Challenges and Opportunities Facing Local Governance Agents in Advancing an Ecosystem Approach to Conceptualizing and Governing Community Health in Norfolk County, Ontario

by

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AUTHOR'S DECLARATION FOR ELECTRONIC SUBMISSION OF A THESIS

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

This research focuses on the challenges and opportunities facing local governance agents in advancing an ecosystem approach to conceptualizing and governing community health in Norfolk County, Ontario. Norfolk County is a rural, agriculturally-based community dependent upon tobacco production. This industry has collapsed, triggering widespread socioeconomic impacts and community health pressures. The government is searching for alternative modes of economic development and tensions are high with respect to the direction and nature of these developments. Some citizens are concerned about the security of their rural livelihoods. Others are concerned about ecological integrity. Still others are convinced of the need for aggressive economic growth. Local decision-makers are struggling to meet all of these requirements.

An ecosystem approach views health as part of the broader socio-ecological system, recognizing that health outcomes are by-products of complex biophysical, social, political and economic system interactions at nested spatial and temporal scales. The approach contrasts with conventional health models, which tend to be reactionary, narrowly focused, and short-sighted. Such models are typical of the hierarchical, technocratic nature of public administration which renders decision-making structures and processes ill equipped to deal with complex problems. More systemic, integrated, participatory and collaborative approaches to decision-making are needed in order to better address the complexities involved in facilitating healthy and sustainable community development. Additionally, governance agents must also be able to embrace and navigate these evolving approaches to health conceptualization and governance.

An investigation into Norfolk County grounds this analysis by revealing the challenges and opportunities facing local governance agents in advancing an ecosystem approach. The case study research effectively tests the utility and feasibility of the ecosystem approach through a qualitative analysis. The research contributes criteria required for advancing an ecosystem approach to community health governance and practice and empirically tests them within the context of Norfolk County.

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This thesis is dedicated to the fond memory of my grandmother Susan Hunt

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Introduction & Context of Research

1.1 Chapter Introduction

This opening chapter introduces the context and background information framing the research. It begins by providing a brief anecdote of Norfolk County (the case study) focusing on some underlying socioeconomic and livelihoods changes that are challenging local decision-makers with respect to securing community health, well-being and sustainable development. The scope is then broadened by explaining that these challenges are by no means unique to Norfolk County. Rather, they are indicative of deeper problems within governance, decision-making, policy and administrative structures and processes in addition to the problematic nature in which community health issues are conceptualized and addressed. These scenarios underlie the purpose and need for this research. Following the context, the overarching research question and objectives are described along with anticipated theoretical and applied contributions. This chapter also describes and justifies the research approach used for analysis, emphasizing the methods used. Finally, the chapter concludes with a brief overview of the chapters to follow.

1.2 Context & Justification for the Research

Norfolk County is a rural, agriculturally-based community on the shores of Lake Erie in Southern Ontario. It is located a couple of hours south-west of the Greater Toronto Area-the regional economic powerhouse on which Ontario depends (otherwise known as the "Golden Horseshoe"). Norfolk County, therefore, is within close proximity to one of the fastest growing, densely populated regions in Canada. For over eighty years Norfolk County has been recognized for, and dependent upon, tobacco production. In addition to tobacco, the region produces a number of diverse crops ranging from vegetables to some specialty products

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such as ginseng, peanuts, medicinal herbs and mushrooms. Other economic activities include fresh-water fisheries, forestry and wood harvesting, tourism and retirement settlements. In 2001, the population of Norfolk County was 60,850 people (Norfolk County, 2003).

Despite its geographical proximity to huge Canadian and American consumer markets, the agricultural base on which community livelihoods depend has become increasingly strained over the last decade. The tobacco industry has been particularly adversely affected due to global competition and free trade, as well as government interventions aimed at discouraging tobacco consumption. This has triggered widespread negative socioeconomic impacts across the County, including community instability and uncertainty, rural poverty, associated depression and anxiety. Some of the more urban centres in the region have also been affected leading to a need for urban renewal as infrastructure continues to age. This decline has forced an increasing number of people, in particular youth and young families, to migrate outside of Norfolk County in search of employment and educational opportunities. Yet despite these challenges, Norfolk County (in particular the urban centre of Simcoe), is beginning to experience and anticipate a period of unprecedented growth in housing and retail (especially big-box stores). This is due to the fact that many of the former tobacco farms are being sold to retiring urbanites from the Greater Toronto Area who are selling their homes for exorbitant amounts of money, and relocating to Norfolk County in search of idyllic rural landscapes, relatively cheap real estate, and an abundance of natural areas. Norfolk County is also recognized for the beauty of its natural areas which support a wide range of outdoor recreational opportunities including fishing, birding, hunting, and camping.

These trends have created tensions within the community with respect to decisions that will determine the future direction of development in the County. Some citizens are concerned about the impacts that these changes will have upon their rural heritage and livelihoods. Others are concerned about pressures being placed on the ecological integrity of the area, while still others are convinced of the need to take advantage of emerging opportunities through aggressive promotion of economic growth and development. Additionally, Norfolk's population is expected to continue to age considerably placing great strains on municipally funded or community-based services. Therefore, new development projects are needed to

create viable employment opportunities for county residents and to enhance municipal corporate fiscal sustainability. These are all difficult priorities for local decision-makers to weigh out, as socioeconomic well-being, healthy social and physical environments, social cohesion, and a resourceful local government, are all important factors shaping the overall health of a community.

Such challenges are not unique to Norfolk County. Local decision-makers around the world are increasingly facing challenges related to the long-term health, well-being, and sustainability of their communities. They are faced with the difficulties of addressing these problems within a context of competing interests and demands, institutional and legal boundaries posed by higher orders of government, and limited sources of revenue. These dilemmas are indicative of a set of deeper problems which have to do with the ways in which community health issues and problems are defined, conceptualized, and addressed. Conventional approaches to governance and decision-making are generally reactionary, fragmented, and short-sighted. This is typical of the hierarchical, technocratic nature of public administration in various policy areas and fields of management from the biophysical to the socioeconomic (also described as silos). Nevertheless, there has been growing recognition and gradual adoption of more systemic, integrated, and participatory approaches to governance and decision-making.

This thesis examines the need for such innovations for addressing complex problem areas (such as community health). As the failure of current systems of governance to take an integrated approach towards governing, reduces our ability to recognize and address existing interdependencies between natural and human systems. For instance, a whole new range of health issues have emerged over recent decades including global ecological risks (e.g. destruction of the ozone layer, environmental toxins getting into human food systems, etc), in addition to health risks associated with the social, cultural and economic organization of societies. The commonality amongst all of these factors is that the risk patterns arising tend to be cumulative, making it difficult to establish straightforward, cause-effect interactions and interventions. Nevertheless, local decision-making remains largely reactive, focused on devising interventions once problems have already materialized. Reactionary or

interventionist modes of conventional decision-making, including public health management, are ill prepared for dealing with these complex community health risks. As a result, both human and biophysical health remains highly vulnerable. This has lead to wide-ranging reconsideration of the interdependence that exists amongst people, their health, and their physical and socioeconomic environments. Coinciding is an increased demand for a "systems" approach to health that seeks to integrate investment into health promotional activities and environments with more reactionary diagnostic, intervention, and cure strategies (WHO, 1986; Shahi et al, 1997; Hancock, 1999; Kickbusch, 1999).

One emerging theoretical approach is the "ecosystem approach to health", which seeks to view and address health systemically and holistically, recognizing that health outcomes are by-products of complex system interactions. It considers all of the broad components that can affect the health of individuals and their wider communities by seeking to study and understand the interrelated factors that exist at a variety of spatial and temporal scales. Human health is viewed within the context of the broader socio-ecological system in which they are a part of, which includes not only the biophysical/natural environment, but also sociopolitical and economic environments, individual lifestyles, and biologic makeup (Forget & Lebel, 2001; Rapport, 2002; Lebel, 2003). The primary objective of the ecosystem approach is to enhance the health of communities by instituting management methods that will foster the sustainability of the ecosystem itself and therefore the health of communities and human beings who are part and parcel of that system (Forget & Lebel, 2001). The focus is on trying to better understand how social and ecological system interactions translate into key determinants of health within particular settings, in addition to better understanding the impacts that human activities have upon the sustainability of the earth's life support systems and services (Lebel, 2003).

Adding to the complexity that is surely involved in adopting a more systemic approach to *conceptualizing* health, is the growing recognition that governance frameworks must also be able to embrace and navigate these evolving conceptual models. Therefore, an additional question becomes one of administrative and management capacity. That is, what challenges and opportunities arise when local decision-makers transition from hierarchical, compartmentalized, bureaucratic approaches to decision-making, towards more systemic

approaches that are able to recognize and address the influence of complex biophysical and social factors on community health? Currently, environmental and social interactions and their resulting health outcomes transcend the expertise, and supersede the capacity of conventional political jurisdictions and academic disciplines (Bartlett, 2005; Kemp et al, 2005; Dryzek, 2005). Fiscal and capacity deficits persist, especially within regions experiencing social and environmental decline. Hence there is a need for research into alternative governance structures and processes that are able to embrace a more systemic or ecological approach. Applied case study research is needed to effectively test the ecosystem approach, and its utility and feasibility for improved community health conceptualization and governance.

1.3 Research Objectives & Contributions

The primary intent of this thesis is to answer the following research question:

What are the challenges and opportunities facing local governance agents in advancing an ecosystem approach to conceptualizing and governing community health in Norfolk County, Ontario?

Additional thesis objectives are:

ii.   To devise a conceptual framework to guide the research design process and case study analysis

iii.   To develop a set of criteria deemed essential for advancing an ecosystem approach to governing towards community health

iv.   To test the utility of the ecosystem health approach as a framework for analyzing community health concerns and governance issues

v.   To test the utility, and feasibility of the devised criteria within the case study context of Norfolk County

vi.   To explore the roles of various local governance agents in advancing an ecosystem approach to community health

vii.   To develop theoretical and practical research contributions and provide recommendations for needed areas of future research

Due to the interdisciplinary nature of this research, the theoretical contributions will be useful to a range of academic fields of inquiry, including community health and development, ecosystem health, public health research and practice, environmental studies, sustainability studies, environmental and/or health governance, and public administration.

The research will seek to provide a conceptual framework for community health and development practice. It will go beyond simply stating that better problem identification and conceptualization of community health problems are needed, and begin to explore *how* systemic community health objectives might actually be achieved through governance and intervention processes. The research will highlight some of the structural and procedural inadequacies of governance systems and decision-making processes within Norfolk County with the goal of providing a set of descriptive and prescriptive principles and recommendations for understanding and responding to complex problems. This will include recommendations about how the capacity of local governance might be strengthened, including a discussion of the associated challenges and opportunities. The research will explore and analyze the various roles and responsibilities of governance agents, including identifying opportunities for the local government to improve their ability to enhance community health, and strengthen local governance capacity. This work will also benefit civil society and non-governmental organizations by providing insight into what is needed for building community capacity, social capital, and harmonized policy and advocacy efforts.

1.4 Research Approach & Methods

This research approach is exploratory, descriptive, explanatory, and prescriptive. It employs qualitative methods using a case study approach. Babbie (1986) defines qualitative research as a non-numerical examination and interpretation of observations, for the purpose of discovering

underlying meanings and patterns of relationships. Yin (2003) explains that the case study approach involves the exploration of a single entity or phenomenon bounded by an event and process. The case study approach allows the researcher to carry out an investigation that retains the holistic and meaningful characteristics of real life events-such as individual life cycles, organizational and managerial processes, and neighborhood change. Case studies may be explanatory, descriptive, exploratory or all of these, and investigates a contemporary phenomenon within its real-life context. The case study research is generally the preferred strategy when the investigator has little control over events, variables, or the system of interest (Yin, 2003). This is relevant to this research, given that the researcher has no control over the evolving socio-ecological context, human and natural system interactions, associated health impacts, and the reactions and interventions of governance agents on the ground. Case studies often deal with situations in which there are many more variables of interest than data points. As there are many contextual factors and pressures shaping local governance and community health, a case study approach will extend an understanding of the complex system of interacting social, economic, political, and ecological phenomena that collectively shape community health and well-being within the context of Norfolk County

Three research methods are employed in this research for the purposes of data triangulation. They are as follows:

i. An interdisciplinary literature review to develop a conceptual framework for analysis. The literature reviewed focuses on governance, resource and environmental management, sustainable development, ecosystem health, environmental health, public health practice, citizen engagement, healthy communities, and community development

ii. A policy review of government documents to enhance awareness of the underlying context of Norfolk County

iii. Semi-structured, interviews with key informants from Norfolk County involved in governmental or non-governmental organizations that have influence over community

decision-making processes, and/or contribute to community health and wellbeing through their activities and expertise.

The purpose of the literature review is to explore various areas of theory in order to define community health and governance problems, assess previous work, present relevant background information, while emphasizing areas of consensus and disagreement. The interdisciplinary literature review mainly focuses theoretical literature from peer reviewed journal articles, but also includes some national and international health policy documents. The literature is also reviewed to develop a conceptual framework for case-study analysis. The literature reviewed explores evolving trends in governance and public administration. It illustrates the evolution from conventional, hierarchical, technocratic forms of public administration (otherwise known as silos) which dominate decision-making in many different fields, towards the gradual adoption of more systemic, integrated, and participatory approaches to governance and decision-making. Literature within the field of resource and environmental management and human and public health management is also reviewed to demonstrate these broader governance trends within these specific fields, and to explore parallel developments evolving out of these fields. These historically distinct areas are becoming very similar in policy and administration with respect to recommended governance reforms required for enhancing community health and sustainability. Ecosystem health theory is also reviewed along with other relevant and diverse literature sets for the purposes of integrating theory surrounding biophysical management, sustainable development, public health, community health and development, and health promotion theory and practice. The recurring themes and fundamental principles identified in these literatures will be used to devise a set of criteria deemed essential to advancing an ecosystem approach to the conceptualization and governance of community health. These criteria will then be grounded within the case study context of Norfolk County in order to further test their utility and feasibility, and to identify the challenges and opportunities facing local governance agents in advancing an ecosystem approach to community health.

The remainder of the methods and procedures used for case study analysis (i.e. policy document review, and key informant interviews) are described in detail in Chapter 3.

1.5 Outline of Chapters

Chapter 2 provides an interdisciplinary literature review in order to create a conceptual framework for guiding the case-study analysis which follows in subsequent chapters. It explores evolving trends in governance illustrating the evolutions from conventional, hierarchical, technocratic forms of public administration, towards the gradual adoption of more "systemic", integrated, and participatory approaches to governance and decision-making. The chapter then demonstrates that similar trends and evolutions in governance and decision-making have also occurred within the field of resource and environmental management human and public health management. Many of the recommendations that theorists and practitioners are calling for, in regards to governance reforms required for enhancing community health and sustainability, are very similar within each of these policy areas. The innovations emerging from these fields have been influential to the development of theory surrounding an ecosystem approach to health. The chapter continues with outlining the fundamental principles of the ecosystem health approach. Recurring themes throughout the chapter are then transformed into a set of criteria required for advancing an ecosystem approach community health conceptualization and governance.

Chapter 3 describes the case-study methods that are used to test the utility of the conceptual framework and criteria for advancing an ecosystem approach to community health within the context of the Norfolk County case study. It also reiterates the rationale behind the case study approach and the selection of Norfolk County as a case study location. The methods for data collection and analysis are explained, which includes a policy document analysis, participant observation, and key informant interviews. Chapter 3 concludes with a description of the case-study context, and relevant background information on Norfolk County.

Chapter 4 further tests the theoretically derived criteria by grounding them within the context of Norfolk County and comparing them to data derived from the key informant interviews. Chapter 4 describes the questions that were posed to key informant interviewees as well as

their responses. The purpose of these questions was to get a sense of how feasible and relevant the criteria are to governance agents operating within the case study context of Norfolk County, and to gain greater insight into the challenges and opportunities facing local governance agents in regards to advancing an ecosystem approach to health. Chapter 4 is primarily descriptive in nature, exploring patterns of consensus and disagreement between the key informants.

Chapter 5 elaborates on the themes and insights identified in Chapter 4. It critically analyzes the information derived from the interviews, comparing and integrating the information with that which was obtained from the theoretical and policy literature. Through this process of analysis and triangulation, implications in regards to the utility and feasibility of the criteria for advancing an ecosystem approach to governing towards community health are explored. The strengths and weaknesses of the criteria are discussed, and recommendations for their adjustment are provided. Finally, concluding statements regarding the challenges and opportunities facing local governance agents in meeting the criteria are explained.

Chapter 6 is the final chapter of the thesis. It discusses the theoretical and applied implications of the research findings. Chapter 6 summarizes the key findings as they relate to the original thesis question and underlying objectives (outlined previously in this chapter). It also explains the limitations of the research, and provides recommendations for areas of future research.

Chapter 2

Evolving Trends in Governance: Achieving Sustainable Decision-Making through Integrative, Collaborative, & Participatory Processes

2.0 Chapter Introduction

The purpose of this chapter is to conduct an interdisciplinary review of theoretical and policy literature in order to create a conceptual framework for guiding the case-study analysis which follows in subsequent chapters. The literature reviewed throughout this chapter explores evolving trends in governance. The chapter is divided into three parts. The introductory portion of the chapter (section 2.1) discusses general trends in governance and public administration. It illustrates the evolutions from conventional, hierarchical, technocratic forms of public administration (otherwise known as silos) which have dominated decision-making in many different fields, towards the gradual adoption of more "systemic", integrated, and participatory approaches to governance and decision-making.

Section 2.2 demonstrates that similar trends and evolutions in governance and decision-making have also occurred within the field of resource and environmental management specifically. The section that follows (2.3), further demonstrates that parallel developments and innovations in governance have also evolved out of the field of human and public health management. Many of the governance reforms recommended by theorists and practitioners to enhance community health and sustainability are very similar within each of these policy areas. These historically distinct policy areas have experienced gradual, yet observable trends towards adopting more systemic, integrative and participatory approaches to decision-making. As will be explained in section 2.3.1 such qualities are fundamental to an ecosystem approach to health.

The purpose of this chapter is therefore to summarize the recurring themes and fundamental principles within the theoretical and policy literature for the purposes of devising a set of criteria required for advancing an ecosystem approach to governing towards community health. These criteria (outlined in section 2.3.3) are further tested for their utility and feasibility within the case-study context of Norfolk County (throughout Chapters 4 & 5). This is in order to meet the primary thesis objective which is to identify and examine *the challenges and opportunities facing local governance agents in advancing an ecosystem approach to health within Norfolk County*. This will be achieved by triangulating the data derived from this literature review, to that which is obtained from policy document reviews, and key informant interviews (see Chapters 3 and 4 respectively).

2.1 Silos and Systems: Trends in Public Administration and Governance

The conventional approaches to governing through hierarchical, departmentalized, and technocratic forms of public administration have dominated decision-making in many different fields, and spheres of management from the biophysical to the socioeconomic. For example, scientific, rational-use approaches are present in resource and environmental management; while reductionist, biomedical models have been employed to manage human health. Each of these policy areas has experienced gradual, yet observable trends towards the adoption of more systemic, integrative, and participatory approaches to governance and management. For instance, decision-makers within hierarchically structured departments in public institutions are increasingly pursuing broader collaborative, inter-sectoral integration and partnerships in order to better understand complex problems, enhance capacity to address them, and facilitate more effective policy implementation. Similarly, traditional environment and resource management approaches are being supplanted by more integrative, ecological and participatory approaches. Human health management (which will be discussed in detail throughout section 2.3), has also evolved from an expert-driven biomedical model towards one that embraces broader determinants of health including biophysical, socioeconomic, and political factors, while encouraging citizens to become more involved in facilitating the health of their

communities. Essentially, these policy areas exhibit decision-making trends that are oriented towards ecological or systemic models of conceptualization and governance. The integration of social and ecological considerations into local governance is essential as these influence human health outcomes; and present both challenges and opportunities for local governance agents seeking to facilitate healthy and sustainable community development.

2.1.1 Technocracy, Scientific Management & Governance

Administration and decision-making, as understood in classic Weberian terms, is typically and historically hierarchical and pyramid-shaped, with a clear division of labour between sub-units within the hierarchy (Peters, 1996; Dryzek, 2005). Conventional approaches to decision-making and administration presuppose a central position of planning and control, efficiency, and a unified will privileged by superior access to knowledge (Torgerson & Paehlke, 2005; McAllister, 2004). Many individuals in a position of power with respect to public decision-making or influence are unelected officials possessing clear lines of authority, but subject to often blurred or non-existent lines of accountability. These officials have the power to define policy agendas, problems, and solution alternatives, greatly reducing the ability of citizens to influence policy, and exercise bargaining power. While elected politicians often still have the formal power to choose one policy option over another, it is increasingly unelected experts or members of the bureaucracy who shape the deliberative framework and information base within which politicians must operate and make choices (Hempel, 1996). The power to define the nature of a problem brings with it the power to determine who is at fault, and who is responsible for remediation. Top-down solutions also run the risk of being distanced from the experiences of policy impacts on the ground, thereby failing to represent the interests of those most affected.

The conventional administrative, technocratic state has been the subject of criticism for poor integration of expertise and relevant perspectives within decision-making; resulting in negative implications for sustainability and democracy. Despite the advent of recent and emerging criticisms, society and the modern state have predominantly been evolving towards an increasing degree of specialization and hardening of expertise along various sectoral and disciplinary lines of thought and practice. Hierarchical, departmental lines, in part, have

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contributed to the creation of fragmented, institutional silos and reductionist patterns of thought. While such specialization has been valuable in applying established solutions to known particular problems, it has also resulted in the neglect of problems that are more complex and systemic in nature, particularly those which transcend narrowly defined departmental and conceptual boundaries (Kemp et al, 2005). Narrow approaches to thinking have had negative effects on our ability to comprehend complex processes and systems that are synergistic in nature (e.g. health, culture, and human-environmental interactions) (Honari, 1999). For example, environment and health interactions and their resulting health outcomes transcend the specialized expertise, and capacity of conventional political jurisdictions and academic disciplines (Bartlett, 2005; Kemp et al, 2005; Dryzek, 2005). Consequently ecosystems, and in turn the health of humans who are nested within them, remain highly vulnerable, while strategies for increasing the ability of human and natural systems to absorb and respond to various stresses imposed upon their health remain elusive.

Organizational deficits arising from conventional approaches to management and administration include fragmented and uncoordinated policies, polarized interests, jurisdictional conflicts, resource scarcity, and a lack of trust, communication and collaboration (McAllister, 2005; Dale, 2005). In addition, socially constructed political boundaries and jurisdictions do not typically align well with issues relating to ecological or human health problems (Sexton & Szaro, 1990; Francis & Lerner, 1995; Pollock, 2004). Poverty, air pollution, groundwater contamination, overpopulation, habitat fragmentation, etc, are all examples of challenges that are not confined to existing political boundaries, instead they exist at multiple spatial and temporal scales. It is therefore very difficult for decision-makers operating within narrowly defined boundaries to synthesize observable feedback, data, and knowledge that transcend these boundaries.

Increasingly we are realizing that the world is not a simple system that can be broken down into component parts isolated from their contextual influences for the purposes of simplifying our attempts at understanding how things work (Merchant, 1992). In contrast, the world is a highly interactive, dynamic and non-linear adaptive system (Kay et al, 1999; Holling, 2001; Holling et al, 2002). Traditional disciplines and governmental departments working in

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isolation from one another are ill equipped to understand complex problems. Hence there is a need for research into alternative approaches to governance, management and decision-making that are able to embrace a more systemic, integrated approach (Rueggeberg & Griggs, 1993; Dale, 2005; Kemp et al, 2005). Governance agents must be able to better recognize and understand how their actions, interests and mandates link and interact with other components within the broader system of governance. This is a first step towards creating integrated, harmonized policies, the promotion of a coordinated approach, and the achievement of overlapping objectives (Dale, 2005; Gibson, 2005). Capable action in the face of complexity also requires systems of governance to be more anticipatory in nature, and oriented towards long-term visioning, planning, and decision-making. A commitment to the process of learning and adaptive management is also required through continuous monitoring, evaluation, policy adjustments and modifications (Rammel et al, 2004; Dale, 2005; Gibson, 2005; Kemp et al, 2005). Systems of governance must be able to incorporate information regarding changing socio-ecological conditions, and shifting social values and knowledge in order to improve the effectiveness of the decision-making process.

2.1.2 Sustainable Governance: From Silos to Systems

The definition of "governance" must be distinguished from that of "government". Francis (2003) refers to "governance" as institutional arrangements that extend beyond traditional government players to include the private sector, non-governmental (NGOs), and civil society, as well as the rule systems under which these different actors operate, negotiate, and shape policy outcomes. Governance is a set of interactive processes instigated by various agents (which includes both individual actors, and organizations operating as a collective whole) that seek to guide policy and decision-making. Governance can be understood as a mode of social coordination, which is different from the act of "governing", which is often defined as a purposeful attempt to control and manage sectors or facets of society. Governance scholars view political systems as a complex of formal and informal arrangements that are dynamic and often ill-defined. Such a view heavily contrasts with conventional depictions of governments as formal, clearly identifiable, and relatively static entities (Kemp et al, 2005).   While "governments" often conjure up images of formal structures ruling over people, the notion of governance highlights the increasingly important role of formal and informal arrangements

within the political, socioeconomic system (ibid, 2005). Power is exercised through a network of interconnected actors, in which all actors hold power through knowledge, financial resources, and other rights granted to them. If governance systems are to promote health and sustainability effectively, then they must be able to address varying contextual circumstances, and scale influences of both spatial and temporal nature. Hancock (1999) identifies the need for a greater understanding of the driving forces behind governance, development and power, as well as the specific local realities of people and places.

Dryzek (2005) explains that in addition to the conventional "silo" approach to governing as outlined above, the administrative picture has gradually become further complicated over time through the introduction of other forms of collective choice into decision-making; marketization has been particularly important. Here the idea is to make the government act more like a market, not just through the privatization and decentralization of service delivery, but also through the introduction of competition within government structures. Korten (1999) summarizes the shortcomings of modern markets and economies in regards to securing healthy, sustainable societies. It is increasingly apparent that healthy societies rely on more than just an accumulation of profits. If current systems do not require producers to be responsible for the consequences of their actions upon wider society, they are contributing to a culture of individualism that is non-inclusive, unsatisfying, and failing to nurture social capital and human development.

Many traditional local practices and values that previously regulated social and economic life are being eroded through the global standardization of economic models. Locales are losing self-determination, resulting in the decimation of community livelihoods. Herman Daly (2002) states that current institutional structures place insufficient priority on sustainability issues, while local customary practices that once could provide examples of sustainable livelihood alternatives, are now increasingly being eroded under global economic "liberalization". Under neo-liberal systems, current prosperity is channeled into the hands of relatively few beneficiaries who are able to dodge the full costs of their economic and social practices. The marginalized poor and the natural environment generally absorb resulting externalities (Hempel, 1996). The interests and power of elites are entrenched, and without

economic and political democratization the prospects for real change remain feeble. It is essential that the voices of those who are not getting their fair share of benefits out of current socioeconomic and administrative systems become further integrated into processes of decision-making in order to advance and secure their unacknowledged interests.

Critics of technocratic, hierarchical administration have called for more participatory and discursive dialogues within decision-making, instead of power being fully placed within the hands of the governmental department deemed to have the most "relevant" expertise and authority. Torgerson & Paehlke (2005) argue that conventional forms of administration seek to minimize the dispersion of power across the existing range of diverse interests and perspectives within a polity. Instead power and privilege remain centralized and largely concentrated amongst an elite minority for the purposes of perpetuating their particular interests. Conventional wisdoms and practices are being passively accepted as "rational" thought, with a pervasive failure to recognize that resulting ideas, institutions, and policies are in fact greatly influenced by a very narrowly defined set of interests, associated powers, assumptions, and perspectives. Torgerson (2005) suggests, therefore, that the prevailing administrative form is not maintained simply out of "necessity", but due to the current administrative sphere resisting serious consideration of viable alternatives due to threats this may place on their ideological presuppositions and interests.

Nearly twenty years ago Paehlke (1989) described some of the important critical responses and democratic reforms that emerged out of environmental thought and critical theory including right-to-know legislation, public inquiries, impact assessments, etc. During the 1990s this trend continued with increasing calls for policy dialogues, citizen juries, planning and consensus conferences, and deliberative opinion polls, etc. Collaborative, participatory forms of governance manifest in the form of networks of partnerships that are capable of transcending traditional private-public boundaries, involving voluntary associations, and corporations as well as government departments (Dryzek, 2005). A more decentralized, participatory alternative necessarily opens up the decision-making environment to the influence of historically excluded or marginalized interests. New networks or participation from a broader, more inclusive range of governance agents challenge the power of traditional

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vested interests by making information more transparent and diverse, and through reflecting a greater plurality of knowledge, and experiences (Dale, 2005). This diversity of perspective encourages greater exposure of existing dominant paradigms, allowing for the identification and potential creation of policy alternatives.

Civil society organizations provide an avenue for citizens who have been left out of the governance equation, to be heard through other channels (Scholte, 2000). Civil agents at both global and local levels are increasingly influencing policy debates, and prescribing alternative solutions and methodologies. A continuance of such pressure is essential for ensuring governance transparency, and accountability. Governance cannot rest on top-down "expertise" alone. Legitimate and effective policies require popular consent, and an informed and active citizenry. Civil society or non-governmental organizations can help to keep institutions in check through monitoring the state of the environment or a community, as well as the impacts of policies and programs. Pressure can be placed upon institutions when they are not living up to their own rules and promises. Non-governmental organizations also have the advantage of being able to cut-through bureaucratic tape and spatial or jurisdictional constraints that governments or administrative states must adhere to. Civil society organizations can serve as transmitters of information both horizontally across space, and vertically through hierarchies of organization. An expanded role of the public sphere within decision-making does not mean the abolition of the administrative state. What it does mean is that pressures exerted upon the state from the capitalist and or market context would be counterbalanced by challenges exerted from the public sphere.

Achieving a more comprehensive understanding of how diverse individuals, communities and associated interests are affected by, and can be contributors to, local socio-ecological conditions requires a different view of what constitutes good governance. Many critics assert that it is imperative that governance include an informed and engaged public, along with trustworthy, supportive, and inclusive institutions that are able to facilitate democracy continuously through citizen engagement (Kruger & Shannon, 2000; Putnam, 2000; Raco & Flint, 2001; McAllister, 2004; Pollock, 2004; Fischer, 2005; Dale, 2005). That is, instead of being concerned with controlling and doing, governments should focus more on catalyzing

community empowerment by developing and leading strategic partnerships and facilitating the creation of networks of collaboration (Dale, 2005). This requires publicly available information, and effective channels of communication (McAllister, 2004). Bopp & Bopp (2004) use the metaphor of a coach and team stating that an effective coach (i.e. a government or other governance agents that are capable of taking on leadership roles within their communities) has at least four key characteristics:

i) technical competency (knowing the game well enough to anticipate the knowledge, skills and attitudes that their players need),
ii) knowledge of each player's current capacity, and the capacity of the team as a unit,
iii) the ability to promote continuous learning and capacity development, and
iv) the ability to inspire and motivate the individual players and the team overall to peak performance

Raco & Flint (2001) explain that when governance is cast broadly, active citizens are defined not only by their consumerist power, or as passive electors within a representative democratic system; but as actual democratic agents who empower themselves by challenging the activities of institutions and organizations which shape their everyday lives. Churches, schools, civic groups, various clubs, and other social networks and community organizations can be considered intermediate institutions. Such institutions make up the "civil sector" referred to by Rifkin (1996) and others. They provide an opportunity for citizens to get involved at a smaller scale than public office (Kruger & Shannon, 2000). Researchers have been investigating the extent to which volunteer activity is positively linked to civic engagement, social capital, community capacity building and local democracy. Lerner (2006) points to the work of Cuthill & Warburton (2005) who stress the importance of promoting volunteer activities with a particular focus on the roles for local governments in supporting volunteerism. Lerner (2006) explains that this study along with others point towards the possible cyclical relationship that exists between volunteer activities; the creation and strengthening of friendships, bonding, social capital; social learning (knowledge, skills, political tactics, etc); feelings of empowerment; bridging to

other organizations, community capacity building, achievement of objectives; and ideally the long-term engagement of seasoned citizens in collaborative governance arrangements.

Citizen engagement at the local level is particularly important for it is a less daunting task to advance a social understanding of the interdependencies existing within complex socio-ecological systems at this smaller spatial scale. Such an understanding is essential to developing the foresight required to guide sustainable decision-making and ultimately the construction of healthy communities. For example, the alteration of sub-watersheds and local ecosystems by human activities is often much easier to understand from the vantage point of local communities, than from the macro perspective of global ecology (Hempel, 1996). Local level engagement also has the advantage of enabling face-to-face deliberations, which are more likely to foster social learning, policy acceptance, and compliance with sustainability objectives. As explained by McAllister (2004), the work of R. Scott Evans suggests that it is at the local level where substantial issues are defined and contested, and where one finds the definition of society's values. Local level politics provide a bridge between the private world of the family, friends, and work and the public arena where policy is formed and contested. That is, it is at the local level where democratic participation becomes meaningful within the everyday lives of people (p. 21).

The reasoning outlined above suggests that the notion of "place-based governance" is a promising construct, albeit one that is in need of further investigation. Place-based governance seeks to utilize local or regional place-based identities as mechanisms to motivate and engage citizens in processes that stimulate social capital, and community development, strengthen civil society, and promote social and institutional learning (Pollock, 2004). It is a concept that combines ecological and political interpretations of "space", with social and cultural interpretations of "place". Kruger & Shannon, (2000) summarize the work of earlier social theorists who believed that a sense of attachment to a place and local community is extremely important for the maintenance of democracy and for the achievement of a sustainable society. McAllister (2004) speculates along the same lines, stating that communities built on old traditions or shared histories have a strong culture, which can foster a sense of place and community identity for their citizens. This sense of place can in turn give people feelings of

belonging, efficacy, and responsibility towards their communities which can be important motivating factors for volunteerism and citizen engagement in governance. The literature summarized by Raco & Flint (2001) also suggests that strengthening communities of place which draw on local people's identification and attachment will strengthen democratically participative forms of local governance. Pollock (2004) also asserts that for people to be engaged in sustainable governance processes, they must establish a shared sense of purpose and perceive that their participation is effective and meaningful. The earlier work of Putnam (1993) suggested that the ability to create new organizations that engage citizens in responding to emerging issues of concern, is an important step in maintaining public life, and a high quality of living for all citizens. Therefore, public decision-makers should seek to build upon citizen attachment and identity with their immediate locale, in addition, to making legitimate efforts to acquire location-specific (i.e. traditional, community-based) knowledge regarding local ecosystems, economies and social organizations.

Within the civil sector, through structures and processes transcending civil and governmental boundaries, deliberative dialogues and participatory processes can enable citizens to voice their contextually based concerns, and contribute their local knowledge and skills. Their direct participation can enhance policy acceptance, compliance, and government accountability, ultimately resulting in a greater potential for effective implementation of identified health and sustainability objectives (Gardner & Roseland, 1989; Dale, 2005). In her comprehensive review of collaborative arrangements, Lerner (2006) contests that the rationales for initiating and promoting citizen engagement in governance are now almost "mantra-like" with equity considerations, increased trust in institutions, better information from multiple perspectives for decision-making, increased public buy-in, and more efficient implementation being amongst the benefits most commonly cited. She goes on to summarize the many hypothesized longer-term results of citizen engagement, including the development of trust and shared norms (social capital), more effective conflict resolution mechanisms, as well as strengthened citizen skills, confidence, and ultimately community capacity.

Others, however, have cautioned against assuming that civil society or non-governmental organizations are inherently democratic, and intent on advancing objectives in support of

community well-being and sustainability (Kaldor, 2000; Scholte, 2000). If such organizations are to help increase public participation, transparency, and accountability in governance, then they must themselves be characterized by such qualities. Many concerns have been raised in the literature regarding issues around power relations, representativeness, insularity, and accountability (Abelson & Eyles, 2002; McAllister, 2004; Lerner, 2006). One must carefully examine the representativeness of organizations themselves in order to determine whether they accurately represent the interests of civil society within any given context. In most of Canada, for example, educated, professional, property owning citizens, who are predominantly English-speaking tend to have the greatest influence over governance processes. These citizens are unrepresentative of the broader general public. Women, minorities, youth, and lower income individuals are generally marginalized and underrepresented; raising significant concerns with respect to political equity (Gardner & Roseland, 1989; Scholte, 2000; Abelson & Eyles, 2002; Dale, 2005). Participatory governance processes remain vulnerable to control by powerful stakeholder interests who seek to initiate, sponsor, and thereby control the information that ultimately influences decision-making outcomes (Abelson & Eyles, 2002; Lukasik, 2003).

Another common criticism is the notion that policymakers are touting citizen governance as a critical means of achieving more responsive decision-making, while using these structures as cost-cutting instruments (Abelson & Eyles, 2002). In some cases this has resulted in the public becoming increasingly suspicious of, and cynical towards, consultation processes, resulting in their reluctance to participate. Collaborative governance arrangements vary significantly in terms of how and by whom the process of organization is initiated. This appears to have implications for whether citizens engage in, or reject, collaborative governance processes. Lerner (2006) makes the distinction among groups that are "other-organized", those that are "self-organized", and those that are a hybrid of the two. "Other-organized" groups seek to link elected governments with private, non-governmental and non-profit sectors, in addition to everyday citizens. Projects and programs stemming from these types of groups often originate within higher-tier governments outside of the community for the purposes of mobilizing citizens or stakeholders in addressing pre-determined goals by the initiating actors. In "self-organized" governance arrangements (e.g. citizen advocacy groups, many NGOs, etc) the organization of citizen involvement is done by the actors themselves for their own purposes,

rather than being dictated by some external government or sector. The differences between these two types can be significant in terms of what citizens expect and experience from their engagement activities in regards to being included or not in problem identification, agenda setting, decision-making, skills development, and leadership opportunities, etc. Citizen expectations about what sort of involvement they will have is important in their recruitment, and especially retention.   Any discrepancies between their expectations and what is actually experienced can have negative repercussions for their continued engagement. In contrast, self-organized citizen efforts set their own goals for strategy and action. There can, therefore, be less danger of citizens feeling sidelined or "used" (Lerner, 2006). Nevertheless the research reviewed by Lerner suggests that despite their problems, arguments can be made for both the necessity and the efficacy of "other-organized" and hybrid multi-stakeholder governance projects or programs, with many aspiring to establish inclusiveness by moving beyond "consultation" toward genuinely shared decision-making.

To summarize, the health and sustainability of a society or a community, and their associated resources on which they depend, is not merely the responsibility of governments. Every part of civil society has a role to play in decision-making and in exercising stewardship in their daily lives. Governments alone lack the financial, social and intellectual capital that is necessary for securing sustainable and healthy communities. Governments are often representative of economic and political elites and policies tend to serve their interests. Citizen engagement and participatory processes are essential to keeping governments accountable to citizen needs. Building sustainable communities requires integrative, complex solutions that cannot be readily addressed by reactive responses from actors operating within narrow conceptual and jurisdictional boundaries. Alternative, collaborative, and adaptive forms of decision-making that are better able to break down and transcend some of these boundaries are needed. Little research exists that explores the ways in which community health and well-being can be systematically pursued and secured through integrative governance processes. Therefore, it is important to investigate the feasibility of advancing more systemic, integrative and participatory approaches to governance for the purposes of improving ecological and human health, along with sustainable livelihood opportunities within a community.

The following section (2.2) further illustrates evolving governance trends and innovations, placing them within the specific context of resource and environmental management. It concludes with a brief discussion on Biosphere Reserves, which constitute only one example of an application or model of governance that is intended to experiment with decision-making alternatives that are more collaborative, and participatory in nature. Biosphere Reserves are also intended to strive towards being able to better comprehend and navigate the complex problem of reconciling the often competing demands of economic development, and sustainable resource use and/or environmental preservation. As will be discussed further in section 2.3, a range of viable livelihood opportunities, socioeconomic security, healthy physical environments, and ecological goods and services are all important determinants of human and community health. Section 2.3 will demonstrate that similar conclusions in regards to needed governance reforms have also unfolded (albeit concomitantly) within the field of public health management and conceptualization. The information outlined in sections 2.2 and 2.3 together provide insight into the principles that must be adopted within local governance if an ecosystem approach to building healthy communities is to be facilitated. This information provides the foundation for identifying and examining the challenges and opportunities that face local governance agents when attempting to advance such an approach.

2.2 Evolving Conceptions & Approaches to Managing and Governing Environmental & Natural Resources

Management of the biophysical environment and natural resources has exhibited many of the trends discussed above regarding theoretical and governance models evolving from isolated silos to more systemic, integrated and participatory orientations (as described in section 2.1). Reflecting broader western philosophies of administration and science, the management of natural resources has been historically characterized by "rational", "scientific", so-called value-free approaches to management. Implicit in these approaches is the presumption that we live within objective realities that can be broken down into component parts, and examined by impartial and rational observers (Kapoor, 2001). An additional assumption is that natural

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systems are separate from human systems. The combination results in an overall lack of recognition that exploiting or undermining one of these systems inevitably results in the erosion of the other (Merchant, 1992). Building on these assumptions is the notion that humans can exploit and dominate nature with little consequence. As a result, environment and resource management has typically been characterized by continuous exploitation for the purposes of economic gain, and a reliance on energy and resource intensive production processes (Kapoor, 2001).

As with human health management (outlined in further detail in section 2.3) resource and environmental management has typically been reactionary in nature, employing costly "end of pipe" solutions to environmental problems as they arise. Policies and practices, historically, have been inflexible, favouring short-term gains over long-term consequences. Concomitant is the belief in the existence of universally "optimal" rules for environmental management, which have been prescribed and enforced from the top-down and applied uniformly over diverse regions and socio-ecological contexts. However, there is growing recognition that sole reliance on rational or scientific approaches is insufficient for managing complex and diverse socio-ecological systems (Berkes et al, 2003; Gadgil et al, 2003). Resource use and human impacts are inseparable from societal beliefs, values, and issues of equity and social justice. Therefore, similar to the critiques summarized above in regards to the need for more collaborative and participatory governance models in general, more democratic decision-making is also emerging within the field of resource and environmental management specifically.

Conventional environmental management has also typically been centralized, hierarchical, compartmentalized into departmental silos, and exclusionary of public participation. This is in part due to the presumption that resource users are norm-free maximizers seeking immediate gains, and therefore incapable of cooperating to advance communal long-term viability, in the absence of authoritative coercion (Ostrom, 1999). Ostrom challenges this assumption emphasizing the growing public awareness of governments' lack of capacity to deal with the full array of environmental problems entirely on their own. This is evidenced locally by ongoing deforestation, soil erosion, air and water pollution, declining fisheries, and globally by

climate change, ozone depletion, and acid rain (Kapoor, 2001). Consequently, non-governmental agents and groups are becoming increasingly central to environmental governance with growing emphasis on consultative processes that consider and integrate local and indigenous knowledge, values and interests (Reed, 2007).

Other explanations for the over-exploitation and unsustainable use of resources include a reliance on market rationality and associated emphases on economic priorities within current socio-ecological systems. In addition, spatial mismatches between institutional boundaries and ecosystem dynamics exist. Temporal, ecological, and political scales all pose significant challenges to finding the "ideal" scale for environmental governance. The usual "boundaries of management" do not coincide with the boundaries of ecological entities, for which they are responsible (Kalikoski et al, 2002). A mismatch of temporal scale refers to the focus and reliance of planners and policy-makers on short-term horizons, and immediate gains, which contrasts with the time it takes for the environmental and social consequences of decisions and actions to manifest over longer time-spans. This continuous disregard for long-term impacts is an important contributor to current states of the environment (Lovell et al, 2002; Kalikoski et al, 2002). Some claim that institutions would become more effective if they spatially matched the biophysical domain in which they operate, and intend to protect (Kalikoski et al, 2002). Such a rationale provides the foundation for bioregionalism, whose advocates argue that political jurisdiction should be determined at least in part by biophysical factors (Paehlke, 2001). However, devising discrete biophysical boundaries is extremely complex, and often misleading. It is difficult to determine what divisions and boundaries should actually be based upon (e.g. soil/vegetation type, watersheds, animal habitat/migratory routes, etc.), which all differ from one another and transcend entrenched legal and political boundaries. Paehlke (2001) also points out that ecosystems do not function in isolation from one another, and suggests that some of the most serious ecological problems are those which traverse bioregional boundaries. For example, the complex and continuous movement of pollutants suggests that exclusively local, exclusively biophysical, and exclusively national levels of governance and jurisdiction are all insufficient in adequately addressing the dynamic socio-political and biophysical dimensions of such a problem.

