mere absence of disease, the term 'wellness' was introduced to reflect the positive attributes of health. Over the past two decades the term 'wellness' has evolved, being initially ascribed to programs and circumstances aimed at helping alleviate illness or health risks such as exercise programs to reduce weight gain (Pelletier 1988, Watt et al., 1998). Wellness has become associated with improved sales of products and services and has been adopted by the corporate world (Fahlberg & Fahlberg, 1997; Seligman & Csikszentmihalyi, 2000). As research has evolved the psycho-social aspects of health revealed broader 'determinants' at play, resulting in a new term 'well-being' related to quality of life.

In the literature the terms 'health', 'wellness' and 'well-being' are used inconsistently. World Health Organization (1986) has a different connotation for 'health' than it has for 'well-being', whereas 'wellness' is not used. Conversely, Wissing (2000) views 'health' and 'wellness' as similar and, depending on the context, considers them interchangeable. Reardon (1998) is also supporter of this interchangeability. Green & Shellenberger (1991) refer to 'health' as a biomedical condition and 'wellness' as a more emotional condition. Wass (2000) has found people use the term 'well-being' when describing being healthy. Similarly, Walsh (2005) found that well-being equates to 'living and faring well' or 'flourishing'.

In general, the literature does not definitively separate 'health', 'well-being' and 'wellness' but rather applies them collectively to various aspects of human development, practice and experience both from an internal and an external perspective. Through the course of this paper, attempts are made to illuminate the distinguishing features of each of these three concepts.

Within the literature examined in this comprehensive wellness review, theorists have defined broad concepts around the meaning of wellness (Adams, 2003; Anspaugh et al., 2004; Ardell, 1977, 1982, 1985, 2005; Clark, 1996; Corbin & Pangrazi, 2001; Dunn, 1977; Greenberg, 1985; Hales, 2005; Hatfield & Hatfield, 1992; Helliwell, 2002; Jensen & Allen, 1994; Jonas, 2005; Lafferty, 1979; Lalonde, 1981; Maslow, 1968; Myers et al., 2005; Rickhi & Aung, 2006; Ryan & Deci, 2001; Ryff & Singer, 2006; Sackney et al., 2000; Saracci, 1997; Sarason, 2000). Table 1 provides an outline of the dimensions found within the literature. The integrative and dynamic nature of wellness which is constantly in flux and evolving alongside societal and global adaptations makes creating an exact definition difficult. In efforts to clarify the definition, it has been argued that wellness is subjective and that an accurate definition and measurement of the construct is difficult (Kelly, 2000; Sarason, 2000; Travis & Ryan, 2004). Our review of wellness theorists and researchers provides a comprehensive and developmental view of the wellness literature to 2009.

Larson (1999, p.123) states that the World Health Organization was the first to introduce a holistic definition of health as "a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity" (1948) and many subsequent conceptualizations of wellness include this central concept. The President's Council on Physical Fitness and Sport for the US has been very involved in defining wellness and

Oliphant (2001) explains that the suggestion by the World Health Organization that health has a positive component led to the use of the term wellness, now widely used.

Egbert (1980) summarized the central areas of wellness as being a combination of having a strong sense of identity; a reality oriented perspective; a clear purpose in life; the recognition of a unifying force in one's life; the ability to manage one's affairs creatively and maintain a hopeful view; and, the capability of inspired, open relationships. WHO (1986, p.2) further clarified the definition noting that to reach a state of health "an individual or a group must be able to realize aspirations and satisfy needs, and to change or cope with the environment," while Bouchard et al. (1994, p.23) suggested that "positive health pertains to the capacity to enjoy life and withstand challenges". Lastly, Witmer & Sweeney (1992) defined wellness in terms of life tasks that include self-regulation, work, friendship, spirituality, and love.

Dunn (1977) emphasized wellness as a positive state, one that is beyond simply non-sickness, elaborating on the WHO definition by emphasizing the varying degrees of wellness and its interrelated, ever-changing aspects. He detailed the interconnected nature of wellness of the mind, body, and environment which exists as a dynamic equilibrium as one tries to balance between each. Dunn (1977) also conceptualized the dimensions of wellness fluctuating as people make active choices moving towards or away from their maximum potential.

Many researchers have explored and defined the various components, or interrelated areas, which comprise wellness. Depken (1994) noted that most college health textbooks describe wellness as encompassing physical, psychological/emotional, social, intellectual, and spiritual dimensions. Lafferty (1979) defined wellness as a balanced amalgamation of these five factors and purposeful direction within the environment. Similarly, Greenberg (1985) defined wellness as the integration of the five dimensions and high-level wellness as the balance among them but utilized the term mental wellness in place of intellectual wellness. Hettler, (1980) included an occupational dimension and stressed wellness as the process of becoming aware of wellness and actively making choices towards optimal living.

Renger et al. (2000) defined wellness as consisting of physical, emotional, social, intellectual, spiritual dimensions and added environmental wellness to recognize the important impact of one's surroundings, a concept also discussed by Sackney, Noonan & Miller (2000). Renger et al. (2000) stressed the importance of knowledge, attitude, perception, behavior, and skill in each of several wellness areas as well as integration and balance.

Adams, Benzer, & Steinhardt (1997) conceptualized wellness from a systems approach where all subsystems have their own elements and are an essential part of the larger system. The authors described wellness as health focused, and emphasized the importance of including multiple factors such as culture, social, and environmental influences from a systems perspective. They included the additional dimension of psychological wellness relating to positive outcomes in response to life's circumstances.



