



Saskatchewan
Health Authority

Developmental Evaluation of Health Networks

South East 6 and Regina East

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Health Networks Evaluation Team

SHA Research Unit

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EXECUTIVE SUMMARY

Global health care systems are facing the challenges of an aging population and growing levels of chronic and complex needs, which brings correspondingly higher costs of healthcare provision. In addition, healthcare has become more complex with increasing levels of specialization and care options, which result in systems that are fragmented and difficult for patients to navigate. There are systemic challenges in the way health care is delivered and experienced by patients in Saskatchewan. Efforts to address such issues include moving towards more integrated care in the form of Health Networks (HN). HNs are geographic areas that provide an infrastructure for interdisciplinary team-based healthcare delivered closest to where the patient lives or works and are defined as “collaborative teams of health professionals, including physicians and community partners, providing fully integrated services to meet the health needs of individuals and communities.” The aim of HNs is to provide care through an interdisciplinary team of healthcare professionals that is accessible, timely, and coordinated within the team and with community services.

The evaluation was commissioned in order to understand how and why HNs achieve their outcomes. This will provide essential information about how to replicate successes and minimize barriers by focusing on the essential elements of networks that lead to improved health outcomes. Recognition of the complexity inherent in HNs has guided the decision to utilize a theory-based Developmental Evaluation approach. The aim of the evaluation is to assess the *core components* of HNs, as well as the *outcomes* of the networks, the *context* in which the outcomes occur, and the *mechanisms* by which they occur.

The evaluation began with a focus on the Regina-East (urban) and South East 6 (rural) networks as these have been functioning since 2014. This gave a solid starting point to understand how HNs operate and achieve outcomes, which can be passed on to other networks in earlier stages of development to facilitate their process of integration and team-building. As each network has its own fundamental characteristics, the aim of the evaluation is not generalization but learning from different examples. Methods included a literature review, a document review, non-participant observations, and interviews with SHA leadership, healthcare providers, and physicians to examine their experience of integrated care. An outcome evaluation is also planned.

All interviewees agreed that the concept of HN providing integrated team-based care was desirable. In theory, it was seen as a useful and valuable change that will likely lead to improved patient care. However, there were reservations about how it would be implemented and how things would operate in practice.

Many point-of-care staff were enthusiastic about the idea of interdisciplinary teamwork. The importance of relationships as a facilitator of networks was mentioned more than any other theme, along with collaboration and communication. Supportive leadership helped build successful teams. Supportive teams helped improve patient care and personal well-being.

Benefits of HNs include broader medical knowledge, understanding how different professions interact to provide better care, wider-level thinking, adapting and finding creative solutions, having a holistic view of the client, and going above and beyond usual care.

There are some challenges to HNs. Staff shortages and turnover results in many staff currently feeling overworked and overburdened. The phrase “putting out fires” was used repeatedly, along with statements about lack of time and capacity. People mentioned feelings of confusion, frustration, and anxiety around lengthy ongoing changes, which was compounded by little internal communication and engagement. The lack of a single accessible electronic medical record was a large source of frustration for staff and physicians. Additionally, communication and transitions between different areas and levels of care was sometimes problematic.




Physician engagement in HNs is understood to be important and efforts are underway to facilitate this. However, current levels of engagement are often dependent on the individual physician’s level of interest in integrated care. Those who feel it is beneficial will often make a greater effort to interact with the team than those who do not. Additionally, the current fee-for-service physician model does not facilitate team-based care and there is confusion about how physicians will interact with networks.





A theory of change provides a plausible explanation as to how and why an intervention works (or does not work). A theory of change encompassing the macro, meso, and micro levels of HN and outlining the path to successful and non-successful outcomes was created, which will facilitate future development of networks and increase understanding of how networks improve delivery of healthcare. Understanding the mechanisms within the Theory of Change is helpful in achieving sustainability, for example, distinguishing between the activity of a huddle and the aim of creating a strong team. Inflexibility in adapting to a particular situation and insistence on following procedure can be counterproductive to team building. A more effective approach would be to recognize what the huddle aims achieve and consider what would work best for this.








Recommendations include intensifying efforts to create a common vision to reduce the widespread confusion around networks, engaging SHA staff in the change process, providing time and capacity to devote to the implementation of HNs, creating positive relationships with physicians and clarifying their role in HNs, timely creation of a single electronic medical record, providing resources for the implementation process, and facilitating partnerships with communities and community-based organizations.

The initial staff goodwill and engagement with the HNs should be reinforced as far as possible in order to facilitate the implementation of new systems. Staff felt that they had valuable insights to offer into the changes and would have liked to have been more involved. More consistent communication and inclusion in the change decisions that directly affect staff would likely facilitate a smoother implementation process as it would not only help to alleviate uncertainty and frustration, but also increase engagement with the changes.

Movements towards more integrated care are desirable but not easy; they require significant systemic, structural, cultural, attitudinal, and behavioural changes. Sustainability of changes seems to rely heavily on perceived relevance and benefit of HNs to the provision of good patient care. Understanding the theoretical pathway of HNs, particularly the mechanisms that lead to change, as well as facilitators and challenges to team-based care can help understand how to replicate successes and minimize challenges within different contexts in Saskatchewan.

Summary of Benefits of Health Networks	
	Improved client care: better client support and chronic disease management. Staff work together to provide consistent, holistic care that help keep clients at home longer and less likely to access emergency care.
	Increased system navigation assistance: staff are able to help clients navigate the healthcare system as they understand it better themselves.
	Increased role understanding and medical knowledge: staff understand how the roles of other health professionals interact with theirs and learn about medical issues beyond their purview. Staff see beyond their own program, innovate, adapt, and find creative solutions to client issues.

Summary of Challenges of Health Networks	
	Staff shortages and turnover, particularly in rural areas. Although funded positions are available, there is a lack of people applying for these positions.
	Lack of time. People feel they need to prioritize the more pressing issues of healthcare over health networks.
	Continuous change. Staff feel there needs to be some time for readjustment and adaptation to one change before moving on to the next.
	Large geographical areas. Team members are often in different locations with high travel times to connect with their team and clients.

	<p>High level of uncertainty:</p> <p>Front-line staff: Working in an uncertain environment with impending organizational changes can be highly stressful and lead to anxiety, discontent, and a lack of focus or initiative.</p> <p>Leadership: There may be some hesitancy from SHA leadership to implement changes without being fully aware of the specifics and implications of health networks.</p>
	<p>Internal communication about the development of Health Networks. Many staff would like to be included in the development of HN and to ensure that changes reflect the situation on the ground.</p>
	<p>Lack of a single accessible electronic medical record (EMR) is a large source of frustration for staff and physicians. Each former health region (fHR) had their own EMR system, none of which are compatible with the others. Some networks span more than one fHR, and thus have IT infrastructures that do not communicate with each other.</p>
	<p>Professional isolation. Lack of intra-disciplinary support with complex cases, particularly in rural areas.</p>
	<p>Communication beyond primary healthcare (PHC).</p> <ul style="list-style-type: none"> • Communication between PHC and acute care was generally described as “hit or miss”. Although some transitions are smooth, there was a universal sense that this could be improved. • Some physicians felt that PHC staff did not always keep them informed about care they provided.
	<p>Prevention is largely focused on chronic disease management, often due to lack of time. People feel pulled in different directions, with urgent, but not necessarily important matters taking over their days.</p>
	<p>Physician engagement.</p> <ul style="list-style-type: none"> • Disconnect between physicians and the SHA. <ul style="list-style-type: none"> • Perception that new initiatives are for the benefit of the SHA with little regard for physicians. • History of negative interactions, where the SHA or fHR have been seen as authoritarian towards physicians. • Physicians are frequently unaware of what a network is, their place within it, and how they will interact with networks in practice. • Payment models. Fee-for-service physicians are incentivized to see people as quickly as possible, which is not seen as beneficial to providing optimal care. There is no compensation to cover extra time needed to care for complex clients or discuss client care with a team. Contract physicians need time to engage with interdisciplinary care built into the contract. • Perceptions of work ethic. Some fee-for-service physicians feel that salaried staff work at a slower pace and do not accomplish as much in the day. Conversely, some salaried staff feel that fee-for-service physicians only do work for which they are paid. However, physicians who had worked in a team felt that it benefitted both client care and physician practice. <p>Studies on physician engagement show that physicians need to have an interest and commitment to changes, they need to feel heard, valued and respected, and able to influence decisions. Physicians are more enthused by the vision of improving quality of care than by cost-savings, efficiency, and restructuring. Resistance to change often occurs when changes are perceived to threaten professional practices, identity, or status.</p>

SUMMARY OF RECOMMENDATIONS

Vision



Although creating a vision is an ongoing process, this has not been achieved as yet. This is a necessary first step that could be intensified through increased communication and engagement, particularly with front-line staff and physicians.

Staff Capacity and Team-Building



Integration of care done 'on the side of the desk' is unlikely to be as successful as if full attention is paid to the process. People need support to learn new ways of working within their local context as well as time incorporate these changes into everyday routines.

Engagement and Communication with Staff



Defining how staff will be involved and engaged in sustaining HN will likely lead to feelings of empowerment and support of the change process. Point-of-care staff are not passive recipients of change, but need to be active participants in choosing to adopt and modify new processes to suit their local needs.

Engagement and Communication with Physicians



Physicians who see the benefits of HN on their time and practice are more likely to engage with HNs. Physicians need a clear idea of their role in HNs. Physicians often do not see the need to be present at team meetings as this takes up too much of their time.

Electronic Medical Record



The lack of a single electronic medical record that can be used in multiple settings by multiple users is a large source of frustration for staff and physicians. Studies and success stories also point to health information technology as essential for successful integrated care.

Funding



Although HNs are seen as a way to reduce the costs of healthcare provision, other models have found that costs are likely to increase initially due to the need for staff and support systems. Implementing strategies for reform but failing to give adequate resources may lead to conclusions that changes are ineffective, despite the fact that under the right circumstances they would perform well.

DEVELOPMENTAL EVALUATION OF HEALTH NETWORKS IN SASKATCHEWAN: SOUTH EAST AND REGINA

Introduction

Global health care systems are facing the challenges of an aging population and growing levels of chronic and complex needs, which brings correspondingly higher costs of healthcare provision. In addition, healthcare has become more complex with increasing levels of specialization and new options for care and treatment, which can result in a healthcare system that is fragmented and difficult to navigate. Efforts to provide integrated care in Saskatchewan include the design and implementation of Health Networks (HN), done as a collaborative effort by the Ministry of Health (MoH), the Saskatchewan Health Authority (SHA), and the Saskatchewan Medical Association (SMA).

Rationale for Health Networks in Saskatchewan

The 2009 Patient First Review Commissioner's Report to the Saskatchewan Minister of Health found that there are systemic challenges in the way health care is delivered. Feedback across the province showed the system to be fragmented, hard to navigate, and designed around the needs of the providers rather than the needs of the patients. Patients and families value care that functions in a coordinated, cohesive fashion and is available when needed, with quality transitions between community and institutions.

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A later report by the Saskatchewan Advisory Panel (2016) found that although patients with immediate needs are well served by the current healthcare system, those with more complex or chronic conditions are not, as they need to access supports from a variety of agencies or healthcare professionals and may encounter communication gaps or conflicting advice. Systems such as primary care, emergency care, acute care, tertiary care, and long-term care often deliver services in isolation from each other with little coordination across services. As such, navigation between these services can be challenging. Additionally, service providers can feel isolated and disconnected from each other and unable to always provide optimal care to their patients. Healthcare organizations and providers also showed appetite for change. These stakeholders expressed willingness to support system restructuring to enhance quality improvement as well as strengthen the primary healthcare system.

In summary, both patients and care providers want change in the way care is delivered. The panel advised implementing team-based primary healthcare across the province in order to deliver services more efficiently and effectively, improve patient care, and enhance care province-wide, including rural and remote areas. The panel further recommended that physicians have an active role in the planning, management, and governance of health systems thereby giving them a sense of shared responsibility and accountability for the performance of the health system.

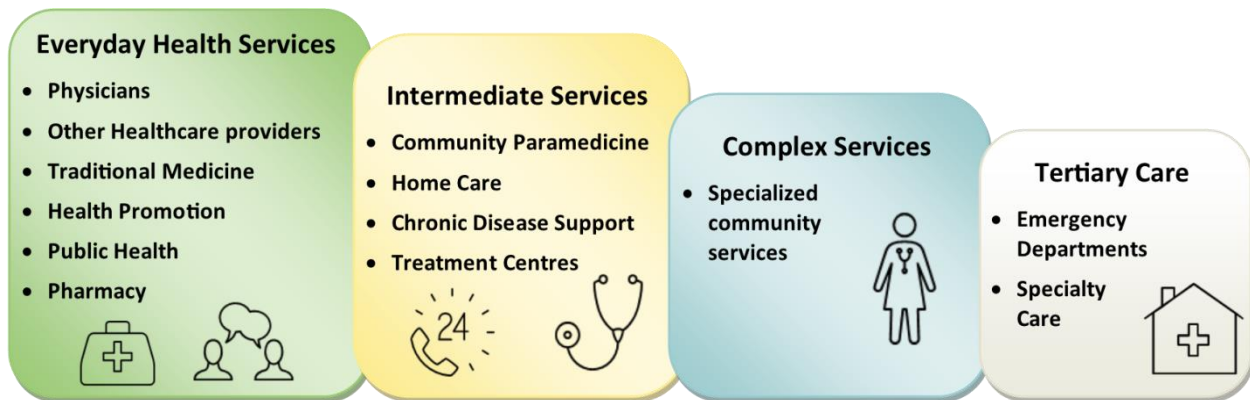
Overview of Health Networks in Saskatchewan

Health Networks (HN) have been formally defined by the MoH, the SHA, and the SMA as collaborative teams of health professionals, including physicians and community partners, providing fully integrated services to meet the health needs of individuals and communities. HNs are geographic areas that provide an infrastructure for interdisciplinary team-based healthcare delivered closest to where the patient lives or works. Health Networks in Michif is *mio pamastuun, mio wagotowin*, which translates to “good health, good relationships”. The aim of HNs is to provide care by an interdisciplinary team of health care professionals that is accessible, timely, and coordinated within the team and with community services.

A Health Network is a collaborative team of health professionals, including physicians and community partners, providing fully integrated services to meet the health needs of individuals and communities.

The SHA envisions HNs as creating an infrastructure for interdisciplinary team-based care as close to home as possible and with clear linkages to other types of care, from everyday health services (e.g., physicians, traditional medicine, health promotion, pharmacy), to intermediate services (e.g., home care, chronic disease support, treatment centres), complex services (e.g., specialized community services), and tertiary care (e.g., emergency departments, specialty care). Many people do not require care beyond everyday health services; however, others require services unique to their condition. Those who do need hospital care will be safely transitioned back to the community through high quality care transitions¹.

¹ <https://hqc.sk.ca/news-events/hqc-news/high-quality-care-transitions-new-sk-guide-available-for-improving-continuity-of-care>



Ideally, there would be virtual linkages to patients where teams cannot be close to patients and a consistent electronic medical record available to all members of the care team. Services such as the community hospital, long-term care services, and community services, including public health, home care, mental health, etc. will be integrated under common leadership and will have interdisciplinary teams with common reporting structures. Integration of services will look different in rural and urban settings and is likely to happen quicker in rural areas where collaboration between disciplines already exists.

Facilities such as long-term care homes and hospitals will still be distinct units and will require more intentionality as to how services are linked together. Patient-centred in the context of HN means that care is coordinated around the patient by the team, as opposed to the patient having to try to access and navigate services. A care navigator will connect with different teams to ensure the patient can access the care they need.

Saskatchewan has implemented changes to (primary) health care in the past. A major difference between HN and previous change efforts is the inclusion of physicians in designing the change. Specifically, a new physician position of Area Department Lead (ADL) has been created within the SHA. ADLs are paired with Executive Directors (EDs) and Directors of primary healthcare to co-lead network development. Co-design of changes with people working within the system is thought to help embed changes. Family physicians are an important part of HN; however, general physician participation in networks has not been fully defined. Family physicians currently work either on a contract or fee-for-service basis. Contract physicians are employed by the SHA and are paid a salary, whereas fee-for-service physicians are reimbursed for each patient visit. The fee-for-service model does not cover time spent in meetings or discussions about patient care and so is less amenable to physician involvement in team-based care. The contract physicians' work day is covered by their salary, which may facilitate participation in team-based care. One option is for physicians to move to contract status either full time or part-time, where the SHA pays for a certain number of physician hours. Another is for physicians to continue to work in their practices while being able to access primary health care services through a single point. Regardless of how physicians choose to join networks, the aim is to reduce the burden of care on physicians by working together with an interdisciplinary team.

Specialist physicians will not necessarily be a regular part of the health network team. Each specialist would follow patients from their own specialty and the interdisciplinary team would link the patient back to their family doctor and health care services. This could be the difference between the specialist keeping the patient in hospital to receive necessary care and earlier discharge as the specialist is more aware of available services to meet the patient's needs.