The most "appropriate" jurisdictional level for environmental decision-making is widely contested. On the one hand, it is argued that at smaller, local scales the transaction costs of collective organization and action are cheaper, and the potential for social cohesion and shared collective interests greater (Lovell et al, 2002). However, concentrating on local-level institutions, to the exclusion of external influences is problematic, as impacts of higher-level institutions are pervasive. Berkes (2002), clearly outlines some of the mechanisms by which higher level institutions impact local institutions including the nationalization of resources, increased participation in national and international markets, national-level development projects, and the consequent centralization of decision-making. In addition, exclusively local-level governance can result in multiple and fragmented jurisdictions that lack the coordination necessary for addressing bigger problems with local and trans-local ramifications (Lovell et al, 2002; Slocombe & Hanna, 2007). Such problems cannot be handled in isolation, and require larger, unitary jurisdictions to ensure equity. In addition, local governments rely on a limited base of revenues, predominately obtained via property taxes, which can undermine municipal autonomy. For instance, developers often have a dominant voice in planning decisions because it is politically easier to permit the expansion of the tax base on developer's terms, rather than raise property tax rates for citizens (Paehlke, 2001). At the same time, it is also recognized that remote and centralized management of local resources is problematic. Under such circumstances decision-makers are distanced from local priorities, aspirations, and ecological realities (Berkes, 2002; Carlsson & Berkes, 2005). Collaborative, participatory management approaches provide an alternative governance arrangement that has the potential of accommodating cross-scale linkages, and complex systems through a diversity of mechanisms (Kalikoski et al, 2002; Berkes, 2002; Carlsson & Berkes, 2005).

Communities are experimenting with various forms of multi-partite, collaborative environmental governance or management in at attempt to find institutional structures that are increasingly participatory in nature, and better at addressing issues transcending conventional political jurisdictions. Many such approaches are promoted as promising new ways to deal with complex and contentious natural resource issues (Conley & Moote, 2003). Collaborative management in this context, can be viewed as a set of partnerships in which government agencies, local communities, resource users, NGOs, and other stakeholders negotiate the

authority and responsibility for the management of a specific area or resource (Dorcey & McDaniels, 2001; Carlsson & Berkes, 2005). In many instances, decision-making power and management risks are shared between governments and non-governmental agents. Collaborative and integrative approaches in natural resource management have included (but are not limited to) watershed management, model forests, wildlife management, and community-based conservation and ecosystem management initiatives (Conley & Moote, 2003; Slocombe & Hanna, 2007).

Under ideal conditions, such regimes typically encourage the participation of local resource users, employ deliberative conflict resolution strategies and efforts towards consensus decision-making, while attempting to integrate modern scientific knowledge with local and traditional forms of knowledge (Diduck, 2004; Reed, 2007). This requires dynamic stakeholder interactions that influence the ways in which environment/resource problems are defined, structured and examined, thereby profoundly impacting decision-making. A variety of benefits derived from collaborative regimes have been summarized including the development of social capital, greater legitimacy and enhanced trust between institutions and citizens, the ability to address environmental, social and economic issues in an integrative fashion, and therefore the ability to produce better decisions (Conley & Moote, 2003; Pollock & Whitelaw, 2005). In addition, many tasks are more easily accomplished including data collection, inclusive decision-making regarding resource allocation, enforcement of regulations, and enhancement of long-term planning (Pinkerton, 1989; Carlsson & Berkes, 2005). Collaborative regimes have however, also been criticized for a lack of meaningful representation of divergent stakeholder interests, for inability to replicate "successful" models in other communities and contexts, and for the amount of time and effort that is required to sustain them (Conley & Moote, 2003).

Collaborative management has a greater potential to integrate local knowledge with conventional scientific knowledge thereby enabling more comprehensive management decisions (Kalikoski et al, 2002; Moller et al, 2004; Pollock & Whitelaw, 2005). Traditional knowledge and science provide information at different temporal and spatial scales, thereby providing greater insight into environmental issues transcending these scales. Hence,

opportunities for devising adaptive and creative policy solutions are enhanced. Moller et al (2004) define traditional knowledge as the cumulative body of knowledge, practices and beliefs, evolving by adaptive processes and handed down through generations by cultural transmission. The incorporation of local knowledge into decision-making has been motivated by the need to complement conventional scientific knowledge with site-specific, contextualized knowledge, generated through local observations. Moller and colleagues (2004) argue that it is more likely that local citizens will notice unusual socio-ecological circumstances. Examples include abnormal patterns in animal distributions, migrations, and behaviour, which can all be interpreted as signs of long-term alteration in ecosystems or available natural resources. Such changes may go relatively unnoticed by those who are less familiar with, or distanced from an area. However, traditional and local forms of knowledge often fail to make clear distinctions between facts and beliefs, thereby undermining credibility particularly amongst those formally trained in the scientific method (Gadgil et al, 2003). However, there have been attempts to challenge scientific approaches that tend to serve relatively narrow, vested interests. Gadgil and colleagues (2003) raise the critique that separating facts from their belief component displaces local knowledge from its context. Doing so advances the notion that local knowledge is only valid when it fits within the framework of established scientific epistemologies. Conventional, scientific approaches to knowledge still play a valuable, and in most cases predominant, role in resource management and decision-making. For example, derived scientific data can cover larger areas and samples, thereby statistically enabling the establishment of causation, and the generalization of results. However, scientific approaches lack detailed context-specific observations, which are necessary to understanding and adapting to dynamic ecological systems and promoting social change (Gadgil et al, 2003). Consequently, observations derived from scientific management approaches are most effective and relevant when complemented by information gained from traditional local knowledge and insight.

Governance in general, and collaborative management regimes in particular, can both be viewed as evolutionary processes as opposed to fixed states. Ostrom (1999) explains that with any evolutionary process there must be a generation of new alternatives so that combinations of desired structural attributes can be experimented with, and retained when a particular

combination is successful within a particular environment. Conventional management regimes that are largely reactive in nature consistently fail to evaluate, learn and adjust from past experiences. Hence, their reactionary strategies must be replaced with anticipatory and adaptive management strategies.

The notion of adaptive management is distinguishable, in that explicit attention is paid to issues of scale dynamics, and complex linkages between social and natural systems (Berkes, 2002). The approach is intentionally designed to address uncertainties in decision-making processes (Holling, 1978) in an attempt to ensure that lessons are learned from both policy successes and failures, thereby improving future practices. Under adaptive management, governance agents are encouraged to adopt the expectation that their assumptions, strategies and actions may be faulty or incorrect. Construction of flexible policies, plans and designs is ideal so that adjustments can be made to management objectives as new knowledge is gained (Noble, 2004). An exploratory and even experimental approach towards policy planning and implementation is utilized to test system behaviour. Using the example of knowledge integration, collaborative management regimes should be viewed as governance systems in which all parties are involved in iterative problem solving through utilizing accumulated knowledge sets, and processes of trial and error, which enhances opportunities for adaptation and change (Tengo & Hammer, 2003; Carlsson & Berkes, 2005). Adaptive management requires ongoing informational feedbacks to decision-makers in order to continuously observe dynamic stakeholder and socio-ecological interactions; effectively assess the consequences of policy experiments including strengths, weaknesses and gaps; and determine the direction in which future strategies should proceed (Tengo & Hammer, 2003; Noble, 2004; Pollock & Whitelaw, 2005). Hence, monitoring, evaluation and response to initiatives play important roles in providing continuous system feedback.

A common complicating factor for effective and sustainable management is an overall lack of monitoring and enforcement to inform and direct adaptive management (Kalikoski et al, 2002). There are inevitable uncertainties associated with environmental decision-making. Therefore continuous monitoring of changing ecological and socioeconomic conditions is essential to ensuring long-term viability of communities and socio-ecological integrity. Community or

citizen-based monitoring activities are on the increase throughout Canada and elsewhere due to growing concerns over the capacity of governments to monitor complex ecosystems, particularly in light of cutbacks to environmental programs. Pollock & Whitelaw (2005) review a variety of benefits of community-based monitoring, including increased citizen involvement in planning and management, enhanced public awareness of environmental issues, identification of community values, visions, and interests, and the building of social capital that is needed to support local sustainability. However, they also identify common constraints including data fragmentation due to loss of interest by volunteers, inconsistent sources of funding, and data inaccuracies due to a lack of standardized methods, quality control, and participant objectivity.

Evaluation can also be difficult to conduct, due, in part, to divergent measures of success (Conley & Moote, 2003). For example, citizen participants may be more concerned with social learning, skill building outcomes, and the enhancement of social capital, while governments may be more concerned with the ability to meet mandated policy objectives, while retaining maximum decision-making authority. Although monitoring and evaluation are critical components of collaborative management initiatives, they are not sufficient for ensuring long-term sustainability. While monitoring may provide indications on the state of the environment, appropriate political responses to such indications are needed to ensure protection of a natural resource (Moller et al, 2004). Hence, raw data derived from monitoring activities must be translated into meaningful forms of information so that results can inform decision-making. Such results need to be delivered in timely, usable, and accessible ways (Pollock & Whitelaw, 2005).

Over the last 30 years or more, resource and environmental management has begun to experience a series of transformations. Slocombe & Hanna (2007) provide the examples of integrated watershed management, integrated resource management, comprehensive regional land-use planning, and ecosystem-based management stating that the common thread amongst all of these is an interest and focus on "integration". This includes integration across disciplines, agencies, and/or sectors; the integration of interests and demands; and/or the integration of the knowledge and perspectives brought forward by different stakeholders and

governance actors. Slocombe and Hanna (2007) explain that while integration can mean many things within varying contexts, one thing that is certain is that the opposite of integration (i.e. fragmentation) remains a substantial obstacle to improving the sustainability of resource and environmental management. Similar to the more general critiques of departmental silos summarized earlier, the challenges within resource management also consist of fragmented interests, jurisdictions, ownership of responsibility, understandings of social and ecological systems, and information and knowledge (Slocombe & Hanna, 2007). Therefore while there may be no single model of integrated management, the implicit consensus is that integration means the reduction of system fragmentation through cooperative and collaborative organization and governance, the use of diverse information sources and knowledge, and participatory approaches to decision-making. This would naturally require a change in power relations which some might view as a primary obstacle in any implementation process (ibid, 2007).

The theme of integrated conceptualization and management has also been a key development within natural resource management. Reductionist depictions and understandings are slowly evolving towards increasing consideration of the ecological, social and economic ramifications of decision-making. This integrated approach has been characterized as an "ecosystem approach" to management (Rapport et al, 1989; Rapport & Mergler, 2004). A noteworthy example of environmental managers adopting an "ecosystem health approach" within the field of resource and environmental management is the activities that were undertaken by ecologists managing the North American Great Lakes Basin under the International Joint Commission in 1978. They adopted an approach that integrated all elements affecting the Great Lakes Basin including social aspirations, human activities and biophysical characteristics (e.g. fauna, flora, geography, air, water, soil, etc.), with the primary goals of ensuring their integrity, continued development, and optimal utilization (Forget & Lebel, 2001). For more information on the ecosystem health approach and its significance and application in regards to *human* health, refer to section 2.3.2. Such an approach is significant in that it visualizes humans as *part of* the ecosystem, rather than separate from it. This is likely in part due to increasing acceptance that one cannot expect to have sustainable conservation and protection of biophysical systems and landscapes if the economic viability and security of communities residing within and around

their boundaries are not addressed. If the goal is to maintain biodiversity and ecosystem integrity, then management efforts must be coupled with efforts to facilitate systems of governance that promote social equity and community development. The example of Biosphere Reserves (as described below in section 2.2.3.1), provide one such example of alternative and experimental governance models that are intended to strive towards addressing this very conundrum.

2.2.1 Biosphere Reserves: Integrating Environmental Stewardship & Sustainable Livelihoods through Collaborative, Participatory Governance

Biosphere Reserves are an interesting example of a systems approach to collaborative governance within the realm of sustainable resource management and community development. They provide an example of empirical attempts of applying some of the governance innovations and recommendations evolving in the theoretical literature; including calls for alternative, integrative, collaborative, and participatory governance arrangements.

Biosphere Reserves are designated by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) as sites which innovate and demonstrate sustainable approaches to conservation and development. The Biosphere Reserve concept was introduced over 30 years ago. It grew out of the *UNESCO Man and the Biosphere Program (UNESCO/MAB)*, established in 1971 as a follow-up to recommendations from an international Biosphere Conference held in Paris in 1968. As a testament to its biophysical roots, the biosphere reserve concept was intended to elaborate upon work conducted under the "International Biological Program", a decade-long program (1964-74) that sought to promote ecological research and protection for sites where this research would be carried out. The purpose of BRs were to promote and recognize ideals of conservation – set within a larger landscape context of "rational" resource use, and supported by interdisciplinary research, monitoring and educational activities (e.g. public information, training, and demonstration projects) (Francis & Whitelaw, 2004). Until recently, the majority of biosphere reserve related research has focused on the "biophysical" (e.g. tracking land use changes, biodiversity monitoring, reviews of local climate change, ecological restoration projects, etc) (Francis, 2004). However, the concept and mandate of biosphere reserves has evolved considerably from a primary focus on

conservation, towards an expanded and integrated agenda of promoting conservation and ecological stewardship along with sustainable livelihoods and community development. The Seville Conference in 1995 was instrumental in pushing forward the expansions of the concept. So that biosphere reserves are now expected to serve as models for sustainable development and livelihoods within local or regional economies, in addition to their previous role of modeling sustainable land/resource use, management, and stewardship. Biosphere Reserves now have three complementary functions:

1. a conservation function , to preserve genetic resources, species, ecosystems, landscapes, and cultural diversity;
2. a development function, to foster sustainable economic and human development;
3. and a logistic support function, to support demonstration projects, environmental education and training, and research and monitoring related to local, national, and global issues of conservation and sustainable development (UNESCO, 2007)

As such, biosphere reserves are much more than protected areas. They are a means for people who live and work within and around them to attain an integrated relationship with the natural world while contributing to the needs of society more broadly, by providing a model of ecological and economic sustainability (McCarthy, 2006). The objective of integrating the potentially conflicting goals of conservation, economic development, and preservation of local culture and heritage is the primary challenge for BR governance agents.

Through collaborative governance arrangements, various strategies aimed at achieving such objectives are tested, refined, demonstrated and implemented. Some recent biosphere reserve research has attempted to explore alternative governance processes (Pollock, 2004; Mendis, 2004; Jamieson, 2003). New models and approaches to involving local citizens and various stakeholders in planning, decision-making and conflict resolution processes are being developed and experimented with. Efforts are being made to bring together all interested parties and sectors together into a partnership approach at nested site, regional and network

levels. Under ideal scenarios, information flows freely amongst all those concerned (UNESCO, 2007).

2.2.1.1 Place-Based Governance

One spreading approach evolving out of biosphere reserve research that seeks to encourage the generation and dissemination of location-specific knowledge is the concept of "place-based governance". Place-based governance seeks to link local or regional identities to processes that engage citizens, stimulate the development of social capital, and strengthen civil society (Pollock, 2004). It is a concept that combines ecological and political interpretations of "space", with socio-ecological and cultural interpretations of "place". Biosphere Reserves are conducive to place-based governance in that they are designed to promote regionalism based on ecological connectivity, and are working models of regional and multi-jurisdictional management.

Governance within biosphere reserves varies by local organizational arrangements that seek to fit with particular contextual circumstances (e.g. ecological, cultural, socioeconomic conditions). Place-based arrangements have been viewed favourably, as they allow for modification and reorganization as local circumstances change (Francis, 2004). That is, management models and governance arrangements are ever-evolving and adaptive. Such an approach helps to ensure that biosphere reserves, and their local communities are better able to respond to fluctuating political, economic, and social pressures. As will be explained in the following chapter, recent work in health promotion by various public health agencies has also sought to take a "settings" approach to health, attempting to work with people where they live, work, and play (ultimately the "place"-specific community experiences of physical, social, economic, and political contexts) (Hancock, 1999). Therefore, it appears that there are many parallels between and much to be learned from examining some of the governance innovations that are evolving out of biosphere reserve research and practice. As of 2006, there were over 482 biosphere reserves in 102 countries; 13 of which are in Canada, and four in Ontario, one of which being the Long Point Biosphere Reserve that is located within Norfolk County (Francis, 2004). More detailed information on the specific local governance arrangements and

innovations emerging out of the Long Point Biosphere Reserve is provided as in Chapter 3, (section 3.4) as part of the background information and case study context of Norfolk County.

2.2.2 Summary & Emerging Themes

Governments and communities are experimenting with various forms of collaborative environmental governance in an attempt to find institutional arrangements that are more participatory and adept at addressing sustainability issues transcending conventional political and disciplinary jurisdictions. Governance across nested scales provides an alternative to conventional hierarchical modes of management by redistributing centrally dominated authority (Carlsson & Berkes, 2005). Potential benefits of this more collaborative, participatory approach include the integration of conventional scientific knowledge with local knowledge, adaptive learning processes, greater potential for policy innovation due to the engagement of multiple jurisdictions and interests, and greater potential for responsive policy monitoring and evaluation including the ability to adapt to changing socio-ecological circumstances as new information is gained. Achieving these ideal conditions requires extensive shifts in organizational paradigms, a greater focus on long-term goals, the creation of more flexible policies and institutions, and underlying political will (Kapoor, 2001).

There are a number of common themes or principles within the literature that have important implications for local governance, including problem conceptualization, decision-making processes and practices. They are summarized below in no particular order, as they are likely of equal importance.

A systemic approach to thinking must be adopted if the objectives of environmental conservation, sustainable resource use, and socioeconomic health and development are to be pursued and achieved in an integrated fashion. Governance agents should ideally pursue initiatives that produce mutual benefits within each of these areas, as opposed to assuming that gains in one area must come at the expense of another (Gibson, 2005). Systemic integration requires a re-consideration of the linkages that should exist or be formed across disciplines, agencies, sectors, and divergent stakeholder interests, and perspectives (Slocombe & Hanna, 2007; MAB, 2007). In order to achieve such a goal, natural and human systems must be

understood as one interactive, complex system. The sustainable development and well-being of a community is entirely dependent on the maintenance and protection of ecosystem goods and services, while human factors; including social, cultural and economic development processes, are drivers of ecosystem change (Costanza et al, 1997; Cork, 2006). Careful consideration must be given to the unique socio-ecological context within each distinct place.

Adopting a systems approach to thinking requires integrated decision-making through inter-sectoral action within and across governments. Inter-jurisdictional collaboration, cooperative partnerships, and information sharing must exist within and between governmental and non-governmental governance agents, which can include government agencies, local communities, resource users, NGOs, citizens and other stakeholders (Dorcey & McDaniels, 2001; Carlsson & Berkes, 2005). Such cooperation is required due to the dynamic and complex nature of socio-ecological problems. Socio-ecological systems are nested, and do not function in isolation from one another (Paehlke, 2001; Berkes, 2002), and therefore some of the most serious problems facing decision-makers today, do not typically align with existing political boundaries and jurisdictions (Sexton & Szaro, 1990; Francis & Lerner, 1995; Pollock, 2004). Collaborative and participatory governance and the use of diverse information sources is essential for reducing system fragmentation; which can result in uncoordinated policies, polarized interests, jurisdictional conflicts, resource scarcity, and a lack of trust and communication (McAllister, 2005; Dale, 2005; Slocombe & Hanna, 2007). Collaborative partnerships can help governance agents better understand how their actions, interests and mandates link and interact with one another (Kalikoski et al, 2002; Berkes, 2002; Conley & Moote, 2003; Carlsson & Berkes, 2005). This is the first step towards creating integrated policies, a coordinated approach, and the achievement of overlapping objectives (Dale, 2005; Gibson, 2005).

Governance agents must incorporate long-term planning into their decision-making frameworks in addition to considering issues of inter and intra-generational equity. This requires an anticipatory, rather than reactive approach to problem identification and devised interventions. The recognition that uncertainties will always exist is essential, and where there is a threat of irreversible negative impacts, the precautionary principle should be exercised

(Gibson, 2005). The interests and power of elites are entrenched within political systems, and therefore without economic and political democratization the prospects for real change remain feeble. For the sake of equity, it is essential that the voices of those who are not getting their fair share of the benefits derived out of current socioeconomic and administrative systems become further integrated into decision-making processes in order to advance policy alternatives, and secure their unacknowledged interests (Hempel, 1996; Daly, 2002; Togerson, 2005; Dale, 2005).

Due to the inherent uncertainties involved when adopting a systemic and integrated approach to governance, institutions themselves must be adaptive and able to respond to new information as it arises (Holling, 1978; Berkes, 2002, Noble, 2004). This includes evidence of changing ecological or socioeconomic conditions, or shifting social or cultural values and priorities. Ongoing monitoring and evaluation, and a commitment to a process of learning are required to supply decision-makers with the feedback necessary for assessing the impacts of policies and programs on the ground, and for observing dynamic stakeholder and socio-ecological interactions. This information is crucial to supporting an ongoing process of policy adjustment and modification, and for improving the effectiveness of decision-making processes (Tengo & Hammer, 2003; Rammel et al, 2004; Carlsson & Berkes, 2005; Dale, 2005; Gibson, 2005; Kemp et al, 2005). Adaptive governance requires that decision-makers learn from both their policy successes and failures. The accumulation of data derived from monitoring initiatives on its own, is insufficient for promoting real change. Raw data must be translated into meaningful forms of information so that the results can inform decision-making. This information must be presented in a timely, usable, and accessible fashion (Pollock & Whitelaw, 2005).

The local government has an integral role to play in adopting, encouraging, and when possible facilitating a systemic, integrative, collaborative, and participatory approach to governance. Many critics assert that good governance must include an informed and engaged citizenry (Kruger & Shannon, 2000; Putnam, 2000; Raco & Flint, 2001; McAllister, 2004; Pollock, 2004; Fischer, 2005; Dale, 2005), and therefore the local government must be trustworthy, and supportive of initiatives that help to inform and engage citizens through inclusive processes.

While this is unlikely a role that should be exclusively designated to the local government, the government should nevertheless focus on developing and leading strategic partnerships and facilitate networks of collaboration (Bopp & Bopp, 2004; Cuthill & Warburton, 2005; Dale, 2005). This requires publicly available information and effective channels of communication (McAllister, 2004).

Citizen engagement, public participation in decision-making, including a commitment to social learning, are all essential components to advancing a systemic, integrated approach to governance. Citizen engagement at the local level is particularly important for it is a relatively less daunting task to advance a social understanding of the interdependencies existing within complex socio-ecological systems (Hempel, 1996). The local level is also where substantial issues and values are defined and contested, providing a bridge between private and public life (McAllister, 2004). Deliberative dialogues and participatory governance processes are important for enabling citizens to voice their contextually based concerns, and contribute their local knowledge and skills (Kalikoski et al, 2002; Moller et al, 2004; Pollock & Whitelaw, 2005; Reed, 2007). Local knowledge complements conventional scientific knowledge with site-specific, contextualized knowledge, generated through direct observation of changes in local socio-ecological systems (Gadgil et al, 2003; Moller et al, 2004). Observations, and hypotheses derived from scientific management approaches are most effective and relevant when complemented by information gained from local knowledge and insight. The direct participation of citizens in decision-making can increase trust in institutions, enhance policy acceptance and compliance, promote government accountability, produce better information from a variety of perspectives, enhance opportunities for the identification of viable policy alternatives, and ultimately improve the effectiveness of policy implementation (Gardner & Roseland, 1989; Putnam, 2000; Scholte, 2000; Dale, 2005; Torgerson, 2005; Torgerson & Paehlke, 2005; Lerner, 2006).

Finally a "sense of place" or community identity is important for stimulating citizen engagement at the local level, and for achieving a sustainable society (Kruger & Shannon, 2000; Raco & Flint, 2001; McAllister, 2004). In support of some of this theory, the work stemming out of biosphere reserves also suggests that "place-based governance" encourages

the generation and dissemination of location-specific knowledge. Place-based governance seeks to utilize local or regional place-based identities as mechanisms to motivate and engage citizens in processes that stimulate social capital, and community development, strengthen civil society, and promote social and institutional learning (Pollock, 2004). Place-based arrangements to governance are also viewed as promising innovations as they are less likely to be constrained by some of the conceptual, bureaucratic, and jurisdictional straight-jackets that impose limitations upon more conventional forms of governance and administration (as outlined in sections 2.1 and 2.2). Place-based governance arrangements can transcend conventional political boundaries, and also allow for modification and reorganization as local circumstances change (Francis, 2004). That is, they are less institutionally rigid, and therefore ever-evolving and adapting to fluctuating political, economic, and social pressures.

The above paragraphs provide a summary of the major themes and principles that have emerged out of the literature in regards to evolving trends in environment and natural resource management and governance. These include an emphasis on systemic, integrated, collaborative, and participatory approaches to decision-making. In the following section, 2.3, it is demonstrated that parallel developments and innovations in governance have also evolved out of the field of human and public health management. Many of the recommendations that theorists and practitioners are calling for in regards to necessary governance reforms in public health, mirror those which have been discussed throughout this chapter thus far.

2.3 Evolving Conceptions and Approaches towards Managing and Governing for Human & Community Health

As articulated above, new approaches to analysis and decision-making are required to soften and integrate disciplinary and jurisdictional boundaries to better facilitate comprehension and responses to complex issues such as human health. Section 2.3 begins with a discussion of the "ecosystem approach to health" (see 2.3.1), which is one of the most recognized approaches that views health systemically and holistically, seeking to incorporate participatory and

collaborative approaches into local decision-making and governance. Similar to the emerging themes coming out of the preceding sections, the theoretical foundation of the ecosystem approach also highlights the importance of systemic thinking, the consideration of unique socio-ecological context, integrative and collaborative partnerships, anticipatory and adaptive decision-making, and an emphasis on local engagement for governments and citizens through participatory processes. Such an approach provides us with a normative framework in which to guide future health conceptualization and governance. Nevertheless, it is important to compare and contrast this approach with reality, (i.e. the ways in which human and public health has actually been managed within policy and practice on the ground). Therefore, the remainder of this chapter is devoted to providing an overview of the evolution in thinking that has occurred in human and public health theory, practice and governance. Many of the governance trends and transformations described throughout this chapter are similar to those which have evolved within the historically distinct sphere of resource and environmental management (as outlined previously in section 2.2.).

2.3.1 The Eco-system Approach to Health

Ecosystems are the life-support systems on which human species and all other life forms on Earth depend. Essential ecosystem services that cater to the fundamental needs of humans include the provision of nutritional food, clean water and air, shelter, and relatively stable climatic conditions. Other ecosystem services that influence human health include the presence of intact watersheds, the provision of timber, fibre, fuel, and genetic diversity, biological products for medicinal purposes, transformation of solar energy, protection from natural hazards such as storms and floods, regulation of infectious diseases, the management and cycling of nutrients and wastes, and the provision of cultural, spiritual, and recreational services (Forget & Lebel, 2001; Cork, 2006; MEA, 2005). In addition to meeting some of life's basic needs, changes in ecosystem form and function can affect human livelihoods, income, migration patterns, and even political stability. Such scenarios can in turn affect one's sense of economic and physical security, freedom of choice and social relations, all of which have wide-

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ranging implications for human health and well-being (MEA, 2005). Any environmental degradation resulting in the disruption of these ecosystem services and natural resources may seriously affect human health outcomes (Forget & Lebel, 2001).

The breakdown of ecosystems under stress is often conducive to an increase in human pathogens (Rapport, 2002). Increasingly, imbalances in ecosystems are raising the vulnerability of humans to diseases through the reemergence of malaria, cholera, yellow fever and dengue fever, or the emergence of hanta-virus and AIDS, amongst others (Forget & Lebel, 2001; Rapport & Mergler, 2004). Even more widespread is the alteration of physiological and psychological functions that are associated with the accumulation of toxic substances from various sources such as pesticides, fertilizers, industrial pollutants, vehicle emissions, etc. (Rapport, 2002). "These toxic substances transmitted via complex pathways through soil, air, water, consumer goods and food, passed from mother to fetus and often accumulated in breast milk, are undermining collective health and well-being" (Rapport & Mergler, 2004, p.5). Contamination by toxins can also result in compromised food supplies, scarcity of potable water, and air pollution, all of which increases human health vulnerability (Rapport, 2002; Rapport et al, 2003). Other examples of stresses include global climate change which alters vegetation cover, and precipitation patterns in some parts of the world, with potentially disastrous effects on agricultural output. In addition, the thinning of the ozone layer is causing a rise in ultraviolet radiation reaching the earth's surface, increasing the risk of living beings contracting skin cancer, cataracts, and sunstroke, along with reducing the efficiency of the immune system (Forget & Lebel, 2001, p. S18). Due to increased recognition that so many diseases have their origins in adverse environmental changes, there is a growing awareness by both medical and public health practitioners of the need to look "upstream" in order to address human health vulnerabilities that are arising due to pressures that modern-day societies place upon the earth's ecosystems (Rapport et al, 2003).

Clearly multiple causal pathways exist that collectively contribute to the status of human and planetary health. The ways in which such ecosystem stresses are experienced are also dependent upon contextual circumstances. For instance, risks associated with pre-industrial states of development typically involve the consumption of contaminated foods and water, inadequate sanitary facilities, poor housing conditions, and exposure to vector-carried diseases and zoonoses (Forget & Lebel, 2001; Charron et al, 2005). Many of these affected societies are poor, have high rates of infant mortality and morbidity linked to communicable diseases. In addition, it has been shown that poor human health and well-being often result in further increasing pressures placed upon ecosystems. Available options for regulating the use of natural resources at sustainable levels can become overshadowed by attempts to meet immediate basic needs, thereby undermining an ecosystem's capacity to continue to deliver essential services. This can result in a downward spiral of increasing poverty and further environmental degradation (MEA, 2005). Conversely in the industrialized world, degradation is typically characterized by intensive, "modern" farming practices, mass industrialization, increased use of fossil fuels, chemicals and mineral resources, and increased pollution contaminating the air, water and soil. Health problems manifest in the form of non-communicable diseases including heart disease, and cancer (Forget & Lebel, 2001). The impacts of these various contaminants are difficult to detect on an individual basis, for health detriments are often the by-product of chronic episodes of exposure throughout a person's life-course (Halfon & Hochstein, 2002). Nevertheless, they are estimated to have far-reaching effects on societies, particularly when the impacts of these pollutants are coupled with poor socioeconomic conditions. Many populations and communities do not have the resilience to adapt to these changing conditions and emerging risks, due to a lack of material resources, relevant information, and public health infrastructure, as well as a lack of effective governance and civil institutions (MEA, 2005).

To summarize, health outcomes are nested within various social and ecological contexts at a variety of scales. Therefore, coordinated effort is required by sectors of society that lie well beyond the conventional jurisdictions of health-care, including, but not limited to, agriculture, industry, education, housing and social service sectors just as much as in medicine and public health (Mahler, 1981). Reform of the health care system, although necessary, is insufficient

(Hancock, 1999). Instead our governance systems must be reformed in ways that recognize social and ecological system complexity, and facilitate jurisdictional collaboration, integration, information sharing and capacity building in order to enable the identification of multiple points of intervention upstream while encouraging institutional forms that are able to adapt and respond to changing information and circumstances (Hancock, 1999; Rapport, 2002; McAllister, 2004).

Coinciding with this trend, is the growing recognition that strategies for maintaining healthy populations lie in the rehabilitation of ecosystems (when possible), or at the very least designing ecosystems that are more benign to human health by establishing conditions that reduce vulnerabilities (Rapport & Mergler, 2004). Ecosystem health is the capacity of a system to be self-sustaining and capable of carrying out all of its normal functions (Rapport, 2002). Ecosystem health is characterized not by the complete absence of stressors or pathology, but rather in terms of a system or community's ability to persist. Key parameters for persistence include the maintenance of resiliency, organizational abilities, and productivity (Rapport et al, 2003). Rapport (2002) explains that assessing the health of a system in terms of its functionality must be carried out with respect to specified goals. That is, health cannot be defined independently from human goals which are based on societal values and thus remain subjective.

Building on this knowledge, an ecosystem approach to health seeks to view and address health systemically and holistically, recognizing that health outcomes are by-products of complex system interactions. It considers all of the broad components that can affect the health of individuals and their wider communities by seeking to study and understand the interrelated factors that exist at a variety of spatial and temporal scales. Human health is viewed within the context of the broader socio-ecological system in which they are a part of, which includes not only the biophysical/natural environment, but also sociopolitical and economic environments, individual lifestyles, and biologic makeup (Forget & Lebel, 2001; Rapport, 2002; Lebel, 2003). Humans are viewed as both part and parcel of the whole (Kickbusch, 1999; Honari, 1999; Arya et al, 2007). As outlined by Forget & Lebel (2001, p.S29), "the primary objective of the ecosystem approach is to enhance the health of communities by instituting ecosystem-

management methods that will foster the sustainability of the ecosystem itself and therefore the health of the human beings who are part of it". The focus is on trying to better understand how social and ecological system interactions translate into key determinants of health within particular settings, in addition to better understanding the impacts that human activities have upon the sustainability of the earth's life support systems and services (Lebel, 2003). This approach heavily contrasts with more conventional biomedical approaches to human health, which tend to focus exclusively on finding linear, and direct causal determinants of illness and disease (refer to the following section 2.3.2 for a more detailed description of evolving conceptions and approaches to human health).

Ecosystem approaches are designed to be anticipatory in nature rather than reactive, to address systemic failure, and to suggest practical solutions (Arya et al, 2007). Thus, the focus shifts from "fixing a problem" at the level of the individual after it has already arisen, to anticipating and preventing problems by reestablishing healthy ecosystems, which ideally have their full capacity to be resilient and adaptive (Rapport & Mergler, 2004; Kickbusch, 1999). Once socio-ecological determinants of health are identified, they can then be used to develop an appropriate social response and also to measure the effectiveness of any imposed interventions through continuous monitoring and evaluation (Forget & Lebel, 2001). Strategies can involve both prevention and mitigation of ecosystem disruptions. Obviously preventing or limiting environmental damage is most desirable, however, due to extensive degradation that has already occurred adaptive changes are also required to help protect individuals and populations from the adverse consequences of ecosystem change. Therefore both prevention and mitigation strategies are useful (MEA, 2005). Such strategic responses can be legal, economic, financial, institutional, social, behavioural, or technological in nature. Ideally strategies represent planned or anticipatory interventions; however, they can also become more spontaneous in nature during times of crisis.

The intrinsic complexity of socio-ecological determinants of human health makes it very difficult to describe, predict or control stressors and outcomes. As a result there are always inherent uncertainties when seeking to manage and plan for health. For instance the potential magnitude, timing and effects of environmental changes are difficult if not impossible to

predict, as is the sensitivity of human health outcomes to such changes or imposed interventions. Due to these inherent uncertainties, decision-makers can never fully predict the consequences of their actions. Therefore they must be willing to make changes once new and enlightening information becomes available. This requires an ongoing process of monitoring and evaluation, so that interventions can be refined and adapted as necessary, according to changing socio-ecological conditions or shifting social values (Forget & Lebel, 2001). Institutional structures and the overall decision-making environment must also be diverse, adaptable and able to respond to change.

The concept of multiple, nested and interacting hierarchies is crucial to the ecosystem approach. For example individual health is nested within the family, the local community, right on up to the global scale, and therefore health outcomes must be analyzed within these larger social and ecological contexts (Kay et al, 1999; VanLeeuwen et al, 1999; Forget & Lebel, 2001; Arya et al, 2007). In addition to being trandisciplinary, transboundary and adaptive in nature, the importance of strengthening local community action by building community capacity and enhancing local democracy has also been emphasized as crucial for the ecosystem approach (WHO, 1986, Arya et al, 2007). Community engagement is essential as it provides access to multiple perspectives including those of local citizens, and NGOs in addition to traditional government players. It also provides access to local knowledge about local ecological and human health conditions, and the impacts that policy has upon these conditions. It increases the likelihood that issues addressed are of greatest concern to those most affected, and encourages community members themselves to be involved in preparing solutions to problems thereby maximizing the probability that imposed interventions are accepted and adhered to (Forget & Lebel, 2001; MEA, 2005). It is also assumed that social and political equity is necessary to achieve true ecosystem health requiring wide-ranging reforms for governance, institutions, laws, and policies are required.

The theoretical foundation of the ecosystem approach highlights the importance of systemic thinking and the many synergistic determinants influencing health, the consideration of unique socio-ecological context, nested scales, integrative and collaborative partnerships, anticipatory and adaptive decision-making, and an emphasis on local engagement for governments and

citizens through participatory processes. This provides us with a normative framework for guiding future health conceptualization and governance. Nevertheless, it is important to compare and contrast this approach with reality (i.e. the ways in which human and public health has actually been managed within policy and practice on the ground). The following section (2.3.2) provides a brief overview of the evolution in thinking that has occurred in human and public health theory, practice and governance.

2.3.2 The History of Public Health Conceptualization & Governance

This section provides a brief overview of the evolution of thinking that has occurred in human and public health theory, practice and governance. It explains how evolving health policy has in part contributed to the gradual development of an integrative, systemic, and more participatory approach to health governance. Many of the trends and transformations described here are similar to those which have evolved within the historically distinct sphere of environment and resource management, (as outlined previously in section 2.2). Parallel developments have unfolded within the fields of public/population health, and resource and environmental management, which are evidenced by the many similarities between the concepts of sustainable resource development, and equitable health promotion (see section 2.3.2.1).

Since the late 1800s, public health objectives have shifted. Concerns which centred initially around broad environmental influences on health and sanitation shifted towards more reductionist concentrations on individual biomedical factors and the absence of disease. Public health is now beginning to shift back towards trying to better understand the role of interactive social and ecological determinants of health at multiple scales. In other words, early orientations evolved into more of a silos approach to management, which has since been increasingly challenged by proponents advocating the adoption of more systemic considerations and interventions.

By the late 1800s, the infant stages of public health were characterized by a complex interaction of initiatives in various governance sectors. This era is often referred to as the "sanitary stage", as public health initiatives were part and parcel of a broader sanitary movement. Many of the earliest public health champions were social reformers representing a wide range of issues of concern including child labour, working and housing conditions, education and sanitation (Kickbusch, 1989). For instance, contaminated drinking water and waste disposal were beginning to be addressed, while housing and working conditions were improved due to policies that reduced overcrowding, and improved factory conditions. This period also witnessed the rise of trade unions. In addition, compulsory education was introduced and literacy was encouraged, along with hygiene education, family planning initiatives, and increased social rights for women, workers and children (Kickbusch, 1999; Shahi et al, 1997). The work of Thomas McKeown (1979) was instrumental in detailing the importance of these societal developments in bringing about significant improvements in population health by the late 1800s. Resulting improvements in health outcomes were an expression of societal development and progress, which coincided with the assertion that certain socioeconomic conditions were no longer socially acceptable.

By the early 1900s, however, the notion of human health and in particular "healthcare" became increasingly dominated by germ theory and the medical profession. The holistic approach of the sanitary era was gradually abandoned for scientific, reductionist, biomedical approaches (e.g. medicine, behavioural epidemiology, toxicology, chemistry, physics, and preventive medicine) (Parkes et al, 2003). This in part explains the historical emphasis placed on primary care and reactionary health policy and in turn the present-day entrenchment of such emphases institutionally throughout the Canadian health care system. As in public administration and models of resource and environmental management; the theoretical principles guiding modern scientific medicine in part originated from the "Age of Reason". The tendency is to view reality as consisting of various parts, existing in linear causal relation to one another. This mechanistic or reductionist view is often accompanied by the notion that humans dominate, and are separate from nature (Nijhuis, 1989; Merchant, 1992; Kickbusch, 1999). The analogy of the machine is employed due to the assumption that the Earth and humans are made up of parts, based on order and regularity, and operating free of contextual influences (Merchant,

1992). One primary consequence of this adopted paradigm is that health was less often viewed from the vantage point of the "systemic whole", and therefore it is not surprising that health care took on a highly individualizing, mechanistic character. The early developments of this orientation became the dominant ideology underlying western science, economics, and public administration. This line of thinking became systematically engrained and institutionalized in many countries, including public health departments.

The biomedical approach seeks to uncover linear, direct causal factors for illness and disease. Individuals instead of communities are the "unit" of concentration in an attempt to explain how certain lifestyle behaviours produce increased risks for various non-communicable diseases such as obesity, asthma, cardiovascular disease, cancer, depression, etc. (Parkes et al, 2005). Health promotion strategies increasingly targeted individuals, rather than organized community or society-wide mechanisms that could encourage health enabling environments or living conditions that were adequate for individuals and families to secure and maintain their own health (Kickbusch 1989; Kickbusch, 1999). The social dimensions of disease and poor health including the impacts of economic systems and cultural values were no longer involved in diagnostic analysis, or therapeutic activities (Nijhuis, 1989; Corburn, 2004). As a consequence, and similar to "end of pipe" interventions within environmental management, health policy, research, and resource investments became very reactionary focusing on providing cures and interventions during periods of illness and death, as opposed to investing in strategies and enabling environments that would help to promote and maintain health in the first place (Kickbusch, 1989). Despite the fact that there is once again a growing recognition of the importance of accounting for socioeconomic and ecological determinants of health, there remains a great challenge in translating such policy recommendations into practice. This is particularly the case under current institutional arrangements and processes, due to their theoretical foundations, and inability to perceive and address health problems holistically (Nijhuis, 1989).

The dominance of medical professionals in health care has resulted in public health taking on a "top-down" persuasion. The "specialist" providing care is viewed as an authoritative figure with exclusive expertise. This top-down approach also exists at the institutional level with

bureaucrats and management determining "what is wrong" and subsequently drawing up intervention strategies (Nijhuis, 1989). In either case, little regard is given to the importance of democratic process, and citizen engagement in helping to determine health policy priorities and strategic actions (Waltner-Toews, 2000). Nijhuis (1989) asserts that in relation to this "top-down" approach, is the "closed" character of many local public health departments. The majority of efforts are placed on reviewing *internal* procedures and resources annually, with little attention paid to health issues or initiatives undertaken outside of the particular institution in question. That is, silos have been erected; poor information exchange exists, along with a general lack of collaboration amongst various sectors that could collectively advance public health. A similar criticism could be applied to non-governmental and civil society organizations that compete against each other through lobbying the government for political recognition and limited financial resources. Many of these groups work in isolation from one another towards similar objectives, instead of working cooperatively towards the implementation of common strategic goals.

In response to some of these theoretical and administrative concerns, a resurgence of calls for more integrative, systemic approaches to conceptualizing health, in addition to more participatory health governance strategies has unfolded over recent decades (Mahler, 1981; WHO, 1988; Ashton, 1989; Kickbusch, 1989; Hancock, 1990; Eyles et al, 1996; Hancock, 1997; Hancock, 1999; Honari, 1999; VanLeeuwen et al, 1999; Forget & Lebel, 2001; Freudenberg, 2004; Rapport, 2004; MEA, 2005; Arya et al, 2007). In recent years a whole new range of health issues have emerged, including global ecological risks (e.g. destruction of the ozone layer, nuclear proliferation, environmental toxins getting into human food systems, etc), in addition to health risks associated with the social, cultural and economic organization of societies (MEA, 2005; Public Health Capacity Review Committee, 2005). Risk patterns arising from these types of problems tend to be cumulative, making it difficult to establish straightforward cause-effect interactions and interventions. Reactionary or biomedical modes of conventional health approaches are therefore ill prepared for dealing with these particular health risks, leading to wide-ranging reconsiderations of how health should be conceptualized and managed. Gradually, emphasis is shifting away from an exclusive focus on individual health to one which considers how the health of individuals influences, and is shaped by, the

health status of communities or populations at various nested scales. Health is not merely the absence of disease, but also a product of broad and interactive social, economic, and biological determinants. For example, economic and physical security, income, social supportiveness within communities, access to education and occupational opportunities, adequate housing, etc. have all been shown to be important determinants of health (Gardner et al, 2005; Hancock, 1999; WHO, 1986). Concurrently is an increased demand for more "systemic" approaches to health that seek to integrate investments in prevention and health promoting environmental approaches, with conventional strategies of diagnosis and cure (Shahi et al, 1997; Kickbusch, 1999). The following paragraphs summarize this evolution in thinking.