TABLE 1

## DIMENSIONS OF WELLNESS

	Physical	Emotional/ Psychological	Social	Intellectual	Spiritual	Occupational	Environmental	Cultural	Economic	Climate
Adams et al. 1997	X	X	X	X	X	X				
Anspaugh et al. 2004	X	X	X	X	X	X	X			
Diener et al. 2009	X	X	X	X	X	X	X	X	X	
Dolan et al. 2008	X	X	X	X	X	X	X	X	X	
Durlak 2000	X		X	X						
Hales 2005	X	X	X	X	X	X	X			
Helliwell 2005	X	X	X		X	X	X	X	X	
May 2007	X	X	X	X	X	X	X	X	X	
Myers et al. 2005	X	X	X	X	X	X	X	X	X	
Ryan & Deci 2001	X	X	X		X		X	X		
Ryff & Singer 2006	X	X	X		X		X	X		
Travis & Ryan 2004	X	X	X	X	X	X	X			
Fritze 2008		X					X			X

Ryff and Singer (1998, p.14) suggest an emphasis on an “integrated and positive spiral of mind-body influences” and contended that “zestful engagement in living and loving...remains primarily the purview of philosophy”. They believe that individuals’ perceptions, beliefs and cognitions are clearly linked to their physiological responses to the world. They further state that well-being obviously includes good mental health, but emotional health does not have to be linked to physiological substrates to be beneficial. The two authors offer a reasonable list of contributing factors gathered from a range of sources and these health constituents include: social support; dispositional optimism; relationship quality; leading a life of purpose; achieving mastery; and, possessing positive self regard.

Adams (2003) refer to four main principles of wellness: 1) wellness is multi-dimensional; 2) wellness research and practice should be oriented toward identifying causes of wellness rather than causes of illness; 3) wellness is about balance, 4) wellness is relative, subjective and perceptual. Schuster et al. (2004, p.351) state there is generally a feeling of consensus that definitions of health include multiple domains, among them physical, psychological, (mental, intellectual, emotional), social, and spiritual. Wellness is described as “a higher order construct integrating these domains, drawing on individual self-perception.”

Myers, Sweeney & Wittmer (2005, p.252) define wellness as being “a way of life oriented toward optimal health and well-being in which the body, mind and spirit are integrated by the individual to live more fully within the human and natural community.” The notion that wellness is more a psychological than physical state has been a focus of researchers. Anspaugh et al. (2004) and Hales (2005) refer to seven dimensions of wellness: physical, emotional, social, intellectual, spiritual, environmental and occupational.

Jonas (2005, p.2) elaborates on the difference between health and wellness stating that health is a state of being, whereas wellness is a process of being. Wellness is defined as:

“a way of life and living in which one is always exploring, searching, finding new questions and discovering new answers, along the three primary dimensions of living: the physical, the mental, and the social; a way of life designed to enable each of us to achieve, in each of the dimensions, our maximum potential that is realistically and rationally feasible for us at any given time in our lives.”

Rickhi & Aung (2006) believe creating wellness can mean focusing on practices that benefit one, or all of the three dimensions—body, mind and spirit. Physical wellness includes clean drinking water, healthy eating, healthful touch such as massage, and physical activity. Mental and spiritual wellness require mind/body based stress reduction programs, adapting the body to nature and being aware of the senses.

## **Dimensions of Wellness**

The above summary indicates that there are several key dimensions to defining wellness. These are: physical; psychological/emotional; social; intellectual; spiritual; occupational; environmental; cultural; economic; and climate. These are briefly discussed further, below.

### ***Physical Wellness***

Initially, wellness was first attributed and studied from the physical dimension of health and was generally considered to include physical activity, nutrition, and self-care. Cooper (1968, 1970, 1975, 1977) is well known in this field and studied the relationship of exercise to health and longevity, particularly how exercise reduced the risk of heart disease. His findings revolutionized the fitness industry's understanding of health and wellness and advanced the understanding of the relationship between living habits and health. Corporations have taken advantage of public interest in improving physical health with burgeoning gyms and weight loss programs.

Physical wellness is primarily aimed at cardiovascular fitness, flexibility, and strength. Actions to improve physical wellness include maintaining a healthy exercise regime and diet and monitoring internal and external physical signs of the body's response to events, including stress. This includes seeking medical care when appropriate and taking action to prevent and avoid harmful behaviours (e.g tobacco and excess alcohol use) and detect illnesses (Case & Paxson, 2006; Hatfield & Hatfield, 1992; National Collaborating Centre for Determinants of Health, 2010; Public Health Agency of Canada, 2008; Renger et al., 2000; Ryan & Deci, 2001; Ryff & Singer, 2006, Travis & Ryan, 2004). Crose et al. (1992) included medical history and medications, body awareness and image while Durlak (2000) and Anspaugh et al. (2004) detailed physical wellness to include physical indices (muscle tone, cholesterol level, blood pressure) and behaviors (eating habits, exercise levels). Problems in physical wellness included, physical injuries and disabilities, and sexually transmitted diseases.

Helliwell (2005) found optimism about good health resulted in higher wellness scores. He also found that age was of great interest because one might assume happiness decreases with age, whereas in fact 18-24 year olds and 55-64 year olds are equally the happiest of all age groups with 35-44 year olds being the least happy. Even 65 year olds and above were a lot happier than this 35-44 year old age group.

