How do the emergency youth shelter and Canadian health system engage?

A qualitative case study exploring healthcare coordination for youth experiencing homelessness in Toronto, Canada

Alzahra Hudani, MPH

Thesis Supervisors: Dr. Sanni Yaya & Dr. Ronald Labonté

Thesis submitted to the Faculty of Health Sciences in partial fulfillment of the requirements for the Doctorate in Philosophy degree in Population Health.

Interdisciplinary School of Health Sciences

Faculty of Health Sciences

University of Ottawa

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS & ABBREVIATIONS

YEH: Youth experiencing homelessness

EYS: Emergency youth shelter

CLD: Causal loop diagram

ICHA: Inner City Health Associates

OHT: Ontario Health Team

YSIN: Youth Shelter Interagency Network

SSHA: Shelter, Support & Housing Administration

CATCH: Coordinated Access to Care from Hospital

CAMH: Centre for Addiction and Mental Health

CAEH: Canadian Alliance to End Homelessness

TAEH: Toronto Alliance to End Homelessness

HCH: Healthcare for the Homeless

CHC: Community health centre

The Access Point: The Toronto Mental Health and Addictions Access Points

UHN: University Health Network

ODSP: Ontario Disability Support Program

ACKNOWLEDGEMENTS

It is with heartfelt gratitude that I acknowledge the individuals and opportunities that have made my journey through the PhD in Population Health program a truly enriching experience. It would not have been possible without the guidance and support of my supervisors, thesis advisory committee, mentors, colleagues, friends, and family. Additionally, I'd like to thank the University of Ottawa for granting me the admission scholarship (2017-2021) and excellence scholarship (2021-2022), and the Queen Elizabeth II Scholarship in Science and Technology (2021-2022) for financially supporting my research.

To my supervisor, Dr. Sanni Yaya, thank you for believing in me from the first day I stepped into your office in late 2016. You have supported me throughout my PhD journey, from being there to listen as I grappled with different thesis topics and methodologies, to connecting me with resources, and opening doors to opportunities that helped me grow as an academic. Your encouragement and guidance throughout the last six years are deeply appreciated. Thank you for being approachable, and continuing to inspire me with all that you do.

To my former thesis committee member and current co-supervisor, Dr. Ronald Labonté, thank you for helping me grow as a qualitative researcher and academic writer. I have always been keen to receive comments from you on article drafts and am grateful for your thorough and constructive feedback through which I have learned so much. I would also like to thank Dr. Kaitlin Schwan for her time and support during the conception of my research proposal. Your dedication to supporting youth experiencing homelessness and other homeless populations is admirable. Finally, I would like to thank Dr. Tim Aubry for sharing his insights and feedback during my proposal defense, and Dr. Janet Long for providing her feedback on the first iteration of my causal loop diagram. Thank you also to Dr. Tim Aubry, Dr. Alexandre Dumas, Dr. Raywat Deonandan, and Dr. Abram Oudshoorn for examining my thesis and asking insightful questions during my oral defense.

To my first mentor in youth homelessness research, Dr. Smita Pakhalé – thank you for inviting me to be a part of the Bridge family, for supporting me and accompanying me to Connecticut as I pitched the TCAY-Ottawa project at the 2018 Global Health and Innovation conference at Yale University, and for providing me with the opportunity to co-supervise students with you. Most of all, thank you for the coffee dates, and the insightful and raw conversations.

To Nicole Bergen, Ogochukwu Udenigwe, Dina Idriss-Wheeler and Amos Buh, thank you for your friendship throughout the PhD program. Nicole, you have been a role model for me – I have learned so much from you while working together as part of the Globalization and Health Equity Research Unit, and as part of the Population Health writing group. Ogo and Dina, thank you for your moral support and encouragement, and for always being there to read early drafts of my work. Amos, thank you for your words of encouragement and support as I prepared for my oral defense.

To my parents, Sabudin and Shahenaz Hudani, I have been able to accomplish this because you have always been there to support me along the way. You are my biggest cheerleaders in life, especially for my educational pursuits.

To my parents-in-law, Salim and Mehjabin Sohani, and grandmother-in-law, Zarina Sohani: I cannot thank you enough for all you have done to help me push this degree to completion. When it felt like an impossible task amidst a global pandemic and the birth of two children, you supported me with all that you had. I am fortunate to call you family. To both my parents and parents-in-law, this PhD is yours as much as it is mine.

To my sisters, Ashna and Imra Hudani, and siblings-in-law, Nazia and Salman Sohani, thank you for being there for me at various points of my research; from taking care of my children while I facilitated interviews, to engaging me as I shared my research-related epiphanies.

To my husband, Ali Sohani, from the time it has taken me to start and complete this PhD, you have transitioned from boyfriend, to fiancée, to husband and father of two. Through these phases of life, you have been the 'layman' who read first drafts of my work, offering perspectives I would not typically get from academic reviewers. Thank you for applying your project management skills and following up on my progress during the final phases of this dissertation.

To my children, Zahi and Nayel Sohani, thank you for bringing me joy like no other I have experienced before. Your presence has changed my life for the better. I hope this PhD serves as inspiration for you to seek answers to all your questions and curiosities.

To my maternal grandparents Azizali and Dilshad Parabtani, thank you for encouraging my mother to work hard and pursue an education as part of the first generation of women in your family, even when this wasn't the cultural norm. This value for education has been passed down to future generations.

To my late paternal grandparents, Madatali and Nurbanuben Hudani, words cannot describe how deeply you are missed. I often think back to the time you questioned why I was still in school, when I could instead be earning a sizeable income. Thank you for the life chats that still bring a smile to my face. I know you would be proud.

Finally, I dedicate this dissertation to all the young people experiencing homelessness who have faced adversities within the public systems of Toronto. I hope my research in some way transpires to strengthen healthcare coordination so that you receive the care you deserve.

THESIS FORMAT & CONTRIBUTION OF CO-AUTHORS

My dissertation follows an article-based format. In total, I have written four articles, which are found in Chapters 3-6. The article in Chapter 4 is published in the journal, *Qualitative Health Research.* The article in Chapters 5 is published in *BMC Health Research Policy and Systems*. The article in Chapter 3 has been accepted to *PLoS ONE* and is currently in press, and finally the article in Chapter 6 has been revised based on a peer reviewer's comments and has been resubmitted to the *International Journal on Homelessness*.

As the principal investigator, I conceptualized the case study, developed all data collection instruments, facilitated key informant interviews with those who voluntarily agreed to participate in this research, conducted data analyses for each component of the study, and wrote the first draft of each of the articles presented in Chapters 3-6.

All four articles have been critically reviewed by my supervisors, Dr. Sanni Yaya and Dr. Ronald Labonté. Dr. Kaitlin Schwan provided valuable feedback on article 1, and Dr. Janet Long provided guidance and helpful comments on the causal loop diagram depicted in article 3. The final article was co-authored alongside Dina Idriss-Wheeler and Peter Masango, who helped facilitate the stakeholder forum that culminated this research and who were involved in co-analysing forum breakout room discussions. Peter is a youth participant who was interviewed as part of this study. Towards the end of his interview, he expressed interest in being involved as part of the forum team and was appropriately recruited. A pseudonym has been used as per his request to maintain privacy.

ABSTRACT

Youth experiencing homelessness (YEH) face poor healthcare coordination when accessing public systems. Many public systems that YEH interact with, such as the emergency youth shelter (EYS) and health systems in Toronto, Canada, have evolved to operate in silos, with little transparency and communication between sectoral organizations and actors. As a result, youths' health concerns are often left unresolved with little to no coordination or continuity of care.

Currently, there is no evidence on what healthcare coordination processes look like between the EYS and health systems in Toronto. To address this significant gap in knowledge, I used a systems-thinking and organizational change lens to explore engagement in healthcare coordination between these two pivotal systems, and how they can be targeted for change. Qualitative methods were used to: 1) define the boundaries of each system in their healthcare coordination roles; 2) understand healthcare coordination processes for YEH within and between the EYS and health systems, and the fundamental system parts that influence these processes; 3) assess interactions between these systems parts through a casual loop diagram; and 4) identify system parts that can be targeted to meaningfully strengthen healthcare coordination for YEH.

Results from this research indicate that while each system operates in silos in their healthcare coordination roles, there are significant efforts to overlap between systems through collaboration in advocacy, and the development of relevant programs and policies. Despite this, a significant healthcare coordination gap was found between systems, typically when YEH suffer from crises, and often enter a recurring loop of transition and discharge between EYSs and hospitals. Using grounded theory methodology and thematic analysis, we identified several system parts that can be targeted to strengthen healthcare coordination within and between systems. Some of these include increasing EYS funding, building human resource capacity, strengthening inter-

and intra-sectoral communication channels though policy change, establishing strategic partnerships and formal referral pathways, and integrating social medicine in approaches to care.

As parts of each system behave interdependently in producing the healthcare coordination outcomes frequently experienced by youth, it is critical that interventions to strengthen coordination are approached holistically using a systems-thinking lens.

CHAPTER 1. INTRODUCTION

1.1. Dissertation overview

This dissertation is comprised of a literature review (Chapter 2), four articles (Chapters 3-6), and a conclusion (Chapter 7). The purpose of this dissertation is to explore healthcare coordination for youth experiencing homelessness (YEH), both within and between the emergency youth shelter (EYS) system and health system in Toronto, Canada. Results from this thesis are divided into four sections based on the conceptual framework for transformative systems change, developed by Foster-Fishman and colleagues. Each article in this dissertation is guided sequentially by the four components of the framework (i.e., bounding systems - understanding fundamental system parts- assessing system interactions- identifying levers for change), which were applied to fit the context of this study.

The main body of this dissertation is supported by supplementary materials, which are found in the appendices. The appendices consist of: two spreadsheets listing the documents that were considered for inclusion in the document analysis as per the search strategy outlined in Table 3.1, and those that were excluded (Appendix A); the sampling frame and recruitment materials for key informant interviews (Appendix B); interview guides developed for non-youth and youth participants (Appendix C); informed consent forms for non-youth and youth participants (Appendix D); the ethics certificates approving each of the two phases comprising this research (Appendix E); and finally an evaluation from participants' on my presentation at the *2023 Ethics Symposium: Health Care System Transformation*, where I shared some key findings from this research that can be applied in practice when serving YEH within the Ontario health system (Appendix F).

1.2. Defining youth homelessness

The Canadian Observatory on Homelessness defines youth homelessness as the circumstances and experiences of youth between the ages of 13-24 who are living independently of adult caregivers, but do not have the means or ability to acquire stable, safe or consistent residence (1). This includes youth who are unsheltered (e.g., living in parks, cars, abandoned buildings, etc.); who live at emergency shelters; or are provisionally sheltered (i.e., staying with friends, family or strangers) (2,3).

1.2.1 Demographics: Who is experiencing homelessness?

Youth between the ages of 13-24 make up approximately 20% of the homeless population in Canada, with about 6,000-7,000 experiencing homeless on any given night (1). According to the first national youth homelessness survey in Canada (n=1,103), 10.6% of YEH were in an early stage of adolescence (13-16 years old), 49% were in mid-adolescence (17-20 years old), and 37.4% were young adults (21-24 years old). Evidence shows that Indigenous, gender-diverse, racialized, refugee and newcomer youth are over-represented in the homeless youth population in Canada. According to the national youth homelessness survey (2016), 29.5% of youth participants identified as LGBTQ2S+[1], 30.6% identified as Indigenous, and 28.2% identified as members of racialized communities. Data collected from the survey indicates that women, LGBTQ2S+ and newcomer youth tend to be younger than other YEH, with more of these youth reporting to be in the range of early to mid-adolescence. Additionally, about 40% of YEH who participated in the survey were younger than 16 years when they first experienced homelessness, and 10% were born outside of Canada. Furthermore, most of the youth sampled reported being victims of childhood

[1] Refers to people who identify as lesbian, gay, bisexual, transgender, queer or questioning, two-spirited, and other sexual identities.

trauma and abuse, with over 50% reporting physical violence, and 24% reporting sexual violence. Approximately 58% of sampled youth were involved with child protection services at an early age (1).

1.3. The need for healthcare coordination between the EYS and health systems

1.3.1. What is healthcare coordination?

Healthcare coordination (otherwise known as coordination of care) can be defined as *"the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of healthcare services* (4)." Coordinating healthcare involves the marshalling of personnel and other resources to carry out necessary patient care activities and is often managed through information-sharing between two or more of the participants involved (e.g., patient, service providers, etc.) (5).

1.3.2. Why is healthcare coordination important for YEH?

YEH face substantial physical and mental health challenges. For instance, most YEH report experiencing a myriad of mental health concerns including depression, anxiety, post-traumatic stress disorder, and paranoia, all of which can be exacerbated by traumatic life events such as being victims of physical or sexual abuse (6–8). Evidence shows that approximately 60-70% of YEH report neglect, physical violence, and or sexual violence prior to becoming homeless (9,10). In addition to experiencing health crises and complex comorbidities, YEH face significant emotional, environmental, financial, and structural barriers to accessing healthcare services within the health system (11–14).

Further, YEH engage with multiple public systems including the youth shelter, education, health, and criminal justice systems. These systems have historically evolved to operate in silos,

each having their own distinct mandates, funding sources, governance, policies, operations, and roles in healthcare coordination (15). The EYS and health systems are among two of these systems that YEH frequently interact with. For instance, approximately 900 youth between the ages of 16-24 reside at an EYS in Toronto on any given night (16,17). In addition to providing shelter services, EYSs have evolved to provide programs and services that help YEH improve their health and social determinants of health through the provision of counselling, housing support, employment support, and other services (18). Youths' entry into the EYS system is often an entry point to healthcare coordination as they generally ascribe low priority to their health unless facing crises such as overdosing, severe injury, and/or suicidal attempts (19,20).

YEH often follow patterns of crisis-oriented health seeking behaviour, frequently visiting hospital emergency departments for care (20). Evidence from this research and other scholarly research indicate that many YEH have negative experiences at hospitals, where they often feel unwelcome, and face stigma and discrimination from hospital staff including healthcare providers. Studies also suggest that YEH face other barriers to accessing health services such as financial concerns including the inability to pay for transportation or medication, long wait times, not having a health card on hand, and limited opportunities to access care (12,13,21,22). Moreover, YEH are reluctant to access healthcare services due to difficulties navigating the system, and inadequate support with healthcare coordination from service providers for their health needs (12–14).

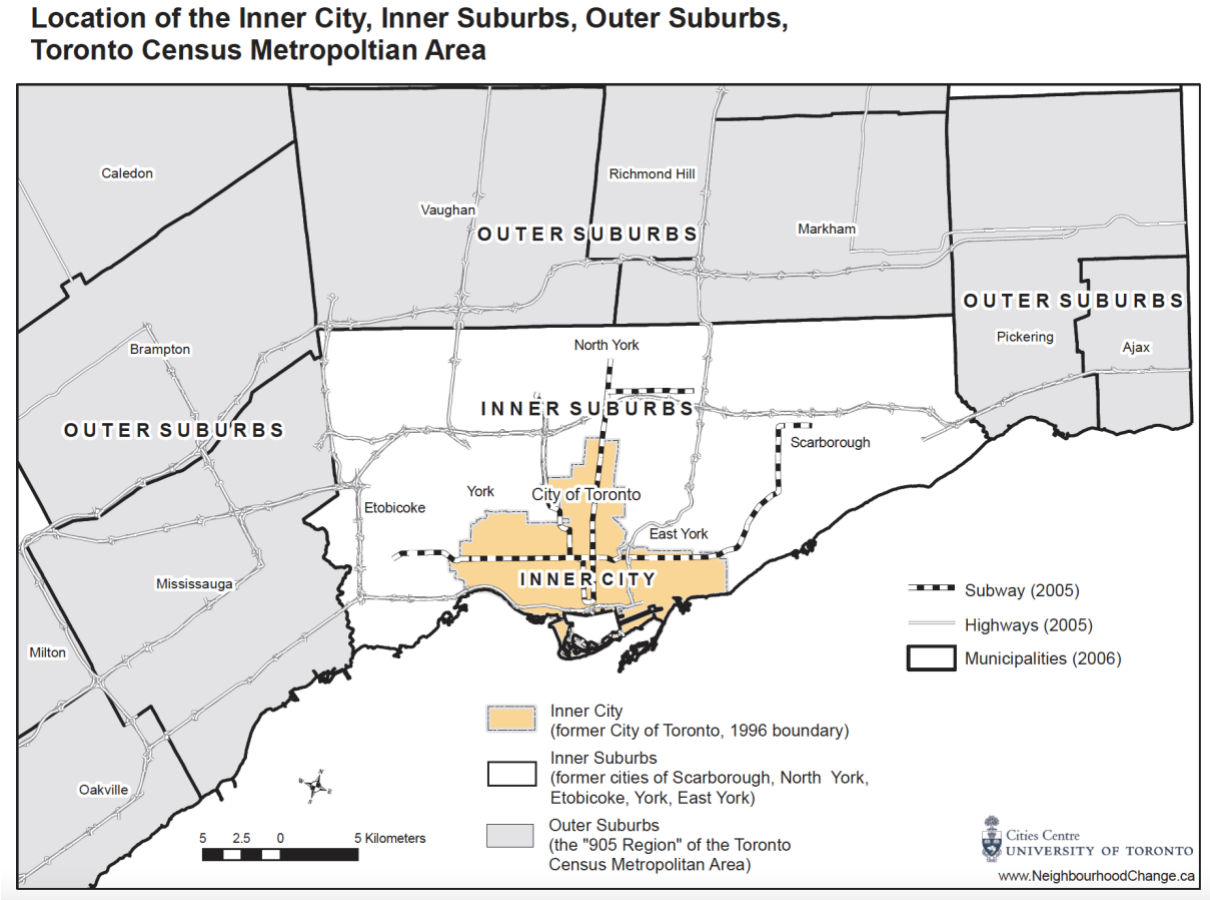
1.4. Research goals, question, and objectives

1.4.1. Research goals, question, and setting

This multi-method, qualitative case study was designed to understand how the EYS and health systems in Toronto engage to serve the overall health needs of YEH within the boundaries of the inner-city and inner-suburban regions of Toronto, as outlined in the map below (see Figure 1.1).

We used a systems-thinking and organizational change lens to understand the individual roles that lie within each of these systems in coordinating healthcare for YEH, and their collective roles and relationships in coordinating healthcare for YEH both intra- and inter- systemically. The overarching research question that guided this study is: *"How do the EYS system and health system engage to coordinate health services for YEH in Toronto, Canada?*"

Figure 1.1: Map of the Toronto Census Metropolitan Area



1.4.2. Research objectives

The research objectives developed to respond to the research question are guided by the framework for transformative systems change, which is discussed further on pages 8-10 (23). Each objective is guided by a component of the framework (i.e., bounding systems - understanding

fundamental system parts- assessing system interactions- identifying levers for change), which were applied to fit the context of this study. The objectives are as follows:

1) To define the boundaries that constitute the individual and collective roles of the EYS and health systems in coordinating healthcare for YEH.
2) To understand the fundamental parts of the EYS and health systems including the system-based norms, resources, regulations, and operations that affect their respective roles in coordinating healthcare for YEH.
3) To assess the interactions within and between and the EYS and health systems in how they coordinate care for YEH through a causal loop diagram (CLD).
4) To identify system parts and patterns that can be targeted to strengthen healthcare coordination within and between the EYS and health systems.

1.5. Significance of research

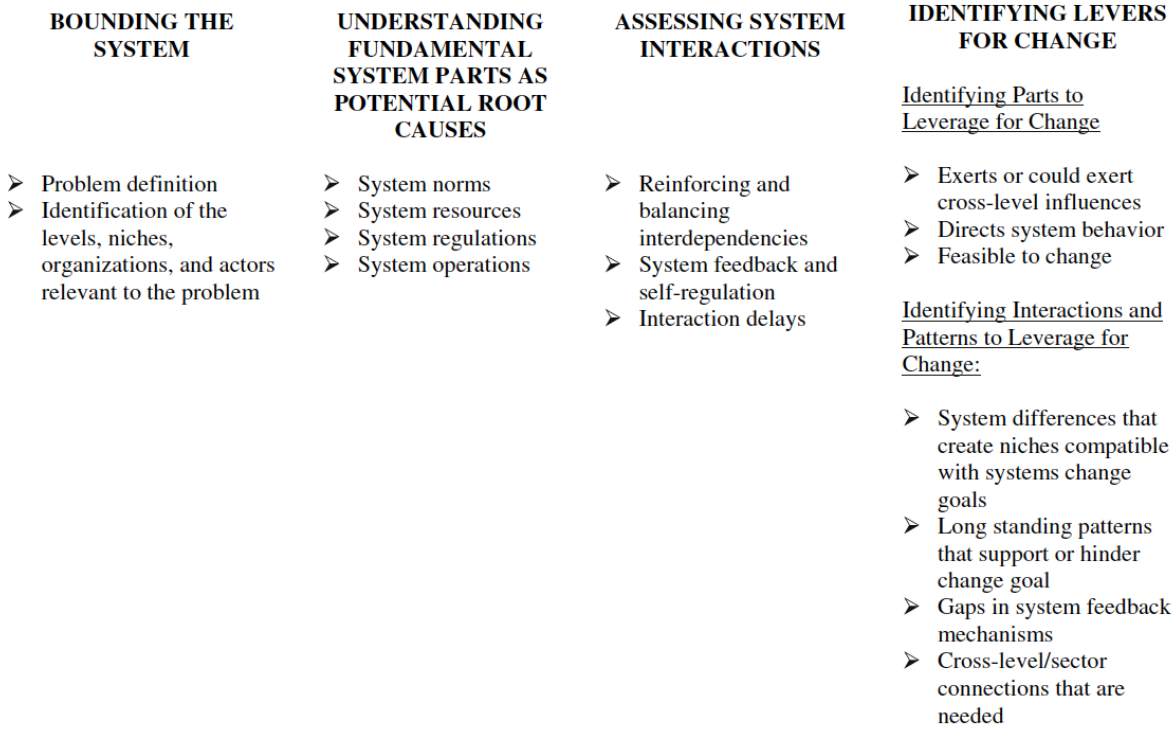
This research aims to fills gaps in knowledge on healthcare coordination for YEH in Toronto, Canada - a city where many youth migrate to access necessary supports (24). Currently, there is little evidence on how the EYS and health systems engage to effectively coordinate healthcare for YEH in Toronto, or what healthcare coordination within and/or between these two systems should ideally look like. Focusing these efforts on the homeless youth population may help cut the pipeline to chronic adult homelessness (25), as improving healthcare coordination between key sectors may prevent youth from spiraling back into adverse living conditions and the poor health outcomes that accompany these conditions. This research is hoped to inform stakeholders, including decision-makers, on what YEH's pathways to care are both within and between these two systems, and how norms, resources, regulations, and operations within these systems can be targeted to improve healthcare coordination and consequently youths' pathways to timely and appropriate care – all in

consultation with youth who have lived experience of homelessness and who have interacted with both systems. The overall aim of this research is to suggest effective and meaningful interventions to better meet youths' health and healthcare needs. Guidance from the theoretical framework for transformative systems change and triangulating perspectives across a range of key actors within each system (including youth with lived experience of homelessness) to respond to the research question, is intended to make an original contribution to the body of research focusing on healthcare coordination for this transient and equity-deserving youth population in Toronto.

1.6. Theoretical framework

This dissertation was guided by the framework for transformative systems change developed by Foster-Fishman and colleagues (see Figure 1.2.). The framework consists of four principal steps to understand and change organizational and community systems. They include: 1) bounding the system, 2) understanding fundamental system parts as potential root causes, 3) assessing system interactions, and 4) identifying levers for change (23) – each of which is described in detail below.

Figure 1.2. Framework for transformative systems change



1) Bounding the system

In bounding the systems, we first identified the problem being targeted for assessment: poorly coordinated healthcare between the EYS and health systems, for YEH in Toronto. Identifying the problem for investigation helped us determine who and what is contained within each system based on the problem identified. Bounding (or defining) these two systems is the first and notably most pivotal step required to identify levers for change with the goal of strengthening healthcare coordination for YEH. This is because it enables the interventions to be designed such that they are appropriately situated within each system's boundaries (26). In bounding the EYS and health systems, we aimed to develop a deeper understanding of each system's layers, niches (i.e.,

programs and activities), organizations, and actors involved in healthcare coordination for YEH. By clarifying who and what is enclosed within these boundaries, we can better understand the perspectives, roles, and functions that are critical to improve healthcare coordination within and between each system.

2) Understanding fundamental system parts

Once we determined the boundaries of the EYS and health systems in their healthcare coordination roles for YEH, we began to explore the deeper structures within each system, including: system-based norms such as the attitudes, beliefs and values held by organizational stakeholders; system-based resources (or inputs) such as the human, social, economic and opportunity capital available within each system; systems regulations including the policies, procedures and routines exercised across and between systems; and systems operations including power and decision-making processes for moving protocols and services through each system (23). Developing an in-depth understanding of the fundamental parts that comprise the EYS and health systems in their healthcare coordination roles, provides a strong basis for the subsequent step in this framework: assessing system interactions.

3) Assessing system interactions (or interdependencies)

Systems thinking demonstrates that the fundamental parts of the EYS and health systems are directly or indirectly connected in their efforts to coordinate healthcare for YEH, as the interactions between these parts result in the healthcare coordination behaviour and outcomes produced. In applying a systems thinking lens to this research, we recognize that each part of either system cannot be fully understood without considering its interactions with other system elements (27). Accordingly, we developed a CLD to illustrate these systems interactions. System

interactions can follow two patterns, which are depicted as either reinforcing or balancing feedback loops. In a reinforcing (or positive) feedback loop, system elements engage with one another in a manner leading to growing or declining action – pushing a system out of balance. In a balancing (or negative) feedback loop, the system is self-regulating (22). Moreover, interaction delays[2] are another characteristic that can be present within reinforcing and balancing feedback loops and can have significant implications for systems change efforts (28). Overall, interactions between system parts, feedback loops resulting from these interactions, and interaction delays help us determine the outcomes and outputs of these systems including their overall stability, and what it might be able to produce or accomplish (23). This information allows stakeholders from within the EYS and health systems to learn from the challenges, gaps and barriers depicted through these interactions, and design interventions that may produce future opportunities in healthcare coordination for YEH.

4) Leveraging systems change

Finally, once we established a comprehensive understanding of the two systems parts and their interactions in healthcare coordination for YEH, we were well positioned to verify the CLD with a select group of stakeholders, with whom we also discussed strategic levers for systems change. Discussion questions focused on 1) identifying levers for change in systems parts, and 2) identifying levers for change in systems interactions and patterns.

1.7. Study design, methodology and methods

1.7.1. Study design: exploratory case study

[2] A time lag that exists within an interaction between two system parts: a shift in one part will likely have a delayed impact on another system part it is connected to.

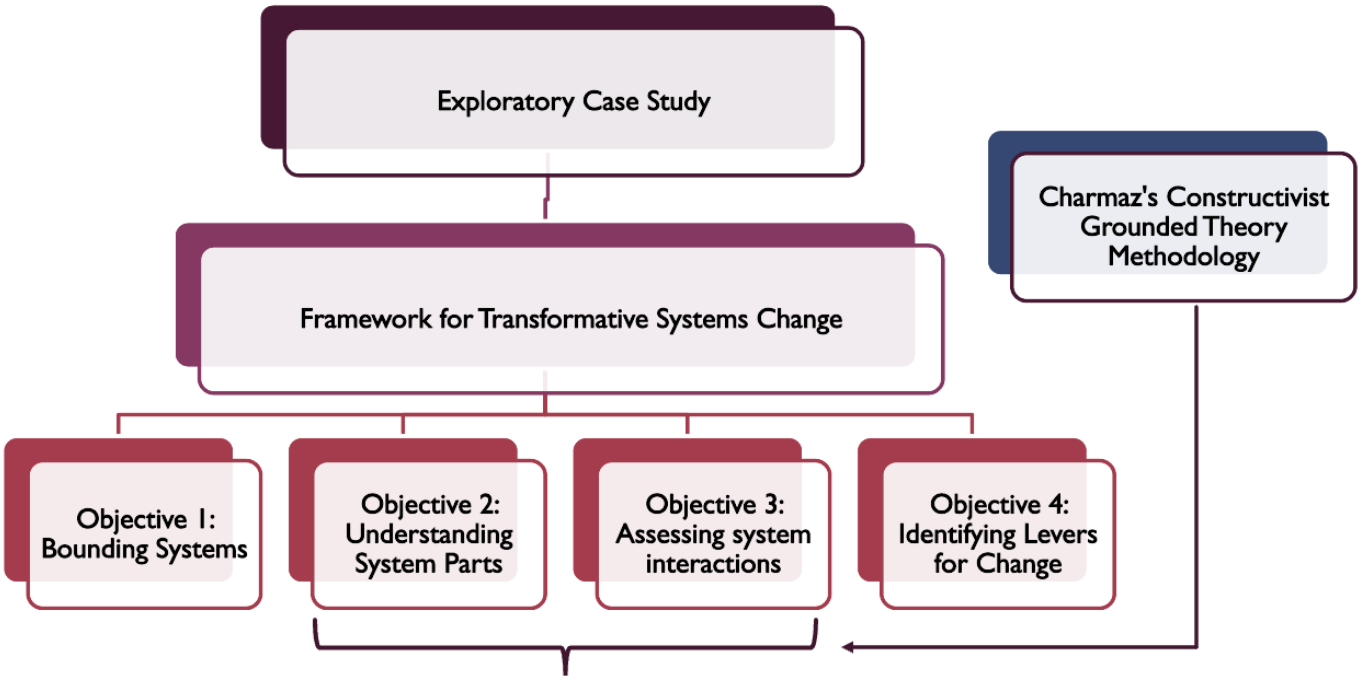
In my dissertation, I have approached case study as a research strategy or design to study social unit(s) as opposed to a methodology (29, 30). Units of analysis in case study research are wide-ranging and can comprise of an event, program, individual, family, community, organization, or even a system; they are explored in-depth and from multiple perspectives in their natural environment (31, 32). In this exploratory case study, the EYS and health systems are the primary units of analysis under study and are examined as a single case as I aim to understand their engagement in healthcare coordination for YEH. The framework for transformative systems change was used to guide the case study through the development of the four research objectives, each aligning with the four components of the framework. Grounded theory methodology is nested within the case study and was used to develop a theory in response to the overarching research question: "*How do the EYS system and health system engage to coordinate health services for YEH in Toronto, Canada?*" A flow chart illustrating the design of this exploratory case study can be found below in Figure 1.3.

1.7.2. Grounded theory methodology

Grounded theory is a methodology used to construct theory from data which is systematically obtained, and then analyzed using constant comparative analysis (33). This methodology was the most appropriate for the primary research question as little was known about engagement in healthcare coordination within or between the EYS and health systems in Toronto. More specifically, Kathy Charmaz's constructivist approach to grounded theory was determined to be the most fitting as primary data was collected from a range of interview participants to construct meaning in response to the research question. Meaning making was directly influenced by my role as a researcher, my interactions with the research participants, and my interpretation of the data analyzed. Constructivist grounded theory acknowledges that the theory constructed is dependent

upon the researcher's view and cannot occur or stand without it (34). The theory constructed in response to the primary research questions was then used to guide data analysis in response to objectives 2 and 3 of the case study, as shown below in Figure 1.3.

Figure 1.3. Flow chart depicting case study design



1.7.3. Methods: data collection and analysis overview

In my dissertation, I use both secondary data (i.e., through a collection of documents) and primary data (e.g., semi-structured, in-depth, key informant interviews) to meet the four objectives of this case study. The methods used to collect and analyze data for each objective are outlined in Table 1.1 and described below.

Table 1.1 Outline of Qualitative Methods for Case Study

Research Objectives	Methods	
	Data Collection	**Data Analysis**
1) Defining the boundaries that constitute the emergency youth shelter and health systems, by identifying: • System Levels: ecological layers relevant to target problem (i.e., poor healthcare coordination within and between systems). • System Niches: relevant programs and activities within system levels that promote behavior change or opportunities linked to the target problem. • System Organizations: local organizations relevant to the target problem or population. • System Actors: individuals that are vested in or affected by the target problem (e.g., YEH, frontline staff, healthcare providers at drop-in programs, etc.).	Documents (organizational websites, government websites, scholarly and grey literature, documents suggested by interview participants) In-depth interviews	Document analysis Constant comparative analysis
2) Understanding fundamental parts of the EYS and health systems including: • System norms: stakeholders' values, attitudes, and beliefs on healthcare provision and coordination for YEH. • System resources: the human, social, and economic resources and opportunities offered within each system. • System regulations: policies, practices, and procedures that exacerbate the issue of fragmented healthcare coordination between systems. • System operations: decisions that are critical to system functioning; information and resources deemed important to the system, who controls access; etc.	In-depth interviews	Constant comparative analysis to form grounded theory. Thematic analysis to understand fundamental system parts.
3) Assessing interactions within parts of the EYS system and between the EYS and health systems through: • Concurrently collecting and analyzing in-depth interview data to understand system inputs and recurring patterns in system behaviour. • Visualizing this data in the form of a CLD illustrating causal interactions and feedback loops within and between both systems**.**	In-depth interviews	Variable identification through open and focused codes. Theoretical coding to develop CLD.

4) Identifying system parts and interactions to leverage for change, through: • A quality review of the CLD with key stakeholders through a virtual forum to share study findings and co-create recommendations to strengthen healthcare coordination based on these findings.	Stakeholder forum breakout room discussions	Thematic analysis

<u>Objective 1</u>: Defining the boundaries that constitute the individual and collective roles of the EYS and health systems in coordinating healthcare for YEH.

Forty-six documents were selected and analyzed based on the 4-step READ approach: 1) Ready your materials, 2) Extract data, 3) Analyze data, and 4) Distil your findings. Documents were purposively selected and sequentially reviewed followed by snowball sampling to select other relevant documents. The search strategy for the document analysis can be found on page 62. Relevant information from each document was recorded in an excel spreadsheet, and include the following details: authors, purpose of document, summary, tones and points of view, system attributes (levels- niches- organizations- actors) discussed, and other important points noted. Spreadsheets detailing the total number of documents considered for inclusion in the document analysis, and those that were excluded can be found in Appendix A.

While concurrently and inductively analyzing in-depth interviews for the second component of the study – understanding fundamental system parts, I realized that there was important and relevant data that was not being captured from the documents, which were being mentioned by the diverse group of key informants that comprised the study sample (n=24). Many key informants spoke about their roles in providing and coordinating healthcare for YEH within either or both systems, including relationships they had with other organizations and/or actors within and across sectors. I then decided to apply constant comparative analysis across the

documents and in-depth interviews to conceptually illustrate the boundaries that comprise the EYS and health systems in their healthcare coordination roles, and how these elements interact.

<u>Objective 2:</u> Understanding fundamental parts of the EYS and health systems including system-based norms, resources, regulations, and operations involved in healthcare coordination within and between systems.

A total of 24 in-depth interviews were facilitated between May 2021- March 2022 with key informants involved at various levels of the EYS and health systems in Toronto, and YEH who navigated healthcare while residing at an EYS. The sampling frame and youth recruitment flyer can be found in Appendix B. Two separate interview guides were developed for youth and non-youth participants, which can be found in Appendix C. Interview questions were open-ended and focused on identifying and assessing healthcare coordination processes within and between the EYS and health systems in Toronto, and fundamental parts that influence these processes. All interview participants were sent an informed consent form (see Appendix D) by email, which they had the option of signing and sharing back by e-mail or providing verbal consent directly prior to their scheduled interview. Verbal consent was recorded using Otter.ai software.

In-depth interviews were facilitated until theoretical saturation was reached in responding to the primary research question: "*How do the EYS and health system engage to coordinate health services for YEH in Toronto, Canada?"* Findings in response to this question are presented as a process map depicting youths' pathways to healthcare within and between the EYS and health systems, which can be found in Chapter 4, on page 115. Three layers of coding were applied based on Charmaz's constructivist grounded theory methodology and included: open coding conducted sentence-by-sentence and segment-by-segment, which were then categorized into focused codes and theoretically integrated to create the process map. Data were constantly compared, and memos

were continuously documented to help develop the grounded theory describing engagement in healthcare coordination between systems. Reflexive thematic analysis was then used to inductively code transcripts and identify semantic themes that fell under the predetermined categories comprising the fundamental system parts and their sub-categories as described in Table 4.1. Grounded theory and thematic analyses were conducted using NVivo 12.0 software.

Objective 3: Assessing interactions within and between and the EYS and health systems in how they coordinate care for YEH through a CLD.

To understand the interactions and patterns of behaviour between various system parts, I revisited open and focused codes that emerged during the analyses conducted to construct the grounded theory in response to the primary research question. Open and focused codes were examined to identify key variables and causal links between them, in addition to any interaction delays. These were then integrated to form a CLD using Vensim PLE software. The CLD was reviewed, verified, and re-constructed based on feedback provided by a group of 6 stakeholders who participated in the first half of the 2-hour stakeholder forum, which was held online over Microsoft Teams.

Objective 4: Identifying system parts and interactions that can be targeted to improve healthcare coordination within and between the EYS and health systems.

Lastly, stakeholders participating in the 2-hour stakeholder forum were divided into three breakout rooms during the second half of the meeting to discuss levers for change in healthcare coordination for YEH. These discussions were based on stakeholders' understandings of gaps, challenges, and barriers that exist in efforts to coordinate healthcare within and between the EYS and health systems. Breakout room discussions were audio-recorded and transcribed using Otter.ai

software. The research team then thematically co-analyzed the discussion transcripts to identify levers for change based on the discussion questions asked. Co-analysis took place using Microsoft Word and Excel on SharePoint.

Additional details on the methods used for each of these objectives can be found in the methods sections of Chapters 3-6, respectively.

1.8. Ethical considerations and approvals

1.8.1. Ethical considerations

This research abides by the guidelines and core principles presented in the Tri-Council Policy Statement-2 ethical framework for conducting research with humans. They include: 1) *Respect for persons* by respecting their autonomy, 2) *Concern for welfare* by providing complete information about the risks and benefits of research participation, and 3) *Justice* by treating all participants equally with respect and concern throughout the research process.

Furthermore, the core principles of structuring safety for people who have experienced trauma were also applied when facilitating interviews with youth who had lived experience of homelessness. YEH face potential risks for psychological and emotional discomfort when reflecting and responding to interview questions pertaining to their individual health concerns, experiences navigating care for their health needs, and/or their interactions with frontline staff within either system. Principles for structuring safety include: 1) co-creating relationships of ‘enough safety’ by building rapport with youth before the interview and ensuring they know that they can stop participating at any time, even after providing informed consent; 2) negotiating permission with youth and in doing so having them know that they do not have to respond to anything that makes them feel discomfort; 3) hearing "no" through cues such as hesitations to

respond and stiff body language; 4) engaging collaboratively throughout the interview as it were a discussion with as little power imbalance as possible; and 5) declining intrusive curiosity by avoiding probing questions when discomfort may be indicated or observed (35, 36).

1.8.2. Ethical approvals

Ethical approval to conduct this research was obtained from the University of Ottawa Health Sciences and Sciences Research Ethics Board. The first ethics certificate was obtained to facilitate data collection through document analysis and in-depth interviews to fulfil objectives 1-3 of the case study (Phase 1) (File Number H-12-20-5771). The second ethics certificate was obtained to collect data during the stakeholder forum, fulfilling objective 4 of the case study (Phase 2) (File number H-06-23-9292). All research activities were conducted according to the ethics protocols submitted as part of the ethics applications. Ethics certificates can be found in Appendix E.

1.9. Reflexivity statement

1.9.1. Journey to the PhD

From April to September 2019, I had the privilege of working as a research coordinator at Eva's Initiatives for Homeless Youth – an organization serving as an umbrella agency for two EYSs (Eva's Place and Eva's Satellite) and one transitional youth shelter (Eva's Phoenix). In my role, I co-led a research project, "Journeys In and Out: Preventing Youth Homelessness" - a solutions lab funded through the Canada Mortgage and Housing Corporation (37). This project focused on employing trauma-informed and resiliency-based interview techniques through journey mapping with YEH, to understand how youth move into and out of homelessness and housing insecurity in large Canadian urban cities; and with this understanding, assess what interventions might prevent youth homelessness. As lead researcher for this project, I facilitated

in-depth interviews with 25 youth who were currently or had previously resided at one of the three Eva's shelters and analyzed this data alongside my research team. In my conversations with youth participants, I recognized a disturbing pattern in their journeys between the youth shelter and health systems, where youth were not getting the healthcare they needed and were continuously bouncing between systems, sometimes without any resolution to their health concerns. This sparked personal concern and curiosity, which prompted me to focus my dissertation on exploring engagement in healthcare coordination between these two critical systems.

1.9.2 Positionality

My positionality in this research comprises two main aspects: 1) my world views, which depend on my ontological and epistemological assumptions; and 2) the position I adopt in relation to this research (38, 39).

I recognize that multiple realities exist in the healthcare coordination experiences of YEH and those who serve them in shelter and healthcare settings, depending on their individual and unique social locations. In acknowledging this, I intentionally approached this research question using Charmaz's constructivist approach to grounded theory. Applying a constructivist mindset helped me construct meaningful reality in response to my research question, with the understanding that the participants I am interviewing each have their own social interactions, personal histories, and experiences that shape their worldview, inevitably influencing the theory I generate. Using this form of inquiry, my research is shaped from the "bottom up," through individual perspectives to broader patterns, ultimately leading to a broad understanding (40).

Throughout the data collection process, I consciously reflected on any thoughts and feelings that presented themselves, and how they might be affected by my positionality in relation to this research. For example, as a population health researcher with prior background in global

health research, I am an advocate for health equity, particularly for equity-deserving populations. My values for improving health equity and population health coincide with my belief that service providers mandated to serve the social and health needs of these population should share responsibility in what I assume are shared values. These values and beliefs position me to have certain thoughts and feelings when I am met with opposing views, which have the potential to affect the ways in which I interact with my data. My reflexivity practice through ongoing memo-writing during the data collection process helped bring awareness to these thoughts and feelings, which I consciously aimed to separate during data analysis and interpretation.

My positionality as a researcher within the study are explored by locating myself in relation to the participants I interviewed, and the research context and process. First, as a 30-year-old, educated, financially stable, Canadian-born and heterosexual female, who has never experienced homelessness or housing precarity, I acknowledge my identity as an outsider to this research – someone who will never be able to fully understand the social and health implications of youth homelessness; what YEH socially, physically, psychologically, and emotionally endure in their experiences of being homeless, and combatting poor access to healthcare and poor health outcomes. However, as a researcher with prior experience working with YEH in an EYS setting, I had also observed the challenges that YEH face first-hand in accessing and receiving coordinated healthcare, compelling me to explore this issue further using a transformative systems change lens. This experience positioned me as an insider by some youth and non-youth interview participants, who perceived me as someone who cared and was dedicated to doing this work, as well as someone who understood many of the challenges in healthcare coordination faced by YEH and EYS service providers. Further, my training in structuring safety for YEH helped me establish rapport and trust with youth beforehand, and ethically perform interviews with this marginalized, youth population.

1.9.3 Partnerships

As an independent researcher, I am not affiliated with any of the EYSs or health system organizations that were recruited to participate in this study. However, I did develop a partnership along the way with a young man I had interviewed, who we will refer to as Peter Masango. After an hour-long conversation, Peter expressed an interest in learning more about the findings of this research and being involved in the stakeholder forum. As a newcomer youth from Zimbabwe, Peter was faced with many adversities, including poor physical and mental health, unaffordable housing, challenges with navigating public systems in the foreign city of Toronto, and poorly coordinated care between the EYS he was residing at and the health system organizations from which he was seeking care. Given his own experiences and interactions with each of these systems, he was hopeful that this research would produce tangible findings that might make a difference in filling some of the gaps that exist in current healthcare coordination processes. Given his interest in this work, I invited him to co-facilitate the stakeholder forum with me alongside a colleague in the PhD program in Population Health, Dina Idriss-Wheeler. Peter continued to be a valuable member of the research team, supporting with co-analysis of stakeholder forum breakout room discussions. This section is included as part of this dissertation with Peter's permission and consent. A pseudonym has been used as per Peter's preference to maintain anonymity.