A number of descriptive models of human health proposed and utilized in both theory and practice, represent the considerable evolution of our understanding of health and its various determinants (VanLeeuwen et al, 1999). Parkes et al, (2003) provide a detailed description of the core themes, generic concepts, and complementary and converging work which have emerged from the fields of environmental health, ecology and health, and human ecology over the last 20 years. They describe the various approaches to identifying differences in health outcomes, including associated implications for health promotion and protection strategies. Each of these fields provides insights and constructs applicable to public health interventions, and other complex problem areas at different temporal and spatial conceptual scales. They suggest that these paradigms provide opportunity for convergence and complementary approaches to addressing the overlapping problem fields of health, environment, and the sustainable development of communities.

The World Health Organization (WHO) defines environmental health as "encompassing the theory and practice of assessing and controlling factors in the environment that can potentially adversely affect the health of present and future generations" (WHO, 1993, p.18). Parkes and colleagues (2003) explain that the field of environmental health is traditionally grounded in medicine, epidemiology, toxicology, chemistry, ecology, and physics, and therefore has strong roots within the biomedical approach outlined above. As a consequence, practitioners of environmental health have been generally concerned with the more *direct* biophysical effects of the environment on health. While these

relationships are important, the traditional environmental health approach is limited in its capacity to identify interventions for problems that are more complex and remote in time or space (ibid, 2003). For instance, global climate change is a contemporary issue which has pushed the conceptual limits of the traditional environmental health paradigm (McMichael et al, 1996). As Guidotti (2003) articulates, "issues involving atmospheric change have alerted us to the significance of indirect health effects, such as stratospheric ozone depletion which require several steps between first cause and human impact. Such a chain of causation that eventually results in a tangible hazard (e.g., ultraviolet exposure associated with stratospheric ozone depletion) represents a more complicated and uncertain extension of the basic biomedical model" (p. 361). Both Guidotti (2003), and Parkes et al, (2003) suggest that such indirect health linkages can be better explored through fields which are dedicated to exploring complex interrelationships (e.g. ecology).

Health and Welfare Canada's "Lalonde Report" (1974) opened up the door to a new approach to conceptualizing health policy and planning, within Canada and the world at large. The document proposed a "health fields" concept that recognized four major influences on health: the organization of healthcare, human biology, the environment, and living habits or "lifestyle," in increasing order of importance (Hancock, 1990; Forget & Lebel, 2001). Despite the fact that *individual* living habits were viewed as paramount, this document was significant for it was the first time that a major national public health document had explicitly recognized the importance of environmental factors for human health. In addition, it recognized that the major determinants of health went well beyond medical and hospital care. Nevertheless, the emphasis placed upon individual lifestyle factors (e.g. smoking, nutrition, exercise, etc) had the unfortunate effect of downplaying the importance of broader environmental impacts on health. Despite the emphasis on individual behaviours, the Lalonde Report along with the field of social epidemiology began to shed light on the fact that personal choices can in actuality be dictated by social environmental factors (VanLeeuwen et al, 1999; Forget & Lebel, 2001; Guidotti, 2003; Parkes et al, 2005). Particular attention also began to be paid to the need to reduce inequalities in health, which result primarily from inequities in access to the basic prerequisites of health (Hancock, 1990). For example, the work of Krieger (2001)

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acknowledged the importance of factors such as crowding, poor housing, social inequalities, poverty, deprivation, and psychosocial processes influencing health.

A similar trend was also developing at the global level. The World Health Organization (WHO) became the major public health agency at the global level advocating for structural change in relation to planning for health, and adopting the goal of "Health for All by the Year 2000" (laying its foundations in 1977). The idea was that "all" citizens should be able to attain a level of health that would permit them to lead socially and economically productive lives (WHO, 1997). The "all" implies social justice, equity and the basic human right to health (Kickbusch, 1989). A common European policy, based on the principles of Health for All (HFA) was agreed upon by all European Member States in 1980. This was elaborated into a detailed health strategy with 38 targets that were approved in 1984 and updated in 1991. By the year 2000 all Member States were to have developed and implemented the ambitious objectives of ensuring that all policies on the environment and health would ensure ecologically sustainable development, effective prevention and control of environmental health risks, and equitable access to healthy environments (WHO, 1997).

The "Environmental Health Action Plan for Europe" (WHO, 1994) and the "Declaration on Action for Environment and Health in Europe" (WHO [b], 1994) describe the environmental health action to which the European Member States of the WHO are committed. They are intended to achieve the health policy objectives of the WHO's European strategy for HFA. Emphasis is placed on "improving environmental and institutional health structures including an environmental health information system; systems to identify and assess environmental hazards; a framework of enforceable legislation; control measures, including economic and fiscal instruments; environmental health services; professional training and education; public information and health education; and research and technological development" (WHO, 1997, p. 40).

As Hancock (1990) explains, the new thinking unfolding in both Canada and Europe continued to converge, culminating in the 1986 conference in Ottawa which saw both the WHO Europe and Health and Welfare Canada adopt the concept of "health promotion". One of the central

tenets behind the concept of health promotion is the importance of creating processes which enable people to increase control over and improve their own health, which includes being able to change or cope with their environmental surroundings (WHO, 1986). It is a positive concept emphasizing social and personal resources in addition to physical capacity. Consequently, within public health practice, efforts of community development and the facilitation of social capital have been identified as crucial components to addressing health determinants and community concerns. Voyle & Simmons (1999) define community development as the process of organizing and/or supporting groups and individuals in identifying their own health issues, devising strategies for social action and change, and gaining increased self-reliance and decision-making power as a result of these activities. The principles of community development and capacity building are central to the five major action areas and priorities outlined in the Ottawa Charter for Health Promotion (WHO, 1986) which recognizes the need for:

i)   building healthy public policies (i.e. putting health on the agenda of other policy sectors such as urban planning, economic development, transportation, social services, etc),

ii)   creating supportive environments both physical and social,

iii)   strengthening community action (through networking and coalition building),

iv)   developing personal skills (empowering individuals to take control over their own lives and environments), and

v)   reorienting health and other urban services (WHO, 1986)

All of these priorities require collaborative partnerships and efforts to nurture relationships among institutions and community groups that are more equitable in their power sharing (Waltner-Toews, 2000). As Voyle & Simmons (1999) articulate, one of the key challenges for health professionals and bureaucrats is therefore the ability to complement and strengthen existing resources, skills and knowledge within their communities, rather than continuing to override or dominate decision-making processes. Potential roles that professionals and bureaucrats may adopt therefore include those of a consultant, advocate, mediator, supporter, and repository for resources. It is argued that social capital (i.e. social networks, norms, trust,

and reciprocity) is essential to facilitating community coordination, collective decision-making and the ability to collaborate based on shared interests (Putnam, 1993; Murray, 2000; Veenstra, 2001; Wakefield, 2001). For example, involvement in various aspects of community life such as team sports, social clubs, and other community-based organizations may produce self-reinforcing networks and shared norms between citizens which may then further encourage civic engagement and collective action for mutual benefit (Wakefield, 2001; Lerner, 2006). Sarah Wakefield (2001) also summarizes literature claiming that an emotional connection or sense of place and belonging within a locale may also facilitate collective community action. Therefore both social capital and a sense of place are likely important contributors to community health and well-being both directly and indirectly. Indirect impacts can arise through the facilitation of action which therefore enhances the potential for positive change. In addition, direct positive impacts upon the health and well-being of individuals and communities can arise due to enhanced self-empowerment and efficacy.

Another key characteristic of health promotion, and the Ottawa Charter, is that they speak to a socio-ecological, or systems-based approach to advancing health (refer back to section 2.3.1 on the Ecosystem Approach for details). Health promotion takes on a settings approach, working with people where they live, work, play, etc. Therefore decision-makers with great influence over health outcomes are by no means limited to physicians or health care practitioners. The creators of health are those who produce our food, manage our waste and natural resources, create jobs, and educate our children, etc (Hancock, 1999). It is these partners who must be involved in promoting healthy communities.

While the concept of health promotion has gained significant popularity, reactionary care and policy approaches are still very much entrenched. With only a finite set of resources available, it is very difficult to convince decision-makers and the general public to invest more money into creating health-enabling environmental conditions if it means that this must come at the expense of available health care, diagnostic, and treatment dollars. As a collective, the public might support a more anticipatory or systemic approach to health; nevertheless, once an individual or a loved one falls ill in our society we have come to expect immediate treatment from experts readily available to take the burden of uncertainties off of our shoulders by

prescribing a miracle antidote. That leaves the rest of us free to continue on with life as usual, consuming and engaging in the very behaviours that may actually be undermining our health in the first place. Decision-makers have the difficult task of confronting a complex set of demands; including ecological, social and cultural factors when attempting to employ an integrated and systemic approach to practicing and governing health.

Certainly, the field of environmental health has been groundbreaking in fostering a better understanding of the broad environmental determinants of health. However, expertise with respect to understanding biophysical and social environmental influences on health, are still largely divided into distinct fields, resulting in separate rather than interactive analysis. This is despite the recognition that the *interactions* between these two areas are likely to be most relevant in producing health impacts. As a result, throughout the 1980s and 90s there were increasing calls for the integration of social and ecological determinants within epidemiology, and public health practice (McMichael, 1999; Krieger, 2001).

The fields of human and health ecology have also been instrumental in further developing integrative conceptual frameworks, as analysts aim to understand the complex networks of interactions and linkages existing between individuals, populations, communities, and their environments (Honari, 1999; Rapport, 2002).   Human ecology extended the notions of traditional ecology and health studies by explicitly traversing the boundaries between nature and culture, and environment and society (Parkes et al, 2003). While the emphasis on health is not always explicit, human ecology highlights that sustainable development and human health are entirely dependent on the maintenance and protection of ecosystem goods and services (Costanza et al, 1997; Cork, 2006), and that human factors including social, cultural, and economic development processes are drivers of ecosystem change. Parkes and colleagues (2003) assert that the real strength of a human ecological perspective is its ability to highlight the double health inequities of social and environmental disruption, as well as the potential "double dividend" of health benefits that can occur through building social and ecological resilience (i.e. the capacity to cope and maintain functionality despite external stresses resulting from social, political, or environmental change). They go on to explain that the limitations of ecologically oriented theoretical approaches in regards to public health practice

are that health considerations are often implicit, direct causal attributions unclear, resulting in many uncertainties when it comes to governance, decision-making and the design of appropriate intervention strategies.

2.3.2.1 Parallels in Sustainable Development & Health Promotion

The World Health Organization has defined health as a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity (1986). This very broad, and perhaps ambiguous, definition has nevertheless been instrumental in challenging conventional biomedical emphases. However, there remains a need to redefine health in terms of a broader appreciation of individual and societal well-being within the context of dynamic developmental and environmental well-being (Shahi et al, 1997). Otherwise we may fail to consider adequately the long-term implications of various health promotion goals on the health of the planet and broader society. This raises questions about the sustainability of that which we consider to be "health gains" in the short-term.

Despite the fact that there is a growing awareness that humans cannot achieve and sustain health if their surrounding environments are unhealthy, health promotion and population health models often fail to acknowledge that improvement in certain health indicators (e.g. longevity, and income) may also be associated with increased resource consumption and depletion (Rainham & McDowell, 2005). Initiatives to enhance prosperity can exert considerable stresses on the planetary biosphere and ecological integrity. In order to be sustainable, health policy must not only focus on individual gains, but also be considered within a broader and longer-range context, which includes effects on global life-support systems, patterns of human development, and ecosystem interactions. Human health gains must be obtained within the limits imposed by the carrying capacity of the planet; otherwise many of these "gains" are realized by trading off the potential for further gains to be made by future generations (ibid, 2005). In order to be sustainable, public health practice must integrate health, environmental and developmental concerns, recognizing that development and health gains must be met in conjunction with sustainable stewardship of natural resources and the environment (Shahi, Hartvelt & Sacks, 1997).

In addition to shifts in the ways in which we think about health, the 1970s also witnessed significant changes in the ways in which we conceptualize our relationship with the environment and our natural resources. For many years the economic performance of society was viewed as the most important indicator of human progress, but it was becoming clearer that not all economic activity was beneficial, and in fact it often depleted human, social and ecological capital (Hancock, 1999). Increased attention to environmental problems was brought on by the early signs of global environmental degradation including global warming, and ozone depletion. The need for embracing more ecologically sustainable forms of economic development was becoming increasingly apparent.

In 1986, the Ottawa Charter for Health Promotion listed a set of prerequisites for health including peace, food, shelter, education, income, a stable ecosystem, sustainable resources, social justice, and equity. The inclusion of ecosystem services and resources in this list was of particular importance, and in part due to anticipation of the report on sustainable development that was in the process of being developed by the World Commission on Environment and Development (1987) (otherwise known as the Brundtland Report). This was the first time that the WHO had acknowledged these items as important determinants of health (Hancock, 1999).

The Brundtland Report drew attention to the need for economic development to be environmentally sustainable. While its 1987 report did not refer specifically to addressing human health, it clearly identified the role that human beings play in changing the environment and established unequivocally the impact that environmental changes have on human health and well-being (Forget & Lebel, 2001, p.S8). The report also recognized that health and development are intimately related. On the one end of the spectrum, underdevelopment is directly associated with poverty, while on the other end, inappropriate modes of development (e.g. intensified farming practices, mining, irrigation, and hydroelectric developments, etc) can lead to the over-consumption of resources, and the degradation of ecosystems. Both extremes have negative implications for human health (Forget & Lebel, 2001; Rainham & McDowell, 2005).

The WHO's Global Strategy for Health for All (HFA), (1981), The Ottawa Charter for Health Promotion (WHO, 1986), and The Brundtland Report (World Commission on Environment and Development, 1987) together outline a global agenda for change, utilizing sustainable development as a guiding principle, with the focus being on health, the environment, the economy, and the integration of ecological considerations into decision-making processes. According to Hancock (1990) the concept of sustainable development challenges HFA through its focus on natural ecosystems, the health of the environment, and a concern for future generations. Conversely, HFA challenges sustainable development through its focus on social systems, human health, and concerns for social equity (p. 9).

The concepts of "sustainable development" and "health for all" underline the importance of better understanding the holistic and complex nature of our ecosystems. Other common fundamental principles identified by the WHO (1997, p.46) include the following:

1. Development must be equitable if it is to be truly sustainable,
2. An interdisciplinary and holistic approach is required,
3. The social and ecological interdependence of communities must be recognized,
4. Sustainable development is inseparable from economic, health and social development,
5. Sustainable development requires commitment and cooperation of local governments,
6. Local support and local action are necessary, and therefore
7. Public participation is key to the process

Hancock (1990), reviews the key concepts of health, health for all, and sustainable development, claiming that each one supports the others. He examines the linkages between the concepts of health and sustainable development and proposes a model that links health, the environment and the economy. He later emphasized that a society's primary goal should not merely be one of economic development, but rather human development with an emphasis on improving the health, well-being and quality of life of individuals and populations. This requires forms of economic development that are environmentally and socially sustainable, for

both present and future generations (Hancock, 1999). Hancock proposes that the facilitation of human development requires an integration of environmental, social, and economic sectors, and provides a model which focuses on three interacting spheres of interest: social well-being, ecosystem health, and economic activity (See figure 1).

Kozlowski & Hill (1999) express similar sentiments defining sustainable development as "development which leads towards improving human health and welfare for present generations, while being contained within the carrying capacity of life supporting ecosystems to ensure that the ability of future generations to achieve the same goal is not compromised" (p. 120). It is no longer acceptable to consider environmental hazards or ecosystem disruptions as inevitable trade-offs for the socioeconomic and health benefits of development (Parkes et al, 2003). Innovative development strategies are required where mutually reinforcing benefits are pursued (Gibson, 2005).

Figure 1: Human Development Model (Adapted from Hancock, 1999)
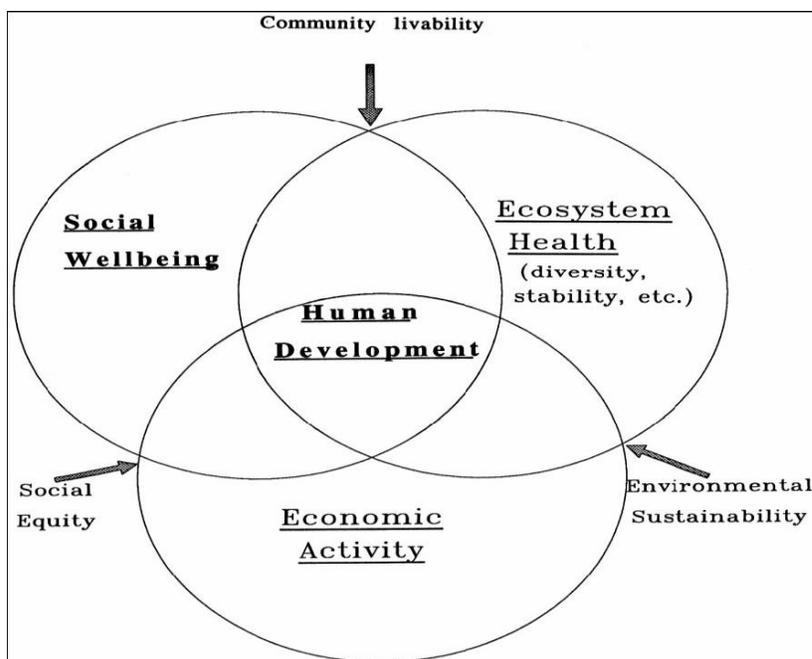
Figure: 1
Human Development Model

The overlap between economic activity and social wellbeing identifies the need for social equity, the overlap between economic activity and ecosystem health identifies the need for sustainability, the overlap between ecosystem health and social wellbeing takes us into the realm of community liveability. Health, wellbeing, quality of life – in short, human development – require a balance that optimizes social wellbeing and ecosystem health. Economic activity must support social wellbeing and ecosystem health if it is to be health-enhancing.
Adapted from: Hancock (1999).

In order to embrace the principles outlined in Figure 1 (in addition to those listed on the preceding page) policy integration must occur across a wide range of sectors. In addition, the

involvement and commitment of numerous partners at a variety of levels of governance is needed, including individuals, community organizations, businesses, and municipal, provincial, and national levels of government (MEA, 2005). The concepts of Health for All, Health Promotion, and Sustainable Development have begun to reestablish the links among health, sustainable development and social and political reform (Kickbusch, 1999). They are strongly oriented towards building healthy and sustainable public policy, and use the principles of democracy, participatory decision-making, equity, the sharing of resources, integrative expertise, and multi-agency partnerships to guide governance and decision-making (Kickbusch, 1999; Middleton, 2003).

These documents also identify the need for restructuring legal systems, in addition to the underlying social and political infrastructure. Their agendas are very similar, indicating a broader paradigmatic shift in our understanding of the interrelationships between humans and their environments. While the parallels of securing sustainable ecosystems and sustainable healthy policies have been recognized in theory (Middleton, 2003), there is a great need for empirical and practical examples on the ground. Research is specifically needed with respect to addressing the challenges facing governance agents as they attempt to adopt such systemic and integrated policy and decision-making approaches. In particular, further exploration into *how* the above principles can be achieved is needed.

2.3.2.2 The Healthy Cities/Communities Project

The preceding sections have provided an overview of the theoretical antecedents and criticisms that have contributed to emerging innovations of relevance to evolving human and community health conceptualization and governance. A large literature discusses some of the responses which have unfolded within policy and practice on the ground as various initiatives have emerged in an attempt to embrace the principles of integrative, systemic, participatory, and adaptive decision-making. For the purposes of maintaining a manageable scope, only one example of such initiatives is provided below to illustrate the parallel developments in sustainable community health policy and practice on the ground. The Healthy Cities/Communities Project demonstrates an explicit attempt to engage citizens at the local or regional level in participatory decision-making processes and to integrate and address a broad

range of determinants of health including biophysical, socioeconomic, and political factors. It also illuminates the potential for alternative, innovative and collaborative governance arrangements.

In various places throughout the world, including those with tenuous holds on democracy, local governments are recognizing the political necessity of consulting a wider diversity of stakeholders through more participatory decision-making processes. Recognition of the systemic basis of many problems including those related to environment or health, has generated some holistic approaches to decision-making. In the local context, one of the best known has been the Healthy Cities/Communities Project which acknowledges the integrated relationships among social, political, economic, and bio-physical health. The idea for the project originated in Toronto in 1984, during a workshop entitled "Healthy Toronto" in which Trevor Hancock and Leonard Duhl proposed a model of a healthy community (Ontario Healthy Communities Coalition, 2007). The idea was quickly embraced in 1987 at the international level by the World Health Organization which initiated its Healthy Cities Project.

The Healthy Cities or Healthy Communities movement now includes more than 7500 cities and towns throughout the world, in addition to more than twenty regional and national networks of collaboration (ibid, 2007). Within European cities, the first phase of the project (1987-1992) emphasized advocacy and, through tackling political and institutional barriers to change, laid the foundation for successful work towards Health for All strategies. The objectives of the second phase (1993-1998) included facilitating the adoption of strategic policies at city or municipal levels, strengthening national and sub-national support systems, and building linkages with other sectors and organizations that influence urban development and health (WHO, 1997). Clearly this initiative was an attempt to foster collaborative governance across nested scales.

Each city participating in the Healthy Cities Project (HCP) became involved in a unique manner. For some the process started with an external consultant, others had momentum stemming from within their health department, while others were brought on by citizen pressure (WHO, 1988). In Ontario, the Ontario Healthy Communities Coalition (OHCC) grew

out of discussions between Dr. Hancock, and representatives from the Ontario Landscape Architects Association in 1986, which led to the creation of a broad coalition of provincial associations interested in promoting Healthy Communities (OHCC, 2007). The Coalition was largely an informal group until 1991 when there was a proposal and request for funding to develop a provincial secretariat and create regional support systems. In 1993 a Secretariat was established to provide a broad range of services and resources to help locally oriented Healthy Communities initiatives to become established and strengthened. While the OHCC rarely provides direct funding to local communities, it does act as a health promotion resource centre, providing resources to support local healthy communities goals by bringing together a broad base of community and provincial representatives spanning the social, environmental, economic, and political spectrums. Through the coalition, the knowledge, skills, and experiences of local practitioners and citizens are shared and exchanged for the purposes of mutual learning.

The Healthy Cities Project (HCP) is part of the WHO's global strategy of "Health for All by the Year 2000". The guiding conceptual framework closely resembles the internationally accepted strategy advocated within the "Health for All" Framework and the Ottawa Charter. Integral components of the movement include:

- a strong emphasis on local level engagement;
- the importance of identifying and addressing community concerns and values (i.e. health is a social construct and can therefore only be defined within the context of community interest);
- an integrated ecological systems approach to decision-making (e.g. intersectorality, interdisciplinarity, and investment in "total" systems);
- a focus on the level of governance closest to the population, and therefore;
- the recognition that local governments have a critically important role to play in determining quality of life (e.g. public health should be central to city planning objectives and decision-making);
- the concept of nested scales of health (i.e. quality of community life is determined significantly at the individual, family and community levels; and both human health

and quality of community life are directly related to the health and integrity of regional ecosystems)

- a focus on addressing inequitable health determinants, and facilitating equitable distribution of benefits derived from social and economic development
- enhancing personal control over health (i.e. strengthening and expanding community resources which enable people to mutually support each other in performing life functions and developing to their maximum potential)
- enhancing community capacity (e.g. collaborative partnerships, networking, and skill building)

(WHO, 1986; Kickbusch, 1989; WHO, 1997; Wismer, 1997; Rapport, 1999; Connell, 1999; Honari, 1999; OHCC, 2007).

Local governments were quick to pick up the "vision" of this international movement; nevertheless, they have been slow to internalize the implications through institutional change, responsive public administration and local governance. Hindering the process have been the previously discussed conventional approaches to administration and policy-making that attempt to deal with complexity by breaking up problems and reducing them to manageable pieces. In addition, local governments face many challenges to promoting long-term sustainability given limitations posed by institutional and legal boundaries, competing public demands, fiscal challenges as they attempt to respond to growing demands and responsibilities within a limited resource base, and an over-reliance on property taxes and new developments.

The main responsibilities of local governments originally centred around providing "hard services" and infrastructure including roads, sewers, water, and public transit. Provincial levels of government predominantly took care of the "soft services" such as those which fall under the realm of health and social services. Increasingly responsibility over these soft services is being downloaded to local level jurisdictions; however, funding proportionate to the diverse needs and demands has not been forthcoming from the provinces (McAllister, 2004). Inadequate revenues in the face of downloading and increased public demands is limiting the ability of local governments to control unsustainable, ecologically degrading, and unhealthy forms of development (Dearry, 2004; McAllister, 2004). As a result, researchers and

practitioners are now beginning to pay more and more attention to the role of land-use decisions and how the built environment influences community and population health (Dearry, 2004; Corburn, 2004).

Ontario is unique among Canadian provinces for its involvement of municipalities in the funding, and in some cases, the delivery of public health programs. In other provinces public health is provincially funded and operates through regional health authorities. Due to the above mentioned challenges facing Ontario municipalities in recent decades, many communities are facing tensions between public health departments and local governments as municipal councils struggle to meet their requirements for a balanced budget, while health units seek to meet their provincially mandated program obligations. This has led to doubts as to whether it is in the best interest of either party to tie essential health services to the level of government facing the greatest financial limitations. Nevertheless, municipal involvement with public health has also brought many strengths and opportunities such as the ability to create healthy public policies in other sectors which are relevant to health that fall under municipal jurisdiction. For these reasons, and also to continue to build capacity for healthy communities in an integrative fashion, health units are expected to play unique collaborative and coalition building functions within their communities due to their extensive links to educational programs, social services, housing, food production, water systems, and environmental programs (Public Health Capacity Review Committee, 2005).

Diverse sets of literature have consistently demonstrated that close associations exist between social and biophysical environmental conditions and human health. Therefore, the real challenges lies in discovering what to do with what we already know. That is, the evidence is in, now how can we move towards effective policy implementation and sustainable governance and decision-making? As outlined previously, conventional jurisdictional boundaries do not typically align well with problems relating to ecological or human health. Therefore, if an ecosystem approach to health is to be adopted, then systems of local governance require extensive reforms. As demonstrated above resource and environmental management, sustainable development, as well as human/public health management and health promotion, all have shared characteristics and overlapping potential, particularly when it

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comes to implications for local governance. Evolving theoretical constructs, models, and expertise within policy and practice have offered up parallel recommendations for systemic reforms required for enhancing governance capacity to improve health. Close examination reveals striking similarities between these historically divergent areas of governance. The following section outlines the emerging themes and essential criteria that are required for local systems of governance if an ecosystem approach to conceptualizing and managing health is to be adopted.

2.3.3 Summary & Emerging Governance Criteria for Advancing an Ecosystem Approach to Community Health & Well-Being

This section provides a summary of the emerging themes from section 2.3, which are also evident in policy and practice on the ground as discussed in the example above. Based on these themes, a set of criteria has been produced which represent essential requirements for local systems of governance if an "(eco)-systems" approach to conceptualizing and governing community health and well-being is to be advanced. The criteria closely resemble the themes which were summarized at the end of section 2.2. The criteria are then used as a guiding framework for case study analysis, and in constructing interview questions for qualitative interviews that were conducted with key informants throughout Norfolk County in order to further test their significance and feasibility on the ground (refer to Chapters 3 & 4 for more information).

Recent decades have witnessed a resurgence of calls for more integrative, systemic approaches to conceptualizing and governing health (Mahler, 1981; WHO, 1986; WHO, 1988; Ashton, 1989; Kickbusch, 1989; Hancock, 1990; Eyles et al, 1996; Hancock, 1997; WHO, 1997; Wismer, 1997; Hancock, 1999; Honari, 1999; Rapport, 1999; Connell, 1999; VanLeeuwen et al, 1999; Forget & Lebel, 2001; Freudenberg, 2004; Rapport, 2004; MEA, 2005; Arya et al, 2007; OHCC, 2007). The focus is on trying to better understand how social and ecological system interactions translate into key determinants of health within particular settings, in addition to better understanding the impacts that human activities have upon the sustainability of the earth's life support systems and services (Lebel, 2003; OHHC, 2007). A common

feature is the need for human health to be viewed within the context of the broader and nested socio-ecological systems in which they are a part of, which includes the natural environment, sociopolitical and economic environments, individual lifestyles, and biologic makeup (Health & Welfare Canada, 1974; WHO, 1997; Honari, 1999; VanLeeuwen et al, 1999; Forget & Lebel, 2001; Rapport, 2002; Lebel, 2003; Arya et al, 2007). Each place is faced with different socio-ecological pressures and challenges, and therefore it is important for decision-makers and policies to recognize and respect unique and distinct socio-ecological contexts. Health is a social construct and therefore health objectives can only be defined within the context of the community of interest through identifying citizen concerns and values (WHO, 1997; Rapport, 2002). Therefore the first criterion is as follows:

> i) *A systemic approach to thinking must be adopted to provide integrated consideration of the many interactive determinants of health, and to pursue initiatives that produce multiple and mutually reinforcing benefits in many areas. Community health, ecological integrity, and sustainable livelihoods are inseparable. Natural and human systems be understood as one complex system. Careful consideration must be given to the unique socio-ecological context within each distinct place including the concerns and values of local citizens*

Health outcomes are nested within various socio-ecological contexts at a variety of scales. Therefore, coordinated effort is required by sectors of society that lie well beyond the conventional jurisdictions of health-care, including, but not limited to, agriculture, industry, education, housing and social service sectors, etc (McKeown, 1979; Mahler, 1981; Kickbusch, 1989; Hancock, 1999). In addition to the coordination that is required within government, partnerships at a variety of levels of governance is also needed, including citizens, community organizations, businesses, and municipal, provincial, and national levels of government (WHO, 1986; Hancock, 1990; Public Health Capacity Review Committee, 2005; MEA, 2005; Arya et al, 2007; OHCC, 2007). This includes the sharing of resources, building networks, and improved dissemination of knowledge. Therefore criterion number two states:

> ii) *Adopting a systems approach to building a healthy community requires integrated decision-making through inter-sectoral action within and across governments, in order to promote healthy public policy in all areas. Inter-jurisdictional collaboration, partnerships, and the sharing of diverse information must exist within and between governmental and non-governmental agents.*

Initiatives to enhance prosperity can exert considerable stresses on planetary health and ecological integrity. Improvement in certain health indicators (e.g. longevity, income) may be associated with increased resource consumption and depletion (Hancock, 1999; Rainham & McDowell, 2005). In order to be sustainable, human health gains must not focus only on individual benefits, but also consider the broader, and longer range context; which includes effects on patterns of human or community development, ecosystem interactions, and stewardship of natural resources. Otherwise, health "gains" are realized by trading off the potential for further gains to be made by future generations (Shahi, Hartvelt & Sacks, 1997; Hancock, 1999; Kozlowski & Hill, 1999; Rainham & McDowell, 2005). Society's primary goal should not be merely one of economic development, but rather human development with an emphasis on improving the health, well-being and quality of life of individuals and populations (Hancock, 1999). Long-term, anticipatory planning by decision-makers is required to ensure that policies are sustainable for both present and future generations (Kickbusch, 1999; Rapport & Mergler, 2004; Arya et al, 2007). In order for policy to be sustainable, particular attention must be paid to the need to address inequitable health determinants, and access to the prerequisites of health, and to facilitate equitable distribution of benefits derived from social and economic development (Hancock, 1990; Krieger, 2001). Health is a basic human right (WHO, 1986; Kickbusch, 1989; WHO, 1997, Wismer, 1997; Rapport, 1999; Connell, 1999; Honari, 1999; OHCC, 2007). This points to criterion three:

> iii) *A systems approach to a healthy community requires that governance agents incorporate long-term planning into their decision-making in addition to considering issues of inter and intra-generational equity. This requires anticipatory, rather than reactive approaches to problem identification and interventions. Recognizing that uncertainties will always exist is essential, and where there is threat of irreversible negative health impacts the precautionary principle should be exercised.*

The intrinsic complexity of socio-ecological determinants of human health makes it very difficult to describe, predict or control health stressors and outcomes. As a result there are always inherent uncertainties when seeking to manage and plan for health (Forget & Lebel, 2001; Parkes et al, 2003). Due to these uncertainties, decision-makers can never fully predict

the consequences of their actions. Therefore they must be willing to make changes once new and enlightening information becomes available. This requires an ongoing process of monitoring and evaluation, so that interventions can be refined and adapted as necessary, according to changing socio-ecological conditions or shifting social values (Forget & Lebel, 2001; Public Health Capacity Review Committee, 2005; Gardner, 2006). The fourth criterion is as follows:

> *iv)*   *Due to inherent uncertainties associated with an integrated approach to health conceptualization and governance, institutions must be adaptive and able to incorporate and respond to new information as it arises (including changing socio-ecological conditions, or shifting social values). This requires ongoing monitoring and evaluation, and a commitment to learning to provide decision-makers with feedback to support an ongoing process of policy modification.*

While the issue of transparency and accountability is one that is not emphasized frequently within the literature focusing on health promotion or ecosystem health, there are some notable exceptions (McAllister, 2004). In addition, maintaining transparency and accountable systems of government is a frequently discussed issue within health *care* management and bureaucratic administration (Public Health Capacity Review Committee, 2005; Hamilton District Health Council, 2006; Gardner, 2006; Salazar, 2006). Governance players trusting one another, and having clear roles and responsibilities, is crucial for effective and sustainable governance. Other research supports the notion that social capital (i.e. social networks, norms, trust and reciprocity) is essential to facilitating community coordination, collective decision-making and the ability to collaborate based on shared interests (Putnam, 2000; Murray, 2000; Veenstra, 2001; Wakefield, 2001, Lerner, 2006). These researchers also argue that the building of social capital requires a significant degree of transparency and accountability between collaborating governance agents. Criterion five is as follows:

> *v)*   *Governing for healthy communities requires transparency and accountability, and clear roles and responsibilities for all agents of governance*

Within the literature advocating for a systems approach to health, strong emphasis is placed on local level engagement, including the importance of commitment and cooperation from local governments (WHO, 1986; Kickbusch, 1989; WHO, 1997; OHCC, 2007). The argument is

that focus should be placed on the level of governance that is closest to the population, and that local governments have a critically important role to play in determining quality of life. Public health initiatives should be central to policy and planning objectives and decision-making in order to create health-enabling environments in which people can increase control over and improve their own health (WHO, 1986; Kickbusch, 1989; Kickbush, 1999; Corburn, 2004; Dearry, 2004; McAllister, 2004). One of the key challenges for local level bureaucrats and health professionals is to be able to complement and strengthen existing resources, skills and knowledge within their communities in addition to promoting more inclusive and equitable power sharing within decision-making (Waltner-Toews, 2000; Voyle & Simmons, 1999). This includes supporting groups and citizens to be able to identify their own health issues, and devise strategies for change (WHO, 1986). Criterion six is as follows:

> ***vi)***   ***The Local Government has an integral role to play in adopting, encouraging, and when possible, facilitating systemic, integrative, collaborative, and participatory approaches to governing for healthy communities. The local government must be trustworthy, and supportive of initiatives that help to inform and engage citizens. While this may not be a role that is exclusive to local government, they should nevertheless focus on developing and leading strategic partnerships and networks of collaboration. This requires publicly available information and effective channels of communication.***

In addition to commitment and cooperation by local governments, it is essential that local level engagement be comprised of a strong degree of citizen engagement and public participation in decision-making processes (WHO, 1986; WHO, 1997; OHCC, 2007). Strengthening democracy and the effectiveness of local community action requires that community capacity be enhanced through building collaborative partnerships, and networks (WHO, 1986; Connell, 1999; Honari, 1999; Arya et al, 2007). Community engagement is essential as it provides access to multiple perspectives including those of local citizens, and NGOs in addition to traditional government players. It also provides access to local knowledge about local ecological and human health conditions, and the impacts that policy has upon these conditions. It increases the likelihood that issues addressed are of greatest concern to those most affected, and encourages community members themselves to be involved in preparing solutions to problems thereby maximizing the probability that imposed interventions are accepted and adhered to (Forget & Lebel, 2001; MEA, 2005). Criterion seven is as follows:

vii)   *Citizen engagement, public participation in decision-making, including a commitment to social learning at the local level are essential, Citizens must be able to contribute their local knowledge and skills.*

Finally, an emotional connection of sense of place and belonging within a locale may be an important factor in facilitating citizen engagement and community action (Kruger & Shannon, 2000; Wakefield, 2001; McAllister, 2004). Sense of place is an important contributor to community health and well-being both directly and indirectly. Indirect impacts can arise through the facilitation of action which therefore enhances the potential for positive change in regards to health determinants. Additionally, direct positive impacts upon the health and well-being of individuals and communities can arise due ot enhanced confidence, self-empowerment, and efficacy (Wakefield, 2001). Therefore criterion eight is as follows:

viii)   *A "sense of place" or community identity is important for stimulating citizen engagement at the local level and for understanding and promoting a systems approach to community health and a sustainable society*

In the following chapter (Chapter 3), the methods that were used to apply the above listed criteria to the specific case-study context and unique socio-ecological health challenges within Norfolk County are explained. As will be described throughout Chapters 3 & 4 these criteria were used as a guiding framework to construct questions that were posed to key informant interviewees throughout the communities of Norfolk County. These criteria were devised in order to further test the significance, relevance and feasibility of emerging theoretical constructs within the context of policy, practice, and local governance on the ground in Norfolk County. Such an approach will provide the information that is necessary for answering the original thesis question:

"What are the challenges and opportunities facing local governance agents in Norfolk County in advancing an ecosystem approach to conceptualizing and managing community health and well-being?"

Chapter 3

Empirical Case Study Methods: Applying the Theoretical Criteria for an Ecosystem Approach to Community Health to Norfolk County

3.1 Chapter Introduction

The purpose of this chapter is to describe the case-study methods that are used to test the utility of the conceptual framework and criteria for advancing an ecosystem approach to community health (derived from Chapter 2), within the context of Norfolk County. The criteria are explored within this context in order to examine the challenges and opportunities facing local governance agents in Norfolk County, if an ecosystem approach to conceptualizing and governing health is to be advanced.   Chapter 3 describes the rationale for a case study approach, and also describes and justifies why Norfolk County was chosen as the location. It also explains the methods for data collection and analysis, including a policy document analysis, participant observation, and key informant interviews. Chapter 3 concludes with a description of the case-study context, and relevant background information on Norfolk County.

3.2 Rationale for Case Study Approach & Selection of Location

The case study focuses on the agriculturally-based communities of Norfolk County, situated in south-central Ontario, including the nested Long Point Biosphere Reserve (refer to section 3.4 for more information on the case context, and Figure 2 for a map of Norfolk County).

Yin (2003) defines a case study is an empirical inquiry that investigates a contemporary phenomenon within its "real-life" context, especially when boundaries between phenomenon and context are not clearly evident. Yin also explains that case study research is generally the

preferred strategy when the investigator has little control over events, variables, or the system of interest. These scenarios are relevant to the overarching research question, and apply to Norfolk County, as the researcher has no control over the evolving socio-ecological context, human and natural system interactions, associated health impacts, and the reactions and interventions of governance agents on the ground.

Case studies often deal with situations in which there are many more variables of interest than data points. There are many contextual factors and pressures shaping local governance, including the participating agents, institutional forms and functions, decision-making processes, etc. All are highly pertinent to identifying and explaining the challenges and opportunities facing local governance agents in advancing an ecosystem approach to community health. These many interacting variables warrant careful examination and analysis. A case study approach will extend my understanding of the complex system of interacting social, economic, political, and ecological phenomena that collectively shape community health and well-being within the "real-life" context of Norfolk County.

Selecting Norfolk County as the boundary for the case study site was a difficult challenge, because an understanding of health influences at numerous spatial scales is crucial to the ecosystem approach. Norfolk County is nested within a larger spatial, socio-ecological context, and broader political framework at regional, provincial, national, and global scales. Nonetheless, for the purposes of feasibility, a study boundary had to be arbitrarily defined. With the research question primarily focusing on *local* governance, Norfolk County proved to be a rational choice.

Figure 2: Map of Norfolk County (Adapted from Norfolk County, 2007)
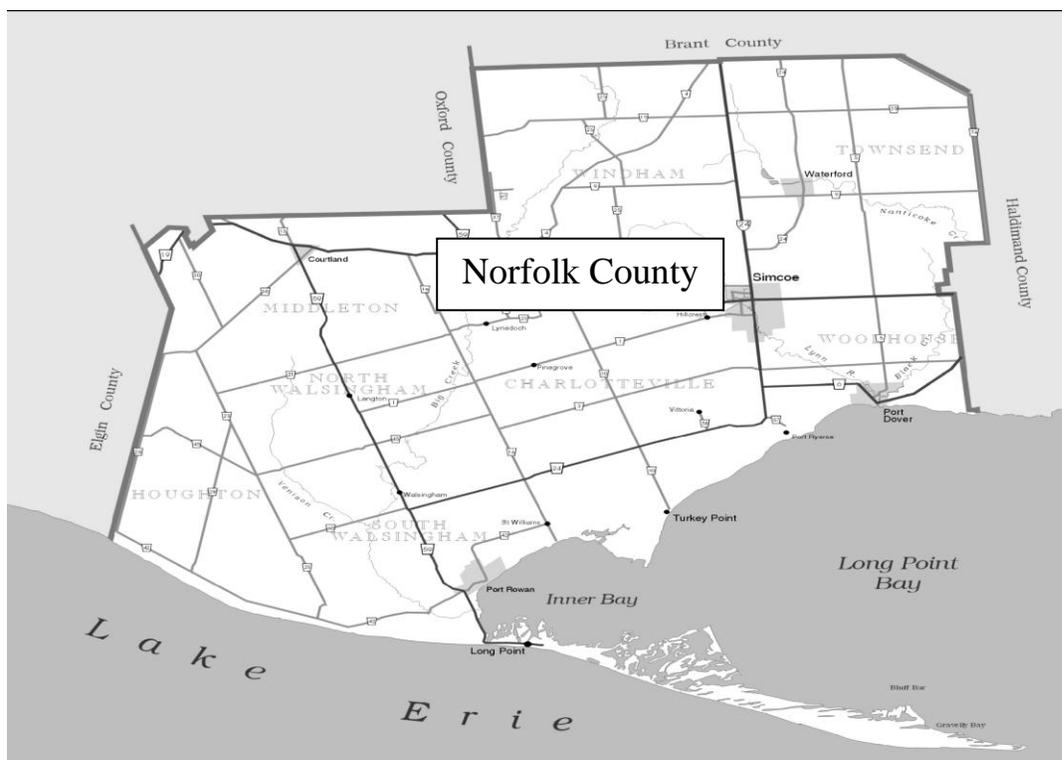
Norfolk County was also selected, due to a range of other characteristics and criteria including:

- It has a significant degree of engagement in local governance including a strong presence of civil society, and non-governmental organizations (as well as government agencies)
- It appears to show evidence of innovative, collaborative, integrative, and participatory approaches to local governance
- It includes the Long Point Biosphere Reserve
  - (Biosphere Reserves are committed to integrating and promoting sustainable resource management and stewardship with sustainable livelihoods and development concerns, through collaborative governance, processes of public education, outreach, and social learning)

- The socioeconomic base is experiencing significant changes resulting in shifting livelihoods, community instability and uncertainty (all of which have significant health implications)
- Local governance agents are struggling with the challenge of facilitating development that does not jeopardize community health, valued ecological features, and local heritage
- There are opportunities for participant observation through attending, participating and documenting community workshops, conferences, open forums, and meetings
- It is within close proximity to the researcher's work base at the University of Waterloo

The above characteristics provide a rich and feasible context in which to examine the challenges and opportunities facing local governance agents in enhancing community capacity to adopt an ecosystem approach to improving community health and well-being.