Ryff & Singer (2006) found that avoiding negative behaviours such as smoking and inactive living as well as somatotype affects physical wellness with benefits including better autoimmune functioning. Ryan & Deci (2001) noted that physical wellness, however, does not always correlate to one's sense of well-being: a person can be ill and have a positive state of mind while a physically healthy person can experience a poor sense of well-being.

### ***Summary***

The literature on physical wellness focuses on physiological considerations of body type, genetic predisposition, and harm-avoidance behaviours. Maintaining a healthy lifestyle

of fitness, flexibility, and strength through a healthy exercise regime and diet is the central focus of physical wellness. In addition, seeking medical care when appropriate, as well as keeping a realistic view of one's own physical capabilities and limits is important.

### ***Psychological/Emotional Wellness***

Prior to the twenty-first century few spoke to psychological wellness, although general agreement within the literature pointed to degree of optimism, i.e., the higher one's sense of optimism the more one will experience positive outcomes resulting from the events and experiences of life. Emotional wellness is conceptualized as awareness and control of feelings, as well as a realistic, positive, self-valuing and developmental view of the self, ability to deal with conflict and life circumstances, coping with stress and the maintenance of fulfilling relationships with others (Adams et al., 1997). Helliwell (2005) considered emotional wellness as a continual process that included an awareness and management of feelings, and a positive view of self, the world, and relationships.

In recent years, a form of well-being in addition to subjective well-being has emerged based on universal human needs and states of effective functioning. Numerous theorists are continually examining these states and have developed a widely used assessment tool called the Psychological Well-Being assessment (PWB) (Seligman & Csikszentmihalyi, 2000; Deci & Ryan, 2001; Ryff & Singer, 2006). The number of states of effective functioning that contribute to optimal functioning is constantly being revised and is growing. These states include: competency; optimism; being respected; self-acceptance; engagement and interests; meaning and purpose; supportive and rewarding relationships; and, contribution to the well-being of others (Hu et al., 2008; Gilbert, 2007; Veenhoven, 2008).

Renger et al. (2000) defined emotional wellness as related to one's level of depression, anxiety, well-being, self-control, and optimism. From a proactive view, emotional wellness reflects one's ability to experience satisfaction and curiosity, as well as enjoyment in life, and being able to anticipate the future with a positive or optimistic outlook. Ryan & Deci (2001) describe self-determination theory (SDT) as another perspective that fits within the concept of self-realization as a central definitional aspect of wellness and that SDT specifies both what it means to actualize the self and how this can be accomplished. This involves the fulfillment of basic psychological needs—autonomy, competence, and relatedness, resulting in psychological growth (e.g. intrinsic motivation), integrity (e.g. internalization and assimilation of cultural practices), and well-being (e.g. life satisfaction and psychological health), as well as the experiences of vitality (Ryan & Frederick 1997) and self-congruence (Sheldon & Elliot 1999). Ryff & Singer (2006) have devoted years of study to the examination of recurrent themes or points of convergence in these many formulations of positive functioning. Integrating numerous philosophical constructs they have determined a number of states that are central to optimal living and are connected to psychological factors. Self actualizers have strong feelings of empathy and affection for all human beings and have a greater capacity for love and deep friendships and more complete self-identification with others than non-actualizers. Self-actualizers accept themselves, have strong purpose in life as well and possess a high degree of autonomy in their life. Self-actualization develops with maturity.

Personality is one of the strongest indicators of well-being (Diener et al, 1999) with genes accounting for 40% of positive emotionality and 55% of negative emotionality. Features of the environment, one's behaviour and one's personality may mutually influence each other and affect subjective well being. According to Harrington & Loffredo (2001) personality aspects of individuals may affect life satisfaction, citing people who are more self-conscious and introverted scoring lower levels of life satisfaction than extroverts. The discussion of extroversion demonstrates varying results with Diener et al. (1999) suggesting that social involvement is required by the demands of society and extroverts are more comfortable in social situations. Pavot et al. (1990) found that extroverts were happier in all situations whether social or in isolation. Diener et al. (1999) proposed an intriguing idea that the characteristics of extroverts are actually an outcome of higher levels of positive affect. DeNeve & Cooper (1998) stated that a happy individual is one who is extraverted, optimistic and worry free.

Longitudinal studies suggest that, "whereas progress toward intrinsic goals enhances wellness, progress toward extrinsic goals such as money either does not enhance wellness or does so to a lesser extent" (Sheldon and Kasser, 1998, p. 1322). Ryan & Deci (2001, p.153) summarize reviews of the literature on the topic of wealth and happiness by stating that "the relation of wealth to well-being is at best a low positive one although it is clear that material supports can enhance access to resources that are important for happiness and self-realization, there appear to be many risks to poverty but few benefits to wealth when it comes to well-being." In addition, studies show valuing wealth and material goods above the goals of intrinsic self-realization, adversely affects psychological wellness.

Hales (2005) includes trust, self-esteem, self-acceptance, self-confidence, self-control, and the ability to bounce back from setbacks and failures. Maintaining emotional wellness requires monitoring and exploring thoughts or feelings, identifying obstacles to emotional well-being and finding solutions to emotional problems, with the help of a therapist if necessary.

### *Summary*

Psychological and emotional wellness develops as one matures. Gaining a strong sense of purpose or identity, while maintaining optimism, is important, as is having high self-esteem and a positive and realistic self-concept. Being able to reflect on emotions and communicate with others in a constructive and assertive manner were important aspects within the definitions. Myers et al. (2005) and Ryff & Singer (2006) appear to provide the broadest conceptualizations, having refined definitions recently to emphasize the importance of self-view and awareness of one's feelings, actions, relationships, and autonomy, self-actualization and a sense that these aspect develop as we mature. In addition, coping with stress and maintaining a positive attitude toward life and being optimistic about the future are common themes within the definition of psychological/emotional wellness are important factors.