1.10. References

1. Gaetz S, O'Grady B, Kidd S, Schwan K. Without a home: the National Youth homelessness survey [Internet]. Canadian Observatory on Homelessness; 2016. Available from: http://proxy.library.carleton.ca/loginurl=https://www.deslibris.ca/ID/10065874

2. Gaetz S, Barr C, Friesen A, Harris B, Hill C, Kovacs-Burns K, et al. Canadian Definition of Homelessness. Canadian Observatory on Homelessness; 2012.

3. Hwang SW. Homelessness and health. CMAJ. 2001 Jan 23;164(2):229–33.

4. McDonald KM, Sundaram V, Bravata DM, Lewis R, Lin N, Kraft SA, et al. Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies (Vol. 7: Care Coordination) [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2007 [cited 2023 Jun 20]. (AHRQ Technical Reviews). Available from: http://www.ncbi.nlm.nih.gov/books/NBK44015/

5. Bynum JPW, Ross JS. A Measure of Care Coordination? J Gen Intern Med. 2013 Mar;28(3):336–8.

6. Kulik DM, Gaetz S, Crowe C, Ford-Jones E (Lee). Homeless youth's overwhelming health burden: A review of the literature. Paediatr Child Health. 2011 Jun 1;16(6):e43–7.

7. Hadland SE, Marshall BDL, Kerr T, Qi J, Montaner JS, Wood E. Suicide and history of childhood trauma among street youth. J Affect Disord. 2012 Feb 1;136(3):377–80.

8. Duke NN, Pettingell SL, McMorris BJ, Borowsky IW. Adolescent Violence Perpetration: Associations With Multiple Types of Adverse Childhood Experiences. Pediatrics. 2010 Apr 1;125(4):e778–86.

9. O'Grady B, Kidd S, Gaetz S. Youth homelessness and self-identity: a view from Canada. J Youth Stud. 2019 May 23;0(0):1–12.

10. Ballon BC, Courbasson CM, Psych C, Smith PD. Physical and Sexual Abuse Issues among Youths with Substance Use Problems. Can J Psychiatry. 2001 Sep 1;46(7):617–21.

11. Morris L, CK Fung K, Nisenbaum R, Weekes M, Barozzino T. Toronto Healthcare Services and Barriers to Access for Street-Involved Youth: Analysis of the Enhanced Street Youth Surveillance (E-SYS). SM Prev Med Public Health. 2017;1(2):1–5.

12. Edidin JP, Ganim Z, Hunter SJ, Karnik NS. The Mental and Physical Health of Homeless Youth: A Literature Review. Child Psychiatry Hum Dev. 2012 Jun 1;43(3):354–75.

13. Christiani A, Hudson AL, Nyamathi A, Mutere M, Sweat J. Attitudes of Homeless and Drug-Using Youth Regarding Barriers and Facilitators in Delivery of Quality and Culturally Sensitive Health Care. J Child Adolesc Psychiatr Nurs. 2008;21(3):154–63.

14. Hadland SE, Kerr T, Li K, Montaner JS, Wood E. Access to drug and alcohol treatment among a cohort of street-involved youth. Drug Alcohol Depend. 2009 Apr 1;101(1):1–7.

15. Hambrick RS, Rog DJ. The Pursuit of Coordination: The Organizational Dimension in the Response to Homelessness. Policy Stud J Urbana Ill. 2000 Jan 1;28(2):353–64.

16. City of Toronto. Street Needs Assessment 2021: Results Report [Internet]. 2021 p. 82. Available from: https://www.toronto.ca/legdocs/mmis/2021/ec/bgrd/backgroundfile-171729.pdf

17. Noble A, Owens B, Thulien N, Suleiman A. “I feel like I’m in a revolving door, and COVID has made it spin a lot faster”: The impact of the COVID-19 pandemic on youth experiencing homelessness in Toronto, Canada. PLOS ONE. 2022 Aug 22;17(8):e0273502.

18. Karabanow J. Open for business: exploring the life stages of two Canadian street youth shelters. J Sociol Soc Welf. 2002 Dec;29(4):99-.

19. Feldmann J, Middleman AB. Homeless adolescents: Common clinical concerns. Semin Pediatr Infect Dis. 2003 Jan 1;14(1):6–11.

20. Nicholas DB, Newton AS, Calhoun A, Dong K, deJong-Berg MA, Hamilton F, et al. The Experiences and Perceptions of Street-Involved Youth Regarding Emergency Department Services. Qual Health Res. 2016 May 1;26(6):851–62.

21. Barker B, Kerr T, Nguyen P, Wood E, DeBeck K. Barriers to health and social services for street-involved youth in a Canadian setting. J Public Health Policy. 2015;36(3):350–63.

22. Strike C, Vandermorris A, Rudzinski K, Mozygemba K, Wekerle C, Erickson PG. Emergency departments and street-involved youth: factors influencing utilization. J Soc Distress Homelessness. 2014 Mar 1;23(1):42–50.

23. Foster-Fishman PG, Nowell B, Yang H. Putting the system back into systems change: a framework for understanding and changing organizational and community systems. Am J Community Psychol. 2007 Jun 1;39(3):197–215.

24. Gulliver-Garcia T. The Homeless Hub. 2014 [cited 2019 Dec 3]. Which city in Canada has the most homeless people per capita and why? | The Homeless Hub. Available from: https://www.homelesshub.ca/blog/ask-hub-which-city-canada-has-most-homeless-people-capita-and-why

25. Gaetz S, Schwan K, Redman M, French D, Dej E. The Roadmap for the Prevention of Youth Homelessness [Internet]. Toronto, ON: Canadian Observatory on Homelessness; 2018 [cited 2019 Dec 3]. Available from: https://www.deslibris.ca/ID/10098937

26. Midgley G. Systemic Intervention. In: Midgley G, editor. Systemic Intervention: Philosophy, Methodology, and Practice [Internet]. Boston, MA: Springer US; 2000 [cited 2022 Apr 28]. p. 113–33. (Contemporary Systems Thinking). Available from: https://doi.org/10.1007/978-1-4615-4201-8_6

27. Kim DH. Introduction to Systems Thinking. Pegasus Commun. 1999;21.

28. Meadows D. Leverage points: Places to intervention in a system. [Internet]. The Sustainability Institute; 1999. Available from: http://drbalcom.pbworks.com/w/file/fetch/35173014/Leverage_Points.pdf

29. Yin, R. K. (2009). Case study research: Design and methods (Vol. 5). sage.

30. Priya, A. (2021). Case study methodology of qualitative research: Key attributes and navigating the conundrums in its application. *Sociological Bulletin, 70*(1), 94-110.

31. De Vaus, D. (2001). Research design in social research. SAGE Publications.

32. Simons, H. (2009). Case study research in practice. London: SAGE.

33. Chun Tie Y, Birks M, Francis K. Grounded theory research: A design framework for novice researchers. SAGE Open Med. 2019 Jan 2;7:2050312118822927.

34. Sebastian K. Distinguishing Between the Strains Grounded Theory: Classical, Interpretive and Constructivist. J Soc Thought [Internet]. 2019 Jul 10 [cited 2023 Sep 11];3(1). Available from: https://ojs.lib.uwo.ca/index.php/jst/article/view/4116

35. Reynolds V. Centering ethics in group supervision: fostering culture of critique and structuring safety. The international journal of narrative therapy and community work [Internet]. 2014;1. Available from: https://pdfs.semanticscholar.org/8add/58fbad71b80115e1418f6ae15009a03debbc.pdf

36. Richardson K, Reynolds V. Structuring safety in therapeutic work alongside Indigenous survivors of residential schools. The Canadian journal of Native Studies. 2014;34(2):147–64.

37. Canada Mortgage and Housing Corporation. Journeys In and Out: Preventing youth homelessness [Internet]. 2021 [cited 2023 Sep 8]. Available from: https://www.cmhc-schl.gc.ca/nhs/nhs-project-profiles/2018-nhs-projects/journeys-preventing-youth-homelessness

38. Foote MQ, Gau Bartell T. Pathways to equity in mathematics education: how life experiences impact researcher positionality. Educ Stud Math. 2011 Sep 1;78(1):45–68.

39. Savin-Baden M, Howell-Major C. Qualitative Research: The Essential Guide to Theory and Practice. Taylor & Francis; 2013. 798 p.

40. Denzin NK. Triangulation 2.0. J Mix Methods Res. 2012 Apr 1;6(2):80–8.

CHAPTER 2. LITERATURE REVIEW

In this chapter, I provide an overview of the challenges experienced by youth experiencing homelessness (YEH) in accessing, navigating, and receiving coordinated healthcare in Canada. I have divided this literature review into four sections to describe: 1) the health outcomes, healthcare patterns and access to healthcare for YEH, 2) how systems failure is a key factor contributing to youth homelessness and youths' poor health outcomes, 3) the evolution and structure of the siloed emergency youth shelter (EYS) and health systems in Canada, and how these play a role in poor healthcare coordination; and finally 4) the subtle difference between healthcare coordination and systems integration, and how both are necessary to improve access to healthcare for this marginalized youth population.

To conduct this literature review, I performed searches in PubMed using indexed MeSH terms, Google Scholar, key organization websites, and the Homeless Hub. Other relevant sources were identified through additional reading, including reference lists of select articles.

2.1. Health outcomes, healthcare patterns & healthcare access

2.1.1. Health outcomes commonly experienced by YEH

The adversity of experiencing homelessness exposes youth to a number of factors that lead to poor physical and mental health, including: inadequate nutrition, poor hygiene, inadequate sleep, high levels of stress, increased risk of injury, increased sexual activity with more partners, increased exposure to sexually transmitted infections, and greater exposure to a range of other communicable diseases (1–3). As a result, YEH have poorer health outcomes than the general youth population. For example, a significant proportion of YEH engage in high-risk sexual activity including "survival sex," which includes trading sex for money, food, and/or lodging (4).

Inevitably, engaging in survival sex puts youth at higher risk of acquiring sexually transmitted infections (STIs), blood-borne infections, and unplanned pregnancies (4,5). Without appropriate treatment, STIs can lead to: chronic pelvic infections, scarring, infertility, surgical emergencies, and early death (6).

Second, YEH are a transient population who suffer from precarious shelter (i.e., provisional shelter and emergency shelters), and sometimes unsheltered conditions (7). Many YEH who have lived in unsheltered conditions, particularly on the streets, may have experienced "street sickness," – a general malaise associated with persistent respiratory symptoms resulting from outdoor exposure, sleep deprivation, poor personal hygiene, food insecurity and poor nutrition (8). Street sickness results in reduced immunity, which can increase youths' likelihood of experiencing communicable diseases such as respiratory tract infections and viruses (9), and potentially chronic disease later in life.

Further, YEH face additional threats to their health and safety including environmental dangers of living on the streets, victimization by adults and peers, and various forms of discrimination such as racism, ageism and transphobia- all of which can severely compromise youths' physical and mental health (5,10). For instance, a significant number of YEH report experiencing a myriad of mental health concerns including: depression, anxiety, hostility, post-traumatic stress disorder, and paranoia, all of which can be exacerbated by traumatic life events such as being victims of physical and/or sexual abuse (11–13). Evidence shows that 60-70% of YEH report neglect, physical violence, and or sexual violence prior to becoming homeless (14,15).

Experiencing poor mental health and suffering from addictions are among the most prominent and complex of concerns amongst YEH in Canada, as the experience of being homeless is associated with deteriorating mental health, and mental health and addictions often lead to being

homeless (15,16). Youth who experience adversity prior to being homeless, such as being involved with child protection services, and being victims of physical or sexual abuse and/or neglect, are significantly more likely to experience poorer mental health, attempt suicide, have a poorer quality of life, and have negative psychological resilience[3] (15,16). From the sample of youth (n=1,375) who participated in the most recent national youth homelessness survey (2019), 74% of youth respondents fell in the 'high' symptom/distress category on the GAIN short screener mental health questionnaire, 35% reported attempting suicide at least once, and 33% reported at least one overdose requiring hospitalization (17). These findings align with the first national youth homelessness survey (2016) (n=1,103) (16,18), and other studies that show suicide and drug overdose to be leading causes of mortality among YEH in Canada. For example, a large cohort study in Montreal (n=1,013) found that the mortality rate of YEH was eleven times higher than youth who are stably housed, with suicide and drug overdose being the two leading causes of death (3). In addition to suffering from poorer health outcomes, YEH also experience significantly poorer access to health services than youth who are stably housed (19).

2.1.2. Healthcare seeking patterns observed among YEH

YEH often prioritize meeting their immediate needs for survival including the need for food, safety, and shelter (20). Given the complexities of maintaining survival, most YEH ascribe low priority to their health needs, and follow a pattern of crisis-oriented health seeking behaviour (5). For example, in a Toronto-based study (2014), nearly 30% of the YEH who were interviewed (n=150) visited an emergency department at least once over a 4-month period. There were three significant independent variables associated with emergency department utilization: 1) youth

[3] Psychological resilience refers to youths' ability to cope mentally and emotionally with crisis or trauma.

participants who reported a health-related activity limitation (e.g., being kept from working, going to school, etc.) were 3.53 times more likely to visit the emergency department; 2) those who rented an apartment or house whether alone or with others were 3.05 times more likely to visit the emergency; and 3) those who reported visiting a family doctor were 2.56 times more likely to seek emergency department services (21). The challenges associated with suffering from homelessness result in a fragmented and episodic pattern of healthcare use by youth, which is based on immediate need rather than health promotion or maintenance (9). Further, many YEH do not have a family doctor, and by default access emergency department services for both primary and emergency care (22). Studies suggest that YEH continue to access hospital emergency departments for primary healthcare even when other health services, including youth-oriented services, are available in the community (5).

However, another Canadian study (2017) surveying 195 street-involved youth across Toronto, found that nearly 50% of the recruited youth participants accessed healthcare at a youth drop-in centre, 18% visited a family doctor, 13% sought services from a nurse at a shelter or during street outreach, 12% visited the emergency department, and 6% went to a walk-in clinic (6). These statistics may be explained by the study's sampling strategy, where youth participants were recruited from drop-in centres, outreach work and mobile vans in the city, as opposed to recruitment through general agencies and organizations that support YEH. The authors presume that youth drop-in centres were the most popular among youth sampled in this study, as they offered additional services including meals, art therapy, employment supports, and ease of access to other resources. Further, drop-in health services specialized to serve the multi-faceted social needs of YEH are also presumed to provide a protective environment for youth where they avoid

stigma, which has historically been present within the traditional health system. Finally, over 50% of youth participants in this study also reported experiencing barriers to accessing healthcare (6).

2.1.3. Barriers to accessing healthcare amongst YEH

YEH experience significant financial, social, and emotional, environmental, and systemic barriers to accessing healthcare services. Evidence from several Canadian studies demonstrate that people experiencing homelessness including YEH, face the following barriers in accessing healthcare as indicated in Table 2.1 (6, 22–25).

Table 2.1. Barriers to accessing healthcare

Barriers	**Examples**
Financial	• Inability to pay for transportation to get to health centres or hospitals. • Inability to pay for prescribed medications.
Social and/or emotional	• Experience discriminatory or negative attitudes from health system service providers. • Experience stigma and shame for identifying as a person experiencing homelessness. • Possible language barriers experienced by newcomer youth.
Environmental	• Lack of healthcare facilities within youths' neighbourhoods or community (i.e., in rural and remote communities). • Built environment of hospitals are often unwelcoming, and may bring back traumatic memories of past, negative experiences.
Structural and systemic	• Not having a health card on hand • Not having an Ontario Health Insurance Plan as newcomer or refugee youth • Limited opportunities for accessing healthcare based on agencies' hours of operations. • Long wait times to receive primary, emergency, and/or specialized healthcare. • Health system failure to provide adequate mental health and substance abuse treatment. • Poor familiarity with how to access health resources within the complex system. • Poorly coordinated healthcare through fragmented system structure • Challenges with navigating health services • Restrictive rules and regulations for accessing health services (e.g., age restrictions).

Many of these barriers intercept and compound each other, leading YEH to have a distrust in, and negative relationships with, the health system. These barriers also prevent many YEH from seeking healthcare pre-emptively, therefore putting themselves at higher risk of experiencing health crises (27).

2.2. Causes of Youth Homelessness

Youth homelessness results from a complex and intricate interplay between 1) structural factors, 2) systems failures, and 3) individual and relational factors (28).

Structural factors consist of social, economic, and systemic issues that put youth at risk of experiencing homelessness, such as living in poverty, being victims of violence, having inadequate access to quality education, being under- or unemployed, and being unable to afford housing. Further, experiencing systemic discrimination including homophobia, transphobia, and/or racism, compound these social and economic factors, and are often core experiences of homeless populations contributing to homelessness. For example, youth who identify as racialized, Indigenous, or LGBTQ2S+ are at greater risk of experiencing homelessness due to their increased likelihood of being exposed to these structural factors (28,29). In the Canadian youth homelessness survey (2019), 27.5% of sampled youth identified as racialized, 31.7% identified as Indigenous, and 33.9% identified as LGBTQ2S+ (17).

Systems failures refer to inadequate public policy and/or service delivery that put youth at risk of being homeless. For instance, many youth slip through the cracks of institutions and the systems they interact with including the health, juvenile justice, and child welfare systems - especially when facing crises and/or transitioning between systems. Most of the systems that youth interact with operate in silos and have poor inter-systemic transparency and poor communication. This exacerbates the challenges that youth, their families, and other populations experiencing

homelessness face in connecting with external social supports and services for their needs. Furthermore, when YEH are discharged from public systems without adequate planning and ongoing supports, they face an increased risk of continuing in the vicious cycle of homelessness (30,31). Moreover, individual and relational factors such as experiencing chronic illness or domestic violence also profoundly impact youths' lives and can put them at risk of experiencing homelessness (14).

In this dissertation, I focus on systems failures, primarily by delving into the healthcare coordination gaps and challenges experienced within and between two key systems that YEH interact with: the EYS and health systems. In the following section, I discuss the evolution and structure of both these systems to provide context on how each system operates in serving YEH, and the broader Canadian population, respectively.

2.3. Evolution of system structures & services

The EYS and health systems operate in silos. Each system is financed and governed by different levels of government, with the health system being fragmented even further by independent governance across the system. This section provides background on the evolution and structure of each system. Each system's role in coordinating healthcare, specifically for YEH, is further assessed and described in Chapter 3.

2.3.1 Shelters services in Toronto: emergency youth shelters

Emergency and transitional shelters in Toronto are partially funded and operated by The City of Toronto. These two categories of shelters are further sub-categorized into five client groups including adult men, adult women, adult co-ed, youth, and family. Emergency shelters are mandated by the city to serve individuals and families experiencing homelessness without referral. These individuals and families are then referred to transitional shelters through either an

emergency shelter, central intake, Street to Homes Assessment and Referral Centre, or other agencies. Duration of stay at transitional shelters are typically longer than emergency shelters, as these services focus on enabling clients to address their housing and other service needs (32). As EYSs are often the first stop for YEH, we chose to explore healthcare coordination between the EYS system and health system for this marginalized youth population. Currently, there are eleven EYSs serving YEH in the inner-city and inner-suburban regions of Toronto (33).

Over the past few decades, stakeholders have recognized that many YEH face significant barriers to escaping the vicious cycle of homelessness. Some of these barriers include the absence of strong and positive social support systems (e.g., adult role models); a lack of essential life skills such as cooking and financial literacy; unemployment; and complex health concerns due to reasons including histories of abuse, trauma, and intergenerational poverty. Accordingly, the Canadian youth shelter system has evolved to provide supports that aid youth in meeting their immediate needs such as food and shelter, but also addressing many of the broader social determinants of health that may help transition them out of homelessness – many of these are now integrated into the EYS system in Toronto. Some of these transitional supports include support with finding affordable housing, skills development through employment training, educational programs, and life skills programs once youths' more urgent needs are met (34). Moreover, all EYSs in Toronto provide some on-site healthcare through the Inner-City Health Associates (ICHA); a small group of healthcare providers established in 2005. ICHA now consists of over 200 physicians and nurses offering specialized services to people living on the streets, in shelters, encampments, drop-in sites, and other precarious housing across Toronto (35). For example, Eva's Place provides on-site drop-in counseling and medical check-ups on a weekly basis through ICHA healthcare providers, to help meet youths' various mental, physical, and sexual health needs (36).

2.3.2. Health system evolution and structure

2.3.2.1. A brief history of Medicare

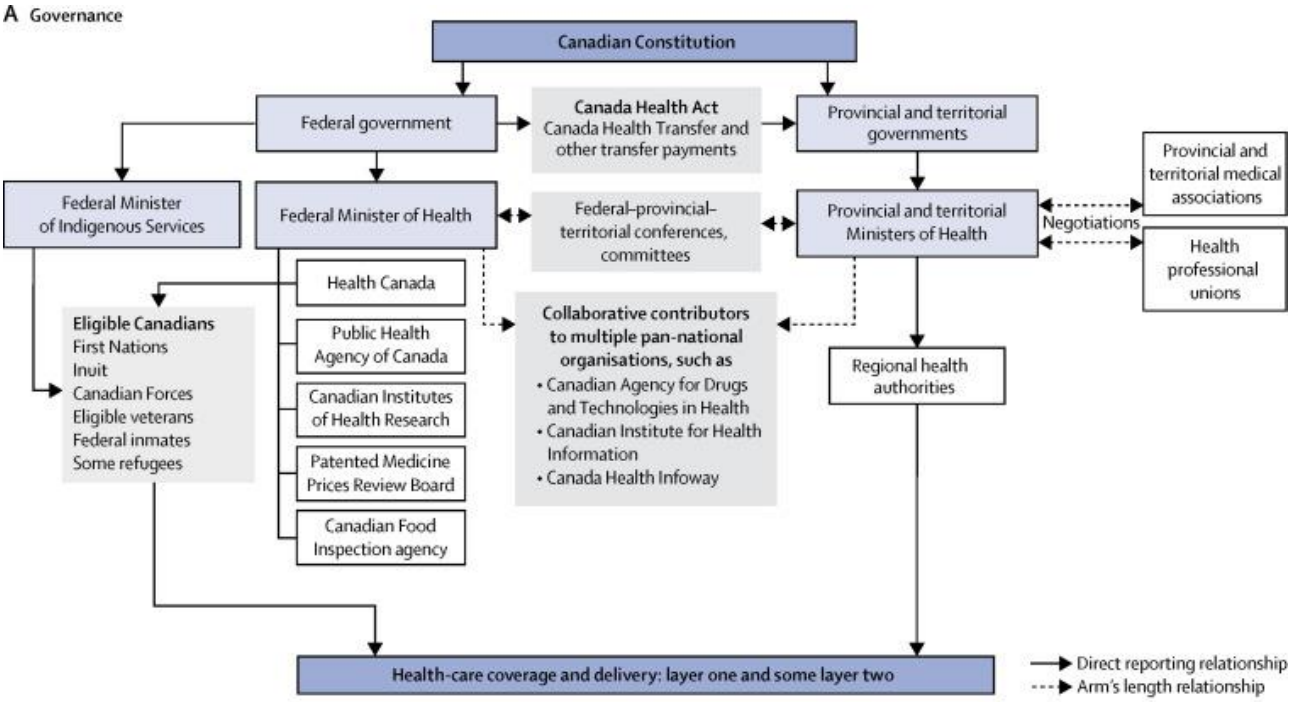
The Canadian government employs a decentralized, universal, and publicly funded healthcare system known as Medicare. Medicare was first introduced in Saskatchewan in the early-mid 1900's, making it the first jurisdiction to employ universal public health insurance in Canada. In 1947, this insurance only covered hospital care before expanding to cover any physician-serviced medical care by 1962 (37). The federal government later adopted this universal approach to healthcare across the country. In 1966, the Medical Care Insurance Act was passed in parliament, legislating federal support of provincial Medicare plans. The federal liberals then introduced Established Programs financing in 1977 to provide block funding transfers to the provinces and territories, thereby further lessening federal involvement in healthcare provision (37). Finally, the Canada Health Act was passed in parliament in 1984, outlining the terms and conditions to which all provincial and territorial plans must adhere to access federal funding for healthcare; these include portability, universality, accessibility, comprehensiveness, and public administration (38). Overall, Medicare is known to provide relatively equitable access to physician and hospital services through the 13 provincial and territorial tax-funded public insurance plans in Canada (39). However, systemic inequities in accessing healthcare still exist for some populations including those experiencing homelessness (18).

2.3.2.2. Three layers of healthcare financing

The financing of health services in Canada involves three layers, which are illustrated in Figure 2.1 (37). The first layer comprises public services that are covered through Medicare, and include hospital, diagnostic, and physician services. These services are financed through tax revenues and are provided free at the point of service, as required by the Canada Health Act. This

layer is intended to provide equitable access to physician services and hospital care for Canadians. The second layer comprises of services that are covered through a combination of public and private insurance coverage and out-of-pocket payments. These include provision of outpatient prescription drugs, home care, and institutional long-term care (37). Each province and territory have a diverse mix of public programs, as there is no national framework outlining regulations for this. For example, in Ontario, all seniors above the age of 65 have public prescription drug coverage – whereas, in British Columbia drug coverage is income tested (40). The third layer of health services are financed almost entirely privately, and include dental care, vision care, and outpatient physiotherapy (38).

Figure 2.1. Health financing layers



B Coverage

	Services	Funding	Administration	Delivery
Layer one Public services (Medicare): all public funding	Hospitals Physicians Diagnostics	Public taxation	Universal single-payer systems Private self-regulating professions	Private professional for-profit and not-for-profit facilities, and public arm's length facilities
Layer two Mixed services: combination of public and private funding	Prescription drugs Home care Long-term care Mental health care	Public taxation Private insurance Out-of-pocket payments	Public coverage is targeted Public regulation of private services	Private professional for-profit and not-for-profit facilities, and public arm's length facilities
Layer three Private services: almost all private funding	Dental care Vision care Complementary medicine Outpatient physiotherapy	Primarily private insurance, out-of-pocket payments, with some public taxation	Private ownership Private professions Limited public regulation	Private professional for-profit facilities

Figure retrieved from: Martin D, Miller AP, Quesnel-Vallée A, Caron NR, Vissandjée B, Marchildon GP. Canada's universal health-care system: achieving its potential. Lancet Lond Engl. 2018;391(10131):1718–35.

Approximately 65% of Canadians have access to private, supplemental insurance through their employers or academic institutions, and about 11% of the population have access to supplemental services through government-sponsored insurance plans (41). These cover some or all the costs of layer 2 and 3 health services. However, about 25-30% of Canadians, many of whom are low-income, do not have supplemental insurance and must pay out-of-pocket for these services

(41). As this affects a significant proportion of the population, there have been concerns about equity in access to health services, which have fueled calls for public coverage spanning a wider range of services than those offered in layer 1 (37).

2.3.2.3. Decentralization of health service delivery

Medicare is a highly decentralized in its financing for health service delivery. Physicians are most commonly independent contractors who bill public insurance plans on a fee-for-service or other basis (42). Despite following federal and provincial regulations, very few accountability relationships exist between physicians, health authorities, hospitals, and/or government (37). Fragmentation within the health system is further evident in that hospitals, health authorities, and other health organizations have their own independent boards and budgets. Therefore, decision-making about health services are made independently by respective leaders within the different institutions, agencies and organizations that comprise the Canadian health system (38). In understanding the need for a more connected and coordinated healthcare system, the Ministry of Health launched Ontario Health Teams (OHTs) in 2019 (43). Under OHTs, healthcare providers across various health, social and community agencies and organizations, come together alongside patients and caregivers to deliver coordinated and integrated healthcare for designated populations in their region. Additionally, they operate from a single accountability framework, share an integrated funding envelope, and evaluate quadruple aim-linked outcomes (44). Currently, there are 57 OHTs that have been approved across Ontario, and 8 of these are in Toronto (43).

2.4. Healthcare coordination versus systems integration

In the organizational response to homelessness, systems integration has been used synonymously with coordination, cooperation, collaboration, and consolidation, and is a predominant theme across various levels of government and homeless-serving agencies (45).

However, in conducting this research, I have learnt that while there is significant overlap between healthcare coordination and systems integration, there are also subtle, but concrete differences. In this section, I aim to shed light on these differences, and discuss the relevance and need for both.

2.4.1. What is healthcare coordination and what does it entail?

Healthcare coordination is a complex concept that has a wide variety of definitions in the scholarly literature. Accordingly, the Agency for Healthcare Research and Quality commissioned a review of interventions in healthcare coordination (n=57), to settle on a comprehensive definition of the term and what it entails (46). A working definition of healthcare coordination evolved from the review. It is defined as:

> "*The deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of healthcare services. Organizing care involves the marshalling of personnel and other resources needed to carry out all the required patient care activities and is often managed by the exchange of information among participants for different aspects of care.* (p.41)"

This definition is guided by five core elements in healthcare coordination, which are described below (46):

1. **Participants**: Healthcare coordination typically involves many participants within various pathways to care. The number of participants involved vary by clinical, system, and individual circumstances, and usually increase with care complexity. At a minimum, healthcare coordination involves the patient and their physician, but can also expand to involve the patient's family, and other healthcare and/or service providers.
2. **Interdependence**: Healthcare coordination is necessary when participants are dependent on each other to carry out disparate activities for a patient's care. Each participant provides

specialized knowledge, skills, and services; therefore, it is necessary to integrate these specialized contributions and relationships into a comprehensive, coherent, and continuous response to patients' unique healthcare needs.

3. **Roles and resources**: Each participant should have sufficient knowledge about their own and others' roles in coordinating their care, and the resources that are available to them to carry out healthcare coordination tasks and activities. This knowledge is expected to help fill gaps in pathways to coordinating care.
4. **Information exchange**: Healthcare coordination heavily depends on information exchange regarding the patient's clinical, social, and/or other healthcare needs. This information underpins the understanding of participants' roles, responsibilities, and next steps to facilitate continuity of care.
5. **Articulation of a goal**: The goal or purpose of integrating healthcare activities across participants is to facilitate appropriate, and timely access to health services. Challenges with coordination arise when healthcare spans boundaries in service providers' professions, location, and time.

Coordination and continuity of healthcare often go hand in hand and are vital for the delivery and uptake of primary healthcare by populations who have complex social and health needs, such as YEH. In the literature, healthcare coordination is most effective when using a people-centered approach, with the aim of supporting patients and/or clients in receiving the healthcare they need and prefer to have, in a timely manner (47).

2.4.2 How does systems integration fit into healthcare coordination?

Healthcare coordination can be conceptually organized to involve three primary levels: 1) the individual level between service users and service providers, 2) organizational level between

service providers, and 3) systems level, which include both intra- and inter-sectoral coordination between organizations and sectors, respectively (46). At the individual and organizational levels, healthcare coordination tends to more informational and relationship-based – this means that there is emphasis on communication including information-sharing between service providers, and on relationship-building both with patients and other service providers. At the systems-level, healthcare coordination requires planning and management of health services to be appropriately integrated within systems (health services integration) or between systems (systems integration) - usually through the establishment of interdisciplinary or interprofessional teams (46).

Moreover, systems integration can entail centralized management and funding for YEH's access to coordinated health services. At a service level, systems integration can involve the *"coordinated delivery of individual services within and/or across different sectors"* vertically within different agencies, and/or horizontally between different agencies (48). The goal of healthcare coordination and systems integration are similar; to move from fragmented service delivery by autonomous agencies, towards coordinated, or completely integrated services which are consolidated under one lead organization's leadership. OHTs are one example of efforts to improve both healthcare coordination and systems integration for various populations across the province (44). To my knowledge, there is no evidence on how homeless populations including YEH have been better supported through OHTs in Toronto, or more broadly in Ontario.

Health services integration within the EYS system, and systems integration of the EYS and health systems are both critical components required to strengthen healthcare coordination for YEH, and thereby help improve their health outcomes. While most studies explore healthcare coordination solely within the large and complex health system, it is important to explore healthcare coordination between systems, including systems integration initiatives, especially for

marginalized populations who have historically experienced systemic barriers in accessing healthcare within the traditional health system.

2.4.3. The need for healthcare coordination and systems integration

Systems coordination among homeless-serving sectors are a critical concern as services are greatly fragmented and individuals' capacities to navigate these services are generally weak (44). Most services that homeless populations including YEH need to access, have developed segmentally and in parallel. For example, addiction support, sexual health services, and mental healthcare are separate services, each of which have separate funding streams, different regulations, and usually separate locations (45). Given the diversity of organizations involved in the homelessness problem and the government's historic reluctance to exercise leadership, there is little ownership of the homelessness problem as a whole (45).

Several community-based organizations that serve YEH in Toronto including EYSs, are widely dispersed, but highly motivated to do their best for their clients - this often involves engaging in collaborative work (49). However, significant gaps and barriers exist in collaborative provision of care, including healthcare, for this population. For instance, a 22-year-old young woman who participated in the national youth homelessness survey (2016) shares:

> *"I've been in and out of hospitals a lot. Mostly though, I have spent the past seven months living in five different youth shelters. I keep getting discharged because when I have mental health episodes, I hurt myself. Also, at every shelter the housing workers there either refused to help me find independent housing because they said I'm 'unstable' or more recently a worker cancelled my housing on me after I'd paid first and last month rent. This went against what my psychiatrist wanted."* (p.67)

This issue is among one of many, where YEH are left with uncoordinated or poorly coordinated care by service providers from different youth homelessness-serving sectors. This makes it ultra-challenging for youth to improve their health outcomes and escape the vicious cycle of homelessness.

According to Nichols (2016), an integrated response to youth homelessness requires: conceptual integration where service systems have common terms of reference, goals and frameworks for action; administrative legislation through policies and procedures for inter-organizational data collection, accounting, and communication as well as methods for distributing leadership and accountability within and across sectors; and lastly the dissolution of traditional sectoral and organizational territories (30). Currently, there are significant obstacles preventing the pioneering of constructive partnerships between the shelter and health systems in Toronto. These include: developing coordinated relationships between the EYS, community health and hospital sectors; designing appropriate governance and accountability systems for OHTs that balance the goals of both community agencies and hospitals; balancing power; balancing budgets; and designing adequate performance and accountability mechanisms and measures (49).

2.5. Conclusion

YEH face many structural, systemic, and individual barriers to accessing and navigating healthcare within the complex, and traditionally fragmented and siloed health system in Toronto. The aim of exploring youths' pathways to healthcare within and between the EYS and health systems as coordinated by or with service providers from either system, is to pinpoint gaps that can be targeted to strengthen healthcare coordination (including systems integration), across various levels of each and/or both systems. This research is hoped to inform stakeholders such as government officials and system-level executives across systems, about how best to adapt sectoral

programs and policies to strengthen healthcare coordination for YEH, and in doing so prevent them from continuing in the vicious cycle of homelessness and unresolved poor health. In the subsequent chapter, I define the boundaries of each system to understand their individual and collective roles in coordinating healthcare for YEH in Toronto.

2.6. References

1. Boivin JF, Roy É, Haley N, du Fort GG. The Health of Street Youth: A Canadian Perspective. Can J Public Health. 2005 Nov 1;96(6):432–7.

2. Gaetz S, O'Grady B, Buccieri K. Surviving Crime and Violence: Street Youth and Victimization in Toronto. Toronto, ON: JFCY and Homeless Hub; 2010 p. 97.

3. Roy É, Haley N, Leclerc P, Sochanski B, Boudreau JF, Boivin JF. Mortality in a Cohort of Street Youth in Montreal. JAMA. 2004 Aug 4;292(5):569–74.

4. Chettiar J, Shannon K, Wood E, Zhang R, Kerr T. Survival sex work involvement among street-involved youth who use drugs in a Canadian setting. J Public Health. 2010 Sep 1;32(3):322–7.

5. Nicholas DB, Newton AS, Calhoun A, Dong K, deJong-Berg MA, Hamilton F, et al. The Experiences and Perceptions of Street-Involved Youth Regarding Emergency Department Services. Qual Health Res. 2016 May 1;26(6):851–62.

6. Morris L, CK Fung K, Nisenbaum R, Weekes M, Barozzino T. Toronto Healthcare Services and Barriers to Access for Street-Involved Youth: Analysis of the Enhanced Street Youth Surveillance (E-SYS). SM Prev Med Public Health. 2017;1(2):1–5.

7. Hwang SW. Homelessness and health. CMAJ. 2001 Jan 23;164(2):229–33.

8. Kulik DM, Gaetz S, Crowe C, Ford-Jones E (Lee). Homeless youth's overwhelming health burden: A review of the literature. Paediatr Child Health. 2011 Jun 1;16(6):e43–7.

9. Higgitt N, Wingert S, Ristock J. Voices from the Margins: Experiences of Street-Involved Youth In Winnipeg. Winninpeg Inn City Res Alliance. 2003;103.

10. Abramovich A. Preventing, Reducing and Ending LGBTQ2S Youth Homelessness: The Need for Targeted Strategies. Soc Incl. 2016 Oct 20;4(4):86–96.

11. Kulik DM, Gaetz S, Rn CC. Homeless youth's overwhelming health burden: A review of the literature. 2011;16(6):5.

12. Hadland SE, Marshall BDL, Kerr T, Qi J, Montaner JS, Wood E. Suicide and history of childhood trauma among street youth. J Affect Disord. 2012 Feb 1;136(3):377–80.

13. Duke NN, Pettingell SL, McMorris BJ, Borowsky IW. Adolescent Violence Perpetration: Associations With Multiple Types of Adverse Childhood Experiences. Pediatrics. 2010 Apr 1;125(4):e778–86.

14. Ballon BC, Courbasson CM, Psych C, Smith PD. Physical and Sexual Abuse Issues among Youths with Substance Use Problems. Can J Psychiatry. 2001 Sep 1;46(7):617–21.

15. Milaney K, Williams N, Dutton D. Falling Through the Cracks: How the Community-Based Approach Has Failed Calgary's Chronically Homeless [Internet]. Rochester, NY: Social Science Research Network; 2018 Feb. Report No.: ID 3140651. Available from: http://papers.ssrn.com/abstract=3140651

16. Kidd S, Gaetz S, O'Grady B. The 2015 National Canadian Homeless Youth Survey: Mental Health and Addiction Findings. Can J Psychiatry. 2017 Jul 1;62(7):493–500.

17. Kidd S, Gaetz S, O'Grady B, Schwan K, Zhao H, Lopes K, et al. The Second National Canadian Homeless Youth Survey: Mental Health and Addiction Findings: La Deuxième Enquête Nationale Auprès des Jeunes Sans Abri : Résultats en Matière De Santé Mentale et de Toxicomanie. Can J Psychiatry. 2021 Oct 1;66(10):897–905.

18. Gaetz S, O'Grady B, Kidd S, Schwan K. Without a home: the National Youth homelessness survey [Internet]. Canadian Observatory on Homelessness; 2016. Available from: http://proxy.library.carleton.ca/loginurl=https://www.deslibris.ca/ID/10065874

19. Frankish J, Hwang D, Quantz. Finding Home: Policy Options for Addressing Homelessness in Canada. Chapter 2.1: The Relationship between Homelessness and Health: An overview of research in Canada. [Internet]. Toronto, Ont.: Cities Centre Press, Univrsity of Toronto; 2009. Available from: http://www.deslibris.ca/ID/223332

20. Feldmann J, Middleman AB. Homeless adolescents: Common clinical concerns. Semin Pediatr Infect Dis. 2003 Jan 1;14(1):6–11.

21. Strike C, Vandermorris A, Rudzinski K, Mozygemba K, Wekerle C, Erickson PG. Emergency departments and street-involved youth: factors influencing utilization. J Soc Distress Homelessness. 2014 Mar 1;23(1):42–50.

22. Deisher RW, Rogers WM. The medical care of street youth. J Adolesc Health Off Publ Soc Adolesc Med. 1991 Nov;12(7):500–3.

23. Edidin JP, Ganim Z, Hunter SJ, Karnik NS. The Mental and Physical Health of Homeless Youth: A Literature Review. Child Psychiatry Hum Dev. 2012 Jun 1;43(3):354–75.

24. Christiani A, Hudson AL, Nyamathi A, Mutere M, Sweat J. Attitudes of Homeless and Drug-Using Youth Regarding Barriers and Facilitators in Delivery of Quality and Culturally Sensitive Health Care. J Child Adolesc Psychiatr Nurs. 2008;21(3):154–63.

25. Hadland SE, Kerr T, Li K, Montaner JS, Wood E. Access to drug and alcohol treatment among a cohort of street-involved youth. Drug Alcohol Depend. 2009 Apr 1;101(1):1–7.

26. Barker B, Kerr T, Nguyen P, Wood E, DeBeck K. Barriers to health and social services for street-involved youth in a Canadian setting. J Public Health Policy. 2015;36(3):350–63.

27. Haldenby AM, Berman H, Forchuk C. Homelessness and Health in Adolescents. Qual Health Res. 2007 Nov;17(9):1232–44.

28. Gaetz S, Schwan K, Redman M, French D, Dej E. The Roadmap for the Prevention of Youth Homelessness [Internet]. Toronto, ON: Canadian Observatory on Homelessness; 2018. Available from: https://www.deslibris.ca/ID/10098937

29. Gaetz S, Dej E. A New Direction: A Framework for Homelessness Prevention. Toronto: Canadian Observatory on Homelessness Press; 2017 p. 95.

30. Nichols N, Doberstein C. Exploring Effective Systems Responses to Homelessness [Internet]. 2016. Available from: http://www.deslibris.ca/ID/10090776

31. Nichols NE. Gimme shelter! Investigating the social service interface from the standpoint of youth. J Youth Stud. 2008 Dec 1;11(6):685–99.

32. Shelter, Support & Housing Administration C of T. Toronto Shelter Standards (Version 4) [Internet]. 2015. Available from: https://www.toronto.ca/community-people/community-partners/emergency-shelter-operators/toronto-shelter-standards/

33. 211 Central. 211 Central. 2022 [cited 2023 Oct 1]. Youth - Shelters for youth | Toronto. Available from: https://211central.ca/results/?searchLocation=Toronto&topicPath=581&latitude=43.653226&longitude=-79.383184

34. Karabanow J. Open for business: exploring the life stages of two Canadian street youth shelters. J Sociol Soc Welf. 2002 Dec;29(4):99-.

35. Inner City Health Associates. About ICHA. 2022. Inner City Health Associates. Available from: https://www.icha-toronto.ca/#

36. Eva's Initiatives for Homeless Youth. Eva's. 2020. Eva's Place. Available from: https://www.evas.ca/where-we-are/evas-place/

37. Martin D, Miller AP, Quesnel-Vallée A, Caron NR, Vissandjée B, Marchildon GP. Canada's universal health-care system: achieving its potential. Lancet Lond Engl. 2018;391(10131):1718–35.

38. Government of Canada. Canada Health Act [Internet]. 2023. Available from: https://laws-lois.justice.gc.ca/eng/acts/C-6/

39. Allin S. Does Equity in Healthcare Use Vary across Canadian Provinces? Healthc Policy. 2008 May;3(4):83–99.

40. Canadian Institute for Health Information. Prescribed Drug Spending in Canada, 2016: A Focus on Public Drug Programs. Ottawa, ON: CIHI; 2016.

41. Allin S, Hurley J. Inequity in publicly funded physician care: what is the role of private prescription drug insurance? Health Econ. 2009;18(10):1218–32.

42. Allin S, Marchildon GP, Pekham A. The Commonwealth Fund. 2020 [cited 2023 Oct 1]. International Health Care System Profiles: Canada. Available from: https://www.commonwealthfund.org/international-health-policy-center/countries/canada

43. Ministry of Health. Ontario Health Teams | ontario.ca [Internet]. 2023 [cited 2023 Oct 8]. Available from: http://www.ontario.ca/page/ontario-health-teams

44. Embuldeniya G, Gutberg J, Sibbald SS, Wodchis WP. The beginnings of health system transformation: How Ontario Health Teams are implementing change in the context of uncertainty. Health Policy. 2021 Dec 1;125(12):1543–9.

45. Hambrick RS, Rog DJ. The Pursuit of Coordination: The Organizational Dimension in the Response to Homelessness. Policy Stud J Urbana Ill. 2000 Jan 1;28(2):353–64.

46. Schultz E, Mcdonald K. What is care coordination? Int J Care Coord. 2014 Jun 1;17:5–24.

47. Khatri R, Endalamaw A, Erku D, Wolka E, Nigatu F, Zewdie A, et al. Continuity and care coordination of primary health care: a scoping review. BMC Health Serv Res. 2023 Jul 13;23(1):750.

48. Turner A. Beyond Housing First: Essential Elemetns of a System-Planning Approach to Ending Homelessness. Univ Calg. 2014;7(30):25.