One of the major strengths of case study data collection is the ability to make use of different sources of evidence to develop converging lines of inquiry that are aimed at corroborating the same fact or phenomenon. Providing multiple sources of evidence helps to further ensure a study's construct validity (Yin, 2003). The following section describes the multiple methods that were used for data collection and analysis, which primarily includes key informant interviews that were complemented by a policy document review, and participant observation.

3.3 Data Collection & Analysis

The case study involved three methods of data collection in order to allow for triangulation, and for the researcher to examine issues and contexts from a variety of different perspectives for analysis. This involved a policy document review, participant observation, and a series of semi-structured, key informant interviews.

3.3.1 Policy Document Review

The policy document review involved examining relevant government or community agency documents, policies, strategic plans, and websites that were chosen based on their ability to provide information on the underlying socio-ecological context of Norfolk County. The documents provided information on various ecological, socioeconomic, and/or human health concerns and priorities within Norfolk County. Some provincial health policy documents were also consulted and incorporated into analysis if they were deemed relevant to the context of Norfolk County, and instrumental to answering the broader research question. The policy document analysis helped the researcher gain a better understanding of the health context, socioeconomic, and environmental status of Norfolk County, while identifying some of the major governance players, organizations and agencies involved in addressing these concerns. Finally policy documents were also used to verify and elaborate upon information derived from key informant interviews.

3.3.2 Participant Observation

The researcher was able to complement the data derived from the policy document review, and the key informant interviews as well as gain greater insight into the underlying socio-ecological, community health, and local governance contexts, including agent interactions through participant observation. Over the course of a year and a half (November 2005-May 2007), the researcher was able to attend, participate in, and document a variety of community-based workshops, conferences, open forums and meetings. This included documenting the small groups and open space sessions that arose out of the community sustainability workshops put on by the Long Point World Biosphere Reserve Foundation (LPWBRF). In addition the researcher attended a follow-up, community-based sustainability conference, as well as a variety of LPWBRF meetings, and a community forum on local food security and agricultural branding (the latter of which focused on agricultural livelihoods, local economic development, health and nutrition). The researcher was able to take notes during these events, engage in casual conversations with participants, which later helped to verify and elaborate on information derived from the other case study data sources.

3.3.3 Key Informant Interviews

The key informant interviews provided the richest and most detailed information on the case. The key informant interviews allowed the researcher to obtain in-depth, detailed accounts of the socio-ecological context, community-health concerns, policy context, governance responses and approaches to management, in addition to challenges inhibiting or opportunities advancing, a collaborative, integrative, and participatory approach to conceptualizing and governing community health in Norfolk County. Chapter 4 presents the findings from the key informant interviews and compares them to those which were derived from the literature reviewed in sections 2.2. and 2.3 in order to further ground the theory and ensure that it is contextually relevant.

Interview participants were selected from the communities of Norfolk County, Ontario. Their selection was determined on the basis of whether their perspectives would usefully inform a qualitative analysis of a systems approach to governing in the area of community health in Norfolk County. The selection criteria included involvement with local government agencies, and/or the local health unit, and/or community-based agencies or NGOs concerned with the environment, community health and well-being. Many of the participants had more than one community affiliation, and this was deemed valuable by the researcher. The majority of the interviewees were identified by the researcher through the process of a policy document review, and/or through participant observation during a set of community sustainability workshops, and a follow-up sustainability conference put on by the Long Point Biosphere Reserve Foundation. A snowball technique was also employed to identify other potential interviewees (Babbie, 1986). That is, a few additional participants were recruited based on recommendations made by other key informant interviewees. The researcher recognizes that the interviewees are not a representative sample of the citizens of Norfolk County, but instead are exceptional due to their extensive civic involvement in the community, knowledge of community concerns, and familiarity with local governance and organizational decision-making processes.

Interviewees represented a variety of community agents identified as being critical participants in shaping policy related to community health and the environment, or influential over local

decision-making, and/or socio-ecological conditions and quality. Interviewees were also citizens who live and work within the communities of Norfolk County. In total 12 interviews were conducted involving 15 participants. All interviews were conducted one-on-one and face-to-face with the exception of one group/joint interview that involved four participants simultaneously answering the questions that were posed. Interviewees included:

- 3 former tobacco farmers who were also involved in a community-based organization concerned with resource conservation and land stewardship
- 3 government employees from the local health unit (one of whom was also formerly involved with the Long Point Biosphere Reserve)
- 1 former County Councilor (who is also involved with the Long Point Biosphere Reserve, in addition to a number of local environmental and socioeconomic NGOs)
- 1 employee of the Ministry of Natural Resources who is also involved with local NGOs concerned with resource conservation and land stewardship
- 1 organic farmer who is also involved with local NGOs concerned with biodiversity and land conservation
- 1 member of a local non-profit organization focusing on the well-being of local children and youth
- 1 community pastor
- 1 environmental consultant who is also involved with the Long Point Biosphere Reserve and other local NGOs concerned with biodiversity and land conservation, and community sustainability
- 1 government employee involved with managing local tourism and economic development
- 1 real estate agent who is also on a committee of council concerned with local tourism and economic development
- 1 government employee who is also involved with the Long Point Biosphere Reserve and other environmental organizations

In most cases participants were initially contacted via email by the researcher to determine whether they were indeed appropriate for the research, and interested in participating. An introductory information letter was provided in this email that outlined the purpose of the project, the departmental affiliation and contact information of the researcher and supervisor, a description of what was expected from the participant if they chose to take part in the study, along with other details. This initial contact was also used to set up an appropriate time and location for the interview to take place.

On average the interviews were approximately 90 minutes in duration, and took place at a location that was most convenient for the interviewee (which was either their place of employment or their home). Interviews were conducted one-on-one, face-to-face, and recorded by audio tape. Recording the interviews allowed the researcher to participate fully without having to break the flow of the interview by taking notes. The tape recordings facilitated the collection of information, and allowed for later transcription and analysis. All interviews were transcribed and then analyzed for emergent themes and issues of relevance to the outlined research question.

The development of the interview questionnaire which guided the semi-structured interviews was informed by the literature review. A set of standardized questions was developed. Interview questions were intended to be open-ended in nature so that respondents were able to present both the facts of a matter, as well as their opinions on a variety of issues and concerns. The questions posed to the interviewees were relatively broad in nature, and were worded differently than the criteria derived from the literature review in order to avoid leading the interviewees' responses. The respondents did sometimes deviate from the standardized questions. As a result, the findings incorporate unanticipated information of relevance. Respondents were presented with a consent form based on standard University of Waterloo ethics procedures, which they had to sign prior to the commencement of the interview. All participants were presented with the option of declining to answer any of the interview questions if they wished. However, this option was never exercised. Further, all participants were made aware of the fact that they may withdraw from the study at any time by advising the researcher. All participants were provided with the option of whether or not they wished to

remain anonymous, or whether they preferred to have their identity revealed in order to receive recognition for anything that they had contributed.

Participants were asked to describe the general characteristics of their community; identify what a healthy community means to them and what it must consist of, and discuss various issues and concerns which they feel need to be addressed in order to improve community health and well-being. In addition, questions were posed that related to local decision-making processes, including who is involved, how their actions contribute, or who should become further involved in addressing community health concerns. Interviewees were also asked some questions on *how* a coordinated community approach to improving health and well-being might be carried out (i.e. collaborative mechanisms or initiatives). This required participants to describe the nature of the relationships of their partnerships with other organizations throughout the community, the challenges they face in constructing or maintaining active partnerships, and also identifying potential partnerships that may be useful to them that do not already formally exist. Finally participants commented on how decision-making is carried out within their own organizations, including how they arrive at identifying priorities, objectives and strategies. Participants also commented on the various resources that were available to them including financial, and human resources; and finally how they felt the capacity of their organization might be enhanced (refer to Appendix 1 for interview questions). Each interview transcript was analyzed in order to compare the different observations of each with one another, discover interconnections, common themes, and issues of contention.

The findings and analysis are outlined in Chapters 4 and 5. In order to protect the anonymity of the participants, a coded identification system was devised as a means of referencing the interview data that are presented in both quotation and paraphrase form throughout those chapters. The information is also referenced in this way so that the reader is able to determine the general perspective and organizational affiliation of the individual from which the information comes. Individuals are identified in the findings chapters according to the system described below:

The first part of the code delineates the individual's organizational affiliation. Examples include:

    i.   Farmer (F)

    ii.   Governmental staff (GOV)

    iii.   Non-governmental organization (NGO)

    iv.   Municipal politicians (POL)

    v.   Private sector (PS)

If an individual was affiliated with more than one of these categories, then they were both listed and separated by an "&" sign. The first part of the code was then followed by a colon, which was subsequently followed by another letter which represented the area of focus or interest for that organization. Examples include:

    i.   Health (H)

    ii.   Environmental (E)

    iii.   Agricultural (A)

    iv.   Economic Development (ED)

    v.   Faith Community (F)

    vi.   Social Services (SS)

    vii.   Youth (Y)

If an individual made reference to more than one area of interest or expertise, then both were listed and separated by a "/" sign. Table 3.1 provides a full list of the interviewees organizational affiliations, areas of expertise or focus, and their associated referencing code.

Table 1: Referencing Coding System (Interviewee Affiliation & Area of Expertise)

Interview #	Affiliation	Area of Interest/Expertise	Referencing Code
#1	Farmer, NGO	Agriculture, environmental stewardship	F&NGO:A/E1
#2	Farmer, NGO	Agriculture, environmental stewardship	F&NGO:A/E2
#3	Farmer, NGO	Agriculture, environmental stewardship	F&NGO:A/E3
#4	Government employee	Public Health	GOV:H1
#5	Government employee	Public Health	GOV:H2
#6	Government employee, NGO	Public Health, environment	GOV&NGO:H/E
#7	Former municipal politician (Councilor), NGO	N/A	POL&NGO
#8	Government employee, NGO	Environmental stewardship, agriculture	GOV&NGO:E/A
#9	Farmer, NGO	Environmental stewardship/conservation, agriculture	F&NGO:EA

#10	NGO	Social services, youth and recreation	NGO:SS/Y
#11	NGO (church)	Faith community, social services, youth	NGO:F/SS/Y
#12	Private sector, NGO	Environmental sustainability, agriculture	PS&NGO:E/A
#13	Government employee	Economic development	GOV:ED
#14	Private sector	Economic development	PS:ED
#15	Government employee, NGO	Environmental planning	GOV&NGO:E

3.4 Background Information on Norfolk County: Case Study Context

Norfolk County is a rural, agriculturally-based community that produces a number of diverse crops ranging from tobacco to vegetables, to some specialty products such as ginseng, peanuts, medicinal herbs and mushrooms. Other economic activities include fresh-water fisheries, forestry and wood harvesting, tourism and retirement settlements. In 2001, the population of Norfolk County was 60,850 people, with approximately 49% of them living in relatively urbanized areas (Norfolk County, 2003).

Despite its geographical proximity to a huge consumer market (that includes urban areas such as Buffalo, Boston, New York, Pittsburg, Chicago, Detroit, Montreal and Toronto), the agricultural base on which community livelihoods depend upon, has become strained over recent decades. This is primarily due to the collapse of the tobacco industry, which has triggered widespread socioeconomic impacts across the county. Global and regional socio-economic trends have also had great impacts on Norfolk County, contributing to a loss of agricultural markets due to greater competition. The decline in the tobacco industry has led to

rural poverty and associated depression (LPWBRF, 2006) both of which have implications for individual and community health and well-being. Many food processing plants have also left the area forcing an increasing number of people – in particular youth, and young families – to move to urban centres outside of Norfolk County. Some of the more urban centres in the region are in dire need of renewal as infrastructure continues to age. New development projects are needed to create viable employment opportunities for county residents and to enhance municipal corporate fiscal sustainability. Finally, it is worth noting that the Long Point Provincial Park has one of the highest visitor usages of any provincial park in Ontario, in the order of 130,000 visitors annually, who generate approximately $600,000 in gross revenue. In addition, visiting birdwatchers and other tourists taking in various nature-based activities are estimated to contribute another $1.5 million to the local economy (Francis & Whitelaw, 2001). Therefore, while preserving the ecological integrity of the region is inherently important, it is also of socioeconomic importance. Hence, communities are encouraged to promote sustainable resource management and socio-economic practices which are essential components to building a healthy community (Parker et al, 2003**;** Francis & Whitelaw, 2001).

Norfolk's population is expected to continue to age considerably placing great strains on municipally funded or community-based services (Gowan, 2004). The County is also faced with the responsibility of having to increase available services to its aging population placing additional pressures on municipal budgets. In an effort to generate further revenue, some interest has been expressed in the community to allow seasonal dwellings to be converted into permanent residences thereby increasing property tax revenues. However, this would significantly increase demand for water, add to pressures on individual sewage disposal systems, and increase the risk of groundwater and surface water contamination. These ecological consequences would be in addition to a pre-existing range of human-induced impacts including channel dredging to maintain boat access, pollution from water-based recreational vehicles, crowding in public campgrounds, soil erosion, and contamination from agricultural run-off. As mentioned previously, the natural features of the County are a major tourist draw, and much of the economic viability of the region relies on the protection of the ecological base. As explained earlier throughout section 2.3, ecological goods and services, as well as socioeconomic viability and security are important determinants of health.

Expanding the tourism sector has been identified as one potential solution. However, the County must balance the Region's desire for conservation, while securing viable livelihood opportunities within a shifting socio-economic climate. In addition, it must counter the trend of out-migration, through offering development opportunities that are attractive to youth. All of this must be accomplished while still preserving identified community values such as the rural character of the region, small town attributes, natural features, and sense of community (Norfolk County, 2003).

The surrounding political institutional structure has changed a great deal within the last 5-10 years. The Townships of Norfolk and Delhi, the Towns of Simcoe and Delhi, the City of Nanticoke, Port Rowan and Port Dover were amalgamated into a single-tier municipality (Norfolk County), in January, 2001. This restructuring, coupled with severe reductions in budgets and staff at all levels of governmental jurisdiction from federal to municipal, has resulted in a declining role of governmental conservation and resource management agencies, out-of-date management plans, and a lack of guidance for decision-making regarding land use, community health, provision of social services, and local economic development. Fortunately, there is also a significant presence of community-based NGOs involved in health and social services; conservation and wildlife; outdoor recreation; local land use and sustainable development; and local cultural heritage and tourism activities (Francis & Whitelaw, 2001). The extensive involvement of community-based civil society organizations has assisted in enhancing the overall capacity of local governance.

In response to this governmental restructuring, the newly amalgamated Norfolk County set out on a two year process to create its new County Official Plan in February, 2003. This Plan replaced the previous five individual Official plans and is to be used as a guide for land use decision-making over the next twenty years. The process began with extensive community consultation and visioning exercises so that residents could express what they liked about the County, their priority concerns, and issues to be addressed. This process was also initiated to ensure that governance processes be transparent, and that municipal resources remain aligned with community priorities. It was agreed that good governance requires strong partnerships,

alliances, enhanced local capacity, in addition to municipal fiscal stability (Norfolk County, 2003). Both governmental and non-governmental agents communicated the importance of facilitating continued open dialogue for the purposes of exploring collaborative opportunities to maximize community resources. Through the Official Plan strategic planning process, the County identified that it is striving for a more diversified economy (including stronger industrial, tourist, and retail sectors, as well as a more diverse agricultural sector) in order to enhance livelihood opportunities and support municipal fiscal sustainability. Supporting development in these areas requires significant upgrading and expansion of crucial infrastructure. Although residents are seeking economic prosperity, they also want to minimize the impact on the natural environment, as well as local heritage features and the rural small town character defining the County. The County is now seeking to protect the natural and cultural environment, enhance wildlife corridors, and ensure that the Long Point Biosphere Reserve remains a highly recognized international feature (Norfolk County, 2003).

Norfolk County instigated another extensive consultation process in June, 2003 with funding assistance from the federal government in order to develop a Tobacco Community Action Plan. This plan is to assist Norfolk in diversifying its economy to deal effectively with the impact of the declining tobacco industry, and to support families in their transition to other farming or non-farming enterprises and livelihoods. An advisory team was formed with community representatives to direct the program and report to stakeholders. The resulting observations and recommendations were very similar to those which arose out of consultations surrounding the creation of the County Official Plan. The need for economic diversification was identified, as well as investment in infrastructure and educational facilities to enable growth. This must be achieved while protecting the environment and sustaining natural resources. Both plans emphasized the need for expanding and marketing eco-tourism, and agri-tourism opportunities within Norfolk County through private and public partnerships, and through ensuring that there is flexibility in municipal land use policy to accompany these changes.

The Team Advising on the Crisis in Tobacco also recognized that while Norfolk County will need to budget for increased spending on supportive transitional services, the private sector,

and other non-governmental agencies will also have to share in the provision of resources to enable alternative forms of development (Gowan, 2004). The planning process for the County Official Plan also recognized the need for non-governmental players to assist in filling in "capacity gaps". For example, an effective agricultural branding program, a "buy local" marketing campaign, the promotion of nature-based educational programs, stewardship projects, biodiversity monitoring etc. were all identified as elements that could not be formally addressed within the land use plan or exclusively by government agencies (Norfolk County, 2003). Nonetheless, many of these activities could be facilitated or supported by community based agencies, and local NGOs whether through their own leadership or via collaborative partnerships.

Nested within the southern extent of Norfolk County is the Long Point Biosphere Reserve. In 1986, UNESCO designated the Long Point as a biosphere reserve (LPBR). Long Point is a 32 km sand spit located on the north shore of Lake Erie. It encompasses one of the largest and most spectacular of the erosion deposit sand spit formations in the Laurentian Great Lakes, as well as some of the largest remaining forest tracts in "Carolinian Canada". The point itself has a diverse range of land and water habitats, including long beaches, undisturbed sand dunes, grassy ridges, wet meadows, woodlands, marshes and ponds, supportive of extensive biodiversity. The Inner Bay between the point and the mainland is a productive aquatic ecosystem for the sports fishery, a migration staging area of continental significance for waterfowl, renowned for birding activities, and home to the largest number of endangered, threatened, or species of concern in Canada (Francis & Whitelaw, 2001).

As discussed earlier in Chapter 2, the mandate of Biosphere Reserves has evolved considerably from a primary focus on conservation, towards an expanded and integrated agenda of promoting ecological stewardship along with sustainable livelihoods and community development. BRs have three complementary functions:

- a conservation function , to preserve genetic resources, species, ecosystems, landscapes, and cultural diversity;
- a development function, to foster sustainable economic and human development;

- and a logistic support function, to support demonstration projects, environmental education and training, and research and monitoring related to local, national, and global issues of conservation and sustainable development (UNESCO, 2007)

Through collaborative, participatory governance arrangements, various strategies aimed at achieving such objectives in an integrated fashion, are tested, refined, demonstrated and implemented.

The "core area" of the Biosphere Reserve consists of a 3250 ha Long Point National Wildlife Area, administered by the Canadian Wildlife Services. Access is prohibited in this area, and there are no permanent residents. However, Bird Studies Canada does grant special access to a handful of people on a seasonal basis to conduct bird banding and migration monitoring studies. Along the Lake Erie Shoreline, is the "buffer zone", which is intended to promote activities compatible with conservation objectives. It extends from the outer tip of Turkey Point to the western edge of Hahn Marsh. No human residents inhabit this area on a permanent basis. A large number of visitors, however, have controlled access for seasonal recreational purposes including fishing and waterfowl hunting. Nearby, the Long Point Beach cottage area has experienced intensive cottage and marina development along most of its shoreline. It is home to about 500 permanent residents, and at least 3,000 seasonal ones, along with many visitors. The Inner Bay is open to the public, but subject to fishing and boating regulations. There is some concern over "incompatibilities" amongst water-based recreational activities, and conservation objectives, especially during peak seasonal periods (Francis & Whitelaw, 2001). The agriculturally-based communities of Norfolk County can be found further inland within the "zone of cooperation" or "transition zone".

There is a significant overlay of governance players within the Long Point Biosphere Reserve. The Government of Canada is involved through its affiliation with the Long Point and Big Creek National Wildlife Areas; the Province through its ties with the Long Point Provincial Park, and the Crown Marsh on the Inner Bay; and finally Norfolk County at the municipal level has jurisdiction over the zone of cooperation. Most management policies and plans are

administered through these various government agencies, often in cooperation with private landowners.

The Long Point World Biosphere Reserve Foundation (LPWBRF) is a charitable, not for profit, volunteer organization open to public membership which in 2001 included over 200 people, indicating extensive local support and involvement (Francis & Whitelaw, 2001). The Foundation is run by a 15-person Executive Committee, elected for a one-time renewable three year term. They represent a cross-section of citizens including local entrepreneurs, farmers, biologists, teachers, and civil servants from various levels of jurisdiction (each acting in their own capacity). This initiative has encouraged informal cooperation amongst government agencies, and non-governmental groups as individuals cross-affiliated with these types of organizations have been elected to the Executive Committee over the years. The diversity of expertise has helped to connect the biosphere reserve with larger community networks and organizational affiliations, which has enhanced the local acceptance and visibility of the reserve by local citizens and government officials (Francis & Whitelaw, 2001).

A variety of other interacting players also participate in the governing process. A significant number of NGOs influence decision-making processes. Some examples include the Norfolk Field Naturalists Club, The Norfolk Land Stewardship Council, Ducks Unlimited, Friends of Backus Woods, Long Point Area Fish and Game Club, Coalition Advocating Responsible Development, The Nature Conservancy, and the Long Point Foundation for Conservation (Parker et al, 2003). Research, monitoring, education and training programs within the biosphere reserve are generally carried out by these other bodies. The LPWBRF, however, fosters informal cooperation among these various players. (Francis & Whitelaw, 2001). In fact, one of its most important roles is to nurture the informal cooperation which stem from these horizontal governance networks, bridges, and connections.

The above provides some information on issues that relate to the underlying socio-economic and ecological context within the community. It also gives a general indication on the state of social and physical environmental affairs that have important implications for health. We now turn our attention to health promotion and health care services specifically.

The primary responsibility for public health services is at the municipal or local level, through about 140 health units and departments that serve populations ranging from 600 to 2.4 million people, with catchement areas from 4 to 800,000 square kilometers (Health Canada, 2005). The next level of organization is provincial or territorial. The provincial level is responsible for planning, administering budgets, advising on programs, and providing technical assistance to local units as needed. Ontario's public health system is different from systems elsewhere in Canada, as it is the only jurisdiction to have organizationally distinct health units that are not part of regional health planning bodies. It is also the only jurisdiction in Canada where the cost of public health services is shared between the provincial and municipal levels of government. Boards of health are supported in their efforts to promote health by the Chief Medical Officer of Health who has a dual reporting relationship within the Ministry of Health and Long-Term Care, and the Ministry of Health Promotion.

Public health services delivered locally predominantly flow from the formal requirement for all public health units to meet the Mandatory Health Programs and Services Guidelines. Among the basic functions and priorities of public health are protection and monitoring of food and water consumption, basic sanitation, communicable disease and injury surveillance and prevention, population health assessments; and various health promotion programs including healthy child development, healthy lifestyles, workplace health, and the prevention of addictions, and cancer (Health Canada, 2005; Haldimand-Norfolk Health Unit, 2006a). Despite the fact that all local health units have the same basic expectations required of them, Ontario's 36 health units vary considerably in the type, level and depth of service they provide. While some variation is appropriate given the strong focus on local needs and priorities, and different interpretations of the mandatory guidelines, other discrepancies may be due to differences in geography, funding levels, staff skills, strategic decisions made by local boards of health, and the capacity of individual boards of health or local municipalities to provide services (Public Health Capacity Review Committee, 2005).

Within Norfolk County, the municipal council has the mandate and authority over the board of health. The Haldimand-Norfolk Health Unit is a division of the Health & Social Services

Department of Haldimand-Norfolk. Under such a scenario the health unit reports to a combined health and social services standing committee of council. However, with the County council being responsible for a wide range of other programs and services, (e.g. local economic development, public works, police and emergency services, etc) public health is only one of the many competing priorities. Municipal council members make up most or all of the board of health, and therefore the board's composition is primarily dependent upon election results and/or the outcomes of municipal appointments across many committees (Public Health Capacity Review Committee, 2005). As mentioned previously at the end of Chapter 2, the main responsibilities of local governments originally centred around providing infrastructure including roads, sewers, water, public transit and promoting economic development. Yet in recent years provincial governments are increasingly downloading the responsibility of health and social services to the local level without providing municipalities with the necessary sources of revenue required for providing these services (McAllister, 2004). Inadequate revenues in the face of downloading make it challenging for local governments to control unsustainable, ecologically degrading, and unhealthy forms of development due to their significant dependence on property taxes (Dearry, 2004; McAllister, 2004). Unsustainable forms of development are detrimental to the health of communities. Due to these competing priorities it is very challenging for the health department to meet their provincially mandated program obligations. Despite these challenges, the fact that the local government is closely affiliated with the health unit also provides unique opportunities for enhancing healthy public policy in other sectors that fall under municipal jurisdiction.

In an effort to create a stronger public health system that is better able to meet citizen's public health needs, the Ontario government launched Operation Health Protection in June of 2004 which involved the creation of a Capacity Review Committee that was part of a three year plan to rebuild public health. This plan process involved reviewing the capacity of local public health units. In its work to date, and through drawing on literature and expert advice, the Capacity Review Committee has started to identify some guiding principles for effective local public health governance. These principles include:

- locally based (rather than provincially controlled)

- clear purpose, role, responsibility and authority
- ability to meet legislative and regulatory requirements
- ability to reflect and represent the community
- clear accountability for programs, services, and budgets
- strong linkages to key partners, particularly municipalities
- sustainability (Public Health Capacity Review Committee, 2005)

Many of these principles share distinct similarities to the common themes identified in the theory throughout Chapter 2. In particular, emphasis on local level engagement, the importance of local context and priorities, the need for accountability and transparency, and the importance of building collaborative partnerships are reflected in the criteria that were created for advancing an ecosystem approach to health. These criteria and principles will be further examined within the case-study context of Norfolk County throughout Chapters 4 & 5.

In response to some of these emerging recommendations, the Haldimand-Norfolk Health Unit created their own Strategic Plan in 2006. One of their identified strategies included identifying and building strategic partnerships, and devising criteria which will be used for prioritizing who they should be partnering with. Anticipated outcomes include a better understanding of how their work relates to that of their community partners, improved joint lobbying and advocacy capacity, and more efficient use of resources (Haldimand-Norfolk Health Unit, 2006b). Other priorities include building their human resource capacity through increasing job satisfaction, staff retention, and opportunities for professional development. It is expected that such changes would enhance the capacity of the health unit to adapt to constant changes. In addition the health unit is committed to further integrating the determinants of health framework into the culture of local decision-making and municipal networks. This would be achieved through collaborating with community partners to enhance their awareness of the impacts of various health determinants (e.g. social and physical environments, income status, education, health services, etc), thereby resulting in changes to policies and programming and a greater emphasis on health within municipal planning, decision-making and reporting.

Collaboration and information sharing is essential for advancing an integrated approach to

community health and reducing governance and system fragmentation. For these reasons the local health unit is also committed to establishing a better relationship with the two Local Health Integration Networks that run through its borders that were recently created by the province to address similar issues of fragmentation that decision-makers are struggling with within the realm of health *care* services (i.e. the more reactionary side of health, dealing with the diagnosis and treatment of illness and disease). Health care services have also largely remained fragmented in Ontario, with many programs and services delivered in isolation from one another, resulting in a lack of coordination and efficiency. As a result, the Government of Ontario recently introduced a reform that intends to improve the health status of Ontarians, improve access to doctors and nurses, and reduce wait times (Ministry of Health and Long Term Care, 2006). On March 1st, 2006 the Ontario government passed historic health care legislation via the *Local Health System Integration Act, 2006* that will greatly change the way Ontario's health care system is managed. The resulting creation of *Local Health Integration Networks* (LHINs), is intended to enhance coordination amongst a collection of services to improve the health care system, enhance understanding of local health needs, while providing integrated, high-quality services that will meet those needs (MHLTC, 2006).

There are now 14 LHINs in the province, which are non-profit organizations designed to plan, coordinate and fund the delivery of health care services including hospitals, community care access centres, home care, long-term care, addictions services, community health centres, community support services, mental health centres, hospices, supportive housing, etc. within specific geographic areas. While LHINs will not directly provide services themselves, they are mandated to integrate and fund health care services at the local level. They will oversee nearly two-thirds of the heath care budget in Ontario ($21 billion) (MHLTC, 2006). LHINs are governed by boards of directors appointed by the province based on skill and merit. The Ministry or province will continue to set policy and program priorities, outlining the principles, goals and requirements for all LHINs to ensure that Ontarians have access to a consistent set of health care services. However, LHINs are to have the flexibility to address unique local health needs and priorities with the Ministry maintaining a close relationship with the LHINs through operational, financial, auditing and reporting activities.

Parallel to emerging understandings within the realm of public health and health promotion, innovations in health care are also beginning to reflect the reality that a community's health priorities are best planned and understood at the local level, by people who are closest to that community and familiar with its unique needs (Public Health Capacity Review Committee, 2005). LHINs were mandated to engage local health care providers and citizens in a discussion about their health to identify community needs and health service integration priorities. One of the key objectives of the new LHINs governance arrangements is to implement strategies to address the determinants of health, and encourage broad community participation, citizen engagement; extensive inter-sectoral collaboration; and strong linkages to key partners, in particular municipalities (Public Health Capacity Review Committee, 2005; Hamilton District Health Council, 2005; Gardner, 2006; Salazar, 2006). Other principles which have been identified for effective governance within the LHINs framework include the following:

- an emphasis on transparency and accountability, including clear roles and responsibilities;
- ensuring that identified health concerns are grounded and representative of local citizen's concerns;
- an adequate supply of resources to allow agencies and individuals to fully participate equitably, and so that mandatory requirements are able to be met;
- ongoing assessment, monitoring and evaluation of initiatives so that adjustments can be made as necessary, and;
- the ability to build upon existing resources, alliances, networks, and community knowledge (e.g. better sharing of information, increased professional development and networking opportunities, more links to academic centres, etc.)

(Public Health Capacity Review Committee, 2005; Hamilton District Health Council, 2005; Gardner, 2006; Salazar, 2006).

The principles listed above once again exhibit striking similarities to the recommendations that are evolving out of various different realms of public administration (including public health promotion, and resource and environmental management). Nevertheless, the creation of the

LHINS may pose great challenges to bioregional coordination or consideration of health issues. For instance, Norfolk County is dissected by two different LHIN boundaries, most likely drawn according to population densities (see figure 3 for a map of the network boundaries). The provision of health-enabling environments and coordinated health services becomes very challenging from a bioregional perspective due to resulting jurisdictional fragmentation. In addition, the devised networks expand over vast geographical areas covering many communities which may pose great challenges when local boards attempt to identify shared local health priorities and concerns.

Figure 3: Map of Local Health Integration Network Boundaries (Adapted from HNHB LHIN, 2007)

Norfolk County is intersected by LHIN #'s 2 & 4
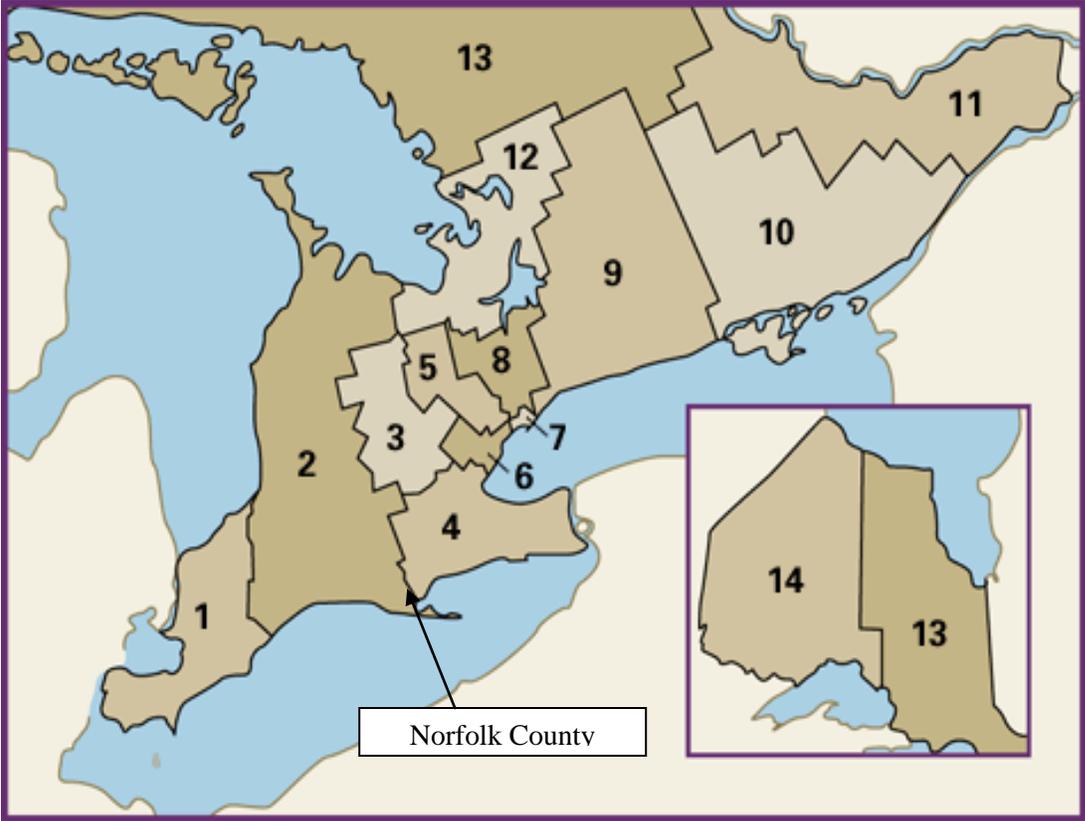
Figure 4: Map of Hamilton-Niagara-Haldimand-Brant LHIN (Adapted from: HNHB LHIN, 2007)

Figure 5: Map of Southwest LHIN (Adapted from Southwest LHIN, 2007)

The eastern portion of Norfolk County is contained within the *Hamilton-Niagara-Haldimand-Brant* LHIN (see figure 4 on the previous page). This LHIN includes the Niagara Region, Haldimand County, Brant County and the City of Hamilton. It also covers part of Halton Region, specifically Burlington, and as mentioned, roughly half of Norfolk County. The rest of Norfolk County to the west, including Long Point resides within the *Southwest* LHIN (see figure 5 above). The Southwest LHIN boundaries include the Counties of Elgin, Middlesex, Oxford, Perth, Huron, and Bruce, as well as the Cities of London and Stratford. This vast geographic extent makes the Southwest LHIN one of the largest LHINs in all of Ontario, with

a population of 920,000 people (or 7.5% of Ontario's entire population) (Gamble, 2006). A significant rural population and numerous communities are scattered throughout this geographic area, in addition to a large urban population within the City of London. Therefore, when taken together the two LHINs that dissect Norfolk County cover a huge geographical area that is politically, culturally, environmentally, and economically diverse. This has raised legitimate concerns regarding the likelihood of local community health priorities or concerns being effectively addressed within what will likely be a very complex and competitive health service provision agenda.

There is also the question about who is NOT included in these "integration networks". For example family doctors, independent health facilities, and even public health departments are not included in the new legislation. This situation could pose great challenges or gaps as many of these players are in fact major providers of primary health care. The extent to which the health concerns of community-based or grassroots organizations are addressed within this emerging framework remains to be seen. Particularly, environmental health concerns that require coordination from a divergent set of actors transcending the conventional health care establishment and coinciding jurisdictional powers and boundaries, will be challenging. Nevertheless, the innovations in governance indicate that emerging trends in policy and practice on the ground mirror those within divergent areas of theory as outlined throughout Chapter 2.

3.5 Chapter Summary

The purpose of Chapter 3 was to describe the case-study methods used to test the utility of the conceptual framework and criteria for advancing an ecosystem approach to community health (derived from the theory summarized throughout Chapter 2), within the context of Norfolk County. The criteria are explored within this context in order to examine the challenges and opportunities facing local governance agents in Norfolk County, if an ecosystem approach to conceptualizing and governing health is to be advanced. Chapter 3 described the rationale for a case study approach, and justified the selection of Norfolk County as a location. The methods for data collection and analysis, including the policy document review, participant

observation, and key informant interviews were described, and relevant background information regarding the case study context of Norfolk County was provided. This chapter sets the context for Chapter 4 which describes the findings derived from the key informant interviews. The intent of those interviews was to provide insight into specific issues relevant to community health and well-being, while testing and refining the theory behind the ecosystem approach.

Chapter 4

Case Study Findings: Applying the Theoretical Criteria for an Ecosystem Approach to Community Health to Norfolk County

4.1 Chapter Introduction

The purpose of this chapter is to test the criteria emerging from the fundamental themes and principles outlined in Chapter 2, by grounding them within the context of Norfolk County and comparing them to the responses of key informant interviewees.

The following paragraphs describe the questions that were posed to key informant interviewees as well as their responses. The purpose of these questions was to get a sense of how feasible and relevant the criteria are to governance agents operating within the case study context of Norfolk County, and to gain greater insight into the challenges and opportunities facing local governance agents in regards to advancing an ecosystem approach to health. In other words, the goals was to find out what the key informant interviewees want local governance for community health to look like, and if they feel that their community is on target with respect to meeting stated ideals and objectives. Chapter 4 is primarily descriptive in nature, exploring patterns of consensus and disagreement between the key informants. The chapter that follows (Chapter 5) is a continuation of this discussion, and provides greater interpretation and analysis of the findings introduced in this chapter. Throughout Chapter 5, conclusions are drawn regarding the utility of the criteria, and in regards to the challenges and opportunities facing local governance agents in advancing community health through collaborative, integrative and participatory approaches.

4.2 Setting the Context: Community Characteristics of Norfolk County as Described by Key Informants

At the beginning of each interview respondents were asked how they would describe their community in terms of general characteristics and demographics. Seven of the fifteen respondents indicated that it was difficult to describe Norfolk County as one cohesive community, as there is still a significant degree of division between the smaller townships and smaller communities that existed prior to amalgamation in 2001, and also due to conflict and tensions between rural and urban citizens and their unique associated interests and concerns (NGO:SS/Y; POL&NGO; GOV&NGO:E; PS:ED; F&NGO:A/E1; F&NGO:A/E2; GOV:ED). Many citizens still identify with these communities existing at a smaller spatial scale, rather than "community" being defined at the broader County level. Since amalgamation these smaller townships and hamlets are represented by wards within the larger single-tier government, where there is a great deal of variation in opinions and ideas from ward representatives. As one former town councilor explained, you will often see people articulating an urban perspective (e.g. those that live in the city of Simcoe) versus those who espouse a rural perspective. Those individuals with a rural perspective are having a difficult time getting their needs met despite the fact that Norfolk County is predominantly rural in nature (POL&NGO). There is competition between residents and representatives of local wards for the limited resources that the newly amalgamated County has available for distribution.

One interviewee also stated that since amalgamation, power structures within Norfolk County have begun to change. New organizations are emerging and becoming more dominant in the community politically, with the consciousness of the community recognizing this (F&NGO:E/A). In the past many of the political leaders were residents who had lived in the community for generations, however this entrenchment of power has started to shift as the respondent explains:

Senior management in the new County Government ended up hiring top-rank public servants from outside of the community. There is now a highly professional, urban administration at the top and a lot of "cousins" at the bottom. This has caused some stress and tension within the County's organization. There are, however, a few bridges between these two different camps, and they tend to be young people who are from the area that have gone into municipal government at the supervisory level. They tend to be professionally educated, and therefore got the job because of their name, but also because they have the professionalism and education to go with it. So the transition in power will not be as much of a shock as it could have been (F&NGO:E/A).

Despite the initial challenges of describing Norfolk County as a community, several characteristics were repeatedly identified by interviewees. When asked how they would describe their community, twelve of the fifteen respondents emphasized that the region was a very rural, resource-based, hard-working agricultural community (NGO:SS/Y; F&NGO:E/A; GOV&NGO:E/A; F&NGO:A/E1; F&NGO:A/E2; F&NGO:A/E3; PS&NGO:E/A; GOV:H1; GOV:H2; GOV&NGO:H/E; POL&NGO; GOV&NGO:E). During the growing seasons, the community is inundated with off-shore migrant workers. In addition to the agricultural industry, the area has traditionally relied on forestry and fisheries. However, the economy has started to shift away from being exclusively resource-based. In fact, economic diversification has been explicitly identified as one of Norfolk County's strategic objectives (Norfolk County, 2003).

Nine respondents alluded to the fact that the "identity" of the County is in a state of flux due to changes in the local socioeconomic climate, and in particular the collapse of the tobacco industry (F&NGO:E/A; F&NGO:A/E1; F&NGO:A/E2; F&NGO:A/E3; GOV&NGO:E/A; PS&NGO:E/A; GOV:H2; POL&NGO; GOV&NGO:E). Since the late 1920s-early 1930s, tobacco was predominantly the major crop in the area, but this is quickly changing. Tobacco farmers resisted this change for a long time, but it appears that they now accept the continuous decline of the industry as inevitable. This has created a great deal of socioeconomic instability and uncertainty because the communities of Norfolk County have long depended upon a healthy tobacco-based, rural economy. In the words of long-time civic leader, and former Councilor,

I own a coin operated Laundromat, a children's shoe store and a clothing store. And we sell those products to tobacco farmers and their families, and my laundromat

depends upon seasonal workers. Since the decline I'm not as busy as I used to be in the past. Businesses have consolidated and smaller ones have closed down like the American Can. That disappeared and then we had the Canadian Canners that did all the canning of tomatoes… But they consolidated those operations and they all moved to Leamington. So we've seen things disappear. We've seen the rural economy decline in terms of tobacco and now we're into a transitional area, and it is difficult because it costs a lot of money to transition from one thing to another. A lot of urbanite people will say just sell ginseng or tomatoes, or grow corn for ethanol, or this or that, without understanding the implications. It costs a lot of money to invest in new infrastructure. And you know, oil and markets, and infrastructure for distribution. People are very anxious, and it's not just the tobacco farmers. When they do well, retail and other areas of the community do well including us. It creates a lot of anxiety for a lot of people… (POL&NGO).

In this respondent's view, it is not just the farmers that are impacted by the tobacco collapse, many citizens and their livelihoods throughout Norfolk County are adversely affected. As a result of these recent hardships many storefront owners are having a difficult time maintaining their properties, contributing to the need for downtown revitalization. The County has tried to remedy this problem by introducing revitalization taskforces and advisory committees, as well as property standards bylaws, in addition to stepping up police enforcement in the downtown core. Norfolk County has also created a "Community Improvement Plan" which will offer financial incentives to property owners to improve the facades of their buildings (GOV:ED).

Despite the economic challenges instigated by the decline in tobacco, five of the informants representing a wide variety of perspectives, indicated that some of Norfolk County (in particular the urban centre of Simcoe) is experiencing and anticipating a period of unprecedented growth in retail, especially big-box stores (PS&NGO:E/A; GOV:H1; GOV&NGO:E; PS:ED; NGO:F/SS/Y). In recent years there has also been a housing boom, and expansion of residential areas. This is due, in part, to the fact that many of the former tobacco farms are being sold to retiring urbanites from the Greater Toronto Area. These retirees are selling their homes within large urban centres for large capital gains, and relocating to Norfolk County in search of idyllic rural landscapes, relatively cheap real estate, and an abundance of natural areas. In particular the lakeside communities of Port Dover and Port Rowan are experiencing unprecedented growth and a housing boom. These trends have created tensions between individuals affiliated with the naturalist/conservationist community,

and those who are more concerned with encouraging progressive economic development throughout Norfolk County. There is also a growing industrial base in the community. Most recently Toyotetsu has decided to build an automobile parts plant in the area. In addition the Nanticoke Generating Plant, Imperial Oil, and the Hydro Plant are major employers.