## *Social Wellness*

Social wellness encompasses the degree and quality of interactions with others, the community, and nature. It includes the extent to which a person works towards supporting the community and environment in everyday actions including volunteer work (Commission on Social Determinants of Health, 2008). Getting along with others and being comfortable and willing to express one's feelings, needs, and opinions; supportive, fulfilling relationships (including sexual relations), and intimacy; and the interaction with the social environment and the contribution to one's community are included in the definition of social wellness (Renger et al., 2000). National Collaborating Centre for Determinants of Health (2010) confirm the importance of significant relationships and the quality and extent of one's social network, especially family. Helliwell (2005) examines the nature of relational styles and patterns focusing on one's attitude towards relationships and seeking help from others as key elements. Ryff & Singer (2006) cite epidemiological studies stating that mortality is significantly lower among persons who are more socially integrated. Features of social support consist of the size or density of one's social network and frequency of contact with relatives and friends.

Durlak (2000) and May (2007) include peer acceptance, attachments/bonds with others, and social skills (communication, assertiveness, conflict resolution) as fundamental components of social wellness. Helliwell (2005) found that married people (both men and women are happier) and separated individuals are the least happy, even less happy than those who are divorced. Findings from Frey & Stutzer (2000, 2002) found no gender difference within the variables. Those with additional voluntary group membership are one-tenth happier again. Further, Anspaugh et al. (2004) include the ability to maintain intimacy, accepting others different from yourself, and cultivating a support network of caring friends and/or family members.

Employment and the negative aspects of unemployment is an area that is now being considered in assessing sense of well-being. However, the need to control for other variables makes this relationship difficult to assess. It is possible that social wellness and psychological wellness are affected when one is unemployed, with men suffering more than women from unemployment (Clark, 2003a, 2003b; Dockery, 2003). Some consider age to be a consideration on the affects of unemployment with both men and women in middle age suffering more than the young or old (Myers et al., 2005; Winkelmann, 2004).

### *Summary*

Social wellness is broad in scope because it includes the interaction of the individual with others, the community, nature and work. The quality and extent of these relations is affected by motivation, action, intent, and perception of oneself and others to the interactions. The more individuals have a strong social network both within family and friends and out in the community or at work, the better their health. Social wellness relates strongly to level of communication skills and comfort level one feels in interacting with others within a variety of different settings or situations.

## *Intellectual/Cognitive Wellness*

Initially, intellectual wellness was a clearly defined dimension associated with the degree that one engages in creative and stimulating activities, as well as the use of resources to expand knowledge and focus on the acquisition, development, application, and articulation of critical thinking (Hatfield & Hatfield, 1992). According to Hales (2005) intellectual wellness represents a commitment to life-long learning, an effort to share knowledge with others, and developing skills and abilities to achieve a more satisfying life. More recently the distinction between cognitive (intellectual) and emotional (psychological) processes are considered as closely affecting one another (Myers et al., 2005; Oguz-Duran & Tezer, 2009), and clarification around intellectual wellness is still evolving. Ryff & Singer (2006) state that realizing one's personal potential involves cognitive processes and comprehension of life's purpose. The perception of being energized by an optimal amount of intellectually stimulating activity which involves critical reasoning is also important (Adams et al. 1997).

Awareness of cultural events is viewed by numerous authors as central to intellectual wellness (Renger et al., 2000; Diener et al., 2009). Renger et al. (2000) also defined intellectual wellness as one's orientation and achievement toward personal growth, education, achievement, and creativity. This includes attending cultural events and seeking out opportunities to gain and share knowledge, particularly knowledge of current local and world events.

In addition to attending cultural events, Hatfield & Hatfield (1992) cite that stimulation can come from reading, studying, traveling, and the exposure to media. Anspaugh et al., (2004) defined intellectual wellness as one's education and learning history, mental status, cognitive style and flexibility, and attitude towards learning. Durlak (2000) includes the development of talents and abilities, learning how to learn, and higher order thinking skills in intellectual wellness. Furthermore, he described the problem areas to include underachievement, test anxiety, and school dropouts.

Low levels of educational attainment are less likely to lead to high levels of satisfying employment security and thus quality of life is reduced (Case & Paxson, 2006). Functional literacy is also an indicator of health. Those with low levels of literacy are more likely to experience smoking, inactivity, obesity and poor diet (Public Health Agency of Canada, 2008). Some studies find a positive relationship between each increase in level of education and subjective well-being (e.g. Blanchflower & Oswald, 2005). There is also some evidence that education has more of a positive impact in low income countries (Fahey & Smyth, 2004; Ferrer-i-Carbonell, 2005).

### *Summary*

Intellectual wellness involves acquiring an optimum level of stimulating intellectual activity. This acquired knowledge can be used or shared as critical reasoning, development of talent, and higher order thinking, both for personal growth and the betterment of society. Intellectual stimulation is being considered as more closely tied to emotional well-being, as cognitive functioning is part of the psychological aspect of wellness, especially in making changes in behavior, which can include improving one's state of wellness.