Community ownership is seen as important to HNs as social determinants of health (SDoH) have a significant impact on health outcomes. In order for HNs to be truly successful, there needs to be integration of formal community leadership, such as town councils, First Nations and Métis communities, community-based organizations, faith-based organizations, as well as individual community members.

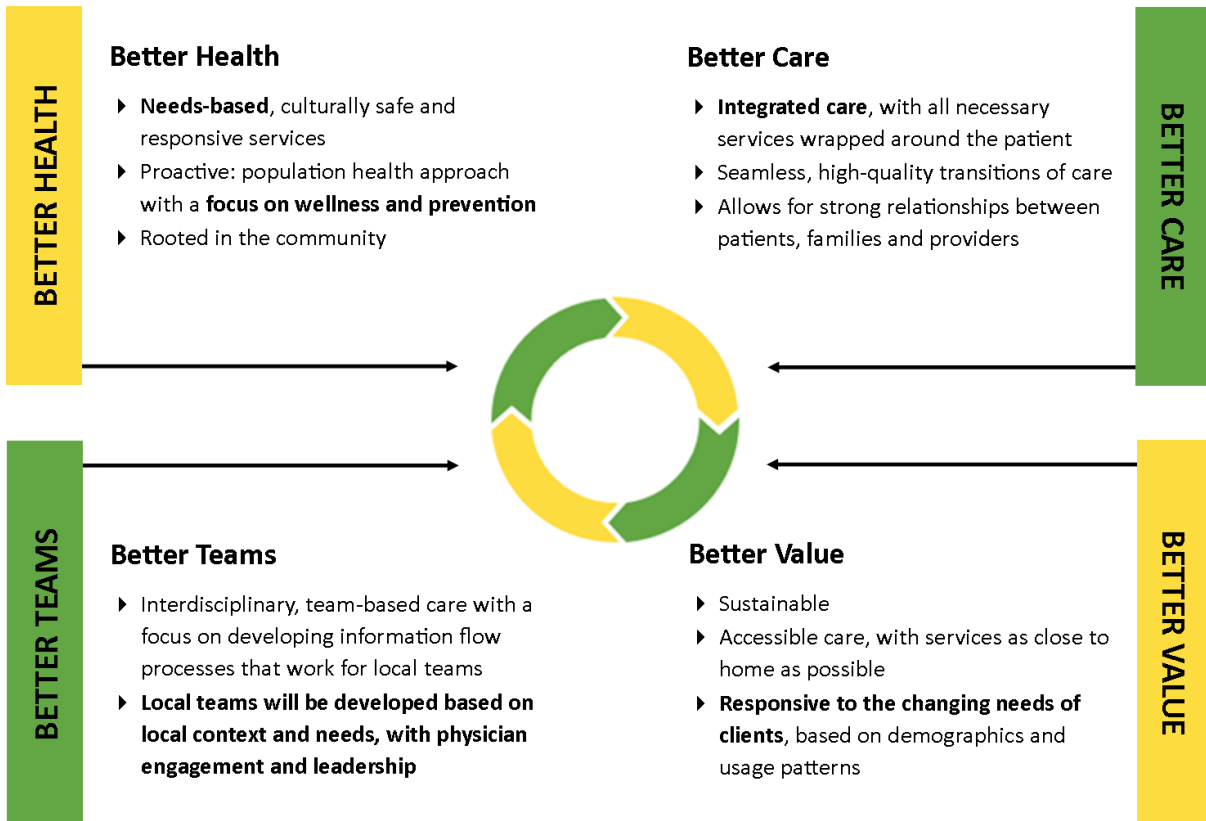
HNs are intended to improve care throughout the province by offering integrated, coordinated continuity of care to every patient. This is thought to be achievable through improved provider communication; getting the right care from right provider; developing collaborative, cross functional teams; allowing for high quality care transitions between hospital and home, thereby shortening hospital stays; improving access to community-based services, thereby reducing ED visits and waits; and supporting local physician leadership by integrating networks with local physicians. HNs are intended to be culturally safe and responsive to patient needs, to deliver services as close to home as possible, to have wellness and prevention as the foundation, to be connected and integrated with local physicians, and to be sustainable. The SHA recognizes that each network operates within a different context and must therefore decide which services to offer to reflect the needs of their communities.

Defined steps in creating the HN structure are:

1. Create a common vision. This involves creating a communication toolkit, identifying stakeholders, and raising awareness of HN as well as the need for change. This also includes addressing fears and building knowledge and understanding.
2. Determine geographies. This is a data-driven process supported by epidemiologists and co-designed with patient partners, health care professionals, and physicians.
3. Build teams. This involves a large-scale reorganization of SHA resources to form the HNs, as well as on-going quality improvement within HNs. Specifically, there is ongoing work on team alignment and integration, understanding network clients and services, community integration, and strengthening and developing high quality care transitions between teams.

This is a large-scale, iterative, multiyear system change that requires learning and adjusting of processes along the way.

Principles and Attributes of Health Networks



Health Networks have principles and attributes that will guide their development. These align with the four Betters:

1. **Better Health:** HNs are needs-based, culturally safe, and responsive; they are proactive, using a population health approach with a focus on wellness and prevention; and they are rooted in the community.
2. **Better Care:** HNs provide integrated care with the services wrapped around the patient; they enable seamless, high-quality transitions of care; and they allow for strong relationships between patients, families, and providers.
3. **Better Teams:** HNs are interdisciplinary team-based care with a focus on developing information flow processes that work for local teams. Local teams will develop based on the local context and needs, with physician engagement and leadership.
4. **Better Value:** HNs are sustainable; they provide accessible care with services as close to home as possible; and they are responsive to the changing needs of patients, based on demographics and usage patterns.

Vision of Health Networks

A three- and five-year vision for HNs will provide the framework to establish specific, attainable goals as HNs evolve. The three-year vision includes:

- “Care happens in the community” is the norm
- The health networks concept is understood
- All health networks are operational, but not mature
- Patients know how their family doctor fits into the system. Family doctors know how they are part of the system.
- Mechanisms in place to improve access to intermediate and complex care, and support coordinated care throughout the health system
- Access to care pathways & best practice
- Wrap corporate supports and provincial programs around networks
- Culturally safe practices are embedded
- A culture of quality and safety is the norm
- Community voices & data support network services
- Use of tools to support navigation

Within five years, the vision includes:

- Integrated services are appropriate for community needs, beyond healthcare services
- Partnerships with communities to support wellness, social determinants of health
- Access to intermediate and complex care in the community
- Continuous engagement to meet community needs, inclusive of First Nation and Métis peoples
- Tools and information available to support patient empowerment and self-directed care
- Integrated technology and processes to support seamless care in community (EMR, e-referrals, shared care plans)

EVALUATION OF REGINA EAST AND SOUTH EAST 6 HEALTH NETWORKS

This evaluation was commissioned in order to learn more about effective and patient-centered models of care that better serve the people of Saskatchewan. Understanding how and why HNs achieve their outcomes will provide essential information about how to replicate successes and minimize barriers by focusing on the essential elements of networks that have achieved patient, community and population health goals.

Evaluation Aim, Objectives, and Questions

The aim of the Health Network evaluation is to identify and assess the development of the *core components* of HNs, as well as assess the *outcomes* of the networks, the *context* in which the outcomes occur, and the *mechanisms* by which they occur. This is intended to facilitate the development of networks over time and provide evidence about the role of networks in improving the delivery of healthcare to support future decision-making.

HNs do not have a prescribed way of working, but have the autonomy to decide how best to serve their patients. The evaluators therefore need to understand what is being done, how it is being done, and outcomes resulting from this. The overarching evaluation questions are:

1. What approaches to network development and interdisciplinary teamwork have been utilized by individual networks? What approaches work well and in what contexts?
2. What are the benefits of Health Networks and how do these occur?

In order to answer these questions, this evaluation has several objectives:

- Assess the structure of Health Networks
- Assess the implementation approaches and processes
- Assess levels engagement of health professionals
- Assess levels of team functioning
- Assess the patient experience of Health Networks
- Understand how networks contribute to better health and better care

The specific evaluation questions are listed in the evaluation matrix in Appendix A.

Evaluation Type

Complex interventions are designed not only to achieve change within individuals but also in populations, communities, services, and systems (Barnes, Matka, & Sullivan, 2003). Evaluation of HNs is complex as the provider being assessed is not a single entity but rather a network of healthcare providers. Recognition of the complexity inherent in HNs has guided the decision to

utilize a theory-based Developmental Evaluation approach that acknowledges the complexity of health care systems.

Developmental Evaluation

Developmental evaluation (DE; Patton, 2010) emerged as a response to complex situations where more flexible approaches to evaluation were required. A developmental evaluator is a partner, rather than an external assessor, to those developing and implementing innovative initiatives. DE has five distinguishing characteristics:

1. The primary focus of the evaluation is on learning and improvement rather than accountability.
2. The provision of real-time feedback and learnings to inform future development.
3. The role of the evaluator as an embedded member of the team rather than an objective observer.
4. The emphasis on systems thinking for data collection and analysis.
5. The emergent and responsive nature of the design of the evaluation, whereby the evaluation plan might change in response to changing circumstances or new understandings.

A developmental evaluator is a partner, rather than an external assessor, to those developing and implementing innovative initiatives.

DE recognizes that initiatives in complex environments rarely conform to a linear model of development, but have high degrees of variation to which the initiative must adapt. The core of DE is the focus on learning over judgement, which helps an organization continuously learn and adapt in meaningful ways (Preskill & Beer, 2012). Although formative (process) and summative (outcome) evaluations have an important role, new solutions to complex problems often do not have a clear path for success. While some outcomes may be identified, neither the length of time nor the most efficient or effective way to achieve these are usually known. On-going feedback may be more useful to innovation than an assessment of success or failure, particularly in the early stages of development.

Theory-Based Evaluation

Theory-based evaluation is an umbrella term for an evaluation approach that constructs and clarifies assumptions about how and why an intervention works. Ascertaining that a program had an effect does not explain how or why the effect occurred. Theories of change provide plausible explanations as to how and why a program works (or does not work) within a particular context (Funnell & Rogers, 2011).

‘What works?’ is a causal question that asks how an initiative causes its effects. This is answered through the idea of generative causation, which suggests that it is not an initiative itself that causes change, it is the reasoning and responses of the participant to the resources within a particular context that activate certain mechanisms that create change (Pawson & Tilley, 1997). In other words, generative causation is the assumption that underpinning mechanisms are responsible for observable outcomes. This is in contrast to the notion of successionist causation, which assumes that event A causes event B. For example, successionist causation assumes that provision of physical activity equipment will create higher levels of physical activity. However, generative causation assumes that if people use the new equipment, it is because of their internal responses to that equipment, for instance, they enjoy using it or they develop a sense of physical mastery and control by using the equipment successfully. If they were to stop enjoying it or do not develop a sense of physical mastery and control they would no longer use the equipment despite its availability.

Social initiatives never work in isolation but in relationship to other initiatives and external contextual factors. Social reality is complex and messy, which makes isolating and manipulating all potential explanatory variables extremely unlikely.

Furthermore, social phenomena are rarely stable and will often change over time and place. Rather than aiming to reduce complexity by treating contextual factors as confounding variables, theory-based evaluation incorporates complexity by emphasizing an understanding of how context shapes and affects causal mechanisms. Context refers to any factor external to the intervention, such as local history, existing levels of trust of the healthcare system, and other community interventions.

Social phenomena are rarely stable and will often change over time and place.

Given the need for health care reform, understanding how and why changes impact health care and health outcomes is equally as important as establishing if such outcomes occur. The ability to look inside the black box of change presents an important opportunity to deepening our understanding of how to effectively change health care delivery.

Complex-Adaptive Systems Approach

There is a growing awareness that the issues confronting society do not exist in isolation, as well as an increased appreciation of the connections within and between systems. Complex, ‘wicked’ problems, including health services, poverty, and unemployment are inter-related, such that conventional linear approaches can be ineffective in attempting to solve these issues. Health interventions often comprise several components that aim to affect more than one outcome at multiple levels, including the individual, interpersonal, and organizational levels. This occurs within a system that can respond in unpredictable ways to the intervention. An evaluation that aims to inform future implementations of HNs needs to understand and incorporate this lens.

A system is a network of many components with causal relationships between one another (Dorner, 1990). To work effectively within a system, we need to understand not only how the individual components work but also how these causal relationships work together and in conjunction with their environment. Causality in the social world is complex as outcomes do not have a single cause but are determined by multiple causes which usually interact in a non-additive way (Byrne & Callaghan, 2013). A complex-adaptive system (CAS) is more than the sum of its parts; it is not defined by its constituent components but by its patterns of interactions.

A complex system is more than the sum of its parts; it is not defined by its constituent components but by its patterns of interactions.

Evaluation Scope

At present, HNs are not fully implemented throughout Saskatchewan. HNs were initially formed by the former Regina Qu'Appelle Health Region in 2014. As these networks have been functioning for some years, the evaluation began with a focus on the Regina-East (urban) and South East 6 (rural) networks. (Regina has four networks that could have been selected, each with its own characteristics. Regina-East was chosen as it operates in a more affluent area and exhibits characteristics of high performing teams.) This gave a solid starting point to understand how HNs operate and achieve outcomes, which can be passed on to other networks in earlier stages of development to facilitate their process of integration and team-building. As each network has its own fundamental characteristics, the aim of the evaluation of these two networks is not generalization but learning from different examples.

Note: Due to the outbreak of COVID-19, the evaluation was halted before we could assess the patient experience of HNs and the partnerships with community-based organizations and First Nations and Métis communities. The staff survey and patient survey were almost finalized when we had to halt the process, so we relied on literature, documents, and interviews as data sources. The surveys may still be used in the future to get a broader picture of results.

Methods

Literature Review

In order to learn more about Integrated Care in different contexts, a snowball method of identifying peer-reviewed literature was used, whereby relevant articles were sourced through references and citations of previous articles. Literature was reviewed and analysed according to:

- Examples of integrated health in Canadian provinces and other countries
- Types of networks formed
- Challenges and facilitators to networks and how challenges were overcome
- Characteristics of high performing integrated teams
- Their impact and benefit (e.g., financial, patient experience, continuity of care, reduced hospitalization, better chronic disease management, etc).

The literature review helped create a picture of integrated care, which provided a basis for comparison with Saskatchewan Health Networks as well as create the ability to learn from the experiences of others. This literature review is available in a separate document. Data from the literature review was also used in the formation of the theory of change.

Document Review

Internal documentation regarding HN was reviewed. These documents gave information pertaining to the structure and purpose of HNs and were used in the formation of the theory of change.

Non-Participant Observations

The evaluator attended meetings and engagement sessions that shed light on the development and implementation processes of HNs, specifically, strategy and planning sessions, as well as engagement sessions held with physicians, patients, and First Nations and Métis communities. Attendance at these events helped to understand different viewpoints and strategies without having to request an interview, thereby reducing the time burden on interviewees. This gave insight into the planning and rollout of HNs as well as the challenges faced through this time.

Interviews

A purposive sample of 51 HN stakeholders, including HN leadership, PHC EDs, MHOs, Directors, managers, point-of-care staff (nurse practitioners, nurses, continuing care aides, physiotherapists, occupational therapists, schedulers, assessor coordinators, community, population, and public health staff, and mental health workers), and physicians (9) were interviewed between December 2019 to March 2020 (see Appendix B for the interview guide).

A snowball method of participant identification was used, whereby initial participants helped to identify further participants. Participants were contacted through an introductory email with a follow-up reminder if necessary. The interviews were loosely structured around the interview guide; however, if a participant had interesting or novel information about certain issues, this was followed up. Interviews generally took 45-60 minutes.

Data Analysis

The interview audio recordings were transcribed and analysed using NVivo (QSR International Pty Ltd, 2018). Thematic analysis (Braun & Clarke, 2006), was used to code and organize data into meaningful groups. The codes were then amalgamated into themes and all relevant coded data collated within these themes. Themes were assessed for their relevance to the structure of HNs, the implementation approaches and processes, the engagement of health professionals, team functioning, and the theory of change.

Internal documents were analysed for relevance to the evaluation questions. Information was extracted from the documents and added to the interview data to create a more holistic picture of the HN.

Results

Structure and Implementation of Health Networks

The SE6 and Regina East networks were part of the former Regina Qu'Appelle Health Region (RQHR). The RQHR initially implemented primary health networks in an effort to reduce congestion in acute care facilities. Previously, patient flow led to the Emergency Department as the generally accepted solution for someone who either did not have a family physician or needed care outside regular physician hours. The vision for networks was to change this culture and establish a network with a team of healthcare professionals who would support each other and be accountable for caring for residents within a certain geographical area. The SHA model of Health Networks has continued to focus on upstream thinking, envisioning stronger partnerships with education, justice, community services, and social services.