Norfolk County is blessed with attractive natural features, a fact that was repeatedly reinforced by many of the respondents (F&NGO:E/A; F&NGO:A/E2; PS:ED; GOV:ED; GOV:H1; POL&NGO; GOV&NGO:E). This appears to be a great source of local pride. For example the region is home to many healthy freshwater streams, has one of the highest percentages of forest cover in all of Ontario, is the national headquarters for Bird Studies Canada due to the diverse range of waterfowl and habitat, is home to many species at risk and environmentally sensitive areas, and contains both provincial and national parks. However, one municipal employee involved with local tourism and economic development suggested that the natural capital of the area is taken for granted by many local residents who do not realize its intrinsic value, or potential for generating revenue through eco-tourism and outdoor recreation (GOV:ED).

Several interviewees made observations relating to social wellbeing and community health. Interviewees stated that Norfolk County has a lower education level, and income level than the provincial average, as well as a greater population of elderly (GOV:H1; NGO:SS/Y) which places significant pressures on community supports and social services. A small percentage of residents go on to university from this area, but many never return due to lack of job opportunities and lower wages. Norfolk County also has a higher number of preventable injuries and more heart disease than the provincial average (GOV:H2). Reasons for why this is the case, have not been firmly identified.

A final characteristic noted by six of the interviewees is the significant presence of volunteer and community-based organizations (NGO:SS/Y; F&NGO:E/A; NGO:F/SS/Y; PS&NGO:E/A; GOV:H2; GOV&NGO:E). This suggests a solid foundation of existing social capital within Norfolk County. Four of the respondents, who have all been involved with various fundraising initiatives, also emphasized that citizens of Norfolk County are very

generous and giving with the many fundraising initiatives put on by various community clubs and agencies usually being quite successful (NGO:SS/Y; NGO:F/SS/Y; GOV&NGO:E; PS&NGO:E/A). This indicates that citizens are able to identify a community need or concern, and commit themselves to improving the quality of life within Norfolk County in a variety of different ways.

Interviewees were asked to provide a general description of Norfolk County in order to gain a better understanding of the underlying socio-ecological context. The information derived from their comments was compared with the background information that had been previously derived from the policy document review (summarized in section 3.4). By using both of these data sources the researcher was able to gain an accurate understanding of who some of the most active governance agents are within the community, what their major issues and concerns are, and how they are relevant to community health. The rest of this chapter is devoted to describing interviewee responses to questions that delve into local decision-making processes, challenges, and opportunities in greater detail.

4.3 Applying the Governance Criteria for Advancing an Ecosystem Approach to Community Health & Well-Being to Norfolk County

i)   *A systemic approach to thinking must be adopted to provide integrated consideration of the many interactive determinants of health, and to pursue initiatives that produce multiple and mutually reinforcing benefits in many areas. Community health, ecological integrity, and sustainable livelihoods are inseparable. Natural and human systems be understood as one complex system. Careful consideration must be given to the unique socio-ecological context within each distinct place including the concerns and values of local citizens*

In order to get a sense of how interviewees operationalized the concept of community health and well-being, and how their perceptions compared to the concepts outlined in theoretical and policy literature, they were asked what a healthy community means to them, as well as its characteristics and qualities. Eight of the informants (four of which were involved in agriculture) were able to articulate the integrated nature of their livelihoods, their own

socioeconomic wellbeing and mental health, and the health of the natural environment (F&NGO:E/A; F&NGO:A/E1; F&NGO:A/E2; F&NGO:A/E3; PS&NGO:E/A; NGO:F/SS/Y; GOV:H2; POL&NGO). They emphasized that farming trends (e.g. monoculture, diversification, intensification, etc.) all have implications for the ecological integrity and health of the land. For example in the case of a lucrative crop like tobacco, farmers are much less likely to cultivate marginal and sensitive lands because a small farm of 50-100 acres is economically viable (F&NGO:E/A). Although the tobacco farms are small individual land holdings, they were able to sustain many families while minimizing their ecological footprint. As this industry declines, some farmers are shifting towards livestock production and cash crops which could have negative implications for waterways, marshlands, and grasslands (PS&NGO:E/A; F&NGO:E/A). A former tobacco farmer explained:

> *Because tobacco provided such a good income people took care of the land. There are a lot of natural fencelines, and nobody had to farm right up to the side of the creek. Rotation crops, and things that are currently in vogue in other places have always been done here. Tobacco is really only on the land for about six months; the rest of the year there is always a cover crop so that helps to keep the water healthy and prevent soil erosion. We're in danger of that changing radically in the near future as tobacco shrinks and it goes towards more predominant cash crops which lends itself to more soil erosion. So we're going to have to be careful in the next few years, or things will change rapidly (F&NGO:A/E2).*

In addition, two of the respondents who are farmers explained that many older farmers will likely get out of farming altogether, either through transitioning into another occupational field, or by retiring. As the following statements illustrate, such socioeconomic trends can influence the degree to which ecological goods and services are protected and valued. This in turn has implications for the sustainability of the health of local ecosystems which include the citizens and communities of Norfolk County.

> *Some of them are in their third interview in Toyota, they have their name in at Stelco, some are becoming industrial electricians, others are going to school to be a millwright, and their intention is just to clear their debt. They're going to stay on the farm, but they're going outside of this community to work… so all of that land is going to be rented out. It's going to end up being mostly cash crops, (where you use as much surface area as possible), and so the attitude towards the land by absentee landlords, or the person who ends up working the land changes. That connection to the land,*

community and environment is lost… that connection now becomes completely profit oriented… You lose that love for the land. The tenant doesn't care like the actual landowner (F&NGO:A/E2).

My neighbour went from tobacco two years ago into soybeans last year. He's 65, and he sold his quota and didn't want to get into hiring people again because tobacco is becoming a dirty crop. But he's got to make $7000 a year because then his land taxes stay at 25% rather than 100% which would happen if he stopped farming the land altogether. He can have his friend plant the soy in the spring. He turns the soil over, that's one days work, and plants the soy beans a second day. The person who buys the contract comes in and harvests it. So he makes $7000 off of the land that he previously made $350,000 off of. But it is worthwhile due to the tax savings. And these commodity cash crops can be sold anywhere, so there's no research or sales involved in terms of finding out new ways to get your product out there (F&NGO:E/A)

Reverting to cash crops makes sense for older farmers despite the fact that they are relatively less lucrative and require larger land parcels in order to be viable. One respondent referred to this trend as "tax farming" which is basically one step away from getting out of farming altogether. This can be an attractive option for older farmers who are not interested or able to reinvest in another enterprise or new equipment and infrastructure.

In addition to demonstrating an understanding of how their livelihood practices affect the health of the land and environment, three farmers and one representative of the local health unit also emphasized the importance of producing local, fresh food for the health of citizens within the community (F&NGO:E/A; F&NGO:A/E2; F&NGO:A/E3; GOV:H2).

The vitamin and mineral content increases right up until ripening, and the most dramatic increase is within the last 5% of the time, so it's right before it starts to rot that plants are the best. Food energy nutrients build up in a plant until it is picked. The closer you can get to the food, the higher the nutritive value is going to be. But our distribution chains are so long, they're global. We can go to a store and food appears fresh, but the distance they have been shipped has caused the nutrient quality to go down. As the quality of the food declines, social stresses increase, and allergies, and autoimmune deficiencies increase…I think there is a direct link to health there (F&NGO:E/A).

Respondents also spoke of many other broad, systemic determinants of community health and well-being. For instance a vibrant economy, sufficient and equitable distribution of income, and diverse and multiple livelihood opportunities and jobs, particularly for youth, was stressed

by nearly every informant (11 of the 15 respondents) (NGO:SS/Y; F&NGO:E/A; F&NGO:A/E1; F&NGO:A/E2; GOV&NGO:E/A; PS&NGO:E/A; GOV:ED; PS:ED; NGO:F/SS/Y; GOV:H1; GOV:H2). There appeared to be an understanding that relying too heavily on one industry or source of revenue increases the vulnerability of the community to socioeconomic stresses. A couple respondents emphasized that it is important to have educational opportunities locally accessible, because when youth are forced to leave their community to receive an education they are often unlikely to return (NGO:SS/Y; GOV:H1; GOV:H2; PS&NGO:E/A).

Some informants discussed the importance of perceived safety, and adequate and accessible infrastructure (e.g. roads, water quality, waste management, etc.) (NGO:F/SS/Y; PS:ED; GOV:ED; GOV:H2; GOV&NGO:E), while others emphasized the importance of having walkable communities, connective trails, public transit, greenspace, and opportunities for recreation and leisure (NGO:SS/Y; GOV:H1; GOV:H2; GOV:ED; GOV&NGO:E; POL&NGO). One municipal employee explained that this is one area in which Norfolk County is struggling; while the health unit and public works department are collaborating to provide enabling environments for healthy, active lifestyles, the rural nature of the community makes such objectives very difficult. Many residential lots are situated within rural areas along roads where there are no sidewalks or adequate shoulders resulting in safety concerns. Also the sheer distance between homes and various amenities creates a real obstacle when trying to encourage citizens to become less dependent on automobiles (GOV&NGO:E). A healthy natural environment was repeatedly described as being important to the health of a community. In particular respondents spoke of the importance of clean air and water, biodiversity, and natural aesthetics (F&NGO:A/E1; F&NGO:A/E2; F&NGO:A/E3; GOV&NGO:E/A; F&NGO:E/A; PS&NGO:E/A; GOV:H1; GOV&NGO:H/E; GOV&NGO:E; POL&NGO).

Another common theme expressed by nine of the informants was the importance of an active, engaged citizenry, a culture of volunteerism, stewardship, and community fellowship where residents of Norfolk County are encouraged to know and help one another (F&NGO:A/E1; GOV&NGO:E/A; F&NGO:E/A; F&NGO:A/E2; GOV:H2; PS&NGO:E/A; GOV&NGO:E;

NGO:F/SS/Y; POL&NGO). (*See criterion vii for more information on the importance of locally engaged citizens*).

Issues relating to social equity, justice, and marginalization were also identified as being important determinants of human and community health with many concerns expressed about domestic violence against women, a lack of affordable housing, homelessness, and the marginalization of those with addictions or mental illnesses, youth, senior citizens, single parents, low income families, those without private transportation, and the rural poor (in particular the Mennonite population) (NGO:F/SS/Y; PS:ED; NGO:SS/Y; GOV:H1; GOV:H2; GOV&NGO:H/E). One respondent who interacts daily with children and youth explained that the erosion of the family unit, the struggles of single-parent families, and other similar socioeconomic trends, can have negative repercussions for the healthy growth and development of children, and therefore their potential to succeed in life (NGO:SS/Y). It could certainly be argued that community sustainability and health depends, in part, on its children's quality of life and availability of opportunities to engage in extra-curricular activities and be supported within a stable and resourceful home environment.   Another informant with frequent, front-line interaction with struggling families through his work within the faith community speculated about why so many families, particularly single-parent families, are struggling in Norfolk County. He felt this was, in part, due to the stress of being overworked, especially if one must commute long distances outside of the community in order to find work. This leaves little free time left for family.

> *They're working long hours. A lot of them are leaving town and driving 45-90 minutes on top of their work day. So leaving at five in the morning, and getting back at seven at night, just to be able to maintain what they've got. That's a stress on the family, and a stress on how tired people are, on how physically able people are. You can't burn the candle at both ends forever without it meeting in the middle eventually. We see a lot of that…multiple incidences of parents coming in needing help, care, encouragement, counseling…falling apart at the seams because of the stresses of life (NGO:F/SS/Y).*

This same respondent also emphasized the importance of these stresses being recognized and addressed further by the local government through various support programs and services. However, this respondent felt that such concerns and needs typically do not receive the same

level of priority from the local government, as business and infrastructural issues, which likely reflects the nature of the expertise and interests of those contained therein (NGO:F/SS/Y).

One factor which exacerbates homelessness is the need for individuals to go outside of Norfolk County to receive the help. More emergency housing, as well as affordable housing is required within the county itself, particularly the urban core of Simcoe. For example, it was asserted that a number of homeless people currently have to be transported to Brantford or elsewhere in order to obtain or apply for temporary shelter. In addition to existing stigma, financial and social hardships, therefore, these individuals become spatially excluded from any community contacts, supports, or familiarity that they may have had. This is part of a broader problem cited by multiple informants, and that is a lack of locally accessible health care services and supports (GOV:H1; GOV:H2; NGO:SS/Y; NGO:F/SS/Y). One public health employee explained that this is an area in which Norfolk County is lacking, particularly in regards to specialized medical services (e.g. diabetic services, rehabilitation, etc), and mental health supports (e.g. psychiatric services). While specialists may come in to the hospitals to do assessments, patients must go outside of the County (usually to Hamilton or London), in order to receive ongoing treatment and support (GOV:H1). Related to this, one respondent pointed out that it will be a challenge to accommodate the influx of retirees, and aging population in this area in terms of maintaining or providing service provision and access to health care. As at this point there is a growing shortage of physicians, dentists, and chiropractors, etc (NGO:F/SS/Y).

Summary

In order for local governance agents to facilitate or enhance the health and well-being of their community, systemic and integrated approaches are required for effective conceptualization, governance, and decision-making. The key informants included in this study have a good grasp of the local socio-ecological context, and are able to observe and understand the interactive nature of human and natural systems, including the many embedded and wide-ranging determinants of health. Their perceptions of what a healthy community means to them and what it must consist of included a wide range of environmental, social, political, and economic factors. Their responses indicate a good understanding of the integrated nature of

economic viability and opportunity, the health of citizens, and the health of the environment. In order for decision-making to be sustainable and successful at promoting community health over the long-term, developmental initiatives must promote benefits in all of these areas, as undermining one will inevitably result in the erosion of the others. Chapter 5 will explore the implications of this in greater detail, and describe some examples of initiatives that could be pursued in Norfolk County that are exemplary of an integrated, systemic approach to facilitating health, and that would likely have the potential of promoting wide-ranging community benefits.

> ii)   ***Adopting a systems approach to building a healthy community requires integrated decision-making through inter-sectoral action within and across governments, in order to promote healthy public policy in all areas. Inter-jurisdictional collaboration, partnerships, and the sharing of diverse information must exist within and between governmental and non-governmental agents.***

Interview participants were asked a series of questions relating to who should be involved in governing for healthy communities, and what a coordinated approach to collaborative governance might look like. Participants were asked to identify some of the major players (governmental or otherwise) that are working towards improving community health and well-being in Norfolk County, and whether other organizations or interests needed to become further involved. Interviewees also described whether the organizations with which they were affiliated were involved in any collaborative partnerships and why. If this was the case, they then described the nature of those relationships (i.e. are there clearly defined roles, objectives and responsibilities, etc), and whether they could identify any opportunities for constructing future partnerships that do not already exist, but could nevertheless enhance the capacity of their organization. Finally, participants were asked to comment on some of the challenges that exist in creating or maintaining an active partnership or collaborative relationship.

All fifteen interviewees saw the value and necessity of collaborative governance, and all were members of organizations that utilized a partnership approach within their operations. One former, long-term councilor for Norfolk County, who is also heavily involved with various NGOs, explained that such an approach is essential for understanding all of the pieces of the puzzle, as well as the collective big-picture. Without cross-communication, silos develop, and

are perpetuated, making it very difficult to observe interconnections, and how the actions of one department might result in outcomes or effects that would fall under another department's jurisdiction (POL&NGO). He went on to explain that while this is difficult for any government, one that has been recently restructured like Norfolk County faces additional challenges as they are a brand new corporation. A new municipality is often consumed with the struggle of just getting each department organized, let alone being able to move forward in a collaborative, integrated fashion. Despite this struggle, a few different respondents were able to articulate clearly the advantages of having a health department with transparent connections to various other departments including planning, community services, recreation, public works, etc. While the former councilor indicated that he feels that such connections are happening more than they were before, he asserted that with a bigger bureaucracy, it can be difficult and overwhelming to create and maintain desired connectivity (POL&NGO).

Another municipal employee involved with coordinating local tourism and economic development gave some insight on how staff from different departments are brought together to discuss the integrated nature of concerns and strategies surrounding developmental planning.

> *Within our own department, we have a Development Coordinating Committee that includes staff and representatives from each County department. For instance, if we were talking about someone developing a subdivision, the Health Department would indicate that they would like to see sidewalks and walkability included in the design; Community Services would review the importance of parks and trees and things like that, and also look at fire and emergency response services and access. Public Works looks at water and waste management… so every department has an interest in how things get developed. This process helps to ensure that we're all on the same page, and developers are not getting different messages from different departments (GOV:ED).*

This sounds positive, but the perspectives from employees of the local health unit suggest that while things are improving, there is still some work to be done. This is specifically the case with respect to ensuring that cross-communication is being conducted effectively, and is consistently viewed as an integral component of the decision-making process, particularly in regards to governing and planning towards healthy communities (GOV:H1; GOV:H2; GOV&NGO:H/E). As the following comments suggest, there is still much headway that

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needs to be gained in terms of ensuring that municipal land-use and strategic planning is considered in regards to their impact on determinants of health, and that municipal decision-making is further integrated with community and public health objectives, and strategies.

> *One of the biggest challenges that we've been trying to work on is getting the County to see that they are part of the role of improving community health. Health is not always on the forefront of their minds. The municipality sees their role more as the nuts and bolts of maintaining the roads, and having good water, and having good sewage and recreation. And all of those are very important, all those things contribute to the determinants of health, but they don't think of it in those terms. So just trying to get the determinants of health language into their thought process is important, so when they plan that becomes one of the things that just naturally comes out of that process (GOV:H1).*

> *There is a challenge with how we connect with some of the decisions made at the municipal level that affect health, but which people don't think about it in terms of how they are affecting health. For example, when a County does a Master plan for how they are built, and how their subdivisions are and all of that, we kind of struggle to get in on that because we're not necessarily seen as being part of the planning process. So now we're trying to say well wait a minute there are some issues here that we need to tell you about, before you form your official plan for the community. So I think we are getting better at that…Even at the last conference of Ontario Planners, the subject of active transportation and walkability was included as one of their issues. And so we sent some staff from the health unit and Norfolk County sent some planners, and I thought well that is so cool that we can finally connect and talk about this, because we are coming at it from here, and you're coming at it from this way. So we're trying to meet with our planners more, and just build those relationships so we can have some influence over some of those decisions as historically there has been a lack of opportunity for communication there (GOV:H2).*

In addition to the challenges of coordinating policy across sectors at the local scale, local governments must also be able to navigate, coordinate, and harmonize with various provincial ministries. This is by no means an easy task when trying to govern towards healthy communities due to the fact that the influences and outcomes associated with health are so very broad in scope. In addition, the mandates and jurisdictions of provincial ministries are continuously undergoing change and restructuring. This creates additional challenges to local governments who are trying to stay up-to-date with who is doing what, where responsibility and accountability lie, and how and where to obtain program funding, as illustrated by the following statement provided by a Public Health employee:

We used to deal with the Ministry of Health and Long-Term Care's Public Health branch. That was pretty well the only ministry that we dealt with. And now, we deal with the new Ministry of Health Promotion, it's a brand new ministry, and probably about half of our program mandate is under that ministry. But we also have several of our programs funded under the Ministry of Children and Youth Services. And we're also connected with the Ministry of the Environment, Ministry of Housing and Social Affairs…or whatever that's called now… and still the Ministry of Health and Long-Term Care. They all have a piece to play when it comes to the determinants of health. So we used to all be in one basket, now we're between three or more baskets…and they have different structures, different reporting requirements… and you know, I guess time will tell whether that's a good thing or bad thing. So now that there is an entire ministry devoted to health promotion it brings a lot more attention to those items under that mandate. So in one way it's really good…but how much that splits it off, and makes it more difficult to communicate across all of those different ministries when it comes to overall planning, especially when you're dealing with the overall determinants of health, is yet to be seen (GOV:H1).

Many of the respondents provided valuable insight on the nature of the relationships that exist between partner organizations. The majority of respondents indicated that most of their partnership arrangements tended to be fairly informal, ad-hoc, and predominantly issue based (NGO:SS/Y; F&NGO:E/A; GOV&NGO:E/A; F&NGO:A/E1; NGO:F/SS/Y; PS&NGO:E/A; GOV:H1; GOV:H2; POL&NGO). For the most part, the only instances where this trend deviated was when a senior level of government was involved, and where there was a transferring of funds in place that required closer scrutiny of objectives, benchmarks, roles, and accountability (F&NGO:E/A; GOV&NGO:H/E; GOV&NGO:E/A; PS&NGO:E/A; GOV:H2). The following statements were taken from municipal health unit employees:

Usually an agency will have an item, or an issue identified and then they will say you know we all have that same problem. Unless you have an issue to focus around, people are too busy to just go to a meeting. So things have got to be very issue focused (GOV:H1).

We work a lot in coalitions with other folks in the community. The degree of formality depends on the group. They tend to come together around a particular issue, and then if they get some success then they carry on, that's kind of what I've observed. So for example, the drinking and driving task force was very driven because there were a couple of folks on there who had lost loved ones to drinking and driving. So that was their absolute goal, and we helped to facilitate bringing the right partners around the table. So that group was very focused on that one problem….Whereas our heart disease network, it was mostly an issue that came from above from the province. We had money, so that always brings people around the table who are willing to provide

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input into planning how we are going to spend this money. So that is quite a formalized agreement or situation. We have terms of reference, we have guidelines we have lots of very formalized things along that line. So it varies (GOV:H2).

Similar responses were given by volunteers and employees involved with activities related to biophysical health, particularly conservation, protection, and management of environmental and natural resources. For example, a tree planting partnership between the Ontario Power Generation, the Long Point Regional Conservation Authority, and the Long Point Biosphere Reserve operates under a formal contract. However this contract is mostly due to the fact that there is money moving back and forth between these agencies (GOV&NGO:E). The following statement given by an employee of a provincial ministry, who is also involved in local land stewardship, echoed the sentiment that partnered actions are predominantly issue based, except at times when a ministry is indirectly involved, primarily through the transferring of funds:

> *One way that we get involved in a project is when there is a community need. For example, we stepped in when we had a drought here, and water supplies were low. The community had to restrict watering. Fishermen were pointing fingers at the farmers because the irrigation pumps were going and they were concerned about the fish. Meanwhile, farmers' water supplies were drying up. Everybody was pointing fingers at each other, so we got all of the stakeholders together, and we got them to agree on a program, we tapped into some funding, and we delivered a water supply enhancement project. An alternative way that we get involved in a collaborative project is that we get an allowance of about $10,000 per year, from the Ministry of Natural Resources if we meet certain conditions. And we often have community partners come to us with their hand out. And so if they can convince the volunteers on the council that this will help achieve something good on the landscape that meets our mission statements, and ministry obligations, than we may provide some funding (GOV&NGO:E/A).*

Four other respondents expressed similar sentiments explaining that the relationships and expectations within a partnership depend upon the situation, with some being more formal than others. Groups that are a committee of council tend to be more formal. Members are appointed by council, and they operate under clearly defined terms of references (GOV:ED, PS:ED; GOV&NGO:E; POL&NGO).

Another common emphasis by interviewees was that there is a certain benefit to having built-in flexibility within partnership arrangements (NGO:SS/Y; GOV&NGO:E/A; PS&NGO:E/A;

GOV:H1). This is one example where non-governmental organizations may have an advantage over governmental institutions, because they can (at times) have the freedom of being less structurally and procedurally rigid. This can enable organizations involved in partnerships to come up with creative and flexible agreements, while maintaining greater autonomy over their own strategic objectives and methods. For example, one respondent involved in environmental consulting explained that he has an agreement with a local NGO where his costs of hiring a summer student are actually channeled through the NGO, so that he himself does not have to worry about creating staff payroll. In return the consultant assists the NGO by providing monitoring supplies, expertise, student training, and assistance in writing a weekly report targeted at farmers. These two parties essentially have the freedom to barter in their exchange of resources, mutually negotiate the ways in which they will cooperate, with no cash ever needing to be exchanged. This flexibility likely makes it easier to create and terminate a partnership, enhancing the ability of the parties to adapt to changing circumstances and subsequent capacity. However, in order for such an informal arrangement to be successful, there must be mutual trust between all parties.

Another respondent who is involved with the local land trust commented on how informal arrangements and funding sources (although potentially more difficult to acquire and maintain) can result in greater flexibility and autonomy:

> *In organizational management there are two streams. One is the chain of command, and the other is the networks. The chain of command is what you are describing as formal relationships, and we do have very few formal relationships. We have one or two contracts with the Nature Conservancy of Canada for property management that are formal contracts. We've got one or two other formal contracts and chains of command, but almost everything else is run by informal networking. We do a lot of our communication through networks rather than through the formal chain of command. The reason being we do not want to be subservient to another organization's mandate. This is one disadvantage to formalized fundraising, because fundraisers require you to assume their mandate before they give you money. And then you carry out their project, not your own, and the danger is it shifts the priorities of your organization towards your funder's priorities, which aren't necessarily your own (F&NGO:E/A).*

With respect to the above comment on the value of informal networks, is another trend that was commonly cited by respondents: collaborative partnerships between organizations are

often reliant upon a few individuals wearing "multiple hats". As such, their own involvement with different community agencies creates informal connections, indirect associations, and open communication channels. These active individuals can create bridges between organizations that otherwise may not formally exist (NGO:SS/Y; F&NGO:E/A; PS&NGO:E/A; GOV:H1; GOV:H2; GOV&NGO:H/E; POL&NGO; GOV&NGO:E; NGO:F/SS/Y). So while different organizations with similar interests and mandates may not have formal relationships, there are often informal connections that spring from personal relationships developed through everyday community life, and sometimes the nature of those connections are blurred as outlined below in two different anecdotes:

> *The field naturalists have relationships with a lot of different organizations, but they're not really formalized. Sometimes those relationships are professional, sometimes they're volunteer, and the lines are often hazy, as they are with myself. For instance I'm going out with the MNR to look at badger habitat tomorrow. I'm not getting paid for it, and I'm not doing it for the Norfolk Field Naturalists, I'm kind of doing it as a volunteer. But at the same time my affiliation with the field naturalists means that the information gathered makes it back to them, and they will likely utilize that information (PS&NGO:E/A).*

> *The social clubs and the service clubs, Children's Aid… all of those other organizations are active in town. And we've had contact with a number of them over a number of different reasons. We have people here who work for those agencies in our congregation, and on our board, and they are kind of liaisons for us, and let us know what is happening there (NGO:FS/SS/Y).*

There was certainly no shortage of identified challenges when it came to respondents commenting on the difficulties of establishing and maintaining collaborative partnerships. All respondents were able to identify a wide range of obstacles requiring cautious and attentive navigation. One frequently cited barrier to collaboration was the conflicts that arise due to clashes between different personality types, or conflicting opinions on the best means of achieving goals (even when a common vision or end objective is shared) (F&NGO:E/A; NGO:F/SS/Y; F&NGO:A/E1; PS&NGO:E/A; GOV&NGO:H/E; GOV&NGO:E). Five of those six respondents cited the example of the clashes that can erupt between stakeholders involved with habitat conservation/restoration for the purposes of hunting and angling, versus those who are naturalists striving to preserve habitat in order to protect flora and fauna, and enhance ecological integrity.

I think on the whole, these environmental groups tend to work in isolation of each other. If you pulled together all of these groups as one common voice, they would be listened to more… Because if you've got a farmer standing beside a birder, and the farmer is doing it because it's reducing erosion on his property, but the birder is happy because it's increasing habitat… they're both winning, but they're doing it for different reasons. I think those opportunities are beginning to increase, but I think historically, things have been done in isolation. I think that's one of the biggest hurdles that you face here for sustainability. In the County everybody is a volunteer for the most part, and it is kind of hard to bring one volunteer organization together with another, because they have different viewpoints, and different personalities… Bringing Ducks Unlimited together with the Norfolk Field Naturalists, that's never going to happen in my mind. Because you have people who are going to want to look at birds versus people who are looking at birds through a scope…and you know they're both legitimate, and they're both committed to the environment and preserving habitat…The biggest challenge is overcoming the personalities, and to get the people to come together to work together (GOV&NGO:E).

Well I guess, it always takes one party to make the first step in forming a partnership, and that is something that is often lacking because of personality issues. I think that's a large one, the perception that you have different goals when you really have the same goal at large, but getting there, your techniques might be different. That may prevent somebody like a fisher or game club working with an organization that is like the Norfolk Field Naturalists. We do have a lot of not for profit organizations that are related to the environment, and then you've got the Conservation Authority, but in my experience I've found that sometimes its personalities that have kept these groups from working together in partnerships, to the detriment of the bigger picture. Now I see that somewhat changing over the last few years. And sometimes changing one or two people will do the trick. The field naturalists and the CA have not had a very amiable relationship over the years, but you know recently they had a younger president who came to work for a short time, and in that time she built some bridges... Then the CA had a change of management and again the manager who was there was a good guy, but they were definitely at odds with some of the naturalists community, because when the CAs budgets were cut by the provincial government, their strategy then was to get into logging to make ends meet. And that was something that was vehemently opposed by the naturalist community. So sometimes the personalities really make a difference, and various people have said, if we all work together as a group of environmentally minded people and organizations, we'd have so much more power and knowledge. We may not all have the same ways of working together, but the ultimate goals are often the same…Sometimes I think they just need a facilitator (PS&NGO:E/A).

The above examples demonstrate that while there is a healthy stock of willing volunteers and engaged citizens involved in various governance activities throughout the community, their personal values and beliefs can result in narrowing the range of available options for pursuing

collaborative arrangements that could promote broader sustainability and health objectives. It is possible that having an "impartial" body or facilitator available to help mediate during arising conflicts, or provide a forum for identifying and nurturing the commonalities that do exist between these divergent groups (and the individuals in which they are comprised) could further advance a "big-picture" or collaborative systems approach to both conceptualizing and governing towards broader community health goals. One recent example where some of the existing divisions have been bridged is through the collaborative, community-based Long Point Causeway Improvement Project, being lead by the Long Point World Biosphere Reserve Foundation (LPWBRF).

The Causeway, which is located in Long Point at the southern extent of Norfolk County, was originally built in 1927 in order to enable public access to beaches and cottages and to develop a marina. The Causeway runs over the Big Creek Marsh Delta area, and acts as a barrier to amphibians and reptiles that try to cross over the causeway from the marsh area to the Long Point Bay located on the other side. Increasingly, since the time of its original construction there have been concerns amongst environmentalists regarding significant wildlife road mortalities of endangered species, and degraded water quality and movement between the Big Creek marsh and the Long Point inner bay. Other stakeholders have also expressed other concerns such as the need to improve access between Long Point and Port Rowan for business purposes; creating safer roads for motorists, cyclists, and pedestrians; as well as improving recreational opportunities (e.g. biking, birding, and fishing). As a result the LPWBRF is leading a collaborative that is seeking to improve the causeway, and therefore the well-being of the community. This collaboration has brought together a variety of stakeholders representing various scales of jurisdiction, and who in many cases have never worked together before including; the Canadian Wildlife Service, The Norfolk Land Stewardship Council, Bird Studies Canada, The Ministries of Natural Resources and Transportation, Norfolk County, The Long Point Region Conservation Authority, Norfolk Field Naturalists, Long Point Country Chamber of Commerce, Long Point Anglers' Association, Long Point Area Fish and Game Club, and local landowners amongst others. This initiative was cited by six different respondents as being a promising innovation in integrative, collaborative, community-based

partnerships (F&NGO:E/A; GOV&NGO:E/A; PS&NGO:E/A; GOV&NGO:H/E; POL&NGO; GOV&NGO:E).

Five of the interviewees also stated that turf wars, generally caused by competition over limited available funds can also prevent a cooperative climate in which a partnership might be initiated (NGO:SS/Y; F&NGO:E/A; F&NGO:A/E3; NGO:F/SS/Y; GOV&NGO:E). The following statements provide some illustrative examples:

> *The only resistance we (the Long Point Basin Land Trust) seems to get sometimes is from the Conservation Authority, because we are competing for the same conservation lands, and they've never had competition before. In terms of the CA what they tell us is that we are paying too much for land, and therefore it is costing them to have to go and raise more money. Secondly we're drawing funding away from them, because they are going to the same sources, and the Nature Conservancy (NCC) is a major source of funding down here. So if the NCC gives us money, to purchase some property than they are not giving that money to the CA from the CAs viewpoint. So the fact that they were turned down is our fault. So that's where the animosity comes in (F&NGO:E/A).*

> *When I was with the Long Point Foundation I kind of said well maybe we could partner with the Biosphere Reserve so that we would have these two organizations doing this dinner, and auction, and this fundraising evening. And the Long Point Foundation people weren't too wild about that. Strictly because they had been doing that dinner for upwards of ten years, and at its peak it was bringing in $20,000 for a night. And now it's generally around that $10-15,000 mark. So it's a bit of a cash cow for them, and they were like, well we don't necessarily want to share that with these people. And it's kind of a legitimate concern really…joint fundraising… I think it's a good idea, and again it's one of those ways that we are trying to bring these organizations together, to work together… overcoming the silos…overcoming the us versus them mentality. Again, Ducks Unlimited has a tremendous fundraising evening. I understand they raise like $40,000 in a night. Which is super! But you know, wouldn't it be neat if you could get somebody like the Ducks Unlimited and the Long Point Foundation, and the BR, to have a joint night. And have a bigger hall, and have more people there, and sell more tickets. But again, how do you split the money? (GOV&NGO:E).*

As the above statement suggests, there are inherent difficulties when it comes to how organizations would equitably divide up money and resources if they engaged in joint fundraising, despite the fact that they may acquire a larger amount of funds and public support if they were able to unite in their promotional efforts and pool their resources. When organizations and agencies are forced to compete over limited funds it creates an environment

where they are less likely to be willing to share their expertise, knowledge and resources with other community groups that have similar goals, objectives and challenges. This raises concerns in regards to implications for improving overall capacity for community development, as well as the enhancement and efficient use of human, social, and financial capital within the community.

Related to this concern was the realization that partnerships can be hard to achieve or maintain due to the fact that the resources of many groups are already stretched to thin. While this may be a justification for engaging in a partnership in the first place in order to share resources, and avoid unnecessary duplications or inefficiencies, it is nevertheless a challenge for organizations to bridge and partner with others groups for the purposes of pursuing big-picture sustainability and health benefits that go beyond their own more narrowly defined initiatives. The following example from the local public health department helps to illustrate this challenge:

> *One of the things that we have often talked about is spreading our resources too thin. Everybody can't be at all the tables all of the time. So we need to think strategically, so when we get a request to be a planning partner we need a process of defining why we would want to be there. That is, how is it going to help us move forward with our mandate? I mean the list of committees that we sit on right now… it's horrendous. Because it's not just locally, but provincially, regionally, and so am I better off sending you to a provincial networking group, or am I better off sending you to the local networking group around bullying in the schools? It's hard to prioritize. Because provincially there is often a lot of information there that we can glean, that we can use to get what we want, but locally that's really an important topic and we need to be part of that so… We need some kind of tools to give our staff the ability to say okay this is in, and this is out…but right now it's all over the map. We often struggle with, because we're one of the bigger agencies, we get drawn on to provide more and more and more. It's like a business being asked for donations all of the time, after a while you just can't do anymore. So being clear about why you are there, what you can give, and being willing to share what you can share, and give what you can give is essential (GOV:H1).*

A similar sentiment was echoed by a respondent involved in local economic development. She also indicated that it is important to maintain a manageable range of activities when working with organizations that are primarily dependent upon volunteers otherwise they may become stretched too thin. She stressed that it is essential to try and keep people focused, for if a group tries to take on too many projects, or too many partnerships than they can become

overwhelmed, and frustrated with the process (GOV:ED). If too many initiatives are taken on at once than people can lose their focus, which can result in a loss of interest, and ultimately their disengagement.

This concern is closely related to another challenge cited by a few respondents, and that is the fact that community-based organizations are always dependent on a small number of people to keep them alive. Therefore, volunteer burnout can be a significant issue in regards to minimizing opportunities for collaboratively enhancing governance capacity (GOV&NGO:E/A; F&NGO:A/E1; GOV:H1; GOV:H2).   This challenge has been compounded by changing demographics, and in particular youth out-migration, leaving some active citizens to be concerned over who is going to take their place:

> *Yes we face burnout, but it's also demographics. I mean our sons and daughters are moving out, and it's the snowbirds moving it. So who's going to take our place? And if you go to the community groups it's the same old people doing the same old things (GOV&NGO:E/A).*

> *Our best environmentalists, many of whom are senior citizens now… a lot of them have children working in the field because they caught the bug from their parents. But they're not working here… they've gone, along with their good work that they learned here…and now they're gone, and we're left sitting here holding the bag (F&NGO:A/E1).*

Nevertheless, while many respondents referred to volunteer burnout as a significant capacity issue; they also emphasized that there were certain benefits derived from having the same active citizens regularly interacting with one another. This included the building of relationships, and trust, a perceived sense of commitment, informal and horizontal networking, connectivity between groups, and more open lines of communication (NGO:SS/Y; PS&NGO:E/A; F&NGO;E/A; GOV&NGO:E/A; GOV:H1; GOV:H2). (see criterion vi for more information on the linkages between informal relationships, trust, and accountable and transparent governance).

> *Well some of the things are that you see the same people around the table, with it being a smaller community. I mean the police officer that is sitting on the drinking and driving task force is very likely going to be sitting on the safe grad committee, the drug awareness committee, and the car seat committee. And so that's both a plus and a*

minus. You build those relationships, and you know who to call, but on the other side you kind of get burnt out sometimes, because the same people are coming together, and we don't seem to have enough resources to go around and deal with all the issues. So that can have it's positive and its negatives. Trying to keep a group going is difficult, just because of that, if there are no new members people kind of get worn out. However, I think being small we sometimes can be creative and can do things that a larger health unit can't because they are stuck in that red tape. We tend to be very creative about our solutions and our strategies so I think that's a real strength. We know our community really well. Not everybody lives and works in their community, but a lot of us do, so you start making connections on your personal time with people, and it blends in with your professional life, and I think we really have a good handle on our communities. So I think that's a strength, but we're always struggling to be resourced properly (GOV:H2).

There are some advantages to being small. And usually if you go to the table on homelessness, or about mental health services, psychiatric services or whatever, it tends to be the same group that comes. These people are usually the same group of people, as many of us have pretty broad mandates, and because we have fewer agencies we tend to cover a lot of area. Most of the partnerships we have are pretty solid here, pretty well established. Most of the directors have been here a long time, we've known each other throughout all our careers, so it's a pretty solid base, and anybody new that comes in, people are really good about trying to make those connections, welcoming them into the fold, letting them know who we are, and that we're there to help. I think time is a big factor though, people's mandates are pretty stretched, and people's time is pretty stretched, and it's hard to always maintain those relationships. You establish them, but giving them the nurturing that they need is sometimes difficult (GOV:H1).

Smaller, less populated communities may have a smaller total number of active citizens to draw from, resulting in greater dependency on few people to support ongoing health and sustainability initiatives. This can create significant challenges for sustaining collaborative initiatives, as people can become overworked, and face volunteer burnout. Nevertheless, regular face-to-face interactions resulting from ongoing engagement can assist in creating a culture of cooperation, reciprocity, and commitment to fellowship and stewardship based on relationships of trust that are built through regular interactions and enhanced familiarity with one another. Successful partnerships or collaborations are achieved the same way that friendships are built. They take time, frequency of contact, and require open lines of communication. Not only is the frequency of contact important, but also the depth of the contact and the nature of the interaction that occurs each time that a group is brought together (F&NGO:E/A; NGO:SS/Y).

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One thing that was made clear by all of the respondents, is that despite the inherent challenges, partnerships are very valuable as they enhance collective capacity, provide an opportunity for organizations to gain a louder voice through demonstrating a collective need, and also demonstrate that there are organizations on the ground that are in place to address these needs if the resources are available to maintain or enhance their capacity to act. The following example regarding the need to implement public transit in the County articulates this clearly:

> *The whole initiative on public transportation is something that over the years little groups have always tried to tackle, but it's never gone anywhere. But with this new group, everyone is at the table this time around. There's all the social service agencies including us, there's the Early Years Initiative with Children, there's the municipality, education is there, housing. Pretty well everybody. People have pooled their resources in terms of money, to actually do a study to look at the actual needs and where they are, and where the problems are. So with that information we will develop a plan and get funding and backing to do something with that. So it's a much bigger voice, it's better coordinated, they've done their homework really thoroughly, they know what they need and what they want, so hopefully that group will have more power, and go forward to the Ministry if we need more funding, or is able to go to the municipality and say this is your piece of it, and you need to put this kind of money on the table. So it's the power of the group that really helps move the agenda along, and being well coordinated, and speaking as one voice. But this requires ironing things out, and negotiating one common goal (GOV:H1).*

Summary

Effective governing for the purposes of fostering healthy communities requires integrated decision-making, open communication and transparency across governmental sectors, departments and jurisdictions, in addition to the varied mandates of non-governmental and civil society organizations. Collaborative partnerships within and across the governmental and non-governmental divide are essential to enhancing local governance capacity. Norfolk County has a significant base of collaborative partnerships, and there is great potential to build upon these. All interviewees saw the value and necessity of collaborative governance arrangements, and all were members of organizations that were attempting to utilize a partnership approach within their operations. Despite this recognition, organizations face significant challenges when it comes to constructing and maintaining active partnerships. These include dealing with clashing personality types and opposing viewpoints, a lack of

resources to adequately support organizations in pursuing multiple partnerships and broad-based agendas, an over-dependence on a small number of active citizens, and ineffective or inefficient lines of communication. Nevertheless, while volunteer burnout is a real concern when citizen governance and action is reliant on the ongoing commitment of a small number of citizens, there are also benefits that arise due to their regular face-to-face interactions and ongoing engagement. Personal relationships and familiarity can assist in fostering a culture of cooperation, trust, reciprocity, and commitment to fellowship and stewardship. This finding further supports the notion that citizen engagement at the local level, where regular face-to-face interaction and frequent contact is likely more feasible; is key to enhancing more participatory, and inclusive forms of decision-making. As a result it encourages the identification of a wider range of policy options for securing healthy and sustainable communities. Chapter 5 explores the implications of these findings in greater detail, and further discusses some of the barriers and opportunities that exist in regards to enabling even dedicated and active citizens, to work together towards common objectives.

iii) ***A systems approach to a healthy community requires that governance agents incorporate long-term planning into their decision-making in addition to considering issues of inter and intra-generational equity. This requires anticipatory, rather than reactive approaches to problem identification and interventions. Recognizing that uncertainties will always exist is essential, and where there is threat of irreversible negative health impacts the precautionary principle should be exercised.***

Participants were asked to describe how decision-making processes unfold within their organizations, and comment on how their priorities, objectives, and strategies are arrived at, and who is involved in making these decisions. They were also asked what the general time-frame was for their organization's policy and decision-making processes. These questions were intended to get a sense of how far their policy and planning processes projected into the future, and whose interests were being considered and represented.

While many of the respondents saw the value and importance of carrying out long-term planning, they questioned its effectiveness and feasibility within the context of day-to-day decision-making or political environments (NGO:SS/Y; GOV:H1; GOV:H2; POL&NGO;

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GOV&NGO:E). For example, one former councilor emphasized the importance of being able to weigh out and explore all of the potential alternatives, including the positive and negative ramifications of each, before making any kind of final decision. However he went on to explain that governments are fundamentally flawed when it comes to actually implementing a consistent long-term planning strategy, due to their built-in design flaws and limitations that are associated with their relatively shorter terms of office:

> *So when you talk about long-term planning, governments can give lip service to it. And say we need to do this, and we need to do that, and they stick it in a plan and it goes on a shelf.   Like even with our Official Plan, and I was on that Steering Committee, it's a good idea. You need to plan; you need to look down the road as far as you can, and of course nobody has a crystal ball, but you plan and then you tweak. Anyway, it seems to me in my experience that you do all this planning, and then you still end up reacting to immediate situations and opportunistic things, and people yelling and screaming and coming to council. So when you talk about long-term plans… you can have all these great plans, but all it takes is one or two people coming to council to bend the will of their council members who are often concerned with getting re-elected. So of course Norfolk County has lots of long-term plans, but it still usually boils down to a term of office… four years (POL&NGO)*

Norfolk County has recently completed its Official Plan which brought together the four official plans which existed prior to amalgamation. This plan has a timeframe of twenty years, suggesting a dedication to longer term planning. However, one thing that became apparent through other comments made by another municipal employee that echoes the sentiment expressed in the above narrative, is that there is a lack of capacity and political will to support effective long-term planning, even when the visionary components of a long-term plan have been outlined through an official plan process. One suggestion for why this is the case is that planners are preoccupied with their day-to-day duties (e.g. plan amendments, severance applications, service monitoring studies etc.) which greatly reduces the time that they may have available for longer term planning, policy analysis, and plan evaluation (GOV&NGO:E). The already limited number of employees involved in planning, are stretched too thin:

> *We only have four planners working for the County, and there's between 60,000-65,000 people in the County. So there's about one planner available for every 15,000 people. We basically manage to deal with the day to day stuff. To have the luxury of sitting down with a good block of time to think exclusively about the community of Port Dover, and how it is going to develop… there's just no time for that. And the political*

will to pay for long-term planning isn't there. The political will within Norfolk County predominantly surrounds economic development, so there's not the political will to hire people for planning that are potentially going to put more restrictions on development into place (GOV&NGO:E).