## *Spiritual Wellness*

Spiritual wellness is probably one of the most developed and discussed topic in the wellness literature (Hatch et al., 1998; Pargament, 1999). Adams et al. (2000) point out that spirituality and religion are not synonymous and the two concepts, while overlapping, are entirely distinct from one another (Westgate, 1996). The broader concepts of beliefs and values are expressed through one's personal spirituality (Westgate, 1996; Hatch et al., 1998). Most theorists view religion as the means by which one is able to direct behaviors in order to implement one's spirituality. Pargament (1999) counters this view with the argument that religiosity is the broader concept. It should be recognized, however, that individual situations vary and generalizations cannot be made easily. Cohen (2002) found that within religions there are differences in the strength of people's beliefs, the degree to which they use a deity to help cope with difficulties and their degree of spirituality, all of which have been found to be associated with different levels of sense of well-being.

Numerous authors have identified key elements that assist in defining spiritual wellness. Banks (1980) applied an adaptation of the Delphi Technique citing the following components: gives meaning or purpose to life; principles or ethics to live by; sense of selflessness; and, feeling for others. Other important elements include: a commitment to God or ultimate concern; perception of what it is that makes the universe operate as it does; recognition that powers go beyond the natural and rational; a matter of faith in the unknown; involving a survival issue; and, a pleasure-producing quality of humans. Ingersoll (1994) initially defined spiritual wellness in terms of seven elements that operate synergistically, and later expanded to ten, as follows: conception of the absolute or divine; meaning (life meaning, purpose, and sense of place); connectedness (with people, higher power, community, and environment); mystery (how one deals with ambiguity, the unexplained, and uncertainty); sense of freedom (play, seeing the world as safe, willingness to commit); experience-ritual-practice; forgiveness; hope; knowledge-learning; and present centeredness. Westgate (1996) proposed four key elements: meaning in life (an innate human need where purpose and life satisfaction provide hope); intrinsic values (the basis of human behavior and the principles that people live by); transcendence (a relationship with a higher force and the universe, the recognition of the sacredness of life, and the motivation by truth, beauty, and unity); and spiritual community (giving and sharing with others, shared values, myths and symbols, and the experience of community and mutual support through gathering, singing, praying). Hales (2005) to some extent reflects a similar view of spiritual wellness.

Hettler (1980) and others (Adams et al., 1997; Renger et al., 2000) defined spiritual wellness as the process of seeking meaning and purpose in existence. Spiritual wellness involves an appreciation for the complexities of existence and accepting that the universe cannot be completely understood as it stands outside our own experience. The depth and expanse of life both known and unknown, as well as questioning the meaning and purpose in life, while also recognizing, accepting and tolerating the complex nature of the world is all part of spiritual wellness. These add a meditational and harmonious approach to spiritual wellness, focusing on harmony with the self and harmony with others and the universe and the search for a universal value system. This value system strives toward a



worldview that gives unity, purpose, and goals to the thoughts and actions of individuals so that there is cohesion, and harmony becomes paramount.

As noted earlier, Helliwell (2005) found age a factor in well-being with 18-24 year olds and 55 and older equally happiest of all ages. There has been some debate as to whether this rise in the older age group is related to faith since those who believe God is important in their lives are happier than those who don't. Evidence supports the idea that our beliefs affect our subjective well-being, with religious people generally being happier than non-religious people, irrespective of their faith (Helliwell, 2003, 2005).

### *Summary*

The key aspects of spiritual wellness are the creation of personal values and beliefs by each individual toward life's purpose, and oneself in relation to others, the community, nature, the universe, and a higher power. Spiritual wellness is found within shared community and there is a continual process of finding meaning and purpose in life, while contemplating and coming to terms with one's place in the complex and interrelated universe.

### ***Occupational Wellness***

Hettler (1980) and Anspaugh et al. (2004) defined occupational wellness as the level of satisfaction and enrichment gained by one's work and the extent one's occupation allows for the expression of one's values. Occupational wellness includes the contribution of one's unique skills, talents and services to the community and the level to which the individual views their work as rewarding and meaningful, whether paid or unpaid. Achieving a balance between occupational responsibilities and other commitments is indicative of the level occupational wellness.

Leafgren (1990) stated that occupational wellness is one's attitude about work and the amount of personal satisfaction and enrichment one gains from one's work. Crose et al. (1992) included one's work history, patterns and balance between vocational and leisure activities, and vocational goals. Large reductions in occupational well-being were found in those who were unemployed (Clark & Oswald, 1994, Helliwell, 2005; Winkelmann 2004).

Reducing exposure to physical hazards in the work place and enhancing opportunities for positive social interactions can create a higher level of health and well-being (May, 2007).

### *Summary*

Occupational wellness is the extent to which one can express values and gain personal satisfaction and enrichment from paid and non-paid work; one's attitude toward work and ability to balance several roles; and the ways in which one can use one's skills and abilities to contribute to the community.

## ***Environmental Wellness***

Renger et al. (2000) and May (2007) defined environmental wellness to include the balance between home and work life, as well as the individual's relationship with nature and community resources, e.g. involvement in a recycling or community clean up effort. Ryff & Singer (2006) describe environmental mastery as a dimension of wellness and state that to make the most of our lives and our world we need to advance the science of interpersonal flourishing. We need to examine not only our own communities but look at political and government structures,

Anspaugh et al. (2004) and Hales (2005) further impress the need to consider the safety of food and water supply, and freedom from such things as infectious diseases, violence in a society, ultraviolet radiation, air and water pollution, and second hand tobacco smoke.