South East 6

SE6 was part of the former Regina Qu'Appelle Health Region and is made up of the former Touchwood Qu'Appelle Network and Twin Valleys network. Since the formation of the SHA, SE6 functions as three primary health care (PHC) hubs with acute care facilities in Fort Qu'Appelle, Indian Head, and Wolseley, and PHC clinics in Balcarres, Montmartre, and Grenfell. Services are also provided to satellite clinics in Lestock, Raymore, Muskowekwan First Nations, Okanese First Nations, and Odessa. The SE6 provides community immunization clinics and Addiction

services to areas around First Nation communities but not directly on reserves. The PHC team currently includes home care nurses, continuing care aides, assessor coordinators, and schedulers, public health nurses, community health promoters, primary health care physicians, nurse practitioners, dieticians, physiotherapists, occupational therapists, chronic disease educators, and mental health therapists. The aim is to have more wellness clinics in the community, more community involvement in personal care homes, and more harm reduction programs in schools, among others.

SE6 has socio-economic indicators on par with other networks in the SE. It is average in low income, education, and employment but has higher poor housing rates than average. 23.6% of the population identify as Aboriginal. The population of SE6 is projected to increase by 21.9% by 2035, which is the highest projected growth of any SE network.

Regina East

The Regina Qu'Appelle Health Region initially divided Regina into three networks: Regina North, South, and Central. Regina South was thought to be too large and so was divided into two in 2017, creating Regina East. As such, Regina East is the most recently formed network in Regina. The PHC team currently includes home care nurses, assessor coordinators, physiotherapists, occupational therapists, seniors house call nurse practitioners and paramedics, continuing care aides, pharmacists, community support workers, respiratory therapists, and a chronic disease team.

Regina East is a more affluent area of Regina, with a younger demographic. It has the most favourable socio-economic indicators of all the Regina networks, with better averages of low income, employment, and poor housing. It has the lowest volumes and rates of hospital discharges and among the lowest prevalence rates for chronic diseases. 6% of the population identifies as Aboriginal.

Interview Results

The responses by SHA employees to the interview requests were very positive, with almost everyone agreeing to the interview. Physicians were more difficult to recruit. The positive responses could be due to the fact that point-of-care staff were eager to share their views on the development of HNs. Their opinions had not been sought through this change process, with the exception of a few people who had reviewed the geographical mapping process. Staff felt that they had valuable insights to offer into the changes and would have liked to have been more involved. It is important to note that interviews took place before the COVID-19 pandemic.

Facilitators of Implementation of Health Networks

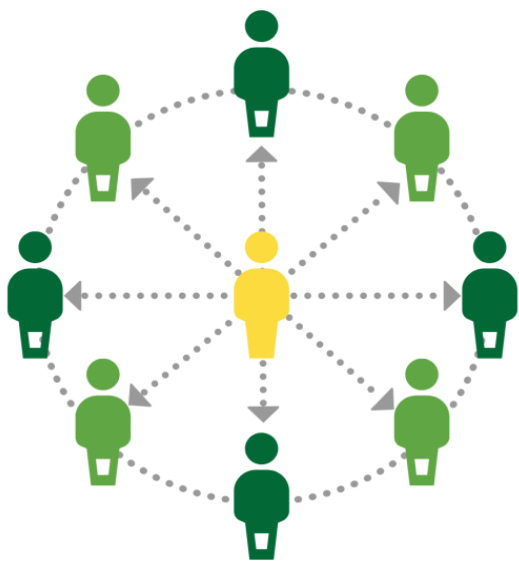


All interviewees agreed that the concept of HNs providing integrated care through interdisciplinary teams was positive. In theory, it was seen as a useful and valuable change that will likely lead to improved patient care, even when people had been working in health care for many years and were somewhat skeptical of changes. Of all the changes that had taken place, this is the one that is seen to have the most potential to provide lasting benefit to both staff and patients, such as more holistic patient care. However, there are some reservations about how networks will be implemented and operate in practice.

When asked about teamwork, the importance of relationships was mentioned more than any other theme. Collaboration and communication were also seen as vital.

Team Dynamics

The core of a HN is interdisciplinary teams providing integrated care. As such, optimal team functioning is essential for success. When asked about teamwork, the importance of relationships was mentioned by participants more than any other theme. Collaboration and communication were also seen as vital.



Relationships between team members can make or break a team. Team members have to feel comfortable with one another in order to collaborate effectively. There needs to be connection and mutual respect between team members, where each person is seen as valuable to the team. The team needs to be welcoming of others and willing to listen to each voice. Psychological safety, where people feel able to express a different opinion without reprisal, is very important to successful teams (Edmondson, 1999). Above all, team members need to trust each other and trust that each member can be depended on to do their part to ensure the best patient care.

... trusting relationships where people can bounce scenarios and suggestions and to comfortably be able to help a client navigate through a system so that they're not, you know, there are cases where people get snapped at or in trouble – you know “that’s not an appropriate referral to come my way”. So I think just being able to build an understanding of roles and responsibilities, understanding that we’re only trying to do the best for the client, so if it’s not you, who would you recommend. What can I do next because I’m at a loss? And just having that team engagement to best meet the needs. But it has to be a trusting environment and a trusting, engaged, patient-centred team. Where people will go above and beyond to find answers for their client.

However, as any manager knows, strong teams do not just happen. **Relationships have to be built intentionally**, which takes a certain amount of effort and perseverance.

But as far as a larger team, it took a lot of - I would say coaching to say, like, “okay, so if we can’t accommodate this, reach out to your counterparts to see if is there something that they can do to help us out.” Even though you’re just based in one of the communities, you have team members in other communities as well. These are your team and your network. So it was that constant reminder of things. So they might get stuck on something, or like, “Oh, well we can’t do this or we can’t accommodate this or we just don’t have the staffing”. And I’m like, “Okay, so reach out in your network.” Right? How can we work together to solve this problem?

The implementation of interdisciplinary teams facilitates the breakdown of professional boundaries to allow the collaboration and communication that are seen as central to effective teams. Participants defined collaborative teams as those that endorse the concept of team-based care, understand issues faced by others, share information quickly and easily, and are willing to help one another. They communicate across professional boundaries and are able to identify gaps in care that need to be addressed.

I guess having to be adaptable, having to be flexible, so when I think of that ... it doesn’t matter the circumstances or the housing situation that a client is living in, they just go and do the work ... When I think of when we do our huddles, we have everybody providing input. Our CCA’s are very, “Okay, so I was out to this person’s house today and this is what I’ve noticed”. The coordinator could be there, the charge nurse could be there asking questions. Then it might come up, you know what they’re really struggling with mobility. OT’s are in that huddle as well, so do you think - like there’s lots of problem solving and it occurs daily here. And I think that again, it comes back to communication, right? Everybody’s invested for the clients and how can we do a good job of this?

Most participants cited responsive and supportive leadership as essential in helping people to be successful in their work and in their teams. The manager needs to be able to move away from protective turf thinking and facilitate collaboration between team members. This helps to reduce conflict between team members and also between managers of different services. Managers need to have enough professional knowledge to understand what point-of-care staff

need in order to be able to do their work effectively as well as contextual knowledge of how things work in different places.

In my current job, my [leadership] and I are co-located in the same building and it makes a huge difference for me to have that regular support. She can be away at meetings, but I know that I am going to see her likely that day or the next day; she's very responsive, as there are some decisions you just cannot make as [role]. So to have a [leader] that's responsive and can give you that guidance and mentoring is important.

In addition to the need for supportive leadership, most participants felt that the **supportive team structure was helpful in improving their own well-being as well as improving their patient care**. Participants agreed that co-location and the ability to put a face to a name greatly facilitated collaboration, communication, and the sense of belonging to a team. This occurred through face-to-face interactions, the ability to talk about patients more informally, the increased comfort with approaching a team member with a question or request for help, and the increased likelihood of getting an answer to those questions and requests. A couple of participants also pointed out that interactions depend on people making the effort to do that as some people may prefer to keep to themselves and not interact very much with others.

It's just you don't feel like- in homecare you can sometimes feel like you're working alone, 'cause you do work alone. You go to these houses by yourself and you're trying to figure things out on your own. You've got your schedule of people and managing the day as far as times, but in the network, you're just sort of more of a bigger group that's, like more of a team. And so that's of benefit to people because you just feel like you're more connected to the other healthcare providers if you have more of a peer group, a team.

Face-to-face interactions were far preferred over use of technology, such as WebEx. However, this was tempered by the time it sometimes took to attend meetings personally in rural areas.

So when you share an office, you work really well cooperatively, and you get to know each other and each other's programs incredibly well. ... So, the physical time together I think is very important, and I think being co-located or at least having some time that you're physically together, I think is incredibly important. 'Cause I am seeing it slide, and I don't think it's because anyone stopped – but it's different. It's different if the only connection is via a WebEx every two weeks.



The most commonly identified benefit of interdisciplinary teams was increased role knowledge.

People gained an increased understanding not only their role in relation to the team but also of how the role of other health care professionals could interact with theirs to provide better patient care. One manager was very deliberate about doing this. In order for team members to understand each other's roles, time was set aside for presentations about different professions that others might not be fully aware of, such as occupational therapy. For example, an occupational therapist would give a brief talk on their work, ways they could help patients, and how they might support other team members. These sessions were felt to be helpful as team members often had a basic idea of the roles of others but did not know how their roles could interact to benefit patients. These sessions opened

opportunities for discussions about different roles and helped to form relationships between team members. An example was given of a case with an older lady with rheumatoid arthritis who was struggling to open cans and bottles of food. The home care nurse was not sure how to solve this problem and raised the issue at the team huddle. During the discussion, the occupational therapist said that she had a device that could be used to help this patient. She then worked with the home care nurse to keep the patient as self-sufficient as possible, which would keep her at home for longer. This not only helped the patient, but also helped the home care nurse to understand in more detail the role of occupational therapists and how they might assist with future patients. People generally agreed that interdisciplinary teams helped raise their awareness of other professionals, as well as increase their broader medical knowledge as they learned about issues that would not otherwise have come their way.

But we had an autism social worker. So, what actually does the autism social worker do and when should we be making referral to them and how do we make a referral to them? Like it was basic concepts and we work in the same building or another community from each other, and they didn't know.

Working on an interdisciplinary team often helped staff to think on a wider level and to see the whole patient picture. People were willing to look beyond their own program, to innovate, adapt, and find creative solutions to patient issues. Patients are viewed in a more holistic way where all team members are aware of what is currently happening with the patients. This was seen to benefit both the staff and the patient. As staff looked beyond their own scope of practice, they were able to find new ideas and see things in a different way. They were often able to go above and beyond usual care for their patients to ensure the patient received the care and access to services they required.

I've seen it happen where three different professionals came together and it was really no one's role to meet the client's need, and they went, "Well, I can do this, if you can do that" and the client's need got met. It is because you work collaboratively, you figure out how do we make this work in this scenario, and that is the brilliance of networks. Because you know each other. And then, there's no more of "well, that should be up to, this is someone else's problem. I don't do that, but someone else does." And in reality, you find out that actually no one does that, so the client is left out in the cold.

Participants generally agreed that in order for team-based care to work, **the team needs a shared vision of providing the best patient care possible and they need to see the current changes as helpful and valuable in achieving that vision.** Teams need to have people who are ready for change and who see the benefits of working in a team setting. People who are resistant to change or who are not willing to work as a team can disrupt team functioning and break down relationships.

My personal opinion is that you need to make sure that you have the right people involved in the team, people who understand primary health, people who understand the value that a primary health model brings to the patient and that people are willing to work collaboratively to achieve those goals. It has to be a lot more than just getting a warm body in a position because the dysfunction that the wrong person can cause can be catastrophic to the team.

Upstream Thinking

An aim of HN is to focus more on wellness and prevention rather than treatment of illness. Some successful interventions have been initiated in partnership with community-based organizations to help community members gain the supports they needed to stay healthy for longer.

So it was identified that we had lots of shut in seniors in that community with a high risk of depression and decline, just general health decline, because they tend not to look after themselves very well. And then, of course, they wind up in the system because they need care. And so the private care home partnered with the town council to provide Handi-Van, free of charge, to go out and pick these seniors up from their homes and bring them to the private care home two to three times a week, and they'd provide them a free meal and they would keep them there for the afternoon so they could be involved in whatever activity was going on or the entertainment, or whatever was taking place, and then they would get them back home. And they found it wasn't just helping those seniors that are shut in, in their homes, but it was also improving the life of the people living in the private care home. And so it's just the whole concept of the community identifying for themselves where those issues are and putting those supports in place to really create a difference, right? And again, if we were doing this from the health side of it by ourselves, we probably wouldn't see these seniors except for the odd homecare visit if somebody's connected us with them, or we wouldn't see them until they hit our long-term care system because they no longer are coping at home. So it's just amazing what can happen if we create it. Right? We just need to build it. And the energy that happens at that table is amazing. Like we've never had a meeting where people didn't show up because they're so invested in their own community and the fact that they know they're making a positive difference, they wanna be there. And they're bringing more people to the table, and it's amazing. So I totally, totally love where we're going with primary healthcare. It's a hard transition because we've been so focused on our facility care. So it's hard to shift it more into the community side of the house, but really I think to get to the point where we can have a sustainable system and really make a positive difference in our communities, that's where we need to get to.

However, these types of interventions are more the exception than the norm. For the most part, prevention is focused on chronic disease management, such as COPD.

There needs to be more preventative care. It's just not there. It's happening on an individual basis for the people who are coming in for preventative care and then you're able to do that, but it's not a population focus. There's no groups in this community where just eating healthy or exercising or giving motivational support if you want to be healthy. It's still illness based. It's chronic disease management and it's people coming in and actively seeking it. I think there needs to be more delving into what the needs of the community are so we can go out into the community and do more preventative things.

Lack of time appeared to be the predominant reason for little focus on wellness and prevention. Many people said that they feel pulled in different directions, often with urgent, but not necessarily important matters taking over their days.



I think everyone is so concentrated on just trying to get their work done. Doing their job and doing it well. So the blinders go on and we forget that there are people out there who can make your job easier if we just work together. The dieticians are seeing people with diabetes on a day to day basis, and they are busy. But imagine if they could go into schools and educate the kids before it even gets to that.

Public Health and Population Health

The role of Public Health and Population Health in the networks was not immediately clear.

None of the PHC staff referred to Public or Population Health when talking about prevention. It could be that staff associate Public Health with interventions such as immunizations and do not see these as prevention programs that relate to PHC. They may also be unaware of the role of Population Health in running prevention programs (e.g., the Forever in Motion that aims to increase strength and mobility and decrease fall risk in older adults) and their existing connections with community-based organizations (CBO). Additionally, certain departments, such as management of communicable diseases, environmental health, etc., were not initially merged into HNs as they were thought to have an overarching role, where they are equally accountable to all networks in working with clients and communities.

Population Health liaises between healthcare and communities and has created relationships with communities and CBOs over the years. Population Health staff understand the needs of the community and are working to address those needs by focusing on prevention programs and addressing the social determinants of health. However, the PHC staff seem to be unaware of this. Many staff felt they should have a better idea of community services that could benefit their clients but were not sure about how to obtain this. Strong inter-departmental collaboration between Public and Population Health and PHC would greatly assist in the integration of these departments within HN.

It was pointed out that networks can complicate partnerships and interactions with CBOs as CBOs do not operate within network geographies but within their own defined areas of reach. The network boundaries of Regina do not apply to school divisions or CBOs, for example, the Open Door Society does not limit itself to Regina East, but serves Regina and surrounding areas. The method of dealing with external partners who cover more than one network currently occurs on an as needed basis rather than as an established process.

A cautionary note was sounded regarding the allocation of public and population health staff to different networks. Although it might seem as if dividing staff between networks would lead to greater efficiency and integration within the network, once staff feel they belong to a network and have a home base there, it becomes more difficult for them to have an overarching view of

the whole city and take actions that benefit the area as a whole. For example, a public health nurse might not want to move from one network to another to cover a maternity leave as she feels her own network is very busy and her absence would create hardship for her team. A close-knit team has many strengths regarding quality of care for their clients, but can also create a smaller view of healthcare within the city as a whole and less willingness to go where they are most needed.

Challenges to Implementation of Health Networks



Continuous change (change fatigue) can be difficult to cope with. Implementing changes can be slow and difficult for everyone, particularly when changes occur continuously. It can take some time for changes to become embedded into daily practice. People need time to adjust and adapt to one change before moving on to the next. Changes need to be fully implemented before moving on to something else, for example, finalizing the process of moving from many health regions to one health authority with fully integrated systems.

Because this is so brand new to everybody, and I guess we've been doing it for a while so I know that the other regions, or Saskatoon is doing it now, and I know that – I feel their pain because it's hard initially to get things going.

A major challenge to the smooth functioning of networks, particularly in rural areas, is staff shortages. Although funded positions are available, there is a lack of people applying for these positions. When asked why that might be the case, there was a general consensus that people often preferred to work in urban areas over rural areas. This could be because people do not feel part of the rural community due to lack of ties with the community or feeling like an outsider who is not accepted as part of the community. Further postulated reasons were lack of graduates from relevant programs and competition with the private sector in the case of therapists.

No, we struggle with staffing, especially right now we're struggling with nurse practitioner coverage, physical therapy coverage, occupational therapy coverage. We have the staff shortages as well with the mental health area. Essentially all the areas that we are covering with the primary healthcare community side, there's vacancies.