One of the consequences of inadequate long-term planning capacity, combined with the fact that the area is experiencing unprecedented growth, is that development is occurring at the same time as the planning process is unfolding, and in many cases faster. Given the pressures placed on the local economy due to the collapse of the tobacco industry, decision-makers are pressed to promote economic diversification, even when a particular economic activity is problematic or is potentially an undesirable choice over the long term. As one former councilor argued above, immediate situations and opportunistic attitudes can win out over long-term sustainability. The following statement offered by another municipal employee is along the same line of thinking:

> *There's a lot of things here that set Norfolk County apart from other places, but I think that it is in a state of change now because the council and senior management direction of the County is towards economic development to diversify. In my mind, what they're trying to do is turn Simcoe and Norfolk County into every other municipality in Ontario. You've got to have a Walmart and Home Depot, and Zellers and Canadian Tire. And you've got to have that strip that is a living hell to drive on, on a Saturday. That importation of big business… I think that's a huge impact on Simcoe, and the County. And I think people look at it blindly… oh it's great development wise, but they don't necessarily see what it's doing to the spirit of the community. They look at growth as an inherently good thing, as opposed to what growth should be doing for the County. What kind of community do you want to live in, and being proactive about shaping your community, versus just kind of going ok there's a subdivision there, there's a Walmart over there…I can think of numerous planning examples, where tobacco farmers have said I can't farm anymore I want to put storage bins on my property. And you think well that's not a good idea. And you go to council and you say you know they've got this application, and this is what they want to do, but it doesn't comply with any of our policies, and it's not a good idea to use up agricultural land for storage… and then they go approve it anyways. I think humans in general react to things on an ad-hoc basis. I think with our council, specifically our previous council that they figure if an individual landowner comes in with an idea, and they want to take a business chance with that idea, then who are we to say no to them? And I think those sorts of decisions don't do anything for community sustainability. At the same time when you look at it from an immediacy perspective…Sure that guy has got to pay his bills, but I think we have to look beyond the individual and we have to look at how things impact the community as a whole, rather than whether it benefits an individual (GOV&NGO:E).*

As the above statements suggest, having Official, or Strategic Plans in place that are intended to project over the next few decades, does not necessarily ensure that decision-makers are able to restrain from merely reacting to today's dilemmas, or pressures from developers or vocal citizens, in order to properly weigh out the trade-offs between development and land-use alternatives. This can prevent the "best" or most sustainable alternative from being selected; one that promotes mutual gains for the environment and the economy, and for individuals and the health of the community as a whole over the long term. Nevertheless, a couple of the respondents had a slightly different view, emphasizing that it is very important to be able to meet the immediate and present needs of citizens, particularly when they are struggling financially, as outlined by the following statements:

> *I think we've got the strongest council we've ever had. I think we've got people that want to fast-track what happens, I think they want to work on broadening the parameters of zonings, making them more flexible. And they have to. I mean a farmer is going to have to be able to do more with his property to make him some money, other than just being able to grow crops. Like they say you can't have a body shop there, well maybe they should allow him to have a body shop. As long as it's not going to be damaging to the property, and I think you're going to see that, but it doesn't happen over night. They are revisiting the zoning provisions now, and that's something that just was unheard of before. You've got to get by planning, and the different people. Because, it's like everything else, if you've got the right people in place, they can shut everything down (PS:ED).*

> *Well I think opportunity is essential to the health of the community. There needs to be opportunity especially for young people who are looking for careers to stay here and raise their families, and build a home. I think if we want to continue as a community, we want to focus on families, people with kids, and young careers, and the entrepreneurs, and let them have their permits, and let them have their ideas, and their business opportunities so that they can build the community (NGO:F/SS/Y).*

Clearly some feel that a more flexible policy and planning environment that is open to interpretation, and easier to manipulate, is more desirable given the current socioeconomic challenges facing Norfolk County. What is also interesting is that there appears to be some contrasting views in regards to where power lies within the decision-making process. The original statements suggested that the will of decision-makers are often bent to appease developers and the most vocal citizens. It was also implied that planners or other members of

the bureaucracy often lack the power to convince councilors with decision-making authority to think more about the long-term implications, when they are faced with the pressures of citizens searching for immediate relief or gratification. In contrast one of the latter statements suggests that it is in fact the planners and other bureaucrats who have the power to dictate which developments will go forward. Clearly either scenario raises questions about the sustainability and long-term health of a community, as well as the democratic nature of decision-making processes.

Despite the challenges of long-term, anticipatory planning, many respondents stressed that Norfolk County is involved in follow-up planning processes to the Official Plan which will help guide land-use decision-making. For example, when the new council was elected, they began developing a Strategic Plan for Norfolk County in consultation with senior managers, as well as revisiting a Tourism and Economic Development Strategy. The three main areas of focus within this strategy are agriculture, business industry, and tourism. An employee of the Department of Tourism & Economic Development stated that focus groups will be held, where anyone from the community who has an interest in these areas can come out and express their needs and issues that they are facing, and offer suggestions on how things could be improved. These workshops will be open to anyone who would like to participate, and will be advertised through press releases, the departmental website, and outreach through the Chamber of Commerce (GOV:ED).   When the same informant was asked whether any type of development was a good thing, or whether there were certain types of enterprises that the department was specifically trying to attract, this was her response:

> *Well, I would say any development is good, but you have to focus on what our assets are, and try to attract industry that fits that. For example, with agriculture there is possible opportunity in the greenhouse industry, not just the industry itself but suppliers to that industry. Niagara has a lot of greenhouse growers, and so does Leamington and we're sort of in the middle, so any type of business that would supply those growers and greenhouse operations would be a targeted industry for us. As well farmers are looking to convert from tobacco crops, so value added processing might be another one. So we do try to target specific industry that makes sense for our area (GOV:ED).*

In addition to the emerging, targeted Tourism and Economic Development Strategy, three respondents also made reference to the Lakeshore Secondary Plan, which is just in the infant stages of development (POL&NGO; GOV&NGO:E; GOV:ED). It is intended to be a follow-up plan to the Official Land Use Plan, with a specific focus on lakeshore areas, including the types of development that should be occurring there, and how they can go forward without destroying natural amenities and ecological features. An additional process that is worth noting, is that Norfolk County created the Norfolk Environmental Advisory Committee, which is a committee of council made up of appointed environmental experts who are citizens from the community, responsible for reviewing policy and plans like the Official Plan, and Secondary Lakeshore Plan, in addition to environmental impact studies. They review these documents strictly from an environmental perspective and then provide advice to planning staff, and ultimately to council.

So there have been attempts to put planning mechanisms and checks and balances into place, to ensure that anticipatory management is occurring. However, the difficulty of trying to balance out long-term planning, and the interests of future generations with the immediate needs and wants of the current generation continues to be a significant challenge in regards to building a sustainable and healthy community, particularly due to the rapid pace of development.

Although the scope of this thesis is unable to cover all the existing and potential inequities within Norfolk County, respondents did make reference to a few examples of current inequity issues. The two examples summarized in brief below were included here due to the fact that they shed light on some outcomes that are a direct result of current patterns of growth and development. First off, the fact that there is no public transportation available whatsoever throughout Norfolk County was raised repeatedly (NGO:SS/Y; GOV:H1; GOV:H2; GOV&NGO:E). This is a significant issue in regards to intra-generational equity and community health, because those without a vehicle are marginalized and face extra challenges in accessing available supports, services and amenities. "Services tend to be more in the urban centres, so people in the outlying areas have a hard time getting in to access them. We really see that with the elderly, people who may have lost their licence, young mothers, and single

parent families, etc" (GOV:H1). The other issue with implications for social equity was the lack of affordable housing available throughout the County (NGO:F/SS/Y; GOV:H1). There are very few affordable and or multi-unit centres within Norfolk. This is becoming even more of an issue as the community continues to grow and develop due to the ongoing influx of retiring, relatively wealthy urbanites. Their desire for large country estates is consuming land that may have otherwise been available for affordable housing catering to individuals, senior, or families with lower incomes. As one respondent pointed out, "Not everybody in this area has had the benefit of selling their house in Toronto and making $800,000 off the sale and coming here to build a home, where they can get an open concept for $200-250,000 and live off the difference. Some are looking for a $500 a month apartment, because they can't afford to live in Burlington or Oakville or the GTA, etc. and for them there's a serious lack of affordable, appropriate housing, especially for seniors" (NGO:F/SS/Y).

Summary

Applying a systems approach to a healthy community requires that governance agents incorporate long-term planning into their decision-making frameworks in addition to considering issues of inter and intra-generational equity. This requires an anticipatory, rather than reactive approach to problem identification and devised interventions. Under most circumstances it is not possible to have complete certainty that the information on which decisions are based upon is complete and accurate. Nevertheless, it is important to consider the long-term impacts of decisions, and when the threat of irreversible negative consequences exists, decisions and outcomes which demonstrate a precautionary approach should be favoured (Gibson, 2005). Most interviewees indicated that while they saw the value of anticipatory, long-term planning, they had less faith in whether it was effective or feasible to adhere to. This is particularly the case when today's decision-makers are heavily pressured to accommodate present-day needs and wants even if they are at the expense of long-term sustainability, or more desirable decision-making outcomes. Local governments are struggling to address the more immediate needs and socioeconomic impacts that are in large part related to the declining tobacco industry through economic diversification, growth and development strategies; without jeopardizing community health, sustainability, rural heritage, and ecological integrity over the long-term. In Chapter 5 this challenge is explored a little further.

iv)　　*Due to inherent uncertainties associated with an integrated approach to health conceptualization and governance, institutions must be adaptive and able to incorporate and respond to new information as it arises (including changing socio-ecological conditions, or shifting social values). This requires ongoing monitoring and evaluation, and a commitment to learning to provide decision-makers with feedback to support an ongoing process of policy modification.*

In order to get a sense of how reflective and adaptive some of the organizations are that have influence over local governance, interviewees were asked whether their organizations have mechanisms in place through which their policy objectives and strategies are evaluated, and adjusted if necessary. In other words, how might they go about determining the effectiveness of their initiatives?

Six of the respondents (all of whom are currently working, or have previously worked within a government setting) explained that their organizations at least attempt to conduct program evaluation and monitoring (GOV:H1; GOV:H2; GOV&NGO:H/E; POL&NGO; GOV:ED; PS&NGO:E/A) . Of these same respondents four of them went on to emphasize that program follow-up, evaluation and adjustment are some of the most challenging aspects of any initiative. Evaluation is a common problem for any organization, whether they are a not-for-profit, or governmental agency. One informant involved in environmental consulting discussed a couple of project examples where this was indeed the case:

> *Take environmental farm plans…I think they are an excellent initiative, but if you inquire with the Ontario Soil and Crop Improvement Association who coordinates that, and you ask whether they have evaluated what good it has actually done, you know how much less runoff there is, etc…All of that kind of data collection costs a huge amount of dollars to obtain. Another example is the Backus Woods heritage forest project. Part of the campaign was to raise funds to do a natural inventory. The last one was done 20 years ago, and looked at flora, breeding birds, insects, mammals, reptiles, and amphibians. The management plan developed at the time said after 20 years we should assess all of this again, and see what changes have occurred. In 20 years technology has come a long way. We've got GPS, an ecological land inventory, all these new techniques and digital cameras, etc. But yet the money isn't available to do it. We've been fundraising for it, but we haven't met our target. It's now been 21 and a half years. When is it going to get done, and when it does will it be partially done, or completely done? So that follow-up is something that is often not finished (PS&NGO:E/A).*

A couple of informants employed with the health unit also expressed similar comments in regards to the inherent difficulties of monitoring and evaluation, particularly in regards to health determinants, interventions, and resulting outcomes:

> *Monitoring and evaluation is one of the toughest things. We try to produce reports that look at the bigger picture and how some of our intervention effect disease, morbidity and mortality statistics. Through the Canadian Community Health Status Report we are able to get local data through our epidemiologist on local smoking rates, and how they are changing over time, or data on consumption of fruits and vegetables, which is helpful. And all of our mandatory programs that come down from the province have long-range indicators built in as well. Yet sometimes it is hard to make connections between our interventions and these statistics. For example, with a school nutrition program that we are doing right now, is that going to change heart disease rates for those kids when they are forty? It's very difficult to tap into those bigger disease and injury indicators because of all of the multiple variables involved (GOV:H2).*

Monitoring challenges include the lack of financial resources, expertise, and knowledge about how to effectively track people longitudinally as they go through their lives. Health is one of those areas where one cannot always identify single cause-effect relationships between stressors and outcomes (GOV:H2; GOV&NGO:H/E). Nevertheless the health unit conducts evaluations, or has their clients evaluate the quality of their experiences of participating in a range of their programs. It also generates a variety of health status reports in different areas (e.g. prenatal health, communicable disease, air pollution, etc.), in addition to surveying students on all kinds of topics including tobacco use, eating habits, and their physical activity. It was explained that whenever a new project is initiated, efforts are made to ensure that measurable goals and objectives are built into the program. However, many of the evaluations that do occur are primarily focused on process (e.g. are programs of interest to participants or meeting their needs, how many people participate, are programs equitably accessible, etc). While this information can be valuable in terms of providing direction and feedback for future initiatives, there is still a need for developing and evaluating more outcome indicators. This can be very challenging as the outcomes of various interventions may not be observable until many years, or even decades later (GOV:H1).

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In addition to the many challenges of actually trying to incorporate monitoring and evaluation into adaptive patters of decision-making, the following two narratives suggest that when working with a limited set of funds, channeling revenues into ongoing monitoring studies can in fact be detrimental to community health outcomes because it takes away from actual action and intervention on the ground.

> *My role with the provincial government for 13 years was as a pesticide specialist. I helped farmers reduce their pesticide use, and I was out working with farmers on a daily basis. That program was cut back in 1999, and it doesn't exist anymore. The liaison and the partnership with farmers are gone. Basically I was expected to sit in an office, work at a computer inputting stats, and update a few monitoring reports and publications. I was no longer in touch with them on a daily basis. I strongly disagree with that direction because if you're not working with the people all the time, you don't really understand what's happening with them. And they just cut that, and that's the kind of thing that I find governments have stepped away from. It should be more on the ground, and less policy and red-tape and paperwork and money for documents, there should be more money for actually getting things done. I ended up voluntarily leaving that position (PS&NGO:E/A)*

> *Oh the government ministries are addicted to studying and monitoring to the point where nothing is getting done! You know source-water protection for instance… There was $124 million dollars spent on consultant reports, well there's nothing left to do the work on the ground now. They've only got $7 million left this year to actually put all of the committees together to go do the work…. But $124 million went to talking about it… the money never reaches the ground (F&NGO:A/E3).*

The above narratives are indicative of the frustrations that some individuals feel when they perceive that valuable resources are being caught up, or even wasted in "red-tape".

A couple of the respondents differed about what adaptability means in regards to being able to respond and navigate changing circumstances. Their comments largely focused on the advantage that an organization has when its members, volunteers, or employees are able to carry out a variety of different roles or responsibilities (NGO:SS/Y; GOV&NGO:H/E). One respondent speculated that very narrow job definitions where an individual has a limited scope of expertise can make it difficult for organizations to respond to fluctuating community needs. When agents and institutions become rigid in their mandate and approach, it can be a very slow process of adjusting the area of focus for analysis, or the ways in which things are accomplished. For example, the following comment suggests that when an individual or

organization has skill sets in a variety of different areas, it can be easier to respond to changing demands and circumstances.

> *Well if somebody says to me, what's your job? Well I'll probably help with the preschool today, or apply for a grant, I'll do some marketing, or I'll go upstairs and fix the toilet. But at the same time I'll probably be needed to address behavioural issues if a child is having some control problems. So it's best if you never put yourself in a box (NGO:SS/Y).*

This same respondent also emphasized that it is very difficult to find individuals who have a more generalist skill set, as our society (including scholarly disciplines, or other occupations and professions) tend to promote narrow job definitions and areas of expertise. Another respondent employed with the public health department also suggested that one of their greatest strengths in regards to their overall capacity is the fact that the employees within their department do not specialize. Instead they have generalist skills set, have fluctuating jobs descriptions, and are capable of doing a little bit of everything. This respondent also suggested that diversity within a job description can also contribute to greater job satisfaction and self-confidence, because everyday is different, and employees have the freedom to set up their own schedules in order to accomplish was is expected of them (GOV&NGO:H/E).

Summary

The socio-ecological context of community health is constantly in a state of flux. In addition, the social values which shape the political decision-making climate are also ever-changing. Governing in order to achieve healthy communities means that institutions and governance agents need to be able to monitor, observe, evaluate and respond to these changing circumstances in order to ensure that their program and policy initiatives are suitably targeted and effective. This requires a certain degree of institutional flexibility and malleable governance strategies. Interviewee respondents indicated that monitoring, follow-up and adjustment are some of the most difficult elements of any program or policy initiative. This is particularly the case when it comes to determinants of community health and well-being due to the vast, synergistic and multiple variables involved. It is not always possible to have complete certainty in regards to direct causal relationships between a community or environmental stressor and a subsequent health outcome. Nevertheless, funding agencies, and

expectations in regards to accountable and efficient resource use often demand such an "evidence-based" approach to policy and decision-making, which raises significant challenges to actors carrying out initiatives on the ground. Chapter 5 will discuss these challenges further. In particular, the implications in regards to resource use, effective action on the ground, and the utility of promoting generalist skills development will be explored.

v) *Governing for healthy communities requires transparency and accountability, and clear roles and responsibilities for all agents of governance*

It was important to get a sense of the transparency and accountability of administrative units from the perspectives of the informants affiliated with governmental, and/or non-governmental organizations. Participants were asked to explain how decision-making occurs within their organizations, and comment on how their program objectives, priorities and strategies are arrived at. Informants were also asked whether the public had any influence over this process, and whether their organizations had accountability measures in place to help maintain transparency.

Six of the respondents (all of whom were employees of the local government, or members of a committee of council) indicated that they use a strategic planning process to guide their policies and programs (PS:ED; GOV:ED; GOV:H1; GOV:H2; GOV&NGO:H/E; POL&NGO). One respondent involved with the Department of Tourism and Economic Development perceived this process as fairly top-down in nature with central corporate objectives first being defined by council. The councilors then ensure that their message is passed down to the general managers of each department, who in turn ensure that their own program managers and subsequent staff maintain a focus which complements overarching corporate objectives (GOV:ED). Strategic plans are generally formed every 3-4 years corresponding with a single political term of office. Another respondent who was a former County councilor emphasized that the purpose of strategic planning is to help facilitate cross-communication across departmental boundaries to minimize the perpetuation of silos, or isolated decision-making (POL&NGO). He too described the strategic planning process as beginning with council members identifying their priorities through a series of corporate planning sessions involving senior managers. Once the general priorities have been identified

they are articulated to the bureaucracy who provide feedback and begin to cost things out to support final budgetary decisions.

A couple of informants involved with the local health unit had a slightly different perception of how strategic objectives are arrived at. Their sentiments suggested that the process is a combination of both top-down synthesis and direction, in addition to feedback being incorporated from the bottom up through consultations with front-line staff, and where possible with the general public.

> *We do an internal survey with the staff to look at our strengths, weaknesses, gaps in services, and where they would like to see us be in a few years down the road. We also consult with the community, and do a survey with our community partners. Then we take all of that information, and construct an internal strategic planning committee that has a rep from each of the departmental sections. We then have a two day planning session which includes that committee plus two municipal councilors from each County and together we come up with a strategic plan, and our goals and objectives. That committee continues to meet once a month throughout the three years to monitor progress, what has been done, and what still needs to be done (GOV:H1).*

> *Our strategic planning committee includes folks from all parts of the health unit including managers, front-line staff, and clerical staff so that we get everybody's perspective rather than just the executive perspective. All of our programs have their own operational plans because of their different areas of focus, which must incorporate how they will be addressing the determinants of health. The staff write their own operation plans, send them to their managers for review and discuss how they overlap with other areas, and then all of the operation plans come to senior management where they talk about staffing gaps, needed budgetary changes, etc. Then of course there is the political part of it, with all of this going forward to our municipal board of health which makes all of the final decisions about the budget… so it kind of works its way up (GOV:H2).*

Managers within the health unit stressed that they do their best to maintain a fair, balanced, and open decision-making environment. However, there are times and situations where decisions are made in a unilateral fashion, channeled down from senior levels of management. In such cases the managers try to make it clear to their staff up front that under such circumstances their input is not likely to influence final decisions or directions dictated by the government. Sometimes input from the bottom-up is not so much to determine *if* a program or initiative is worthwhile within the community, or whether it should be a priority action or not,

but rather *how* they might actually go about achieving top-down directives and objectives in an effective and ideally efficient manner.

The former councilor reported hearing a wide range of different opinions amongst councilors in regards to the degree of control and influence that bureaucrats should have over decision-making processes. Some feel that collective priorities should not be selected or influenced by the individual values of unelected bureaucrats. In contrast, this respondent (and likely many others), felt that councilors should be open to input from department heads and bureaucratic staff and incorporate their expertise into corporate planning sessions:

> *Some councilors do not want to hear any input from the bureaucracy at all. But I don't think that way. Ultimately it is my final decision, but I want to hear what they have to say. In the end you don't have to do what they say, but some councilors fear it anyways. I don't know why, they feel that they are not in control, and that they are being dictated to by bureaucrats. My attitude is, why shouldn't I listen to everybody? That's what a politician does. The bureaucracy has a level of expertise, that's why you hire them. Some politicians really listen. They may not necessarily take your advice, sometimes they might, sometimes they may not, but the politician is listening to all kinds of different perspectives. Then they pull it all together, and maybe they'll take a little bit of what was said, or all of it, and it's that weighing and balancing the wishes and best interests of the collective whole that is their responsibility (POL&NGO).*

Many of the responses outlined above fall in line with conventional attempts to ensure that accountable decision-making occurs through elected representatives governing with the support of an underlying technocracy. In contrast to these more traditional approaches, seven of the respondents, most of whom worked outside government either with not-for-profit, or community based organizations, had a different view on what it means to be transparent or accountable. Instead of relying on institutionalized direction being filtered down from elected representatives, their emphasis was placed more on building trust and relationships with citizens throughout their community in order to build a reputation of having the legitimacy and integrity required to make sound decisions on behalf of the broader community (NGO:SS/Y; F&NGO:E/A; F&NGO:A/E1; F&NGO:A/E2; NGO:F/SS/Y; PS&NGO:E/A; GOV:H2).

The following comments suggest that accountability and transparency are by no means synonymous or exclusive to the more standard forms of leadership that have been traditionally

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characterized by elected representation and institutionalized expertise. Trust, perceived commitment, credibility, familiarity and even accountability can be built through other means over longer periods of time than a single political term of office, as described by a community leader involved in youth programming:

> *Communication and cooperation are key... I think it's that one on one relationship. The thing that has worked for us is that everybody knows us, we have a local flavour. Everybody knows what we do here. Our employees all know us well, and they all call us by our first names…they're comfortable, they know what they're doing, and if they have any questions, they're not afraid to ask. That's why it works, because myself and my wife are directly involved in everything. So to the public when they see us, it's a constant for them. We determine our priorities based on what we perceive to be the community needs….and people come to us it seems, and we seem to be getting more and more of that as people begin to trust in our work (NGO:SS/Y).*

> *I think people are past the "photo op". I think people are smarter than that. I think the persona that we put on, the political based persona or whatever… I think that's way out of touch. People want to know if you'r real, or if you really care. Do you really mean what you're saying. I mean the fact that we have such a low voter turnout in community elections and national elections just shows that people are sick and tired of games and lies and agendas. They just want somebody who actually cares. I mean everybody says they care before they are elected, but then once they're elected they get overwhelmed. And I know it's hard our local councilors have to please 50,000 people, and that's virtually impossible and I feel for them, and I pray for them. But they have to do what is best for the community. But as long as they care about that, I think they'll always be respected, whether people agree with them or not… if they sense that they care. Without that caring, the formality and the professionalism… I don't think anybody really cares as much about that… I think we're way past that…(NGO:F/SS/Y).*

This final comment below is in reference to a sustainability conference that was put together by the Long Point World Biosphere Reserve Foundation, which was a community-based initiative that brought together citizens to talk about sustainability issues and concerns.

> *I was sweating right to the end anticipating what the turnout would be like, but I was pleasantly surprised. We had a good cross-section of people with all different interests. And the fact that there was a municipal election going on, yet all the politicians were there as well, and they got a little bit of a background on citizen's concerns. And one of the candidates, Peter Black stayed for the whole conference and came on the farm-tour on the Sunday as well. I thought that was really impressive. You know, at a time when they should be out there campaigning, they took the time out of their schedule to show their commitment (PS&NGO:E/A).*

Another respondent who plays a lead role with an organization devoted to land and biodiversity preservation, expressed opinions in regards to transparency and decision-making that were along the same lines of thinking:

> *Our board of directors makes all of our decisions. We're part of a community here. But I would say no, the public doesn't have direct influence in the conventional sense. They don't dictate our decisions but we try to be in touch with them. We've got the old growth forest that we're now looking to buy up buffers around. So we're trying to create opportunities to meet the neighbours. Get to know them. Buy the land from them, swap land, create deals, and make offers. We do need to know our neighbours (F&NGO:E/A).*

To probe this line of thinking further, this same respondent was asked whether he felt that his organization was more likely to be trusted than a larger, nationally or internationally based coalition carrying out similar activities, and if so, should decision-making be devolved to the local level in order to be more effective. The following response suggests that while local engagement is essential to effective, transparent decision-making, things would fall part if we relied exclusively on the local scale:

> *You've got to have strength at the local level, but you also have to have the provincial, national, regional and global infrastructure to work with. So the provincial organization of land trusts create guidelines, standards and practices, which bring credibility to the local land trusts. For example, local land trusts need financial credibility because we're dealing with a lot of money when purchasing land… The provincial standards give us credibility with institutions including the banker's association and senior levels of government. Donors need to trust that their money is well spent. Trust is very difficult to build, but it is very easy to break. As soon as it is broken, you never get it back. At the local level, we can't really build sufficient trust. We can as individuals with our neighbours, but not in terms of the institutional structures we're dealing with for finances. It is also important to have national coordination because what's happening with land trusts in British Columbia is also going to affect us here. We can learn from their experiences. Our local land trust appoints a representative to sit on the provincial council, and the provincial council elects a person to sit on the national council, so there is representation and accountability down the organization to the lowest level. The danger that a lot of multi-scale organizations face, is that they start off with the national, and then try to create the local out of that, but the accountability remains with the national. For example, the Nature Conservancy of Canada, and Greenpeace are national organizations that dictate what happens at the local, so there's no local autonomy.*

Those organizations are very effective at lobbying, but they're not very good at carrying credibility at the local level. So the guy that goes around collecting money for Greenpeace at my door might be my neighbour, but I still don't trust him because with a large organization I know it's going to be siphoned away from the local area. Whereas in our case the local land trusts were developed first, and then the provincial and national organizations emerged out of that (F&NGO:E/A).

The commentary provided above suggests that the ideal scenario for a systems approach to decision-making, is when engagement and commitment is exhibited at a range of nested spatial scales. Decision-making is likely to be most effective when organizations are able to communicate openly and cooperatively at a variety of spatial scales and political jurisdictions. Having networks that are able to provide support through opening the lines of communication can enable opportunities for learning from others experiences. This is beneficial to enhancing the capacity of local agencies. Such networks can also service as channels through which resources are allocated, and shared.

Summary

An integral component of a systems approach to governance in order to achieve healthy communities is the existence of transparency, accountability and trust within decision-making structures and relationships. Ideally this includes a significant degree of clarity when it comes to the roles and responsibilities of each agent or organization within the broader governance system. Basically all informants indicated that the organizations in which they were affiliated with attempt to maintain some level of accountability in order to be viewed as legitimate players wielding influence upon the local decision-making environment, and subsequently community health outcomes. Within governmental institutions the lines of accountability are relatively top-down in nature, with elected representatives and technical experts guiding the process of prioritizing concerns, and allocating resources. Departmental managers do their best to ensure that any input provided from front-line staff that are confronting policy outcomes on the ground, is carefully considered. However, sometimes senior administrators (i.e. municipal councilors, and/or provincial or federal level decision-makers) simply dictate programming and policy objectives. In such cases, local bureaucrats have relatively little influence over how suitable and feasible these objectives are within the local socio-ecological context. Nevertheless, while they may not have any influence over whether a policy will indeed go

forth, they often are responsible for ironing out the finer details of how a policy directive may be most effectively and efficiently implemented. Interview respondents working or volunteering outside of governmental circles had a different view on what it means to be accountable to their fellow community members. They tended to emphasize the importance of more informal structures of accountability, claiming that trust and transparency can also be built through committed efforts of relationship building and maintaining visibility throughout their community. Chapter 5 explores this line of thinking further, and considers whether these "less formal" modes of accountability are unique to local levels of governance.

vi) ***The Local Government has an integral role to play in adopting, encouraging, and when possible, facilitating systemic, integrative, collaborative, and participatory approaches to governing for healthy communities. The local government must be trustworthy, and supportive of initiatives that help to inform and engage citizens. While this may not be a role that is exclusive to local government, they should nevertheless focus on developing and leading strategic partnerships and networks of collaboration. This requires publicly available information and effective channels of communication.***

Interviewees were asked to describe some of the major governance players who are involved in promoting community health, as well as comment on existing governance partnerships and processes, including the challenges that they have experienced within this context. Many of their responses to these questions provided insight into the role that the local government is currently playing in Norfolk County in regards to community health. The responses also gave an indication as to how satisfied interviewees are with the performance and focus of their government.

When interviewees were asked to identify some of the major players who had influence over the community's health and well-being, nine of the fifteen respondents were quick to identify the local government as a key player. Various departments of the local government were identified as having jurisdiction over areas of administration that had important linkages to community health; including planning (PS&NGO:E/A; F&NGO:E/A; GOV&NGO:E; GOV&NGO:H/E), health and social services (NGO:SS/Y; GOV:ED; GOB:H1; GOV:H2), community services (GOV:ED; GOV:H2;), public works (GOV&NGO:H/E), and tourism and economic development (GOV:ED; PS:ED). The wide range of services identified by

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interviewees as integral shapers of community health further supports theory claiming that local level engagement is crucial for building healthy communities, as it is the level of governance that is closest to the ground where people are most affected by the impacts of programs and policies.

Local governments are expected to represent their community's interests within regional scale politics, and in their relations with other orders of government (i.e. provincial and federal levels of jurisdiction). As explained towards the end of Chapter 2, it is customary that municipal councils consider their first order of responsibility to be the provider of infrastructure required to support local economic development (e.g. roads, sewers, and basic services such as police and fire protection, etc). Since the time of WWII, urban municipalities have played an even more prominent role in promoting and setting the pace of economic development through using a variety of planning controls, zonings, and land-use regulations. Their most recently adopted responsibilities include greater jurisdiction over health, education, social services, and welfare administration due to provincial levels of governance and administration increasingly downloading these services to the local level (McAllister, 2004). However, with a limited range of revenue sources, it is challenging for local governments to meet all of these competing demands. Their over-dependence on property taxes has placed pressures on local decision-makers to permit developments that are not always health-promoting or sustainable (Dearry, 2004; McAllister, 2004).

Earlier commentary under the first criterion summarized the responses given by interviewees when asked what they feel a healthy community must be comprised of. Their answers included viable livelihoods and economic opportunities, safety, adequate and accessible infrastructure, greenspace, walkable communities, public transit, opportunities for recreation, a healthy natural environment, social supports for vulnerable citizens, affordable housing, accessible health-care services, and an active and engaged citizenry. These features and characteristics by and large fall under the jurisdictions of the county departments that were identified in the previous paragraph as being instrumental shapers of community health. Therefore it is reasonable for citizens to expect that their governments be capable of facilitating human health gains through responsible and sustainable decision-making within

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these various areas of administration. Nevertheless, these ideal expectations are difficult to live up to with present-day socioeconomic and political pressures. These pressures have become particularly persistent given the recent economic decline and community upheaval brought on by the collapse of the tobacco industry. As explained previously under criterion iii, immediate situations, and opportunistic attitudes all too often win out over long-term sustainability and community health. The tensions between the two have created controversial debate amongst citizens and local decision-makers in regards to what should be the underlying objectives of social and economic development initiatives, the types of development that the local government should be promoting, how community needs should be prioritized, and how and where local resources should be distributed.

For example, eight of the respondents indicated that the current government's focus and priority was on promoting economic development and associated infrastructure requirements (GOV&NGO:E; PS:ED; GOV:ED, NGO:F/SS/Y; GOV&NGO:H/E; NGO:SS/Y; POL&NGO; GOV:H1). Some of these respondents made it quite clear that they felt that this was a positive attribute (PS:ED; GOV:ED), while others were critical of the fact that not enough emphasis was being placed on "less traditional" municipal responsibilities, such as health and social services. They felt that this was indicative of many of the politicians' areas of expertise and interests (GOV:H1; NGO:F/SS/Y). While the local health unit (which also falls under municipal jurisdiction) is by nature more focused on issues and concerns related to health, the ongoing fragmentation and lack of cross-communication existing between government departments has contributed to the continued marginalization of the health unit from other areas of municipal planning and decision-making. However, this is a problem that appears to be gaining greater recognition, and therefore employees of the health unit are optimistic that this scenario will slowly begin to improve (GOV:H1; GOV:H2; GOV&NGO:H/E).

As mentioned, another characteristic which respondents feel is instrumental to promoting a healthy community is a significant level of citizen engagement and volunteerism. This raises questions as to whether it is the responsibility of the local government to help encourage and facilitate this engagement. There were comments that both supported and critiqued the notion that governments are even capable of promoting integrative and collaborative partnerships able

to transcend across different areas of interest. For example, comments offered by one former politician indicated that facilitating partnerships is an important role for the local government. "I see the government as being responsible for taking on leadership roles that represent their constituents, and to help facilitate the development of partnerships, because the government can't necessarily do everything on their own. But they can lead and facilitate and bring groups together, and they can provide guidance for bringing the elements of environment, social justice, and the economy together" (POL&NGO). Yet this same respondent also questioned whether governments are realistically in a position to concentrate on the types of partnerships that are focused on promoting *long-term, and sustainable* healthy community development. "Like I said before, governments are reactionary and they deal with things in an opportunistic manner, rather than looking at that long-range best interest for everyone. So I don't know if it's them, or whoever puts pressure on them, whether it be environmental groups or whatever that really take the lead... I might lean towards putting my trust and faith in some of those other types of groups". Such a concern brings into question whether governments should be taking on a leadership roll within a partnership, or whether they should be viewed as an important player, yet one with power relations that are relatively equal to the non-governmental agencies with which they would be partnering.

The following comments were put forth within the context of a discussion on recent agricultural innovations and adaptations unfolding in Norfolk County. They express similar sentiments:

> *I never expect government to take a lead, I always expect it to follow. Which is reasonable in a democracy because you have to have a majority of the population behind you before you can initiate real change. Change happens fairly slowly to start with, and then grows exponentially. There are always the few trendsetters within the community that act as centres of innovation (F&NGO:E/A).*

Two other respondents involved in agriculture and land stewardship explained that they think that it is often society and the public that can see the connection between farmers protecting ecological goods and services, and the associated health benefits, more than government bureaucracies can. They explained that one of the common criticisms that they hear the Federal government stating in regards to the idea of paying farmers to provide these services is

that they cannot afford to. However, they tend to look at resource provision and availability from within their own silos, instead of considering the possibility of integrative partnerships. The respondents explained that the benefits from such a program would be beneficial to Health Canada, Fisheries and Oceans, Parks Canada, and not just the agricultural sector. Therefore the funds to support such a program do not have to come from just one department. These respondents went on to say that it is in fact often community-based initiatives arising from the ground up that are actually ahead of the game, and more successful at breaking out of, and forging partnerships across these silos (GOV&NGO:E/A; F&NGO:A/E3).

Summary

Promoting an ecosystem approach to governing towards healthy communities at the local level requires an active and committed role for the local government. The local government should actively encourage and facilitate systemic, integrative, collaborative, and participatory approaches to decision-making. Many interviewees identified the local government as having significant influence over community health and well-being, and therefore were viewed as a key player in community health governance. In particular the departments of planning, health and social services, community services, public works, and tourism and economic development were identified as playing instrumental roles. The factors that were identified by interviewees as being integral features of a healthy community tended to fall under the mandates and jurisdictions of these various departments, suggesting that it is reasonable for citizens to expect that their governments be responsible for facilitating community health gains through responsible and sustainable decision-making within these various areas of administration. Nevertheless, these expectations are difficult to live up to when faced with present-day socioeconomic and political pressures. This has led to debate amongst citizens and local decision-makers in regards to the underlying objectives of social and economic development initiatives, the types of development that should be promoted, and the direction in which local resources should be channeled. Chapter 5 will explore these tensions further. Chapter 5 will also discuss whether local governments are indeed within the best position to be responsible for leading and/or facilitating community and citizen-based partnerships.

vii)   *Citizen engagement, public participation in decision-making, including a commitment to social learning at the local level are essential, Citizens must be able to contribute their local knowledge and skills.*

The key informants were asked to identify some of the major players who are working towards improving community health and well-being in Norfolk County. This question was created, in part, to determine whether non-governmental organizations were identified as important contributors to these wider efforts, and also to get a better sense of existing levels of citizen engagement, and volunteerism within the County. As mentioned previously, participants were also asked to explain how decision-making occurs within their organizations, in part to determine whether members of the general public are involved in these processes. At the beginning of this chapter interviewees' responses to the question of what a healthy community means to them and what it must consist of were also summarized. One of the key themes expressed by a number of informants was the importance of an active, engaged citizenry, a culture of volunteerism, stewardship, and community fellowship where residents of Norfolk County are encouraged to know and help one another (F&NGO:A/E1; GOV&NGO:E/A; F&NGO:E/A; F&NGO:A/E2; GOV:H2; PS&NGO:E/A; GOV&NGO:E; NGO:F/SS/Y; POL&NGO). After being asked to describe the general characteristics of Norfolk County, many respondents explained that the above desired traits are one of Norfolk's greatest strengths and assets. The following statement provides just one of many illustrative examples:

> *In the village where I am from there is a community centre there, and a park, and both of those are owned by the County. But the County has an agreement with a committee of local people which have been designated to manage those facilities. So there's a degree of local pride there; that it's our community centre, and we take care of it. There's somebody hired from the community to cut the grass, in the winter there's a hockey rink that's built on the tennis courts, there are volunteer cleanup days, etc. And my village is not to be singled out for this within Norfolk. These things also happen in Port Dover, and Simcoe. So I think a healthy community is one that knows that its human resources are the most important thing. A municipality with a small population like ours can't afford to have a parks and recreation department that looks after all of these places. When you look at the map of Norfolk County, Port Dover has a community centre, as does Simcoe, Delhi, Waterford, Vittoria, St. Williams, Langton. If you had to hire people to look after all of those place we just wouldn't be able to afford it (GOV&NGO:E).*

The above is just one of many examples of citizen engagement within Norfolk County. Here active citizens are supplying a service that would otherwise not be provided, as it extends beyond the capacity and resources of the local government. An alternative example of citizen engagement was provided by an employee of the local health unit. She spoke about the potential influence that the public can have over the strategic directions and objectives of the health unit's programming through consultative workshops. For example, whenever the health unit conducts a needs assessment, public workshops are held to elicit citizen input. Many of their advisory committees are also open to the public. For example, almost all of their heart health programs or active transportation committees have members of the general public involved who were by and large recruited through media advertisements (GOV:H2). Another respondent affiliated with the Department of Tourism & Economic Development expressed similar sentiments in that there are many committees through which citizens can become involved including, but certainly not limited to, the Delhi Revitalization Committee, The Tourism and Economic Development Advisory Committee, or the Tobacco Community Action Plan Committee (GOV:ED). One former local councilor felt that now more than ever citizens are presented with a wide range of opportunities to influence decision-making processes beyond the conventional modes of their interests being distinguished through electoral representation:

> *There are tons of opportunities for the public to become involved. Public meetings for planning sessions, whether it's an application for rezoning, or an official plan… they can become members of advisory boards like the Conservation Authority, The Business Improvement Association, The Norfolk Environmental Advisory Committee or the Norfolk Federation of Agriculture. There's a whole bunch of different groups that are advisory bodies to council. The public can either become a member and go to meetings to have their input that way, or they can come to council and deliver their concerns through deputations. There are tons of opportunities for people to have input, but it doesn't necessarily mean that they are going to get what they are asking for (POL&NGO).*

One respondent from the health unit stressed that while it is important and advantageous that citizens throughout Norfolk are willing to contribute to their communities in a civic manner, they must also have the ability to initiate real change, and have their voices heard (GOV:H2). Political empowerment, equity, and the means to advocate for one's own interests are all

essential components to facilitating the improvement of individual and community health and well-being. This sentiment falls in line with principles outlined in the Ottawa Charter of Health Promotion (WHO, 1986).

The collective actions of the initiatives outlined in brief above, in addition to many other examples where citizens and community-based organizations partner with their local government, not only improve quality of life and community well-being, but also contribute to the overall capacity and effectiveness of local governance. Nevertheless, it is worth noting that the above examples are largely illustrations of citizens becoming engaged in local decision-making and governance through involvement with organizations that are by-and-large creatures of the local government. Despite the fact that members of these organizations are largely citizens from outside the local government; and therefore ideally providing a service or an advisory role independent from internal governmental politics, these quasi-institutional bodies do face unique opportunities and limitations. While they may have the relative advantage of more open accessibility to governmental resources, and visibility to influential decision-makers, they can be limited in terms of their autonomy and freedom to act and criticize.

For example, the Norfolk Environmental Advisory Committee (NEAC) is a citizen-based committee where all members are appointed by council. They have specific terms of reference and are mandated to review and advise council on environmental impact studies or policies such as the Official Plan or the Lakeshore Secondary Plan from an environmental perspective. In addition, the volunteer members of NEAC have conducted some initiatives on their own accord such as constructing a map on the state of the environment. This map also serves as an educational tool for the public, as it provides information on many of the leading environmental organizations (both governmental and non) within the County. Nevertheless, one informant suggested that NEAC members have to walk a very fine line when it comes to embarking on initiatives external to the County. They do not have much control over determining their own priorities or objectives, or even whether the advice which they provide to council is adhered to. This is particularly the case when NEAC suggests that a particular development not go forward, or that restrictions should be put into place if environmental

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impacts are to be minimized. Advice in the form of recommended restrictions are often not openly welcomed by certain decision-makers (GOV&NGO:E). In fact, it was suggested that council, particularly some members of the previous council, have been far from enamored with NEAC. Some council members have attempted to get rid of the environmental advisory council altogether, accusing the latter of being "too green" (GOV&NGO:E).   NEAC also faces certain limitations when it comes to potentially partnering with other environmental NGOs because their desired projects must first be endorsed by council. Consequently, members of NEAC who are often already engaged with other local environmental NGOs must be very careful when participating in other community initiatives, and be very clear as to whether they are acting as individuals, or as representatives of the NEAC committee (and therefore council). It is very easy for institutional lines, and civic roles and responsibilities to become blurred.