49. Bond AJ. Essays. 2019. A Cure for Chaos? Ontario's Health System Transformation from Street Level. Available from: https://www.longwoods.com/content/25820/a-cure-for-chaos-ontario-s-health-system-transformation-from-street-level

CHAPTER 3. ARTCLE 1: Bounding systems: A qualitative study exploring healthcare coordination between the emergency youth shelter system and health system in Toronto, Canada

Publication status: this article was accepted for publication in PLoS ONE on April 30th, 2024.

Authors: Alzahra Hudani[1], Kaitlin Schwan[2], Ronald Labonté[3] & Sanni Yaya[4]

Affiliations:

[1] Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, Ontario, Canada

[2] Women's National Housing and Homelessness Network, Toronto, Ontario, Canada

[3] School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada

[4] International Development and Global Studies, University of Ottawa, Ottawa, Ontario, Canada

3.1. Abstract

Background: Several youth staying at emergency youth shelters (EYSs) in Toronto experience poorly coordinated care for their health needs, as both the EYS and health systems operate largely in silos when coordinating care for this population. Understanding how each system is structurally and functionally bound in their healthcare coordination roles for youth experiencing homelessness (YEH) is a preliminary step to identify how healthcare coordination can be strengthened using a system thinking lens, particularly through the framework for transformative system change.

Methods: Forty-six documents, and twenty-four semi-structured interviews were analyzed to explore how the EYS and health systems are bound in their healthcare coordination roles. We continuously compared data collected from documents and interviews using constant comparative analysis to build a comprehensive understanding of each system's layers, and the niches (i.e., programs and activities), organizations and actors within these layers that contribute to the provision and coordination of healthcare for YEH, within and between these two systems.

Results: The EYS and health systems are governed by different ministries, have separate mandates, and therefore have distinct layers, niches, and organizations respective to coordinating healthcare for YEH. While neither system takes sole responsibility for this task, several government, research, and community-based efforts exist to strengthen healthcare coordination for this population, with some overlap between systems. Several organizations and actors within each system are collaborating to develop relevant frameworks, policies, and programs to strengthen healthcare coordination for YEH. Findings indicate that EYS staff play a more active role in coordinating care for YEH than health system staff.

Conclusion: A vast network of organizations and actors within each system layer, work both in silos and collaboratively to coordinate health services for YEH. Efforts are being made to bridge the gap between systems to improve healthcare coordination, and thereby youths' health outcomes.

Key Words: youth homelessness, health system, systems thinking, emergency youth shelter system, boundaries, levels, niches, organizations, actors, healthcare coordination

3.2. Background

Approximately 6, 000 – 7, 000 youth between the ages of 13-24 experience homelessness in Canada on any given night (1). The adversity of suffering from homelessness exposes youth to a multitude of physical, emotional, and mental health concerns. First, youth experiencing homelessness (YEH) are exposed to inadequate nutrition and sleep, high levels of stress, poor hygiene, increased risk of injury, greater exposure to sexually transmitted infections due to increased sexual activity with more partners, and greater exposure to a range of other infectious diseases; all of which lead to poor overall health (2–4). A few North American studies have shown that YEH are 6 to 12 times more likely to suffer from HIV and are more likely to contract Chlamydia than stably housed youth (5,6). Other studies have shown that respiratory disease is more prevalent among YEH, which may be associated with residence in crowded areas including emergency youth shelters (EYSs) (7,8). Second, most YEH face a myriad of mental health concerns such as depression, anxiety, post-traumatic stress disorder, and paranoia (9). Poor mental health is one of the most prominent and complex concerns among Canadian YEH, as the experience of being homeless is associated with deteriorating mental health, and mental health and addictions often lead to being homeless (10). From the sample of youth (n=1,375) who participated in the second and most recent national youth homelessness survey (2019), 74% fell in the 'high' symptom/distress category on the GAIN short screener mental health survey, 35% reported at least one suicide attempt, and 33% reported at least one overdose requiring hospitalization (11). These findings align with findings from the first national youth homelessness survey (n=1,103) (2016) (1,10), and other studies that show suicide and drug overdose to be leading causes of mortality among YEH in Canada. For example, a large cohort study in Montreal (n=1,013) found that the mortality rate of YEH was 11x higher than youth who were stably housed, with suicide and drug

overdose being the two leading causes of death (4). In addition to suffering from poorer health outcomes, YEH also experience significantly poorer access to health services than stably housed youth (12,13).

Findings from the first national youth homelessness survey indicate that 55.5% of YEH live transiently in multiple, precarious locations with about a third residing at EYSs (1). YEH may access health services at EYSs depending on each shelter's respective infrastructure and capacity to provide health services for their individual health needs. In addition to accessing health services integrated within EYSs, youth may choose to access healthcare externally through youth drop-in centres, their family doctor, hospital emergency departments, and/or walk-in clinics (14). However, when facing crises (e.g., overdosing) for which Toronto-based shelter staff are not equipped to provide care, youth are often sent to receive this care externally; usually to the nearest hospital emergency department (15). Evidence from a recent study has shown that YEH often get trapped in a vicious shelter-hospital loop, which commonly occurs when they are sent from an EYS to receive emergency care at hospitals. These youth are often prematurely discharged back into the EYS system, only to later re-enter the health system for health concerns or crises for which they were previously admitted. This critical disconnect results from insufficient engagement between systems, and highlights the need for strengthened healthcare coordination between the EYS and health systems to improve YEH's pathways to care and ultimately their health outcomes (15).

Healthcare coordination is defined by the Agency for Healthcare Research and Quality as the "*The deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of healthcare services."* Despite the critical need for strengthened coordination within and between the EYS and health systems, there are many barriers that prevent adequate, inter-organizational

engagement (16). Some of these barriers include but are not limited to neither system being solely responsible for helping youth navigate continuous healthcare beyond their stay or visit within either sector, poor communication between system staff due to prohibitive privacy and information-sharing policies, even within circles of care; differences in internal organizational healthcare coordination processes across each sector, and the fragmented evolution of these two systems over time (15,17,18). These examples are a few of many interconnected factors that make it challenging for YEH to navigate healthcare without support (18–20).

The unfortunate experience of navigating disconnected government-funded public systems (e.g., education, social services, health services, and shelter, support and housing services) have left many YEH with gaps in their care, and thereby a loss of trust in these systems (18,21). Additionally, several gaps and barriers exist in how these complex and siloed systems are governed and operate, exacerbating the challenge of sustainably coordinating care between systems (22,23). A few of these barriers include staffs' limited knowledge of available resources, services, and practices within and between systems; and limited and inadequate access to post-discharge healthcare and social services for their youth clients. For instance, a recent study found that shelter staff perceived hospital staff to have a limited understanding of the different specializations between shelters, with some being more accessible to them than others. This sometimes led to hospital staff inappropriately discharging their youth patients to shelters that were poorly suited for their healthcare needs. Similarly, shelter staff reported having a limited understanding of their clients' healthcare needs and the types of issues acute care is most appropriately able to address (22). Overall, poorly coordinated or uncoordinated healthcare in the homeless youth serving sector can lead to youths' entrapment in the shelter-hospital loop, making it increasingly difficult for YEH to improve their health outcomes and escape the vicious cycle of homelessness (15).

As a result, there is an urgent need to strengthen healthcare coordination between the EYS and health systems in Toronto (1). Healthcare coordination involves supporting youth with accessing appropriate healthcare, synchronizing the delivery of their healthcare across multiple providers between systems, sharing a care plan with youth and providers who fall within their circle of care, and coordinating required post-care through follow-up as necessary. Successful healthcare coordination within and between systems requires easy access to a range of healthcare services and providers, adequate communication between providers, and effective care plan transitions between providers (24). To our knowledge, there are no studies that have explored how actors or organizations within the EYS and health systems individually or collectively engage to coordinate care for YEH in Toronto.

In this study, we aim to elucidate the various levels, niches (i.e., programs and activities), organizations, and actors that lie within each system with respect to their role in coordinating health services for YEH, particularly based on the 4-step framework for transformative systems change which is grounded in systems thinking and organizational change. “Bounding the system” is the first step of the 4-step framework developed by Foster-Fishman and colleagues, which aims to clarify how system(s) are conceptualized against their external environment. Steps 2-4 of the framework focus on understanding the fundamental parts of each system (norms– resources – regulations -operations) as potential root causes for poorly coordinated healthcare between the EYS and health systems, assessing system interactions through causal links and feedback loops, and identifying levers for change within each system, respectively (25).

Based on the framework for transformative systems change, establishing system boundaries is the first and possibly most pivotal and defining step to appropriately devise systems change interventions; in this case to strengthen healthcare coordination within and between the

EYS and health systems for YEH. This is largely because boundary lines are known to have explicit values associated with them (26). For instance, by clarifying who and what is enclosed within and outside boundary lines, explicit statements can be made about the perspectives, roles, and functions that are critical for coordinating care within and between each system (25). Therefore, to understand the relationships, interactions, and interdependencies within and between parts of each system, which were investigated subsequently through steps 2-4 of the framework, it is important to first understand how each system is structurally and functionally bound in their healthcare coordination roles.

In bounding the EYS and health systems, we first identify system levels by outlining relevant layers within each of these systems that play a role in healthcare coordination for YEH in Toronto. We then highlight the niches, local organizations, and key actors that lie within each identified layers to develop a deeper understanding of how these systems are bound and who and what they entail (25). Therefore, the overarching objective of this article is to define the boundaries of the EYS system and health system, particularly in how they coordinate healthcare for YEH. The research questions explored in reponse to this objective are two-fold: 1) How are the EYS system and health systems structurally and functionally bound in their roles coordinating healthcare for YEH in Toronto? and 2) How are components within the boundaries of each of these systems interconnected in their efforts to coordinate care for YEH?

3.3. Methods

3.3.1. Study Setting & Design

This qualitative analysis is part of a larger case study exploring how the EYS and health systems engage to coordinate care for the health needs of YEH in the inner-city and inner-suburban

regions of Toronto; the capital city of the province of Ontario and most populous city in Canada with a population exceeding 6.4 million people (27).

We critically analyzed documents and key informant interview transcripts to identify the elements (layers – niches – organizations – actors) that structurally and functionally bind the EYS and health systems in how they individually and collectively coordinate healthcare for YEH in Toronto. While key informant interviews were initially being conducted as part of the larger case study, we realized that this data contained rich information about how each system is bound, filling gaps in the document analysis. Many key informants spoke about their role in providing and coordinating healthcare for youth within either or both systems, including their relationships with other organizations and care providers. The study was then adapted to include both documents and key informant interview data to respond to the research questions. The document analysis and interviews have informed the other throughout the research process, as guided by the emergent properties of constant comparative analysis. Constant comparative analysis is a qualitative analytic method through which data is coded, categorized, and constantly revisited until no new themes or categories emerge (28).

3.3.2. Data Collection

Document Analysis

The principle investigator (AH) extracted and analyzed 46 documents that helped define how the EYS and health systems are bound in their healthcare coordination roles for YEH using the 4-step READ approach: 1) Ready your materials, 2) Extract data, 3) Analyze data, and 4) Distil your findings (29). Documents included organizational websites, reports, frameworks, brochures, program evaluations, policy briefs and legislation, and scholarly articles. Documents were purposively selected and sequentially reviewed followed by snowball sampling to select other

relevant documents (see search strategy outlined in Table 3.1). All documents were filed into NVivo 12.0 software for subsequent analysis. Upon review, 4 documents with irrelevant or duplicate information were removed, resulting in 46 out of 50 documents being included in the analysis. Tables detailing which documents were considered for inclusion based on the search strategy, and which were excluded can be found in Appendix A.1 and A.2, respectively.

Table 3.1: Search strategy used for document analysis

	Documents Source	**Description**
1	Organizational Websites	• Explored health-based programming for YEH across organizations within each system including EYSs, community health centers, hospitals, etc. through their respective organizational websites. The 10 EYS websites in the inner-city and inner suburban regions of Toronto were searched first, as were relevant health-based organizations that were involved or stated as shelter partners in providing health services for youth. • Reviewed reports from the websites, most of which outlined relevant programs, activities, and actors within and across each system. • Websites of relevant health-based organizations mentioned by key informants during in-depth interviews were also reviewed for inclusion in the document analysis.
2	Government Websites	• Scanned the City of Toronto's webpage for housing and homelessness research and reports; as well as relevant meeting agendas, policies, and reports through their search bar (30). Search terms included: EYSs, the Toronto Alliance to End Homelessness, Toronto Shelter Network and Youth Shelter Interagency Network (YSIN). • Strategically searched for documents through the Province of Ontario website, using the following filter (Ministry: health, News type: all, Topic: health and wellness; home and community) (31).
3	Scholarly Literature	• Extracted relevant peer-reviewed articles from the MEDLINE database using a combination of specific search terms. • Search terms included: 1) Emergency Youth Shelter AND Toronto; and 2) (((health system) OR (hospital) OR (healthcare) OR (clinic) OR (community health)) AND ((Ontario) OR (Toronto)) AND ((youth) OR (adolescents) OR (young people)) AND (coordination)).

		• A filter was applied to include articles published between 2019- Present to ensure recent system-level reforms such as the establishment of Ontario Health were being captured. • A total of 8 out of 224 articles were selected for full review after carefully reviewing article titles for relevance. Four out of the 8 articles were then selected for inclusion and further analysis.
4	Documents from interviews	• Finally, private documents shared by key informants during interviews were included in the analysis. These documents included organizational protocols, policies, and/or frameworks relevant to coordinating healthcare for YEH.

Key informant interviews

The principal investigator (AH) facilitated twenty-four semi-structured interviews with key informants over Microsoft Teams. Interviews took place between May 27th, 2021, and March 29th, 2022, and each ranged between 45 minutes to 1-hour in length. Interview guides were informed by Foster-Fishman and colleagues' framework for transformative systems change and consisted of two separate guides developed for youth and non-youth participants. Interview questions were open-ended and focused on identifying and assessing healthcare coordination processes within and between the EYS and health systems in Toronto, and fundamental system parts (i.e., identifying system norms, resources, regulations, and operations) that influence these processes. For instance, non-youth interview participants (i.e., high-level executives and frontline staff) were asked about healthcare programs offered at their respective organizations, and the formal and informal relationships that exist in their healthcare coordination processes. Youth participants were asked about their process of seeking care for minor or major health concerns; the health professionals, programs, and organizations they interacted with; their experience with receiving care; any follow-up support received or not received post health care visit, etc. All interviews were recorded with participants' consent and transcribed using Otter.ai software.

Participant recruitment was initiated through purposive sampling, where AH first contacted high-level executives and clinicians who worked within the EYS and health systems, respectively. She then used snowball sampling to recruit other interview participants including lower-level executives such as case managers, and various frontline staff with clinical (e.g., nurse, social worker, etc.) and non-clinical (e.g., program coordinators, outreach counsellors, etc.) backgrounds. Youth recruitment was supported by two frontline staff who worked at EYSs and one who worked in the community health sector. These staff supported recruitment by posting flyers at their respective organizations, and/or personally sharing flyers and information sheets with clients who met inclusion criteria. Youth were interviewed if they: 1) ranged between 16 and 24 years of age, 2) were currently or previously staying at a Toronto-based EYS, and 3) had experience navigating healthcare through health services integrated at an EYS; healthcare at organizations, agencies, or institutions within the health system; and/or organizations or healthcare providers that overlap between both systems. Table 3.2 displays a breakdown of interview participants who work within each system, and those whose work and/or experience overlaps between systems.

Table 3.2: Key informants interviewed for study

Key Informant	**EYS System**	**Overlap between systems**	**Health System**
Executives	6	0	1
Frontline staff with clinical expertise	1	3	3
Other frontline staff	1	0	3
YEH	0	6	0

3.3.3. Data Analysis

Data from documents and interview transcripts were concurrently analyzed using two layers of coding: open coding and focused coding (32,33). During open coding, AH inductively coded documents and interview transcripts for layers, niches, organization, and/or actors within the EYS and health systems. These initial codes were then organized into more defined categories based on systems layers that had emerged. While conducting focused coding, AH recognized a significant overlap between systems, through which a third category of systems emerged. Each level of analysis required a reworking of the data to appropriately organize codes into the predetermined categories falling within the first component of Foster-Fishman and colleagues' framework for transformative systems change: bounding systems. Additionally, AH simultaneously documented descriptive summaries and emergent patterns derived from the data through memos, which helped generate relationships between system elements. Data from documents and key informant interviews were constantly compared to comprehensively grasp how each system is bound and connected in their healthcare coordination roles for YEH in Toronto.

3.3.4. Trustworthiness

Rigor in the qualitative research process is critical to produce trustworthy findings. To enhance the credibility and confirmability of this research, we used data source triangulation and memo-writing to support the analysis of incoming data (34). First, in analyzing a range of scholarly and grey literature, and interview transcripts from five distinct groups of stakeholders form various levels of both systems, we were able to capture a wide range of system elements to comprehensively understand and define the boundaries of the EYS and health systems in their individual and collective healthcare coordination roles. Further, analytic memos were consistently and reflexively documented to compare and draw connections between data, while being mindful

of any researcher biases, and/or thoughts and feelings that presented themselves during key informant interviews. Documents, interview transcripts, and analytic notes were revisited several times to confirm accuracy of study findings.

3.3.5. Ethical approval and considerations

Research ethics approval was granted by the University of Ottawa Health Sciences and Sciences Research Ethics Board (File Number H-12-20-5771). Document analysis and semi-structured interviews were performed in accordance with the Declaration of Helsinki. All key informants voluntarily agreed to participate in interviews and provided verbal or written informed consent prior to their interview. Verbal consent was recorded using Otter.ai software prior to commencing interviews, and written consent was received through consent forms which were sent beforehand by email. AH ensured that all youth participants had access to a safe and private space from which to interview and that they were compensated $30 for their time and participation. All consent forms, interview recordings and transcripts are technically safeguarded on AH's password protected computer and will be retained for 5 years as per the protocol approved by the ethics committee.

3.4. Results

Bounding the Systems

Three matrices were developed to synthesize findings from this research. Two matrices depict the high-level boundaries of the EYS system and health system in how they coordinate healthcare for YEH in Toronto, and one matrix depicts their combined efforts in coordinating healthcare for this youth population.

3.4.1. An overview of the emergency youth shelter system

Within the EYS system, we found six key layers that affect healthcare coordination for YEH, as shown below in Matrix 1.

Matrix 1: Bounding the emergency youth shelter system

System layers	Niches	Organizations	Key actors
Provincial government	**Policy Development** • Establish vision, legislative and policy framework for homelessness initiatives. • Develop strategies, programs, and policies to measure, prevent, reduce, and end homelessness. **Funding** • Fund homelessness programs and services. • Establish national direction and negotiate federal contributions with federal government.	Ontario Ministry of Municipal Affairs & Housing	Service managers: municipal service managers, and district social services administration boards
Local Government	**Administrative Tasks & Activities** • Administer funding to shelters. • Develop shelter-based policies (e.g., Toronto Shelter Standards, harm reduction directive, etc.). • Plan and manage homelessness services. • Provide relevant training to shelter providers and staff. • Establish and manage central intake. **Strategy & Program Development**	City of Toronto: Shelter, Support, and Housing Administration	City council, housing secretariate, general managers, policy development officers, housing commissioner of Toronto, etc.

	• Develop strategies and programs to meet the needs of specific populations including youth.		
Shelter providers (emergency youth shelters), including staff	**Deliver health promotion & health protection programs** • E.g., stress management programs, harm reduction programs, drug and alcohol awareness groups, art therapy, stay in school program, etc. **Provision of client-centred services/case management** • Work collaboratively with youth to develop a service plan that helps to achieve their goals. • Provide services grounded in a harm reduction and trauma-informed approach. • Identify needs beyond shelter and housing supports and work together with health services providers to facilitate access to other services. **Collaboration, community engagement and partnerships** • Collaborate with clients, service providers and other stakeholders to create and maintain network of supports that helps youth achieve the best outcomes for themselves. **Planned Discharges** • Ensure that youth have a discharge plan in place (e.g., to housing, treatment, hospital), whenever possible.	E.g., Covenant House, Eva's Initiatives for Homeless Youth, Youth Without Shelter, Horizons for Youth, Turning Point Youth Services, YMCA, Kennedy House Youth Services, Youthlink, etc.	Multidisciplinary teams include: Executive staff (e.g., executive directors, operations manager); Healthcare providers (e.g., physicians, counsellors, nurses, social workers, etc.); Frontline case workers (e.g., case managers); and Non-clinical frontline staff (e.g., intake coordinator, youth in transition workers, etc.).

Not-for-profit advisory body	**Collaborate through meetings** • Meet with other shelter providers, government, and partners to promote new methods designed to improve service delivery of youth shelter providers. • Coordinate planning and service delivery for youth shelter providers. **Advocacy** • Advocate for adequate funding to serve youth. • Raise awareness about social and health programs run by youth shelters.	Youth Shelter Interagency Network	Shelter providers
Community sector/non-government organizations	**Funding** • Provide financial support to agencies that deliver essential services to help people move out of poverty. **Research** • Create evidence to help communities prevent and end homelessness. **Knowledge mobilization** • Through the national conference, advocacy, and allied networks	E.g., United Way Toronto Home Depot Foundation, etc. E.g., Canadian Observatory on Homelessness E.g. Canadian Alliance to End Homelessness	
Youth experiencing homelessness			

Provincial & Local Government

The provincial and local governments tackle homelessness more broadly through funding and high-level policy development (35). While particular emphasis on youth homelessness within

these levels is rare, their roles are critical in influencing subsequent system layers. First, the Ontario Ministry of Municipal Affairs and Housing lead the provincial government's efforts to end homelessness, and is responsible for establishing the overall vision, legislative and policy frameworks for housing; developing strategies, policies, and programs to prevent, reduce and end homelessness; identifying desired outcomes and reports on their achievements; and working with the federal government to establish national directions and negotiate federal contributions towards Ontario's housing and homelessness sector (35). In Ontario, service managers are responsible for collaborating with frontline service delivery organizations including youth shelters to local deliver housing and homelessness services (35).

The City of Toronto's Shelter, Support and Housing Administration (SSHA) operates under the municipal government and directly operates some EYSs in the City, while also contracting community-based, not-for-profit agencies to provide emergency shelter services for youth (36). The SSHA administers annual funding to shelters, develops shelter policies, provides relevant training to shelter providers, and manages the central intake of youth requiring shelter services (36, 37). A City of Toronto executive elaborates: *"All of the youth services are delivered in partnership with our third party, non-profit organizations, but we've got a funding relationship with all of the agencies and are recognized by the provinces [as] sort of the service system manager for housing and homelessness services here in the city of Toronto."* The SSHA also plays an important role in developing frameworks, strategies, and programs to meet the needs of specific populations experiencing homelessness, including healthcare programming for YEH. Nonetheless, there is evidence of poor engagement between the provincial and municipal levels of government within the sector (38,39). When asked about how to address funding challenges preventing the

strengthening of healthcare coordination in the youth homelessness sector, the same City of Toronto executive explains:

> *"It really depends on the province, right, because all of this [integration of health services] is provincially provided. You know, all the health care dollars, and we have taken, I'd say extraordinary measures during COVID to start directly funding mental health supports and some of the harm reduction supports. But it needs a long-term commitment from the province, and they have plans around ending chronic homelessness now by 2025- but these things need to be invested in and committed to."*

Emergency youth shelters

At a macro level, shelter providers are responsible for supporting youth with achieving the best personal and health outcomes possible, by developing and maintaining networks of supports though collaboration with other social and healthcare providers (36). Efforts to develop formal and informal partnerships to coordinate care within the broader health system, especially with hospital and community-based health organization staff, were clear through interviews with EYS executive and frontline staff. For example, a case manager at Shelter A shares, *"We've developed contacts within the hospitals that we can reach out to…I have a willing contact there who can connect with the youth and see if the youth will provide consent for us to figure out what's been going on there."*

At a micro level, EYS frontline staff work with their youth clients to develop personalized service plans through trauma-informed case management, and the delivery of various health promotion and health protection programs. They are also responsible for ensuring that their youth clients have a discharge plan in place whenever possible. Shelter providers along with their board of directors must comply with all relevant federal, provincial, and municipal legislation and

regulations as stated in the Toronto Shelter Standards; in this case is to support YEH with coordinating health services within and between the EYS and health systems (36).

Advisory Body: Youth Shelter Interagency Network

Furthermore, YSIN, a not-for-profit community-based advisory group part of the larger Toronto Shelter Network, plays a significant role in working with the City of Toronto and advocating for the needs of youth residing within the shelter system (40). The network, established in 1994, represents the youth sector and is comprised of executives from Toronto-based EYS executives. YSIN raises awareness of the multi-faceted social and health programs run by Toronto shelters; coordinates the overall planning and service delivery for youth shelter providers; collaborates internally to resolve current and long-term issues within the system; and promotes new methods designed to improve service delivery within youth shelters (41). The Director of Operations at Shelter A voices their sentiments on being involved in such a network:

> "*YSIN gives us a platform to address the issue from a micro and macro perspective. These issues are brought forward, and the conversations are happening at a city level- so they're on the ground, making sure that they come to fruition – so that's a strength because that is a piece of the cooperative approach happening."*

Community-Based, Non-government Organizations

Moreover, several community-based, non-government organizations play a crucial role in funding services, conducting evidence-based research and mobilizing knowledge to strengthen healthcare coordination for YEH. A few organizations known to have a personal stake in funding EYSs include the United Way Greater Toronto and Home Depot Foundation. Further, The Canadian Observatory on Homelessness is an example of a nationally leading research hub that is

dedicated to ending homelessness in Canada, and has disseminated evidence on the need for systems integration and improved healthcare coordination for YEH in Toronto (16). Finally, The Canadian Alliance to End Homelessness (CAEH) is an example of another national organization leading the collaboration and movement of organizations, communities, and individuals to prevent and end homelessness in Canada. While not exclusively focused on the youth population suffering from homelessness, the CAEH promotes knowledge mobilization on research and programs related to YEH in Canada through their national conference including topics such as systems integration and healthcare coordination (42). Another shelter executive explains how the Toronto Alliance to End Homelessness (TAEH) was a constructive outcome resulting from stakeholders' convening at the annual CAEH conference:

> *"The TAEH started about six or seven years ago coming out of the national conference that we went to…and we realized we needed more coherent voices in Toronto that were going to: 1) work effectively with funders and government, and a wide range of stakeholders but to also, 2) promote best practice both in terms of systems approach and coordinated access systems."*

Since its conception, the TAEH has been working collaboratively with other organizations and individuals to end homelessness in Toronto. For example, the TAEH have been hosting service planning forums almost monthly alongside the SSHA, City of Toronto; and Housing Secretariat to identify and discuss priorities for Toronto's homelessness service system, including those affecting YEH (43).

Youth with Lived Experience of Homelessness

Finally, the EYS system centres around serving the needs of YEH. Capturing their unique experiences navigating both systems when in need of clinical healthcare is pivotal to understand strengths and gaps within both systems. Therefore, YEH make up a key system layer across the EYS and health systems, as shown in the following two matrices as well. Overall, youth have autonomy over their health and healthcare and may choose to access care at various organizations that offer health services within any of the bounded systems.

3.4.2. Collaboration and overlap between the EYS and health systems

The following matrix presents collaborative efforts and overlap between organizations and actors within the EYS and health systems, who provide health services to YEH and/or support them with accessing coordinated care in Toronto.

Matrix 2: Collaboration and overlap between the EYS & health systems

System Layers	Niches	Organizations	Key Actors
Provincial government	**Provision of integrated and continuous healthcare services** • Healthcare through Ontario Health Teams • Mental health, substance use, primary care, system navigation services through Youth Wellness Hub (E.g., mental health counselling, primary care, psychiatric consultation, care navigation, youth drop-ins, peer support group, etc.)	Ministry of Health Ontario Health Youth Wellness Hubs Ontario (Toronto Central and Toronto East)	**Ontario Health Teams** - All stakeholders involved in primary care, acute care, mental health and addictions, community care, long-term care. **Youth Wellness Hubs**: Hospitals (e.g., Sick Kids Hospital, CAMH,

			etc.); Community services (e.g., Loft Community Services, Lumenus, etc.); City of Toronto – Toronto Youth Partnership and Employment; The Sashbear Foundation; Strides, Vibrant Healthcare Alliance
Local Government	**Support with establishing programs for coordinated access to healthcare** • Coordinated Access to Care from Hospital (CATCH)-Homeless Program through Inner City Health Associates • Coordinated access to mental health and addiction services and supportive housing through the Access Point	Inner City Health Associates Toronto Mental Health and Addictions Access Point (Access Point)	**CATCH-Homeless program**: St. Michael's Hospital, Toronto North Support Services, transitional case managers, healthcare providers, community-based organizations **Access Points**: Hospitals and community service organizations
Not-for-profit healthcare centres for Homeless Youth	**Provision of care through clinical programs** • Clinical drop-in programs • Dental programs	Youth Street Mission	Volunteer healthcare providers (e.g., physicians,

	• Mental health care and counselling **Referring youth to primary care at hospitals**	LOFT Community Services	dentists, counsellors, etc.)
Private Sector	**Integrated clinical care at emergency youth shelters** • E.g., Cognitive Behavioural Therapy, Dialectical behaviour Therapy **Case management and referrals to external healthcare from shelters**	Private Organizations (e.g., Allied Health Services, Centre for Cognitive Behaviour Therapy)	Healthcare providers, including psychiatric associates and consultants
Working Groups	**Toronto Shelter Network** • Strengthen communication and engagement between system stakeholders **Establishment of Shelter Health Services Advisory Committee** • Developed coordinated approach to health services delivery for shelter clients	Toronto Shelter Network City of Toronto & Local Health Integration Networks	Shelter providers, City of Toronto, and other agencies Shelter providers, shelter clients, and local health service providers
Youth experiencing homelessness			

Provincial Government: Youth Wellness Hubs & Ontario Health

In 2017, the provincial government announced funding for the establishment of Youth Wellness Hubs across Ontario to address gaps in the youth service system. This included access to mental health, substance use, primary care, housing, and other community-based and social services for youth between 12 and 25 years of age. Youth Wellness Hubs also include system

navigation services that are emphasized to be "timely, integrated and co-located." An executive at Shelter B shares their thoughts on the rise of these newly developed hubs:

> *"Youth in crisis, in shelter, need health services – connection to specialized health services particularly for young people is very, very critical. I think the Youth Wellness Hubs that the province has been developing is a positive step in that direction."*

Currently, there are 12 hubs across the province that offer services to youth in need, including the Central Toronto and Toronto East Hubs, which began operating in 2017 and 2019, respectively (44).

Further, the provincial government legislated Ontario Health in 2019 through the Connecting Care Act; one single health agency overseeing the provision of integrated, continuous, and coordinated care through Ontario Health Teams (OHTs). OHTs comprise of partnerships between organizations and/or service providers to serve populations concentrated in various regions within the province (45,46). Organizations and/or service providers within each team should be able to deliver at least three of the following services to their designated population: primary care, emergency health services, mental health and addictions services, home care or community services, long-term care, palliative care, rehabilitation and complex care, and/or other prescribed health or non-health services supporting the healthcare provision (46). OHTs continue to form across Toronto and include some EYS and healthcare service providers. A shelter executive alludes to their involvement in an OHT as having the potential to support YEH with improved access to health services:

> *"A lot of [Shelter A's] revenue comes from donations from corporations. So, we have not been a traditional health funded organization, right. [But], we are a member of the Downtown East Ontario Health Team."*

Partnerships: Public sector, not-for-profit and private sector organizations

Aside from government legislated initiatives to strengthen healthcare coordination, EYS leadership have established both formal and informal partnerships with the Ministry of Health and/or City of Toronto funded, not-for-profit, and/or private organizations to provide health services in-house or externally through referral to clinics, hospitals, or community-based organizations in their respective regions. Each EYS has a formal partnership with the Inner City Health Associates (ICHA), where physicians, nurses, and/or psychiatrists come to their designated shelter on a weekly basis to provide healthcare for youth (47). ICHA also offers programs such as Coordinated Access to Care from Hospital (CATCH)- Homeless, which was created in collaboration with St. Michael's Hospital and the Toronto North Support Services, to help people experiencing homelessness who have unmet and complex healthcare needs access appropriate health resources in their community. CATCH transitional case managers at partner hospitals refer clients experiencing homelessness to the program, and work with healthcare providers to support these clients' including youth, access medical, psychiatric and addictions services (48).

Another example of publicly funded efforts to integrate shelter and health services are those through the Toronto Mental Health and Addictions Access Point. The Access Point provides youth who are 14 years of age or older, and who suffer from mental health and/or addictions with intensive case management; and access to assertive community treatment teams, and programs including mental health, supportive housing, and problematic substance use housing (49). In describing their pathway to care, a young person experiencing homelessness who suffered from complex psychiatric comorbidities and addictions explains:

"When I left treatment [at Homewood Health], I did an Access Point application on the request of my treatment team. I think when I got home, that was probably the most useful thing that I did in 2017… through Access Point, I got a LOFT caseworker. I applied for case management, the caseworker worked for the addictions stream through the LOFT-A hub, and got me set up with psychiatrist, and then helped me get referred to the COMPASS program at CAMH, which is for people on medically assisted opioid withdrawal."

Access Point partners include various hospitals and community service organizations. However, to date, there are no EYSs listed as Access Point partners (50). As demonstrated by one of the youth's experiences above, partnerships between EYSs and Access Points may support YEH receive the specialized healthcare and housing they need for their mental health and addictions concerns or comorbidities.

Finally, private organizations are sometimes contracted by shelter providers to provide healthcare on site, such as counselling, and other mental health and addictions support for youth in need. External referrals by contracted healthcare providers or EYS frontline staff are also sometimes initiated for youth to receive primary or specialized healthcare outside the shelter system. Moreover, youth are sometimes referred to not-for-profit, community-based organizations such as the Evergreen Health Centre at the Youth Street Mission, to receive care such as STI testing, dental care, and mental health counselling.

Working Groups

As part of their strategic plan for 2020-2023, the Toronto Shelter Network aimed to strengthen communication and engagement between their diverse group of member agencies including the many EYSs in the City. One way through which this was galvanized was the formation of working groups, in which member agencies identify and pursue shared goals (51).

For example, an executive at Shelter C, who is involved in the network shares how one of the working groups they are currently involved in within the network focuses on EYS engagement with the broader health system. They share that the challenge with such engagement is, "*…quite honestly, healthcare and shelter, support, and housing - they don't connect.*"

Furthermore, the Shelter Health Services Advisory Committee, which used to consist of the Toronto Central and Central East local health integration networks, the City of Toronto, and health services and shelter providers, is another example of a working group established to improve equity and access to health services for shelter clients, specifically through a coordinated approach to healthcare (52). Unfortunately, this 2017 initiative was paused shortly after its conception due to the newly elected provincial government (2019) planning many structural changes within the health system, and the COVID-19 pandemic burdening both systems in 2020.

3.4.3. Health system role in healthcare coordination

Organizations and actors within the health system are significantly less involved than those within the EYS system in their efforts to coordinate healthcare for YEH in Toronto. This is presumably due to their provincial and local mandates to serve their designated regional population(s) as opposed to focusing exclusively on YEH (53). Nonetheless, elements of the system that are involved in healthcare coordination are depicted below in Matrix 3. As the federal and provincial governments do not focus exclusively on healthcare coordination for this population, they have been excluded from this section.

Matrix 3: Health system role in healthcare coordination

System Layers	Niches	Organizations	Key Actors
Local Government	**Health policy, programming, and service delivery:**	City of Toronto:	Local medical officer of health, healthcare

	• Data collection to inform health service delivery improvements for homeless populations. • Delivery of health services and programs (e.g., youth sexual health, alcohol, and other drugs, etc.). • Development of public policy and practices.	Toronto Public Health, The Works, Toronto Board of Health, City council	providers, policy makers, health promoters
Primary care including community care	**Health promotion programs at community health centres** • E.g., Urban Health, Take home Naloxone, Hep C, and Health Bus programs at Sherbourne Health **Clinical programs at community health centres** • Drop-in primary care services **Virtual mental health care** • E.g., What's Up Walk-in clinics	Hospitals, walk-in-clinics, community health centres, Toronto Public Health	Primary healthcare teams, family health teams, allied health professionals, youth mental health workers, health promoters, addiction workers, etc.
Emergency services	**Emergency care at hospitals** • Crises services and mental health emergency at hospital emergency departments **Pilot programs through hospital research centres** • E.g., YouthCan IMPACT program at CAMH, and the Navigator program and Phone Connect program at St. Michael's Hospital	Hospitals such as Centre for Addiction and Mental Health, those through Unity Health, University Health Network, etc.	Paramedics, emergency physicians, nurses, personal support workers, etc. health navigators, outreach counsellors

Specialty care	**Specialized care at hospitals or in the community** • Services coordinated to provide continuity of care • Mental healthcare and addiction services • Long-term care	Hospitals, community, and social service organizations	Professionals who provide services partially funded or privately insured services (E.g., pharmacists, mental health counsellors, etc.)
Private health services	**Provision of private healthcare services, which include:** • Dental care • Vision care • Complementary and Alternative Medicine • Outpatient Physiotherapy	Privately owned clinics and healthcare professionals operating privately (e.g., Covenant House partnered with Accenture Dental).	Healthcare providers including dentists, optometrists, physiotherapists, etc.
Youth experiencing homelessness			

Local Government: City of Toronto

Toronto Public Health promotes the health of residents through the delivery of health services, the development and implementation of healthy public policy and practices, and data collection to help inform how best to meet community needs. Toronto Public Health reports to the Toronto Board of Health, who ensures that programs and services are delivered adequately based on Ontario's standards and in response to the population's local needs (54). Although programs and services are offered based on broader population categories, several are relevant to the needs of YEH, including: support for people seeking treatment for substance use, tobacco prevention for youth, and sexual health counselling (55). In June 2021, the City of Toronto issued a directive to

shelter providers to implement harm reduction policies and procedures on-site. A City of Toronto executive shares their perspective on why the implementation of such an initiative might be impactful:

> *"…in order to address the broad determinants of health that keep people housed, there's a significant component related to accessing primary health care, mental health supports, harm reduction supports, and housing, [and] they all kind of need to be packaged together… I think that we're getting there. More recently with the city's 10-year plan on housing, one of the core components is recognizing that we need a lot more supportive housing in the city to allow people to move out of homelessness, and [ensure] they keep their housing and part of the supports that are needed in that housing, again relate to the integration of those health supports [on-site] to ensure that people are successful*."

The 10-point plan developed by The Works at Toronto Public Health is intended to help shelter providers implement best practices in providing harm reduction supports on site. The plan emphasizes ten areas of harm reduction programming that should be established at 24-hour homelessness service centres. Some of these areas include the availability of harm reduction supplies on-site, staff training on the harm reduction approach, implementation of harm reduction and drug use policy, and implementation of overdose prevention and response interventions (56). The Works has offered harm reduction supplies and services to over 100 locations and Access Points in Toronto, including EYSs such as Eva's Satellite and the YMCA (57).

Primary Healthcare Services

Primary healthcare services most needed for YEH include: routine care, care for urgent but minor or common health issues, mental healthcare, psychosocial services, health promotion and

disease prevention (58). Executive and/or frontline staff at Toronto-based EYSs either refer youth to primary care providing centres or establish formal or informal partnerships with them. These services are typically provided by a family physicians, nurse practitioners, or general practitioners as the first point of contact for medical care within the health system (58). A case manager at EYS A discusses their perspective on preferred avenues for primary healthcare for YEH:

> *"We're located in an area where there's a hub of social and health services…and so obviously we know that more community forms of health care [and] primary care, that are available, the less likely they [YEH] will enter the emergency departments. I think in a lot of cases, if we have staff members that are not medically trained, and if healthcare is closed. In general, like when you have a young person who's chronically experiencing like passive suicidality, [then] we send them to the hospital."*

This quote exemplifies the need for EYSs and community-based primary healthcare partnerships to appropriately coordinate care for YEH and prevent them from possible entry into the endless shelter-hospital loop. Other examples of primary care accessed by youth include free virtual mental health counselling through What's Up Walk-in-Clinics, and drop-in or scheduled clinical or health promotional services at nearby community-based agencies (e.g., health centres).

Hospitals: Emergency Services & Research

During health crises, paramedics are often called to transport youth from the shelter they are staying at to the nearest hospital emergency department; this includes the mental health emergency department at the Centre for Addiction and Mental Health (CAMH). Additionally, various pilot programs which focus on improving healthcare coordination for YEH and other homeless populations are run by researchers through hospital-based research centres. One example

is that of the YouthCan IMPACT trial at CAMH, through which an integrated community-based collaborative care team model was implemented and evaluated to bring together a wide range of supports in one location for the mental health, substance use, and wellness needs of Toronto-based youth (59, 60). The navigator program at St. Michael's Hospital MAP Centre for Urban Health is another example, where homelessness outreach counsellors and health navigators aid people experiencing homelessness who come to the emergency department navigate continuity of care for their health and social needs. This is achieved by communicating with emergency shelters and community agency staff to ensure they have access to the necessary health information, medication, supplies, and personal care to support clients (61). Further, if specialty care is required based on healthcare providers' assessments at the hospital, youth may be appropriately referred to resources on-site. For example, an emergency physician at a Toronto hospital explains:

> *"We see a number of our mental health patients are often struggling with housing. And so often they're directed to the mental health youth in crisis worker, who [then] takes over the process."*

Referral to Specialized Services & Private Care

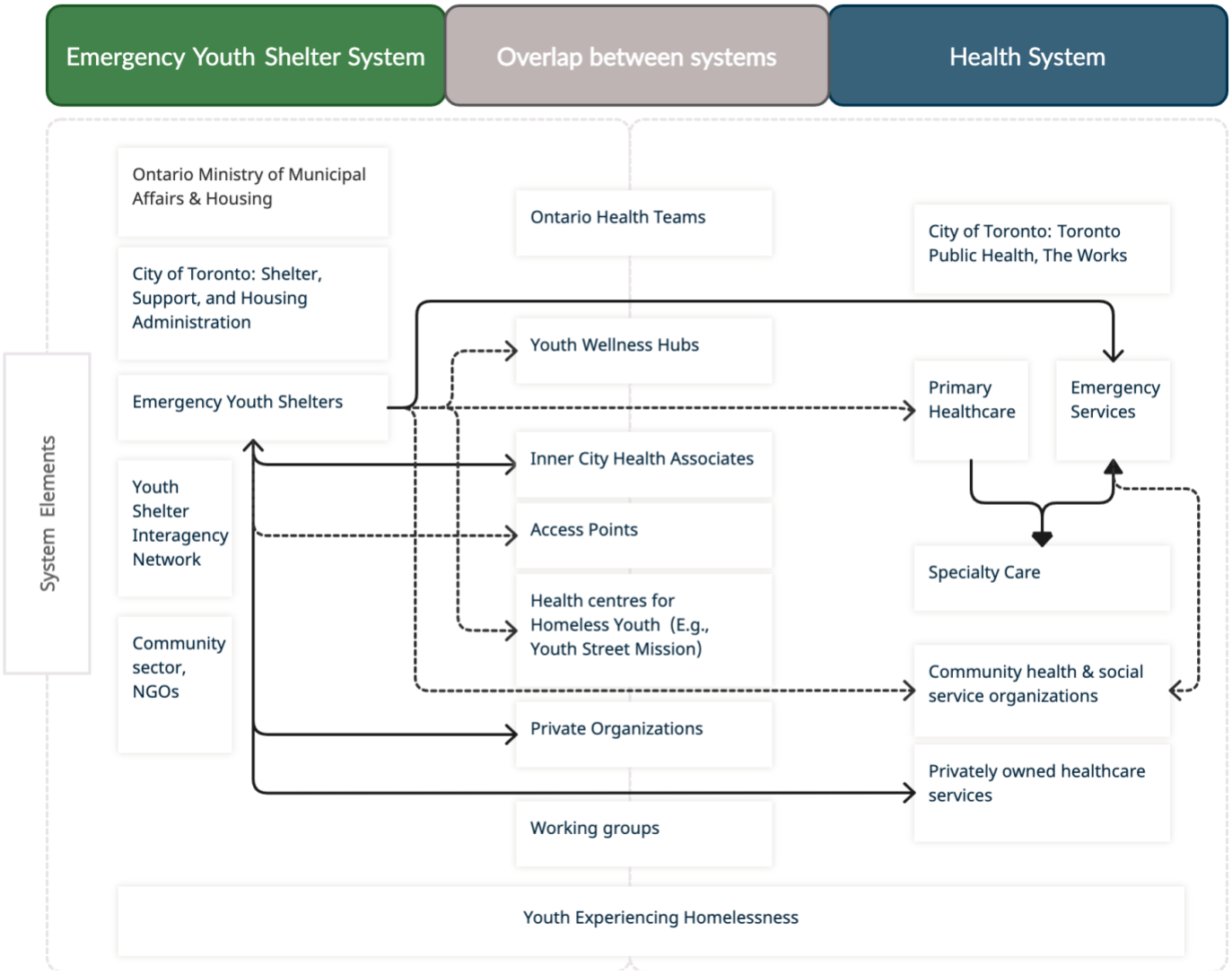
Both primary healthcare and emergency care providers refer patients to specialized care as needed based on their clinical assessments. Depending on the type of specialized care required, this second-level of care is typically accessed at higher levels of hospitals or in the community. Some specialty services are fully or partially covered by the Ontario Health Insurance Plan, such as eligible dental surgery in hospital, eligible optometry, abortion services with a prescription from a doctor, and podiatry (62). Private health services such as dental and vision care are significantly less accessible than publicly funded services for youth who have an Ontario Health Insurance Plan.