Staff turnover was another challenge to team functioning. Some positions, such as PHC Managers, seem to have a high turnover rate. It would be helpful to delve into the reasons for this more deeply; however, this is beyond the purview of this evaluation. Also contributing to staff turnover and lack of consistency is the prevalence of casual positions as opposed to permanent positions. Although a casual position might have a lower financial cost than a permanent position, there are longer-term costs of this, such as lack of team cohesion and lack of consistency of patient care. People in casual positions are less likely to become invested in their team or their patient care as they tend to move more between areas.





Participants in the SE6 network agreed that **the large geographical area presented challenges for network functioning**. The team members are often in different locations with high travel times necessary to connect with their team and with their patients. There are logistical issues involved in getting team members together physically for meetings or huddles. Additionally, managers are also spread apart and so find it difficult to support each other.

Technology helps to connect teams to a certain extent, such as the use of WebEx for meetings; however, participants emphasized the value of face-to-face interactions in getting to know their team members and being comfortable enough to communicate informally about patients.

We don't have people to go all different places that we need to have them go. But in addition to that, our funding is set up so that we have X amount of bodies within the network. It's expected that those bodies cover the entire network which does have a large footprint. If your client is an hour away, you are using up 3 hours in an 8 hour day for that one client – two hours of drive time and an hour with the client. Our schedulers do an amazing job of looking at these locations and adjusting schedules to make the best use of time but there are times it's not possible, you are utilizing an entire day to see two clients who are in a more remote area. So it's tough.

Lack of time was another challenge that came up repeatedly in interviews. People feel they need to deal with more immediate and pressing issues of healthcare and not the less urgent issues on Health Networks. As such, travel to attend team meetings was not seen as a priority and team-building strategies were sometimes supplanted by more urgent and pressing issues.

I think that's going to be a barrier with our teams to- it is tough to be physically present ... You're very stretched to get all of your work done let alone have the time, take the time, to have the conversations and be present. I think that's hard. Especially when we're trying to be fiscally responsible, as well. I think WebEx is fantastic, but there's a lot to be said to be physically sitting at the table. So it's really trying to balance that so that you've developed - I think you need to develop the rapport and the trust and be physically present a lot initially, and then we can probably back off a little bit and do things more virtually.

At present, there is a high level of uncertainty with both point-of-care staff and leadership about what Health Networks involve, particularly as the reorganization into networks occurs. There may be some hesitancy from SHA leadership province-wide to implement changes without being fully aware of the specifics of Health Networks.



I just think that there's probably potential barriers if we have people in positions that don't fully get it. Right? Like, I think there's potential for things to go a little bit sideways with that. And I know, just even from speaking with some [leadership] sometimes, I wonder if they really understand what networks are. So if you have somebody in a leadership position that maybe doesn't really get it themselves, it's going to be a huge barrier to actually getting to where you want to get to. And maybe they just haven't bought into it, right? Because when they've

been in a leadership role when we were in a siloed environment and really separate, they were very embedded in that program. I think it is really hard to pull yourself out of that and think in a really wider, different kind of vision. So I do think that that's going to be a little bit of a challenge. Because there are some people out there that haven't fully bought in or haven't had that ability yet to widen their vision. And we really need to make sure that those people are solid with the vision and the direction if we expect them to then take that to the next level with the managers and the managers' teams. So I see that as a potential barrier, for sure.

Point-of-care staff know that changes are coming but they do not know what that will entail. Managers are in a particularly difficult situation as none of their jobs are guaranteed. At some point, all managers will have to reapply for a position and may or may not keep their existing job. The timeframe for this is unclear as the dates have been extended several times. Working in this uncertain environment can be highly stressful and lead to anxiety, discontent, and a lack of focus or initiative. Staff also mentioned that it is difficult to deal with continuous change as there needs to be some time for readjustment and adaptation to one change before moving on to the next. Many interviewees said that they are trying to put the uncertainty aside and focus on patient care until they know what will happen and how they will be affected. Nevertheless, it is very likely that the current situation is affecting the way in which staff are working.

They're [SHA] trying and I'm hoping that it's gonna work, but because of past history, it usually doesn't. And that's such a negative way of thinking because it doesn't mean that it's always going to blow up in our face but when it's been tried numerous times and in different ways and we thought that "that was okay we're joining networks and we're gonna be different and its gonna be better", well it hasn't been. We were told by our boss – it was like okay... what was her saying... it was 'not more but different' we were always being told. That's not what happened. It was different but it was also more and this is the new network and you guys are gonna be able to do that and you're gonna be able to do this but again you can say it, but until it's put into practice....

Adding to the levels of uncertainty regarding changes is the internal communication about the development of HN. Many of the interviewees said they would like to have more transparency about the process and be made aware of the direction of HN, even if this was a report that there were no new changes to report. Rumors can gain momentum with a lack of communication, which is undesirable. There was also frustration when some people knew things that others did not. It is understandable that leadership do not want to create a stressful situation by communicating a process that may not be stable over time; however, many people wanted to feel included in the development of HN. They would like to be able to express their opinions about changes to make sure that these reflect the situation on the ground. Currently, some feel excluded from the process and worry about how these changes could affect their work duties and environment.

There's a lot of uncertainty, and it's not great because it went on for so long, where we just haven't been involved. It would be great if, when they are thinking about these plans with the amalgamation, to include the service providers' input. It would be nice to know

what was involved more or even help, help to kind of create the plan even just so you catch things before they happen if they're not going well.



Although interdisciplinary team-based care was seen as a very positive thing, **a few people brought up a couple of issues relating to professional isolation.** One was a sense of missing out on professional communications, such as procedural updates that were easy to hear about previously when they were part of a larger professional team. The other was a lack of professional support when someone was the only member of their profession on a team. Although the interdisciplinary team might be collaborative and supportive, it could not provide intra-disciplinary support with complex cases, which people would have to find support from someone outside their team. This was felt to be more difficult, particularly in rural areas.

I mean I do [reach out] because I know [the other professionals] personally and professionally and I've been here a long time and most of them have been in their positions for a while too, but it's not really been overly encouraged I wouldn't say. I've not been told I couldn't. But we've been sort of made to function kind of within our own little primary healthcare network, and there wasn't really any sort of encouragement to go out of that.

Some people initially did not see the benefits of integrated care and were not willing to participate in things that did not concern their department directly. Expectations of participation and their role within the team had to be made clear.

One thing that I struggled with though is some of our other managers ... I felt like she couldn't see the bigger picture. So I had to go and have offline conversations with her to say, "This is all part of our primary healthcare. This is the way the province is going. It is an expectation that these programs happen. ... And for them to see that we do need to work together. So some of the managers struggled with that more. 'Cause they're so embedded and they're so focused on one aspect or one discipline, and so they had a hard time seeing the broader picture.

The lack of a single accessible electronic medical record (EMR) was a large source of frustration for many people. Each former health region (fHR) had their own EMR system, none of which are compatible with the others. The current HN geographies do not fall within the fHR geographical areas; some networks span more than one fHR, and thus have IT infrastructures that do not communicate with each other.

I find that it's complicated because we could use electronics but not everybody uses the same applications and then the applications don't always speak to each other. I have 4 different electronic applications I have to manage to communicate with my staff. I'm in a better position than another manager who has two places that are 30 minutes away but one is in the former Sunrise and one is in the former RQHR, so she needs to bring two computers with her wherever she goes because IT will not install more than one version of an application on one computer. So she has to have a computer that can access all the applications from former Sunrise and one that can do the same for former RQHR.

Conversely, one clinic in Regina had transferred their files to the same system as the SHA. They were now able to access their patients' records in other settings and communicate digitally as opposed to faxes that may get delayed or misplaced. This single change had made a large difference in the speed and quality of care they were able to provide. For example, the physician is now able to send a task to a different provider without filling in a form or dealing with a fax. The provider is able to open the file and see the patient records and history. In turn, the care they provide is available to the family physician who can see what has been done and what needs to be done in the future. This clinic emphasized the need for a consistent electronic record as vital to the smooth working of Health Networks and the need to make it a priority in the future rollout of networks.

Communication beyond the PHC team was not always of high quality. Communication between PHC teams and acute care was generally described as “hit or miss” by participants in the SE and Regina networks. Although some transitions are smooth, there was a universal sense that this could be improved. Transfer of information was also seen as problematic, where the home care team might not know what care was provided and what the patient would need in the future, for example, with physiotherapy. Having different digital communication systems was also flagged as an issue to providing timely, consistent care. Home care felt that they were often not given enough warning that someone being discharged would require care, particularly as they work within office hours and are not available on weekends. There is a perception that the hospitals want to get people out as quickly as possible, even if there is no support set up for the patient once they are discharged.

Sometimes, it depends, like sometimes you can tell that the person was sort of rushed out of the hospital setting in the city and then we're sort of left picking up the pieces. And sometimes it's really smooth and fine.

Communication with physicians was also thought to need improvement. Although each doctor is different, there were often delays in communication. The PHC team tends to contact physicians when something is needed; however, if they provide care to a patient who does not require a physician's intervention, the physician would not generally be made aware of this, unless the patient told them. Some physicians felt that home care staff did not always keep them informed and up to date about care they were providing.

Physician Engagement



Physician engagement with the networks is challenging on many levels. There appears to be a fundamental disconnect between many physicians and the SHA. There is a perception by some physicians that any new initiatives are purely for the benefit of the SHA with little regard for physicians. There is also a history of negative interactions, where the SHA or former health regions have been perceived to act in an authoritarian way towards physicians. This often needs to be overcome in order to pave the way for a solid working relationship.

Physicians are frequently unaware of what a network is and their place within a network.

There is also confusion about how they will interact with networks in practical terms. They generally have an idea that more resources will be available, such as a social worker, who will be able to find further resources for their patients. This is seen as beneficial as physicians often find themselves as filling multiple roles of social worker, chronic disease educator, etc. They are happy to relinquish those roles as they know that filling these roles will free up their time for physician-required care. However, this has to be done in partnership with the physician as physicians feel they have the ultimate responsibility for the care of the patient. Family physicians are more likely to engage with integrated care once they see the practical benefits.

Many physicians are extremely frustrated about the lack of a continuous electronic medical record. Flow of information was seen to be a big challenge to providing care, with one physician estimating they received between 1800-2000 faxes per day. For example, a referral from home care would be made via fax. Staff then sort the faxes following a systematic protocol, so it might take a couple of days for the fax to reach the physician. If the order is urgent, the faxes are repeated until the physician responds. This system is not efficient and is described as “failing”. The hospital discharge summaries can also take a few days to get to the physician, who does not know what care has been given to their patient in the meantime. If the patient needs to see the physician, the physician does not know the rationale for new care orders, or how to continue the care and so cannot provide safe care to the patient.

There are some misconceptions about the SHA. For example, one physician pointed to the lack of physiotherapists in their area and thought that it indicated a lack of willingness to pay for these supports. This physician was not aware of the difficulties in recruitment of therapists outlined above. They see vast amounts of money being spent with little benefit to their patients. This might point to an area that could be addressed with better communication with physicians, particularly those who work in private practice.

There is widespread agreement that the fee-for-service payment model is a large barrier to coordinated care. This model is focused on “whites of the eyes”, in other words seeing patients in person. Time spent on the telephone with other health care providers or patients is not reimbursed. Family physicians feel their time is not valued in the same way as other health care professionals. Physicians are incentivized to see people as quickly as possible, which physicians do not see as beneficial to patients. One physician said that they could not ask their patients to confine themselves to one issue per visit. If a patient has 5 co-morbidities and has taken an afternoon off work to see the doctor, they would need 5 afternoons to cover all medical issues. This is neither patient-centred nor optimal care. If the patient is able to spend the time needed with their doctor in one appointment, they would not have to come back as often and are able to spend more time at work.

The fee-for-service model requires a pace of work that is seen to be unsustainable. Physicians talked about how rising overhead costs meant they had to see a certain number of patients in a day, with administrative tasks done after a full day’s work. Contract physicians also may not have time allocated to engaging with interdisciplinary care, unless it is initially built into the

position. This could make physicians less likely to want to spend time with a team or learning how to navigate the SHA. In addition, there is no compensation to cover the extra time needed to care for complex patients. Patients often need emotional support from their physicians, which takes time and effort to give. One physician felt that although it would be helpful to be under the umbrella of the SHA, but had serious doubts about the success of the various quality improvement projects that have occurred over the years. When asked if they thought anything good would come of the HN initiative, they replied that “anything can happen.”

A further barrier to fee-for-service physicians and salaried staff working together is the perceptions of work ethic of the other. Some fee-for-service physicians feel that salaried staff work at a slower pace and do not accomplish as much in the day. Conversely, some salaried staff feel that fee-for-service physicians only do work for which they are paid and nothing extra. However, physicians who had experienced working in a team had high praise for this concept and felt that it had benefitted both patient care and physician practice. More patients were seen during the day, which helped to reduce wait times and provide better care. Having the expertise of other health professionals was seen as beneficial to care as patients got the services they needed outside the physician’s office.

Many SHA staff feel that physicians generally do not want to be involved in the networks. Although the networks have been operating in Regina and SE6 for approximately five years, it has been difficult to engage physicians in this. Some physicians have been more engaged than others, particularly when they see the benefits of the HN in provision of care. There is an acknowledgement that previous SHA physician engagement strategies were not well formulated and were not inviting to physicians. This has created an environment in which physicians are unlikely to respond well to HN and there is much work to be done to repair this relationship. This work has been started, but positive results can be slow.

Benefits of Health Networks

This evaluation did not directly assess outcomes of HNs. However, interviewees identified several benefits, such as improvements in team well-being, patient experiences, and population health. Interview participants said they enjoyed the experience of supportive, collaborative team-based care. They felt they were able to provide better management of chronic diseases, better patient support, and were able to help patients navigate the health care system better as participants understood it more themselves from having worked closely with other healthcare professionals and knew what services were available to patients. They were able to work together to provide consistent, holistic care that helped keep patients at home longer and less likely to need to access emergency care. Patients were viewed as a whole person requiring different types of care; each provider was aware of the care needs and the role of different disciplines in meeting those needs.

Theory of Change

A theory of change provides a plausible explanation as to how and why an intervention works (or does not work). Pawson and Tilley (2004, p. 3) believe that 'programs are theories incarnate.' All initiatives begin as ideas about how to bring about change in a particular area. However, those who create programs seldom clarify how and why they expect a program to work. A key part of this evaluation is to bring out the implicit HN theory that explicates hypothesized causal pathways between the HN and its desired outcomes and provides a foundation for analyzing the contribution of HNs to those outcomes. A theory of change is a tool that will continually evolve through feedback from stakeholders and unfolding of outcomes, which allows for theory adjustment and changes to the initiative.

Realist methodology was utilized in creating this theory of change. Realist explanation assumes that successful *outcomes* occur when the initiative activates certain *mechanisms* in certain *contexts*. Context includes anything outside the direct purview of the intervention, and is important in understanding the process of change as it can affect decisions that are made and responses to those decisions. Mechanisms explain how and why the causal link is expected to operate, in other words, how event X is connected to outcome Y. The goal was to understand the underlying mechanisms which produce change, the contextual factors necessary to activate these mechanisms, and how the combination of context and mechanisms produces outcomes (Pawson & Tilley, 1997).

Multiple sources of data were used to create the initial theory: 1) a review of the internal HN literature and attendance at various HN related meetings, 2) interviews with relevant stakeholders, and 3) peer-reviewed literature on integrated care. The first task was to become familiar with HNs by interacting with the HN stakeholders (i.e., HN executives, EDs, Directors, managers, point-of-care staff, and physicians) through the meeting attendance and interview process described above as well as reviewing relevant documents.

Sturmberg (2018) outlines four levels of the organization of a health system:

1. The *macro* level: policy and governance issues. Macro-level integration aims to integrate care initiatives across a range of services and to deliver this to the population (Curry & Ham, 2010).
2. The *meso* level: organization and coordination of regional health, community, social and infrastructure services. Services deliver integrated care for population groups with similar conditions, for example, mental health needs. This can occur through organizational integration where services are merged through structural change (Valentijn et al., 2013).
3. The *micro* level: provision of integrated patient-centred care in the local community.
4. The *nano* level: issues of personal health, functional independence, and the self-management of one's well-being and diseases.

The theory of change outlined below covers the macro, meso, and micro levels. Creating a theory of change of nano level issues would involve patient feedback, which was not possible to obtain at this time. Two theories of change were created: the first outlined successful implementation of HNs (see Figure 1) and the second outlined why HNs may not be successful.