City planning can have an effect on human wellness. For example, green space in cities can have a positive effect on health by increasing physical activity but can also create feelings of relaxation and well-being. In addition, vegetation can improve air quality by removing particulates and pollutants (Hu et al., 2008; May, 2007). Other recent literature defines environmental wellness from an ecological perspective (Dolan et al., 2008; National Collaborating Centre for Determinants of Health, 2010; St. Louis & Hess, 2008).

### ***Summary***

Environmental wellness is a broad dimension that considers the nature of an individual's interaction with the environment on a local, community and global level. The environment includes home, work, the community, and nature.

## ***Cultural Wellness***

Examination of cultural differences in wellness across a number of nations suggests the cultural environment is an important factor. There are substantial individual differences in subjective well-being between cultures. Also, there are differences in goals and values between individuals, and between cultures, that lead to specific predictors of subjective well-being. Our well-being can come from numerous life circumstances, but cultural and individual differences have a large influence. For example, a number of Asian cultures found harmony positively affects subjective well-being, whereas, some western countries value independence more (Biswas-Diener, 2005).

International surveys of life satisfaction show consistent mean level differences across nations, along with differences between ethnic groups with countries. Diener et al. (2009) reported that people in various societies differentially value happiness.

Culture has direct effects on subjective well-being. Schimmack (2005) stated that people living in individualistic and democratic cultures have higher levels of subjective well-being than do those living in collectivistic, poor, and totalitarian cultures. Schimmack (2005) further explained that individualistic cultures emphasize the independence of individuals, freedom of choice, and individuals' needs; whereas collectivistic cultures

emphasize duties, others' needs, and acceptance of one's fate. Consistent with these ideas, other studies have found that freedom was a stronger predictor of life satisfaction in individualistic cultures than in collectivistic cultures (Diener et al., 2009).

### *Summary*

The rationale for wellness can arise from genetics, socialization, or circumstances, but cultural and individual differences in subjective well-being nevertheless have an influence.

### ***Economic Wellness***

Helliwell (2005, p.4) looks at the social capital of environments from a global perspective and proposes that:

“Analysis of well-being (wellness) data provides means for combining income, employment, government effectiveness, family structure and social relations together in ways that permit the external effects of institutions and policies to be assessed.”

Increased income inequality is associated with lower rates of economic growth (Persson & Tabellini 1994) and poorer health. Individuals attaching high subjective values to financial success have lower values for subjective well-being, even when their financial aspirations were met (Kasser & Ryan, 1993, 1996). Higher levels of subjective well-being are not associated with those who live in the richest countries but with those who live where social and political institutions are effective, where mutual trust is high and corruption is low.

Studies consistently show a large negative effect of individual unemployment on subjective well-being. Models which treat life satisfaction scales as a continuous variable, tend to find that the unemployed have significantly lower scores than the employed even when controlling for psychological variables (May, 2007; Frey & Stutzer, 2000, 2002; Helliwell, 2003; Stutzer, 2004; Ferrer-i-Carbonell & Gowdy, 2007; Winkelmann, 2004).

### *Summary*

The economic wellness dimension serves to help assess institutions and public policies and thus make them more accountable for inequalities in populations. Living in countries where there is confidence and trust in the political institutions, as well as high levels of meaningful employment also contribute to economic wellness.

### ***Climate Wellness***

The potential health affects of climate change are numerous. Frumkin (2008) stated that concerns include injuries, fatalities, and infectious diseases related to severe weather events and heat waves; infectious diseases related to changes in water and food contamination; respiratory and cardiovascular diseases related to worsening air pollution; along with mental health consequences, population dislocation, and civil conflict.

Direct impacts at the community level from weather hazards as well as disruptions to social, economic and environmental determinants have been shown to negatively affect mental health. The implications of climate change is causing emotional distress in Australian children whereby, 25% of those surveyed believed the world might end in the next few years (Fritze, 2008). The psychological impact on young people of an uncertain future due to the threat of climate change is very different from their parents and grandparents.

Barnett and Adger (2007) explains that climate change may undermine human security and increase the risk of violent conflict by reducing access to, and the quality of, natural resources that are important to sustain livelihoods.

### *Summary*

There is growing concern about extreme weather and the effects of global warming which is viewed by some as potentially life-threatening. As a common threat, climate change may provide an impetus for collaborative action within communities, and internationally. Climate change may bring communities together in action against a common threat, or create social instability in competition for increasingly scarce environmental resources.

## **Measuring Wellness**

There is extensive literature on the definition of wellness but relatively few empirical explorations of the structure of wellness. The integrative and dynamic nature of wellness makes it difficult to control for variables, resulting in the inadequacy of the existing measures (Adams et al., 1997; Renger et al. 2000). Several concepts have well established tools of assessment, such as ‘subjective well-being’, ‘psychological well-being’ and ‘wellness’ and ‘wellbeing’ which have been used interchangeably. As stated earlier, there is disagreement about this with some authors believing assessment of well-being relates to mental health, indicating life satisfaction, positive mental health and happiness (Ryff & Singer, 2006; Myers et al., 2005; Diener et al., 2009). Wellness, on the other hand, generally refers to the individual’s functioning and is viewed as the umbrella over-arching well-being (Myers et al., 2000; Ivey et al., 2005). These are important distinctions to be considered in measuring wellness.

Several techniques have been developed to measure wellness at an individual level. These include the Life Assessment Questionnaire (LAQ; National Wellness Institute, 1983) developed to measure the six wellness dimensions outlined by Hettler (1980) and a modification called TestWell (Owen, 1999); the Perceived Wellness Survey (PWS) (Adams et al., 1997); the Optimal Living Profile (OLP; Renger et al.; 2000); and, a Wellness Inventory (WI), developed by Travis (1981) to mention a few.