In some cases, shelters are partnered with privately run dental clinics to help youth receive access to this care. Overall, access to specialty care is quite limited for this population, as patient socioeconomic status is found to be associated with poorer access to specialist care (63,64).

3.4.4. Tying it Altogether: inter-organizational collaboration & connections between systems

The following diagram illustrates connections between system elements confined within the boundaries of the Toronto-based EYS system, health system, and those that overlap between both systems, specifically in their role healthcare coordination roles for YEH (see Figure 3.1). Arrows between systems illustrate pathways to healthcare as coordinated by executive or frontline staff within the defined boundaries of each system.

Figure 3.1. Inter-organizational collaboration and connections between systems



Findings from this research demonstrate that support with coordinating healthcare for and with YEH is most initiated by EYS leadership and staff. Youth may access health services that are integrated on-site through ICHA, or through other shelter-health system partnerships developed by EYS executive and/or frontline staff. These include partnerships with external institutions, organizations, and/or clinicians who provide health services and are depicted by the solid, bidirectional arrows. Youth may also be referred to these institutions or organizations by frontline staff within either system based on their knowledge of health services provided by these external

groups, which is depicted by the dashed, unidirectional arrows. Finally, youth may be sent to the hospital emergency department and/or subsequent specialty care by system staff when facing health crises or in need of urgent care, and this is depicted by the solid, unidirectional arrows.

3.5. Discussion

In this study, we define the boundaries of the EYS and health systems, specifically in their roles coordinating healthcare for YEH. By identifying relevant levels, niches, organizations, and actors that lie within each system and understanding how they interact, we are better positioned to think about successive research, helpful partnerships within and between each system, and system-level interventions that might be worth implementing and evaluating. While it is well known that the EYS and health systems operate largely in silos, this research has demonstrated collaboration and overlap between both systems in their efforts to improve care coordination through various initiatives led by public, private, and not-for-profit organizations. While efforts to strengthen healthcare coordination are evident by stakeholders within the EYS and health systems independently (e.g., through the development of formal and informal partnerships between vested organizations and actors), there are several barriers that have made this an ultra-challenging task, including the complex nature and historically siloed structures of these two systems and neither sector being mandated to coordinate healthcare for this population. Findings from this research also indicate that efforts to coordinate healthcare within and between system boundaries are largely influenced by government funding (macro-level), availability and awareness of relevant organizations and services offered across systems (meso-level), and prioritization of research and funding based on the interests of vested stakeholders (micro-level).

At a macro-level, the high-level roles (e.g. policy development, funding, etc.) and priorities of various government bodies significantly impact healthcare coordination processes and

outcomes within and between the EYS and health systems. Each of these systems are funded by and operate under two different levels of government, causing several inconsistencies between sectoral parts; this increases complexity in care coordination pathways, and therefore youths' healthcare coordination outcomes (22). For example, hospitals which are provincially funded and shelters which are municipally funded; are two critical elements of each system that are extensively accessed by YEH but do not homogenously offer health or health coordination services across systems. This is especially true for the EYS system where the City of Toronto partially funds shelter providers based on their capacity to provide services, while the rest is expected to be fundraised (41). The difference in funding provided by the City to youth shelters, and various shelters' capacity to fundraise is one reason why Toronto-based EYSs have inconsistencies in the programs and services they offer to youth (65). An EYS with a robust fundraising program, is more likely to offer either a wider range and/or more specialized health services for youth clients. For example, Eva's Satellite in Toronto is unique in that it offers harm reduction and addictions support for youth who are struggling with substances (66), while Covenant House has an integrated health centre where youth can access a range of primary care and mental health supports (67).

At a meso-level, there are numerous organizations and actors that provide healthcare services across and between each system either for the general population or targeted to the needs of YEH (e.g. Evergreen Health Centre). In this study, we learned that EYS staff prefer to refer their youth clients to external community-based services over sending them to public hospitals if youths' required healthcare needs cannot be met on-site. This preference of community-based care referrals may be due to the reduced likelihood of youths' entrapment in the vicious shelter-hospital loop (15). However, a recent study suggests that community-based health services targeted to meet the unique needs of people experiencing homelessness including youth are scarce and inequitably

distributed in Toronto making it additionally challenging for EYS staff to coordinate external community-based care for their youth clients, or for hospital staff to coordinate this care post-hospital discharge (22). Further, it was reported that many staff within both sectors have limited knowledge and awareness of community-based services that are available to appropriately support YEH's distinct healthcare needs. However, as mental health and addictions services are most critically needed for YEH, it is evident that efforts are being made by decision-makers to increase accessibility, provision and coordination of mental healthcare for YEH (1,10). This is seen through the establishment of Youth Wellness Hubs, What's Up Walk-in Clinics, and Access Points. Furthermore, while there was mention of one of the EYS's involvement in a newly established OHT, we did not find any reports or evidence on care coordination processes or outputs related to the OHT serving YEH.

At a micro-level, healthcare coordination for YEH depends significantly on the interests and priorities of independent agencies and vested stakeholders such as researchers and funders. While research plays an important role in understanding healthcare coordination between sectors; and recommending, developing, and evaluating interventions to strengthen coordination, they are often limited to the restraints of researchers' interests, funding they receive from vested third-party organizations, and their personal timelines. Some examples of promising initiatives to improve healthcare coordination between systems in Toronto include the St. Michael's hospital Navigator program (61), the At-Home/Chez-Soi randomized control trial of Housing First intervention (68), and various peer-support models that have been piloted within systems (69). One example of a national program that has successfully supported healthcare coordination for homeless populations and have tackled some of the macro-, meso-, and micro-level challenges discussed is the US Healthcare for the Homeless (HCH) program.

The HCH programs are part of community-based organizations that provide low or no-cost healthcare to people experiencing homelessness and are funded and regulated through the Health Resources and Services Administration at the US Department of Health and Human Services (70). In the HCH model, the US healthcare system emphasizes a multidisciplinary approach to care coordination by collaborating with community-based health and social service agencies. The model relies heavily on on-site case managers to advocate for their clients, and link them to appropriate community-based health and social service resources, ensuring that a wide range of their health needs are being met (71). Other research and program evaluations have shown that employing staff such as navigators, youth workers, case managers, and peers who have lived experience of homelessness, within either system can play an important role in helping people experiencing homelessness transition between systems and receive the necessary follow-up and post-discharge care (69,72,73). Overall, establishing inter-organizational staff roles that focus on providing navigational, transitional, and/or peer support have shown to be promising in strengthening healthcare coordination for YEH within these complex and fragmented systems, as seen with the HCH model.

3.5.1. Strengths and Limitations

A major strength of this study is the triangulation of documents and key informant interview data to respond to the research questions (74). A potential limitation to the study is the non-exhaustive nature of the document analysis, which may suggest biased selectivity (75). While a wide range of documents were analyzed to provide broad coverage, not all organizations that fall within each system layer were explored in detail. Nonetheless, a high-level depiction of how each system is bound was possible with the methodology used to retrieve documents included in this study. Second, few relevant scholarly articles were found for inclusion in this study, and the

reliability of some grey literature was uncertain. For example, it is possible that some organizational websites are not updated on a regular basis. Another limitation to the study is the small number of key informants recruited from the large and complex health system. Despite our repeated attempts to recruit health system staff, only a few healthcare providers were responsive or available for an interview. The low response rate was largely due to the health system burden caused by the COVID-19 pandemic, which was at a peak during the study period.

3.5.2. Future Directions

Based on the framework for transformative systems change, this study is the first of three steps required to identify interventions or "levers for change" to strengthen healthcare coordination within and between the EYS and health systems for YEH in Toronto (25). The aim of the larger case study is to share tangible ways in which to improve healthcare coordination for YEH alongside stakeholders who work at various levels within each system and/or across both sectors. Subsequent articles in this series explore: 1) pathways to healthcare taken by YEH who reside at EYSs in Toronto, as well as factors that influence these pathways to care (15), 2) causal links between key systems variables and resulting feedback loops, which illustrate relationships and interdependencies within and between these two systems (20), and finally 3) interventions that should be considered to strengthen healthcare coordination for YEH, both within and between the EYS and health systems in Toronto.

3.6. Conclusion

Findings from this qualitative study reveal a vast network of organizations and actors that fall within each system layer, and work both in silos and collaboratively to coordinate health services for YEH. The EYS system was found to play a more active role in these efforts, while

layers of the health system tend to have similar protocols for YEH as they do for the general population. There are, however, some organizations within the health system that are mandated to serve this specific youth population, in addition to efforts initiated by vested stakeholders within the system to improve access, quality, and coordination of healthcare for YEH. For the past few years, several organizations, and actors across various layers of both systems, have been collaborating to better coordinate healthcare for YEH, with the end goal of improving health and housing outcomes, and thereby preventing and/or ending chronic youth homelessness.

3.7. End materials

Ethics approval and consent to participate: Research ethics approval was granted by the University of Ottawa Health Sciences & Sciences Research Ethics Board (Ethics file number: H-12-20-5771). Document analysis and interviews were performed in accordance with the Declaration of Helsinki. All key informants who were interviewed provided verbal or written informed consent prior to the interview. Interviewees with lived experience of homelessness were compensated $30 for their time and participation.

Availability of data and materials: Data analyzed for this article are available from the corresponding author upon reasonable request.

Competing interests: The authors declare that they have no competing interests with respect to this research.

Funding: This research was supported by the first author's Queen Elizabeth II Scholarship in Science and Technology (2021-2022).

Authors' contributions: AH, KS, RL, and SY made substantial contributions to the study design. AH collected data, analyzed data, and wrote a first draft of this manuscript. KS, RL, and SY critically reviewed the manuscript and provided feedback. All authors have read and approved the manuscript.

Acknowledgements: The authors thank all 24 key informants for sharing their time, knowledge, and experiences with us for this research, including youth with lived experiences of homelessness who were vulnerable and raw in sharing some challenging experiences navigating the health system and shelter system in Toronto.

3.8. References

1. Gaetz S, O'Grady B, Kidd S, Schwan K. Without a home: the National Youth homelessness survey [Internet]. Canadian Observatory on Homelessness; 2016. Available from: http://proxy.library.carleton.ca/loginurl=https://www.deslibris.ca/ID/10065874

2. Boivin JF, Roy É, Haley N, du Fort GG. The Health of Street Youth: A Canadian Perspective. Can J Public Health. 2005 Nov 1;96(6):432–7.

3. Gaetz S, O'Grady B, Buccieri K. Surviving Crime and Violence: Street Youth and Victimization in Toronto. Toronto, ON: JFCY and Homeless Hub; 2010 p. 97.

4. Roy É, Haley N, Leclerc P, Sochanski B, Boudreau JF, Boivin JF. Mortality in a Cohort of Street Youth in Montreal. JAMA. 2004 Aug 4;292(5):569–74.

5. Rotheram-Borus MJ, Song J, Gwadz M, Lee M, Rossem RV, Koopman C. Reductions in HIV Risk Among Runaway Youth. Prev Sci. 2003 Sep 1;4(3):173–87.

6. Shields SA, Wong T, Mann J, Jolly AM, Haase D, Mahaffey S, et al. Prevalence and correlates of Chlamydia infection in Canadian street youth. J Adolesc Health Off Publ Soc Adolesc Med. 2004 May;34(5):384–90.

7. Haldenby AM, Berman H, Forchuk C. Homelessness and Health in Adolescents. Qual Health Res. 2007 Nov;17(9):1232–44.

8. Hwang SW. Homelessness and health. CMAJ. 2001 Jan 23;164(2):229–33.

9. Kulik DM, Gaetz S, Rn CC. Homeless youth's overwhelming health burden: A review of the literature. 2011;16(6):5.

10. Kidd S, Gaetz S, O'Grady B. The 2015 National Canadian Homeless Youth Survey: Mental Health and Addiction Findings. Can J Psychiatry. 2017 Jul 1;62(7):493–500.

11. Kidd S, Gaetz S, O'Grady B, Schwan K, Zhao H, Lopes K, et al. The Second National Canadian Homeless Youth Survey: Mental Health and Addiction Findings: La Deuxième Enquête Nationale Auprès des Jeunes Sans Abri : Résultats en Matière De Santé Mentale et de Toxicomanie. Can J Psychiatry. 2021 Oct 1;66(10):897–905.

12. Frankish J, Hwang D, Quantz. Finding Home: Policy Options for Addressing Homelessness in Canada. Chapter 2.1: The Relationship between Homelessness and Health: An overview of research in Canada. [Internet]. Toronto, Ont.: Cities Centre Press, Univrsity of Toronto; 2009. Available from: http://www.deslibris.ca/ID/223332

13. Barkin SL, Balkrishnan R, Manuel J, Andersen RM, Gelberg L. Health care utilization among homeless adolescents and young adults. J Adolesc Health Off Publ Soc Adolesc Med. 2003 Apr;32(4):253–6.

14. Morris L, CK Fung K, Nisenbaum R, Weekes M, Barozzino T. Toronto Healthcare Services and Barriers to Access for Street-Involved Youth: Analysis of the Enhanced Street Youth Surveillance (E-SYS). SM Prev Med Public Health. 2017;1(2):1–5.

15. Hudani A, Labonte R, Yaya S. Where's the disconnect? Exploring pathways to healthcare for youth experiencing homelessness in Toronto, Canada using grounded theory methodology. Qual Health Res. 2023;

16. Nichols N, Doberstein C. Exploring Effective Systems Responses to Homelessness [Internet]. 2016 [cited 2020 Mar 10]. Available from: http://www.deslibris.ca/ID/10090776

17. Gulliver-Garcia T. The Homeless Hub. 2014. Which city in Canada has the most homeless people per capita and why? | The Homeless Hub. Available from: https://www.homelesshub.ca/blog/ask-hub-which-city-canada-has-most-homeless-people-capita-and-why

18. Hambrick RS, Rog DJ. The Pursuit of Coordination: The Organizational Dimension in the Response to Homelessness. Policy Stud J Urbana Ill. 2000 Jan 1;28(2):353–64.

19. Jenkinson J, Strike C, Hwang SW, Di Ruggiero E. Legal, geographic and organizational contexts that shape knowledge sharing in the hospital discharge process for people experiencing homelessness in Toronto, Canada. Health Soc Care Community. 2022;30(2):e377–87.

20. Hudani A, Long J, Labonté R, Yaya S. Where are the links? Using a causal loop diagram to assess interactions in healthcare coordination for youth experiencing homelessness in Toronto, Canada. Health Res Policy Syst. 2024 Jan 30;22(1):19.

21. Jenkinson J, Wheeler A, Wong C, Pires LM. Hospital Discharge Planning for People Experiencing Homelessness Leaving Acute Care: A Neglected Issue. Healthc Policy. 2020 Aug;16(1):14–21.

22. Jenkinson JIR, Hwang SW, Strike C, Di Ruggiero E. “We don’t have a good system for people who don’t have a home and don’t need a hospital”: Contextualizing the hospital discharge process for people experiencing homelessness in Toronto, Canada. SSM - Qual Res Health. 2022 Dec 1;2:100056.

23. Bond AJ. Essays. 2019. A Cure for Chaos? Ontario's Health System Transformation from Street Level. Available from: https://www.longwoods.com/content/25820/a-cure-for-chaos-ontario-s-health-system-transformation-from-street-level

24. Catalyst N. What Is Care Coordination? NEJM Catal [Internet]. 2018 Jan 1 [cited 2023 Jan 24]; Available from: https://catalyst.nejm.org/doi/full/10.1056/CAT.18.0291

25. Foster-Fishman PG, Nowell B, Yang H. Putting the system back into systems change: a framework for understanding and changing organizational and community systems. Am J Community Psychol. 2007 Jun 1;39(3):197–215.

26. Midgley G. Systemic Intervention. In: Midgley G, editor. Systemic Intervention: Philosophy, Methodology, and Practice [Internet]. Boston, MA: Springer US; 2000 [cited 2022 Apr 28]. p. 113–33. (Contemporary Systems Thinking). Available from: https://doi.org/10.1007/978-1-4615-4201-8_6

27. City of Toronto. City of Toronto. City of Toronto; 2024 [cited 2024 Jan 23]. Toronto at a Glance. Available from: https://www.toronto.ca/city-government/data-research-maps/toronto-at-a-glance/

28. Hewitt-Taylor J. Use of constant comparative analysis in qualitative research. Nursing Standard. 2001;14(4):39–42.

29. Dalglish SL, Khalid H, McMahon SA. Document analysis in health policy research: the READ approach. Health Policy Plan. 2020 Dec 1;35(10):1424–31.

30. City of Toronto. City of Toronto. City of Toronto; 2017 [cited 2022 Apr 29]. Housing & Homelessness Research & Reports. Available from: https://www.toronto.ca/city-government/data-research-maps/research-reports/housing-and-homelessness-research-and-reports/

31. Province of Ontario. Recent News | Ontario Newsroom [Internet]. 2022 [cited 2022 Apr 29]. Available from: https://news.ontario.ca/en

32. Charmaz K. Constructing Grounded Theory. SAGE; 2014. 417 p.

33. Fram S. The Constant Comparative Analysis Method Outside of Grounded Theory. Qual Rep [Internet]. 2015 Jan 14 [cited 2023 Nov 3]; Available from: https://nsuworks.nova.edu/tqr/vol18/iss1/1/

34. Amankwaa L. Creating Protocols for Trustworthiness in Qualitative Research. J Cult Divers. 2016 Fall;23(3):121–7.

35. Turner A. A Way Home: Youth Homelessness Community Planning Kit [Internet]. A Way Home Canada; p. 190. Available from: https://www.homelesshub.ca/toolkit/appendix-ontario%E2%80%99s-housing-and-homelessness-system

36. Shelter, Support & Housing Administration C of T. Toronto Shelter Standards (Version 4) [Internet]. 2015. Available from: https://www.toronto.ca/community-people/community-partners/emergency-shelter-operators/toronto-shelter-standards/

37. Torontocentralhealthline.ca. Torontocentralhealthline.ca. 2020 [cited 2022 May 12]. Toronto. Shelter, Support and Housing Administration. Homelessness Initiatives and

Prevention Services - Central Intake - torontocentralhealthline.ca. Available from: https://www.torontocentralhealthline.ca/displayservice.aspx?id=133949

38. Gaetz S, Schwan K, Redman M, French D, Dej E. The Roadmap for the Prevention of Youth Homelessness [Internet]. Toronto, ON: Canadian Observatory on Homelessness; 2018 [cited 2019 Dec 3]. Available from: https://www.deslibris.ca/ID/10098937

39. Gaetz S, Dej E. A New Direction: A Framework for Homelessness Prevention. Toronto: Canadian Observatory on Homelessness Press; 2017 p. 95.

40. Toronto Shelter Network. Toronto Shelter Network. 2017 [cited 2022 Apr 29]. TSN SECTOR TABLES. Available from: http://www.torontoshelternetwork.com/sector

41. Youth Shelter Interagency Network. System in Crisis: An Action Plan for the Future of Toronto's Homeless Youth. 2007 Feb.

42. Canadian Alliance to End Homelessness. CAEH Conference. 2023 [cited 2023 Nov 15]. 2023 National Conference on Ending Homelessness. Available from: https://conference.caeh.ca/

43. Toronto Alliance to End Homelessness. Toronto Alliance to End Homelessness. 2024 [cited 2024 Jan 25]. Toronto Housing and Homelessness Service Planning Forum. Available from: https://taeh.ca/toronto-forum

44. Youth Wellness Hubs Ontario. Welcome to Youth Wellness Hubs Ontario. 2022 [cited 2022 May 4]. Youth Wellness Hubs Ontario. Available from: https://youthhubs.ca/en/

45. Downey S, McKay S, Feng P. Towards Value in an Integrated Care Environment: Early Lessons from an Ontario Health Team. Healthc Pap. 2020 Feb;19(1):11–8.

46. Province of Ontario. Connecting Care Act 2019 [Internet]. 2021 [cited 2022 Apr 29]. Available from: https://www.ontario.ca/laws/view

47. Inner City Health Associates. About ICHA. 2022. Inner City Health Associates. Available from: https://www.icha-toronto.ca/#

48. Inner City Health Associates. ICHA - Welcome to the Toronto CATCH Program [Internet]. 2022 [cited 2022 May 4]. Available from: https://www.icha-toronto.ca/programs/welcome-to-the-toronto-catch-program

49. The Access Point. The Access Point | About [Internet]. 2022 [cited 2022 May 4]. Available from: http://theaccesspoint.ca/about/

50. The Access Point. The Access Point | Partners [Internet]. 2022 [cited 2022 May 4]. Available from: http://theaccesspoint.ca/partners/

51. Toronto Shelter Network. Toronto Shelter Network. [cited 2023 Feb 24]. STRATEGIC PLAN 2020-2023. Available from: http://www.torontoshelternetwork.com/action-plan

52. Shelter Health Services Advisory Committee. A framework for coordinated health services for shelter clients between City of Toronto, Toronto Central Local Health Integration Network, and Central east LHIN. 2018.

53. Marchildon GP, Allin S, Merkur S. Canada: Health System Review. North American Observatory on Health Systems and Policies; 2020 p. 228.

54. City of Toronto. City of Toronto. City of Toronto; 2022 [cited 2022 Apr 29]. Toronto Public Health. Available from: https://www.toronto.ca/city-government/accountability-operations-customer-service/city-administration/city-managers-office/agencies-corporations/agencies/toronto-public-health/

55. City of Toronto. City of Toronto. City of Toronto; 2022 [cited 2022 Apr 29]. Health Programs & Advice. Available from: https://www.toronto.ca/community-people/health-wellness-care/health-programs-advice/

56. Guthrie K, Garrard L, Hopkins S. Guidance Document for harm reduction in shelter programs: A ten point plan [Internet]. Toronto Public Health, The Works; 2021 Mar p. 10. Available from: https://www.toronto.ca/wp-content/uploads/2021/06/9633-10PointShelterHarmReduction210528AODA.pdf

57. City of Toronto. City of Toronto. City of Toronto; 2017 [cited 2022 Apr 29]. Harm Reduction Supplies & Locations. Available from: https://www.toronto.ca/community-people/health-wellness-care/health-programs-advice/harm-reduction-supplies-and-locations/

58. Canadian Institute for Health Information. Primary health care | CIHI [Internet]. 2022 [cited 2022 Apr 29]. Available from: https://www.cihi.ca/en/primary-health-care

59. Henderson J, Courey L, Relihan J, Darnay K, Szatmari P, Cleverley K, et al. Youth and family members make meaningful contributions to a randomized-controlled trial: YouthCan IMPACT. Early Interv Psychiatry. 2022;16(6):670–7.

60. Henderson JL, Hawke LD, Relihan J. Youth engagement in the YouthCan IMPACT trial. CMAJ. 2018 Nov 7;190(Suppl):S10–2.

61. MAP Centre for Urban Health Solutions. Navigator Project [Internet]. 2021 [cited 2022 Apr 28]. Available from: https://maphealth.ca/navigator/

62. Province of Ontario. ontario.ca. 2022 [cited 2022 Apr 29]. What OHIP covers. Available from: http://www.ontario.ca/page/what-ohip-covers

63. Glazier RH, Agha MM, Moineddin R, Sibley LM. Universal Health Insurance and Equity in Primary Care and Specialist Office Visits: A Population-Based Study. Ann Fam Med. 2009 Sep 1;7(5):396–405.

64. Jaakkimainen L, Glazier R, Barnsley J, Salkeld E, Lu H, Tu K. Waiting to see the specialist: patient and provider characteristics of wait times from primary to specialty care. BMC Fam Pract. 2014 Jan 25;15(1):16.

65. Home and Community Care Support Services. Shelters and Drop-in Centres for Youth - Toronto Central - torontocentralhealthline.ca [Internet]. 2022 [cited 2022 Jul 22]. Available from: https://www.torontocentralhealthline.ca/listServices.aspx?id=10490

66. Eva's Initiatives for Homeless Youth. Eva's Initiatives for Homeless Youth. 2022 [cited 2022 Apr 29]. Eva's Satellite. Available from: https://www.evas.ca/where-we-are/evas-satellite/

67. Covenant House Toronto. Health and Well-being [Internet]. Covenant House Toronto. 2023 [cited 2023 Nov 2]. Available from: https://covenanthousetoronto.ca/our-solution/health-and-well-being/

68. Hwang SW, Stergiopoulos V, O'Campo P, Gozdzik A. Ending homelessness among people with mental illness: the At Home/Chez Soi randomized trial of a Housing First intervention in Toronto. BMC Public Health. 2012 Dec;12(1):1–16.

69. Miler JA, Carver H, Foster R, Parkes T. Provision of peer support at the intersection of homelessness and problem substance use services: a systematic 'state of the art' review. BMC Public Health. 2020 May 7;20(1):641.

70. National Health Care for the Homeless Council. The Health Care for the Homeless Program [Internet]. National Health Care for the Homeless Council; 2021. Available from: https://nhchc.org/wp-content/uploads/2021/04/HCH-Fact-Sheet_2021.pdf

71. Zlotnick C, Zerger S, Wolfe PB. Health Care for the Homeless: What We Have Learned in the Past 30 Years and What's Next. Am J Public Health. 2013 Dec;103(Suppl 2):S199–205.

72. Wang A, Pridham KF, Nisenbaum R, Pedersen C, Brown R, Hwang SW. Factors Associated with Readmission Among General Internal Medicine Patients Experiencing Homelessness. J Gen Intern Med. 2021 Jul 1;36(7):1944–50.

73. Liu M, Pridham KF, Jenkinson J, Nisenbaum R, Richard L, Pedersen C, et al. Navigator programme for hospitalised adults experiencing homelessness: protocol for a pragmatic randomised controlled trial. BMJ Open. 2022 Dec;12(12):e065688.

74. Guion LA, Diehl D, McDonald D. Triangulation: Establishing the Validity of Qualitative Studies. University of Florida; 2002.

75. Bowen GA. Document Analysis as a Qualitative Research Method. Qual Res J. 2009 Aug 3;9(2):27–40.

CHAPTER 4. ARTCLE 2: Where's the disconnect? Exploring pathways to healthcare coordinated for youth experiencing homelessness in Toronto, Canada using grounded theory methodology

Publication status: this article was published in Qualitative Health Research on November 10th, 2023.

Citation: Hudani A, Labonté R, Yaya S. Where's the Disconnect? Exploring Pathways to Healthcare Coordinated for Youth Experiencing Homelessness in Toronto, Canada, Using Grounded Theory Methodology. *Qualitative Health Research*. 2023;0(0). doi:10.1177/10497323231208417

Authors: Alzahra Hudani[1], Ronald Labonté[2] & Sanni Yaya[3,4*]

Affiliations:

1. Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, Ontario
2. School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario
3. School of International Development and Global Studies, University of Ottawa, Ottawa, Ontario
4. The George Institute for Global Health, Imperial College London, London, UK

4.1. Abstract

About 900 youth experiencing homelessness (YEH) reside at an emergency youth shelter (EYS) in Toronto on any given night. Several EYSs offer access to healthcare based on youths' needs, including access to primary care, and mental health and addictions support. However, youth also require healthcare from the broader health system, which is often challenging to navigate and access. Currently, little is known about healthcare coordination efforts between the EYS and health systems for YEH. Using grounded theory methodology, we interviewed 24 system stakeholders and concurrently analyzed and compared data to explore pathways to healthcare coordinated for youth who had resided at an EYS in Toronto. We also investigated fundamental parts (i.e., norms, resources, regulations, and operations) within the EYS and health systems that influence these pathways to healthcare using thematic analysis. A significant healthcare coordination gap was found between these two systems, typically when youth experience crises, and often resulting in a recurring loop of transition and discharge between EYSs and hospitals. Several parts within each system act interdependently in hindering adequate healthcare coordination between the EYS and health systems. Incorporating training for system staff on how to effectively coordinate healthcare and work with homeless populations who have complex health needs, and rethinking information-sharing policies within circles of care, are examples of how system parts can be targeted to improve healthcare coordination for YEH. Establishing multidisciplinary healthcare teams specialized to serve the complex needs of YEH may also improve healthcare coordination between systems, and access and quality of healthcare for this population.

4.2. Background

Approximately 11% of the homeless population in Toronto, Canada is comprised of youth aged 16-24 (1). Youth experiencing homelessness (YEH) are exposed to several factors associated with poor health including inadequate nutrition, increased risk of injury, and increased exposure to a range of infectious diseases (2–4). Among these factors, poor mental health and addictions are the most prevalent (5). Many YEH suffer from addictions and chronic mental health issues including severe mental distress, depression, anxiety, and suicidal ideation (6,7). Poor mental health is often associated with childhood trauma, discrimination, and the experience of homelessness itself (7). Findings from the second and most recent national youth homelessness survey (2019) (n=1375), indicate that 74% of youth respondents report being highly distressed, 35% report attempting suicide at least once, and 33% report a drug overdose requiring hospitalization (8). Of those youth suffering from mental illness, 60% present with multiple diagnoses (9). Several studies indicate a dose-response relationship between exposure to homelessness and mental health decline (5,10). Findings from the 2015 and 2019 national surveys also indicate that about 25-30% of youth seeking shelter reside at an emergency youth shelter (EYS) (5,8,11).

Approximately 900 youth between the ages of 16-24 reside at an EYS in Toronto on any given night (1,12). Although EYSs are mandated to provide support for youths' immediate needs, they have evolved to offer programs and services to help improve youths' health, and determinants of health (e.g., therapy, housing support, employment assistance programs, etc.) (13). While these services are convenient for youth to access on-site, they are not uniformly offered across EYSs in Toronto due to limited funding and resources. Further, youth suffering from complex and chronic health issues may require care from the broader health system, where they can readily access

advanced health technology for their emergency and/or specialized health needs (14). For youth to receive optimal healthcare, shelter and health system staff must work collaboratively to coordinate healthcare effectively (15).

Currently, it is unknown how EYS and health system staff who work within their siloed systems support youth with coordinating care for their health needs. Understanding youths' pathways to healthcare as coordinated by system staff, and barriers preventing staff from seamlessly coordinating healthcare for youth, may enable stakeholders within Toronto's EYS and health systems with a starting point from which to collectively target various system elements to improve healthcare coordination for YEH.

The research questions guiding this study are: *1) How is healthcare coordinated for youth residing at EYSs in Toronto?* and *2) What factors influence youths' trajectories to healthcare?* In responding to these research question, we aim to 1) outline distinct pathways to healthcare for youth who reside at EYSs in Toronto; and 2) analyze and discuss various system parts and characteristics that influence these pathways to healthcare within and between the EYS system and health system. This study is informed by a systems thinking and organizational change framework, where we breakdown fundamental parts of each system that may be influencing the current state of healthcare coordination for youth residing at EYSs in Toronto.

4.3. Methods

4.3.1. Study Design

This research is part of a larger case study exploring how the EYS system and health system engage to coordinate healthcare for YEH within the inner-city and inner suburban regions of Toronto. The methods used to respond to the research questions in this study are twofold and consist of those that align with constructivist grounded theory methodology and thematic analysis.

We first employ constructivist grounded theory methodology to understand intra- and inter-systemic healthcare coordination processes that influence youths' trajectories to healthcare within and between the EYS and health systems, and in doing so inductively generate a theoretical explanation about this complex, and lesser-known phenomenon. Charmaz's constructivist approach assumes a relativist epistemology and acknowledges the roles of the researcher and interview participants in the construction and interpretation of the data (16).

We then analyzed these pathways further using thematic analysis to understand the fundamental system parts (i.e., system-based norms, resources, regulations, and operations) that affect healthcare coordination processes and quality within and between the EYS and health systems, and how these parts might influence youths' pathways to healthcare. Thematic analysis of the fundamental system parts (see Table 4.1) and their roles in healthcare coordination for YEH are approached using essentialist/realist epistemology (17), and are guided by the second component of Foster-Fishman and colleagues' theoretical framework for transformative systems change (18). These fundamental system parts are critical to explore as they affect the relationships that YEH have with organizations and staff within each system.

Table 4.1: Description of fundamental system parts

System Parts	Description
Norms	System norms refer to the attitudes, beliefs, and values held by organizations within systems, which can dictate behaviours. When these worldviews are shared by systems or subsystems, they play a role in determining their policies, practices, and functions.
Resources	System resources encompass human, social, economic, and opportunity capital. • Human resources include the knowledge, skills, and abilities that exist within the system. • Social resources consist of the relationships between system staff which would thereby influence system functioning – i.e., how healthcare is coordinated within and between systems.

	• Economic and opportunity capital refer to the distribution of financial and organizational resources to facilitate improved coordination of healthcare.
Regulations	System regulations refer to the policies, procedures and routines that exist in coordinating healthcare for youth.
Operations	System operations refer to power and decision-making within systems - understanding this can help identify root causes of gaps within systems, as they relate to coordinating healthcare for YEH.

4.3.2. Data Collection

This qualitative study comprises of interviews with key informants involved at various levels of the EYS and health systems in Toronto, and YEH who have navigated healthcare while residing at an EYS. Twenty-four in-depth, semi-structured interviews were facilitated virtually with key informants between May 2021- March 2022. First, we used purposive sampling to recruit high-level executives and clinicians who worked within the EYS system and health system, respectively. We then used snowball sampling to recruit other stakeholders including lower-level executives (e.g., case managers), and various frontline staff with clinical (e.g., registered nurse, social worker, etc.) and non-clinical (e.g., program coordinators, outreach counsellors, etc.) backgrounds. A few frontline staff working at EYSs and within the community health sector supported with youth recruitment by posting flyers at their respective organizations, or personally sharing flyers and information sheets with youth who met inclusion criteria. Youth were interviewed if they ranged between 16-24 years of age, resided at an EYS in Toronto, and navigated healthcare integrated within an EYS or the broader health system. In total, we interviewed 8 key informants employed within the EYS system, 7 within the health system, 3 whose work overlapped across systems, and 6 youth.

Two separate interview guides were developed for youth and non-youth participants. Interview questions were open-ended and focused on identifying and assessing healthcare

coordination processes within and between the EYS and health systems in Toronto, and fundamental system parts that influence these processes.

4.3.3. Data Analysis

4.3.3.1. Grounded Theory

Interview transcripts were filed into NVivo12.0 software, and inductively coded to identify and construct pathways to healthcare taken by YEH. Three layers of coding were applied based on Charmaz's constructivist grounded theory approach (16). First, we used open coding to identify actions and processes relevant to coordinating healthcare within and between systems. Open coding took place sentence-by-sentence, and in some cases segment-by-segment, and included gerunds to label actions and processes relayed by key informants. We then used focused coding to categorize predominant initial codes into defined categories. Finally, theoretical coding was used to integrate these categories and illustrate youths' trajectories to healthcare. Analytic memos were documented simultaneously post-interviews and while analyzing data. Memos included descriptive summaries of interviews; emerging patterns, categories and/or concepts; and personal thoughts and reflections related to the study. Interview data were constantly compared to identify healthcare coordination processes mentioned by interview participants. The interrelationship between the coding process, analytic memo writing, and constant comparative analysis helped formulate the grounded theory.

4.3.3.2. Thematic Analysis

Thematic analysis was then used to identify, analyze, and interpret critical system parts associated with healthcare coordination processes within and between systems (17). We used deductive, theory-driven coding to organize interview data into predetermined categories based on the fundamental system parts (systems norms, resources, regulations, and operations) and sub-

categories that fall under these parts, as described in Table 1. Inductive coding was used to further identify semantic themes within these categories and sub-categories, to explicate how they affect youths' pathways to healthcare within and between the EYS and health systems. Thematic analysis was also conducted using NVivo 12.0 software.

4.3.4. Ethical Approval and Considerations

Ethical approval was granted by the University of Ottawa Health Sciences and Sciences Research Ethics Board. Non-youth key informants were provided with an informed consent form to review in advance of their interview. Youth were e-mailed a 1-page information sheet and flyer outlining important study details, after which they could contact the primary investigator (AH) with any questions and/or schedule the interview. If youth preferred, AH offered this information over the phone. Written or verbal consent was provided by all key informants who agreed to participate in an interview. Verbal consent and interviews were recorded and transcribed using Otter.ai software. Youth were compensated $30 through e-transfer for their time. Further, AH is trained in structuring safety when interviewing populations who have experienced trauma (19). She ensured that all youth participants had a safe and private space from which to interview and assured them of their anonymity in any knowledge dissemination products materializing from this work.

4.3.5. Trustworthiness

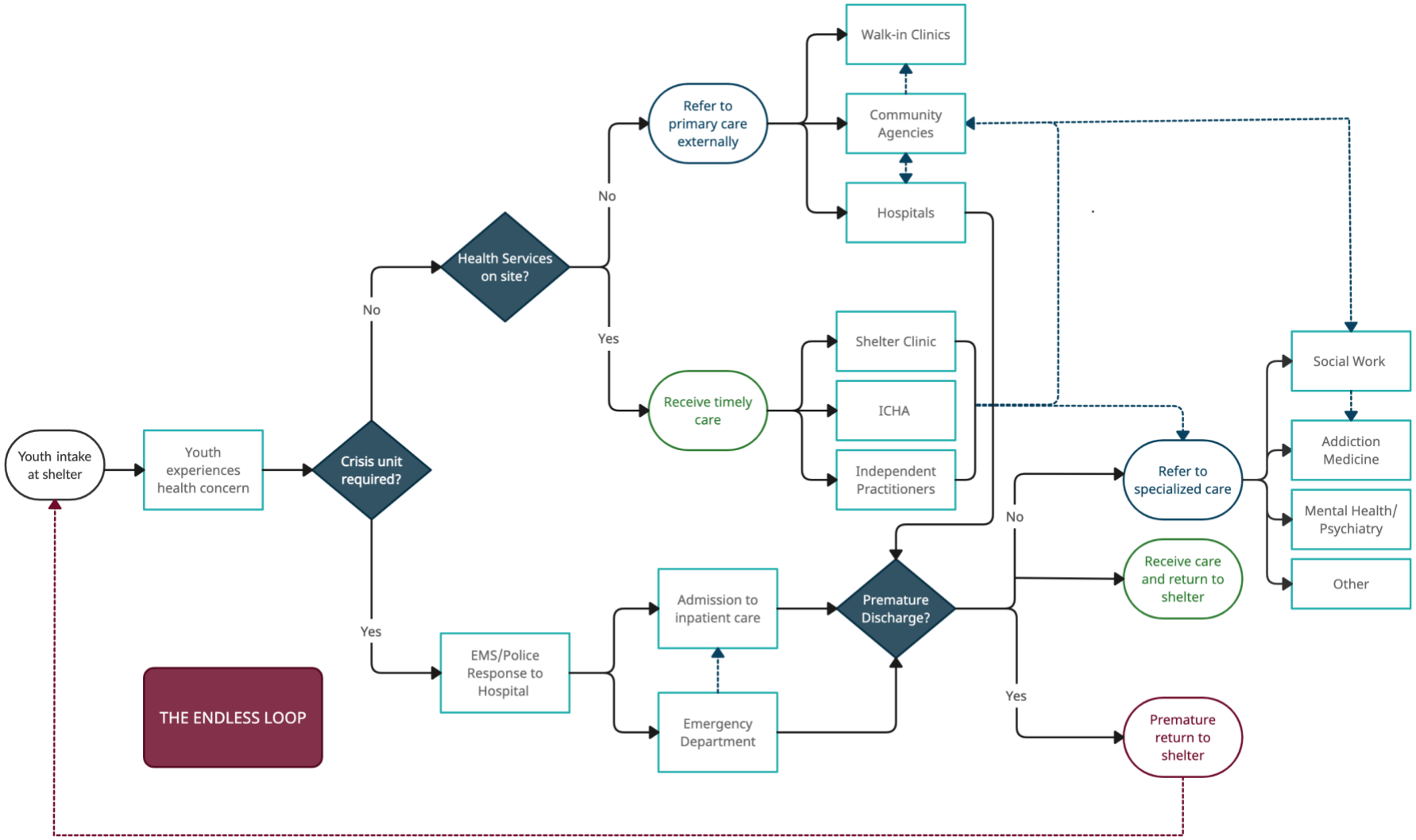
Rigor in this study was achieved by embracing the core practices of grounded theory methodology. This includes constant comparison of emerging data; detailed and reflexive memo-writing to articulate healthcare coordination processes and personal reflection; three layers of coding; collecting data until reaching theoretical saturation; and member checking pathways to healthcare with 6 key informants who work within either system. Confirmability was enhanced

through data triangulation (20). Additionally, themes discovered through thematic analysis aligned with several memos that were previously documented.

4.4. Results

Youth residing at EYSs in Toronto follow various pathways to healthcare depending on their needs and the healthcare resources integrated at EYSs or within the health system (See Figure 4.1). Since policies or protocols on healthcare coordination between the EYS and health systems do not exist, staff often use their own professional training, internal health and safety protocols, and relationships developed with external organizations to provide or coordinate health services for their youth clients or patients.

Figure 4.1: Pathways to healthcare process map



Most youth access care within the health system independently when experiencing health concerns. However, support with coordinating healthcare by or with system staff can help youth access care within the complex health system, which can be challenging to navigate alone. EYS staff support with coordinating healthcare for their youth clients if they are aware of their health needs and receive consent, or if youth are experiencing crises they are not equipped to care for (e.g., overdose, suicide attempt, etc.). If youth are not prematurely discharged from hospitals and successfully progress to receive specialized care (if needed), healthcare coordination is typically led by hospital staff. The maroon dashed arrow represents a critical disconnect in the pathways to healthcare - the endless shelter-hospital loop often implicating the most vulnerable youth. The navy-blue dashed arrows represent possible routes to healthcare, as referred by healthcare providers within the health system. The grounded theory proposed is depicted through Figure 4.1 and highlights how insufficient engagement and poor healthcare coordination within and between the EYS and health systems can lead to youths' entrapment in the endless shelter-hospital loop - a possible outcome through multiple routes in youths' trajectories to healthcare. Higher risk youth who reside at EYSs with fewer healthcare resources and healthcare coordination capacity, often end up taking the shortest route to possible premature discharge leading to the endless loop. Each system is dissected further to provide context on the norms, resources, regulations, and operations that affect healthcare coordination, and inevitably youths' distinct trajectories to healthcare.

4.4.1. Factors affecting pathways to healthcare

4.4.1.1. System Norms

Organizational missions and values and the personal attitudes, beliefs, and values of staff influence youths' pathways to healthcare. Staff within EYSs and community-based agencies (e.g., health centres, drop-in programs for YEH, Inner-City Health Associate (ICHA) clinics, etc.)

commonly describe the importance of engaging in trauma-informed, youth-led, and youth-focused care, and practicing resiliency and strengths-based approaches to care. An ICHA physician describes why:

> "*I think having trauma-informed care is really important because a majority of our youth have experienced an incredible amount of trauma and have sometimes had negative experiences with the healthcare system. I also think providing non-judgmental and low barrier care and making it very clear that it's a safe environment [are important] ... letting the youth know that anything they don't want to talk about or engage in is completely fine."*

When youth feel safe and feel that they can trust the system and staff, they are more likely to communicate their needs to their caseworkers and follow non-crises routes to healthcare.