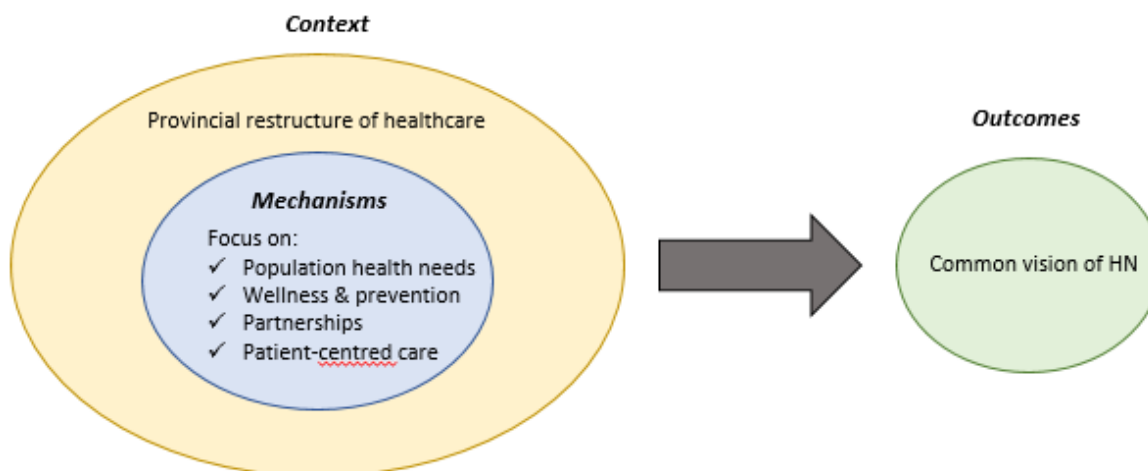
Health Networks Theory of Change: Success

Macro level

Context: There is a provincial drive to restructure provision of healthcare through the integration of services. This is thought to potentially provide better care and reduce costs.

Mechanisms: Population health needs are the drivers of care provision. There is a desire to move to a preventive model of care that focuses on wellness and prevention. Partnerships with communities and community-based organizations are seen as necessary. Patient-centred care means that health care services revolve around the patient.

Outcomes: There is a common vision where people are aware of Health Networks, the expected benefits, and the rationale for them.



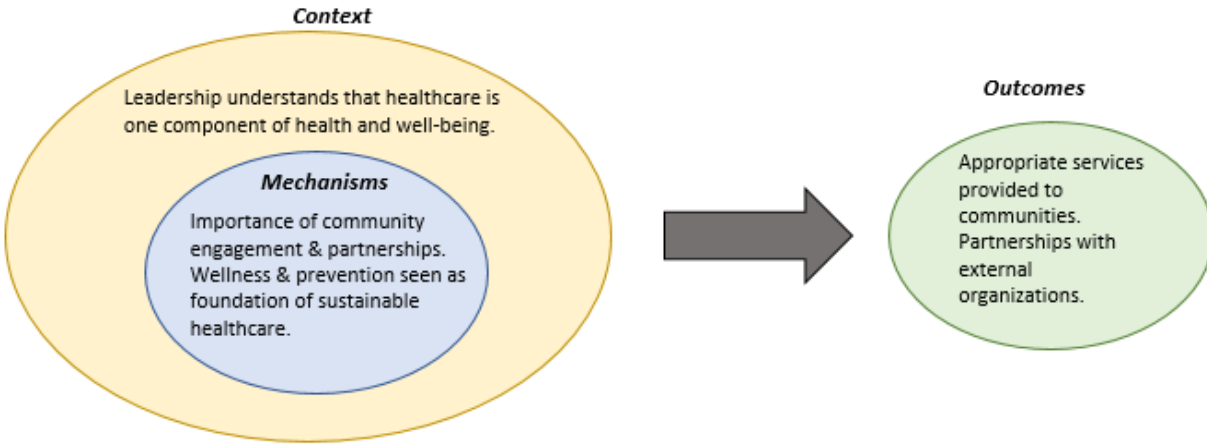
Meso level (Community)

Context: Leadership understands that healthcare is only one component of health and well-being.

Mechanisms: Leadership understands the importance of partnerships and engagement with community resources to address SDoH. Wellness and prevention are understood to be a foundational element of high quality, sustainable healthcare.

Leadership engages with communities and understands the culture, history, and needs of the communities. The community engages with the SHA to find ways to meet citizens' needs.

Outcomes: Partnerships are established with external organizations. Appropriate services are provided to each community.

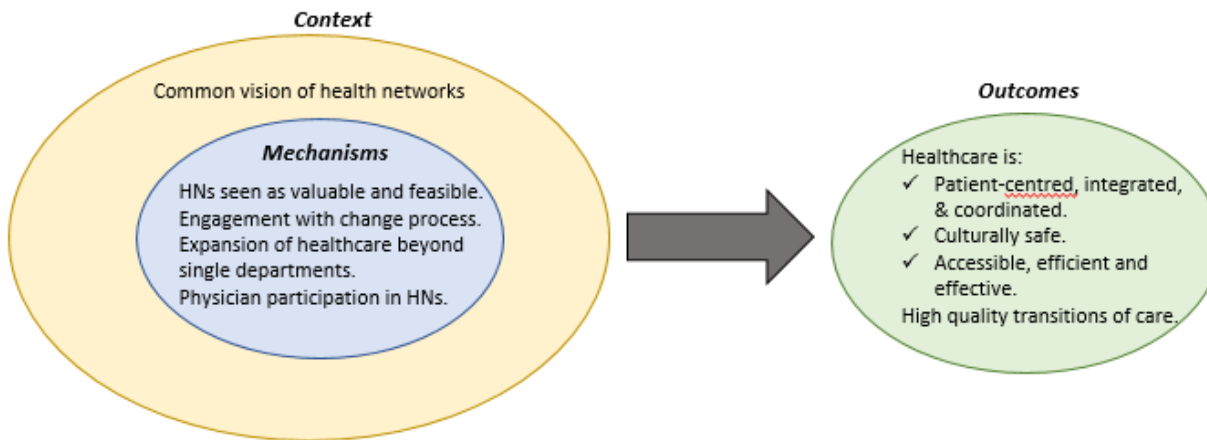


Meso level (Health Networks)

Context: There is a common vision where people (SHA staff, physicians, and communities) are aware of Health Networks and the rationale for them.

Mechanisms: SHA leadership and healthcare providers see the need for change and are engaged with the change process. Health Networks are seen as valuable and feasible. Physicians are willing to participate in network model. Views of healthcare expand beyond single departments.

Outcomes: HNs offer integrated, coordinated team-based healthcare that is culturally safe, efficient, and effective. Services are wrapped around the patient, with accessible care provided as close to home as possible and seamless, high-quality transitions of care. Health Networks are responsive to the changing needs of patients, based on demographics and usage patterns, and they allow for strong relationships between patients, families, and providers.

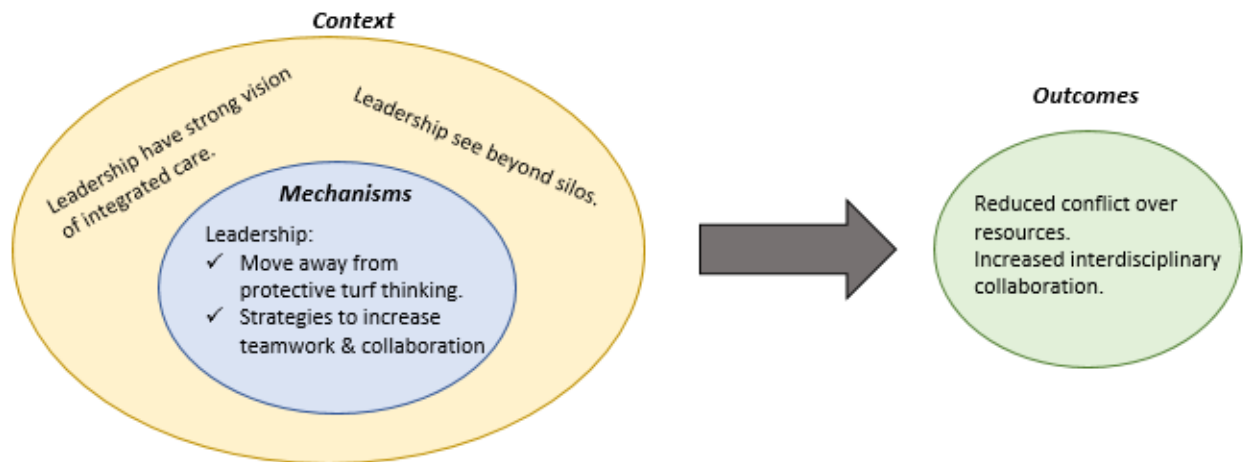


Micro level (Leadership)

Context: Leadership able to think outside silos with a strong understanding of the vision of integrated care.

Mechanisms: Leadership can assign resources as needed; there is a move away from protective turf thinking. Strategies are designed to build a sense of teamwork and increase collaboration.

Outcomes: There is a changed culture of care with reduced leadership conflict over resources and increased interdisciplinary collaboration.



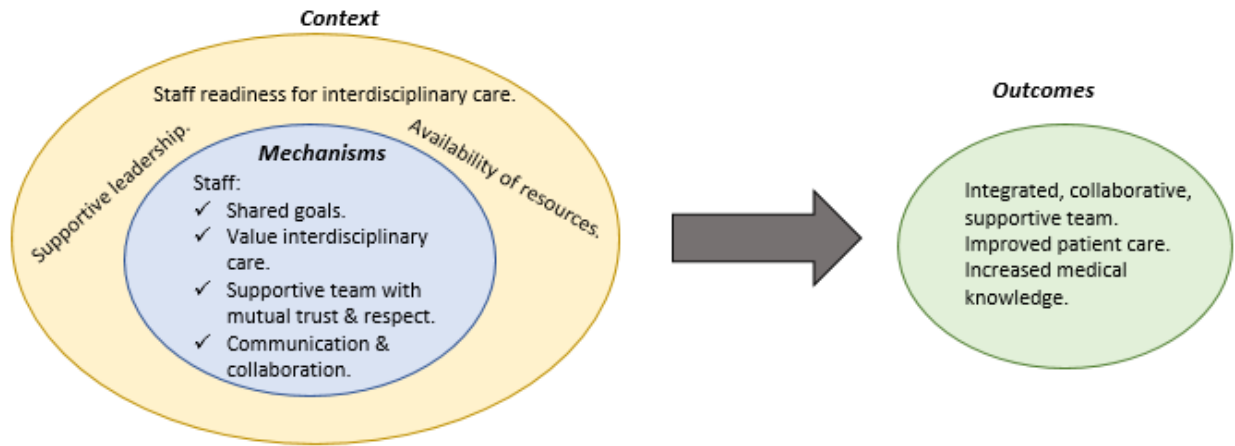
Micro level (Team)

Context: Supportive leadership who utilize intentional team-building strategies and are committed to fostering interdisciplinary collaboration. Healthcare professionals are ready for team-based care. Availability of resources to reduce workload where possible.

Mechanisms:

- ✓ People have shared goals and value teamwork and interdisciplinary care. They see the changes as helpful and valuable in improving patient care.
- ✓ People feel part of a supportive team where everyone's opinion is respected.
- ✓ People know each other and find it easy to communicate and collaborate.
- ✓ People trust each other and are able to depend on others to get things done.
- ✓ Providers look beyond their own scope of practice to see the whole patient picture and are adaptable and creative in finding solutions.
- ✓ Providers are aware of others' roles and responsibilities and how they interact with each other.

Outcomes: Integrated, collaborative, supportive team working to the top of their scope and providing coordinated care. Increased team and medical knowledge, improved patient care, including patient assistance with navigation of services and management of complex needs.

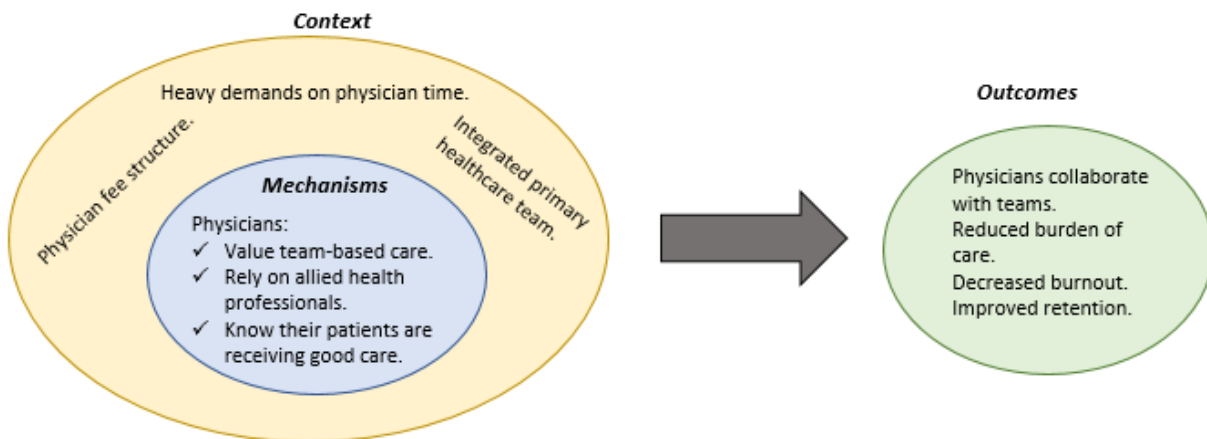


Micro level (Physicians)

Context: C₁: There are heavy demands on physician time. C₂: The compensation structure facilitates team-based care. C₃: A collaborative primary health care team exists that provides integrated care to patients.

Mechanisms: Physicians see team-based care as valuable and helpful. Physicians are able to rely on the primary health care allied professional team, taking pressure off physicians to find resources for their patients. Physicians are reassured that their patients are taken care of and are accessing the care they need outside the physician's office.

Outcomes: Physicians engage with the networks and collaborate with the team as necessary to utilize the expertise of the interdisciplinary team members. The burden of care on physicians is reduced, leading to decreased physician burnout and improved physician recruitment and retention.



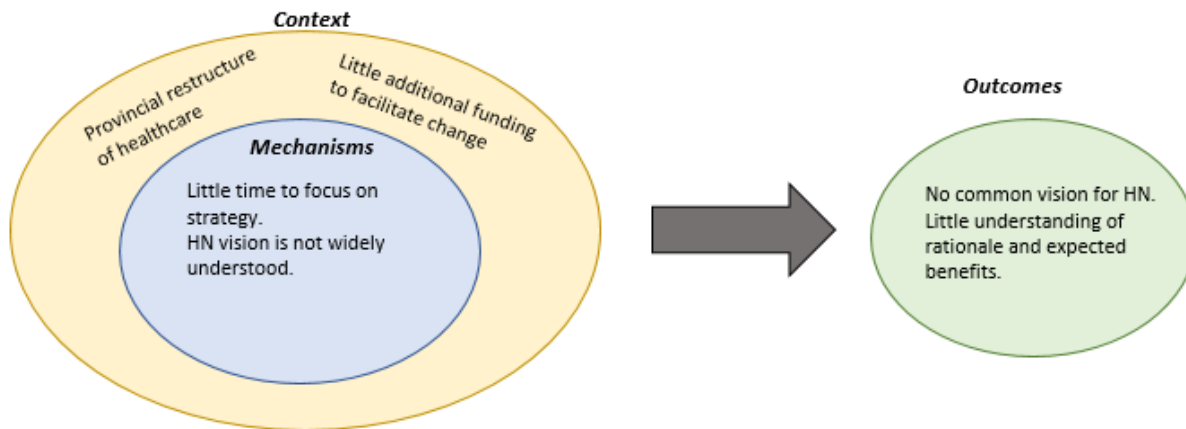
Health Networks Theory of Change: Non-Success

Macro level

Context: There is a provincial drive to restructure provision of healthcare through the integration of services. There is little additional funding to facilitate change.

Mechanisms: Creation of HNs is done 'off the side of the desk' as people do not have the time to focus on strategic innovations. The vision for HNs is not widely disseminated or understood.

Outcomes: There is no common vision for HNs and little understanding of the rationale and expected benefits.

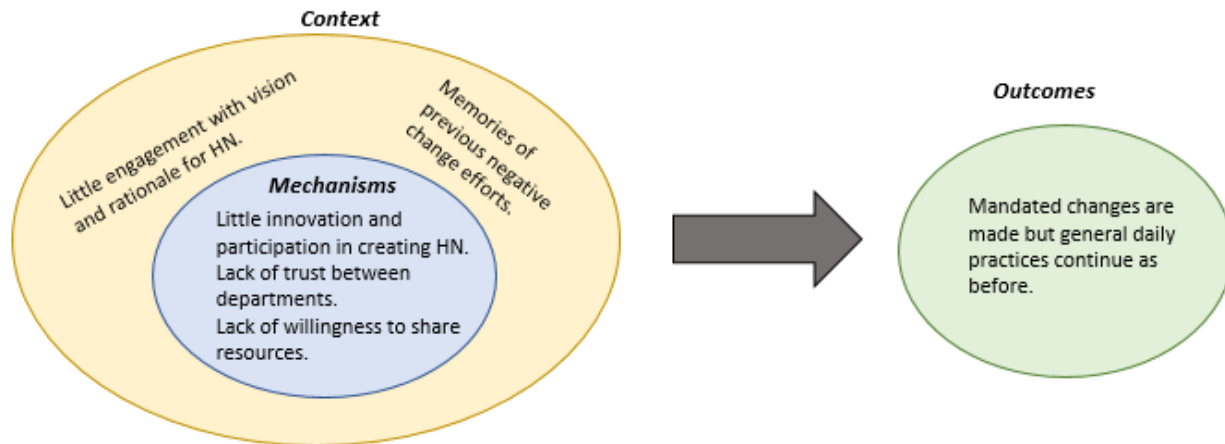


Meso level (Health Networks)

Context: There is weak diffusion or little engagement with the vision and the rationale for Health Networks. People remember previous change efforts that did not create positive change.