Many wellness assessment tools are being restructured to be more effective. For instance, in the initial study by Myers et al. (2004), Wellness Evaluation of Lifestyle (WEL) yielded a five factor structure (5F-WEL), assessing 19 components of wellness with 123

items. The revised version (4F-WEL) has a four factor structure, assessing 16 components of wellness in cognitive-emotional, relational, physical, and spiritual components, with 56 items (Myers et al. 2004). Factor analysis of the LAQ (National Wellness Institute 1983, failed to support the six subscales of the instrument, indicating a need for establishing the essential components of wellness instruments.

Modification to the ‘Wellness Wheel’ has resulted in the new ‘Indivisible Self Model of Wellness’ (ISWEL) used within the counseling field (Myers et al., 2005). In this model the concept of wellness is defined as “[a] way of life oriented toward optimal health and well-being, in which body, mind, and spirit are integrated by the individual to live life more fully within the human and natural community” (Myers et al., 2000, p. 252). Consideration of socio-ecological factors is evident (local, institutional, global, and chronometrical-time-focused) (Oguz-Duran & Terez, 2009), as well as recognizing indivisible parts of the self which integrate all aspects of wellness within (Ivey et al. 2005). Within this new model Oguz-Duran & Terez (2009) describe five factors: Essential Self, which refers to spirituality, gender identity, cultural identity and self-care; Coping Self, which relates to realistic beliefs, stress management, self-worth and leisure; Social Self, defined by friendship and love; Creative Self, related to intellectual endeavors, emotions, control, humor, and work; and, lastly, Physical Self, referring to nutrition and exercise. This new model emphasizes that improvements in any one dimension positively affect the whole person because of the integrated nature of human functioning.

Ivey et al. (2005) use both informal (e.g., clinical interviews, behavioral observations) and formal assessment tools (e.g., Indivisible Self Wellness Inventory; or IS-Wel) to assess personal wellness. They found that the perceptions of the individual regarding his/her overall wellness, and the level of satisfaction of the person with his/her wellness in specific wellness components, is important in assessing personal wellness. Another factor affecting the wellness assessment tools is the importance of considering and understanding cultural dimensions in regard to the concept of wellness (Pedersen & Ivey, 1993).

There are also several scales developed to assess spiritual wellness and wellbeing. These include the Spiritual Well-Being Scale (SWBS) by Paloutzian & Ellison (1982); the Spiritual Involvement and Beliefs Scale (SIBS) (Hatch et al., 1998); the Duke Religion Index (DUREL) (Koenig, Parkerson, & Meador, 1997) and the Intrinsic Religious Motivation Scale (Hoge, 1972); the Spiritual Well-Being Questionnaire (SWBQ) (Moberg, 1984); and, the Expressions of Spirituality Inventory (ESI) (MacDonald, 2000).

Diener et al. (2009) have recently developed three new assessment measures. The first is the Psychological Well-Being Scale (PWB) which has been found to work adequately. It is brief and covers the overall common elements of psychological well-being. The second is the Feelings Scale (Scale of Positive and Negative Experience - SPANE) which has been found to have several advantages over previous measures of feelings because the descriptors are general, i.e., positive or negative feelings. Also, participants can comment on whether they have pleasant/unpleasant, and desirable/undesirable feelings. The scale

is expected to reflect well across different cultures. The third measuring scale is not as well-developed yet, that is the Positive Thinking scale.

Other researchers have conducted large scale studies using a variety of wellness related instruments. Mookerjee and Beron (2005) examined gender and religion on levels of happiness in 60 industrialized and developing nations, using two sources of information: a) The World Database of Happiness (Veenhoven, 2001) and b) quality of life measuring tools including the Human Development Index, the Gastil Index of Civil Liberty, and Index of Economic Freedom, the Gini Coefficient of Income Inequality, and the Corruption Perception Index.

While Quality of Life (QOL) has become central to many research studies the lack of adequate measuring instruments is of concern (Prutkin & Feinstein 2002). These authors propose more effective ways of assessing well-being in areas such as education, health, employment, crime, victimization, political participation and population growth and measurement. Using objective criteria such as Gross Domestic Product or the number of hospitals in a country, and subjective criteria such as satisfaction with life, provides definitive data. The present well-being assessment tools produce confusing results because of the philosophical constructs they were based upon. Therefore, separating Subjective Well-being (research of happiness and/or satisfaction with life) (Diener, 2000) from Personal Well-being (meaning and self-realisation, and the degree to which a person is fully functioning) (Ryan and Deci, 2001) will help alleviate this problem. It is possible to have individuals select the content or weigh the content themselves.

Allardt (1989) developed a wellness tool to assess the school setting. He identified four key components of: “*having*”, i.e., school conditions such as surroundings and services; “*loving*”, i.e., social relationships such as group dynamics and teacher student relationship); “*being*”, i.e., means for self-fulfillment such as value of student’s work and increase self-esteem; and, finally, “*health*”, i.e., health status such as the presence or absence of illnesses and psychosomatic symptoms.

Those who live in urban areas score lower levels of subjective well-being than those in rural areas. In response to this Van Kamp et al. (2003) found a need for the development of a conceptual framework which evaluates physical, spatial and social indicators of well-being in terms of urban environmental quality, livability, sustainability and quality of life. Important elements to consider include livability, character, connection, mobility, personal freedom and diversity, i.e. open space areas, outdoor amenities and ‘walkability’. Studies report meaningful relationships between crowding and behaviour, housing quality and functioning of children, the amount of green in the neighborhood and coping behaviour (Evans et al., 2001; Moser & Corroyer, 2001; Kuo, 2001)..