Within hospitals, core values include evidence-based care, recovery-oriented care, and serving with compassion. However, an emergency department physician explains: *"Although compassion is one of the values advertised, I think it wavers and obviously depends on the experience level of the provider, and there could be a certain point where people have compassion fatigue."* Several YEH describe feeling unwelcome, unheard, unsupported, and uncared for by healthcare providers at hospitals. A 19-year-old youth explains how hospital care can be improved based on her experience: *"If they actually took the time to listen, not go into their weird doctor mode, and talk to me like I'm an actual fucking person."* Shelter staff, community healthcare staff, and youth informants agree that YEH do not always receive the care and attention they need at hospitals, often leading to the recurring shelter-hospital loop.

Staff who work at hospitals and have a background in working with homeless populations demonstrate similar values to EYS and community health staff. For instance, a staff member involved in a hospital program dedicated to supporting people experiencing homelessness

discusses the importance of dignified and equitable care for all, being person-centered, and aligning with trauma-informed and harm reduction philosophies. Other staff involved in similar initiatives discuss their ability to identify the needs of YEH and pair it with a resource – this includes coordinating care for YEH beyond their visit to the hospital. For example, a coordinator working within the emergency department mentions connecting patients to health services through Coordinated Access to Care for the Homeless (CATCH) referrals - a short-term case management service developed in collaboration with ICHA, St. Michael's hospital, and Toronto North Support Services, to link individuals experiencing homelessness with psychiatry, primary care, and initiating housing plans. Her ability to help patients navigate healthcare depends significantly on her attitude towards them. She explains: "*At the core of it is relationships and trying to see somebody through the entirety of who they are and not just the situation they're in... then you're allowed to navigate."* Building trust with people experiencing homeless is a critical first step to supporting them with their healthcare coordination needs, whether through the EYS or health systems.

4.4.1.2. System Resources

Human Capital: What knowledge, skills, and training exist and are needed within each system?

Most EYS staff believe they have the skills and knowledge needed to coordinate healthcare well- this includes applying a trauma-informed approach to care and supporting YEH navigate community resources. Insufficient funding and human capital were stated as factors hindering healthcare coordination within and between systems, even if staff held attitudes and values that supported work with YEH. An executive at Shelter C shares: *"Shelters may benefit from having more staff, 40:2 is a pretty big ratio for youth to staff…we cannot meet the [Toronto Shelter] standards without adequate funding."*

EYSs sampled in this study employ a general case management approach to coordinating healthcare for youth. Most staff discuss being trained on the job, shadowing others, and learning from response to crisis and health concerns commonly experienced by youth. Additionally, the educational and occupational backgrounds of shelter and hospital staff significantly contribute to how healthcare is coordinated for youth. An executive at Shelter A shares: *"Registered nurses have training that they [get] through nursing school, the doctor, same thing…case managers, some of them have a social work background, so would have a case management approach grounded in social work practice, but there isn't like one formal process for coordinated care."*

Staff who typically coordinate healthcare and have observed gaps and challenges with them, agree that staff within both systems could benefit from receiving joint training. A clinical manager at Shelter A states, *"There should be training for us, and teams at the emergency departments, together - so that things are coordinated. Sure, we can have training [for] coordination of care, but what does it mean if other teams aren't working consistently."* Frontline staff at hospitals commented on how training focused on serving gender-diverse youth, harm reduction, trauma-informed care and anti-oppression could help effectively serve homeless youth populations who frequently visit inner-city hospitals. Currently, there is no training or education that helps hospital healthcare providers situate or understand the contexts of this population. Further, EYS and hospital staff agree that being aware of relevant health services in their region is necessary to coordinate healthcare well.

Hospital-based healthcare providers mention having few or no relationships with EYS staff. A social worker at a Toronto hospital discusses taking the initiative to create a list of resources through the 519 to share with her youth patients to access independently. Moreover, most hospital referrals are coordinated internally. A few healthcare staff discuss the benefit of knowing how to

connect youth to community health and housing resources and contacting the central access line, but also limitations that may exist with external community-based referrals. A counsellor at a Toronto hospital shares: *"There's nothing we can do except make community referrals and cross your fingers and toes that those connections and referrals actually work out because once people are discharged, you can't do anything."* This is a significant reason why relationship-building and navigation support through hospitals and with EYS providers, can help improve healthcare coordination between systems.

Social Resources: What relationships and interactions exist within and between systems?

Strong inter-organizational relationships allow for important information and resources to diffuse through each system, and support the development and transfer of norms, attitudes, and knowledge for effectively coordinating healthcare for YEH (21). While intra-organizational relationships within the EYS and health system are reportedly strong, inter-organizational relationships within and between these systems are generally weak and depend significantly on pre-existing connections between high-level executives and healthcare providers. A clinician at Shelter A shares:

> *"I think the shelter sector generally needs to work together more. I think part of it goes to the fact that people are vying for the same pools of money and so sometimes that creates competition rather than a sharing of resources…other than ICHA physicians also going to [Shelter B] and coming to us, and those are actually different physicians, we don't share healthcare resources."*

The Youth Shelter Interagency Network was noted as a key platform through which shelter leadership convened regularly to discuss any processes, learnings, and challenges related to coordinating healthcare for YEH.

Most relationships developed between EYSs and the health system are described as informal, unless integrated on-site or formally established. Shelter staff frequently refer youth to external healthcare services or connect with individuals in their networks who can help improve processes of coordinating healthcare between systems. EYS staff agree that they are more successful in establishing relationships with healthcare organizations that have similar aims and values as them, typically community agencies. Establishing strong, positive relationships with hospitals have generally been challenging for EYS staff. Similarly, hospital staff did not report any strong working relationships with EYSs in their region unless initiated by staff involved in specific programs focused on improving the health outcomes of homeless populations.

Economic & opportunity capital

The underlying challenge with economic and opportunity capital boils down to critical underfunding within the EYS system, and a scarcity of shelter, supportive housing, and targeted health services for YEH. When asked about how the two systems can use their respective resources differently to improve healthcare coordination, the consensus was that there is a need for more resources overall. Most interview participants believed that little to no money was wasted within either system, but rather the larger issue was having to fund crisis response as opposed to prevention. The term "Zero-sum game" was used analogously by a hospital researcher and clinician to describe the possible outcome of redistributing financial resources within systems to improve healthcare coordination. He elaborates:

> *"You can't stop funding crisis response because people will suffer and die, but at the same time, you need to move resources to prevention. So, for a period, you need to do both, which is expensive - you need to fund prevention, so things like housing first, family*

reconnect, etc... an upstream response, and that will start to reduce the flow of youth into crises. As you do that, you will need less crises services, fewer shelter beds, you can start to take money out of that... and fewer emergency hospitalizations. Then the money, the demand there starts to go down…"

Other propositions to reduce recurring emergency department visits, and thereby financial strain on the health system include: 1) integrating health services within each EYS; 3) developing meaningful connections between youth and health services within the health system; and 3) establishing targeted health services in the community, aiding youth with community reintegration (e.g., Youth Wellness Hubs).

4.4.1.3. System Regulations

Currently, there are no written policies, procedures, or training offered across systems on coordinating healthcare for YEH. A local government executive confirms, *"Training specifically on the integration [HC] piece is a good question. I can't think of any specific training that we have in place for that."* For many EYS staff, healthcare coordination is *"learnt on the job."* Despite this, in-house processes for coordinating healthcare are similar across EYSs and some health system organizations as depicted in Figure 4.1, although executed by different staff within each system, depending on their capacities. For example, a shelter with an in-house, nurse-led clinic may have nurses lead efforts to coordinate healthcare for youth, whereas shelters who do not have such infrastructure may delegate this task to other staff on their team, such as a psychologist, case manager, or youth worker.

Efforts to coordinate healthcare for youth residing at EYSs are usually successful once trusting relationships are established between youth and staff, and once youth provide consent. Several lines of communication exist internally, where staff communicate youths' health

information to team members; for example, resources they have been referred to, medication they require, etc. Barriers in coordinating healthcare increase when youth are sent elsewhere to receive care – especially to hospitals when experiencing crises. The largest barrier in coordinating healthcare for youth in these circumstances is poor communication between system staff; largely due to privacy concerns and information sharing policies preventing staff from discussing critical information required to support continuity of healthcare following hospital discharge. Additionally, youth often return to EYSs without discharge papers making it challenging for EYS staff to support and/or coordinate next steps in healthcare. YEH also face barriers in communicating crucial information to EYS staff and hospital healthcare providers when admitted to hospitals.

Information Sharing & Privacy Policies

Information-sharing and privacy policies within each sector prevent staff from exchanging important information and following up about youths' health status and/or next steps in healthcare, although technically considered circle of care. This gap in follow-up sometimes results in: 1) youth losing their bed and belongings when returning to shelter from a prolonged hospital stay, usually in a fragile state; and 2) EYS staff being unable to convey essential information to hospital healthcare providers during crises. Below are two scenarios describing these common, spiraling challenges.

Scenario 1: A manager at Shelter A shares:

> *"If youth are residing in shelter, we'll hold their bed for up to five days – this is mandated by the city. So, because it's mandated by the city, we can't hold their bed longer than that, we [will] have to give it up because shelters are frequently full. So, when I send a young person [to the emergency department], I will then call that emerge or patient locating, and speak to the provider, whether it's a physician or registered nurse who's caring for our*

client, and just say, 'Hey, I'm from [Shelter A], and I want to know... these are our bed hold policies so let me know if you're planning on keeping them longer, if so then we'll have to pull the bed. If you think it's going to be a few more, day maybe days, we can appeal the city.' And I want to be very respectful of their privacy policies. But we're seeing a huge discrepancy in how different hospitals and different staff operate."

Scenario 2: A community health clinic manager shares an example of how these policies can lead to barriers in supporting healthcare post-hospital discharge:

"Unfortunately, the patient was discharged [from the hospital mental health department] with medication that wasn't covered - there was a lot back and forth to see how we can get this medication covered because this patient didn't have any identification, let alone coverage. Unfortunately, we couldn't get them access to the medication. And it was disappointing to see that happen."

Instances like these often contribute to the recurring shelter-hospital loop, even when youth are referred to hospitals within the health system through community health agencies. Overall, the lack of communication between shelter and hospital staff significantly contribute to youth's entrapment in the endless loop. Moreover, EYS and hospital discharge policies also contribute to the endless loop, impeding youths' escape from the vicious cycle of homelessness and poor health.

Discharge Policies & Procedures

How do shelter discharge policies get in the way?

EYS discharge policies can interfere with youth receiving critical healthcare, and/or supporting with coordinating healthcare for or with YEH. Discharge policies include rigid rules around chores, curfew, and being caught with substances on site. A 24-year-old newcomer male

suffering from a neurological disorder was late to his surgery because he was asked to complete his chores before leaving the shelter. He shares:

> "O*n the day of my surgery, I was late to the hospital. But that's because the worker at the shelter wanted me to do a chore. I tried to tell her that I have surgery, but there are rules right, if you don't do a chore, they will give you a warning. And according to the rules... if you get three warnings, you get discharged."*

Post- surgery, this young man lost his shelter bed and belongings due to the shelter bed-hold policy:

> *"I lost my bed, suitcase and everything because I was in the hospital for a week. And I wasn't able to call, so yeah, as a newcomer it was tough to lose everything that belonged to me."*

Other youth shared similar stories about losing their bed in times when they may have needed one most.

A clinician working at Shelter B agrees that shelter policies need to be rethought. When asked about policies that hinder healthcare coordination, she shares:

> *"That's been my biggest challenge, if a youth gets three warnings they are discharged, and the warnings could be because they were rude, or they refused to do a chore. A lot of times it's youth that are just new to the shelter. And so, they're coming in, who knows the circumstances under which they came from, and they're struggling, and they break. A lot of times they're angry at the world, they're angry at everybody. And I just find that this is the youth that needs a lot of support. Not, you know, 'don't talk to me like that, that's your third warning. Go pack your bags, you're out of here'…discharges should only be the health and safety of the youth, other youth, or staff."*

Enforcing such policies conflict with the core value of trauma-informed care at EYSs.

Premature discharge from hospitals: what happens and why?

YEH are often prematurely discharged from hospitals. This occurs when they: 1) experience stigma and discrimination by hospital staff; 2) are escorted out by security prior to receiving medical care, and/or 3) have mental health concerns that are commonly dismissed by healthcare providers. A 19-year-old woman suffering from depression, anxiety, and addictions, shares her experience:

> *"It's hard to just walk into a hospital and say that your brain is all fucked up. Or to walk into a walk-in clinic and say that... sometimes the way they treat you changes, if they find out that you are a sheltered kid, especially if you are going in for substance abuse. At that point, it doesn't matter that you needed help, or felt like you were going to die - just like you did this to yourself, you need to leave."*

She also discusses facing mental health comorbidities that have been dismissed and exacerbated during her stay at the hospital:

> "*I'll tell them, just let me be here overnight, let me stay till morning. And then [it becomes] a whole thing and makes it worse and my mental health kicks in because I have all these different disorders and that doesn't help. If you don't freak out, they won't believe you unless you actually physically tell them that you're going to kill yourself. It's like, I'm not suicidal. Like, can I hurt myself? Or others? Yes. Doesn't mean I want to, and then they just wait for that to happen, before saying, okay, come back."*

An executive at Shelter C, who has over 20 years of experience working within the EYS system shares her observations on why premature discharge from hospitals happen, particularly in the context of mental health issues:

"One of the things that often happens is, we'll have a young person who has thoughts of suicide, and off they go to the hospital, the hospital thinks it's not valid and then back they come to us, and then they may have those thoughts again, and off they go back to the hospital and then back they come to us - and that dance has been at every single shelter that I've worked at. And so, I think we should, err on this side of caution, when sending a person to get assessed- but also when a person goes to the hospital, they don't want to stay there, they may not be treated well, they may not be taken seriously."

4.4.1.4. System Operations

Crises vs. Non-Crises Routes to Healthcare

Power in decision-making to coordinate healthcare depends significantly on whether youth are experiencing crises that require emergency care. The executive at Shelter C shares, *"I think our role is to identify if we think this person is either in danger or a danger, get them to the health system and then the health system decides whether or not what we see is valid and requires an assessment."* In non-crises situations, stakeholders at various levels within both systems have the power to influence healthcare coordination for YEH. The hierarchy in decision-making starts with the provincial and local governments. The Ministry of Health has the power to develop relevant policies and enforce integrated programs and services for this population; and the City of Toronto controls the delivery of base shelter programming and support, including any frameworks or practices to improve healthcare coordination or health service integration within EYSs. A case manager at Shelter B shares: *"We are a city run shelter at the end of the day, and coordination of care between different shelters, and shelters and other providers is trenched within the city's policies, as well as our private agency policy."*

At subsequent levels, decision-making in healthcare coordination is influenced by EYS or health system leadership, and/or staff providing or coordinating healthcare depending on youths' position in their trajectory to healthcare. EYS executives and leaders are responsible for deciding how fundraised money is spent in efforts to coordinate healthcare for YEH; whether they are spending resources developing inter-organizational relationships with independent practitioners and/or health agencies to integrate health services on-site or referring youth to community-based healthcare. Additionally, efforts are made to advocate for youth when observing gaps in their care. Clinical staff at shelters and hospitals sometimes inadvertently act as liaisons between systems by offering to connect youth to other healthcare services based on their needs.

Most EYS and health system staff believe that youth lead decision-making in coordinating care for their health needs, as they must consent to receive care. A few EYS staff also discuss the importance of involving youth in decision-making for shelter programming and healthcare to develop effective models of integrated and coordinated healthcare. An executive at Shelter A states, *"I think working with young people needs to really emphasize co-design, engaging young people, and understanding what type of shelter they want, how they want services delivered, etc. Does that happen? Yes. Does that happen enough? Probably not."*

4.5. Discussion

In addition to being supported with healthcare coordination, youth may involuntarily have healthcare coordinated for them by staff (e.g., being formed at an EYS), and/or choose not to seek healthcare at various points of non-crises pathways, especially if they experienced the endless loop and have "given up" on accessing health services. One of the biggest challenges identified in youths' trajectories to healthcare is premature discharge from hospitals during crises, often resulting in an endless loop between shelters and hospitals. Various elements within these

fragmented systems feed this recurring pathway - a few of which include health system norms, which may result from insufficient staff knowledge and training for serving marginalized populations experiencing homelessness, who may have complex mental health needs; information-sharing and privacy policies preventing important communication exchange between system staff; and having only few formal inter-organizational relationships between systems through which to coordinate healthcare appropriately and effectively. Further, we found that coordinated pathways to mental healthcare and addictions support for youth are scarce and barely identified - another factor leading to the endless loop between systems. This is especially important given the high prevalence of mental health issues and addictions among YEH. According to organizational theorists, constructive change within systems will only occur if the deeper structures within systems (i.e., fundamental system parts) that contribute to poor systems functioning are targeted (22). These system parts are significantly interdependent, as demonstrated in this study.

Integrating accessible and timely primary and mental healthcare on-site at EYSs was proposed by several key informants to improve access to healthcare for youth and encourage more non-crises routes to care. Specialized healthcare approaches in the UK and USA demonstrate additional pathways to integrated healthcare for homeless populations (23). Findings from a randomized controlled trial in the UK demonstrates that specialized general practitioner enhanced care at hospitals for the complex needs of homeless patients improved patients' quality of life post-discharge (EQ-5D-5L score increased by 0.12 [95% CI 0.032 to 0.22] in the enhanced care arm compared to 0.03 [-0.1 to 0.15; p=0.076] with standard care) (24,25). Additionally, the Healthcare for Homeless model embedded in the US federal healthcare system emphasizes a multidisciplinary approach to coordinating healthcare in collaboration with community healthcare providers and social service agencies (26).

Nonetheless, the recent establishment of Ontario Health Teams in Toronto, while broadly targeting all-encompassing population health needs (27), is similarly promising in helping youth at EYSs who have complex health needs navigate healthcare with the support of a professional, multi-disciplinary team. To our knowledge, multidisciplinary healthcare teams specialized to serve the complex needs of YEH or other homeless populations within Toronto-based hospitals do not exist, although many youths go or are sent to hospitals to receive emergency care. Such an initiative would require teams consisting of diverse healthcare providers across primary, secondary and community care. Teams would require adequate training to appropriately build trust and rapport with individuals experiencing homelessness; knowledge and awareness of resources within both systems, sufficient follow-up with clients; adequate communication across integrated and external care providers; and assistance with housing programs/housing first (25). Hospital stays present an opportunity to engage YEH with secondary care, and community healthcare and services which can help improve other aspects of their health and determinants of health. We recommend that such integrated pathways to healthcare be considered for study by clinician-researchers in Toronto, who may be affiliated with major inner-city hospitals and health centres. Current programs supporting homeless populations with systems navigation is a step in the right direction. Additionally, efforts to involve YEH as peers within EYS and health system programming is recommended based on favourable evidence from recent programs (28,29). Additionally, like the US Healthcare for Homeless model, healthcare coordination within Canadian systems may be improved significantly from implementing and enforcing information-sharing through electronic medical records across the EYS and health systems (30) – this will enable service providers within circles of care to adequately follow youths' healthcare trajectories whether accessing integrated healthcare at shelters or that within the broader health system.

4.5.1. Future Directions

The next steps in this case study are to integrate these system elements and assess their interactions in current healthcare coordination efforts. A causal loop diagram will help visualize balancing and reinforcing interdependencies and feedback within and between systems. The aim is to identify in detail, which areas within the EYS and health systems can be targeted to improve healthcare coordination for YEH.

4.5.2. Strengths & Limitations

Triangulating data from stakeholders at various levels of the EYS and health systems, including YEH, helped to develop a comprehensive overview of pathways to healthcare coordinated for YEH in Toronto. The theoretical framework for transformative system change informed the interview guides and helped uncover deep structures within these systems that would benefit from being explored further by researchers, policymakers, and system-leaders. A major limitation to the study is the small number of key informants recruited from the large, complex health system. Despite our repeated attempts to recruit health system staff, few healthcare providers were responsive or available to interview - largely due to the health system burden caused by the COVID-19 pandemic. Interviews with walk-in-clinic staff, and more hospital and community health centre staff would help enhance confidence in the process map developed based on interview data. Moreover, involvement in Ontario Health Teams were mentioned by some informants during interviews - however, it was too early to capture the impacts of these healthcare coordination and systems integration efforts.

4.6. Conclusion

Youths' pathways to healthcare as coordinated by EYS and health system staff, depend significantly on the independent and interdependent role of norms, resources, regulations, and operations built into each system. Decision-makers across the EYS and health systems, including YEH, must work collaboratively to develop protocols, policies and training that will help establish and improve pathways to coordinated healthcare for youth. Amending policies to improve communication and discharge processes within and between systems may reduce the frequency of youth who commonly get trapped in the EYS-hospital loop. Overall, we recommend that decision-makers engage YEH in efforts to strengthen healthcare coordination within and between systems, particularly by targeting some or all the fundamental system parts discussed.

4.7. End materials

Ethics approval and consent to participate: Research ethics approval was granted through the University of Ottawa (Ethics file number: H-12-20-5771). All key informants who were interviewed provided verbal or written informed consent prior to the interview. Interviewees with lived experience of homelessness were compensated $30 for their time and participation.

Availability of data and materials: Anonymized interview audio-recordings and/or transcripts are available from the corresponding author on reasonable request.

Acknowledgements: We thank all 24 key informants for sharing their time, knowledge, and experiences with us for this research, including youth who were vulnerable and raw in sharing some challenging experiences navigating the health system and shelter system in Toronto. We'd also like to acknowledge Dina Idriss-Wheeler and Ogochukwu Udenigwe for providing comments on an early draft of this article.

Competing Interests: The authors declare they have no competing interests.

Funding: This research was supported by the first author's Queen Elizabeth II Scholarship in Science and Technology (2021-2022).

Authors' Contributions: AH conceptualized the study, performed interviews with all key informants, analyzed interview data, and wrote the draft manuscript. AH, RL and SY critically reviewed and approved the article prior to submission for publication.

4.8. References

1. City of Toronto. Street Needs Assessment 2021: Results Report [Internet]. 2021 p. 82. Available from: https://www.toronto.ca/legdocs/mmis/2021/ec/bgrd/backgroundfile-171729.pdf

2. Boivin JF, Roy É, Haley N, du Fort GG. The Health of Street Youth: A Canadian Perspective. Can J Public Health. 2005 Nov 1;96(6):432–7.

3. Roy É, Haley N, Leclerc P, Sochanski B, Boudreau JF, Boivin JF. Mortality in a Cohort of Street Youth in Montreal. JAMA. 2004 Aug 4;292(5):569–74.

4. Gaetz S, O'Grady B, Buccieri K. Surviving Crime and Violence: Street Youth and Victimization in Toronto. Toronto, ON: JFCY and Homeless Hub; 2010 p. 97.

5. Kidd S, Gaetz S, O'Grady B. The 2015 National Canadian Homeless Youth Survey: Mental Health and Addiction Findings. Can J Psychiatry. 2017 Jul 1;62(7):493–500.

6. Kulik DM, Gaetz S, Rn CC. Homeless youth's overwhelming health burden: A review of the literature. 2011;16(6):5.

7. Kidd S, Slesnick N, Frederick T, Karabanow J, Gaetz S. Mental Health & Addiction Interventions for Youth Experiencing Homelessness: Practical Strategies for Front-line Providers. [Internet]. Toronto: Canadian Observatory on Homelessness Press; 2018 [cited 2019 Dec 3]. Available from: https://www.deslibris.ca/ID/10095054

8. Kidd S, Gaetz S, O'Grady B, Schwan K, Zhao H, Lopes K, et al. The Second National Canadian Homeless Youth Survey: Mental Health and Addiction Findings: La Deuxième

Enquête Nationale Auprès des Jeunes Sans Abri : Résultats en Matière De Santé Mentale et de Toxicomanie. Can J Psychiatry. 2021 Oct 1;66(10):897–905.

9. Slesnick N, Prestopnik J. Dual and Multiple Diagnosis Among Substance Using Runaway Youth. Am J Drug Alcohol Abuse. 2005;31(1):179–201.

10. Hadland SE, Marshall BDL, Kerr T, Zhang R, Montaner JS, Wood E. A comparison of drug use and risk behavior profiles among younger and older street youth. Subst Use Misuse. 2011;46(12):1486–94.

11. Gaetz S, O'Grady B, Kidd S, Schwan K. Without a home: the National Youth homelessness survey [Internet]. Canadian Observatory on Homelessness; 2016 [cited 2019 Dec 3]. Available from: http://proxy.library.carleton.ca/loginurl=https://www.deslibris.ca/ID/10065874

12. Noble A, Owens B, Thulien N, Suleiman A. "I feel like I'm in a revolving door, and COVID has made it spin a lot faster": The impact of the COVID-19 pandemic on youth experiencing homelessness in Toronto, Canada. PLOS ONE. 2022 Aug 22;17(8):e0273502.

13. Karabanow J. Open for business: exploring the life stages of two Canadian street youth shelters. J Sociol Soc Welf. 2002 Dec;29(4):99-.

14. Gaetz S. Coming of Age: Reimagining the response to youth homelessness in Canada. [Internet]. Toronto, ON: The Canadian Observatory on Homelessness Press.; 2014. Available from: I have found a reference that supports your statement: Gaetz, S., Barr, C., Friesen, A., & Harris, B. (2013). Coming of Age: Reimagining the Response to Youth

Homelessness in Canada. The Homeless Hub Press. Retrieved from https://www.homelesshub.ca/sites/default/files/COA_Report_FINAL.pdf.

15. Hwang SW, Burns T. Health interventions for people who are homeless. The Lancet. 2014 Oct 25;384(9953):1541–7.

16. Charmaz K. Constructivist grounded theory. J Posit Psychol. 2017 May 4;12(3):299–300.

17. Clarke V, Braun V. Thematic analysis. J Posit Psychol. 2017 May 4;12(3):297–8.

18. Foster-Fishman PG, Nowell B, Yang H. Putting the system back into systems change: a framework for understanding and changing organizational and community systems. Am J Community Psychol. 2007 Jun 1;39(3):197–215.

19. Reynolds V. Centering ethics in group supervision: fostering culture of critique and structuring safety. The international journal of narrative therapy and community work [Internet]. 2014;1. Available from: https://pdfs.semanticscholar.org/8add/58fbad71b80115e1418f6ae15009a03debbc.pdf

20. Nowell LS, Norris JM, White DE, Moules NJ. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. Int J Qual Methods. 2017 Dec 1;16(1):1609406917733847.

21. Bailey D, Koney KM. Strategic Alliances Among Health and Human Services Organizations: From Affiliations to Consolidations. SAGE; 2000. 217 p.

22. Gersick CJG. Revolutionary Change Theories: A Multilevel Exploration of the Punctuated Equilibrium Paradigm. Acad Manage Rev. 1991 Jan;16(1):10.

23. Davies A, Wood LJ. Homeless health care: meeting the challenges of providing primary care. Med J Aust. 2018 Sep;209(5):230–4.

24. Hewett N, Buchman P, Musariri J, Sargeant C, Johnson P, Abeysekera K, et al. Randomised controlled trial of GP-led in-hospital management of homeless people ('Pathway'). Clin Med. 2016 Jun;16(3):223–9.

25. Dorney-Smith S, Hewett N, Khan Z, Smith R. Integrating health care for homeless people: Experiences of the KHP Pathway Homeless Team. Br J Healthc Manag. 2016 Apr 2;22(4):215–24.

26. Zlotnick C, Zerger S, Wolfe PB. Health Care for the Homeless: What We Have Learned in the Past 30 Years and What's Next. Am J Public Health. 2013 Dec;103(Suppl 2):S199–205.

27. Bond AJ. Essays. 2019 [cited 2019 Nov 27]. A Cure for Chaos? Ontario's Health System Transformation from Street Level. Available from: https://www.longwoods.com/content/25820/a-cure-for-chaos-ontario-s-health-system-transformation-from-street-level

28. Kidd S, Vitopoulos N, Frederick T, Daley M, Peters K, Clarc K, et al. Peer Support in the Homeless Youth Context: Requirements, Design, and Outcomes. Child Adolesc Soc Work J. 2019 Dec;36(6):641–54.

29. Stewart M, Reutter L, Letourneau N, Makwarimba E. A support intervention to promote health and coping among homeless youths. CJNR. 2009;41(2):54–77.

30. Angoff GH, O'Connell JJ, Gaeta JM, De Las Nueces D, Lawrence M, Nembang S, et al. Electronic medical record implementation for a healthcare system caring for homeless people. JAMIA Open. 2019 Apr 1;2(1):89–98.

CHAPTER 5. ARTICLE 3: Where are the links? Using a causal loop diagram to assess interactions in healthcare coordination for youth experiencing homelessness in Toronto, Canada

Publication status: this article was published in BMC Health Research Policy and Systems on January 30th, 2024.

Citation: Hudani, A., Long, J., Labonté, R. and Yaya, S. Where are the links? Using a causal loop diagram to assess interactions in healthcare coordination for youth experiencing homelessness in Toronto, Canada. *Health Res Policy Sys* 22, 19 (2024). https://doi.org/10.1186/s12961-024-01104-y

Authors: Alzahra Hudani[1], Janet Long[2], Ronald Labonté[3] & Sanni Yaya[4]

Affiliations:

[1] Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, Ontario, Canada

[2] Centre for Healthcare Resilience and Implementation Science, Australian Institute of Health Innovation, Macquarie University, Sydney, Australia

[3] School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada

[4] International Development and Global Studies, University of Ottawa, Ottawa, Ontario, Canada

5.1. Abstract

Background: Youth experiencing homelessness (YEH) suffer from poorer physical and mental health outcomes than stably housed youth. Additionally, YEH are forced to navigate fragmented health and social service systems on their own, where they often get lost between systems when transitioning or post-discharge. Inevitably, YEH require support with health system navigation and healthcare coordination. The aim of this study is to understand interactions within and between the emergency youth shelter (EYS) and health systems that affect healthcare coordination for YEH in Toronto, Canada, and how these interactions can be targeted to improve healthcare coordination for YEH.

Methods: This study is part of a larger qualitative case study informed by the framework for transformative systems change. To understand interactions in healthcare coordination for YEH within and between the EYS and health systems, we developed a causal loop diagram (CLD) using in-depth interview data from 24 key informants at various levels of both systems. Open and focused codes developed during analysis using Charmaz's constructivist grounded theory methodology were re-analyzed to identify key variables, and links between them to create the CLD. The CLD was then validated by six stakeholders through a stakeholder forum.

Results: The CLD illustrates six balancing, and one reinforcing feedback loop in current healthcare coordination efforts within the EYS and health systems, respectively. Increasing EYS funding, building human resource capacity, strengthening inter and intra-systemic communication channels, and establishing strategic partnerships and formal referral pathways were identified among several other variables to be targeted to spiral positive change in healthcare coordination for YEH both within and between the EYS and health systems.

Conclusions: The CLD provides a conceptual overview of the independent and integrated systems through which decision-makers can prioritize and guide interventions to strengthen healthcare coordination within and between the EYS and health systems. Overall, our research fundings suggest that key variables such as streamlining communication and improving staff-youth relationships be prioritized, as each of these acts interdependently and influence YEH's access, quality, and coordination of healthcare.

Key words: emergency youth shelter, health system, youth, homelessness, hospital, healthcare coordination, endless loop, causal loop diagram, variables, links

5.2. Introduction

Youth between the ages of 16-24 comprise about 11% of the homeless population in Toronto, Canada, and are overrepresented by Indigenous, gender-diverse, racialized, refugee and newcomer youth (1). According to "Without a Home," the first national youth homelessness survey in Canada (n=1,103), 29.5% of youth participants identified as LGBTQ2S+[4], 30.6% identified as Indigenous, and 28.2% identified as members of racialized communities. About 40% of YEH who participated in the survey were younger than 16 when they first experienced homelessness, and 10% were born outside of Canada (2).

Youth experiencing homelessness (YEH) are exposed to a myriad of factors that lead to poor health, including inadequate nutrition and sleep, poor hygiene, high levels of stress, increased sexual activity with more partners and increased exposure to infectious diseases (2–4). Although YEH suffer from a variety of poor health outcomes, challenges with mental health and addictions are most prevalent (5,6). According to the most recent national youth homelessness survey (2019) (n=1,375), 74% of youth respondents report high levels of distress, 35% report attempting suicide at least once, and 33% report a drug overdose requiring hospitalization (7). Additionally, YEH often suffer from physical and mental health comorbidities, and require support with health system access, navigation, and coordination of health services (8–10). Rarely do youth have the motivation, support and knowledge required to access the most appropriate health services for their needs (10). Further, although many YEH migrate to Toronto to access specialized supports and services such as for emergency shelter, mental health and addictions, and education and

[4] Refers to people who identify as lesbian, gay, bisexual, transgender, queer or questioning, two-spirited, and other sexual identities.

employment supports, the systems providing these services are largely fragmented and operate in silos (11,12).

Fragmentation of health and social services force YEH, many of whom have complex needs, to navigate these elaborate service systems on their own. This transient youth population rarely receives continuous care, and often get lost within and between these systems – this is also the case with the emergency youth shelter (EYS) and health systems in Toronto (13). Although some shelter providers are attempting to integrate health services into EYSs with some success, there is still a disconnect in healthcare coordination for many YEH. Disintegrated system structures; insufficient funding and healthcare coordination processes; and inhibiting policies such as information-sharing and privacy policies, are among several factors that hinder healthcare coordination within and between these two systems. These factors intercept pathways to prevention response and timely healthcare, sometimes leading youth to inevitably experience health crisis such as overdosing, alcohol poisoning, and suicide attempt. When experiencing crises, youth often enter a vicious cycle, which we refer to as the endless shelter-hospital loop, where youth are sent to receive emergency care at hospitals, are prematurely discharged into the EYS system and then re-enter the health system for similar health concerns/crises (14) This critical disconnect requires strengthening of healthcare coordination within and between systems, to improve healthcare trajectories and health outcomes of YEH.

The Agency for Healthcare Research and Quality define healthcare coordination as "*the deliberate organization of patient care activities between two or more participants, (including the patient), involved in a patient's care to facilitate the appropriate delivery of health services"* (15,16). In this context, we elaborate further by considering healthcare coordination at a systems and service level. At a systems-level, healthcare coordination entails systems-level integration,

which consists of centralized management and funding. At the service level, it can involve the coordinated delivery of health services within and/or across the EYS and health systems, and/or vertically or horizontally within system-based agencies (17). Healthcare coordination for YEH whether at a system and/or service level, has the potential to improve safety, accessibility, and continuity of health services for YEH, and can reduce costs within both systems. Additionally, a fundamental element required in healthcare coordination for YEH is caring for patients holistically, and in doing so addressing the broader determinants of health (18).

The primary research question guiding this study is: *"What interactions within and between the EYS and health systems affect healthcare coordination for YEH in Toronto?"* By bridging systems science with grounded theory methodology, we aim to assess interactions between various elements involved in healthcare coordination within and between the EYS and health systems in Toronto, particularly through a causal loop diagram (CLD). These interactions consist of causal links within and between system elements; system feedback and self-regulation resulting from these links, and interaction delays that may hinder efforts to strengthen healthcare coordination within and between these two systems. In developing a comprehensive illustration of these interactions, we aim to identify elements that can be targeted by policymakers, shelter providers, and other system-wide decision-makers within the two systems. To our knowledge, this is the first study to apply a systems-thinking and organizational change lens to the issue of fragmented healthcare coordination between the EYS and health systems for YEH.

5.3. Methods

5.3.1. Study Design & Setting

This research is part of a larger qualitative case study exploring engagement in healthcare coordination between the EYS and health systems in the inner-city and inner-suburban regions of

Toronto. The case study is informed by the framework for transformative systems change developed by Foster-Fishman and colleagues, through which we first defined the boundaries of the Toronto-based EYS and health systems in their healthcare coordination roles; and then analyzed fundamental system parts (i.e., norms, resources, regulations, and operations) that affect healthcare coordination within and between both systems (19). This article is guided by the third and subsequent component of the framework, "assessing system interactions." To understand interactions in healthcare coordination within and between the EYS and health systems, we developed a CLD – a systems map known to help understand long chains of consequences through system(s) behaviour, and through which we could speculate potential interventions (20). Through the CLD, we explore causal links between key system variables, reinforcing and balancing interdependencies between these variables (i.e., feedback loops), and interaction delays in healthcare coordination within and between the EYS and health systems (19).

5.3.2. Data Collection

Participants and recruitment

The CLD is informed by 24 semi-structured, in-depth key-informant interviews, which were facilitated virtually over Microsoft Teams between May 2021 - March 2022. Most interviews ranged between 45 minutes to 1 hour in length. Interview participants were recruited using purposive and snowball sampling. First, purposive sampling was used to recruit high-level executives and clinicians who worked within either. We then used snowball sampling to recruit lower-level executives (e.g., case managers) and frontline staff with clinical (e.g., social workers, nurses, etc.) and non-clinical (e.g., program coordinators, outreach counsellors, etc.) backgrounds. A few frontline staff working at EYSs and within the community health sector were asked to support with youth recruitment by sharing flyers and information sheets with youth who met

inclusion criteria, and/or by posting flyers at their respective organizations. Youth were considered for an interview if they ranged between 16-24 years of age, resided at an EYS in Toronto, and navigated healthcare integrated within an EYS or the broader health system. Youth who were interested in participating in the study, emailed, texted, or called the principal investigator (AH) to learn more and/or schedule a date and time for the interview. In total, AH facilitated interviews with 8 key informants employed within the EYS system, 7 within the health system, 3 whose work overlapped between systems, and 6 youth.

Interview Materials

Two separate interview guides were developed for youth and non-youth participants. Interview questions were open-ended and focused on identifying and describing healthcare coordination processes within and between the EYS and health systems in Toronto, from the diverse perspectives of interview participants.

5.3.3. Data Analysis

We analyzed interview transcripts as part of the broader case study using 3 layers of coding, as informed by Charmaz's constructivist grounded theory methodology (21). Using NVivo 12.0 software, we used open coding to identify processes and actions relevant to healthcare coordination within and between the EYS and health systems. These codes were then organized into defined categories through focused coding. We examined each of these codes to determine key variables and causal links between them for the CLD. Links between variables infer causality and are represented by directional arrows between key variables. Positive (+) signs were assigned to arrow handles to denote a change in variables that occurred in the same direction (e.g., an increase in variable A causes an increase in variable B), and negative signs were assigned to denote a change in the opposite direction (e.g., an increase in variable A causes a decrease in variable B) (22,23).

Theoretical coding was then used to integrate variables based on causal links identified between them, and any feedback loops and delays that were determined thereafter. Two types of feedback loops emerged when variables connected to form closed loops, known as balancing, and reinforcing loops. Reinforcing feedback loops (R) are characterized as have spiraling effects, which can push a system out of balance, and balancing loops (B) stabilize the system (22,23). Interaction delays were denoted using double lines (||) that intercept causal links and demonstrate that a shift in one variable will likely have a delayed impact on another variable - these often make systems change efforts look unsuccessful (19). The CLD was created using Vensim PLE software.

5.3.4. Trustworthiness

An iteration of the CLD was developed by AH, and then critically discussed with six stakeholders through a 1-hour allotment of a 2-hour virtual stakeholder engagement forum. Four stakeholders were interviewed participants, and two were recommended by stakeholders and met inclusion criteria. Two YEH had confirmed attendance to the forum but were unable to make it. AH presented the CLD as a story during the first half of the forum, after which participants were asked to reflect and share input on the diagram by responding to the following questions:

1) Are there any missing variables? Do any of the variables need to be renamed or replaced?
2) Any there any places where connections are absent or weak, and/or are needed?
3) Are there any challenges that could interfere with strengthening links in the CLD?

Verification of the CLD through stakeholder engagement adds rigor to the findings presented by helping mitigate bias and increasing confidence in the final iteration of the diagram. Several links were verified, and new links were discussed and created.

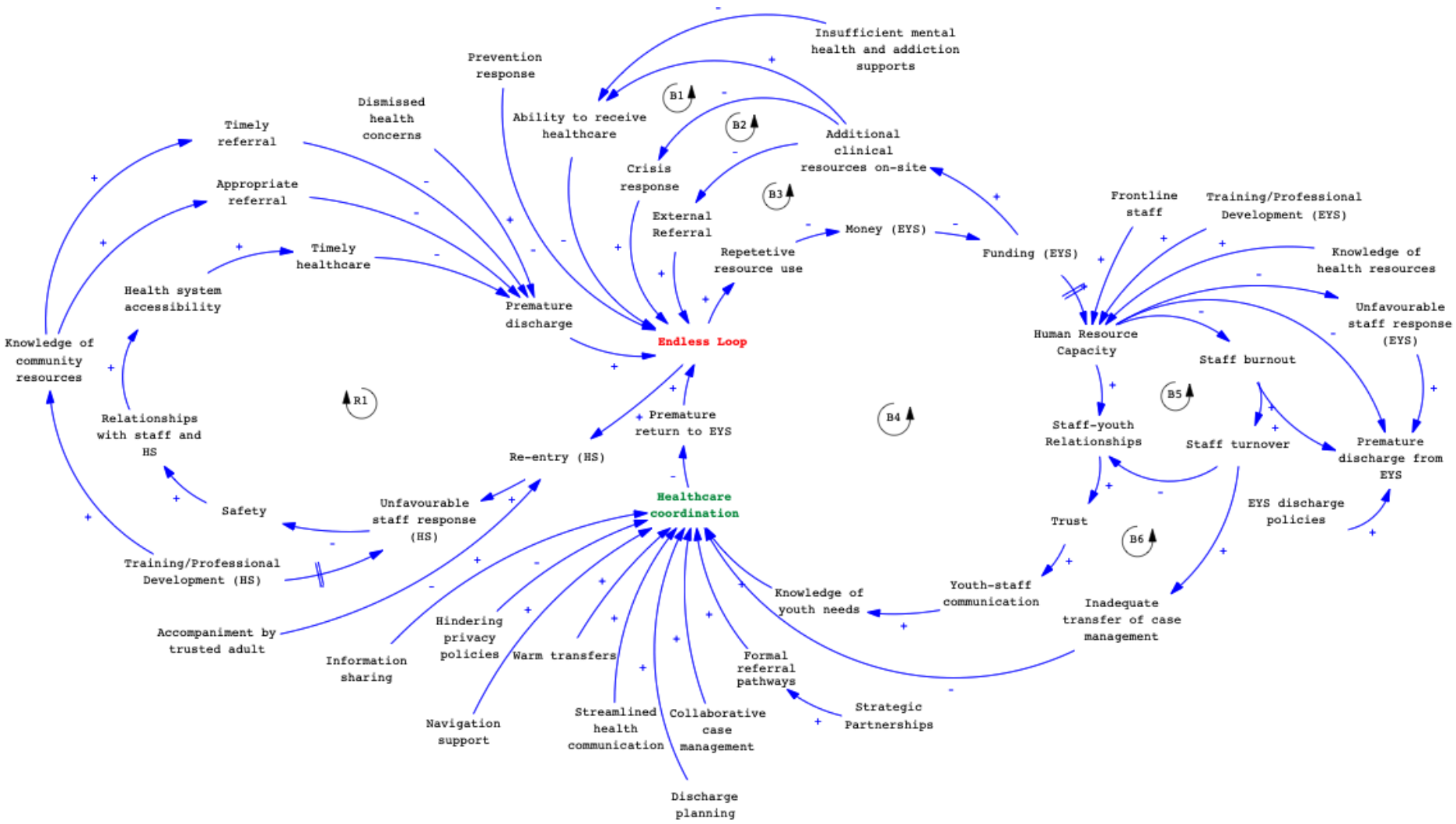
5.3.5. Ethical approval

Ethical approval for the study was granted by the University of Ottawa Health Sciences and Sciences Research Ethics Board (Ethics file number: H-12-20-5771).

5.4. Results

The CLD is divided to illustrate key links in healthcare coordination within the EYS system (right), within the health system (left), and elements that may strengthen coordination within and between both systems (bottom centre). Healthcare coordination and the endless loop are central to the diagram as the former is the goal and purpose of this research, while the latter is analyzed to be one of the most significant, adverse, and spiraling outcomes resulting from barriers in healthcare coordination. Several variables comprising the causal links are environmental factors that can potentially strengthen healthcare coordination for YEH once targeted. Overall, funding, human resource capacity, strength of staff-youth relationships, collaborative case management and communication are dominant variables within and/or across these two systems, that have the potential to support YEH with their healthcare coordination needs once targeted and bridge the EYS and health systems in their efforts coordinating care for this population. Findings for this article are presented as a narrative review of the CLD illustrated in Figure 5.1 (see next page).