Mechanisms: People see the need for integrated care but do not know how to create conditions for this. There is little innovation in creating HNs and people are unwilling to participate beyond what is necessary. There is a lack of trust between departments. People hold onto resources and are unwilling to look beyond their own issues.

Outcomes: Mandated structural changes are made but people generally continue daily practices.

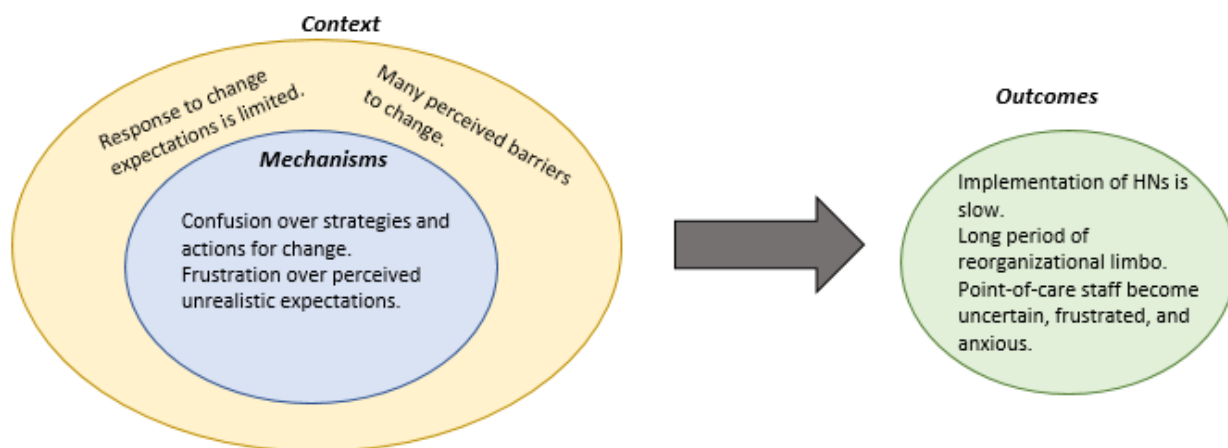


Micro level (Leadership)

Context: Response to change expectations is limited by perceived barriers, for example, staff shortages and lack of resources.

Mechanisms: There is confusion over strategies for change and actions that should be taken to implement HNs. There is frustration over perceived unrealistic expectations.

Outcomes: Implementation of HNs is slow and there is a long period of reorganizational limbo. Point-of-care staff are uncertain about changes and become anxious and frustrated.

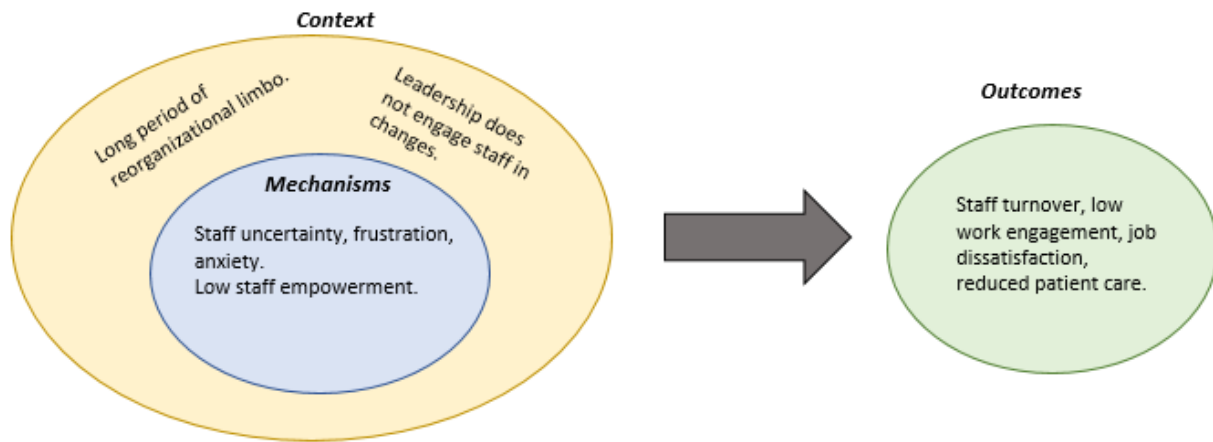


Micro level (Team 1)

Context: There is a long period of reorganizational limbo; leadership does not engage staff in changes.

Mechanisms: Staff uncertainty, frustration, anxiety, low staff empowerment.

Outcomes: Staff turnover, low work engagement, job dissatisfaction, reduced patient care.

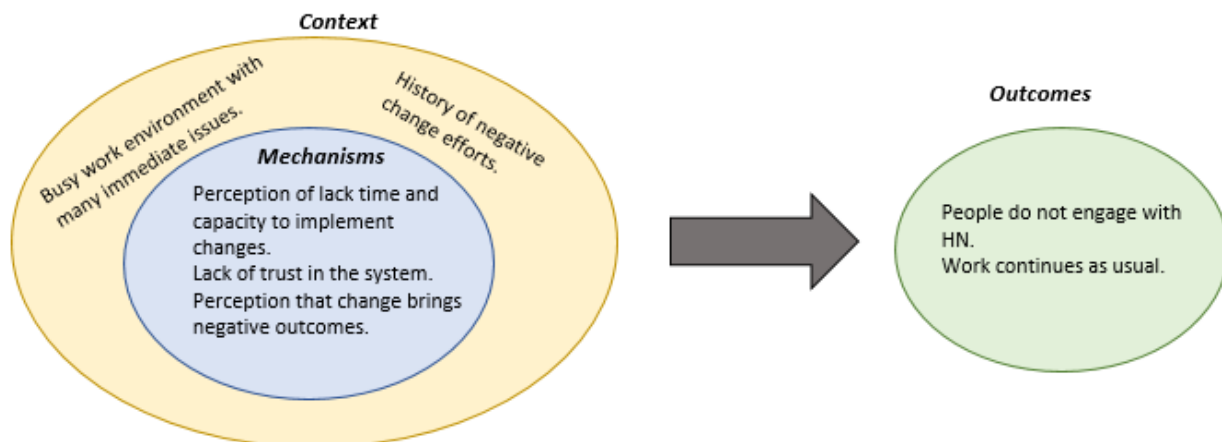


Micro level (Team 2)

Context: There is a busy work environment with many immediate issues. There is a history of negative change efforts.

Mechanisms: People feel they lack time and capacity to implement changes. People lack of trust in the system and have a perception that changes bring negative outcomes.

Outcomes: People do not engage with the implementation of HNs. Work continues as usual.

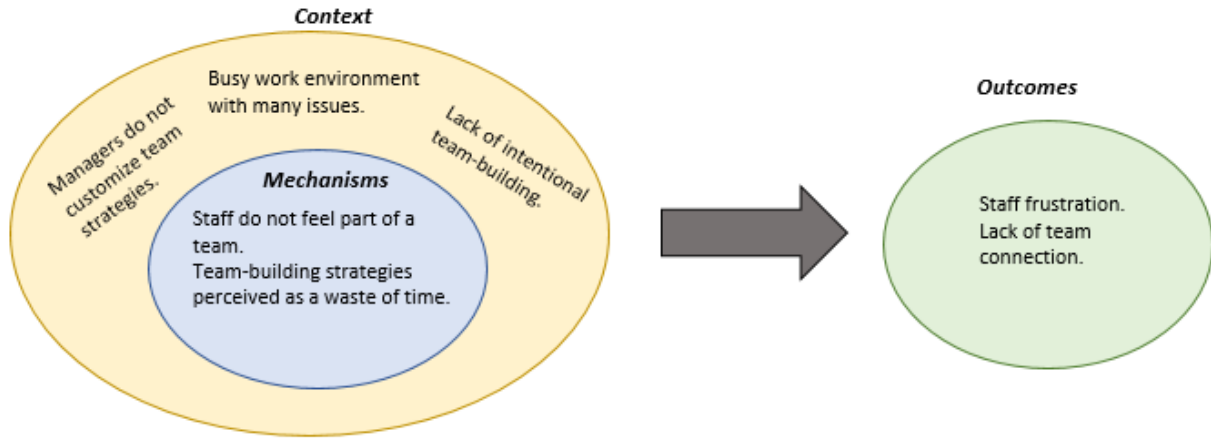


Micro level (Team 3)

Context: There is a busy work environment with many immediate issues. Managers use standardized methods and do not customize team strategies to place; there is a lack of intentional team-building.

Mechanisms: Staff do not feel part of a team and team-building strategies are perceived as a waste of time.

Outcomes: Staff frustration, lack of team connection.

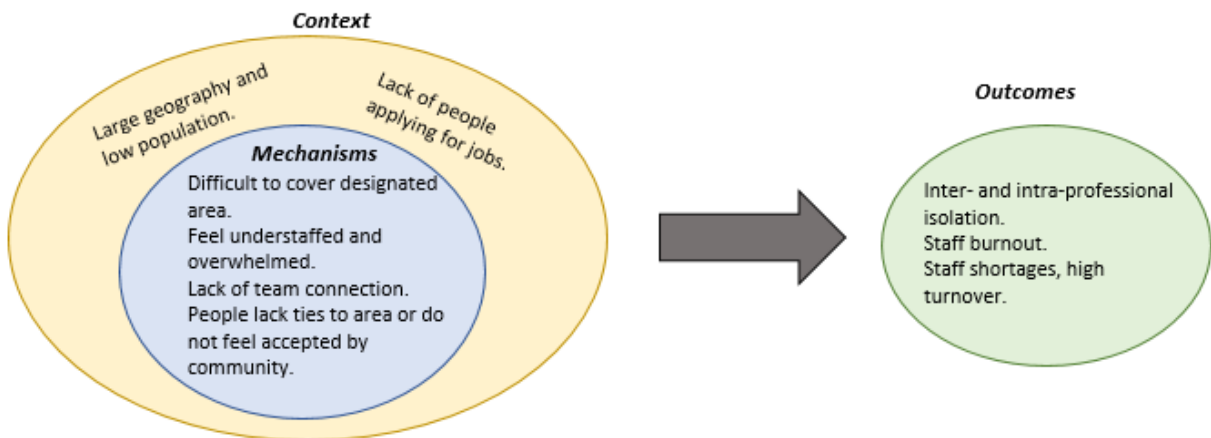


Micro level: (Team – Rural)

Context: Rural area with large geography and low population; lack of people applying for jobs.

Mechanisms: Healthcare professionals find it difficult to cover the designated area and feel understaffed and overwhelmed. They are uncertain about future staffing levels. There is a lack of face-to-face interaction and a lack of team connection. People from outside the community lack ties to the community or do not feel accepted by rural community members.

Outcomes: Inter- and intra-professional isolation (people do not know other team members and/or do not have professional colleagues): staff burnout, staff shortages, high staff turnover.

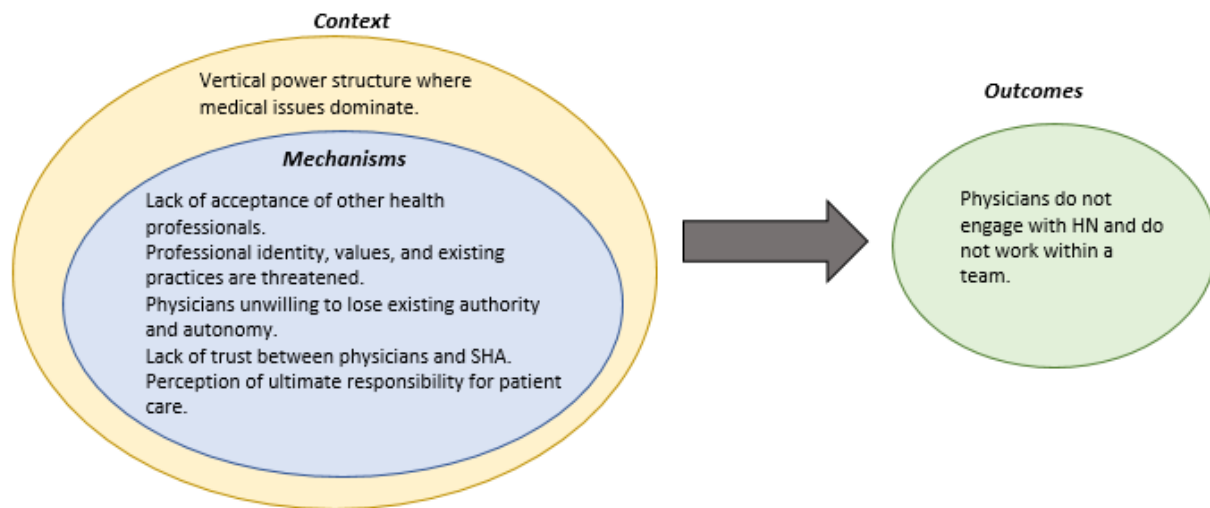


Micro level (Physicians)

Context: There is a vertical power structure where medical issues dominate.

Mechanisms: There is a lack of acceptance of other healthcare professionals. Professional identity, values, and existing practices are threatened and physicians are unwilling to lose their existing levels of authority and autonomy. Physicians see themselves as the core provider of healthcare and do not want other healthcare professionals to interfere with this care. There is a lack of trust between physicians and other healthcare providers as well as the SHA organization as a whole. Physicians see themselves as ultimately responsible for the care of the patient.

Outcomes: Physicians do not engage with Health Networks and do not work within a team.



Overarching Theory of Change

The foundation of the overarching ToC is the creation of a common vision. As a result, leaders engage with the changes and support the creation of an interdisciplinary team that has strong relationships and high levels of collaboration and communication. People have a sense of value and feasibility of the networks and have shared goals for providing better care. A shared vision and supportive leadership helps to increase physician engagement with and participation in the networks. Increased levels of trust, communication, and role knowledge contribute to the creation of an integrated and coordinated healthcare system. Teams that understand the role of social determinants of health, the value of prevention measures, and that recognize the value of partnerships with communities and community-based organizations will focus on creating relationships that cooperatively provide appropriate health and prevention services to the community. Creating an equitable healthcare system where necessary resources are available leads to accessible, effective healthcare. Additionally, care that focuses on wellness and prevention and is patient-centred is likely to lead to overall improved community health.

Embedded within this ToC are some assumptions and external factors (context). This ToC assumes that those involved are ready and willing to change, that there is support for a patient-

centred model of care, and that the desired changes are possible within the existing resources. External factors include the fact that there is little funding to facilitate this system-wide change, the effect of previous change efforts that were not well-received, the quality of relationships between the organization and physicians and communities, as well as chronic staff shortages, particularly in the large rural areas.