Ardell (2005) has developed the Wellness Process for Healthy Living (WPHL) which is a tool for implementing the wellness concept. The five steps of the WPHL are: 1) assessment – both self assessment and assessment from health practitioners; 2) defining success; 3) goal setting; 4) establishing priorities, and, 5) mobilizing motivation. These steps provide a single common mental pathway for preparing to successfully make health promoting behavior change. It is necessary to be at a point of wanting to make a change, before change can be made. A variety of tools can be used to measure Quality of Life

(QOL), subjective well-being, and wellness. Skevington et al. (2004) analyzed the WHOQOL-BREF, a 26-item version of the WHOQOL-100 assessment, as a valid assessment tool. This tool arises from 10 years of development research on QOL and was tested in 24 countries and available in most of the world's major languages. Sick and well respondents were sampled and the self assessment completed as well as socio-demographic and health status questions.

Of interest within Canada, Ekos Research Associates (2006) are devising the Canadian Index of Well-being (CIW) which will be used to account for changes in Canadian human, social, economic and natural wealth by capturing the full range of factors that affect Canadians' well-being. The CIW encompasses seven domains which are at different stages of development, these include: Living Standards, Healthy Populations, Time Allocation, Educated Populace, Ecosystem Health, Community Vitality, and Good Governance (Civic Engagement). The Atkinson Charitable Foundation, with the support of the United Way of Canada and their local agencies as well as CIW project partners at local and national levels consulted together to find out if these seven domains really capture what really matters to Canadians. The participants described the CIW as "an excellent and timely idea and a needed alternative to traditional economically based ways of measuring progress." (Ekos Research Associates 2006, p.3). More recently the CIW has added Arts, Culture and Education to its previous seven domains and a composite index is set for release in 2010 (Institute for Wellbeing, 2010). The Social Indicator approach is based on Plato's idea of how public policy can nurture the good life.

Travis & Ryan (2004) have developed a Wellness Workbook which is holistic and user friendly. Categories are defined in terms the public can relate to and there is a wheel to measure current levels of wellness, as well as an index to rate oneself in different categories. The idea is that wellness is ongoing and people can work on specific personal goals.

Pacione (2003) examined the usefulness of measuring quality of life or human well-being from a geographical point of view in terms of outputs of value to social scientists and policy makers. He used a five-dimensional model in two exemplar case studies: 1) the geography of the quality of life in Glasgow with particular attention to the conditions of the disadvantaged end of the population; and, 2) the landscapes of fear in the city of Glasgow, areas again especially in locations identified as disadvantaged. This quality of life study proved useful in a number of ways: it provided some baseline measures to examine trends over time; knowledge of how satisfaction and dissatisfaction are distributed through society and across space; understanding the structure and dependence or interrelationship of various life concerns; understanding how people combine their feelings of individual life concerns into an overall evaluation of quality of life; achieving a better understanding of the causes and conditions which lead to individuals' feelings of well-being, and of the effects of such feelings on behaviour; identifying problems meriting special attention and possible societal action; identification of normative standards against which actual conditions may be judged in order to inform effective policy formulation; monitoring the effect of policies on the ground; and promoting public participation in the policy-making process.

Dolan et al. (2008) examines economic factors of subjective well-being and notes increasing concern that people do not necessarily spend money on items that are good for them or support them economically. This has implications for measurement tools of economic wellness which until now have been developed based on the notion that spending equates with subjective well-being.

### *Summary*

Burgeoning health costs are driving the need to find effective ways to promote and measure wellness as a means to prevent illness and support target populations in staying healthy or improving their level of wellness. Many of the wellness instruments described in this review have well established histories and adequate to strong levels of reliability and validity. Lorion (2000) advocated for the use of more qualitative assessments to capture the depth of wellness and wellness measures are being revised to capture the much needed information of “what assists people to stay well”. Of the newer measurement tools the CIW shows much promise as a tool which considers the multi-dimensional and dynamic nature of wellness, to allow socio-ecological aspects to be part of measurement considerations. The complexities examined within the wellness dimensions allow for the nuances of lifestyles, cultural differences, differing communities, levels of education and more.

With renewed funding supporting the refining of the many wellness measures, this field will improve substantially over the next few years. A number of long-standing measurement tools are being completely revised to provide more reliability. The hope is to support better decision-making toward improving self care. However, evaluation studies are needed to determine which wellness measurement tools are most effective.

As health care costs continue to increase as a result of the prevalence of diseases associated with lifestyle factors and socio-economic policy, it has become increasingly important to examine the factors that make populations well (Health Council of Canada, 2007). An important step in creating policies that support well communities is to define what wellness is so that the factors that make up a well individual can be supported by communities and aid society as a whole (Dolan et al., 2008). Raphael (2008) outlines ways public policies affect social determinants of health and urges that health workers inform the general public on the importance of supporting social determinants of health, in order to raise Canada from a mediocre population health profile. The importance of positive psychology in reducing stress and supporting the development of better cognitive/emotional wellness measures is also evident in the literature (Diener et. al., 2009; Ogus-Duran & Tezer, 2009). Lastly, the dimensions of well-being need to be examined from a socio-ecological perspective in terms of our existence as individuals, within a family, the community, and systems, and potential adaptation to strengthen existing measures (Gatterman & Brimhall, 2006).



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