Due to some of the limitations that can arise when affiliated with a government body, it is imperative that citizen engagement also manifest in the form of NGOs within the community springing from the ground up.   While a stable supply of funding and resources is one of the biggest challenges facing these relatively more independent bodies, they do not face the same limitations in regards to self-determination. They can have more freedom to be critical of the local government.

Detailing all of the organizations throughout Norfolk County (even those limited to the broad scope of community health and well-being) is beyond the span of this thesis. Nevertheless, the activities and services of the Long Point Biosphere Reserve Foundation provide one example of how their efforts have contributed towards building a healthy and sustainable Norfolk County, while enhancing local governance capacity. As described earlier in Chapter 3, The Long Point World Biosphere Reserve Foundation (LPWBRF) is a charitable, not for profit, volunteer organization that is open for membership to whoever wishes to join. Membership is in the order of approximately 200+ people, indicating extensive local support and involvement (Francis & Whitelaw, 2001). The Foundation is run by an executive committee, whose members are elected for a three year term, once renewable. Over 50 people throughout Norfolk County (most of whom are still active in the local community), have served terms on

this executive committee. They represent a cross-section of citizens including local business people, farmers, foresters, biologists, engineers, teachers, writers, and civil servants from various levels of jurisdiction (each of whom were acting in their own capacity). This has encouraged informal cooperation amongst government agencies, and non-governmental groups as individuals cross-affiliated with these different organizations have been elected to the executive committee over the years. The diversity of expertise has helped to connect the LPBR with larger community networks and organizational affiliations, which has enhanced the acceptance, visibility, and legitimacy of the Biosphere Reserve within the local community and by government officials (Francis & Whitelaw, 2001). In fact, one of the most important roles of the LPWBRF is to nurture the informal cooperation that results from these horizontal networks.

The goals of the LPWBRF are to promote and conserve ecologically sustainable land uses, and economic practices; in addition to providing education and outreach to citizens. Over the years they have assisted in the development and implementation of a wide range of biodiversity monitoring programs, and land use and climate change studies (Parker et al, 2003; Francis & Whitelaw, 2001). One of the more recent projects carried out by the LPWBRF is of particular interest as it was exemplary of their renewed commitment to promote and facilitate sustainable development and livelihoods in addition, and as a complement to, their conventional conservation activities. To push this work forward they decided to host four community sustainability workshops in order to gather ideas on how they could proceed with improving planning and management throughout Norfolk County. Four sector specific workshops were held with representatives from business and industry, service groups, conservation, and agriculture (LPWBR, 2006).

Participants discussed trends affecting the community, issues of interest, barriers to achieving sustainable livelihoods, existing resources available to the community, and ideas for future sustainability projects. The problem of youth out-migration, socioeconomic depression, community instability, and the need for economic diversification were some of the key issues highlighted. However it was emphasized that these issues needed to be addressed in ways which did not jeopardize the valued natural environment. Community members were given

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the opportunity to brainstorm tangible projects that could help to address these issues. For example, participants suggested strategies for enhancing ecotourism, and also for marketing local agricultural products, including the branding of products produced through sustainable practices (see LPWBRF, 2006 for details on each of these recommended initiatives).

These workshop sessions provided community members with information about the issues impacting their community's sustainability potential, in addition to providing a forum to tap into the extensive knowledge that many community members already possessed. This granted participants collective opportunity to discuss and move towards a consensus on possible projects or solutions that would address their issues of concern. These workshops laid the foundation for a follow-up conference on "Building a Sustainable Norfolk Community" that was also hosted by the LPWBRF and open to the public. The conference focused specifically on the themes of conservation and land stewardship; sustainable tourism and green marketing; and agricultural diversification (all of which have been identified as having significant linkages to the health of the community of Norfolk County as indicated in the beginning of this chapter). The workshops in conjunction with this conference assisted in enhancing overall local governance capacity by mobilizing citizens and enhancing opportunities for social and institutional learning. They also provided an opportunity for citizens to identify their own community health and sustainability goals and objectives. The LPWBRF is now equipped with a diverse number of ideas to pursue sustainability activities in a community-based, collaborative manner, in partnership with various individuals and organizations. Without these types of facilitated governance processes that engage citizens, these promising partnerships and alliances may never have materialized.

Summary

A systems approach to building a healthy community requires the incorporation of observations and insights from multiple perspectives. Therefore a citizenry actively engaged in local governance and decision-making is essential, in addition to a culture where citizens are committed to gaining a greater understanding of the many system interactions which influence the health and well-being of their community. Many of the key informants involved in this study expressed that participatory governance, a culture of volunteerism and stewardship were

key components of a healthy community. They also proclaimed that such desired traits are one of Norfolk County's greatest strengths. Many citizens, and community-based NGOs provide a service or function that is either outside of, or complementary to, the mandate and capacity of the local government. Citizens within the County have a variety of different avenues through which they can influence local decision-making that go beyond conventional methods of voting or elected representation. Some of these methods (e.g. advisory committees of council) are within close reach of governmental politics, while others are further distanced due to the fact that they are external to the government and exist at the grassroots level. There can be trade-offs between these two different realms of influence. For instance, while committees of council may have the advantage of greater access to decision-makers or governmental resources, NGOs may have more autonomy, or freedom to openly criticize their government and press for needed changes without as many negative repercussions. Chapter 5 will explore these themes in greater detail, emphasizing that citizen engagement must transition into efforts towards community development in order to actually increase the capacity and effectiveness of local governance. The value of having both government initiated community building projects as well as self-organized, community-based initiatives will be discussed.

viii) A "sense of place" or community identity is important for stimulating citizen engagement at the local level and for understanding and promoting a systems approach to community health and a sustainable society

Participants were not asked directly whether they felt that they had a strong attachment to their community, or whether they perceived a strong sense of place or community identity, because the researcher did not want to lead or encourage or this type of response. Nevertheless, when participants were asked to describe the characteristics of their community, or when they answered other interview questions which focused on decision-making processes; careful attention was given to their responses in order to assess whether a strong sense of place was indeed present within these active members of the community. Indeed, when participants were asked to describe Norfolk County, a strong sense of community identity was commonly cited, despite the fact that many respondents felt that this very identity was undergoing a period of change.

A couple respondents emphasized the tranquil nature of the rural idyllic landscape of their County as very desirable, and described the relatively quieter paced lifestyle of the small-town communities as one of the reasons why they have remained in Norfolk County for generations, or why they were attracted to Norfolk County in the first place, as exemplified by the following statements:

> *It's calming. You know, if you get in the car and you've got to drive somewhere, you don't have to get on the 401, and you don't have to get on the 407, you don't have to fight rush hour traffic or three lanes of traffic… it's calming, all of this farmland. It's so nice. I mean I work in Waterford and it's a 20 minute drive. I can come home for lunch, spend half an hour here, and then I go back. The worst thing that can happen to me is to get stuck behind a tractor. You know, it's so nice. My stress level went way down once I left the city. It's very pretty (PS:ED).*

> *The County is still kind of the way a lot of communities were in the 1970s, when the downtowns were still pretty important. There's not a lot of industry around, and basically the stores close at 6:00pm and they're only open on a Friday night. Things are a little bit more laid back, because you don't have the retail component that you have in other places. And I think that's one of the reasons people live in Norfolk County, the fact that's it's very much a rural, laid back municipality. However, the County is also in a state of flux, and I feel that these qualities will change (GOV&NGO:E).*

Others emphasized how nice it is to be a part of a community where everyone knows one another, or is at least familiar with one another (NGO:SS/Y; F&NGO:E/A; GOV:H1; GOV&NGO:E) They also speculated that it is the small-town feel, and neighbourly connections which motivate people to stay active in their community. This includes spending their money within the area to support local businesses, and also taking part in the numerous community events and festivals which help to build pride and loyalty within the community, provide forums for marketing local products, and enhance the quality of life for residents through the provision of recreational and leisure activities. One respondent spoke about how nice it is to be able to walk into a store and have the owners or staff call them by their first name. The respondent contrasted this familiarity with the more hollow experience of shopping in big-box stores, where one felt they were being merely viewed as an anonymous wallet walking into the store just to buy stuff (GOV&NGO:E). This respondent expressed the concern that as the County begins to encourage growth and development, including the influx of big-box stores; that these social relationships which were able to develop within a smaller

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economy, and which many people have become accustomed to, may begin to disintegrate with social interaction declining as a result. With social capital being identified as an important determinants of health within the literature (Murray, 2000; Wakefield, 2001), this may pose some challenges, or at the very least raise some potential tradeoffs for consideration when thinking about the overall health of the community from a systems perspective.

Nine of the respondents also alluded to an existing sense of place within Norfolk County. However, they spoke about it within the context of the community identity coming under stress or experiencing a period of significant transformation, by and large due to the collapse of the tobacco industry (F&NGO:E/A; F&NGO:A/E1; F&NGO:A/E2; F&NGO:A/E3; GOV&NGO:E/A; PS&NGO:E/A; GOV:H2; POL&NGO; GOV&NGO:E). Not only was the local economy dependent on tobacco, but the very local culture became closely associated with it, and the infrastructure of the community was largely built upon revenues generated from that product. "Agriculture is viewed not only as people's income, but it is their culture, their history, and tobacco paid for a lot of what is around here, so they feel very connected with that product, and now it's decreasing" (GOV:H2). The following statement echoes similar sentiments:

> *So we're going through quite a bit of transformation because the economic base of tobacco is collapsing. So it's like the layer where people in Norfolk consider themselves to be a tobacco county is being stripped away. Norfolk County identified with being the heart of tobacco. And now it's like…what are we? The identity is starting to change. But the new agriculture is starting to emerge very quickly, and I think the economic base is very viable (F&NGO:E/A).*

As with many other rural communities, Norfolk County is at a crossroads in terms of the future shape and direction of development, and there appears to be a clash of visions or desires. The following describes some of the demographic distinctions which have emerged as a result of competing community identities and tensions regarding sense of place:

> *There is tension between the moving in entrepreneurs, the old guard, and the just leave me alone retirees… just leave it the way it's always been. Don't bring in any big box stores, and all that. But they just want to keep it the way that it has always been because they're used to it. But the people moving in don't know what they're used to. So to them it's more like we want to keep our family and live here as long as you have,*

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and create our own community. I think there are two or three different major groups in our community. Generally there are those that have been here forever, which is typical of a small town… who know each other, they go to the same coffee shops, the same restaurants, and they're the ones that don't want the Wal-marts, or the Boston Pizzas because they've always done well with the Daily Grind, the local coffee shop, and such. Then there are those who have moved into town who are entrepreneurial and they want to see something happen, they want to make a future for themselves. And I think they're the ones who seem to want to get going on things. But there's a little bit of a critical mass and political power amongst those that have been here for a while. And then I think there is a whole group of people who are moving into the area who are basically retirees from larger urban centres who are benefiting from their house sales elsewhere, and moving into our community (NGO:F/SS/Y).

You've got old folks that don't want growth, and you've got other people that do want growth, but you've also got some people there that are strong rooted that have successful businesses here that are scared about the growth because they don't want somebody taking their piece of the pie. And they've got a lot of power around here, but that is starting to diminish. There's no question, the power that's been there with the old guard has diminished. I sympathize with them, but you know what? It's time to move on. It's time to move on, because unfortunately I have very good friends who are there, and unfortunately their businesses are faltering. And it's very sad because I am a downtown person, I owned a business downtown, and I know why they're mad, but they've been mad for a LONG, long time, and Wal-mart isn't even here yet. You know, they're struggling because of tobacco, and they're struggling because of a lot of things, including the aging population who aren't going out and buying stuff every week. So it's time to move on, and we need to diversify our economy, and concentrate on providing needed growth (PS:ED).

Some want the rural communities of Norfolk County to continue to be viable working lands where a variety of livelihood opportunities are available; whereas others see growth and development opportunities through building a "playground for the rich" based on idyllic landscapes and waterfront properties for retiring urbanites. Still others maintain that this area should be a site where the conservation of biodiversity is emphasized in order to preserve natural landscapes, and also support a growing industry of eco-tourism and outdoor recreation.

Summary

A "sense of place" or community identity is important for stimulating citizen engagement, which is essential to furthering an understanding of a systems approach to community health. Interviewee participants described Norfolk County as having a clear sense of community, with citizens strongly identifying as being a tranquil, resource-based community with beautiful

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landscapes that was by and large built upon the tobacco industry. Many respondents explained that this very identity is currently undergoing transformation, resulting in community uncertainty and instability. Government decision-makers are encouraging economic growth and diversification in response to the socioeconomic impacts of the declining tobacco industry, as well as pressures from entrepreneurs, and developers. The speed at which this is occurring has resulted in some of the key informants being concerned about how these changes will affect the spirit of the community, including ecological and rural heritage features which citizens have come to value and take for granted.

4.4 Chapter Summary

The purpose of this chapter was to present and describe the qualitative data derived from key informant interviews. A variety of questions were posed to participants in order to gain further information on the underlying socio-ecological context in Norfolk County, issues and concerns within the community that are relevant to health, the major governance players influencing local decision-making, in addition to challenges and opportunities associated with decision-making processes. While the narratives and information presented in this chapter were largely descriptive in nature, a range of insights worthy of further analysis were introduced. We now turn to Chapter 5 which further discusses, interprets and analyzes these findings. Throughout Chapter 5 conclusions are drawn regarding the utility and feasibility of the criteria for advancing an ecosystem approach to governing towards community health, and the challenges and opportunities facing local governance agents in regards to fulfilling these criteria. Chapter 6 then concludes with reiterating the primary conclusions in brief, highlighting final recommendations, important contributions to be taken away from this thesis, the limitations of the thesis, and areas in need of future research.

Chapter 5

Analyzing the Utility & Feasibility of the Criteria for an Ecosystem Approach to Community Health within the Context of Norfolk County

5.1 Chapter Introduction

The purpose of Chapter 5 is to elaborate on the insights provided by key informants, by further critically analyzing the material outlined in Chapter 4, and linking it back with the theoretical and policy literature. Through this process of analysis and triangulation, implications in regards to the utility and feasibility of the criteria for advancing an ecosystem approach to governing for community health are explored (refer to Table 2 for a list of the criteria) . The strengths and weaknesses of the criteria are discussed, and recommendations for their adjustment are provided. Finally, the challenges and opportunities facing local governance agents in meeting the criteria are explained.

Table 2: Criteria for Advancing an Ecosystem Approach to Conceptualizing and Governing Community Health

Criterion #	Criteria
i)	A systemic approach to thinking must be adopted to provide integrated consideration of the many interactive determinants of health, and to pursue initiatives that produce multiple and mutually reinforcing benefits in many areas. Community health, ecological integrity, and sustainable livelihoods are inseparable. Natural and human systems be understood as one complex system. Careful consideration must be given to the unique socio-ecological context within each distinct place including the concerns and values of local citizens
ii)	Adopting a systems approach to building a healthy community requires integrated decision-making through inter-sectoral action within and across governments, in order to promote healthy public policy in all areas. Inter-jurisdictional collaboration, partnerships, and the sharing of diverse information must exist within and between governmental and non-governmental agents.

iii)	A systems approach to a healthy community requires that governance agents incorporate long-term planning into their decision-making in addition to considering issues of inter and intra-generational equity. This requires anticipatory, rather than reactive approaches to problem identification and interventions. Recognizing that uncertainties will always exist is essential, and where there is threat of irreversible negative health impacts the precautionary principle should be exercised.
iv)	Due to inherent uncertainties associated with an integrated approach to health conceptualization and governance, institutions must be adaptive and able to incorporate and respond to new information as it arises (including changing socio-ecological conditions, or shifting social values). This requires ongoing monitoring and evaluation, and a commitment to learning to provide decision-makers with feedback to support an ongoing process of policy modification.
v)	Governing for healthy communities requires transparency and accountability, and clear roles and responsibilities for all agents of governance
vi)	The Local Government has an integral role to play in adopting, encouraging, and when possible, facilitating systemic, integrative, collaborative, and participatory approaches to governing for healthy communities. The local government must be trustworthy, and supportive of initiatives that help to inform and engage citizens. While this may not be a role that is exclusive to local government, they should nevertheless focus on developing and leading strategic partnerships and networks of collaboration. This requires publicly available information and effective channels of communication.
vii)	Citizen engagement, public participation in decision-making, including a commitment to social learning at the local level are essential, Citizens must be able to contribute their local knowledge and skills.
viii)	A "sense of place" or community identity is important for stimulating citizen engagement at the local level and for understanding and promoting a systems approach to community health and a sustainable society

5.2 Analyzing the Criteria: Implications for Local Governance Agents in Advancing an Ecosystem Approach to Community Health

Criterion i)

The first criterion states that a systemic approach to thinking must be adopted in order to give integrated consideration to the many broad and interactive determinants of health and well-being. Such an understanding is crucial for pursuing health initiatives that produce multiple and mutually reinforcing benefits to many health determinants (e.g. adequate income and livelihood opportunities, education, healthy social and physical environments, equitable access to participation in decision-making, etc) (Health & Welfare Canada, 1974; WHO, 1986; Hancock, 1999; Forget & Lebel, 2001). Careful consideration must be given to unique socio-ecological context.

The key informants have a good grasp of the local socio-ecological context, and are able to observe and understand the interactive nature of human and natural systems, including the many embedded and wide-ranging determinants of health. Their perceptions on what a healthy community must consist of include a wide range of environmental, social, political, and economic factors which is consistent with the way in which health is framed in theoretical and policy literature. Their responses indicate a good understanding of the integrated nature of economic viability and opportunity, ecological integrity, and the health of individual citizens and communities. In particular, many respondents were able to articulate the integrated nature of livelihood practices, socioeconomic and mental well-being, and the health of the natural environment by drawing on the example of the collapsing tobacco industry. Citizens who were both directly and indirectly affected by this shift in the local economy offered a variety of examples which illustrated these interactive linkages (F&NGO:E/A; NGO:F/SS/Y; F&NGO:A/E1; PS&NGO:E/A; F&NGO:A/E2; PS:ED; GOV:H2; F&NGO:A/E3; POL&NGO).

For example, uncertainty, a sense of hopelessness, depression, anxiety, and in the worst-case scenarios, contemplations or acts of suicide, have been evident amongst tobacco farm families (F&NGO:A/E1; GOV:H2), as the following statement illustrates:

> *One of the biggest causes of health problems is stress. I guess I really didn't believe that it was ever going to happen, but it's here… and right now I know some really, really wonderful families that are REALLY depressed… they don't know what's going to happen to them when they get up the next morning. Suddenly someone has said, you're not going to have a job! I mean I know it happens in other places or industries too, but these people own the farm, and they've got so much invested in a legal product. There's people that just can't sleep at night. They don't know what's going to be here tomorrow. A slow death is not good (F&NGO:A/E1).*

Research has shown that rural reconstruction, high indebtedness and financial problems, unemployment, distress over the loss of family-owned property and heritage, along with easy access to chemicals and firearms can lead to increased rates of suicide, depression, psychiatric disorders and substance abuse amongst citizens dependent on rural livelihoods (Albrecht, 2005). In the past environmental change was rarely regarded as a possible contributing factor. Nevertheless, landscape degradation of previously productive land may also underlie or exacerbate many of the other factors contributing to declining morale of farmers, their families and communities (Horwitz et al, 2001; Albrecht, 2005). At the same time, as Albrecht points out, an alternative and much more positive response to such hardships is greater citizen engagement and involvement in the protection, restoration, and rehabilitation of their home, land, and community which can contribute to a greater sense of place.

Recognition of the systemic and integrative nature of ecosystem form and function, human livelihoods, political stability, and health by key informants is consistent with theory (Forget & Level, 2001; MEA, 2005). As is the case in Norfolk County and elsewhere, agricultural transformations, especially when coupled with economic downturn, can adversely impact the relationships between people and the ecosystems on which they depend, affecting patterns of human health (OPHA, 2002; Lebel, 2003). Sustainable agricultural practices therefore play an important role in creating supportive conditions for human health (Waltner-Toews & Lang, 2000; OPHA, 2002).

The criterion that governance agents be capable of adopting a systemic and integrated approach to thinking about community health is reasonable at least on a conceptual level given the level of understanding that is evident amongst key informants. Respondents said that governance agents must be able to facilitate diverse livelihood opportunities and forms of economic development that are socially and ecologically sustainable in order to enhance the health of the community. Whether these conceptual understandings are applied practically through interventions and initiatives on the ground is the more difficult question.

In order for decision-making and community initiatives to be successful at promoting community health over the long-term, they must promote benefits in multiple areas of health determinants. As Gibson (2005) explains within the context of sustainability assessment, when criteria or determinants are interdependent and overlapping in nature, the undermining of one will inevitably result in compromising the others. The same reasoning can be applied to the interdependent nature of health determinants. Within a rural context such as Norfolk County, the connections between agricultural systems and the environment and human health, and/or between economic and political policies and their implications for local food systems, human and ecological health, must all be considered simultaneously. Their interwoven nature demand similarly interwoven and mutually reinforcing responses. Joint rather than isolated policy goals are needed, with particular attention being paid to encouraging and facilitating positive linkages (Waltner-Toews & Lang, 2000; Gibson, 2005).

A few emerging initiatives were identified by interviewees that may have the potential of promoting multiple and sustainable community health benefits. These initiatives exhibited characteristics in line with some of the criteria for an ecosystem health approach, including a systemic approach to problem conceptualization, the need for engaging multiple stakeholders through collaborative partnerships, and locally based planning and implementation. Examples include the causeway project (described under criterion ii in Chapter 4), eco and/or agri-tourism initiatives (Gowan, 2004; LPWBRF, 2006), promotion of a local public transit system, promotion of a local food distribution network, or further investigation into the benefits and feasibility of the Alternative Land Use Services Project (ALUS). ALUS projects are intended to promote environmental stewardship on farmers' private property. It is a concept that is

being explored by the Norfolk Federation of Agriculture and the Norfolk Land Stewardship Council. ALUS is intended to financially compensate farmers for practicing good land stewardship which in turn preserves ecological goods and services that benefit the health and well being of all citizens through providing cleaner water and air, and protecting biodiversity, rural aesthetics and cultural heritage. Essentially it seeks to improve ecological integrity and economic stability, which has the added benefit of enabling farmers to continue to produce locally grown, nutritious food (NFA, 2005, Delta Waterfowl, 2006).

It is beyond the scope of this thesis to explore any of these initiatives in further detail. However, an important area for future research would be to examine one of these specific initiatives using the analytical framework of an ecosystem approach to health conceptualization and governance in order to determine their potential for promoting mutually enforcing community health benefits, and to identify the governance agents that should be involved in successfully implementing the initiative to its fullest potential.

Criterion ii)

The second criterion states that a systems approach to governing towards healthy communities requires integrated decision-making, open communication, transparency, and collaborative partnerships within and across governments and non-governmental organizations in order to promote healthy and harmonized public policy in all policy areas. Norfolk County has a significant base of existing collaborative partnerships, and there is great potential to build upon these. All interviewees saw the value and necessity of collaborative governance arrangements, and all were members of organizations that were attempting to utilize a partnership approach within their operations.

The benefits of collaborative partnerships described by key informants in regards to enhancing local governance capacity were similar to those identified in the literature. When organizations pool their resources they are able to learn from one another, have a clearer understanding of the synergistic impacts or "big picture" effects of their policies and programs when combined with those being simultaneously pursued outside of their own mandate and

jurisdiction (Kalikoski et al, 2002; Berkes, 2002; Conley & Moote, 2003; Carlsson & Berkes, 2005). Open communication reduces the likelihood of silos being perpetuated, or policy being created and implemented by a society operating with tunnel vision. The potential for the strengths of one organization to complement the weaknesses of another is enhanced, and the sharing of resources and expertise is more feasible than every organization attempting to address everything at all stages of the decision-making process on their own. Resources are more likely to be used in an efficient manner as greater communication and transparency assist in reducing duplication and redundancies (McAllister, 2005; Dale, 2005; Slocombe & Hanna, 2007). Coordinated partnerships increase the likelihood that community issues and concerns will become and remain visible. Advocacy efforts are stronger, and the creation of integrated and harmonized policies more likely, when multiple partners are able to reach a general consensus and achieve overlapping objectives (Dale, 2005; Gibson, 2005).

Despite these numerous benefits, key informants described the numerous challenges that can prevent organizations from becoming involved or staying active within a collaborative relationship. These included clashing personality types and opposing viewpoints, a lack of resources to adequately support organizations in pursuing multiple partnerships and broad-based agendas, an over-dependence on a small number of active citizens, and ineffective or inefficient lines of communication. While volunteer burnout is a real concern when citizen governance and action is reliant on the ongoing commitment of a small number of citizens, there are also benefits that arise due to their regular face-to-face interactions and ongoing engagement. Personal relationships and familiarity can assist in fostering a culture of cooperation, trust, reciprocity, and commitment to fellowship and stewardship. This finding further supports the notion that citizen engagement at the local level, where regular face-to-face interaction and frequent contact is likely more feasible, is key to enhancing more participatory, and inclusive forms of decision-making.

The literature suggests that integrative collaboration must occur across academic disciplines, sectors, and government or non-governmental agencies in order to bring together the different interests, demands, knowledge sets, skills and perspectives of diverse experts, stakeholders and governance actors (Guidotti, 2003; Parkes et al, 2003; Dale, 2005; Rainham & McDowell,

2005; Slocombe & Hanna, 2007). This is essential to reducing system fragmentation, jurisdictional disputes, and weak understandings of integrated social and ecological dimensions of multi-scaled health problems and potential interventions (Parkes et al, 2003). However, factors identified by interview respondents in regards to the challenges surrounding integrative partnerships, are similar to the factors which are identified in the literature as being inhibitors of collaborative integration. They too include a lack of effective communication (often exacerbated by differences in language and specialized vocabulary), inadequate appreciation for the potential contribution of others, and rivalries or turf wars over limited resources (Nijhuis, 1989; Guidotti, 2003; Parkes et al, 2005). These partially explain why governance agents (such as public health units, medical practitioners, community planners, developers and a host of other local decision-makers) have been slow to respond to community health issues (or to promote community health gains), in a united, cooperative fashion.

Overcoming these differences will require processes of knowledge translation, and efforts towards mutual social and institutional learning (Rapport et al, 2003; Parkes et al, 2005; McCarthy, 2006). For example, the local health unit is aware of the need for enhancing the health literacy of community planners and municipal decision-makers, and has therefore made it one of their strategic priorities to further integrate the determinants of health framework into the culture of local decision-making and municipal networks (Haldimand-Norfolk Health Unit, 2006b). This would be achieved through collaborating with community partners to enhance their awareness of the impacts of various health determinants (e.g. social and physical environments, income status, education, health services, etc), thereby resulting in changes to policies and programming, instilling a greater emphasis on health within municipal planning, decision-making and reporting. Similar efforts must be made to provide opportunities and forums for governance agents and community members to learn from one another, and increase their health and ecological literacy, so that they can better understand the systemic implications of community health and development objectives and why it is imperative for them to be sustainable over the long-term.

A third of interviewee respondents mentioned the need for a governing agency dedicated to facilitating collaborative governance through identifying gaps in collective capacity; providing

opportunities and resources for networking, collaboration, and information exchange; and serving as a mediator to help resolve differences, minimize conflicts, and nurture commonalities between community partners (GOV&NGO:H/E; PS&NGO:E/A; POL&NGO; F&NGO:E/A; NGO:F/SS/Y). Such an impartial body or facilitator capable of identifying and nurturing the commonalities that do exist between divergent governance groups (and the individuals in which they are comprised) would be instrumental to further advancing a "big-picture" or collaborative systems approach to conceptualizing community health problems and to facilitating broad, integrative and cooperative interventions. An excellent opportunity for future research would be to identify potential agents who are most capable and suitable for adopting such a role. Potential candidates mentioned by interviewees and supported by recommendations within the literature include public health units (GOV:H1; GOV&NGO:H/E; Public Health Capacity Review Committee, 2005), the local government (POL&NGO; Dale, 2005) or the Long Point World Biosphere Reserve Foundation (PS&NGO:E/A; GOV&NGO:H/E; GOV&NGO:E; Francis & Whitelaw, 2001; LPWBRF, 2006). It is likely that other governance bodies could equally be considered as potential candidates. However, it was beyond the scope of this thesis to determine which would be the most suitable choice. Further investigation is needed into whether such a facilitator should ideally be a governmental or non-governmental institution, in addition to the benefits and drawbacks that would be associated with either choice. Regardless of who is most suited for this role, Bopp & Bopp (2004) provide a useful synopsis of the key qualifications that an effective facilitator should possess. They include:

    i)   technical competency (knowing the system well enough to anticipate the knowledge, skills and attitudes that each governance player will require),

    ii)   knowledge of each governance agent's current capacity, and the collective capacity of a collaborative unit;

    iii)   the ability to promote continuous learning and capacity development, and

    iv)   the ability to inspire and motivate the individual agents and system of governance overall to peak performance

Criterion iii)

The third criterion states that an ecosystem approach to a healthy community requires that governance agents incorporate anticipatory, and long-term planning into their decision-making frameworks. This is in part to ensure that the benefits derived, and costs associated with policies and initiatives are equitably distributed amongst community members, and to ensure that present-day gains are not realized at the expense of the ability of future generations to secure their own community health and sustainability objectives. This requires an anticipatory, rather than reactive approach to problem identification and devised interventions. Under most circumstances it is not possible to have complete certainty that the information on which decisions are based upon is complete and accurate. Nevertheless, it is important to consider the long-term impacts of decisions, and when the threat of irreversible negative consequences exists, decisions and outcomes which demonstrate a precautionary approach should be favoured (Gibson, 2005). Failure to do so results in the inefficient use of limited resources, as governance agents become caught up in a cycle of trying to address or "fix" the negative consequences of initiatives that were predominantly focused on providing short-term gains for select individuals.

In regards to this criterion, most interviewees stated that while they saw the value of anticipatory, long-term planning, they had less faith in whether it was effective or feasible to incorporate such an approach into current structures of day-to-day decision-making. This is particularly the case when decision-makers are heavily pressured to accommodate present-day needs and wants even if they are at the expense of long-term sustainability, or more desirable decision-making outcomes. The challenges of adopting anticipatory, long-term, and sustainable decision-making are also recognized in the literature. Most current institutional structures place insufficient priority on sustainability issues, with the benefits evolving out of neo-liberal patterns of decision-making being channeled towards relatively few beneficiaries. The full costs of current economic and social practices are typically absorbed as externalities by future generations, the marginalized poor, and the natural environment (Hempel, 1996; Daly, 2002; Rainham & McDowell, 2005). Within Norfolk County, local governance agents are struggling to address the more immediate needs and socioeconomic impacts, in large part related to the declining tobacco industry, through economic diversification, growth and

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development strategies. However, they must do so without jeopardizing community health, sustainability, rural heritage, and ecological integrity over the long-term. In order to be sustainable, decision-makers must recognize that development and community health gains must be met in conjunction with sustainable stewardship of natural resources and the environment (Shahi, Hartvelt & Sacks, 1997; Hancock, 1999).

In conceptual and hypothetical terms, it is a sound approach to have a criterion which states the need for anticipatory and long-term decision-making and the careful consideration of implications for inter and intra-generational equity. Interviewees and the literature have frequently stated the importance of these requirements. However, the utility of the criterion falls under greater scrutiny when it comes to decision-makers actually being able to implement it. This is particularly the case for politicians that are constrained by their relatively short terms of office, their vested interest in getting re-elected and therefore their preference to avoid decisions that are unpopular in the short-term, or unappealing to the constituents which are responsible for providing the developments from which they derive their much needed revenues. For instance, developers often have a dominant voice in planning decisions because it is politically easier to permit the expansion of the tax base on developer's terms, rather than raise property tax rates for citizens (Paehlke, 2001). Anticipatory and long-term planning is also difficult for non-governmental agents who are also constrained by available resources. Their initiatives are often issue based, and relatively short-term in duration due to the nature of grants being typically distributed in one-time, lump-sum allotments. The time and resources of non-governmental agencies are often caught up in an ongoing process of acquiring funds and grants for survival. This likely minimizes their ability to get beyond a cerebral understanding of the importance of anticipatory and long-term planning, towards actually incorporating it into their everyday operations and strategies. Further research is needed into whether, and how, the shortcomings of this particular criterion may be overcome.

Criterion iv)

The fourth criterion states that due to the inherent uncertainties involved when adopting a systemic and integrated approach to health conceptualization and governance, institutions

themselves must be able to adapt and incorporate new information as it arises (as the underlying socio-ecological context, in which community health is embedded, is constantly in flux). Adapting to changing conditions or shifting social values requires ongoing monitoring and evaluation, and a commitment to a process of learning to provide decision-makers with the necessary feedback to support an ongoing process of policy adjustment and modification to ensure that their program and policy initiatives are suitably targeted and effective.

Many of the interviewees, particularly those currently working (or having previously worked) within a government setting, explained that the organizations in which they have been involved with at least attempt to conduct program evaluation and monitoring. Respondents indicated that monitoring, follow-up and policy adjustment are some of the most difficult elements of any program initiative. This is particularly the case when it comes to determinants of community health and well-being due to the vast, synergistic and multiple variables involved (GOV:H1; GOV:H2). It is not always possible to have complete certainty in regards to direct causal relationships between a community or environmental stressor and a subsequent health outcome (GOV&NGO:H/E). Nevertheless, funding agencies and governments have to meet certain expectations for ensuring accountable and efficient resource use, and therefore they often demand "evidence-based" approaches to policy and decision-making, which raises significant challenges to actors carrying out initiatives on the ground.

While accountable and responsible resource use is important, one risk or downfall of evidence-based practice is that limited resources are wasted in an endless cycle of studying and monitoring in a quest for "certainty" before action. This can cause paralysis and minimize the amount of resources that actually get channeled into action and program interventions on the ground. If citizens are unable to interact with program administrators, or witness the results of resource investments through improvements in their daily life quality, or perceive that too many funds are getting caught up in red-tape and paperwork, than they can become disenchanted with decision-makers, particularly those who are holding the purse-strings (F&NGO:A/E3; F&NGO:E/A). These sentiments suggest that when monitoring and data interpretation are carried out by members of a bureaucracy distanced from the individuals whom are impacted the most, the information derived becomes less effective, meaningful and

relevant to people's everyday lives. These conclusions are also supported in the literature through the recognition management that is exclusively remote and centralized is problematic due to decision-makers being distanced from local priorities, aspirations and socio-ecological realities (Berkes, 2002; Carlsson & Berkes, 2005).

While monitoring and evaluation is important if the goal is to reflect and adapt to changing circumstances, the results are unlikely to translate into broader political will or citizen support for initiatives if people are unable to witness the results of invested resources. That is, while monitoring may provide indications on the state of community health determinants, appropriate political responses to such indications are still needed to promote real and lasting change. Pollock & Whitelaw (2005) also contend that raw data derived from monitoring activities must be translated into meaningful forms of information in timely, usable and accessible fashions, so that results can inform decision-makers. They also point towards the utility of community-based monitoring activities in regards to their potential for increasing citizen involvement in planning and management, enhancing public awareness of important community issues, and therefore enhancing the social capital that is needed to support local sustainability. Therefore community-based monitoring initiatives provide a vital source of information complementary to data derived from government led monitoring and evaluation activities.

In addition, a couple of the respondents had a different opinion about what it means to have adaptive capacity within an organization. Given the shifting mandates, priorities and funding provisions of various levels of governments, change is constant. The same is true for the dynamic nature of underlying socio-ecological contexts in which health is embedded. Two different interviewees felt that one of their organization's greatest strengths was the fact that the individuals working within them were familiar and comfortable with employing generalist skill sets, and were not confined to narrow job descriptions or areas of expertise and responsibility (NGO:SS/Y; GOV&NGO:H/E). Governance agents are perhaps more likely to be able to respond or adapt to changing circumstances and demands, if broader more generalist skills development and analytical frameworks were encouraged and facilitated. Being adaptable and able to apply a diversity of available skill sets and expertise would enhance the

capacity of governance agents to maintain their focus on overarching health objectives. Therefore, providing opportunities for training individuals to perform multiple roles and responsibilities, while broadening their understanding of how their skills and inputs impact other governance agents within and outside of their own organizations, is important to enhancing a systemic, integrative, collaborative, and adaptive approach to community health governance.

Criterion v)

The fifth criterion states that effective governance for healthy communities requires transparency, accountability, and trust within decision-making structures and relationships. Ideally this includes a significant degree of clarity about the roles and responsibilities of each agent within the broader system of governance. The key informants indicated that their organizational affiliates all attempt to maintain some level of accountability in order to maintain their legitimacy in the minds of the community and other agents of local governance.

Within government institutions the lines of accountability are relatively top-down in nature with elected representatives or senior administrators guiding the process of prioritizing concerns and resources. In many cases input from members of the bureaucracy or front-line staff is considered and incorporated into final decisions. However this input tends to be in regards to the finer details of how a policy directive may be most effectively and efficiently implemented, as opposed to whether a program or policy objective is suitable or feasible within the given local socio-ecological context, or whether it should go forward in the first place.

Interview respondents working or volunteering outside of governmental circles had a different view about what it means to be publicly accountable and transparent in their actions. They tended to emphasize the importance of more informal structures of accountability, claiming that trust, transparency, and a perceived sense of commitment can also be built through committed efforts of interpersonal relationship building and maintaining visibility throughout their community. Such sentiments suggest that trust and accountability are therefore not

synonymous or exclusive to representative forms of government. There is support for this claim in the literature. Scholte (2000) also argues that transparent governance cannot rely upon top-down, or institutionalized expertise alone. Legitimate and effective decision-making requires popular consent, and an informed and active citizenry which requires organizations that are better able to transcend the spheres of elected public office and every-day civic life. Non-governmental organizations also have the advantage of being able to cut-through bureaucratic tape and spatial or jurisdictional constraints that governments or administrative states must adhere to. They can serve as transmitters of information both horizontally across space, and vertically through hierarchies of organization which increases opportunities for accountability and transparency. The work of Lukasik (2003) demonstrates that personal interactions are important for ensuring that citizen-based engagement and activities of governance are effective. However, she also highlights that being committed to a process of face-to-face interactions is time and resource intensive. This suggests that when grants or funds are allocated to NGOs and civil society organizations, that they should take into account the extra costs associated with networking, relationship building, and maintaining the trust of citizens and other organizations.

For effective, transparent and accountable local governance, it is extremely important to gain trust and the legitimacy to govern through being dedicated to a process of relationship building. Transparency and accountability have the potential to evolve out of this process. However, this takes a great deal of time, dedication and familiarity with a local area, history, context, and culture. While this is a challenging process within any context, it is likely that it is even more difficult when dealing with a larger bureaucracy that is spread out over a vast geographic territory making it very difficult to have regular face-to-face interactions. Building trust through informal processes and relationships is likely much more feasible at the local level, where communities are smaller, and where there are less governance agents involved in decision-making processes. This gives greater support to the claim that an ecosystem approach to health requires local level engagement and leadership in decision-making. Nevertheless, even when trust begins to emerge at the local level through committed relationships on the ground, there is still a need for broader coordination, communication, and learning at larger geographical and conceptual scales (F&NGO:E/A; Bajracharya, 1999;

Berkes, 2001; Paehlke, 2001; Lovell et al, 2002; Slocombe & Hanna, 2007). This is particularly important as influences and determinants of community health transcend local political or cultural boundaries. The health of a community is dynamic and based on factors nested at a variety of scales. Therefore the relationships and networks which emerge from the ground up must also be able to navigate across spatial scales and jurisdictions, including the institutional and grassroots divide.

Criterion vi)

The sixth criterion states that promoting an ecosystem approach to governing towards community health requires an active and committed role for the local government.. The local government has an integral role to play in encouraging and facilitating collaborative, integrative and participatory approaches to decision-making and governance. While this may not be a role that is exclusive to the local government, they should focus on developing and leading strategic partnerships and networks of collaboration.

Many interviewees identified the local government as having significant influence over community health and well-being, therefore viewing it as a key player in community health governance. In particular the departments of planning, health and social services, community services, public works, and tourism and economic development were identified as playing instrumental roles. Factors identified by interviewees as integral features of a healthy community tended to fall under the mandates and jurisdictions of these various departments, suggesting that it is a reasonable expectation for governments to be responsible for facilitating community health gains through responsible and sustainable decision-making within these various areas of administration. Nevertheless, these expectations are difficult to meet when faced with present-day socioeconomic and political pressures. According to one formal politician, governments are inclined to be opportunistic in regards to economic development, and responsive to constituents that are the most vocal. This can lead to decisions that are not effectively promoting sustainability or health.

Local governments' priorities have historically been directed more towards economic development rather than to other considerations such as environmental conservation or health (McAllister, 2004). However, municipal planning has come some way in realizing the importance of building liveable communities that promote healthy lifestyles, greenspace, and social interaction. Nevertheless, as McAllister explains, the relationships between developers and elected councillors continue to shape local political agendas, leading to much debate about the appropriateness of these relationships. Citizens and decision-makers in Norfolk County are involved in debate regarding the underlying objectives of social and economic development initiatives, the types of development that should be promoted by the local government, and the direction in which local resources should be channeled. This raises questions about whether local governments are indeed in the best position to be responsible for leading community-based partnerships. Some argue, nonetheless, that local governments are the most logical choice for leading, facilitating and arbitrating community-based partnerships and competing vested interests due to the electoral process rendering them more accountable than private enterprises or other non-governmental organizations. Furthermore, they have access to requisite resources (Dale, 2005). As indicated at the beginning of this chapter's analysis, this area of debate is in need of further research. Whoever is responsible for taking on a facilitative and mediating role, must be capable and committed to prioritizing sustainable decisions.

In regards to promoting community health objectives specifically, it does make sense that the local public health unit (which is part of the local government) should take on a more active role in coordinating community action and enhancing governance capacity. Public health agencies need to be provided with resources that are necessary for achieving these objectives from local and higher orders of government. Public health units can play a variety of supportive roles including assisting citizen groups in gathering and analyzing information, acting as a central source of information and data, educating community leaders and citizen activists about health determinants so they can confront special interests more effectively, creating forums for bringing formal and informal community leaders together as well as different stakeholders to exchange skills and knowledge, assist with building and supporting coalitions and integrative collaborations, and assisting in strategic planning and policy

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development, (Shahi, Hartvelt & Sacks, 1997; OPHA, 2002; Freudenberg, 2004). Public health practitioners must be trained on how to carry out community building and leadership roles, how to network, and how to function effectively as members of diverse partnerships.

Criterion vii)

The seventh criterion states that citizen engagement, and public participation in decision-making, are essential components to advancing a systemic and integrated approach to governing for healthy communities. Citizens must be able to contribute their local knowledge and skills as a systems approach to building a healthy community requires the incorporation of observations and insights from multiple perspectives. Citizens and local institutions must be committed to gaining a greater understanding of the many system interactions which influence the health and well-being of their community.

Many of the key informants expressed the view that participatory governance, a culture of volunteerism and stewardship were key components of a healthy community, which is compatible with sentiments expressed in the literature. They also proclaimed that this is one of Norfolk County's greatest strengths. Interviewees explained that citizen, and community-based NGOs provide a service or function that is either outside of, or complementary to, the mandate and capacity of the local government. Citizens within the County have a variety of different avenues through which they can influence local decision-making that go beyond conventional methods of voting or elected representation. Some of these methods (e.g. advisory committees of council) are within close reach of governmental politics, while others are further distanced due to the fact that they are external to the government and exist at the grassroots level. There can be trade-offs between these two different realms of influence. For instance, while committees of council or institutionalized organizations may have the advantage of greater access to decision-makers or governmental resources, or greater perceived legitimacy due to the electoral process; NGOs may have more autonomy and freedom to openly criticize their government and press for needed changes without as many negative repercussions. Such a scenario provides more opportunities for the identification of policy alternatives (Togerson, 2005). Therefore arguments can be made for the necessity and efficacy

of both institutionalized, "other-organized" agencies as well as more informal "self-organized" agencies, in addition to hybrid models of the two (Lerner, 2006). The planning process undertaken during the making of Norfolk County's new Official Plan, it was also recognized that there is a need for non-governmental players to assist in filling in the capacity gaps of more traditional government players (Norfolk County, 2003). Many of the County's objectives require the support or leadership of community-based agencies and NGOs if they are to be achieved.