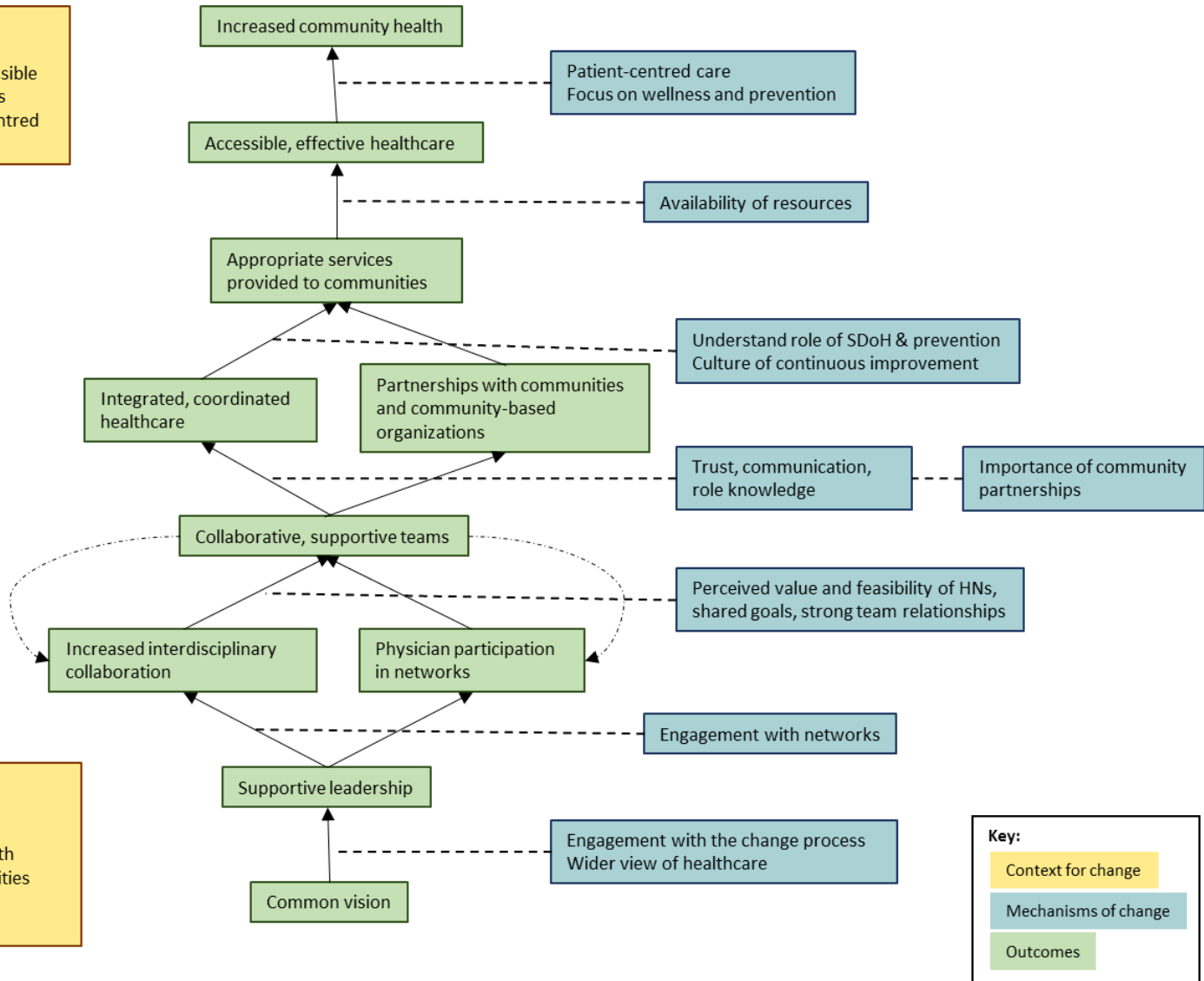
Outlining the path to successful and non-successful outcomes can help facilitate future development of networks and increase understanding of how networks improve delivery of healthcare. The successful creation of a common vision underpins the ToC and is therefore critical to the success of HNs.

Health Networks Overarching Theory of Change

- Assumptions:**
- Readiness for change
 - Desired changes are possible within existing resources
 - Support for a patient-centred model

Provincial restructure of healthcare towards integrated care

- External Factors:**
- No dedicated funding
 - Past history of change
 - Existing relationships with physicians and communities
 - Large geographic area
 - Staff shortages



Diffusion of Innovation Model

In addition to the theory of change, theories that describe the process of reasoning or causation of actions can help to understand the implementation process of HNs. The Diffusion of Innovation model (Rogers, 2003) moved the study of organizational adoption of innovations from technological determinism (the innovation will inevitably be adopted) to social dynamics (the role of social factors in determining whether an innovation will be adopted). Innovation in service delivery and organization is a new set of behaviours, routines, and ways of working that aim to improve outcomes, administrative efficiency, or cost effectiveness and are implemented through planned and coordinated activities (Greenhalgh et al., 2004). Diffusion is the process of social exchange by which an innovation is communicated over time and meanings and values are attributed to the innovation (Rogers, 2003). The Diffusion of Innovation model has many practical lessons for HNs.

Adoption of innovations is a complex process as people are not passive recipients of change. They tend to evaluate innovations, experiment with them, find (or do not find) meaning in them, they have positive or negative emotions about them, they challenge them, complain about them, modify them to their own context and tasks, and try to improve or redesign them, often with other users. Organizational assimilation of innovations is often organic and messy, whereby the organization moves back and forth between initiation, development, and implementation, interspersed with surprises, setbacks, and shocks (Greenhalgh et al., 2004).

Greenhalgh et al. outline attributes of innovations often necessary for adoption. Innovations are more likely to be adopted if they:

1. Have clear effectiveness. Conversely, if users see little relative advantage to the innovation, they are unlikely to consider it further.
2. Have visible benefits.
3. Have high certainty of outcomes.
4. Are compatible with the organizational and users' needs, values, goals, and norms.
5. Are simple rather than complex.
6. Have dedicated time and resources allocated.
7. Are adaptable. Complex interventions can have a 'hard core' (the irreducible elements of the innovation) and a 'soft periphery' (elements that can be adapted).
8. Are feasible, easy to use, and relevant to the user's work and performance.
9. Can transfer knowledge required to use the innovation between contexts.
10. Have a trial period.

Greenhalgh et al. further outline organizational elements associated with successful adoption:

1. A flexible and adaptive organizational structure supportive of devolved decision-making.
2. Support of implementation by top management and commitment to enhance success.
3. Early and widespread involvement of staff at all levels.
4. Dedicated and ongoing funding for implementation processes.
5. Effective communication across departmental boundaries to create a common vision.

6. Timely feedback about the impact of the implementation process.
7. Adaptation to the local context.

Cases of Successful Transformation

Transformation of healthcare is a global issue, undertaken with varying levels of success in different parts of the world. Two examples of successful transformation are outlined below.

Southcentral Foundation: Nuka System of Care

Southcentral Foundation, a non-profit healthcare organization in Alaska, underwent a large change in the late 1990s. The Alaskan healthcare system was very poor in the 1980s, with gross inefficiencies, long wait time to see a family doctor, increasing Emergency Room utilization, and poor health outcomes (Driscoll et al., 2013). The Nuka System of Care was created through a transfer from government control to customer-ownership, in which the Alaska Native people became self-determined customers and owners of their health care. The Nuka System has a clear vision of physical, mental, emotional, and spiritual wellness through shared responsibility for wellness and commitment to quality. There is a primary focus on building and maintaining relationships at every level. In this way, providers have a better understanding of the context of their patients and can work with patients to make good health decisions. Strong and effective relationships throughout the organization are seen as necessary to achieving goals and building a culture of trust to encourage innovation and creativity (Gottlieb 2013). Southcentral redesigned its system around the needs of the customer-owners and worked closely with staff to achieve this.

In the first 10 years of implementation, healthcare expenses increased as the workforce increased and investments were made in clinical facilities and employee training and development. This increased provider capacity and enabled the introduction of new ways of operating that could impact system-level outcomes. There was a transition to team-based care through adding different kinds of health professionals to clinics, such as behavioural health consultants and dieticians. Although some physicians were initially skeptical about this, most came to appreciate the reduction in caseload resulting from the transfer of primary care challenges. Additionally, Southcentral implemented a sophisticated data and performance management system. Outcomes included increased availability of primary care services and an overall reduction in emergency care (Driscoll et al., 2013).

Veterans Health Administration

The Veterans Health Administration (VHA) is another example of transformation from a dysfunctional, fragmented, difficult to access, and expensive system of care to one that is recognized as among the best in the USA and a model for health care transformation. In the 1990s, the Veterans Affairs began moving from a hospital-based system to a primary care-based system that emphasized accessibility, documented quality of care, and patient safety

(Batalden et al., 2002). The new system was administered through 21 geographic areas called Veterans Integrated Service Networks (VISNs). Five major outcomes were identified: access to services, quality of care, patient satisfaction, patient functional status, and community health. Transformation strategies included creating an accountable management structure and control system, creating integrated service networks, improving quality of care, aligning finances with desired outcomes, and modernizing information management (Kizer & Dudley, 2009). Within five years, bed-day rates and emergency room visits in patients with serious chronic diseases fell by 50% and 35% respectively, while clinic consultations and testing had an approximate 10% increase (Ashton et al., 2003). Quality of care also improved significantly (Jha et al., 2003), and many more veterans started using the VHA (Kizer & Dudley, 2009).

Kizer and Dudley (2009) outline some lessons learned from the VHA transformation:

1. Clear articulation of a future vision and how things will be different is essential.
2. The vision must be combined with a strategic plan that includes defined responsibilities, concrete goals, and performance measures that can assess progress.
3. Leaders must show that improvement is an organizational priority.
4. An automated information management system is critical for health care transformation and quality improvement as the electronic health record is an essential tool.
5. Point-of-care clinicians must be part of the planning and implementation of change.
6. There is no such thing as too much communication in undertaking major changes.
7. Training and education are critical in ensuring that people are prepared to function in a new way.
8. Much of what is necessary to accomplish and sustain change should be in place prior to initiating change.
9. Alignment of finances with desired outcomes is necessary.
10. Finally, health care systems are complex adaptive systems subject to rules of complexity theory. People involved in change must understand chaos and complexity theory.

In summary, there are many lessons to be learned from both theoretical and practical sources that can be applied to HN. Reflection on these can help to tie the results of this evaluation together and to create recommendations for future practices.

Discussion

Health systems are often slow to adapt to changes and innovations. Health Quality Ontario (2013) estimates that fewer than 40% of improvement initiatives are able to transition to sustained implementation in more than one area of an organization. The spread, sustainability, and scale-up of innovations occurs along a continuum that is affected by contextual factors, unpredictable dynamics, and organizational processes (Côté-Boileau et al., 2019).

Readiness for Change

There was a clear need to change healthcare delivery in Saskatchewan, as outlined by the Patient First Review Commissioner's Report to the Saskatchewan Minister of Health (2009) and by the Saskatchewan Advisory Panel (2016). Healthcare staff universally agreed that integrated care was a positive move towards better patient care; however, there were many concerns about how this was to be put into practice. Moreover, contextual factors such as previous history of change and relationships with different stakeholders had an effect on levels of engagement with change.

Point-of-care staff generally have a fundamental wish to help others and provide health care that meets the needs of the patient. Most staff seem to endorse the concept of HN, seeing it as a necessary and useful change. However, they are less sure about how this will be implemented in practice. This initial goodwill and engagement with the HNs should be reinforced as far as possible in order to facilitate the implementation of new systems and ways of working. However, frustrations such as uncertainty around change or the lack of IT infrastructure to support change are likely to erode this and could reduce engagement with the HN. Confusion around changes can also lead to less trust in the system in the system as a whole.

The Nuka system and the VHA each had a well-communicated narrative about why change was needed and a clear vision of a different future state. The achievement of change in the VHA was seen as more sociological than technical, with the emphasis on teamwork and collaboration, quality, and information management as major contributing factors (Payne, 2012). The Diffusion of Innovation model suggests that initiatives need to have clear effectiveness and visible benefits. People need to see proposed changes as valuable, feasible, and adding to quality of care. Imposition of change without a shared vision and clear strategies for achieving this can lead to anxiety and fear of loss of resources and control, which can lead to resistance to change (Tsisis et al., 2012).

Bevan and Fairman (2014) outline different ways to create change. One way is to create strategies to achieve the vision and mission of the organization and use directives for change in order to implement such strategies. Another way is to create a sense of shared purpose and responsibility for change, which opens the way for people to share ideas and co-create new approaches to change. This increases the potential for diversity in background and experiences and can result in diversity of thinking to create different outcomes. An increase in the number of contributing voices is likely to increase insights and innovation. Bevan and Fairman argue that the most effective leaders of change in an era of increased connectivity are those who not only have positional authority but can also create relationships and influence others through a network. People engage in organizational change not because they have to but because they want to. Bevan and Fairman further contend that organizations that embrace skills such as building shared purpose, relationships, and connectivity tend to get better organizational change outcomes.

Reflections on Implementation

The importance of relationships as a facilitator of teamwork was mentioned more than any other theme, along with collaboration and communication. Supportive leadership helped build successful teams. Supportive teams helped improve patient care and personal well-being. Benefits of HNs include broader medical knowledge, understanding how different professions interact to provide better care, wider-level thinking, adapting and finding creative solutions, having a holistic view of the patient, and going above and beyond usual care.

Major challenges to HNs are staff shortages and turnover, lack of time and resources, and intra-professional isolation. Many mentioned feelings of frustration and anxiety around lengthy ongoing changes, which was compounded by lack of internal communication and engagement. The lack of a single accessible electronic medical record was a large source of frustration and communication and transitions between different areas and levels of care was sometimes problematic. A further challenge was the difficulty experienced by some people in broadening their thinking beyond their own department or specialty to see the wider picture of health care.

The ongoing and uncertain nature of change seems to have taken its toll on staff and created levels of anxiety and frustration. The lack of consistent communication may have been a factor in this as staff expressed a desire to be included in the change process and to be informed about changes as they evolve. More consistent communication and inclusion in the change decisions that directly affect staff would likely facilitate a smoother implementation process as it would not only help to alleviate uncertainty and so alleviate levels of anxiety and frustration, but also increase engagement with the changes.

Lack of time and external resources have restricted opportunities for building relationships and teams. This does not necessarily reflect the level of willingness to work within a team as many point-of-care staff were enthusiastic about the idea of interdisciplinary teamwork and collaboration. Nevertheless, many staff currently feel overworked and overburdened. The phrase “putting out fires” was used repeatedly, along with statements about lack of time and capacity.

Physician engagement in HNs is understood to be important and efforts are underway to facilitate this. However, current levels of engagement are variable and often dependent on the individual physician’s level of interest in integrated care. Those who feel it is beneficial will often make a greater effort and take the time to interact with the team than those who do not. Additionally, the current fee-for-service physician model does not compensate for team-based care and there is confusion about how physicians will interact with networks.

Studies on physician engagement show that physicians need to have a personal interest and commitment, they need to feel that they are heard and have a voice, they need to feel valued and respected, that they are involved and able to influence decisions. Their environment should foster collaboration, facilitate the sharing of expertise, and offer professional support (Shepherd, 2015; Steihaug et al., 2017). Physicians are more enthused by the vision of improving quality of care than by ideas around cost-savings, efficiency, and restructuring

(Ignatowicz et al., 2014). Resistance to change often occurs when changes are perceived to threaten professional practices, identity, or status (Austin & Claassen, 2008).

Reflections on Sustainability

The need for sustainability grows with rising demands on health care. Integrated care is often seen as a way of providing better care for a lower cost. However, certain strategies have to be in place for this to occur. The HN leadership has identified some such strategies, such as working to the top of scope, providing services closer to home where possible, using different strategies such as virtual health or Telehealth, improved recruitment and retention of health care professionals, including physicians, increasing the focus on wellness, increasing the focus on social determinants of health, and reducing emergency room visits and hospital admissions.

Working at the top of one's scope involves doing work for which the person is trained to do and not work that other people can do. In order for this to occur, there needs to be sufficient healthcare and administrative resources available for professionals. Although HN are not specifically designed to overcome staff shortages, it is hoped that implementing team-based care will have enough of an appeal to draw in more professionals to work in rural areas. A further strategy to overcome staff shortages in rural areas is the provision of virtual health care where patients can link virtually to healthcare providers in nearby cities.

Changes in healthcare have many ripple effects on interdependent systems. Moreover, proposals that make theoretical sense may have practical barriers to implementation. Point-of-care staff are aware of how systems interact and where potential obstacles lie. Inclusion of staff who have experience working within the system can increase diversity of thought and lead to useful ideas about problem solving.

One of the aims of HN is to work more closely with community-based organizations in order to facilitate levels of community wellness. Some successful partnerships have been created with community-based organizations to address upstream health issues; however, these seem to be the exception rather than the norm as prevention is focused largely on disease management strategies. Some health care professionals want to connect their patients with external services but others have not seen this as a priority. The ones who do want to connect face the challenge of knowing what services are available as there is no comprehensive registry. Lack of time was cited as the most common reason for little focus on wellness and prevention care.

Sustainability of changes seems to rely heavily on perceived relevance and benefit to the provision of good patient care. Many healthcare providers would like to clear the way of barriers to healthcare provision. Removal of silos and creation of interdisciplinary teams is seen as a key facilitator of this. However, there are major differences in organizational culture between different areas of care. For example, acute care and continuing care have different priorities and ways of thinking and behaving than primary health care. This will have to be overcome in order for integration to spread beyond a single area of care and will necessitate the engagement of all stakeholders in order to create relationships and trust.

Understanding the mechanisms within the Theory of Change is helpful in achieving sustainability. For example, creating a strong and high performing team is essential in providing excellent patient care within HN. Distinguishing between mechanisms and strategies or activities can be helpful. One strategy the SHA utilizes to create strong teams is daily or weekly team huddles. Although many people find these to be helpful, in some cases they can be counterproductive. One healthcare professional found that the manager's inflexibility in adapting the huddle to their particular situation and insistence on following the procedure outlined by the SHA was more off-putting than helpful in creating a sense of team. A more effective approach would be to recognize what the huddle aims achieve and consider what would work best for this.

Recommendations

Successful implementation of HNs requires not just structural changes but also changes in culture, behaviour, and thinking. Consistent with the success stories and theoretical concepts outlined above, the following recommendations are made.



Vision

There is a wealth of data pointing to the necessity of a clear and shared vision. As outlined in the Introduction, the steps in creating the HN structure are:

1. Create a common vision.
2. Determine geographies.
3. Build teams.

Creating a common vision can be said to be an ongoing process; nevertheless, the results of the evaluation show that this has not been achieved as yet. Although most interviewees knew what a HN is, there is widespread general level confusion about networks. There is a formal definition of HNs as a collaborative team of professionals; however, HNs are also often conceptualized as specific geographic areas. People may be conflating the two and visualizing HN more as geographic areas than integrated care, which may lead to a lack of understanding about specific roles within networks. It is therefore recommended that attention to this necessary first step be intensified through increased communication and engagement, particularly with point-of-care staff and physicians.

