## Community Vitality and Health
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### Introduction

In the third discussion paper on the concept of community vitality, we cite the Oxford English Dictionary's definition of vitality: "the state of being strong and active" and "the power of giving continuance to life". With this definition of vitality, it appears that the ideas of health and community vitality are closely related. This illustrative review will attempt to tease theses two ideas apart and investigate the relationship between the two concepts through different literature domains.

### The relationship between health and community vitality

What is the definition of health? The World Health Organisation (WHO)'s definition is widely used; "a complete state of physical, mental and social well-being, and not merely the absence of disease or infirmity" (Sarracci, 1997). This definition reaches beyond the roots of the word, the old English 'hoelth', which was generally used to infer a soundness of the body. Historically, health was considered a divine gift until Hippocrates undermined this paradigm by using observation as a basis for acquiring health knowledge (Üstün & Jakob, 2005).

Defining health, which on the surface appears to be a simple concept, is in fact the subject of much discussion. Sarrachi (1997, p.1409) argues that the WHO definition extends too far and is in fact similar to the definition of happiness, which is distinct from health. He quotes Sigmund Freud's reaction to quitting smoking cigars to illustrate the difference. "I learned that health was to be had at a certain cost.... Thus I am now better than I was, but not happier" (qtd. in Sarrach 1997, p.1409). Sarrachi describes four consequences of the WHO definition. Firstly, any disturbance to happiness may be seen as a health problem. Secondly, because the search for happiness is boundless, so also becomes the quest for health. Thirdly, the result is a prescriptive definition of happiness. Fourthly, the resulting attempt to secure health through happiness will undermine the effectiveness of efforts to achieve justice and equity and in health by consuming limited resources.

Sarrachi's (1997) distinction between health and happiness implies that there isn't a causality or dependence between health and community vitality. In the field of psychology, vitality, like happiness is a peak experience (Ryan & Frederick, 1997), and that peak experience can occur in the presence of, or, absence of health. Given the increasing evidence of highly coupled socio-ecological systems (Berkes & Folke, 1998) and co-evolving human and natural systems (Norgaard, 1994) it does appear as if human health and the vitality of the communities in which they live are becoming more and more interdependent.

## The disease model of health

Western medicine's clinical approach to health has evolved into a narrow, medically-oriented practice, which has been termed the 'disease model' of health (Bandura, 1998). The disease model frames health through an aperture of the degree of impairment, whereas a health model of health considers the levels of vitality (Ibid). While superficially the two approaches represent the optimist-pessimist dichotomy, the implications for health practice are profound. The disease model is about diagnosis and treatment, whereas the health model is about, in addition to environmental and physical dimensions, empowerment and lifestyle (Ibid, 1998). The disease model relies on physical interventions on the individual person whereas the health model is about choices and decisions formed in a broader environmental, psychological, cultural and social context. Like community vitality, this broader understanding of health has a collective vision and in this aspect it also differs from the WHO definition that is focused on the individual. Discussion of health using a broad community lens takes us down a very different path than the much more technocratic considerations associated with the disease model.

## Autonomy as a bridge between health and vitality

The idea of health promotion in the field of study termed community health captures this broader definition of health. Health promotion places greater emphasis on persons, groups and organisations as active agents in shaping health practices and policies to optimise both individual wellness and collective well-being (Stokols, 1996). Health promotion as an activity initially focused on influencing individual behaviour to support activities that enhance health. In psychology, behaviour is understood to be determined by motivation, as explained by social determination theory (SDT). A brief review of SDT reveals 'autonomy' as an interesting linkage between vitality and a broad definition of health. SDT describes two types of motivation underpinning human behaviours.

> *Autonomous motivation comprises both intrinsic motivation and the types of extrinsic motivation in which people have identified with an activity's value and ideally will have integrated it into their sense of self. When people are autonomously motivated, they experience volition, or a self-endorsement of their actions. Controlled motivation, in contrast, consists of both external regulation, in which one's behavior is a function of external contingencies of reward or punishment, and introjected regulation, in which the regulation of action has been partially internalized and is energized by factors such as an approval motive, avoidance of shame, contingent self-esteem, and ego-involvements. When people are controlled, they experience pressure to think, feel, or behave in particular ways. Both autonomous and controlled motivation*

*energize and direct behavior, and they stand in contrast to amotivation, which refers to a lack of intention and motivation.* (Deci & Ryan, p. 182)

Autonomy, in particular, is a concept associated with community vitality (see discussion on community vitality for more detail). As well, important links have also been made between agency and sustainable community development and more recently to community vitality (Dale et al, 2010; Dale & Sparkes, 2010; Newman & Dale, 2005). In SDT, vitality is defined as the energy that is available to self, "the energy that is exhilarating and empowering, that allows people to act more autonomously and persist more at important activities" (Deci & Ryan, 2008, pg. 184). Thus SDT also similarly links vitality and autonomy.