Hancock (1999) identifies the need for a greater understanding of the driving forces behind governance, development and power, as well as the specific local realities of people and places. Therefore opportunities or forums must be provided where community members can come together to discuss the driving forces that shape their communities, learn from one another, and brainstorm potential and appropriate responses. The sustainability workshops and conference hosted by the Long Point World Biosphere Reserve Foundation, represents one example of such an initiative. These events provided community members with information about the issues impacting their community's sustainability potential, in addition to providing a forum to tap into the extensive knowledge that community members possess. Participants were able to discuss collectively their community health and sustainability concerns, as well as possible projects or solutions that would address these concerns. The workshops in conjunction with this conference assisted in enhancing overall local governance capacity by mobilizing citizens and enhancing opportunities for social and institutional learning. The LPWBRF is now equipped with a diverse number of ideas to pursue sustainability activities in a community-based, collaborative manner, in partnership with various individuals and organizations. Without these types of facilitated governance processes that engage citizens, these promising partnerships and alliances may never have materialized.

Bopp and Bopp (2004) also argue that such forums are essential for creating opportunities for community-members to "map" out the factors that are shaping their lives, and integrate the fragmented knowledge sets contained within any given community system. While the knowledge that is necessary for understanding the systemic nature of health problems may be held in bits and pieces by many different actors within the community system, it must be

integrated and brought together systemically in order to devise systemic and mutually re-enforcing interventions and responses (which were discussed in brief at the beginning of this chapter). Health and development professionals who do not have a deep understanding of a community's "story" (i.e. web of relationships, processes, contexts, and needs) are less equipped at understanding what their measurements and data actually mean. As discussed earlier, monitoring and evaluation efforts that are distanced from the individuals on the ground who are impacted the most by policy outcomes, lack relevance in the lives of everyday people. Without this raw data being translated into meaningful information, the political will that is necessary for supporting ongoing health interventions will not materialize. Once the "big-picture" story of a community emerges through insights and contributions made citizens contained therein, it becomes more feasible to reflect on the capacities needed by the community to achieve their desired health outcomes (Bopp & Bopp, 2004).

Citizen engagement in governance within socio-ecological systems is essential due to the double dividend of potential health benefits (Parkes et al, 2003; Parkes, 2006). As Parkes (2006) explains, viewing social systems and ecosystems as one integrated system, and pursuing initiatives that result in mutual, sustainable benefits in both areas, creates a positive double dividend for health. In addition to the gains made when both environmental and socioeconomic determinants of health are enhanced simultaneously, the processes of citizen engagement and multi-stakeholder partnerships in turn have positive effects by turning knowledge into integrated knowledge, and integrated knowledge into coordinated action. In other words, inclusive decision-making processes have the potential of benefiting human health not only through activities that integrate ecosystem and human health stewardship (which addresses multiple, interrelated determinants of health); but also through fostering the health promoting or protective effects of social cohesion, empowerment, skills development, confidence, and self-efficacy (Wakefield, 2001; Parkes et al, 2003; Lerner, 2006).

One of the central tenets of health promotion is the importance of creating processes which enable people to increase control over and improve their own health, which includes being able to change or cope with their socio-ecological surroundings (WHO, 1986). It is a positive

concept emphasizing social and personal resources in addition to physical capacity. Consequently, within public health practice, efforts of community development and the facilitation of social capital have been identified as crucial components to addressing health determinants and community concerns. Voyle & Simmons (1999) define community development as the process of organizing and/or supporting groups and individuals in identifying their own health issues, devising strategies for social action and change, and gaining increased self-reliance and decision-making power as a result of these activities. The capacity for enhancing community development is dependent upon the extent to which a broad cross-section of citizens participate actively in decision-making, in addiction to the degree of linkages which exist amongst participants and their organizations and other relevant regional, national, and global groups (Freudenberg, 2004). Norfolk County has considerable community capacity and assets to build upon due to extensive local level engagement, and strong degree of informal linkages that exist between organizations provided by individuals that are affiliated with multiple groups. A key to enhancing governance capacity even further, is through establishing more linkages between groups that have historically not worked well together due to reasons discussed earlier, including competing interests, clashing personalities, etc. As mentioned previously, much could be gained from having a governance body in place that is able to nurture commonalities and linkages, mediate during times of disagreement, and harness a collective enthusiasm for local change based on deepening relationships of trust and reciprocity. This is also supported by the literature (Voyle & Simmons, 1999; Murray, 2000, Bopp & Bopp, 2004).

Interviewees identified a variety of sources of untapped social capital within Norfolk County. Tapping into these sources would further enhance the capacity and effectiveness of local governance agents in advancing community health and sustainability objectives. They include newcomers to the community that are having difficulties integrating, disenfranchised youth, and the influx of retirees that are either relocating to Norfolk County to live out their retirement years, or who have always lived in Norfolk County and are retiring from local industries (NGO:SS/Y; NGO:F/SS/Y; PS&NGO:E/A; PS/ED). Within a small community like Norfolk County, local governance activities are always reliant on a small group of actively engaged citizens. Much could be gained if the stock of active and committed citizens was

increased. The following narrative provides an example of skills and resources that could

potentially be gained:

> *We're getting so many people coming in from outside the community. These people are what I call professional retirees. They're in their fifties, they take an early retirement, and move out of the big city. But for the most part, they are not getting involved in the community. Now having said that, I'm sure that a lot of these people are bringing in a lot of qualities. They may have been a boyscout leader; they may have been a soccer coach; they may have been a part of many different organizations, or sat on foundation boards making decisions about granting money. They have a skill set that isn't being utilized in this community at all. There's a group in Port Dover, that call themselves the newcomers club. And they get together and they chat and they have speakers, and get together socially, so they do have community interests. But we're lacking that integration. To make friends here is difficult because there are people who have been here for generations. You have to be assertive to get involved, to make a difference, or you have to have that volunteer spirit. Some people may not have the confidence to do that kind of thing in a community where they are not always made welcome with open arms (PS&NGO:E/A)*

Agents of local governance must find a way of engaging these people and tapping into these

potential sources of social capital. Further investigation is needed into how the strengths of

these people or groups may be identified, what their abilities are, what their potential

contributions could be to the community, and how they could become more involved.

The interviews clearly stated that local engagement is not sufficient on its own. Eleven of the

fifteen respondents stated that there is a significant need for more resources if local governance

agents are going to be effective (NGO:SS/Y; F&NGO:E/A; F&NGO:A/E3; GOV&NGO:E/A;

F&NGO:A/E2; PS&NGO:E/A; PS:EC; GOV:H1; GOV:H2; GOV&NGO:H/E;

GOV&NGO:E. While not explicitly discussed as an essential criterion, it is clear that the

literature also supports this claim. Governments must recognize that there are real costs to

community agencies participating in decision-making (Lukasik, 2003; Gardner, 2006).

Engagement, and policy consultation can be a real strain on organizations with few staff, and

even harder when there is a reliance on volunteers. These costs should be considered when

operational grants are distributed. The capacity of organizations and collaborative partnerships

are in fact often constrained by government due to frequently shifting mandates, changing

jurisdictions and expectations, short-term budgeting with no allowance to keep extra funds left

over at the end of the years, which results in a limited ability for organizations to become involved in longer-term projects.

Criterion viii)

The final criterion states that a "sense of place" or community identity is important for stimulating citizen engagement at the local level, and for understanding and promoting a systems approach to community health. Interviewee participants described Norfolk County as having a clear sense of community, with citizens strongly identifying as being a tranquil, resource-based community with beautiful landscapes that was by and large built upon the tobacco industry. Many respondents explained that this very identity is undergoing transformation, resulting in community uncertainty and instability which is exacerbated by trends of youth out-migration. Government decision-makers are encouraging economic growth and diversification in response to the socioeconomic impacts of the declining tobacco industry, as well as pressures from entrepreneurs, and developers in order to provide more livelihood opportunities. However, the speed at which this is occurring has resulted in some of the key informants being concerned about how these changes will affect the spirit and identity of the community, including ecological and rural heritage features which citizens have come to value and take for granted.

The identity of the community, including its social bonds and culture are closely tied to the local economic system. What is less clear is as the local economy undergoes significant changes, how these will influence citizens' sense of place, including their relationships with one another and the landscape. Like many other rural communities, Norfolk County is at a crossroads in terms of the future shape and direction of development, and there appears to be a clash of visions or desires. Some want this rural community to continue to be a viable working land where a variety of livelihood opportunities are available; whereas others see growth and development opportunities through building a "playground for the rich" based on idyllic landscapes and waterfront properties for retiring urbanites; and still others maintain that this area should be a site where the conservation of biodiversity is emphasized in order to preserve natural landscapes, and also support a growing industry of eco-tourism and outdoor recreation.

The literature also suggests that governance regimes can be influenced by place-politics, and are therefore not uniform or stable across time and space. They take on diverse forms of changing character depending on ecological conditions, shifting interests and alliances, available resources, and government management efforts (Reed, 2007). Reed goes on to explain that both decline and growth of rural places can give rise to cultural changes as social norms and relations create new divisions within and between rural places. Reed's observations are in line with comments provided by key informants who suggested that there is a lack of community identity and cohesion at the County level due to a significant degree of division and competition over resources associated with community identities and boundaries that existed at smaller scales prior to amalgamation. Associated with this are tensions between rural and urban oriented citizen concerns (NGO:Y/SS; POL&NGO; GOV&NGO:E/ PS:ED; F&NGO:A/E2; F&NGO:A/E1; GOV:ED). Many citizens do not identify with the community being defined at this broader regional scale. This also is an issue in regards to broader community building, collaborative governance, and untapped social. Local governments and other non-governmental organizations should work towards providing opportunities for citizens to build a greater understanding of the interrelationships that exist between these smaller townships, in addition to the interdependence that exists between the rural and urban communities of Norfolk County in order to enhance understanding of the need for coordinated community-wide health initiatives and objectives.

5.3 Chapter Summary

This chapter elaborated on the findings presented in Chapter 4, providing further analysis of the data derived from key informant interviews. It integrated this data with that which was obtained from the theoretical and policy literature, and identified discrepancies and areas of consensus. The utility and feasibility of the criteria for advancing an ecosystem approach to governing towards community health was further explored with the strengths and weaknesses of the criteria emphasized. Recommendations for refining the criteria were provided, along with concluding statements regarding the challenges and opportunities facing local governance agents in meeting the criteria.

Chapter 6

Research Contributions, Implications, Conclusions & Recommendations

6.1 Chapter Introduction

The purpose of this chapter is to discuss the theoretical and applied implications of the research findings. The following summarizes the key findings as they relate to the original thesis question and underlying objectives (outlined in Chapter 1, and reiterated below). It also outlines the limitations of the research, and provides recommendations for areas of future research.

The primary intent of this thesis was to answer the following research question:

What are the challenges and opportunities facing local governance agents in advancing an ecosystem approach to conceptualizing and governing community health in Norfolk County, Ontario?

Additional thesis objectives were:

viii. To devise a conceptual framework to guide the research design process and case study analysis

ix. To develop a set of criteria deemed essential for advancing an ecosystem approach to governing towards community health

x. To test the utility of the ecosystem health approach as a framework for analyzing community health concerns and governance issues

xi. To test the utility, and feasibility of the devised criteria within the case study context of Norfolk County

xii. To explore the roles of various local governance agents in advancing an ecosystem approach to community health

xiii.   To develop theoretical and practical research contributions and provide recommendations for needed areas of future research

An interdisciplinary literature review was carried out in Chapter 2 in order to create a conceptual framework for guiding the case-study analysis which followed in Chapters 4 and 5. The literature reviewed throughout Chapter 2 explored evolving trends in governance. The introductory portion of the chapter discussed general trends in governance and public administration. It illustrated the evolution from conventional, hierarchical, technocratic forms of public administration (otherwise known as silos) which have dominated decision-making in many different fields, towards the gradual adoption of more systemic, integrated, and participatory approaches to governance and decision-making. The remainder of Chapter 2 demonstrated that similar trends and evolutions in governance and decision-making have unfolded within the field of resource and environmental management specifically, and finally, that parallel developments have also evolved out of the field of human and public health management. Many of the recommendations emerging from these historically distinct areas of policy and practice are very similar with respect to governance reforms required for enhancing community health and sustainability. Chapter 2 provided a summary of the qualities that are fundamental to an ecosystem approach to health, which attempts to integrate biophysical sustainability and health concerns, with human or community health objectives, and health promotion strategies. The recurring themes and fundamental principles identified in the literature were transformed into a set of criteria deemed essential to advancing an ecosystem approach to the conceptualization and governance of community health. These criteria were then grounded within the case study context of Norfolk County in order to further test their utility and feasibility, and to identify the challenges and opportunities facing local governance agents in advancing an ecosystem approach to community health. The findings were described in Chapter 4, further analyzed in Chapter 5 with final conclusions and recommendations being emphasized in this chapter (Chapter 6).

6.2 Research Contributions

Research contributions are presented below and are categorized according to theoretical and applied contributions.

6.2.1 Theoretical Contributions

Due to the interdisciplinary nature of this research, the theoretical contributions are useful to a range of academic fields of inquiry including: community health and development, ecosystem health, public health research and practice, environmental studies, sustainability studies, environmental and/or health governance, and public administration.

This research contributes a set of theoretically based and empirically grounded criteria (refer back to Table 2 for a list of the criteria) that can be used to advance a systemic, integrated, and participatory approach (ecosystem approach) to community health issues and concerns. The significance of the criteria is that they provide a useful framework for analysis. They assist in study design,and in the identification, categorization, verification and analysis of data collected from divergent sources including policy document analyses, participant observation and key informant interviews. The criteria also can be applied when developing a framework that might be used to examine the effectiveness of local governance agents and institutions, or when considering complex problem areas (e.g. health) within the context of complex socio-ecological system interactions.

An additional contribution is that the research has attempted to untangle different discourses or concepts used in divergent fields that have similar meanings (e.g. ecosystem health, health promotion, sustainability, etc), or similar language used in different fields that have divergent meanings (e.g. health, environment, ecosystem health, etc). This is an important step towards future integration, cross-collaboration, and transdisciplinary research.

The research contributes to public health theory by emphasizing and supporting the importance of the concept of sustainability as an essential component of human health gains, and community health objectives. In addition, it supports the application of a systems approach

emphasizing the significance and influence of scale and nested socio-ecological contexts for health determinants, problem identification, and intervention. Finally, the research also supports a further expansion of ecosystem health theory, emphasizing the importance of moving beyond the exclusive consideration of biophysical factors, and highlighting the importance of social, political, and economic factors within ecosystem interactions.

6.2.2 Applied Contributions

The research provides a general and case-specific framework for community health and development practice, including problem identification and conceptualization, intervention and governance. It provides a set of descriptive and prescriptive principles and recommendations for understanding and responding to complex problems (summarized below under conclusions and recommendations). These include recommendations about how local governance capacity might be strengthened. In addition this research nudges current reactionary and narrowly focused approaches to health conceptualization and governance, by supporting a more anticipatory and integrative approach. Grounding the theory in an ecosystem health approach, in places such as Norfolk County, could bring practitioners and decision-makers one step closer to actually implementing the principles and recommendations, rather than just talking about the value of, and need for them in conceptual terms.

While the findings of this research are context specific given that only one case study was examined, there is potential for transferability to other cases with similar situations and contexts. This includes rural communities, resource-dependent towns, and places that are grappling with promoting social and economic development without jeopardizing community health, livelihoods, heritage, and ecological integrity. The findings are also likely applicable to other biosphere reserves that are attempting to integrate conservation, stewardship, and sustainable livelihood initiatives through collaborative governance. This research provides a framework for identifying other potential partners that could assist in biosphere reserve work that are associated with other types of organizations or expertise that are atypical of biosphere reserve activities (e.g. health and social service agencies, etc.) The participation and cooperation of these diverse actors is integral to achieving their overarching mandate.

The research highlights some of the structural and procedural inadequacies of governance systems and decision-making processes within Norfolk County, and provides opportunities for building upon existing community capacity. It does so by providing recommendations for enhancing collaborative action, and illustrating the challenges which impede such action. The research explores and analyzes the various roles and responsibilities of governance agents, including identifying opportunities for the local government to improve their ability to enhance community health, and strengthen local governance capacity. The conclusions and recommendations below discuss strategies for promoting social and institutional learning, and opportunities for information exchange. Therefore this work will also benefit civil society and non-governmental organizations by providing insight into what is needed for building community capacity, social capital, and harmonized policy and advocacy efforts.

6.3 Research Limitations

This research was limited by the choice of a single case study. The findings are case-specific, and therefore not readily generalized to other contexts. There is a need for testing the devised criterion within other empirical settings in order to provide further support to the validity of the findings. Nevertheless, some of the findings are generalizeable, as the case study reinforces the secondary literature. A small sample size of key informants was used during interviews which prevented the use of quantitative analysis. Therefore, there was no way of testing for statistical significance. In addition, due to the fact that interviewees were civically engaged individuals and very active within their community, they are not representative of the broader population of Norfolk County. Nevertheless, the purpose of the thesis was to explore opportunities and challenges facing local governance agents, and therefore it was logical to focus on a population that was particularly informed about local governance processes, and community health issues and concerns. The interviewees are not broadly representative of community decision-makers despite the fact that efforts were made to obtain insights from community members affiliated with a wide range of organizations and expertise (e.g. health, local economic development, environment, politics, agriculture, conservation, social services,

faith community, recreation, etc). Nevertheless, future studies could benefit from expanding the range of governance agents or study participants, including more representation from the private sector, politicians or councilors, and a wider, more diverse range of NGOs and service clubs.

6.4 Conclusions & Recommendations

The conclusions and recommendations summarize the most pertinent theoretical and applied implications of this research. They are both descriptive and prescriptive in nature. The conclusions and recommendations from the findings are then followed by recommendations for areas in need of future research.

The information derived from key informants and local strategic planning and health policy documents, is in line with the realization that a systemic approach to thinking must be adopted in order to conceptualize health problems in an integrative fashion and give proper consideration to the many broad and interactive determinants of community health and well-being, as suggested in the literature. Such an approach is necessary for being able to make decisions that promote initiatives which produce multiple and mutually reinforcing benefits within the many different health determinant areas. Therefore, the expectation that governance agents be capable of adopting such an approach in order to tease out their unique community health and socio-ecological concerns is reasonable on a conceptual level, given the level of understanding that is evident amongst key informants.   By and large respondents understood that livelihoods and economic development must be socially and ecologically sustainable in order to enhance the health of the community. Nevertheless, being able to translate these conceptual understandings into actual practice and intervention on the ground is a much more difficult undertaking. The interwoven nature of health determinants demands similarly interwoven and mutually reinforcing responses (Waltner-Toews & Lang, 2000; Gibson, 2005).

A few emerging initiatives were identified by interviewees that may have the potential of promoting multiple sustainable community health benefits. The identified initiatives exhibited characteristics associated with an ecosystem approach including an integrated and systemic

approach to problem conceptualization, the need for engaging multiple stakeholders through collaborative partnerships, and an emphasis on locally based planning and implementation. Examples include the causeway project, eco and/or agri-tourism initiatives, implementing a public transit system, promoting a local food distribution network, or an Alternative Land Use Services (ALUS) Program. It is beyond the scope of this thesis to explore any of these initiatives in detail. Therefore, it is recommended that the local government and/or other governing agents within Norfolk County, should utilize the ecosystem health approach as a framework for determining the potential of these initiatives for promoting multiple and mutually reinforcing community health benefits.

All of the interviewees saw the value and necessity of collaborative governing arrangements, and all were members of organizations attempting to utilize a partnership approach within their operations. The benefits of partnerships described by key informants were similar to those cited in the literature including; opportunities for mutual learning, a clearer understanding of how individual initiatives fit within and influence the larger governance system, better lines of communication, the sharing of resources and expertise, more efficient resource use, increased visibility and advocacy of community concerns, a greater harmonization of policies, and the achievement of overlapping objectives. All of these benefits reduce system fragmentation, and jurisdictional disputes, while enhancing the capacity of local governance, and therefore, the capacity for achieving community health objectives. An ecosystem approach to governing for healthy communities does indeed require integrated decision-making, open communication, and collaborative partnerships within and across governmental and non-governmental organizations. Norfolk County has a significant base of existing collaborative partnerships, and there is significant potential to build upon these. Meeting this criterion for ecosystem health is reasonable, and feasible.

Nevertheless, despite the numerous benefits of partnerships, key informants described many challenges that can prevent organizations from becoming involved or staying active within a collaborative relationship. These challenges are also identified in the literature and include clashing personality types and opposing viewpoints, competition over limited resources,

ineffective communication due to differences in language use, an over-reliance on a small number of active citizens, and inadequate appreciation for the potential contributions of others.

To overcome these challenges and differences governance agents must be committed to a process of knowledge translation and social learning. The local government, and other leading agencies within the community (e.g. public health unit, the Long Point World Biosphere Reserve Foundation, or other community leaders) should commit themselves to promoting events or forums that provide opportunities for community members to learn from one another, increase their health and ecological literacy, and better understand the factors that are shaping the health and well-being of their community. For example, the health unit should continue to make it one of their strategic priorities to further integrate the determinants of health framework into municipal decision-making and advocate for a greater emphasis on health within municipal planning and reporting.

In addition there is a need for a governance body dedicated to playing the role of a community facilitator. This facilitator would be responsible for:

- Coordinating partnerships,
- Undertaking a gap analysis in order to identify weaknesses in collective capacity
- Providing opportunities for networking and information exchange
- Promoting "big-picture" or systemic, and integrated problem conceptualization
- Serving as a mediator during conflict resolution processes, and
- Nurturing commonalities between community partners

A few potential candidates for this role were identified by interviewees, and are also supported by the secondary literature. These include public health units, the local government, or the Long Point World Biosphere Reserve Foundation. It is likely that other governance bodies are equally suitable for being considered for this role. It was beyond the scope of this thesis to determine who would be the most suitable choice. Further investigation is needed into whether such a facilitator should ideally be a governmental or non-governmental institution (or

group of institutions), in addition to the benefits and drawbacks that would be associated with each choice.

Utilizing an ecosystem approach requires that governance agents incorporate anticipatory and long-term planning into their decision-making frameworks. This is, in part, to ensure that the benefits derived, and costs associated with policies and initiatives are equitably distributed amongst community members, and to ensure that present-day gains are not realized at the expense of the ability of future generations to secure their own community health and sustainability objectives. Most interviewees saw the value of anticipatory, long-term planning, but doubted that it was effective or feasible to incorporate into day-to-day decision-making. This is due to decision-makers being heavily pressured to accommodate present-day needs and wants even if they are at the expense of long-term sustainability, or more desirable decision-making outcomes. These challenges are also recognized in the literature. Therefore, in conceptual and hypothetical terms, it makes sense to use a criterion which states the need for anticipatory and long-term decision-making and the careful consideration of implications for inter and intra-generational equity. Both interviewees and the literature support the importance of these requirements. However, the feasibility of being able to effectively employ this criterion is questionable. Both governments and non-governmental agents are constrained in their ability to successfully adhere to long-term plan objectives due to limited resources that are available in the short-term. Local governments are over-dependent on developers, and NGOs are often dependent on short-term grants. Both are caught up in focusing on the acquisition of resources, thereby minimizing their ability to get beyond a cerebral understanding of the importance of anticipatory and longer-term program, policy, and planning. While the substance of the criterion is essential, further research is required into examining how the shortcomings of this particular criterion may be overcome with respect to effective processes for its implementation.

Due to the inherent uncertainties involved when adopting a systemic and integrated approach to health conceptualization and governance, institutions themselves must be able to adapt and incorporate new information as it arises (as the underlying socio-ecological context of community health is constantly in flux). Adapting to changing conditions or shifting social

values requires ongoing monitoring and evaluation and a commitment to a process of learning. This is necessary in order to provide decision-makers with the necessary feedback to support ongoing policy adjustment to ensure that their initiatives are effective. Most of the respondents supported this criterion, explaining that they were involved in organizations that at least attempt to conduct program evaluation and monitoring. However, they also emphasized that monitoring, follow-up and policy adjustment are extremely difficult to accomplish.

This is particularly the case with respect to analyzing the determinants of community health and well-being due to the vast, synergistic and multiple variables involved. It is not always possible to have complete certainty with regards to direct causal relationships between a stressor and a subsequent health outcome. Funding agencies or governments are pressured to maintain a reputation of accountable and efficient resource use, and therefore tend to demand "evidence-based" research or approaches to policy and decision-making before committing to making any significant investments into any particular issue or initiative. This raises significant challenges to actors carrying out initiatives on the ground, and also clashes with the need for incorporating a precautionary approach when there is even a small possibility of irreversible negative repercussions.

While accountable and responsible resource use is important, one risk or downfall of evidence-based practice is that limited resources are wasted on a quest for "certainty" through ongoing studies. This minimizes the amount of resources that actually get channeled into action and program interventions on the ground. If citizens do not witness the results of resource investments through improvements in their daily life quality, or perceive that too many resources are caught up in bureaucratic red-tape and paperwork, this can have negative repercussions for underlying political will, necessary for convincing governments to respond to pressing health and sustainability concerns. Monitoring and data interpretation must not be carried out exclusively by members of a bureaucracy distanced from individuals impacted on the ground. Otherwise the data are less meaningful and effective. Hence, while monitoring and evaluation is indeed an important aspect of adaptive governance, the processes through which it is carried out must be transparent and inclusive with results that are meaningful to people and their everyday lives. Such activities must not come at the total expense of action

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and intervention on the ground. Adaptive governance requires that decision-makers (and the public) be willing to experiment with policies and programs in order to test how the socio-ecological system will react to them. This requires political will, transparent process and a willingness to admit and emphasize uncertainties in order to compensate for the lack of a guarantee that these interventions are sure to work. Such findings lend further support to the literature which states that there is a greater need for integrating citizen-based or local knowledge with conventional, scientific approaches to generating knowledge (Gadgil et al, 2003; Tengo & Hammer, 2003; Moller et al, 2004; Carlsson & Berkes, 2005; Pollock & Whitelaw, 2005). Local governance agents should also pursue community-based monitoring initiatives. They provide a vital and complementary information source to the data which are typically derived from government-led monitoring and evaluation activities, and they also have the added benefit engaging citizens on the ground, promoting social learning, and providing individuals with a sense of self-efficacy in terms of actually being able to contribute to supporting health problem identification and intervention.

In addition, two of the respondents had a different opinion about what it means to have adaptive capacity within an organization. Given the shifting mandates, priorities and funding provisions of various levels of governments, change is constant. These constant changes are difficult to navigate, and can be debilitating to agencies even when there is a significant supply of engaged community members that are willing to contribute their skills and knowledge to the betterment of their community. Governance agents and organizations are more likely to be able to respond or adapt to these changing circumstances and demands, if broader, more generalist skills development and analytical frameworks were encouraged and facilitated (as opposed to being confined to narrow job descriptions or areas of expertise). Therefore, governments and non-governmental agents should provide training opportunities for their staff and volunteers that encourage them to be more comfortable and capable of performing multiple roles and responsibilities. This will also assist in broadening their understanding of how their skills and inputs impact other activities within and outside of their own organizations, and perhaps contribute to greater job satisfaction due to the variety of activities that agents can be involved in, and through the satisfaction that comes with being more

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effective. This is important to enhancing a systemic, integrative, collaborative, and adaptive approach to community health governance.

With respect to an ecosystem approach to health and effective governance, the information obtained from key informants was supportive of the literature and criterion stating the need for transparency and accountability within decision-making processes. This is essential for all governance agents in order to maintain their legitimacy as being capable of influencing decision-making on behalf of the wider community. Within government institutions the lines of accountability are relatively top-down in nature with elected representatives or senior administrators guiding the process of prioritizing concerns and resources. However, respondents working or volunteering outside of governmental circles had a different view on what it means to be accountable and transparent. They emphasized the importance of more informal structures of accountability and claimed that trust, transparency, and a perceived sense of commitment are best achieved through committed efforts of interpersonal relationship building and maintaining visibility throughout the community.

Accountability and transparency are not synonymous with, nor confined to, representative forms of government. However, being committed to a process of face-to-face interactions, networking, relationships building (and therefore gaining the trust of citizens and other organizations) is time and resource intensive. These costs should be taken into consideration when grants or funds are allocated to NGOs and civil society organizations as they are essential components to contributing to the enhancement of local governance capacity. Such processes also require dedication and familiarity with a local area, history, context, and culture, and are likely less feasible when dealing with a larger bureaucracy that is spread out over a vast geographic and diverse territory which makes it difficult for frequent personal interactions. Building trust through informal processes such as these is therefore much more feasible at the local level, where communities are smaller, and where there is fewer governance agents involved in decision-making processes. This gives greater support to the claim that an ecosystem approach to health requires local level engagement and leadership in decision-making. Nevertheless, even when trust begins to emerge at the local level through committed relationships on the ground, there is still a need for broader coordination, communication, and

learning at larger geographical and conceptual scales. The relationships and networks which emerge from the ground up must also be able to build bridges to connect with other networks at larger spatial scales and jurisdictions.

Many interviewees identified the local government as having significant influence over community health and well-being, viewing it as a key player in community health governance. This lends support to the findings in the literature and the criterion which states that promoting an ecosystem approach to community health governance requires an active and committed role for the local government. This includes being trustworthy and supportive of initiatives that help to inform and engage citizens. While this may not be a role that is exclusive to the local government, it should focus on developing and leading strategic partnerships and networks of collaboration.

Respondents identified the departments of planning, health and social services, community services, public works, and tourism and economic development as having instrumental influence over the health status of the community, and many of the factors that interviewees identified as being integral features of a healthy community tended to fall under the mandates and jurisdictions of these various departments. Therefore, it is reasonable to expect that governments should be responsible for facilitating community health gains through responsible and sustainable decision-making. Nevertheless, the present-day socioeconomic and political pressures referred to previously, cause governments to be opportunistic and vulnerable to powerful and resourceful interest groups, which can lead to unhealthy or unsustainable decision-making. This raises questions about whether local governments are indeed in the best position to be responsible for leading community-based partnerships. Local governments are, however, a logical choice for the role of facilitating and arbitrating partnerships and competing interests due to the electoral process rendering them more accountable than other organizations. As previously indicated, further research is needed into what type of governance body is more capable and suitable for taking on the responsibility of facilitating and mediating partnerships. This governance body must be able to prioritize decisions that are sustainable.

Regardless of who assumes the overarching role, the public health unit should become more active in coordinating community action and enhancing health governance capacity. Public health agencies must be provided with the requisite resources for achieving these objectives from local and higher orders of government. The local health unit should assist citizens and NGOs in gathering and analyzing information, serve as a central repository of information, educating community leaders about health determinants, create forums for bringing community leaders, decision-makers and activists together to exchange skills and knowledge, assist with building and supporting coalitions and integrative collaborations at nested scales, and provide input to municipal planning and policy development. The local government and health unit must be committed to providing the resources necessary for training their staff on how to carry out community building and leadership roles, and network effectively with diverse partners.

Information derived from interviews supports the theoretical and policy-based literature and the criterion stating that citizen engagement, public participation in decision-making, and a commitment to social learning at the local level are essential to advancing a systemic and integrated approach to governing for healthy communities and a greater understanding of the many influences on health. A strong degree of citizen engagement and volunteerism was identified as one of Norfolk County's greatest strengths lending support to the feasibility of this criterion within this given context. Interviewees and the literature state that citizen, and community-based NGOs provide a service or function that is either outside of, or complementary to, the mandate and capacity of local governments.

In order to capitalize on the skills and expertise that citizens bring to local governance capacity, forums (such as the community sustainability workshops put on by the Biosphere Reserve Foundation) must be provided with opportunities for community members to discuss factors shaping their lives, and integrate fragmented knowledge sets. The knowledge that is necessary for understanding the systemic nature of health problems is held by many different groups and individuals dispersed throughout the community. This knowledge must be integrated and brought together systemically in order to devise the kind of interwoven and mutually re-enforcing interventions and responses that were discussed earlier. In addition, the

integration of community-based knowledge sets is essential to creating a systemic or "big-picture" story of a community. This story is important to health and development practitioners and community decision-makers as it deepens their understanding of what capacities are needed within the community to achieve desired health outcomes, and enhance the effectiveness of interventions. This information also gives meaning to data derived through scientific methods, which as discussed earlier, is important for generating political will and support for community health initiatives.

Data from the interviews were also supportive of literature which claims that citizen engagement within ecosystem health governance brings with it a double dividend of health gains (Parkes, 2006). Inclusive decision-making processes benefit community health not only through activities that integrate ecosystem and human health stewardship (which addresses multiple, interrelated determinants of health), but also through fostering the health promoting or protective effects of social cohesion, empowerment, skills development, confidence, self-efficacy, and enhanced governance capacity (Wakefield, 2001; Parkes et al, 2003; Lerner, 2006).

Interviewees identified a variety of sources of untapped social capital within Norfolk County. They include newcomers to the community that are having difficulties integrating, disenfranchised youth, and the influx of retirees that are either relocating to Norfolk County to live out their retirement years, or who have always lived in Norfolk County and are retiring from local industries. Within a small community like Norfolk County where local governance is reliant on the engagement of a small number of active citizens, much could be gained by tapping into these sources or social capital and increasing the stock of active citizens in order to enhance the capacity and effectiveness of local governance agents in advancing community health and sustainability objectives. The local government and other non-governmental agents must find a way of engaging these people. Further investigation is needed into how the strengths of these people or groups may be identified, what their abilities are, what their potential contributions could be to the community, and how they could become more involved.

Interviewees also made it clear that while local engagement is important, it is not sufficient on its own. This is evident by the fact that Norfolk County is struggling with community health and sustainability issues despite the high level of community participation. So clearly, an active and engaged citizenry is not everything. It was clearly articulated that there is a significant need for more resources if local governance agents are going to be effective. While not initially discussed as an essential criterion, it is clear that the literature also supports this claim (Lukasik, 2003; Gardner, 2006). Governments must recognize that there are real costs to community agencies participating in decision-making. If governments are indeed committed to collaborative forms of decision-making than they must be willing to factor in the costs of policy consultation into the operational grants distributed to NGOs relying on few staff, or agencies that depend on volunteers. In addition, the capacity of organizations and collaborative partnerships are often in fact constrained by governments, due to frequently shifting mandates, changing jurisdictions and expectations, and short-term budgeting with no allowance to keep extra funds left over at the end of the year which limits the ability for organizations to become involved in longer-term projects. Therefore, the challenges of intergovernmental relations can be overwhelming to a local community even when they are equipped with the advantage of having a dedicated, engaged, and active citizenry that is committed to advancing the health and well-being of their community.

The final criterion of the ecosystem health framework stated that a "sense of place" or community identity is important for stimulating citizen engagement at the local level, and for understanding and promoting a systems approach to community health. Interviewees indicated that Norfolk County does indeed have a general sense of community, with citizens strongly identifying as being a tranquil, agriculturally-based community with beautiful landscapes that was by and large built upon the tobacco industry. However, many respondents explained that this very identity is undergoing transformation, resulting in community uncertainty and instability, exacerbated by trends of youth out-migration.

Government decision-makers are encouraging economic growth and diversification in response to the socioeconomic impacts of the declining tobacco industry. This sense of immediacy combined with pressures from eager entrepreneurs and developers have raised

concerns amongst many community members that the speed at which development is occurring may in fact undermine the very identity of the community, jeopardizing its ecological integrity and rural heritage. Literature suggests that both decline and growth of rural places can give rise to cultural changes as social norms and relations create new divisions within and between rural places (Reed, 2007). Such a scenario is unfolding within Norfolk County, as there is great division within the community with respect to the direction in which the community should develop. The identity of the community, including its social bonds and culture are closely tied to the local economic system. What is less clear is how citizen's sense of place, including their relationships with one another and the landscape, will be transformed as the local economy undergoes significant changes. This will mean different things to different people depending upon whether they view this as an opportunity to advance a business interest (which may be more conducive within a more populated, developed, urban setting), or whether they see this as a violation of, or infringement upon, their livelihoods (which is more likely the case for rural residents). Some want Norfolk County to continue in its rural tradition as a viable working land, others see opportunities through developing luxury homes and marketing idyllic landscapes and waterfront properties for retiring urbanites; and still others maintain that this area should be a site where the conservation of biodiversity is emphasized in order to preserve natural landscapes, and support a growing industry of eco-tourism and outdoor recreation.

Community identity throughout Norfolk County is also very fragmented with a significant degree of division and competition over resources based on citizens identifying with their communities that existed at smaller spatial scales, prior to amalgamation. The process of amalgamation has also brought rural and urban tensions to the forefront. Many citizens do not currently identify with their community being defined at the broader regional or county scale. If governance agents are to utilize a sense of place as a method of motivating citizens to become engaged in activities of local governance, than they must work towards providing opportunities for citizens to build a greater understanding and appreciation for the interrelationships that exist between these smaller townships, in addition to the important linkages that exist between the rural and urban communities of Norfolk County and how they relate to broader, community-wide health initiatives and objectives.

6.5 Areas for Future Research

One of the stated thesis objectives was to identify areas of future research. The findings point to the following recommendations for future research:

i) Apply and test the utility of the criteria to other case studies within different contexts, and at different scales to examine how well the criteria hold up, and whether they are transferable. As this research is exploratory, further refinement and testing of the criteria is required. Testing them at a variety of spatial scales, and within different socio-ecological contexts will enhance opportunities for experiential learning, and comparative analysis.

ii) Carry out research in other contexts or jurisdictions that also have a significant level of citizen engagement in order to better understand the circumstances which lead to, or inhibit this engagement.

iii) Utilize the ecosystem health framework and criterion within Norfolk County again, but reduce the scope of the system under study (for example to a particular health problem or issue, e.g. local transit, single mothers, tobacco families and livelihoods, etc).

iv) Further examine collaborative governance arrangements within Norfolk County with an explicit emphasis on stakeholder interests and political ecology to see whether power structures are being maintained, or whether new ones are being created. Focus on who is being marginalized from decision-making and how they can become further engaged.

v) Explore one of the initiatives discussed above as having the potential for producing multiple, and mutually reinforcing community benefits (e.g. causeway project,

eco/agri-tourism, public transit, local food distribution system, ALUS program) utilizing the ecosystem health approach as a framework for analysis.

vi)   Further examine the benefits of having a community facilitator that would be responsible for initiating and supporting collaborative partnerships, identifying gaps in collective governance capacity, mediating during times of conflict, and nurturing commonalities between divergent groups. This would include identifying and examining the potential candidates most suitable and capable of carrying out this role. Discuss the pros and cons of this governing body being a governmental or non-governmental institution.

vii)   Examine ways that the local government and other non-governmental agents could tap into underutilized sources of social capital in Norfolk County (e.g. retirees, newcomers to the community, youth, etc), and discover methods and processes for engaging these people. Further investigation is needed into how their skills and unique knowledge sets can be tapped for enhancing local governance capacity.

6.6 Summary & Closing Remarks

The primary intent of this thesis was to answer the following research question:

What are the challenges and opportunities facing local governance agents in advancing an ecosystem approach to conceptualizing and governing community health in Norfolk County, Ontario?

Chapter 2 was devoted to analyzing and summarizing a range of literature sets relevant to the issues surrounding healthy and sustainable community development through effective governance. The recurring themes and fundamental principles identified throughout the literature were transformed into a set of criteria deemed essential to advancing an ecosystem approach to conceptualizing and governing community health. These criteria were then grounded within the case study context of Norfolk County in order to further test their utility

and feasibility, and to identify the challenges and opportunities facing local governance agents in advancing an ecosystem approach. Chapter 6 provided a series of conclusions and recommendations evolving out of the research findings. While many of these are theoretical, general, and normative in nature, Table 3 provides a summary of some of the more applied recommendations that emerged.

Table 3: Summary of Applied Recommendations for Enhancing an Ecosystem Approach to Community Health Governance

	Recommendations
i)	Governance agents (e.g. local government, public health unit, the Long Point World Biosphere Reserve Foundation, or others) should provide opportunities for community leaders, decision-makers, activists and concerned citizens to exchange skills and knowledge, increase health and ecological literacy, and better understand factors shaping community health and well-being.
ii)	Governance agents must provide opportunities for citizens to build a greater understanding of the interrelationships existing between the townships and communities of Norfolk County that exist at smaller spatial scales. This includes identifying linkages and interdependencies between rural and urban communities and how they relate to broader, mutually re-enforcing community health benefits.
iii)	Governance agents must find a way of engaging more youth, newcomers to the community, and retirees in volunteering and/or other activities of local governance
iv)	The health unit should focus on integrating the determinants of health framework into municipal decision-making, and advocate for a greater emphasis on health within municipal planning and reporting.
v)	A governance body dedicated to playing the role of a community facilitator should be constructed (they would focus on mediating, coordinating partnerships, identifying capacity gaps, etc.)
vi)	Local governance agents should pursue community or citizen-based monitoring initiatives that encourage citizen self-efficacy, and complement data derived from government-led monitoring and evaluation initiatives.
vii)	Governance agents should train their staff and volunteers to be comfortable and capable of performing multiple roles and responsibilities (i.e the promotion of generalist skills development).
viii)	The local government and health unit must train their staff on how to carry out community building and leadership roles, and network effectively with diverse partners

The devised criteria emerging from this thesis (see Table 2) are intended to be a universally applicable list of fundamental principles for community health governance. Nevertheless, community health challenges, much like sustainability initiatives, cannot be successful through the use of one single paradigm or approach (Gibson, 2005). The utility of these criteria, therefore, is dependent upon their elaboration and specification within specific contexts. As noted, the ecosystem approach is in response to the shortcomings of conventional modes of decision-making that perpetuate narrowly defined boundaries of problem conceptualization and jurisdiction, resulting in context-insensitive intervention and policy. One of the fundamental principles is, in fact, the careful consideration of unique socio-ecological context. Therefore, the implications and applications of the basic criteria are going to differ from one context to the next. For the investigator, the research process progressively revealed the importance of thinking about how these generic criteria can actually be applied within a particular case context. Table 3 begins to provide a suite of applied recommendations that are intended to represent strategies or mechanisms by which the more general criteria outlined in Table 2 can advanced on the ground. Nevertheless, it is recognized that more work is needed to enhance the comprehensiveness and specificity of this package of recommendations. Therefore, future analysis and publications pursued by the researcher will focus more intensely on translating these general criteria into a package of initiatives that are accessible, tangible and feasible to decision-makers and practitioners on the ground within Norfolk County (and/or other contexts).

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Appendix 1: Interview Questions

- How long have you lived in this community?

- Can you tell me a little bit about yourself in regards to your occupation, and affiliation with any community based organizations?

- How would you describe this community?

- From your perspective, what does a healthy community mean to you? What are all of the factors that need to be considered?

- What are the major issues affecting Norfolk County that need to be addressed in regards to community health and well-being?

- Who are some of the major players (governmental or non) that are working towards improving community health and well-being?

- Who else needs to become further involved, and/or who else's interests are not being addressed?

- Can you describe some of the collaborative relationships and initiatives that you have with community partners?

- Do your partnership arrangements have clearly defined objectives, roles, and responsibilities?

- What are the challenges of maintaining an active and effective partnership or collaborative relationship?

- Can you think of some opportunities for constructing partnerships that don't already formally exist that would benefit your organization? (i.e. are there other organizations in the community that should be included within your network that are not already?)

- Can you tell me a little bit about how decision-making occurs within your department? How are your priorities, strategies, and objectives arrives at? Does the public influence this process?

- How does your department go about evaluating the effectiveness of their programs and strategies in regards to achieving your overall goals or mandate?

- What is the general time-frame for policy making or decision-making? (i.e. how far do you project into the future?)

- Do you have the necessary resources to meet your program requirements?

- What are the main strengths and weaknesses of your organization? (What are the barriers to achieving your goals?)

- How do you think the capacity of your organization might be enhanced?

Are there any other comments that you wish to add, or do you think there are some important factors or concerns that I am missing out on or failing to consider?