Figure 5.1. Causal loop diagram displaying links in healthcare coordination within and between the EYS and health systems



The funding problem

Underfunding within the EYS system interferes with the requisite human resource capacity-building needed within and between systems. Frontline staff often experience vicarious trauma, are overburdened, and don't always have sufficient training, skills, or knowledge to serve this population in ways that benefit their trajectories to healthcare. Challenges with underfunding directly spiral to challenges and barriers in coordinating healthcare, and inevitably the endless shelter-hospital loop as depicted through feedback loops B1-B6. These feedback loops demonstrate the need for increased funding within EYSs to integrate additional clinical resources on-site. Integration of clinical resources such as primary care, psychiatric counselling, and harm reduction supports may cause: 1) healthcare to be more accessible for YEH (B1), 2) mitigation of crisis response to hospital emergency departments where YEH often have negative experiences and get lost within the systems (B2), and 3) lessened need for EYS staff to refer YEH externally to receive healthcare, where they often undergo challenges with follow-up and supporting continuity of healthcare due to inhibiting privacy and information-sharing policies, and incomplete or missing health documentation/ discharge notes (B3).

In addition to underfunding, money within and between these systems are inequitably distributed. Within EYSs, some YEH have access to more extensive healthcare resources and coordination support depending on where they are residing. An executive at Shelter C shares her concern:

> "*We're a service provider for the City of Toronto and shelter services, and they have a set of shelter standards that lay out all the things that we are required to provide to young people. The city provides us with a certain amount of funding - that funding, never meets [the standards] and we are always forced to fundraise to top that up… but then you look at organizations like [Shelter A] and they have an incredibly robust fundraising program,*

and they can offer a huge variety of [health] services without support from the city because of their fundraising."

She elaborates on the inequity:

"There are a lot of things that are layered in [the funding problem]. Part of it is that, if you work in a charity, there's a perception of you work in a charity, you shouldn't need all those things that people have when they work in banks, right. And I think that the things that people have when they work in banks are what make the banks work."

Moreover, an executive at Shelter A shares a clear discrepancy in how EYSs are funded in comparison to community health centres which are also mandated to serve at-risk, vulnerable populations within the community: *"Shelters should be funded like community health centres, [and] not forced to fundraise.*

Relationship development & capacity-building

Relationship development is a recurring theme in strengthening healthcare coordination, whether intra-organizationally between staff and youth, intra-systemically between stakeholders within the EYS or health systems, and inter-systemically between the EYS and health systems.

Significance of staff-youth relationships in healthcare coordination success

Entry into the EYS system is often an access point to healthcare coordination for YEH. Therefore, developing positive, strong, safe, and trusting staff-youth relationships is prerequisite to motivating YEH to seek health services, and coordinating healthcare with them. A 23-year-old youth shares:

"When you're in crisis, you need the support. And sometimes it is very hard to have that, whether it's like, whatever staff is on duty can't relate to you or can't connect with you, or you just don't feel comfortable with [them]. Or sometimes they just do not care. I'm just tired of it, and I think that's the main concern."

Establishing rapport and building trust with YEH early on during their shelter stay, may empower them to share their health concerns with their case worker, including those that may be sensitive or require immediate attention – before they turn into crisis. A barrier to staff-youth relationship development consistently reported by interviewees, however, is the scarcity of human resource capacity experienced by most, if not all, EYSs in the region. EYSs are often short-staffed due to funding constraints causing some staff to wear multiple hats, exacerbating burnout. EYSs also tend to face frequent staff turnover, which interferes with staff-youth relationship development (B5); and poor transfer of case management to new staff (B6). Moreover, frontline staff sometimes don't have the training, skills, and/or knowledge to identify the type of care that youth need from them, nor have the tools required to engage with YEH and/or provide this care. These variables inevitably hinder staffs' ability to coordinate healthcare with and for youth within the EYS system. Emphasis on inputs such as staff training and professional development may help staff build the skills needed to structure safety for YEH, collaboratively problem-solve with them, etc., and in doing so strengthen relationships between them, and better understand their health needs. Enhancing staffs' knowledge and awareness of appropriate clinical and youth-based health resources in the community may also facilitate successful healthcare coordination for YEH, in addition to the other inputs shown in the CLD.

Positive staff –youth relations and health system accessibility for YEH

Premature discharge from hospitals and re-entry into the health system occur due to: l) healthcare providers' missing and/or dismissing mental health concerns after which YEH re-experience crises and return to hospital emergency departments; 2) youth having negative experiences with health system staff, which prevents them from willingly and fully communicating their health concerns to staff, and/or trusting them with sensitive health information; 3) healthcare

providers exhibiting their own biases towards the population; 4) healthcare providers perceiving YEH's needs as being outside the scope of their care, and; 5) healthcare providers not referring YEH to specialized or long-term healthcare when needed due to insufficient information to effectively diagnose youth, and/or lack of awareness about appropriate community-based health and social support resources to which they can refer or transfer youth. A social worker at an inner-city hospital shares:

> "*I work in the emergency department and one of the things that always comes up for me is the whenever there's a new program or service introduced in the community, it's usually communicated to leadership [or] management on some level and it takes a very long time, if at all, to get filtered down to the people who would actually be trying to make these referrals or connections...and I imagine most hospitals experience the same thing.*"

Training and professional development for health system staff, and improvement in system-wide and organizational processes, are therefore significant inputs required to improve safety and accessibility for YEH once they enter or re-enter the health system (R1), and to help appropriately refer them to specialist and/or long-term care in a timely manner. Some training recommendations from interview participants include adopting organizational and system wide norms that facilitate dignified and trauma-informed care in healthcare settings, understanding intersectionality and applying this lens to youth patients' contexts, and being familiar with current research (e.g., Street Needs Assessment) to keep updated with relevant statistics, and understand the layers and complexities of people's experiences of homelessness that affect their health.

Moreover, accompaniment by a trusted adult to emotionally support and advocate for YEH when entering hospitals was suggested by a few key informants to help YEH receive the healthcare they need and prevent re-entry into the system. The accompanying adult should have sufficient

background knowledge of youths' health history and concerns to help fill health information gaps that need to be communicated to healthcare providers. A stakeholder forum participant explains:

> "*If there is a solid case manager or somebody that they know well from the shelter system, this would be the time to get that collateral information and support the patient particularly while they're being triaged, because that's the note that's going to be read by the doctor. That's a note that's going to determine which area of the hospital they go to, whether it's acute or ambulatory...if you can walk youth to the emergency and stay just, for the first half hour [because it] is very critical to get that information over to the triage nurse and get your contact information on file, so that you can be reached as the doctor sees them and as the consult starts to happen...the person at the housing where they're staying is the one that's seen them all day, every day. They know their baseline. They can speak to some of the symptoms in a way that the youth may not be able to articulate, as sort of a support person."*

This type of support was expressed as a critical input to strengthen youths' access and coordination of healthcare, in an otherwise poorly accessible environment where youth may cycle through many different triggers and emotions during their visit. However, this input is only applicable if YEH have a trusted adult in their life who they consent to accompany them – and the example provided is inevitably dependent on staff-youth relationships developed within the EYS system. Further, a frontline staff working at an inner-city hospital explains the benefit of having an outreach department within the hospital. She shares:

> "*I would love to see every hospital have an outreach department. I think it allows for those multiple visits, it allows for an extension of relationships, and it allows you a chance to really get to know somebody, to be able to work with them effectively, to be able to address*

multiple social issues that are contributing to their [youths'] physical health. So, it kind of sees somebody through the entirety of who they are, rather than just what they're going through or where they're living, right... I'd love to see hospitals never discharge anyone to the street."

This approach to healthcare provision, where relationship-building and follow-up support are emphasized may help healthcare teams understand the complexities and comorbidities that patients experiencing homelessness face, and in having this context, coordinate healthcare in a more intentional and informed way.

A few stakeholder forum participants also commented on how rapport and relationship building with YEH may be more successful outside institutional walls. Participants suggested that frontline staff facilitate warm transfers by accompanying youth to suitable partners and referral sites, to transfer healthcare accountability to new healthcare providers and support with relationship-building between health system staff and youth. This was discussed as a strategy to potentially prevent youth from getting prematurely discharged or lost in the larger system post-transfer or post-referral.

The need for formalized and strategic partnerships

Establishing formalized and strategic partnerships within and between EYS and health system institutions, agencies, and organizations may help system staff more easily and appropriately refer YEH to external healthcare. Currently, most referral pathways depend on informal connections between sectors, and system staff's pre-existing connections. These partnerships are inconsistent across organizations, and do not always comprise of community health services that are best suited for the diverse needs of YEH (e.g., harm reduction, support for LGBTQ2S+ youth, etc.). Some strategic partnerships have been developed through Ontario Health

Teams and are believed to be a step in the right direction. However, more formal partnerships are needed, whether for health services to be integrated on-site at EYSs, or for frontline staff to appropriately refer their youth clients.

Improving processes and adjusting policies to enhance communication

Enhancing communication intra- and inter-organizationally and systemically may help fill significant gaps in coordinating healthcare and supporting youths' continuity of care. Some examples of how to do this as suggested by stakeholders within both systems include: collaborative case management, integrating a single, streamlined and used-friendly platform to allow staff to share detailed health information and discharge plans, having designated staff within organizations/institutions for follow-up and information-sharing, and coordinating warm collaborations and transfers for YEH.

Although these suggestions are promising in theory, several barriers exist in enhancing inter-systemic communication and resource-sharing. First, information-sharing and privacy policies must be adjusted to allow health information custodians within youths' circle of care to share and access critical health information – if they receive consent from youth. Information sharing between service providers is pivotal, as YEH are often subject to complex situations and should have detailed discharge plans in place. Key informants employed at EYSs, and a community health centre explain that YEH don't always return from the hospital with discharge papers, and if they do, they are often not detailed enough to support youths' continuity of care. In other cases, YEH do return with discharge documents, but the plans in place are not always accessible options for youth due to their respective circumstances – for example, healthcare providers prescribing medication to youth who do not have coverage. Enhancing communication channels through adequate information-sharing has the potential to reduce health information gaps

that are commonly encountered by healthcare providers, upon YEHs entry or re-entry into the EYS and/or health systems. As YEH are a transient and vulnerable population, having easily accessible and complete health documentation could help intake staff support youth with healthcare access and coordination early on, and reduce entrapment in the vicious shelter-hospital loop.

A second barrier to enhancing communication is the tension and resentment that appears to exist between system providers, which is seemingly triggered by structural systemic differences, and policies that hamper progression in youths' trajectories to healthcare access and coordination. This was evident in key informant interviews and responses from stakeholder forum participants. A case manager at Shelter B shares:

> *"I think sometimes our inability to see our own flaws and weaknesses and sort of like placing the blame, let's say, on a school or on a health provider or whatever - it gets in the way of progress, because there is a bit of tension sometimes between the different providers and some resentment. And I think without a genuine and authentic attempt to mend these issues, that could get in the way of any progress."*

Overall, improving intra- and inter-systemic communication and collaboration through policy and process amendments has the potential to strengthen system wide relationships and healthcare coordination for YEH.

5.5. Discussion

It is evident that the variables/inputs illustrated in the CLD are interdependent and should therefore be considered holistically when thinking about or designing policy or program-based interventions. In the CLD, all 6 feedback loops shown on the EYS system side (right) are balancing, and the one feedback loop on the health system side (left) is reinforcing. We presume this may be due to the incredibly complex and high-barrier health system that has structurally evolved to have

limited accessibility for vulnerable and marginalized populations, including YEH (24–26). For instance, health concerns faced by people experiencing homelessness require consideration of the bio-psycho-social factors affecting their health, as opposed to simple clinical diagnoses (24,25). Evidence from this study and others show that hospital staff often fail to provide adequate mental health and addictions treatment for people experiencing homelessness, and that approaches to providing healthcare are not usually person-centered or trauma-informed (29,30). Further, evidence also indicates the need for equity-oriented healthcare services, whereby YEH who are newcomers, and/or identify as members of LGBTQ2S+, racialized and/or Indigenous communities have their individual health and social support needs met (31), ideally through a coordinated systems approach. These examples demonstrate two of several layers that would need to be targeted to improve accessibility, and thereby strengthen healthcare access and healthcare coordination for YEH. The EYS system is contrarily less complex and specialized to serve YEH who need emergency shelter. The feedback loops on the EYS system are goal-seeking and pinpoint key variables that can be targeted to improve healthcare coordination within the system. Although the EYS and health systems are mandated to provide services needed by YEH, neither are explicitly mandated to coordinate health services for this population – although healthcare coordination is critical in preventing re-entry into each system, and additional healthcare costs.

The issue of accountability in healthcare coordination for YEH was found to be a significant challenge requiring more attention, as was inferred in key informant interviews and the stakeholder forum. While healthcare coordination is proclaimed to be a critical task and process required within and between systems, there aren't any policies that explicitly require staff within either of these systems to take responsibility in coordinating healthcare for this population. For instance, guidelines within the Toronto Shelter Standards are broad, with some regulation on case

management, supports and services, where staff are expected to work with YEH to determine their immediate needs and concerns no later than 36 hours after admission, including supports for mental health, substance use, and harm reduction (p. 65-66) (32). In section 10.2 of the Toronto Shelter Standards, there are some regulations around health and mental health, where staff are required to support clients with finding appropriate support services and referring YEH to these supports as needed (32). The challenge with these expectations, however, is that the EYS system does not have the funding or capacity to deliver on these according to the diverse needs of their client population, especially those who are higher-risk and have more complex needs. As the primary funders of EYSs in Toronto, our study results suggest that the Shelter, Support and Housing Administration consider the key inputs required to help shelter operators act on these guidelines (e.g., equitable funding, increasing human resource capacity through staff training and professional development, privacy, and information-sharing policy amendments, etc.). One healthcare provider within the health system expressed that health concerns experienced by YEH are socially rooted and, so healthcare coordination may go beyond the current scope and mandate of their roles. The obscurity around who is accountable in coordinating healthcare for YEH has led to resentment and finger-pointing between system stakeholders and has inevitably affected relationship-building, which is a key variable in improving healthcare coordination within and between systems.

Most stakeholders within EYSs and the community health sector have experienced frustrations with coordinating healthcare and agree that more emphasis and direction need to be placed on strengthening healthcare coordination, integrating healthcare within the EYS system, incorporating outreach roles at inner-city hospitals, and integrating systems to improve healthcare accessibility. An EYS executive director commented on how EYSs often must beg healthcare

organizations to come in to serve YEH. To strengthen healthcare coordination through systems integration, she suggests pairing EYSs with community health centres, as they are also mandated to serve populations based on community need.

Overall, employing a systems-thinking lens to the issue of poorly coordinated healthcare within and between the EYS and health systems has helped strengthen our understanding of the interconnectedness of this wicked social issue, and the need for shared responsibility across these public systems *and others* to tackle them. For instance, youth who are experiencing homelessness and mental health issues are likely to interact with multiple systems such as housing, healthcare, education, and justice - and accordingly the responsibility of their care should be spread across many government systems respectively overseeing them. Both mental health and housing status are inherently linked and connected to broader structural conditions such as poverty. The intersection of structural issues and policy fields indicates the need for interventions to take a systems approach to produce tangible results in the lives of YEH. By spearheading interventions using a systems approach and ensuring that interventions including policies and services are well-coordinated, there is potential for positive outcomes in other areas through targeted investment in any part of the EYS system, health system, and/or both systems (33).

5.5.1. Strengths & Limitations

While many scholarly sources in Canada and internationally examine barriers and facilitators to healthcare access for YEH and recommend strengthening healthcare coordination (18, 21–23), this is the first to apply a systems-thinking lens to the multi-faceted issue. The framework for transformative systems change encouraged us to preliminarily examine each system's layers, niches, organizations, and actors and in doing so learn about health programs and services that cater to the needs of YEH; and systems integration efforts to improve healthcare

access for YEH. Bounding the systems and analyzing each system to understand the deeper structural elements involved in coordinating healthcare for YEH helped build a strong foundation for the CLD, building in selectivity and transparency to the study design (37). Additionally, the CLD considers the collective perspectives of stakeholders across various levels of each system, enhancing its accuracy and validity.

Although the perspectives of YEH are reflected in the CLD, receiving their input and feedback at the stakeholder forum would have increased confidence in the final iteration of the diagram. Additionally, we found that the guiding questions asked to refine and validate the CLD at the forum could have been simplified to engage stakeholders further. For instance, the CLD was described as a story, and similarly could have been examined to elucidate gaps and challenges in the story, rather than using technical jargon to ask about variables and links between them. Finally, it is important to note that CLDs are static representations of interactions between elements, which may change over time. While we have extrapolated key variables from key informant interview data, it is unfeasible to capture all elements involved in the two complex adaptive systems (38).

5.5.2. Future Directions

As part of the final component of the framework for transformative systems change, 'identifying levers for change,' (19) we explored more targeted and tangible solutions to enhance healthcare coordination within and between the EYS and health systems for YEH. These interventions were discussed in-depth as part of the second half of the stakeholder forum and are presented in a final article culminating this case study.

5.6. Conclusion

The CLD provides a conceptual overview of the independent and integrated systems through which decision-makers can prioritize and guide interventions to strengthen healthcare

coordination for YEH. Overall, and based on our reported findings, we recommend that priority be given to variables/inputs such as funding, building human resource capacity, and enhancing intra- and inter-systemic communication. Each of these variables should be considered holistically, as they are interdependent and influence access, quality, and coordination of healthcare for YEH. Additionally, strengthening healthcare coordination for YEH may help improve their health outcomes, which are interconnected with various other social determinants of health.

5.7. End materials

Ethics approval and consent to participate: Research ethics approval was granted through the University of Ottawa (Ethics file number: H-12-20-5771). All key informants who were interviewed provided verbal or written informed consent prior to the interview. Interviewees with lived experience of homelessness were compensated $30 for their time and participation.

Consent for Publication: Not applicable.

Availability of data and materials: Anonymized interview audio-recordings and/or transcripts are available from the corresponding author on reasonable request.

Competing Interests: The authors declare they have no competing interests.

Funding: This research was supported by the first author's Queen Elizabeth II Scholarship in Science and Technology (2021-2022).

Authors' Contributions: AH conceptualized the study, performed interviews with all key informants, analyzed interview data, developed the CLD, and wrote the draft manuscript. AH, JL, RL and SY critically reviewed and approved the article prior to submission for publication.

Acknowledgements: We thank all 24 key informants for sharing their time, knowledge, and experiences with us for this research, including youth who were vulnerable and raw in sharing some challenging experiences navigating the health system and EYS system in Toronto. We would also like to thank those who participated in the stakeholder forum and provided feedback on an early iteration of the CLD.

5.8. References

1. City of Toronto. Street Needs Assessment 2021: Results Report [Internet]. 2021 p. 82. Available from: https://www.toronto.ca/legdocs/mmis/2021/ec/bgrd/backgroundfile-171729.pdf

2. Gaetz S, O'Grady B, Kidd S, Schwan K. Without a home: the National Youth homelessness survey [Internet]. Canadian Observatory on Homelessness; 2016 [cited 2019 Dec 3]. Available from: http://proxy.library.carleton.ca/loginurl=https://www.deslibris.ca/ID/10065874

3. Boivin JF, Roy É, Haley N, du Fort GG. The Health of Street Youth: A Canadian Perspective. Can J Public Health. 2005 Nov 1;96(6):432–7.

4. Roy É, Haley N, Leclerc P, Sochanski B, Boudreau JF, Boivin JF. Mortality in a Cohort of Street Youth in Montreal. JAMA. 2004 Aug 4;292(5):569–74.

5. Kidd S, Gaetz S, O'Grady B. The 2015 National Canadian Homeless Youth Survey: Mental Health and Addiction Findings. Can J Psychiatry. 2017 Jul 1;62(7):493–500.

6. Kulik DM, Gaetz S, Crowe C, Ford-Jones E (Lee). Homeless youth's overwhelming health burden: A review of the literature. Paediatr Child Health. 2011 Jun 1;16(6):e43–7.

7. Kidd S, Gaetz S, O'Grady B, Schwan K, Zhao H, Lopes K, et al. The Second National Canadian Homeless Youth Survey: Mental Health and Addiction Findings: La Deuxième Enquête Nationale Auprès des Jeunes Sans Abri : Résultats en Matière De Santé Mentale et de Toxicomanie. Can J Psychiatry. 2021 Oct 1;66(10):897–905.

8. Morisseau-Guillot R, Aubin D, Deschênes JM, Gioia M, Malla A, Bauco P, et al. A Promising Route Towards Improvement of Homeless Young People's Access to Mental Health Services: The Creation and Evolution of an Outreach Service Network in Montréal. Community Ment Health J. 2020 Feb;56(2):258–70.

9. Kidd S, Slesnick N, Frederick T, Karabanow J, Gaetz S. Mental Health & Addiction Interventions for Youth Experiencing Homelessness: Practical Strategies for Front-line Providers. [Internet]. Toronto: Canadian Observatory on Homelessness Press; 2018 [cited 2019 Dec 3]. Available from: https://www.deslibris.ca/ID/10095054

10. Robards F, Kang M, Usherwood T, Sanci L. How Marginalized Young People Access, Engage With, and Navigate Health-Care Systems in the Digital Age: Systematic Review. J Adolesc Health. 2018 Apr 1;62(4):365–81.

11. Gulliver-Garcia T. The Homeless Hub. 2014 [cited 2019 Dec 3]. Which city in Canada has the most homeless people per capita and why? | The Homeless Hub. Available from: https://www.homelesshub.ca/blog/ask-hub-which-city-canada-has-most-homeless-people-capita-and-why

12. Hambrick RS, Rog DJ. The Pursuit of Coordination: The Organizational Dimension in the Response to Homelessness. Policy Stud J Urbana Ill. 2000 Jan 1;28(2):353–64.

13. Gaetz S. Coming of Age: Reimagining the response to youth homelessness in Canada. [Internet]. Toronto, ON: The Canadian Observatory on Homelessness Press.; 2014. Available from: I have found a reference that supports your statement: Gaetz, S., Barr, C., Friesen, A., & Harris, B. (2013). Coming of Age: Reimagining the Response to Youth

Homelessness in Canada. The Homeless Hub Press. Retrieved from https://www.homelesshub.ca/sites/default/files/COA_Report_FINAL.pdf.

14. Hudani A, Labonte R, Yaya S. Where's the disconnect? Exploring pathways to healthcare for youth experiencing homelessness in Toronto, Canada using grounded theory methodology. Qual Health Res. 2023;

15. McDonald KM, Sundaram V, Bravata DM, Lewis R, Lin N, Kraft SA, et al. Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies (Vol. 7: Care Coordination) [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2007 [cited 2023 Jun 20]. (AHRQ Technical Reviews). Available from: http://www.ncbi.nlm.nih.gov/books/NBK44015/

16. Karam M, Chouinard MC, Poitras ME, Couturier Y, Vedel I, Grgurevic N, et al. Nursing Care Coordination for Patients with Complex Needs in Primary Healthcare: A Scoping Review. 2021 Mar 19;21(1):16.

17. Turner A. Beyond Housing First: Essential Elemetns of a System-Planning Approach to Ending Homelessness. Univ Calg. 2014;7(30):25.

18. Lehman BJ, David DM, Gruber JA. Rethinking the biopsychosocial model of health: Understanding health as a dynamic system. Soc Personal Psychol Compass. 2017;11(8):e12328.

19. Foster-Fishman PG, Nowell B, Yang H. Putting the system back into systems change: a framework for understanding and changing organizational and community systems. Am J Community Psychol. 2007 Jun 1;39(3):197–215.

20. Blair C, Gralla E, Wetmore F, Goentzel J, Peters M. A Systems Framework for International Development: The Data-Layered Causal Loop Diagram. Prod Oper Manag. 2021;30(12):4374–95.

21. Charmaz K. Constructivist grounded theory. J Posit Psychol. 2017 May 4;12(3):299–300.

22. Kim DH. Introduction to Systems Thinking. Pegasus Commun. 1999;21.

23. Kim D. The Systems Thinker. 2016 [cited 2023 Sep 26]. Guidelines for Drawing Causal Loop Diagrams. Available from: https://thesystemsthinker.com/guidelines-for-drawing-causal-loop-diagrams-2/

24. Jenkinson JIR, Hwang SW, Strike C, Di Ruggiero E. "We don't have a good system for people who don't have a home and don't need a hospital": Contextualizing the hospital discharge process for people experiencing homelessness in Toronto, Canada. SSM - Qual Res Health. 2022 Dec 1;2:100056.

25. Khandor E, Mason K, Chambers C, Rossiter K, Cowan L, Hwang SW. Access to primary health care among homeless adults in Toronto, Canada: results from the Street Health survey. Open Med. 2011;5(2):e94.

26. Nichols N, Malenfant J. Health System Access for Precariously Housed Youth: A Participatory Youth Research Project. Soc Ment Health. 2022 Mar 10;21568693221082206.

27. Chick D, Bigelow A, Seagull FJ, Rye H, Davis P, Williams B. Caring With Compassion, Domain 2: Bio-Psychosocial Care of Uninsured, Homeless, Underserved, and At-Risk

Populations. J Teach Learn Resour [Internet]. 2014 [cited 2023 Aug 10];10. Available from: https://www.mededportal.org/doi/10.15766/mep_2374-8265.9755

28. Zimmerman SL, Bi A, Dallow T, Rutherford AR, Stephen T, Bye C, et al. Optimising nurse schedules at a community health centre. Oper Res Health Care. 2021 Sep;30:100308.

29. Hwang SW. Homelessness and health. CMAJ. 2001 Jan 23;164(2):229–33.

30. Gallardo K, Maria DS, Narendorf S, Markham C, Swartz M, Batiste C. Access to healthcare among youth experiencing homelessness: Perspectives from healthcare and social service providers. Child Youth Serv Rev. 2020 Aug 1;115:105094.

31. Pitcher C, Saewyc E, Browne A, Rodney P. Access to Primary Health Care Services for Youth Experiencing Homelessness: "You shouldn't need a health card to be healthy." Witn Can J Crit Nurs Discourse. 2019 Dec 17;1(2):73–92.

32. Shelter, Support & Housing Administration C of T. Toronto Shelter Standards (Version 4) [Internet]. 2015. Available from: https://www.toronto.ca/community-people/community-partners/emergency-shelter-operators/toronto-shelter-standards/

33. Schwan K, Kidd S, Gaetz S, O'Grady B, Redman M. Mental Health Care for Homeless Youth: A Proposal for Federal, Provincial, and Territorial Leadership, Coordination, and Targeted Investment. 2017 [cited 2023 Aug 9]; Available from: http://hdl.handle.net/10315/41253

34. Wood L, Wood NJR, Vallesi S, Stafford A, Davies A, Cumming C. Hospital collaboration with a Housing First program to improve health outcomes for people experiencing homelessness. Hous Care Support. 2018 Jan 1;22(1):27–39.

35. Black EB, Fedyszyn IE, Mildred H, Perkin R, Lough R, Brann P, et al. Homeless youth: Barriers and facilitators for service referrals. Eval Program Plann. 2018 Jun;68:7–12.

36. Dawson A, Jackson D. The primary health care service experiences and needs of homeless youth: A narrative synthesis of current evidence. Contemp Nurse. 2013 Apr 1;44(1):62–75.

37. Ulrich W. Beyond methodology choice: critical systems thinking as critically systemic discourse. J Oper Res Soc. 2003 Apr 1;54(4):325–42.

38. Baugh Littlejohns L, Hill C, Neudorf C. Diverse Approaches to Creating and Using Causal Loop Diagrams in Public Health Research: Recommendations From a Scoping Review. Public Health Rev. 2021;42:1604352.

CHAPTER 6. ARTICLE 4: Identifying levers for change in healthcare coordination between the emergency youth shelter and health systems in Toronto, Canada through stakeholder engagement: A qualitative study

Publication status: this article was revised based on feedback received from a peer reviewer and resubmitted to the International Journal on Homelessness on June 4th, 2024.

Authors: Alzahra Hudani[1], Dina Idriss-Wheeler[1], Ronald Labonté[2] & Sanni Yaya[3]

Affiliations:

[1] Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, Ontario, Canada

[2] School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada

[2] International Development and Global Studies, University of Ottawa, Ottawa, Ontario, Canada

6.1. Abstract

Background: Healthcare coordination involves supporting youth experiencing homelessness (YEH) with accessing appropriate healthcare; synchronizing delivery of their healthcare across multiple systems; sharing healthcare and discharge plans with youth and providers who fall under their 'circle of care;' and coordinating post-care follow-up as necessary. Challenges with coordinating healthcare within and between the emergency youth shelter (EYS) and health systems include poor accountability for healthcare coordination across systems; information-sharing and privacy policies inhibiting communication between sectoral staff; inconsistencies in system-based and organizational norms, operations, and funding, and each system's historically fragmented structure.

Methods: We used a system thinking framework to identify levers for change in healthcare coordination within and between the EYS and health systems in Toronto, Canada. Six stakeholders who work at various levels of each system participated in online breakout room discussions as part of a 2-hour forum facilitated by our research team. A series of four questions were asked to identify levers for change in system parts and system patterns in healthcare coordination within and between the EYS and health systems. Breakout room discussions were recorded, transcribed, and co-analyzed by the research team using reflexive thematic analysis for each question.

Results: Organizational and system-wide goals discussed to strengthen healthcare coordination include clarifying accountability in staff roles, revisiting discharge policies to improve continuity of care, prioritizing funding for programs evaluated to be effective, establishing more opportunities for system cross over, enhancing accessibility for YEH, integrating social medicine into healthcare approaches, and streamlining health communication across both systems. When asked about what is realistically possible, stakeholders were optimistic about enhancing information-sharing through

digital health platforms, adapting organizational policies to consider the holistic needs of YEH, and dispersing funds more intentionally to support coordination initiatives. Furthermore, poor staff-youth relations, harmful discharge policies and the Toronto housing crisis were noted as patterns impeding change in coordinating healthcare. Finally, stakeholders identified systems integration and alignment of well-defined healthcare coordination processes across systems to harmonize efforts in achieving healthcare coordination goals.

Conclusions: Stakeholder forum participants discussed promising levers for change that are recommended to strengthen parts of the EYS and health systems along with patterns that influence healthcare coordination between them.

Keywords: healthcare coordination, stakeholder engagement, levers for change, systems thinking, health policy, emergency youth shelter, health system, youth homelessness

6.2. Introduction

Healthcare coordination can be defined as the "*deliberate organization of patient care activities between two or more participants (including the patient), involved in a patient's care to facilitate the appropriate delivery of health services"* (1,2). In this context, healthcare coordination involves supporting youth experiencing homelessness (YEH) with accessing appropriate healthcare; synchronizing the delivery of their healthcare across multiple providers between systems; sharing healthcare plans and discharge plans with youth and providers who fall under their 'circle of care;' and coordinating post-care follow-up as necessary (3). Support with coordinating healthcare is especially important for this vulnerable and transient youth population as they are exposed to a multitude of factors that lead to poor physical and mental health outcomes (4). For instance, the most recent national health survey (2019) indicates that 74% of YEH who participated in the survey (n=1,375) reported high levels of distress, 35% reported attempting suicide at least once, and 33% reported a drug overdose requiring hospitalization (5). YEH often require assistance in accessing, navigating, and coordinating health services to address their individual health needs, as they don't always have the motivation and/or knowledge to find the most suitable healthcare services for their needs within the incredibly complex health system (6). This, in addition to the complexities of maintaining survival causes many YEH to follow a pattern of crisis-oriented health seeking behaviour, where they largely seek care at hospital emergency departments (7).

Approximately 30% of YEH who were interviewed (n=150) in a Toronto-based study (2014), visited an emergency department at least once over a 4-month period (8). Although YEH may have access to health services integrated within emergency youth shelters (EYSs) they are staying at, this access depends on a variety of factors including each shelters' priorities,

infrastructure and capacity to provide health services for youth's individual health needs. In addition to accessing health services that may be integrated at EYSs, youth may choose to access healthcare externally through youth drop-in centres, their family doctor, hospital emergency departments, and/or walk-in clinics (7). When youth experience crises (e.g. overdosing) for which EYSs may not be equipped to provide care, YEH are often sent to hospital emergency departments to receive emergency care (9). Evidence from a recent study demonstrates that many YEH often get trapped in a vicious shelter-hospital loop, when sent from EYSs to receive hospital emergency care. This occurs in instances when YEH are prematurely discharged from hospitals back into the EYS system, only to later re-enter the health system for concerns or crises for which they were previously admitted. This critical disconnect results from insufficient engagement between systems, and highlights the need for strengthened healthcare coordination between the EYS and health systems to improve YEH's trajectories to care and ultimately their health outcomes (9).

The challenges with coordinating healthcare within and between the EYS and health systems are multiplex and include the fact that neither system is accountable for coordinating care; information-sharing and privacy policies inhibit communication between and across sectoral staff; there are inconsistencies in system-based and organizational norms, operations, and funding (9); and these complex systems have historically evolved to be fragmented and operating is silos (10,11). When YEH are forced to navigate disconnected public systems with minimal support, they are left with gaps in their healthcare and a loss of trust in the systems that are mandated to provide this care. As a result, poorly coordinated or uncoordinated healthcare for YEH is associated with unresolved health concerns and crises, and frequent visits between the EYS and health systems. The interconnectedness of the social determinants of health and housing

emphasizes the need for shared responsibility in healthcare coordination across the EYS and health systems, in addition to other public systems (12).

In this article, we use a systems-thinking and organizational change lens, specifically through the 4-step framework for transformative systems change developed by Foster-Fishman and colleagues, to identify levers for change in strengthening healthcare coordination within and between the EYS and health systems in Toronto, Canada (13). In using this 4-step framework, we first defined the boundaries of the Toronto-based EYS and health systems in their healthcare coordination roles for YEH (14), 2) identified fundamental system's parts (i.e., norms, resources, regulations, and operations) that can potentially be targeted to strengthen healthcare coordination across various levels of each system (9), and 3) assessed interactions and interdependencies between various system parts through a causal loop diagram (CLD) (15). The fourth and final step of the framework focuses on identifying levers for change based on stakeholders' understanding of gaps, challenges, and barriers within and between these two complex adaptive systems. By considering how to use system parts to leverage positive change, stakeholders (or system change agents) can begin thinking about how to: 1) shift fundamental ways in which they work to align with healthcare coordination goals; and 2) strengthen processes that are aligned with the targeted outcome of coordinated, and more integrated healthcare for YEH.

6.3. Methods

6.3.1. Study Design & Setting

This research is part of a larger exploratory case study investigating how the EYS and health systems engage to coordinate healthcare for YEH in the inner-city and inner-suburban regions of Toronto, Canada. As part of the final phase of the case study, we hosted a 2-hour virtual forum to convene and engage a diverse group of stakeholders to 1) share and verify our

understanding of system-based interactions and interdependencies in healthcare coordination, based on the CLD which was developed as guided by step 3 of the framework for transformative systems change; and 2) identify and discuss levers for change based on our understanding of these interactions and interdependencies in healthcare coordination for YEH within and between the EYS and health systems. This study is informed by stakeholders and researchers who share a comprehensive understanding of each system's individual and collective roles and challenges in coordinating healthcare for YEH.

6.3.2. Participants and Recruitment

The principal investigator (AH) used purposive and snowball sampling to recruit participants for the stakeholder forum. AH first sent e-mail invitations to a select group of stakeholders who had previously participated in online, in-depth interviews as part of the broader case study. If stakeholders were not able to attend, they were asked to refer other staff within their organizations who could attend on their behalf. In total, stakeholders comprised a subset of four out of twenty-four key informants who participated in online semi-structured interviews for the broader case study between May 2021-March 2022; and two other stakeholders who met inclusion criteria and were recruited by recommendation. Key informants who were recruited to participate in the forum included staff who worked at various levels of the EYS and health systems (e.g., high-level executives and frontline staff with clinical and non-clinical backgrounds), and YEH who ranged between 16-24 years old and had experience navigating healthcare while staying at an EYS in Toronto.

6.3.3. Data Collection

The stakeholders convened for the first hour to discuss the CLD in a large group setting after which they were separated into 3 breakout rooms with 2 stakeholders allocated per group.

Each breakout room discussion was facilitated by a member of the research team, who asked a series of four questions focused on identifying levers for change in system parts, and in system-based patterns and interactions in healthcare coordination (see Table 6.1). Breakout room discussions were recorded and transcribed using Otter.ai software. Each team member carefully listened to their respective breakout room discussion audio recording to ensure that their facilitated discussion was accurately reflected in their transcript verbatim.

Table 6. 1: Questions guiding stakeholder forum breakout room discussions

Question #1	What are (or what should be) some organizational or system-wide goals through which to strengthen healthcare coordination?
Question #2	Realistically, what is possible given current resources and knowledge?
Question #3	What patterns within the EYS and/or health systems will likely impede change or get in the way of strengthening healthcare coordination?
Question #4	Are there any links between the EYS and health systems that can be created or altered to align in healthcare coordination efforts/goals?

6.3.4. Data Analysis

Forum transcripts were compiled in a Microsoft Word document on SharePoint and shared with the research team, who met virtually on Microsoft Teams to co-analyze the data using reflexive thematic analysis; an analytic method for identifying, analyzing and interpreting patterns of meaning in qualitative data (16). Responses to each question were inductively coded to identify, analyze, and interpret levers for change in healthcare coordination between the EYS and health systems. Segments of the transcripts were highlighted and coded using the comments function on Microsoft Word. Analytic memos were also discussed and documented simultaneously to make note of any thoughts, feelings, and patterns in the data. Members of the research team organized codes and accompanying text according to each question number on Microsoft Excel. Codes were further categorized into predominant themes and in some cases sub-themes, for each question.

6.3.5. Ethical approval

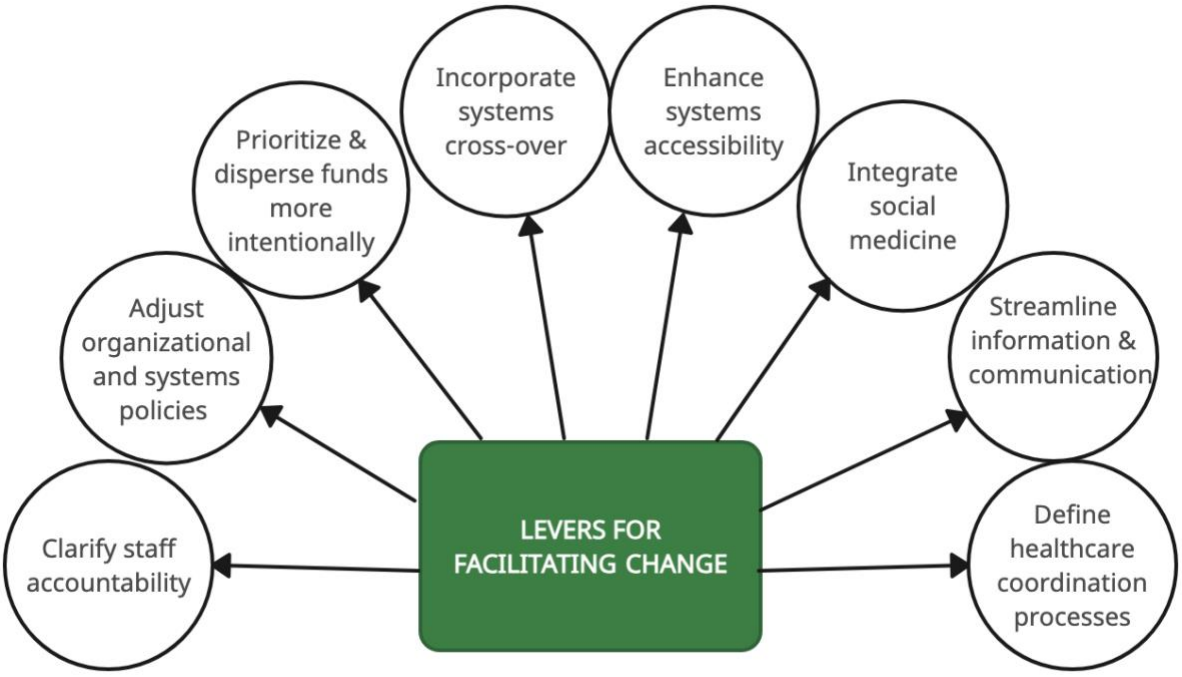
Ethical approval for this study was granted through the University of Ottawa (Ethics file number: H-06-23-9292). Stakeholders invited to participate in the forum were provided with an information sheet by e-mail for their review. Participants were made aware that the information they share at the forum would not be confidential or anonymous given its collaborative design. However, confidentiality and anonymity would be maintained in subsequent knowledge mobilization. All stakeholders who agreed to participate in the forum did so voluntarily.

6.4. Results

A total of 6 stakeholders were present at the two-hour forum: two case managers from two different EYSs, a physician providing primary healthcare at an EYS, an executive supervising harm reduction programs at an inner-city community health center (CHC), a social worker working at an inner-city hospital, and a coordinator supporting people experiencing homelessness at another inner-city hospital. Two YEH had confirmed attendance to the forum but were unable to make it due to their personal circumstances.

Eight levers for facilitating systems-level change were identified through the breakout room discussions as summarized and depicted in Figure 6.1. Each lever for change was discussed in response to one or more of the four breakout room discussion questions and are detailed with examples below.

Figure 6.1: Levers to strengthen healthcare coordination between the EYS and health systems in Toronto



6.4.1. Organizational and system-wide goals

Question #1: What are (or what should be) some organizational or system-wide goals through which to strengthen healthcare coordination?

Organizational goals

1. Clarify staff accountability for healthcare coordination

Currently, there are no consistent and formalized staff roles across organizations within either system that are mandated to support YEH with healthcare coordination. This has led to challenges, misunderstandings and poor trust between stakeholders who work within the EYS and health systems. A coordinator at an inner-city hospital emergency department comments:

"There is this dialogue: 'oh, hospitals are dumping into the shelter' and it's like, but they came into the hospital unhoused...like, [is it] that people are discharged because they're medically stable, or is it the responsibility of the hospital to house them in the one week they were here?"

A few stakeholders discussed adapting staff roles to incorporate formal responsibility in coordinating healthcare with or for YEH, and/or introducing new roles across organizations that solely focus on supporting youth with their healthcare coordination needs, including inter-organizational communication management. Most staff at EYSs and health system organizations do not know who to contact at organizations that are external to their own sector, to communicate critical information about their youth patients or clients (e.g., health history, environmental contexts, discharge summaries, etc.). The same coordinator, who has a unique role in supporting people experiencing homelessness with healthcare coordination explains,

"I see them [brief encounters[5]] really, really strengthen the relationship between service providers [within community health organizations] and the hospital to have a responsiveness - to have a point person.... shelters don't have a point person. It is tricky to support all the shelters - but if there was some sort of system set up where there is a point person for community people or organizations... [that would help]."

Moreover, stakeholders agree that it would be additionally beneficial if the point person allocated to each organization, institution, or agency, has clinical knowledge to appropriately refer YEH to hospitals for admission, or to community care. A shelter case manager states, *"I found the doctor [at the shelter] is well positioned to communicate or coordinate that care... shelter staff that are not medically trained are not able to identify certain things."* The hospital coordinator agrees that

[5] Inbound referrals from external organizations, agencies, or service providers.

referrals from community clinicians are preferred due to their medical acuity: *"The reason I really like my referrals from nurses in the community is knowing [medical acuity] rather than [shelter] caseworkers who sometimes think the patient needs to be admitted for everything, because they just don't have that clinical knowledge."* Clarifying accountability introduces potential for policy and process changes that reflect this shared responsibility in coordinating healthcare across sectors; one way in which to enable this accountability is revisiting organizational discharge policies that pose barriers in coordinating healthcare for YEH.