SDT also links autonomy to health but via the idea of different types of aspirations. Aspirations or, long term goals, have been divided into two categories, intrinsic and extrinsic. Intrinsic aspirations include affiliation, gerativity and personal development. These improve health outcomes (again, broadly defined); extrinsic goals such as wealth, fame and attractiveness have a negative impact with "lower life satisfaction, self-esteem, and self-actualization; higher depression and anxiety; poorer relationship quality; less cooperative behavior; and greater prejudice and social-dominant attitudes" (Vansteenkiste, Lens, & Deci, 2006, p.23).  Extrinsic goals are pursued more strongly when the basic psychological needs of competence, relatedness and autonomy are restricted or denied. Consequently, according to Vanseenkiste et al. (Ibid), the expression of goals in a society, whether they are extrinsic or intrinsic, reflects the degree of autonomy in a society.


In summary, health, broadly defined, places an emphasis on behaviour. Behaviour is, according to SDT, determined by motivation. Motivation enhances vitality if it is autonomous; if it is controlled vitality declines. Autonomy also enhances intrinsic aspirations which promote health, broadly defined.

## The example of community form

In a paper titled, *A framework for prevention: changing health-damaging to health-generating life patterns*, Milio (1976, p.436) describes a set of propositions to provide a frame of reference for strategies to improve autonomy or healthful behaviour. His second proposition is as follows:

> *Behavior patterns of populations are a result of habitual selection from limited choices, and these habits of choice are related to: (a) actual and perceived options available; (b) beliefs and expectations developed and refined over time by socialization, formal learning, and immediate experience.*

Community form is a practical illustration of Milio's proposition. As is illustrated below, community form has a significant impact on health, yet there is little appreciation by developers for this critical linkage nor deep understanding about the impacts on individual health on the ways in which communities are developed.  Community form is a function of political and economic forces, clearly demonstrating that the analysis of determinants of health must reach beyond the examining room.

Some research has identified a statistical correlation between community form and health. In a study of more than 10,000 residents of Atlanta, Frank (2004) found a positive correlation between urban form's influence on physical activity and emissions, that every additional thirty minutes spent in a car was associated with a three percent increase in the odds of being obese and that living in mixed-use neighbourhoods, nearby shops and services, is the best urban form predictor of reduced obesity rates. Ewing et al. (2006) also found that compact development is directly correlated with lower rates of obesity and hypertension.

Compact development enhances health by promoting physical activity which in turn translates into improved health outcomes. Litman (2010, p.11), cites the WHO in describing the health benefits of regular physical activity:

> . . .fifty percent reduction in the risk of developing coronary heart disease (similar to not smoking), fifty percent reduction in the risk of developing adult diabetes, fifty percent reduction in the risk of becoming obese, thirty percent reduction in the risk of developing hypertension, and a decline in blood pressure in people with hypertension (a similar effect to drugs), reduced osteoporosis and relief of symptoms of depression and anxiety.

It is difficult to identify which characteristics of compact development result in enhanced health outcomes because the research indicates that a combination of urban design factors may have an effect that is greater than the sum of the parts. The EPA's Metropolitan Sprawl Index combines gross and net residential density, jobs per square mile, land use mix (ratio of jobs to residents), street network density, sidewalk coverage and route directness (Ewing et al., 2006) to evaluate the impact of a combination of factors. For each percent increase in the index, walking trips increased by just under one percent and transit trips by just under two percent.

Proximity is by definition a key variable in determining levels of physical activity. Almost fifty percent of residents within ten minutes walking distance of common destinations achieve recommended exercise targets, compared to less than thirty percent in sprawling, auto-dependent communities (Litman, 2010). The National Personal Transportation Survey of Americans, one of the most comprehensive surveys of travel behaviour in the world, estimates that for daily trips seventy percent will walk five hundred feet, forty percent will work one thousand feet and ten percent will walk half a mile (Ewing et al., 2006). Please refer to the discussion paper on the Built Environment that further investigates the benefits of walking.

Compact development can also have indirect impacts by determining the feasibility of transit, which in turn influences physical activity. The majority of public transportation users exercise the recommended daily amount of twenty-two minutes while walking to and from transit stops (Litman, 2010). People may be willing to walk more than a kilometre to transit, although a considerable drop-off occurs beyond three quarters of a kilometre. (Alt. Cit.). Forsyth et al. (2008) found that four units per gross hectare is the minimum density to support hourly transit service and seven units per hectare is a more conservative threshold.

Besides compact development, green space can play a role in enhancing health outcomes, but the effects are difficult to define or quantify (Barton, 2005). Forsyth et al. (2008) defines park accessibility as any dwelling within four hundred metres of a neighbourhood park or open space. One study in Scotland found that residents in neighbourhoods with ample green

space were three times more likely to be physically active and forty percent less likely to be overweight than those in neighbourhoods with limited green space (CABE, n.d.). Another study found that seniors living in neighbourhoods with walkable green spaces nearby increased residents' longevity (Bray, 2006).