Engagement and Communication with Staff

Engagement occurs when staff feel they are heard and are able to influence the change process. Defining how staff will be involved and engaged in sustaining HN will likely lead to feelings of empowerment and support of the change process, which is key to success.



Monitoring and feedback of change processes has been identified as fundamental to success as it triggers a collective form of learning. Collective learning may lead to behavioural changes that help institutionalize new values, norms, and practices around the desired changes (Côté-Boileau et al., 2019). Setting up regular feedback mechanisms, such as solicitation of views of point-of-care staff or anonymous surveys that will give information about difficulties staff are facing will help leadership adopt new processes to ameliorate these. This can help leadership become more intentional about creating environments that are conducive to achieving the goals of HN.

Staff Capacity and Team-Building



Integration of care done ‘on the side of the desk’ is unlikely to be as successful as if full attention is paid to the process. People need support to learn new ways of working and collaborating within their local context and time incorporate these new practices into everyday routines (Côté-Boileau et al., 2019). Point-of-care staff are not passive recipients of change, but need to be active participants in choosing to adopt new processes and modify HNs to suit their local needs (Fitzgerald et al., 2002).

Engagement and Communication with Physicians

In order to bridge the gap between physicians and the SHA, physician engagement may involve first of all listening to physicians. This would not only give physicians a forum to voice their frustrations but also to feel that the SHA is listening to them and working with them. Physicians want the SHA to understand the challenges they face. Area Division Leads are proving difficult to recruit as not many physicians seem to want this role.

Individual outreach to physicians, which is taking place in some areas, was thought to be helpful in disseminating the vision of HNs as well as reducing time physicians would have to spend learning to navigate the SHA system. It is likely that prioritizing this would increase physician engagement with team-based care. If physicians see the benefits of HN on their time and practice, they are more likely to engage with the HN. Building time for team-based care into physician contracts and making expectations of participation clear would also be helpful.



Physicians need a clear idea of their role in HNs. At present, interactions seem to take the form of utilizing the PHC team when necessary. Physicians often feel that attending team meetings would take up too much of their time. However, if physicians are to have a key role in the provision of integrated care, roles and partnerships need to be more explicitly defined.

Electronic Medical Records



A large source of frustration for staff and physicians is the lack of a single electronic medical record that contains essential information and can be used in multiple settings by multiple users. Studies and success stories also point to the necessity of integration of health information technology into daily practice as essential for successful system redesign (e.g., Doebbeling & Flanagan, 2011; Driscoll et al., 2013; Kizer & Dudley, 2009). Therefore, this should be a priority in implementing and creating successful HNs.

Partnerships



There is often a lack of knowledge about relevant community services that could provide beneficial services to patients. A starting point for closer connections and partnerships to occur might be provision of information about different community services and encouragement from leadership for staff to connect patients with these. Given that the future focus of HN will be on integrating care across a continuum of services, it is important to give staff and physicians resources to facilitate this and time to forge the necessary understanding of different agencies and build relationships where possible. Without an intentional focus on this, the status quo is likely to be maintained.

Funding

Although HNs are seen as a way to reduce the costs of healthcare provision, it has been shown that costs are likely to increase initially due to the need for staff and support systems (Driscoll et al., 2013; Leutz, 1999). In writing about health care reform in the USA, Weil (2008) cautioned that, “If we rely upon states to test bold strategies for reform but fail to give them the tools or resources to implement the reforms, we may conclude that certain policies are ineffective despite the fact that under the right circumstances they would perform quite well.”



Concluding Thoughts

Saskatchewan’s rationale for developing HNs is similar to many health systems world-wide: fragmentation of services, patient frustrations with care, lack of communication between services, and duplication of services. Movements towards more integrated care are desirable but not easy; they require significant systemic, structural, cultural, attitudinal, and behavioural changes.

Previous studies have sounded a cautionary note when change efforts have failed to account for the complex-adaptive nature of the health care system (e.g., Kodner & Spreeuwenberg, 2002; Tsisis et al., 2012). Some failures to implement integrated care may be due to a reductionist and mechanistic perception of the system, whereby inputs are transformed into outputs and change is seen as linear and predictable and achieved through regulated planning and control processes (Begun et al., 2003). Framing health care as a complex adaptive system means creating an environment that fosters connectivity and creativity through supporting collaboration from the bottom-up. This involves balancing direction from above with participation from below, standardization with innovation, accountability with flexibility, and organizational needs with system needs (Tsisis et al., 2012).

This report has outlined facilitators and barriers to implementing HNs, a theory of change describing potential paths to success and non-success, as well as recommendations for future implementation. Policies and practices that support building relationships and sharing information across professional and care boundaries and that recognize change as evolving and learning rather than a series of steps would provide a foundation for successful networks.

Limitations

This evaluation was halted due to the COVID-19 pandemic. The results reported here are from initial interviews with SHA leadership, healthcare staff, and family physicians. Further sources of data would be helpful to confirm these initial analyses.

The snowball method of interview participant identification may have led to participants who were more in favour of HNs. Physicians who agreed to be interviewed were largely in favour of integrated care. Other physicians did not respond to the invitation to participate and so we did not manage to speak to those who are not in favour of HNs. Nevertheless, we have heard that that this could be a significant proportion of family physicians. All point-of-care staff endorsed the concept of HN, while acknowledging current frustrations with implementation. HNs and the concept of integrated care resonated with healthcare providers and was seen as qualitatively different to previous change efforts.

The theory of change was created by the evaluator; however, this is a process that should be done in conjunction with HN stakeholders. It is likely that this will be revised over time as people express different views about it.

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Appendix A: Evaluation Matrix

The evaluation matrix shows the evaluation objectives, the specific questions by which to achieve these objectives, and the method and data source used to answer the questions.

Evaluation Question	Indicators	Methods and Data Source
Assess structure of Health Networks		
What is a HN?	Structure of HN. Integration of physicians	Interviews with network developers, EDs, physicians & network staff. Internal documentation. Meeting attendance.
How have HNs integrated the needs of the patients, family, and community into their structure?	Integration of patient, family, and community needs Services provided closer to the patient's home.	Interviews with network developers, EDs, physicians & network staff. Public Health Nurses and Medical Health Officers. Survey. Internal documentation.
Continuity of care	Information continuity: information transfer across team members. Management continuity: coordination of care between different providers. Relational continuity: ongoing relationship between a patient and healthcare provider.	Interviews with network developers, EDs, physicians & network staff. Internal documentation.
Do HNs have partnerships with community-based organizations (e.g., education, justice, health and social services)?	Existence and strength of partnerships with community-based organizations.	Interviews with EDs, Directors, Managers, physicians & network staff. Interviews with community organizations.
Does the HN have partnerships with First Nations and Métis communities?	Existence and strength of partnerships with First Nations and Métis communities.	Interviews with physicians & network staff. Internal Documentation. Interviews with community organizations. Interviews with First Nations and Métis communities.
What is the IT structure? Is it moving towards a common IT structure?	Use of EMRs. Use of shared care plans. Use of e-referrals.	Interviews with EDs, Directors, Managers, physicians & network staff. Internal documentation.
Assess implementation approaches and processes		

Evaluation Question	Indicators	Methods and Data Source
How are HNs implemented?	Implementation strategies. Co-location of teams.	Interviews with network developers, EDs, Directors, Managers, physicians & network staff. Internal Documentation. Meeting attendance.
Are implementation strategies effective?	Challenges and facilitators of implementation. Satisfaction with implementation.	Interviews with EDs, Directors, Managers, physicians & network staff.
Are the offered services and programs based on the needs of individuals and communities?	Coordination of services based on patient needs.	Interviews with EDs, Directors, Managers, physicians & network staff.
Assess engagement of health professionals		
Do practitioners understand and agree with the aims of the networks?	Clarity of purpose. Shared vision of HN. SHA engagement strategy.	Interviews with physicians & network staff. Survey. Meeting attendance.
Do practitioners understand their role in making HNs successful?	Role clarity.	Survey. Interviews with physicians & network staff.
Assess functioning of teams		
Are teams collaborative?	Levels of collaboration. Challenges and facilitators of collaboration.	Interviews with physicians & network staff. Team and Transitions Development Tool. Survey.
How cohesive is the team?	Levels of communication. Levels of coordination. Strength of relationships between practitioners. Level of trust between different practitioners. Sense of belonging to the team. Understanding of how roles interact within the network. Ongoing team development activities.	Interviews with physicians & network staff. Survey. Team and Transitions Development Tool.
Assess patient experience of HNs		

Evaluation Question	Indicators	Methods and Data Source
How have HN affected the patient experience?	Patient satisfaction. Relational continuity with their healthcare provider Level of access. Utilization of resources. Ease of navigation and use. Levels of self-management. Health outcomes. Equity of care. Culturally safe care.	Patient and staff interviews. Patient Survey. Staff Survey.
Understand how networks contribute to better health and better care		
How do networks contribute to better health and better care?	Identify and test causal pathways between the activities and outcomes using the theory of change. Assess efficacy in terms of mechanisms and context.	Literature review. Interviews with network developers, EDs, Directors, Managers, physicians & network staff. Internal Documentation.

Note: Due to the outbreak of COVID-19, the evaluation was halted before we could assess the patient experience of HNs and the partnerships with community-based organizations and First Nations and Métis communities. The staff survey and patient surveys were almost finalized when we had to halt the process, so we relied on literature, documents, and interviews as data sources. The surveys may still be used in the future to get a broader picture of results.

Appendix B: Interview Guide

*Please note that this is a comprehensive list of questions. The entire list will not be asked of each participant. Rather, different participants will be asked different questions in order to reduce the interview load. Participants will be asked questions most relevant to their role. However, each question will be asked of several different people in order to get a variety of viewpoints. Due to the nature of developmental evaluation, the questions may change slightly as our knowledge of Health Networks increases.

Executive Directors

1. What are your priorities when designing Health Networks?
2. What would an ideal HN look like?
3. What are the core characteristics of a HN? PHC, SDoH
4. Is the network the administrative area or is it the team?
5. What would be the ideal outcomes of this HN?
6. What assumptions have to be made in order for this model to work?
7. How do you see health networks working day-to-day?
8. What strategies are used to implement HNs?
9. How are services provided closer to the patient's home (e.g., *are new PHC clinics planned; are allied health professionals travelling farther to support new communities*)
10. How are fee-for-service physician practices included in the network?
11. Are specialists included in the network? If so, how?
12. What partnerships exist with community-based health and social services?
13. What partnerships exist with First Nations and Métis communities?
14. What facilitates the implementation of health networks? And this is a question drawing on your experience but that can also be used to help other networks that are in their infancy.
15. What obstacles or challenges are there to the implementation of health networks?
16. What environmental or contextual factors might affect the implementation and operation of HNs? What outside factors can affect it?
17. What is it that moves HN from a focus on illness to a focus on wellness? SDoH
18. Is there anything else you think I should know or anything you'd like to mention that I haven't asked you about?

Directors

1. What is the process of implementation of networks?
2. What would an ideal HN look like?
3. What are the core characteristics of a HN?
4. What would be the ideal outcomes of this HN?
5. What assumptions have to be made in order for this model to work?
6. How do you see health networks working day-to-day?
7. What partnerships exist with community-based health and social services? Is there anything inherent to HN that facilitates partnerships with CBOs
8. What partnerships exist with First Nations and Métis communities?

9. How are services provided closer to the patient's home (e.g., *are new PHC clinics planned; are allied health professionals travelling farther to support new communities*)
10. What strategies are used to implement HNs?
11. What facilitates the implementation of health networks? And this is a question drawing on your experience but that can also be used to help other networks that are in their infancy.
12. What obstacles or challenges are there to the implementation of health networks?
13. What environmental or contextual factors might affect the implementation and operation of HNs? What outside factors can affect it?
14. What are some things that help to form collaborative and supportive health network teams?
15. What are some barriers to forming collaborative and supportive health network teams?
16. How are fee-for-service physician practices included in the network?
17. Are specialists included in the network? If so, how?
18. What is it about HNs that create better care than the previous system of health practitioners working individually?
19. What is it that moves HN from a focus on illness to a focus on wellness? SDoH
20. Is there anything else you think I should know or anything you'd like to mention that I haven't asked you about?

Managers

1. What do you think about the concept of Health Networks?
2. Can you tell me about how you provide care in your network and how it compares to care before the network was established?
3. What are the core characteristics of a HN?
4. One thing that networks aim to do is to provide services closer to the patient's home. Do you see this happening? If so, how? (e.g., *are new PHC clinics planned; are allied health professionals travelling farther to support new communities*)
5. Another aim is to move from a focus on illness to a focus on wellness? Do you see this happening? (SDoH)
6. HNs also aim to integrate the needs of the patients, family, and community into their structure. Do you see this happening?
7. What partnerships exist with community-based health and social services?
8. What partnerships exist with First Nations and Métis communities?
9. How are services provided closer to the patient's home (e.g., *are new PHC clinics planned; are allied health professionals travelling farther to support new communities*)
10. How are fee-for-service physician practices included in the network?
11. Are specialists included in the network? If so, how?
12. How are care transitions managed, eg between acute and home care?
13. What facilitates the implementation of health networks? And this is a question drawing on your experience but that can also be used to help other networks that are in their infancy.
14. What obstacles or challenges are there to the implementation of health networks? Frustrations?

15. What environmental or contextual factors might affect the implementation and operation of HNs? What outside factors can affect it?
16. What are some things that help to form collaborative and supportive health network teams? (Size of team? Location – urban, rural, larger or smaller rural areas?)
17. What are some challenges to forming collaborative and supportive health network teams?
18. How is information transferred between team members?
19. How is care coordinated between different providers?
20. How are care transitions managed (*Medication safety, Advance care planning, Self-management and health promotion, Coordinated transition planning, Post transition monitoring, managing and support, Social and community support, Information completeness, continuity and timeliness*)?
21. How are EMRs utilized within networks?
22. What potential benefits of health networks do you see to healthcare providers?
23. Are there any potential negative outcomes to healthcare providers?
24. What potential benefits of health networks do you see to patients?
25. Are there any potential negative outcomes to patients?
26. How have HNs integrated the needs of the patients, family, and community into their structure?
27. How would you define a successful network?
28. What is it that moves HN from a focus on illness to a focus on wellness? SDoH
29. Health networks are expected to bring several positive changes. What is it about health networks that will lead to these outcomes? Why is this expected to be effective?
30. What needs to be done in order to make this happen?
31. Is there anything else you think I should know or anything you'd like to mention that I haven't asked you about?

Staff

1. Position and length
2. What do you think about the concept of Health Networks?
3. Can you tell me about how you provide care in your network and how it compares to care before the network was established? SHA HN?
4. What are the core characteristics of a HN?
5. How do HN lead to improved care in your area?
6. One thing that networks aim to do is to provide services closer to the patient's home. Do you see this happening? If so, how? (e.g., *are new PHC clinics planned; are allied health professionals travelling farther to support new communities*)
7. Another aim is to move from a focus on illness to a focus on wellness? Do you see this happening? (SDoH)
8. HNs also aim to integrate the needs of the patients, family, and community into their structure. Do you see this happening?
9. One thing that is often mentioned as important is communication. How would you rate the level of communication in your team?

10. Another essential element is collaboration. Do you feel that your team collaborates well together? If not, what would help to enhance this?
11. Are you aware of the roles of your other team members and how this can benefit your dealings with clients?
12. Do you believe that you can speak up or make mistakes without retribution?
13. Do you feel that you work to the top of your scope, in other words, that you do what you are trained to do without having to attend to other tasks that are outside your parameters?
14. How is information transferred between team members?
15. How is care coordinated between different providers?
16. How are care transitions managed (*Medication safety, Advance care planning, Self-management and health promotion, Coordinated transition planning, Post transition monitoring, managing and support, Social and community support, Information completeness, continuity and timeliness*)? Falling in the cracks
17. Do you know about community-based services and supports that would benefit your clients? Are you able to point your clients towards these?
18. How are EMRs utilized within networks?
19. What potential benefits of health networks do you see to healthcare providers?
20. Are there any potential negative outcomes to healthcare providers?
21. What potential benefits of health networks do you see to patients?
22. Are there any potential negative outcomes to patients?
23. What facilitates the implementation of health networks?
24. What obstacles or challenges are there to the implementation of health networks?
25. What environmental or contextual factors might affect the implementation and operation of HNs?
26. How would you define a successful network?
27. Is there anything else you think I should know or anything you'd like to mention that I haven't asked you about?

Physicians

1. What is your understanding of HN?
2. What are some barriers to engaging with the HN?
3. Can you see HN benefiting you with your patient care?
4. What are your biggest frustrations?
5. What would make your life easier on a day-to-day basis?
6. How would team-based care work for you?
7. How does information flow work?
8. What is your experience with continuity of care across different domains, e.g. home care?