2. Revisit organizational discharge policies and address healthcare coordination barriers

YEH are sometimes discharged from EYSs and hospitals without feasible plans in place to facilitate continuity of care. Healthcare providers who work within the health system often lack important context for appropriate youth referral, and in the case that they do acquire that context, there are many barriers that prevent information-sharing with other providers in youths' circle of care. The social worker explains:

> "*I think it's hard for people to explain their full story and all the things that they need, especially young people, I think it's hard to advocate for yourself. So, the physicians almost never would contact the community caseworker. So, if it's at nighttime, or if it's a particularly busy day, and the social worker hasn't had time to connect with that person before they're discharged, all that information would go completely missed."*

Collaborative discharge planning between healthcare providers and EYS case workers, or "point people" between these organizations may support YEH with accessing continuous healthcare for their health needs post-discharge or while transitioning between systems.

3. Prioritize funding for effective programming

Several pilot programs within the EYS and health systems have introduced interdisciplinary human resources and multidisciplinary healthcare teams to improve the health outcomes of people experiencing homelessness - largely by improving inter-organizational communication and considering the social determinants of health including housing in their approach to care. Some of these programs have shown promising results in strengthening healthcare coordination for this population, such as the emergency department outreach workers program piloted at one of the inner-city hospitals in Toronto. This program was developed alongside community partners and people with lived experience of homelessness as part of an Ontario Health Team, where outreach workers are assigned to precariously housed individuals to help connect them to shelter/housing, long-term health resources and other resources that address their determinants of health (17). The hospital coordinator states, *"I think it would be cool to really prioritize monetarily and fund these programs so that they're not on like a pilot."* Scaling and continuing to fund programs that are evaluated to make tangible differences in healthcare coordination, may help more sustainably prevent youths' entrapment in the vicious shelter-hospital loop and improve their health outcomes overall.

System-wide goals

1. **Incorporate system cross-over**[6]
   i. **Service providers physically visiting intra- and inter-sectoral organizations*:*** Two stakeholders who work within hospitals discussed the potential of leaving their institutions to support YEH with healthcare coordination. One example provided was by facilitating

[6] The point where service-providers physically or collaboratively intersect to support healthcare coordination for YEH.

warm transfers. In facilitating these transfers, staff expressed the need to physically leave their institutions to accompany youth in visiting and acclimatizing to healthcare partners and referral sites that most appropriately meet their healthcare needs. Further, in facilitating these transfers, staff may also transfer healthcare accountability to new healthcare providers. A social worker explains how this physical transfer may benefit YEH:

> "*I could put the best plan together for someone but if it was easy for people to follow through on plans - they probably would not be in the hospital [again]... anyone can google things and see what resources are out there. It would be so beneficial if I could actually go outside with people and connect them along a safe path, rather than leaving people to fend for themselves."*

Systemic regulations prevent healthcare providers and other staff from taking this additional step to support YEH in their healthcare journeys – a step that has the potential to deepen trust between YEH, staff, and the systems overall.

ii. Service providers coming together as an interdisciplinary team in one space*:* System crossover through the establishment of interdisciplinary teams focus on providing and/or coordinating healthcare for YEH in one space. The social worker proceeds to provide an example of a team that has progressed in serving the ageing population who seek care at hospitals. She says:

> *"It would be great - the way homecare has some of their coordinators based out of the hospital to do their assessments and everything. Like while people are in the hospital, if there was some sort of crossover similar through the shelter system?"*

Inter-sectoral trust-building is a preliminary step to facilitate collaboration through interdisciplinary teams.

2. **Enhance healthcare accessibility within and between systems**

   i. **Identify strategies to enhance privacy:** Organizations within the EYS and health systems should consider ways in which to enhance patient privacy in their physical spaces. This will further enable youth to disclose their personal information during entry or at intake. This information is critical for service providers to contact YEH post -discharge, if needed. For instance, the hospital coordinator shares:

   > *"I also noticed, in a lot of the registration processes, you're in somewhat of a public space - you don't have privacy and sometimes they [YEH] will just keep the information in their registration that was there from last time. So maybe their parents address or whatever they [had]."*

   ii. **Adapt navigator roles to cater to all YEH who require healthcare coordination support:** Navigation roles introduced within inner-city hospitals should be adapted to provide support to all patients experiencing homelessness, and not just those who are admitted. A social worker working within the hospital emergency department explains:

   > *"We have access to a pilot program as well, like navigators, but only once people have been admitted. So, that's a big gap for people who are here because they need healthcare, but not acutely enough that they're admitted to the hospital, so they don't have access to this program at all."*

   Providing navigation support to all youth patients who are homeless and seeking care at hospital emergency departments allows for more healthcare coordination coverage across this population.

iii. **Formalize relationships between EYSs and community healthcare**: Increasing formalized connections between EYSs and community health clinics is a promising strategy to increase youths' access to primary healthcare. An EYS case manager shares:

> *"We focus a lot on hospital emergency departments, and I think we could [focus] on clinics in the community as well. Ideally, [and] this is just one thought that comes to mind, is that there'll be a knowledge of shelters that exist in this neighborhood, and there are certain kind of allotments made to prioritize individuals receiving shelter care to be connected to a primary health care provider, a family doctor, etc., who would be well-positioned to coordinate that care... and we also don't want physical barriers to get in the way of people accessing consistent healthcare, and not just when there is an emergency. Having a clinic in the neighborhood, and a doctor that is very familiar with the individual's plan of care would be really helpful."*

iv. **Provide consistent and low-barrier healthcare:** Provision of consistent and low-barrier healthcare was a common goal among stakeholders. A few stakeholders suggested that EYSs should more holistically integrate health services on-site, while considering hours that are convenient for YEH at their respective shelters. Increasing mobile health services was another example of increasing healthcare accessibility and easing healthcare coordination. The CHC executive explains:

> "*I think mobility of healthcare services need to be increased. Our agency has a pilot health bus that is doing some really amazing things like providing pap smears to communities who haven't received them, vaccine programs, etc. The clients that my program is serving due to substance use related abscesses or any other barriers*

that would be like to getting around town, as well as like the difficulty of getting a bus token - it makes connecting to care, especially when you're somebody who needs to see your care providers at a higher frequency than a person with my health, arduous. People withdraw from care where there are barriers."

v. **Better cater to the complex health needs of YEH**: There is often a direct relationship between youths' complexity in healthcare needs and the discrimination they experience in accessing both systems. The hospital coordinator explains how accessibility should be rethought at EYSs:

> "T*here's a narrative from the city that they're [YEH who have complex needs] not a fit for the shelter [EYSs within the system]. They need to be hospitalized. And to me, I find that really ableist - we shouldn't institutionalize people who have different disabilities or complex health, because people belong in the community. So, if your shelters aren't a good fit... we need to think about accessibility in shelters."*

3. Integrate social medicine in approach to healthcare

Most stakeholders acknowledged the need to consider the social determinants of health in their approach to serving people experiencing homelessness. A prime example shared was of Toronto's University Health Network, who recently hired 9 navigators and are building safe, secure, and affordable housing to support people experiencing homelessness who are frequent users of hospital services. This unique intervention was designed to address the underlying social determinants of health including food, housing, and financial security, and the long-term impacts they can have on individuals' quality of life (18). The hospital coordinator states, "*people are acknowledging the social determinants of housing, which are paramount to someone's health. So,*

I think things are slowly changing." Although this example is an outlier, stakeholders recommend that organizations within the EYS and health systems consider approaching the healthcare coordination needs of YEH with a social lens, and not just a clinical one.

Further, the CHC executive describes a harmful pattern he has observed with his clients seeking addictions care at hospital emergency departments, and thoughts on interventions that might help. He speaks particularly in the context of substance use, which are common concerns amongst YEH. He shares:

> *"A lot of clients withdraw from care in the emergency context, like in acute care because of "withdrawal", and people's substance use cycle - it's a day long occupying thing. Very few doctors are providing risk mitigation (Dilaudid) and risk mitigation supply in emergency departments. I know a few who are at Toronto [Hospital A] and Toronto [Hospital B], which is really cool. But I think seeing more emergency department docs experimenting with that, and trying any other social health intervention might help people stay put and would mean a lot of people would actually get their other needs met."*

4. Streamline health communication

Streamlining health communication, particularly through centralized communication and information-sharing channels is a common goal in strengthening healthcare coordination within and between the EYS and health systems. Service providers within both systems have experienced challenges in accessing the information they need to coordinate healthcare or shelter for YEH. One stakeholder in a breakout room shared:

> "*The amount of time listening to central intake hold music, just be told there's no shelters, try again later. That alone would make a difference in just how much time we have..."*

6.4.2. Possible interventions

Question #2: Realistically, what is possible given current resources and knowledge?

1. Using digital health to streamline communication and information-sharing

A few stakeholders discussed digital health technology as a promising and possible solution to preventing information gaps, which are a significant barrier in coordinating healthcare for YEH by sectoral service providers. For example, a downtown Toronto Ontario Health Team was noted to pilot an initiative to streamline health communication inter-sectorally through Verto; a Toronto-based digital health company. Through this pilot, shelter staff were able to streamline consent management and then input client summaries and receive clients' discharge summaries and other clinical information from their visits to hospitals and/or other health system organizations (e.g., clinics, labs, etc.) (19). Using digital communication channels with youths' consent allows service providers to communicate critical information with each other, and appropriately support with youths' healthcare coordination. Furthermore, streamlining information about relevant resources across organizations may also help facilitate inter-organizational communication, and thereby healthcare coordination for YEH.

2. Revisiting and adapting organizational policies

Policies should be revisited and adapted to consider the bio-psycho-social needs of YEH. They should also be intentional in capturing organizational values (e.g., practicing from a trauma-informed lens), which should further be reflected in organizational processes and practice. The EYS case manager shares:

"*A lot of our policies are very flawed, especially when it comes to harm reduction, or when it comes to discharge if they [YEH] don't follow a harm reduction policy… so, if there is a*

movement or a push to change how we operate individually as shelters, that would push the needle even one or 2% in the right direction."

3. Dispersing money more intentionally

Dispersing funds where they will have the most sustainable impact was noted as a possibility across two discussion rooms; whether these are funds allocated through funding bodies to organizations, or pre-existing funds that were received by organizations through government allocations, or through independent fundraising. One suggestion was to allocate or transfer some of this funding to interdisciplinary staff roles that crossover between systems (e.g., hospital outreach role), once there is enough evidence to support the role's efficacy and impact in strengthening healthcare coordination and improving YEH's health outcomes. A second suggestion was to strategically develop interventions that consider YEH's broader social needs and determinants of health. For example, the CHC executive shares:

"We don't just need affordable housing, you know, getting developers to create a lot of 10 rooms on a floor and define it affordable, or whatever term - but [what's needed] is socially created housing, with attached housing supports because for people who are chronically homeless, the solution is not just to give them a room and then leave them alone. And I think it takes political will. I think it's possible. I think we have the resources, they're just not fortunately, dispersed."

6.4.3. Patterns impeding change

Question #3: What patterns within the EYS and/or health systems will likely impede change or get in the way of strengthening healthcare coordination?

1. Harmful discharge policies

Discharge policies embedded within both systems are an overarching barrier in healthcare coordination among other efforts to serve YEH with their health and social needs. An EYS case manager elaborates:

> "*Discharges from both agencies – it cannot be understated how detrimental this is, right. The damage that's caused by asking someone to leave a shelter space or spaces. That's what we do. It's a very prevalent practice. And it is often for reasons that are backed up by policy, but to the youth it's an awful rejection. It increases the amount of risk that we ask them to undertake, when they are that much closer to literally being on the street, if not directly on the street. Yeah, it sucks. I'm a very firm believer that these policies should simply not exist. I think they are harmful. But yeah, they get in the way of strengthening health care coordination, but [also] many other things."*

Discharging YEH from either system without appropriate healthcare coordination support further exacerbates distrust between YEH and public systems and amplifies their risk of entrapment in the endless shelter-hospital loop.

2. Unaffordable housing and interfering policies

The growing housing crisis and regulations around eligibility for transitional housing and government assistance are misaligned. These challenges directly affect EYS service utilization and YEH's social determinants of health. The CHC executive comments:

> *"It's all very patchwork, you can get somebody into group housing, and a lot of people don't want to stay there given that it covers their room and boards, [because] then they will get*

callback on their Ontario Disability Support Program [ODSP] or Ontario Works[7], because technically their needs are being met. Even [tenancy] in rooms in the basement of a bungalow, which is not even a true tenancy, [because] you can be kicked out in a moment's notice - those places are now starting at over $1100 - $1200, so you need a portable housing subsidy for that. And then transitional housing programs have strict eligibility criteria. People have to be attached to a case manager, they can't have any priors, their taxes have to be reconciled, etc. It's just a long swim upstream to get your foot in the door [and] to be on the list for access to housing in Toronto or supportive housing through access points."

6.4.4. Inter-systemic links to strengthen healthcare coordination

Question #4: Are there any links between the EYS and health systems that can be created or altered to align in healthcare coordination efforts/goals?

1. Systems integration

Cross-pollinating between the EYS and health systems (i.e., having community workers at hospital, healthcare provider at EYSs, etc.) is recommended to understand the high-stress environments service providers work at to help develop a sense of empathy – this is believed to help with trust-building, communication, and learning whether particular organizations are a good fit for youth clients/patients during navigations and/or referral to shelter or health services. The hospital coordinator explains:

[7] ODSP and Ontario Works are social assistance programs offered in the province of Ontario for people who have limited or no income. ODSP is specifically for people who suffer from disabilities and who have limited or no income source.

"When you understand each other's contexts, you can communicate better and effectively and give that space and have empathy for what they [service providers] go through on the daily. And then on the flip side, that's why I do a community tour with all brand-new hires. I walk them around and I show them the drop-ins and I show them the different shelters around the area. I show them the consumption sites. I think that it's important for people who work on the inside of these walls to know where they're discharging people to."

Enhancing staffs' familiarity with different organizational environments through community cross-over is a promising strategy for service providers to build trusting relations between systems, and effectively promote and strengthen healthcare coordination for youths' needs based on their knowledge of the environmental contexts and resource availability of community-based shelters and health services. She elaborates further: *"If you can learn the roadmap, then you can help them [YEH] navigate in a way that gets them their needs met."* Moreover, formalizing inter-systemic organizational relationships was suggested to collaboratively coordinate health services for YEH.

2. Aligning on defined healthcare coordination processes

Defining processes for coordinating healthcare and aligning them across the EYS and health system was discussed as another link that can be created to ensure service providers are working consistently and collaboratively, and in ways that benefit youths' healthcare and healthcare coordination needs. The physician providing healthcare services at an EYS comments,

"*Creating a defined process, especially during discharge, and improving communication around it would greatly contribute to better coordination. More discussions and formalization would be beneficial."*

6.5. Discussion

Applying a systems-thinking and organizational change lens to the issue of poorly coordinated healthcare within and between the EYS and health systems helps us identify and understand levers for change in systems parts and patterns in healthcare coordination, as it provides us with a preliminary understanding of interdependencies that exist between systems parts, ultimately leading to various healthcare coordination patterns (13). This was evident in the CLD that was discussed and verified by the diverse group of stakeholders who participated in the forum. The goals, possible solutions and links to strengthen healthcare coordination that were suggested in breakout rooms are more tangible and defined extensions of solutions derived from the CLD. Approaching intra- and inter-sectoral coordination through a systems thinking lens prepares stakeholders, including decision-makers to introduce more interdisciplinary roles, form multidisciplinary teams, and approach interventions in coordinating healthcare for YEH holistically. The stakeholder forum was the first step in convening such a group and collaboratively deliberating on tangible interventions to strengthen healthcare coordination for YEH.

As healthcare coordination within and between systems is a global concern, there have been several interventions to strengthen healthcare coordination, which have been piloted and evaluated globally. Findings from a systematic review and meta-analysis of strategies to improve healthcare coordination through case management, promotion of self-management, and team changes (e.g., use of multidisciplinary teams and expanding or revising team members' occupational roles) were shown to reduce emergency department visits and hospital admissions among patients – although these were not as effective in reducing the use of health services among patients suffering from mental illness (20). Of the fifty studies that were included in the review, only twelve including samples of patients experiencing homelessness. None of the studies

including homeless patients were situated in Canada, and interventions with non-adult patients were excluded from the review. Despite this, some of the findings from the systematic review align with what was discussed by stakeholders in the forum – specifically noting collaborative case management, and changes to the primary healthcare team to be more multidisciplinary and including staff with interdisciplinary roles. Promotion of self-management, which entails providing access to resources and establishing joint goals to empower patients to manage disease independently, was not a strategy identified by stakeholders participating in the forum. In this context of YEH, stakeholders discussed facilitating 'warm transfers' and responding to 'brief encounters' across and between systems to ensure that youth do not fall between the cracks when transitioning between care, or post-discharge.

To our knowledge there are no studies exploring interventions in coordinating healthcare between systems, for YEH. Most studies and interventions focus on healthcare coordination within a single system, usually the health system, and on adult populations. Moreover, there have been several advances in interventions to strengthen healthcare coordination including those using digital health technology - prior to the COVID-19 pandemic, but even more so during the pandemic, which could be considered to strengthen healthcare coordination within and between the EYS and health systems (21,22). Evaluating these interventions, and further exploring them in a systematic review and meta-analysis would help provide compelling evidence on where decision-makers should prioritize and allocate funding. Further, as YEH have different needs than the general population experiencing homelessness (23), it is recommended that more studies explore interventions in coordinating healthcare for this young and marginalized population.

A predominant part of the breakout room discussions focused on organizational and system-level goals and links to strengthen healthcare coordination for YEH in Toronto. While

there are several feasible ideas suggested, there are also many barriers that prevent implementation. First, implementation requires political will and multi-level government action – however, all levels of government are often not involved in these critical discussions. A stakeholder forum participant commented on how there are conflicts of interest between EYSs and the City of Toronto which primarily funds shelter services, which prevent EYSs from advocating for their identified levers for change. Second, approaching interventions holistically requires some level of systems planning, integration, and possible restructuring of large and complex systems – a sizeable task that would require buy-in and engagement from government, and organizations and actors within each system (24). While systems integration is feasible in localized capacities (e.g., formalized processes for 'cross-pollinating' within the EYS and health systems), there is still trust-building, relationship-building and value alignment preceding these initiatives – all of which require motivation and time (25). Overall, we recommend that decision-makers within government and system-based organizations facilitate collaboration within these two systems in the short-term, and planned integration for the long-term, based on stakeholders' input in the forum.

6.5.1. Strengths & Limitations

Stakeholders who participated in the forum brought forward many diverse perspectives from the silos they work in. Overall, the group consisted of participants with both general and specialized roles in serving YEH across the EYS and health systems, but also unique roles specific to coordinating healthcare for people experiencing homelessness (e.g., outreach role). Interestingly, there were common themes and alignment in response to the discussion questions posed despite the differences in the roles and organizations that stakeholders represented. The small size of each group allowed time and space for each participant to share their thoughts and ideas in response to the questions, based on their individual experiences working with YEH. Stakeholders also had a

chance to build rapport beforehand through the CLD verification exercise facilitated by AH in the hour prior to the breakout room discussions. Therefore, although participants were randomly allocated to breakout rooms, they were somewhat familiar with each other, creating a sense of comfort amongst the groups. Small group discussions enabling positive group dynamics and interactions have shown to enhance data collection (26), and this was apparent in group discussions that took place throughout the forum.

As commonly encountered in virtual settings, some technical difficulties were experienced in a breakout room, preventing one stakeholder from verbally participating - this narrowed down the sample to five participants who were able to fully participate. While the same questions were consistently asked across the three rooms, there were differences in facilitation style, which affected the range of follow-up and discussion across the rooms, explaining the over-representation of supporting quotes from various stakeholders over others. Further, having no representation from YEH who have experienced gaps and challenges first-hand in healthcare coordination is an additional limitation to the sample participating in the forum. Finally, while the relatively small, and diverse sample size allowed for stakeholder engagement and in-depth discussions, there were certain viewpoints across levels of each system that were not represented, such as YEH, and local and provincial government who manage high-level policy, operations, and funding.

6.6. Conclusion

Stakeholder forum participants discussed ideas and interventions to strengthen healthcare coordination within and between the EYS and health systems, and harmful patterns and policies that impede meaningful change in healthcare coordination that would benefit from being targeted for organizational and systems-level change. While responses to discussion questions are from a small subset of stakeholders, they represent diverse perspectives which have been amalgamated

across various levels of both systems. Overall, our findings suggest that organizations, agencies, and institutions within the EYS and health system collaborate, 'cross-pollinate' and aim to integrate their teams, programs, and processes to strengthen healthcare coordination for YEH.

6.7. End materials

Ethics approval and consent to participate: Research ethics approval was granted through the University of Ottawa (Ethics file number: H-06-23-9292). Stakeholders who were invited were provided with an information sheet for their review. All who agreed to participate did so voluntarily.

Availability of data and materials: Anonymized breakout room audio-recordings and/or transcripts are available from the corresponding author on reasonable request.

Acknowledgements: We'd like to acknowledge Peter Masango (PM) for sharing his story at the start of the forum, facilitating a breakout room discussion, supporting with data analysis, and providing his comments on the first iteration of the article. While PM deserves authorship, we are respecting his wishes to maintain anonymity and privacy in this work. We'd also like to thank all 6 stakeholders for sharing their time and insights with us.

Competing Interests: The authors declare they have no competing interests.

Funding: There is no funding to declare for this work.

Authors' Contributions: AH conceptualized the study, and AH, DIW and PM collected and co-analyzed data from the stakeholder forum. AH wrote a first draft of this article, and all authors critically reviewed and approved the article prior to submission for publication.

6.8. References

1. McDonald KM, Sundaram V, Bravata DM, Lewis R, Lin N, Kraft SA, et al. Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies (Vol. 7: Care Coordination) [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2007 [cited 2023 Jun 20]. (AHRQ Technical Reviews). Available from: http://www.ncbi.nlm.nih.gov/books/NBK44015/

2. Karam M, Chouinard MC, Poitras ME, Couturier Y, Vedel I, Grgurevic N, et al. Nursing Care Coordination for Patients with Complex Needs in Primary Healthcare: A Scoping Review. 2021 Mar 19;21(1):16.

3. Bynum JPW, Ross JS. A Measure of Care Coordination? J Gen Intern Med. 2013 Mar;28(3):336–8.

4. Gaetz S, O'Grady B, Kidd S, Schwan K. Without a home: the National Youth homelessness survey [Internet]. Canadian Observatory on Homelessness; 2016 [cited 2019 Dec 3]. Available from: http://proxy.library.carleton.ca/loginurl=https://www.deslibris.ca/ID/10065874

5. Kidd S, Gaetz S, O'Grady B, Schwan K, Zhao H, Lopes K, et al. The Second National Canadian Homeless Youth Survey: Mental Health and Addiction Findings: La Deuxième Enquête Nationale Auprès des Jeunes Sans Abri : Résultats en Matière De Santé Mentale et de Toxicomanie. Can J Psychiatry. 2021 Oct 1;66(10):897–905.

6. Robards F, Kang M, Usherwood T, Sanci L. How Marginalized Young People Access, Engage With, and Navigate Health-Care Systems in the Digital Age: Systematic Review. J Adolesc Health. 2018 Apr 1;62(4):365–81.

7. Morris L, CK Fung K, Nisenbaum R, Weekes M, Barozzino T. Toronto Healthcare Services and Barriers to Access for Street-Involved Youth: Analysis of the Enhanced Street Youth Surveillance (E-SYS). SM Prev Med Public Health. 2017;1(2):1–5.

8. Strike C, Vandermorris A, Rudzinski K, Mozygemba K, Wekerle C, Erickson PG. Emergency departments and street-involved youth: factors influencing utilization. J Soc Distress Homelessness. 2014 Mar 1;23(1):42–50.

9. Hudani A, Labonte R, Yaya S. Where's the disconnect? Exploring pathways to healthcare for youth experiencing homelessness in Toronto, Canada using grounded theory methodology. Qual Health Res. 2023;

10. Gulliver-Garcia T. The Homeless Hub. 2014 [cited 2019 Dec 3]. Which city in Canada has the most homeless people per capita and why? | The Homeless Hub. Available from: https://www.homelesshub.ca/blog/ask-hub-which-city-canada-has-most-homeless-people-capita-and-why

11. Hambrick RS, Rog DJ. The Pursuit of Coordination: The Organizational Dimension in the Response to Homelessness. Policy Stud J Urbana Ill. 2000 Jan 1;28(2):353–64.

12. Gaetz S, Dej E. A New Direction: A Framework for Homelessness Prevention. Toronto: Canadian Observatory on Homelessness Press; 2017 p. 95.

13. Foster-Fishman PG, Nowell B, Yang H. Putting the system back into systems change: a framework for understanding and changing organizational and community systems. Am J Community Psychol. 2007 Jun 1;39(3):197–215.

14. Hudani A, Schwan K, Labonté R, Yaya S. Bounding systems: A qualitative study exploring healthcare coordination between the emergency youth shelter system and health system in Toronto, Canada. PLOS ONE [IN PRESS]. 2024;

15. Hudani A, Long J, Labonté R, Yaya S. Where are the links? Using a causal loop diagram to assess interactions in healthcare coordination for youth experiencing homelessness in Toronto, Canada. Health Res Policy Syst. 2024 Jan 30;22(1):19.

16. Clarke V, Braun V. Thematic analysis. J Posit Psychol. 2017 May 4;12(3):297–8.

17. Stranges J. Unity Health Toronto. 2023 [cited 2023 Sep 20]. Filling the gaps: How Unity Health's programs support Toronto's homeless population. Available from: https://unityhealth.to/2023/01/filling-the-gaps/

18. UHN. UHN announces first-in-Canada Social Medicine Modular Housing in Parkdale, in partnership with the City and United Way Greater Toronto [Internet]. 2021 [cited 2023 Sep 17]. Available from: https://www.uhn.ca/corporate/News/PressReleases/Pages/UHN_announces_first_in_Canada_Social_Medicine_Modular_Housing_in_Parkdale.aspx

19. Verto Health. CISION. 2022 [cited 2023 Sep 20]. CAN Health Network Provides National Access to Verto's Canadian-Made Digital Twin Technology. Available from: https://www.newswire.ca/news-releases/can-health-network-provides-national-access-to-verto-s-canadian-made-digital-twin-technology-803030781.html

20. Tricco AC, Antony J, Ivers NM, Ashoor HM, Khan PA, Blondal E, et al. Effectiveness of quality improvement strategies for coordination of care to reduce use of health care services: a systematic review and meta-analysis. Can Med Assoc J. 2014 Oct 21;186(15):E568–78.

21. Freij M, Dullabh P, Lewis S, Smith SR, Hovey L, Dhopeshwarkar R. Incorporating Social Determinants of Health in Electronic Health Records: Qualitative Study of Current Practices Among Top Vendors. JMIR Med Inform. 2019 Jun 11;7(2):e13849.

22. Moczygemba LR, Thurman W, Tormey K, Hudzik A, Welton-Arndt L, Kim E. GPS Mobile Health Intervention Among People Experiencing Homelessness: Pre-Post Study. JMIR MHealth UHealth. 2021 Nov 3;9(11):e25553.

23. Wang JZ, Mott S, Magwood O, Mathew C, Mclellan A, Kpade V, et al. The impact of interventions for youth experiencing homelessness on housing, mental health, substance use, and family cohesion: a systematic review. BMC Public Health. 2019 Nov 14;19(1):1528.

24. Nichols N, Doberstein C. Exploring Effective Systems Responses to Homelessness [Internet]. 2016 [cited 2020 Mar 10]. Available from: http://www.deslibris.ca/ID/10090776

25. Turner A. A Way Home: Youth Homelessness Community Planning Kit [Internet]. A Way Home Canada; p. 190. Available from: https://www.homelesshub.ca/toolkit/appendix-ontario%E2%80%99s-housing-and-homelessness-system

26. McLafferty I. Focus group interviews as a data collecting strategy. J Adv Nurs. 2004 Oct;48(2):187–94.

CHAPTER 7. CONCLUSIONS

Youth homelessness largely results from structural inequities and systems failures, which are compounded by the lack of public sector ownership to the issue (1,2). Youth experiencing homelessness (YEH) interact with various sectors, institutions, agencies, and actors who are mandated to support them with their multifaceted needs. However, most services and programs within these organizations and agencies have developed segmentally and in parallel, resulting in a patchwork of services (2). These fragmented services can be replete with gaps and inefficiencies and are thereby unsustainable in aiding youth from exiting the vicious cycle of homelessness, despite their best individual efforts. As a result, researchers and practitioners across Canada are focusing on effectively planning, delivering, and evaluating integrated systems responses to the complex and systemic issue of youth homelessness, particularly through service, organizational and/or systems-level collaboration. For example, the Homeward Trust organization in Edmonton, Alberta developed a community strategy alongside youth, community, and system-based partners, to understand the disconnects and opportunities for collaborative and coordinated planning and delivery of services for YEH – all in the effort to end youth homelessness in Edmonton. Their first strategy of three included adopting an integrated system of care through the coordination of activities of youth-serving agencies and partners, establishing collective principles and values, establishing a coordinated access and assessment strategy; and coordinating research, data collection, information-sharing and evaluation with their partners (3).

In recognizing the desperate need for systems-level integration and coordination in the youth homelessness sector in Toronto, Canada, I approached my research with a systems thinking and organizational change lens – particularly through the four-step framework for transformative systems change (4). The framework steps consist of 1) bounding systems, 2) understanding

fundamental parts of each system, 3) assessing system interactions, and 4) identifying levers for change – particularly to the issue of poorly coordinated healthcare between two key homeless youth serving sectors, the emergency youth shelter (EYS) and health systems in Toronto, Canada.

7.1. Summary of Major Findings

In the first article, I define the boundaries of the EYS system and health system in their individual and collective roles in coordinating healthcare for YEH. This was achieved by exploring the layers that fall under each system, the organizations that fall under each layer, and the programs and actors that fall within the organizations identified. Findings indicated that a vast network of public, private and non-for-profit agencies, organizations, and institutions fall within each system's layers; some of which work in silos, some of which overlap in the services they provide, and others which work collaboratively in their efforts to coordinate healthcare for YEH. As the EYS system solely focuses on the youth population experiencing homelessness, they tend to play a more active role in coordinating healthcare for YEH, in comparison to organizations and actors within the broader public health system.

In the second article, I illustrate pathways to healthcare taken by YEH as coordinated by or with EYS or health system staff. Pathways to healthcare highlight insufficient engagement and poor healthcare coordination both within and between the EYS and health systems, often leading to youths' entrapment in a vicious cycle between systems (which I have termed the endless shelter-hospital loop). The endless shelter-hospital loop is a common outcome experienced through multiple routes in youths' trajectories to healthcare. In fact, I found that higher risk youth who reside at EYSs with fewer healthcare resources and healthcare coordination capacity, are more likely to take the shortest route to premature discharge leading to the endless loop. In the second

part of the article, I explore the fundamental parts of each system (system-based norms, resources, regulations, and operations) that independently and interdependently influence these pathways to healthcare. Overall, findings from this article demonstrate the need for increased funding within the EYS system; increased human resources and capacity-building within each system; formal and strategic intersectoral partnerships; and policy amendments to improve inter-sectoral communication and prevent premature discharge from within either system.

In the third article, I present a causal loop diagram (CLD) to conceptually depict the independent and interdependent variables and/or inputs involved in healthcare coordination processes within and between the EYS and health systems. Many variables comprising the causal links in the CLD are environmental factors that can be targeted to strengthen healthcare coordination for YEH. Some of these variables include funding, human resource capacity, strength of staff-youth relationships, collaborative case management and communication. Further, most feedback loops in the CLD that lead to the endless shelter-hospital loop, indicate a need to target variables comprising these loops for more sustainable systems-level change. Key recommendations concluding this article include: public sector considerations to more equitably fund public systems serving marginalized populations; a focus on building and strengthening intra-organizational relationships between staff and youth, and intra-systemic relationships between sectoral stakeholders within the EYS or health systems, and between the EYS and health systems; establishing formalized and strategic partnerships with the goal of improving healthcare coordination for YEH; streamlining healthcare coordination processes; and adjusting policies to enhance inter-organizational and inter-systemic communication.

Finally, in the fourth article, I identify and discuss tangible levers to strengthen healthcare coordination within and between systems, which can be targeted through organizational and systems-level interventions. Some recommendations and interventions that were identified by stakeholders overlap with many of the findings that emerged from using grounded theory methodology and thematic analyses of key informant interviews as discussed in articles 2 and 3. However, many of the levers for change that were discussed are also new ideas that stakeholders across the EYS and health systems had the opportunity to discuss and challenge, through their individual and collective experiences and exposures. Some levers to strengthen healthcare coordination include: clarifying staff accountability by adapting staff roles to include formal responsibility for healthcare coordination; prioritizing and dispersing funds more intentionally across programs, organizations, and systems; incorporating systems cross-over by facilitating warm transfers, and establishing interdisciplinary teams in one location; enhancing systems accessibility for YEH , integrating social medicine in approaches to healthcare; and defining and aligning on healthcare coordination processes within and across systems.

As I progressed through the sequential steps of the framework for transformative systems change for this study, my knowledge on the challenges in current healthcare coordination within and between systems, and the opportunities available in strengthening such coordination substantially deepened. I had initially started my research exploring healthcare coordination between the EYS and health systems, but quickly realized through my interactions with the data, that all parts of both systems play a role in coordination for YEH, especially when I began utilizing a systems thinking approach to the research questions. My focus thus organically expanded to healthcare coordination *within* and *between* the EYS and health systems.

7.2. Strengths and limitations

To my knowledge, this dissertation is the first case study to explore healthcare coordination for YEH between two key systems in Toronto, Canada: the EYS and health systems. Most studies that have explored healthcare coordination for various populations, have done so by focusing primarily and exclusively on coordination within the broad and complex health system (5,6) while giving less attention to coordination between different systems. Further, the use of a systems thinking framework that progressively guided this research towards recommendations for systems-level change proved to be appropriate for a complex and multi-dimensional problem desperately requiring consideration of systems-level interventions. Moreover, approaching the primary research question guiding this study with constructivist grounded theory methodology and the methods that accompany it added a second layer of rigour to this research. First, my constructivist epistemological positioning in conducting this research using grounded theory methodology acknowledges my prior knowledge on this topic, and my role in interacting with the data to construct meaning (7). It also acknowledges the subjectivity that exists in a world consisting of multiple realities (8). This positionality accompanied by reflexivity practices including memo-writing throughout the data collection process, minimized possible researcher bias (9). Second, my use of methodological and data source triangulation allowed me to consider and include a range of perspectives in response to the research questions pertaining to each objective aligning with the sequential steps of the framework for transformative systems change. Triangulation throughout the different phases of the study enhanced credibility and validity of research findings (10,11). However, there were some limitations to this research.

First, there was a limited response from staff within health system organizations, and organizations that were categorized as overlapping within systems (e.g., The Access Points, Youth

Wellness Hubs, etc.). Limited participation from these groups was largely due to the COVID-19 pandemic burdening the health system and limiting the capacity of health system staff including healthcare providers to participate in hour-long interviews. Second, although theoretical saturation was reached in responding to the primary research question, interviews with a more diverse range of health system organizations, including walk-in clinics, and organizations or agencies providing integrated services specifically for youth or YEH, would increase confidence in the process map presented in article 2. Furthermore, while I believe that I established trust and rapport virtually with interview participants, the absence of facilitating face-to-face interviews with youth participants made it challenging to show appreciation and gratitude post-interviews. The inability to build a connection in- person made interviews feel more transactional as per traditional interviewing techniques (12), where my last point of communication with youth was to confirm receipt of their $30 e-transfer. Finally, in reflecting on the last component of the study, the stakeholder forum, I believe that facilitating a large group discussion as opposed to three small break room discussions with two stakeholders per room, may have elicited a more cohesive discussion while limiting potential researcher bias due to differences in facilitation styles across the research team and the follow-up questions asked. Moreover, hearing the perspectives of YEH and public sector stakeholders including policy makers and other decision-makers in the forum would have contributed meaningful ideas and knowledge to breakout room discussions.

7.3. Future directions

7.3.1. Next Steps: knowledge translation and dissemination

Knowledge translation and dissemination are key practices required to close the gap between research and practice (13). While the stakeholder forum described in article 4 was one

avenue through which we translated and disseminated some knowledge on healthcare coordination to stakeholders within both the EYS and health systems, there were many important stakeholders who were not present at the forum. Additionally, the stakeholder forum itself was a platform for knowledge acquisition, which is now ready for translation and dissemination beyond submission for scholarly publication. Some next steps in translating and disseminating this research is through conference presentations. Most recently, I presented parts of this research at the *2023 Ethics Symposium: Health Care System Transformation,* which was held by the Champlain Centre for Health care Ethics in collaboration with the Ottawa Hospital and the University of Ottawa from November 2-3, 2023. In this presentation, I shared strategies through which healthcare providers can enhance accessibility for YEH in hospitals and other health system settings and provide health services more wholistically, collaboratively, and ethically alongside this population. About 35 health system stakeholders attended my presentation, and it was well-received overall. An evaluation completed by 14 attendees can be found in Appendix F. I also presented findings from this dissertation at the *2023 Canadian Alliance to End Homelessness* conference held in Halifax, Nova Scotia from November 8-10th. Several frontline workers from EYSs throughout the country attended the session and reaffirmed how the findings related so closely to their experiences coordinating healthcare for YEH. Further, I shared my online publication illustrating the pathways to healthcare process map (see page 115), as requested by an executive from an Ottawa-based EYS, to build a case to prospective funders to provide funds for the integration of more health services at the EYS he works at. Finally, I have been asked to share key findings from this research with the Shelter, Support, and Housing Administration department, City of Toronto, which I hope will be considered for systems-level policy change within EYSs in the region. I have also been asked by stakeholders who participated in key informant interviews and the forum to share published

findings once they become available. I intend to share this work with vested stakeholders once all four articles are successfully published.

7.3.2. Recommendations for future research and practice

The findings of this case study demonstrate the need for more research, specifically through process- and outcome-based evaluations of current initiatives to strengthen healthcare coordination within and between EYSs and the health system. Interventions that are evaluated to be effective in strengthening coordination and reducing entry points to the endless shelter-hospital loop should be further evaluated for cost-effectiveness. Once these evaluations are complete, those that are deemed effective (and cost-effective) should be prioritized for funding and scaled across organizations within systems. Additionally, I suggest that interventions recommended throughout the case study, including those from the stakeholder forum, be first considered internally by service practitioners, policymakers, and other executives within relevant institutions, organizations, and agencies. Moreover, I recommend that stakeholders within various levels of both systems make efforts to understand respective organizational norms and cultures; establish interdisciplinary teams that meaningfully include perspectives of youth with lived experience of homelessness; and work towards employing cohesive, integrated, and coordinated programming in their service provision to YEH.

7.4. References

1. Gaetz S, Schwan K, Redman M, French D, Dej E. The Roadmap for the Prevention of Youth Homelessness [Internet]. Toronto, ON: Canadian Observatory on Homelessness; 2018. Available from: https://www.deslibris.ca/ID/10098937

2. Nichols N, Doberstein C. Exploring Effective Systems Responses to Homelessness [Internet]. 2016. Available from: http://www.deslibris.ca/ID/10090776

3. Howard Trust Edmonton. Community strategy to end youth homelessness in Edmonton [Internet]. Howard Trust Edmonton; 2014 p. 92. Available from: https://homewardtrust.ca/wp-content/uploads/2018/07/Community-Strategy-to-End-Youth-Homelessnes.pdf

4. Foster-Fishman PG, Nowell B, Yang H. Putting the system back into systems change: a framework for understanding and changing organizational and community systems. Am J Community Psychol. 2007 Jun 1;39(3):197–215.

5. Schultz E, Mcdonald K. What is care coordination? Int J Care Coord. 2014 Jun 1;17:5–24.

6. Hempel S, Ganz D, Saluja S, Bolshakova M, Kim T, Turvey C, et al. Care coordination across healthcare systems: development of a research agenda, implications for practice, and recommendations for policy based on a modified Delphi panel. BMJ Open. 2023 May 1;13(5):e060232.

7. Sebastian K. Distinguishing Between the Strains Grounded Theory: Classical, Interpretive and Constructivist. J Soc Thought [Internet]. 2019 Jul 10 [cited 2023 Sep 11];3(1). Available from: https://ojs.lib.uwo.ca/index.php/jst/article/view/4116

8. Charmaz K. Constructing Grounded Theory. SAGE; 2014. 417 p.

9. Probst B, Berenson L. The double arrow: How qualitative social work researchers use reflexivity. Qual Soc Work. 2014 Nov 1;13(6):813–27.

10. Carter N, Bryant-Lukosius D, DiCenso A, Blythe J, Neville AJ. The use of triangulation in qualitative research. Oncol Nurs Forum. 2014 Sep 1;41(5):545–8.

11. Guion LA. Triangulation: Establishing the Validity of Qualitative Studies. 2002;3.

12. Nunkoosing K. The Problems With Interviews. Qual Health Res. 2005 May 1;15(5):698–706.

13. Glasgow RE, Vinson C, Chambers D, Khoury MJ, Kaplan RM, Hunter C. National Institutes of Health Approaches to Dissemination and Implementation Science: Current and Future Directions. Am J Public Health. 2012 Jul;102(7):1274–81.

APPENDICES

APPENDIX A.1: Documents analyzed for inclusion in document analysis

Document type	Document name	Organization	Retrieval Site	Summary/Notes
WEBSITES				
1	Covenant House - Health & Well-being support programs	Covenant House	https://covenanthousetoronto.ca/our-solution/health-and-well-being/	Health programming seems to be very holistic in comparison to other youth shelters. This may be the case due to the funding capacity that Covenant House has. Also, many strong external partnerships listed here for provision of health services (health promotion and health care).
2	Eva's Initiatives for Homeless Youth - Harm Reduction	Eva's Initiative for Homeless Youth	https://www.evas.ca/what-we-do/harm-reduction/	Overarching charity with three main shelters sites (2 EYSs and 1 transitional). Have included Youth Belong program as key component of all three shelters. Harm reductions supports emphasized in health programming.
3	Eva's Satellite	Eva's Initiative for Homeless Youth	https://www.evas.ca/where-we-are/evas-satellite/	Specialized harm reduction shelter for youth aged 16-24. Partnered with ICHA, Central Toronto Youth Services, and other community agencies. ICHA providers psychiatric, primary, and preventative health services on site twice per week. Also have a sexual health clinic which runs every 2 months.
4	Eva's Place	Eva's Initiative for Homeless Youth	https://www.evas.ca/where-we-are/evas-place/	Partnered with New Outlook and East Metro Youth Services to provide counselling and referral services. Also partnered with ICHA who provide primary and psychiatric care.
5	Youth Without Shelter - Emergency Residential Program	Youth Without Shelter	https://yws.on.ca/how-we-help/emergency-residential/	There is no health and well-being specific page. Information is broadly stated (2021). This has now been updated to include mental health programming (2023).

6	Youth Without Shelter: Mental health program	Youth Without Shelter	https://yws.on.ca/how-we-help/mental-health-program/	Launched in 2021 and includes individual psychotherapy, diagnostic and psychosocial assessments, ODSP applications support, connecting youth with other external resources.
7	Kennedy House – overview of services	Kennedy House Youth Services	https://kennedyhouse.org/what-we-offer/	Health services not explicitly listed here.
8	Horizons for Youth – mental health and wellness support	Horizons for Youth	https://horizonsforyouth.org/mentalhealth	Various levels of mental health supports described, including community referrals to outpatient programs at hospitals, support groups, and community health centres.
9	Turning Point Youth Services – Our programs	Turning Point Youth Services	https://turningpoint.ca/programs/	Focus on counselling for individuals, family, and group. Age is defined as 12-17 years old for eligibility for services without charge.
10	Building a connected public health care system for the patient	Ministry of Health and Long-Term Care	https://news.ontario.ca/en/backgrounder/51360/building-a-connected-public-health-care-system-for-the-patient	Describes new model of integrated care through Ontario Health and the establishment of OHTs
11	Ontario Health Agency	Ontario Health	https://www.ontario.ca/page/ontario-health-agency	Describes Ontario Health as one single agency preparing to oversee healthcare delivery, improve clinical guidance and provide support for providers to ensure better quality of care for patients. Web page outlines responsibilities of the agency and overall changes made to the system because of its establishment.
12	Providing CARE to help the homeless	Arlene Howells, Unity Health Toronto	https://unityhealth.to/2020/10/providing-care-to-help-the-homeless-in-toronto/	Quote: Reflecting on the various forms of support she provided to ICHA, Dr. Robertson notes that “Hospitals need to be more proactive to cultivate and establish important relationships with community support organizations such as shelters. As we are continuing to learn, hospitals need to expand their role to support public health directives in the pandemic.” Collaborating with groups like ICHA can help reduce the number of people who end up in a hospital emergency department for treatment during the pandemic

				and more generally reduce the harms caused by the pandemic. Interesting to note, as it seems that most of the ownness through other documents on relationships development seems to be falling on shelter operators. Interview with doctor also makes it seem that this falls outside of scope of hospital with the capacity they have (assume this includes EYSs)
13	Sherbourne Health – urban health programs	Sherbourne Health	https://sherbourne.on.ca/primary-and-family-health-care/priority-populations/urban-health/	Description of Health bus program, HEP C program, Take home naloxone program, and WINK program for women. Links to more information for each program is provided on web page.
14	Providing health services for people experiencing homelessness in Toronto	Inner City Health Associates	https://www.icha-toronto.ca/	Describes health care programs provided by ICHA to homeless populations across Toronto: transitional primary care, psychiatric care, and palliative care. ICHA is funded by Ontario Ministry of Health, and works with City of Toronto, hospitals, and community health and social support organizations including youth shelters.
15	Welcome to the Toronto CATCH program	Inner City Health Associates	https://www.icha-toronto.ca/programs/welcome-to-the-toronto-catch-program	Described as a service for those who are experiencing homelessness and are not connected to services, with or without mental health or addiction problems. It is a collaboration between ICHA, St. Michael's Hospital and Toronto North Support Services. Page includes toll free number, CATCH partners, and a copy of the referral form for download. - Not youth-specific.
16	The Access Point: About	The Toronto Mental health and addictions access points	https://theaccesspoint.ca/about/	Centralized to provide and connect individuals above 14 years of age with mental health and addictions support services and supportive housing.