A study conducted at the University of Sheffield found that the more biologically diverse the green space, the higher its psychological value (Dale & Newman, 2010). One key measure was the ability of green space to foster reflection, which referred to the participants' reported ability to clear their heads, gain perspective on life and think more easily about personal matters. Generally the richer, more complex green spaces provided more restorative benefits than did simpler areas with just trees and grass. Much more research needs to be done on access to natural information, health and community vitality.

Community form is, therefore, but one example of an opportunity for society to enhance health outcomes. While traditional regulatory approaches would advocate for improved planning regimes, both the community health and community vitality frameworks argues for increasing 'autonomy' and 'agency' to individuals in communities in their day-to-day choices linked to more healthy lifestyles. In addition, it argues for far greater community engagement processes in the design and re-design of community form, and for greater interdisciplinary planning, most critically involving the health sector (Dale et al. in press). Autonomy is not only about power, but also about information, as described by Deci & Ryan (2008).

## Socio-economic considerations

As described in the introduction, autonomous motivation enables people to take control of their life circumstances, particularly their lifestyle choices, and enhance health outcomes. Communities can support autonomy by creating the conditions that encourage and support participation in determining the shape of one's community and by providing diversity in both space and transportation choices.

Input from a diverse range of people provides the opportunity to discuss different issues, identify new perspectives and promote a sharing of knowledge and understanding (Victoria, 2001). In addition to enhancing community vitality, Butterworth (2000, p.v) argues that meaningful public participation is valuable to "(i) uphold the notion of participatory democracy, (ii) to the effectiveness of the planning process and the quality of planning outcomes, (iii) to improve the quality of, and validate, political decision making".

Inclusive participation in health planning ensures local needs are met and the local community has some ownership and accountability over the process; it also generally promotes health through participation (Victoria, 2001). Planning for public health may garner engagement and participation because it sparks dialogue and enhances knowledge and literacy about safety and well-being, issues that resonate broadly with every human.

The concept of 'health promoting-systems' recognizes that people's health (narrowly defined) and well-being reflects their socioeconomic status and, therefore, where they can live (Ibid). One study in Australia demonstrated that neighbourhoods with the lowest levels of income and professionals, and more rental housing, migrants, unemployed and unskilled workers, were correlated with high rates of violence, heart disease, morbidity and cancer (Butterworth, 2000). Another study cites evidence that health is lower in communities that are dependent on

one industry in decline (Ibid). This has implications for single-economy resource communities everywhere and for corporate social responsibilities of the private sector.

The Public Health Agency of Canada (2010) found that twenty five percent less Canadians rate their health as very good or excellent in the lowest income bracket versus the highest income bracket and that there is a correlation between unemployment and mental health problems. While there may be other factors at play, from the perspective of SDT, poverty, particularly extreme poverty, may limit intrinsic aspirations when basic psychological needs of competence, relatedness and autonomy are restricted or denied.

Butterworth (2000) argues that most major cities are increasing density in their neighbourhoods to provide housing for their growing job markets, much of which is unaffordable to low-paid service workers. For example, the City of Vancouver's Eco-Density Charter (2008) adopted the principles of compact development to reduce driving distances and encourage walking and cycling. In actuality, Lee et al. (2008) argues that high living costs are pushing families and service workers outside the city, causing longer vehicle commutes and more rigorous recruiting processes to fill city jobs. In addition, there is a loss of diversity, as gentrification has paradoxical effects, that is, the very diversity that originally attracted people to the neighbourhood, local retail-scape, and artists and ethnic diversity decrease as property prices increase (Dale & Newman, 2009).

## Conclusion

In this discussion paper, we used only one example to illustrate our argument, built form and transportation choices. Obviously, the vitality of a community with respect to the quality of its air, land and water directly impacts human health, as does the use of pesticides, the number of chemicals in the environment and so forth. As well, there are probably more links that could and should be made between accessibility, health and community vitality, but that is the subject for another discussion, as are the links between autonomy and agency as a defining element of community vitality.

In summary, a broader understanding and definition of health indicates that health is an imperative for both the individual and community level that includes physical and psycho-sociological aspects that are inter-dependent on community form. Freud's distinction between health and happiness described earlier in this paper also lends the insight that there are two distinct different types of health, a narrow, physical definition and the broader definition that includes the psycho-sociological aspects. Clearly, adopting a broader framework for health determines much different policy development paths than a more narrow definition. The evidence of more tightly coupled socio-ecological systems, especially through climate change, is a powerful argument for the immediate adoption of a much broader and holistic framework intimately linked to the vitality of a community as a whole.

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