		(The Access Point)		Some mention of partnership with Shelter B executive, but no mention of any formal partnerships on Access Point website.
17	MAP Centre for Urban health solutions - Navigator project	St. Michael's Hospital	https://maphealth.ca/navigator/	Pilot project employing homeless outreach counsellors to help people experiencing homelessness navigate health and social supports post- hospital discharge. Not youth-specific, but relevant in efforts to improve healthcare coordination within and between systems.
18	Counselling and Psychotherapy	Youth Link	https://youthlink.ca/services/our-programs/counselling/	A multi-service agency providing emergency shelter and other community-based programs for YEH, including counselling and psychotherapy. Services include live-in treatment at Constance House, ongoing counselling, and what's up walk-in. It is one of the first shelters to follow the 'new shelter model.' It was formerly the Big Sisters of Metropolitan Toronto and is now an EYS and transitional shelter with embedded mental health agency.
19	Need to Talk?	What's up Walk-in	https://www.whatsupwalkin.ca/	Free in-person and virtual mental health counselling for children, youth, young adults, and families – offered as a resource at some EYSs in Toronto.
20	Central intake	City of Toronto	https://www.toronto.ca/community-people/housing-shelter/homeless-help/central-intake/	Services and process information about the City of Toronto's centralized intake line, used to connect people experiencing homelessness (including YEH) with information about EYSs with available beds. Also facilitate warm transfers to specialized services such as primary and mental health supports. **
21	Canada's healthcare system	Government of Canada	https://www.canada.ca/en/health-canada/services/health-care-system/reports-	Introduction, background, and role of different levels government in Canada's healthcare system.

			publications/health-care-system/canada.html	
22	Youth Wellness Hubs Ontario: Central Toronto (services)	Youth Wellness Hubs	https://youthhubs.ca/en/sites/central-toronto/	Funded by the province in 2017 – integrated service hubs for Youth to address gaps in youth service systems. Youth Wellness Hubs are one-stop-shops for youth aged 12-25 to address their needs including housing and health needs. Include outreach, peer services and system navigation services. Purpose is for services to be timely, integrated and co-located.
23	Youth Healthcare - Evergreen Health Centre	Yonge Street Mission	https://www.ysm.ca/get-help/health-care/	YSM is collaborative partner with St. Michael's Hospital, contributing as a partner in their Family Health Team (from brochure). They help to connect youth aged 16-24 experiencing homelessness to primary care. The Evergreen Health Centre provides a range of public and privates services to YEH at no cost.
24	Toronto Shelter Network Sector Tables	Toronto Shelter Network	https://www.torontoshelternetwork.com/sector	Describes various Toronto Shelter Network sector tables – describes layers in advisory and working groups.
REPORTS				
25	System in Crisis: An action plan for the future of Toronto's Homeless Youth	Youth Shelter Interagency Network	https://www.toronto.ca/legdocs/mmis/2007/cd/bgrd/backgroundfile-2777.pdf	Strong tone - urgent and angry - last report found through City Council is from 2007 - 11 youth shelters at the time - this has changed now. Different folks also likely on YSIN. - request for provincial government action plan, and integration of health services within shelters
26	500 in five: Strategic Plan 2019-2024	Youth Without Shelter	https://yws.on.ca/wp-content/uploads/YWS_18002_StrategicPlan_Public_FNL_WEB.pdf	Outlines six principles that guide the 2019 -2024 strategic plan; and 3 key strategic area goals with rationale, including: providing quality wrap-around supports for youth living at YWS; providing quality transition and after-care support; and education, awareness and advocacy on issues directly related to the youth YWS

				serves. Mission support goals and rationale also provided.
27	COVID-19 Interim Shelter Recovery Strategy: Advice from the homelessness service system	Prepared by BGM strategy group for: City of Toronto and United Way Greater Toronto	https://www.toronto.ca/legdocs/mmis/2020/ph/bgrd/backgroundfile-156419.pdf	The report offers advice to guide the City of Toronto - SSHA, United Way Greater Toronto, agencies, and other partners in responding to the COVID-19 pandemic in the shelter and homelessness service systems. A foundation for long-term collaboration on best practices, policy, and strategic investments to end homelessness is offered in the report, including specific actions to deepen collaboration and coordination between emergency shelter system and health partners. Included because of the collaboration ("tireless commitment, partnership and strong communication across homelessness and health sectors.") - implementation of the coordinated health services for shelter client's framework recommended - Coordinating safe supply of medications and other harm reduction supports for individuals who use substances was an area recognized to need greater coordination between different levels of government
28	Youth at the Centre of Impact: Towards an outcomes measurement framework	Prepared by: Dr. John Ecker- Director of Evaluation at COH, Jesse Donaldson- Deputy Chief Operating Officer at COH, Jocelyn Helland - ED at Eva's	https://www.homelesshub.ca/sites/default/files/attachments/outcomes.measurement.report.15nov17_0.pdf	Living document - several key organization and actors mentioned in detail in this report. - focus is more on Eva's and less so on any coordination of health services with the health system. Physical and mental well-being (including accessing health services) are one of the main outcomes of mastery and independence, which falls under youth development outcomes.

29	Engagement Framework	City of Toronto (Shelter, Support and Housing Administration)	https://www.toronto.ca/wp-content/uploads/2017/10/971f-SSH-Engagement-Framework.pdf	Outlines the vision, principles, commitments, and definition of engagement by the SSHA in supporting a more integrated, and client-centred housing stability service system.
30	Harm Reduction Framework: Fostering dignity for people who use substances across and housing and homelessness services	City of Toronto (SSHA)	https://www.toronto.ca/wp-content/uploads/2017/10/9791-SSHA-Harm-Reduction-Framework.pdf	Framework developed through research focused on emergency shelter system - key informant interviews and literature review with stakeholders including SSHA and Toronto Public Health staff, community health sector, people with lived experience, and shelter and social housing providers.
31	Homelessness Solutions Service Plan	City of Toronto (SSHA)	https://www.toronto.ca/legdocs/mmis/2021/ec/bgrd/backgroundfile-171730.pdf	Outlines implementation priorities for the next 3 years, using an integrated and person-centred approach to address homelessness. Developing an integrated systems response is highlighted as one of the priorities in this plan. The plan also provides context on the role of SSHA in service delivery and how the homelessness service sector operates within broader housing system in Toronto.
32	Ontario's Housing and Homelessness System	Province of Ontario	https://www.ontario.ca/document/community-housing-renewal-ontarios-action-plan-under-national-housing-strategy/ontarios-housing-and-homelessness-system	Various chapters to scroll through - provides summary of government role in the housing and homelessness system, key actors involved in executing key strategies.
POLICY DOCUMENTS				
33	People's healthcare Act	Province of Ontario	https://www.ontario.ca/laws/statute/s19005	The most salient features of the proposed legislation relate to the creation of the new health agency, Ontario Health, and the broad authority of the Minister of Health and Long-Term Care (the "Minister") to "integrate" health service providers.

34	Connecting Care Act	Province of Ontario	https://www.ontario.ca/laws/statute/19c05	Legislation introducing the establishment of Ontario Health Teams, including definitions, regulations, funding and accountability, transfers, enforcements and penalties, community engagement, etc.
35	Canada Health Act	Minister of Justice	https://laws-lois.justice.gc.ca/eng/acts/c-6/page-1.html	In summary, the criteria and conditions that must be met for provinces and territories to receive federal contributions under the Canada Health Transfer include: Public administration - must be operated on a non-profit basis by a public authority; comprehensiveness - plans must cover all insured health services provided by hospitals, physicians or dentists in the case procedures take place in hospital settings; universality - all residents must be entitled to insured health services on uniform terms and conditions; portability - insured residents moving from one province or territory to another must continue to be covered for insured health services within certain conditions; and lastly accessibility of insured health services.
36	Directive – harm reduction update	City of Toronto (SSHA)	N/A	Document sent by interview participant. Updated overdose prevention and response strategies and additional measures in response to the opioid crisis and the impact of COVID-19 and physical distancing requirements in Toronto Shelter Standards (TSS) and the 24-Hour Respite Sites Standards (TRS).
37	Toronto Shelter Standards (version 4)	City of Toronto (SSHA)	Not available. Has been updated to version 5.	There are no specific guidelines on the operation of youth shelters as opposed to adult-based shelters, although it is known that the needs of both may be slightly different. - note: it is stated that the TSS are not exhaustive and is updated every 5 years - abstinence based programming section may

				need to be revised since the release of the SSHA directive issued in 2021.
NEWS ARTICLES				
38	Ontario taking another step to integrate the healthcare system	Ministry of Health	https://news.ontario.ca/en/release/54585/ontario-taking-next-steps-to-integrate-health-care-system	The transfer of health system funding, and planning and coordination functions of the Local Health Integration Networks (LHINs) by Ontario Health will be postponed as the province responds to COVID-19.
39	Hospital Network sets aside $10M parcel of land for affordable housing	CBC News	https://www.cbc.ca/news/canada/toronto/uhn-health-care-and-homelessness-1.5287276#:~:text=Toronto-,Hospital%20network%20sets%20aside%20%2410M%20parcel%20of%20land%20for,of%20its%20low%2Dincome%20patients.	University Health Network (UHN) partners with City of Toronto and United Way on the Social Medicine Initiative to fund $10 million for land in response to the housing needs of people experiencing homelessness who come in routinely to the emergency department at Toronto Western and Toronto General hospitals. Although not youth-specific and more general, this is being noted as a form of engagement by the health network with the city (which is part of emergency shelter management/funding) with the goal of helping to employ more housing first initiates to improve the health of this population.
40	Toronto General hospital removes bars aimed at keeping homeless people away	Global News (Canada); Author: Daniela Germano	https://globalnews.ca/news/4125132/toronto-general-hospital-homeless/	UHN removed bars that were installed over a vent outside a downtown hospital emergency department to deter people experiencing homelessness from sleeping there (or so that was the impression that was made) - although they argue that it was because of safety concerns about garbage and needles found in the area. Executives have realized why this was not the best approach. Not youth specific - but interesting to include because the actions by UHN in installing bars, are similar to what young people who I have

				interviewed have felt when visiting some of these hospitals (i.e., non-compassion, stigma, etc.). Outlines niches, organizations, and norms.
41	Hotels offer 'health and human dignity' along with a place to recover	University Health Network	https://www.uhn.ca/corporate/News/Pages/Hotels_offer_health_and_human_dignity_along_with_a_place_to_recover.aspx	Executives from hospitals have served as site managers at 2 COVID-19 recovery hotel sites in response to the outbreak emergencies at shelters. Several quotes from executives across sectors point to how cross-sector collaboration during this time led to important work that needed to be done. Some emphasis placed on need for housing first as a larger system concern. Quote: "It's been a great example of how cross-sector partners can all come together and bring value to this work," says Wilfred Cheung, Acting Vice President, Health System Strategy, Integration and Planning with Ontario Health (Toronto). "The infrastructure that UHN provided has been critically important as have all the community providers stepping in and using their expertise to guide how best to provide care for this vulnerable population in order to deliver great care and the most positive client experience. "When we think of where we want the healthcare system to go, this is the type of cross-sectoral partnership we want to support and encourage."
SCHOLARLY ARTICLES				
42	Key attributes of integrated community-based youth service hubs	Cara Settipani, Lisa Hawke, Kristin Cleverley, Gloria Chaim,	https://pubmed.ncbi.nlm.nih.gov/31367230/	The scoping review identifies the key principles and characteristics of community-based, integrated youth service hubs. YouthCan IMPACT is a Toronto-based hub established in 2016, which provides a range of youth-friendly

	for mental health: a scoping review	Amy Cheung, Kamna Mehra, Maureen Rice, Peter Szatmari, and Joanna Henderson		services in one setting through a rapid, stepped-care approach. Youth Wellness Hubs were noted as Ontario-wide hubs providing integrated care across 10 sites.
43	The Youth Wellness Quest: A Comprehensive Online mental health literacy and self-advocacy resource developed by youth and for youth	Asavari Syan Janice Lam, Lisa Hawke, Karleigh Darney, and Joanna Henderson	Syan A, Lam JY, Hawke LD, Darnay K, Henderson J. The Youth Wellness Quest: A Comprehensive Online Mental Health Literacy and Self-Advocacy Resource Developed by Youth for Youth. Healthc Q. 2022 Apr;24(SP):55-59. doi: 10.12927/hcq.2022.26773. PMID: 35467512.	Youth Wellness Quest resource developed by National Youth Action Council at CAMH in Toronto. The health literacy resource informs youth of possible available services, increasing their capacity to make informed mental health decisions. These are part of the Youth Wellness Hubs.
44	The Longitudinal Youth in Transition Study (LYiTS) Cohort Profile: Exploration by Hospital versus community-based mental health services	Kristin Cleverley, Julia Davies, Sarah Brennenstuhl, Kathryn Bennett, Amy Cheung, Joanna Henderson, Daphne Korczak, Paul Kurdyak, Andrea Levinson, Antonio Pignatiello, Katye Stevens, Aristotle Voineskos, and Peter Szatmari	Cleverley K, Davies J, Brennenstuhl S, Bennett KJ, Cheung A, Henderson J, Korczak DJ, Kurdyak P, Levinson A, Pignatiello A, Stevens K, Voineskos AN, Szatmari P. The Longitudinal Youth in Transition Study (LYiTS) Cohort Profile: Exploration by Hospital-Versus Community-Based Mental Health Services. Can J Psychiatry. 2022 Dec;67(12):928-938. doi: 10.1177/07067437221115947. Epub 2022 Aug 4. PMID: 35924416; PMCID: PMC9659798.	LYiTS prospectively follows youth in Toronto as they transition from child and adolescent mental health services to adult mental health services. Also examines health service utilization between youth receiving services at hospital vs. community-based mental health services. CAMH, and the hospital for Sick Kids were selected hospitals for recruitment, and the George Hull Centre and SickKids Centre for Community Mental Health were selected as community health sites.

45	“I feel like I’m a revolving door, and COVID has made it spin a lot faster”: The impact of the COVID-19 pandemic on youth experiencing homelessness in Toronto, Canada.	Amanda Noble, Benjamin Owens, Naomi Thulien, & Amanda Suleiman	Noble A, Owens B, Thulien N, Suleiman A. "I feel like I'm in a revolving door, and COVID has made it spin a lot faster": The impact of the COVID-19 pandemic on youth experiencing homelessness in Toronto, Canada. PLoS One. 2022 Aug 22;17(8):e0273502. doi: 10.1371/journal.pone.0273502. PMID: 35994505; PMCID: PMC9394800.	YEH who resided at EYSs and who moved to hotels for shelter services, and staff who worked at these sites were interviewed in the study. Some relevant organizations, and actors and their roles noted in this study, including Toronto Public Health, City of Toronto (SSHA), hotel sites, etc.
OTHER DOCUMENTS				
46	Ontario’s Housing and Homelessness System	A Way Home	https://www.homelesshub.ca/sites/default/files/AWH%20Community%20Planning%20Toolkit-Appendix%20A_0.pdf	Appendix A of youth homelessness community planning toolkit
47	Housing TO: 2020-2030 Action Plan	City of Toronto	https://www.toronto.ca/community-people/community-partners/housing-partners/housingto-2020-2030-action-plan/	Provides a blueprint for action across the full housing spectrum - from homelessness to rental and ownership housing to long-term care for seniors. 13 key strategic actions including preventing homelessness and improving pathways to housing stability and enhancing partnerships and intergovernmental strategy are detailed in action plan through consultation with key stakeholders including groups with lived experience. Includes plan for EYSs.
48	Ontario Health's Operating Model: Patient perspective and Integrated top-line organizational structure	Matthew Anderson, President and CEO of Ontario Health	https://www.ontariohealth.ca/sites/ontariohealth/files/2020-09/OH_OpModel_and_OrgStructure_Internal_Sep92020.pdf	Summarizes July 2020 Mandate letter from Minister of Health, with the primary goal of the single agency connecting and coordinating Ontario's health care system in ways that have not been done before; and includes a framework and description of its service structure including

				the various portfolios involved. ** Refer to framework for understanding of new model - social service agencies, community-based care, primary care, etc. are all included in OHTs
49	Emergency Housing Action - City Council Decision	City Council	https://secure.toronto.ca/council/agenda-item.do?item=2020.PH19.11	Outlines intergovernmental and financial approval considerations; as well as considerations to expedite the implementation of affordable supportive housing adopted by City Council. Included because of actions including cross-sectoral organizations in EYS system and health system to help people experiencing homelessness access and maintain housing and supports.
50	Guidance Document for Harm Reduction in Shelters: A 10-point Plan	The Works, Toronto Public Health (City of Toronto)	https://www.toronto.ca/wp-content/uploads/2021/06/9633-10PointShelterHarmReduction210528AODA.pdf	Aligns with Toronto Shelter Standards, 24-hour respite standards, and 2021 harm reduction directive through City of Toronto

Appendix A.2: Documents excluded from study

	Document type	Document name	Organization	Reason for exclusion
1	Policy document	People's Healthcare Act	Province of Ontario	Much is duplicate information as provided in Connecting Care Act, 2019
2	Web page	Policies and procedures	Youth Without Shelter	Doesn't add value to system attributes being analyzed. Only necessary if looking at systems regulations.
3	Web page	Ontario Health Agency	Ontario Health	Duplicated information to other more reputable documents.
4	Report	500 in five: Strategic Plan 2019 -2024	Youth Without Shelter	Does not include anything about enhancing partnerships with health sector to improve quality of care. Emphasis on education services, and youth refugee support.

APPENDIX B: KEY INFORMANT INTERVIEWS

Appendix B.1: Sampling frame

Interview Tracking Sheet

Number	Participant code	System	Organization Type	Position	Date of interview	Notes
1	KI1EYS1	EYS	Emergency youth shelter	Executive Director	6/1/2021	consent form sent by email
2	KI1EYS2	EYS	Emergency youth shelter	Executive Director	6/11/2021	consent form sent by email
3	KI2EYS2	EYS	Emergency youth shelter	Dirctor of Operations	5/27/2021	verbal consent provided
4	KI1EYS3	EYS	Emergency youth shelter	Executive Director	6/14/2021	consent form sent by email
5	KI2EYS2	EYS	Emergency youth shelter	Registered Nurse and Team Lead	6/17/2021	connected through [KI1EYS2], verbal consent provided, shared youth recruitment flyers
6	KI1EYS4	EYS	City of Toronto	Director	6/29/2021	connected through [KI1EYS2]
7	KI2EYS3	EYS	Emergency youth shelter	Director of Operations	6/18/2021	connected through [KI1EYS3], verbal consent provided
8	KI3EYS3	EYS	Emergency youth shelter	Case Manager	7/8/2021	connected through [KI2EYS3]
9	KI4EYS3	Both	Emergency youth shelter	Psych Associate (Private Practice)	7/5/2021	connected through [KI2EYS3]
10	KI5EYS3	EYS	Emergency youth shelter	Coordinator, Stay in School Program	7/20/2021	shared youth recruitment flyers
11	KI1HS1	HS	Community health centre	Coordinator, Harm Reduction	8/9/2021	
12	YP1EYS3	Both	Emergency youth shelter	Young person	11/24/2021	recruited through EYS3, verbal consent provided
13	YP2EYS3	Both	Emergency youth shelter	Young person	11/25/2021	recruited through EYS3, verbal consent provided
14	KI1HS2	HS	Hospital	Psychiatrist	12/10/2021	
15	KI3EYS2	Both	Emergency youth shelter	Nurse practioner and researcher	12/3/2021	connected me to [KI1HS4]
16	KI1HS3	HS	Hospital (Internal General Medicine)	Homelessness outreach coordinator	12/2/2021	connected me to [KI2HS3]
17	KI2HS3	HS	Hospital (Emergency department)	Outreach coordinator	12/9/2021	shared flyers for youth recruitment
18	KI1HS4	HS	Community health centre	Manager and nurse practitioner	1/27/2022	
19	KI1HS5	Both	Inner City Health Associates	Physician	1/28/2022	
20	YP1EYS2	Both	Emergency youth shelter	Young person	2/3/2022	recruited through EYS2, verbal consent provided
21	YP2EYS2	Both	Emergency youth shelter	Young person	2/4/2022	recruited through EYS2, verbal consent provided
22	KI1HS6	HS	Hospital	Emergency department physician	2/10/2022	connected me to [KI2HS6]
23	KI2HS6	HS	Hospital	Social worker	3/29/2022	
24	YP3EYS2	Both	Emergency youth shelter	Young person	3/24/2022	recruited through EYS2, verbal consent provided

Appendix B.2: Youth recruitment flyer

Understanding young people's experiences with the shelter system and health system

☑Are you between 16-25 years of age?

☑Have you experienced homelessness?

☑Have you sought care for your physical, mental and/or sexual health needs, while staying at a youth shelter?

If you answer YES to these questions, we want to hear from you!

The purpose of this project is to understand how the emergency youth shelter system and health system work together to meet the healthcare needs of youth such as yourself.

If you are interested in participating in an interview, please contact **Alzahra Hudani** by email at **[insert e-mail]** or by phone at **[insert phone number].**

Youth will be selected to participate on a first come, first serve basis.

Participants will receive a $30 honorarium for their time.

Thank you! ☺

uOttawa

APPENDIX C: INTERVIEW GUIDES

Appendix C.1: Interview guide for non-youth participants

Key Informant Interview Guide – Non-Youth Stakeholders

Thank you for taking the time to meet with me today. My name is Alzahra Hudani, and I would like to talk to you today about the process of coordinating care for the healthcare needs of young people experiencing homelessness in Toronto, specifically those that are practiced at [Name of organization]. The interview should take about 1-2 hours of your time.

Before we begin, I'd like to ask you if you've had the chance to review the informed consent form sent by email? (If yes, confirm consent verbally, if no give participant a chance to review and respond to questions concerning consent).

I would also like to ask for your permission to audio-record this interview, in order to capture details that I may not be able to capture in my notes. I want to assure you that all information discussed will be kept confidential. Do you have any questions for me before we begin?

Questions

PART 1: INTRODUCTION

1) Can you please tell me a little bit about yourself and your role at [Organization X]?

2) What are some programs or services offered at or by [Organization X] that help youth experiencing homelessness improve their health?
   a. Are there any immediate supports offered for serious health needs?
   b. Are there any preventative programs in place? If yes, which ones?

3) What are some common health concerns or health crises that you [witness, have to address, or coordinate care for]?
   a. Physical health concerns? Mental Health concerns? Sexual Health concerns?
   b. For females, reproductive health concerns?

PART 2: IDENTFYING SYSTEM NORMS

1) How would you describe coordination of care for young people's health needs at or by [Organization X]?

2) What processes does [Organization X] use?
   a. Are these the same processes that you follow?
   b. If no, can you discuss your process of coordinating care for the youth?

3) Do you think this process is in line with other similar organizations or does [organization X] have its own set of rules?

4) What do you believe are some strengths of this process in coordinating care?

5) What do you think should be improved?
   a. Do you think coordination of care can be strengthened for young people experiencing homelessness?

6) What values guide current programs, policies, and practices at [Organization X]?
   a. Are these values the same for programs, policies, and practices in place to coordinate care for youth experiencing homelessness?

PART 3: IDENTIFYING SYSTEM RESOURCES

Human Resources

1) Which staff members at [Organization X] are responsible for coordinating care for young people's health needs? [Whom else do you work to coordinate care for young people's health needs?]
   a. Do you think the staff members you identified have the skills, training and knowledge needed to coordinate care effectively? Why or why not?

2) Do you and/or other staff receive training for coordinating care?
   a. If yes, what does this training entail? And how frequently does it take place?
   b. If not, what types of training do you think should be made available?

3) Do you believe all staff at [organization X] have the knowledge and skills to coordinate care well?
   a. If yes, what do you think helped them develop those skills and knowledge?
   b. If no, how do you think these skills and knowledge can be developed?

Social Resources

1) What are the formal and informal relationships that exist in coordinating care for youth experiencing homelessness?
   a. Within the organization? Outside of the organization?

2) How would you describe the relationship between staff at [organization X] whom are involved in coordination of care?
   a. Do you think these relationships need to change?
      i. If so, how? What types of interactions do you think should be in place and with whom?

3) How would you describe the relationship with staff working outside of [organization X] who are involved in coordinating care for youth?
   a. Do you think these relationships need to change? If so, how?
      i. If so, how? What types of interactions do you think should be in place and with whom?

4) Do you think any aspects of the way in which [organizations X] works hinders relationship development within or between organizations?

5) Are there policies or procedures in place that guide, support and encourage collaborative relationships, shared work and coordination of health service delivery?
   a. Are these documented anywhere? If so, can I take a look at these documents?

Economic Resources and Opportunities

1) Whose needs are prioritized in the ways that current resources are allocated in health service coordination for youth experiencing homelessness?

2) Do you think the organization/system needs to use its resources differently to support improved coordination of care?

PART 4: IDENTIFYING SYSTEM REGULATIONS

1) What protocols are in place to ensure coordination of care between youth shelters and the health system is appropriate and efficient?
   a. Do you have documents describing these? If yes, do you think I'd be able to see them?

2) Are there any policies, procedures and/or practices that hinder health service coordination for youth? If so, please describe how?

3) Have you observed any gaps between policies and implemented practices?
   a. If yes, what are these gaps? Why do you think these gaps exist?

4) What policies, procedure and/or practices do you think should be in place to improve coordination of care between the youth shelter system and health system?

PART 5: IDENTIFYING SYSTEM OPERATIONS – POWER & DECISION-MAKING

1) What types of decisions are most critical to coordinating care for young people's health needs? Who has the power to make these decisions?

2) What type of information and resources are most important to the organization/system and who controls access to these resources?

PART 6: CLOSING QUESTIONS

1) Is there anything else that you would like to share with me?

2) Do you have any questions for me?

Thank you for you taking the time to participate in this research.

Appendix C.2: Interview guide for youth participants

Key Informant Interview Guide – Youth with Lived Experience of Homelessness

Thank you for taking the time to meet with me today. My name is Alzahra Hudani, and I would like to talk to you today about the process of receiving care that you experienced through [Name of organization] for your various healthcare needs. The interview should take about 1-1.5 hours of your time.

Before we start, I'd like for us to briefly review the informed consent form (review and confirm understanding of study). I would also like to ask for your permission to audio-record this interview, in order to capture details that I may not be able to capture in the notes that I will take during the interview. I want to assure you that all information discussed will be kept confidential. This means that only I will have access to the information you choose to share, and that any information that is shared outside of this discussion will not identify you as the respondent. Remember, you don't have to talk about anything that you do not feel comfortable talking about. Do you have any questions for me before we begin?

<u>Questions</u>

1) Can you please tell me a little bit about yourself? An interesting fact about yourself? [Use to build rapport, and share some interesting facts about self as well]

2) What major or minor health concerns did you experience while experiencing homelessness? If you feel comfortable, can you please discuss these in more detail?
    a. Have you experienced any challenges with your physical health? Mental health? Sexual health?
    b. [If female] Have you experienced any challenges with reproductive health?

3) Did you seek care for these health concerns? If yes, what care did you seek and where?
    a. How did you approach seeking care? Did you choose to seek care? Did someone approach you to seek care for [name health challenge(s)]?
    b. [If travel is involved] How did you get to [location X] for your healthcare needs?

4) What was the process of care that you received look like for this health concern/each of these health concerns?

5) Which health care professionals did you interact with during this time? What was your experience receiving care from them?
    a. Why do you think your experience was [positive/negative]?
    b. What was the healthcare provider's attitude like?
    c. Did your health issue(s) improve? What was the care you received?
    d. Were you in a comfortable space?
    e. How did you feel after receiving the care that you needed?

6) What do you think helped in this process of receiving healthcare? What went well?

7) What do you think can be improved in this process? What do you wish happened differently?

8) Where did you go after receiving care from [location X]?

9) Was there any follow-up from anyone about how you were doing?
    a. If yes, who? If no, whom would you have liked to follow-up with you?

10) What kind of follow-up care do you wish you received?

11) What is your process of seeking care for your health needs now? What steps do you take?
    a. Is your experience different from before?

12) Is there anything else that you would like to share with me?

13) Do you have any questions for me?

Thank you for you taking the time to participate in this research.

APPENDIX D: INFORMED CONSENT FORMS

Appendix D.1. Informed Consent Form for non-youth participants

Participant's Name: _____ Date: _____

Title of the study: How do emergency youth shelters and the Canadian health system engage? A case study exploring coordination of care for youth experiencing homelessness in Toronto.

Lead Researcher:
Alzahra Hudani, PhD Candidate
Interdisciplinary School of Health Sciences, Faculty of Health Sciences
University of Ottawa
E-mail: [removed to protect privacy]
Phone: [removed to protect privacy]

Supervised by:
Dr. Sanni Yaya, Full Professor
International Development and Globalization
Faculty of Social Sciences
University of Ottawa
E-mail: [removed to protect privacy]

Purpose of the Study: The purpose of this study is to gain evidence on how two key homeless youth-serving sectors: the youth shelter system and healthcare system, can better engage to serve the physical, mental, sexual, and reproductive health needs of youth experiencing homelessness in Toronto. Evidence indicates that each of these systems lacks effective coordination of care for the health needs of this priority population, as neither one "owns" the wicked issue of youth homelessness.

Participation: Participation will consist of a one-on-one in-depth interview with lead researcher, Alzahra Hudani. The interview will take about 1-2 hours to complete, during which the interviewer will ask questions about programs and services offered at your respective agency/organization; health concerns or health crises experienced by young people that you've addressed or coordinated care for; and system- based norms, resources, regulations and operations with respect to coordination of care that you've witnessed or experienced between the emergency youth shelter system and health system in Toronto. The interview will take place virtually through Microsoft Teams on a date and time that is most convenient for you.

Risks: When participating in this interview, you may be asked to reflect and discuss health concerns or health crises that you've witnessed, addressed, or coordinated care for at your respective agency or organization. This may take you back to stressful times you've experienced in your work. You do not have to respond to any question that makes you feel uncomfortable. You may also be asked questions that speak to how your organization operates (i.e. its norms, practices, decision-making, etc.). I'd like to ensure you that all responses received will remain confidential.

Benefits: Your participation in this study will help the research team better understand coordination of care between the emergency youth shelter system and health system in Toronto, as it relates to access to care for the health needs of young people experiencing homelessness. The information you share will help us identify gaps in processes and system-based operations within and between systems. We plan to share aggregate level findings from all interviews conducted with stakeholders such as you, through a stakeholder forum at the culmination of this study.

Confidentiality and anonymity: The information you share with the researcher will remain strictly confidential. Once all data is analyzed, only aggregate data will be used to understand, describe and illustrate the relationships between the emergency youth shelter system and health systems, specifically in how they coordinate care for young people experiencing homelessness in the inner-city region of Toronto, who use these services. Your confidentiality will be carefully protected, as no identifying information will be revealed at any point throughout data analysis or knowledge dissemination, including in publications or at the stakeholder forum. Additionally, all data will be physically and technically safeguarded. Further, as the interview will take place virtually, we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them, or when the interview has come to an end. These precautions will help to minimize the risk of security breaches and further help ensure your confidentiality.

Conservation of data: The data collected will be securely stored. All transcripts will be immediately de-identified. Any physical copies of project documents (e.g., interview transcripts) will be physically safeguarded in a locked drawer in Alzahra's personal office. Further, all data collected will be securely stored on Alzahra's password protected computer, in her office. They will also be stored on her University of Ottawa Outlook Drive, in folders dedicated to the study, which only she will have access to. Data and research documents will be retained for 3 years after study completion.

Voluntary Participation: You are under no obligation to participate, and if you do choose to participate, you can withdraw from the study at any time and/or refuse to answer any question asked. If you choose to withdraw, all data gathered until the time of withdrawal will be securely discarded (i.e., any text or audio recordings will be deleted permanently).

Acceptance: I, _____, agree to participate in the above research study conducted by *Alzahra Hudani* from the Population Health program, Faculty of Health Sciences at the University of Ottawa, who is working under the supervision of Dr. Sanni Yaya.

I, _____, provide consent for this interview to be audio-recorded.

If you have any questions about the study, you may contact the researcher or her supervisor. If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5. Telephone: (613) 562-5387. Email: ethics@uottawa.ca

Participant's signature: _____ Date: _____

Researcher's signature: _____ Date: _____

Appendix D.2: Informed Consent Form for Interviews with Youth

Participant's Name: _____ Date: _____

Participant's Code: _____

Title of the study: How do emergency youth shelters and the Canadian health system engage? A case study exploring coordination of care for youth experiencing homelessness in Toronto.

Lead Researcher:
Alzahra Hudani, PhD Candidate
Interdisciplinary School of Health Sciences, Faculty of Health Sciences
University of Ottawa
E-mail: [removed to protect privacy]
Phone: [removed to protect privacy]

Supervised by:
Dr. Sanni Yaya, Full Professor
International Development and Globalization
Faculty of Social Sciences
University of Ottawa
Email: [removed to protect privacy]

Purpose of the Study: The purpose of the study is to understand how the youth shelter system and healthcare system, can better work together to serve the physical, mental, sexual, and reproductive health needs of youth experiencing homelessness in Toronto. Research shows that each of these systems lacks effective coordination of care for the health needs of youth experiencing homelessness in Toronto.

Participation: You are being asked to participate in a one-on-one interview with the project researcher, Alzahra Hudani. The interview will take about 1-2 hours to complete, during which Alzahra will ask questions about your health while homeless, where and how you sought care, what your experience was like receiving the healthcare you needed, etc. The interview will take place at the shelter you are staying at or online through Microsoft Teams on a date and time that works best for you.

Risks: When participating in this interview, you may be asked to reflect and discuss health concerns you've experienced while being homeless. This may take you back to stressful times that are hard to think about. You do not have to respond to any question that makes you feel uncomfortable.

Benefits: By participating in this study, you will help the researcher better understand how the emergency youth shelter system and health system in Toronto work together, specifically as it relates to caring for the health needs of young people experiencing homelessness. The information you share will help me identify areas that need to be improved in the healthcare delivery offered at emergency youth shelters, and between the emergency youth shelter system and health system. You will also be offered $30 for taking the time to share your knowledge and experiences with me.

Confidentiality and anonymity: The information you share with the researcher will remain strictly confidential. No personal or identifying information (e.g., such as your name) will be

revealed at any point throughout the project. Additionally, all the information you choose to share with the researcher will be kept private and safe. For example, if you give her permission to audio-record the interview, the recording will be stored securely on the researcher's password protected computer only. Further, if the interview takes place online, we recommend that you sign out of your account, close the internet browser you were using and lock your screen or device when the interview has come to an end. These steps will further help ensure your confidentiality.

Conservation of data: The information you provide will be securely stored. All transcripts (i.e., text format of the interview recording) will be immediately de-identified. Any physical copies of project documents (e.g., interview transcripts) will be kept in a locked drawer in Alzahra's personal office. Further, all information you provide will be securely stored on Alzahra's password protected computer. They will also be stored on her University of Ottawa Outlook drive, in folders dedicated to the project, which only she will have access to. Research documents will be kept for 3 years after the project is completed.

Voluntary Participation: You do not have to participate in this interview if you do not want to. If any of the questions asked make you feel uncomfortable, you do not have to answer and can ask Alzahra to skip the question. If you choose to participate, and change your mind later on, you can let Alzahra know. You will not face any negative consequences as a result of changing your mind to participate. If you choose not to participate in the middle of the interview, all your responses collected with be deleted, and will not be used for the project.

Acceptance:

I, _____, agree to participate in the above research project.

I, _____, give permission for this interview to be audio-recorded.

If you have any questions about the study, you may contact the researcher or her supervisor. If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa,
Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5. Telephone: (613) 562-5387 Email: ethics@uottawa.ca

Participant's signature: _____ Date: _____

Researcher's signature: _____ Date: _____

APPENDIX E: ETHICS CERTIFICATES

Appendix E.1: Ethics certificate for key informant interviews

16/04/2021

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

Numéro du dossier / Ethics File Number	H-12-20-5771
Titre du projet / Project Title	How do emergency youth shelters and the Canadian health system engage? A case study exploring coordination of care for youth experiencing homelessness in Toronto
Type de projet / Project Type	Thèse de doctorat / Doctoral thesis
Statut du projet / Project Status	Approuvé / Approved
Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)	16/04/2021
Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)	15/04/2022

Équipe de recherche / Research Team

Chercheur / Researcher	Affiliation	Role
Alzahra HUDANI	École interdisciplinaire des sciences de la santé / Interdisciplinary School of Health Sciences	Chercheur Principal / Principal Investigator
Sanni YAYA	École de développement international et mondialisation / School of International Development and Global Studies	Superviseur / Supervisor

Conditions spéciales ou commentaires / Special conditions or comments

550, rue Cumberland, pièce 154 Ottawa (Ontario) K1N 6N5 Canada
550 Cumberland Street, Room 154 Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • ethique@uOttawa.ca / ethics@uOttawa.ca
www.recherche.uottawa.ca/deontologie | www.recherche.uottawa.ca/ethics

16/04/2021

Université d'Ottawa

Bureau d'éthique et d'intégrité de la recherche

University of Ottawa

Office of Research Ethics and Integrity

Le Comité d'éthique de la recherche (CÉR) de l'Université d'Ottawa, opérant conformément à l'*Énoncé de politique des Trois conseils* (2014) et toutes autres lois et tous règlements applicables, a examiné et approuvé la demande d'éthique du projet de recherche ci-nommé.

L'approbation est valide pour la durée indiquée plus haut et est sujette aux conditions énumérées dans la section intitulée "Conditions Spéciales ou Commentaires". Le formulaire « Renouvellement ou Fermeture de Projet » doit être complété quatre semaines avant la date d'échéance indiquée ci-haut afin de demander un renouvellement de cette approbation éthique ou afin de fermer le dossier.

Toutes modifications apportées au projet doivent être approuvées par le CÉR avant leur mise en place, sauf si le participant doit être retiré en raison d'un danger immédiat ou s'il s'agit d'un changement ayant trait à des éléments administratifs ou logistiques du projet. Les chercheurs doivent aviser le CÉR dans les plus brefs délais de tout changement pouvant augmenter le niveau de risque aux participants ou pouvant affecter considérablement le déroulement du projet, rapporter tout évènement imprévu ou indésirable et soumettre toute nouvelle information pouvant nuire à la conduite du projet ou à la sécurité des participants.

The University of Ottawa Research Ethics Board, which operates in accordance with the *Tri-Council Policy Statement* (2014) and other applicable laws and regulations, has examined and approved the ethics application for the above-named research project.

Ethics approval is valid for the period indicated above and is subject to the conditions listed in the section entitled "Special Conditions or Comments". The "Renewal/Project Closure" form must be completedfour weeks before the above-referenced expiry date to request a renewal of this ethics approval or closure of the file.

Any changes made to the project must be approved by the REB before being implemented, except when necessary to remove participants from immediate endangerment or when the modification(s) only pertain to administrative or logistical components of the project. Investigators must also promptly alert the REB of any changes that increase the risk to participant(s), any changes that considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project or the safety of the participant(s).

Kim THOMPSON
Responsable d'éthique en recherche / Protocol Officer
Pour/For **Daniel LAGAREC** Président(e) du/ Chair of the **Comité d'éthique de la recherche en sciences de la santé et sciences / Health Sciences and Sciences Research Ethics Board**

550, rue Cumberland, pièce 154 Ottawa (Ontario) K1N 6N5 Canada
550 Cumberland Street, Room 154 Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • ethique@uOttawa.ca / ethics@uOttawa.ca
www.recherche.uottawa.ca/deontologie I www.recherche.uottawa.ca/ethics

Appendix E.2: Ethics certificate for stakeholder forum

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

H-06-23-9292 - REG-9292 - Certificat d'approbation éthique / Certificate of Ethics Approval

(English message follows)

Cher/Chère Alzahra Hudani,

Veuillez trouver ci-joint le certificat d'approbation éthique pour le projet intitulé «How do emergency youth shelters and the Canadian health system engage? A case study exploring coordination of healthcare for youth experiencing homelessness in Toronto (Phase 2)».

Le certificat est valide jusqu'au : 18-06-2024

Recherche financée : veuillez faire suivre une copie du certificat au Service de gestion de la recherche.

Si vous avez des questions, n'hésitez pas à communiquer avec le Bureau d'éthique à ethique@uottawa.ca ou en composant le 613-562-5387.

Vous pouvez voir votre demande en vous connectant à votre compte eReviews.

Cordialement,

Kim Thompson
Responsable d'éthique en recherche

Ceci est une réponse automatisée, merci de ne pas répondre à ce courriel.

Dear Alzahra Hudani,

Please find attached the certificate of ethics approval for your research project titled "How do emergency youth shelters and the Canadian health system engage? A case study exploring coordination of healthcare for youth experiencing homelessness in Toronto (Phase 2)".

This certificate is valid until: 18-06-2024

Funded research: A reminder that you must provide a copy of this certificate to Research Management Services.

If you have any questions, please contact the Ethics Office at ethics@uottawa.ca or by telephone at 613-562-5387.

You can view your project at any time by logging into eReviews.

Best regards,

Kim Thompson
Protocol Officer

This is an automated message. Please do not reply directly to this email.

Attachement(s) / Attachment(s)
approvalLetter1687179797168.pdf

550, rue Cumberland, pièce 154 Ottawa (Ontario) K1N 6N5 Canada
550 Cumberland Street, Room 154 Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • ethique@uOttawa.ca / ethics@uOttawa.ca
www.recherche.uottawa.ca/deontologie | www.recherche.uottawa.ca/ethics

APPENDIX F: ETHICS SYMPOSIUM PRESENTATION EVALUATION

	Disagree	Partly Disagree	Partly Agree	Agree
The session learning objectives were met	0 (0%)	0 (0%)	2 (14.29%)	12 (85.71%)
The quality of the presentation was acceptable (ie: speaker clarity, video, sound, slides)	0 (0%)	0 (0%)	1 (7.14%)	13 (92.86%)
Recommendations were based on appropriate research findings and/or evidence	0 (0%)	0 (0%)	1 (7.14%)	13 (92.86%)
There was adequate time and quality in questioning/interactive aspects of the session	0 (0%)	0 (0%)	1 (7.69%)	12 (92.31%)
I was easily able to participate in the Q&A or live discussion	0 (0%)	0 (0%)	1 (8.33%)	10 (83.33%)
Did you encounter any technical difficulties that we should be aware of?				
Yes 2 (16.67%)				
No 10 (83.33%)				
Comments: The volume would go up and down and then the speakers voice would repeat very quickly				
Were any technically difficulties satisfactorily resolved in a timely fashion?				
Yes 2 (18.18%)				
No 0 (0%)				
Not applicable 9 (81.82%)				
Did you perceive any degree of bias in this presentation?				
Yes 0 (0%)				
No 11 (100%)				