Safety Net Learning Collaborative Aspects and Organizational Factors Impacting Innovation Implementation

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DISSERTATION

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DEDICATION

I dedicate this dissertation to my wonderful husband Cliff and three boys (Jaylin, CJ and Mason) without them, this journey would not have been possible or nearly as fun. My fellas have played such an important role in my life—keeping me grounded to what's important, pushing me forward when the exhaustion tried to take me under, and loving me through thick and thin. Thank you for being my foundation.

I consider myself to be the luckiest gal in the world. For as long as I can remember, I've had the honor of being surrounded by a circle of amazing women that taught me what courage, love and resilience looked like. These women have been a sounding board and helped me grow beyond measure.

Finally, I want to honor the memory of my mother, grandmothers, Aunt Dot, and Daddy Clifton; loved ones that I will admire until the end of time. The pride and love that they bestowed upon me over the years sticks with me even today. I promise to keep reaching for the moon.

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ii

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TABLE OF CONTENTS

IABL	E OF CONTENTS	
CHAPTER		PAGE
I. BACKGROUND &		
PROBLEM STATEMENT		
A. Background		1
B. Problem Statement		13
C. Study Aims		13
D. Research Questions		14
-		14
E. Relevance & Significance of Study		
F. Leadership Implications		14
II. CONCEPTUAL &		
ANALYTICAL FRAMEWORK		4.5
A. Literature Review		17
B. Conceptual Framework		28
C. Summary		32
III. STUDY DESIGN, DATA, &		
METHODS		
A. Analytical Approach		34
B. Data Collection & Sampling		
Approach		38
C. Data Analysis		46
D. Data Management		52
E. Validity & Reliability		52
F. Recruitment Outcomes		54
G. Characteristics of Participant		
Organizations		57
H. Characteristics of Interviewees		58
IV. RESULTS		
A. Background		62
B. Results		64
V. DISCUSSION		
A. General Discussion		119
B. Key Findings		121
C. Logic Model Revisions		145
D. Conceptual Framework Revisions		148
E. Recommendations		140
F. Implications		150
G. Limitations		154
G. Limitations		130
VI. CONCLUSION		158

VI. CONCLUSION

VII. CITED LITERATURE	 160
VIII. VITA	 169
IX. APPENDICES	 173

APPENDICES

		PAGE
Appendix 1: Developmental Evaluation Committee Presentation 1		173
Appendix 2: McAlpine Letter of Support		180
Appendix 3: Measurement Table		181
Appendix 4: UIC Exemption Determination		186
Appendix 5: Semi Structured Interview Gu	ide	190
Appendix 6: Informed Consent		198
Appendix 7: Email Invitations		199
Appendix 8: Codebook		201
Appendix 9: Data Management Overview		206
Appendix 10: Developmental Evaluation Committee Presentation 2		207
Appendix 11: Final Codebook		217
Appendix 12: Code Manager Table		226
Appendix 13: Co-occurrence Tables		228
Appendix 14: Developmental Evaluation Committee Presentation 3		240
Appendix 15: Study Findings Crosswalk Table		250

LIST OF TABLES

PAGE

TABLE I. DATA COLLECTION ACTIVITIES	 39
TABLE II. SEMI-STRUCTURED INTERVIEW GUIDE MATRIX	 45
TABLE III. INTERVIEW INVITATION & OUTCOMES BY IMPLEMENTATION CATEGORY	 56
TABLE IV. CHARACTERISTICS OF HEALTH CENTERS & RESPONDENTS	 58
TABLE V. INTERVIEWEE KEY CHARACTERISTICS	 59
TABLE VI. TYPES OF IMPLEMENTED INNOVATION BY IMPLEMENTATION CATEGORY	 94
VII. LEADERSHIP SIMILIARITIES & DIFFERENCES COMPARISION	 96
VIII. ORGANIZATIONAL CLIMATE SIMILIARITIES & DIFFERENCES COMPARISION	 99
IX. ORGANIZATIONAL SIZE SIMILIARITIES & DIFFERENCES COMPARISION	 101
X. ORGANIZATIONAL STRUCTURE SIMILIARITIES & DIFFERENCES COMPARISION	 103
XI. AVAILABILITY OF RESOURCES SIMILIARITIES & DIFFERENCES COMPARISION	 105
XII. ORGANIZATIONAL CULTURE SIMILIARITIES & DIFFERENCES COMPARISION	 106

VIII. NOTED GAPS FOR CSNLC RECOMMENDATION DEVELOPMENT	
CONSIDERATION	 114
XIV. CSNLC RECOMMENDATIONS	 118

LIST OF FIGURES

PAGE

Figure 1: Breakthrough Series Model	 19
Figure 2: Implementation Effectiveness Model	 23
Figure 3: Roger's Decision Innovation Process Stages	 30
Figure 4: Conceptual framework	 32
Figure 5: Chicago Safety Net Learning Collaborative Logic Model	 38
Figure 6: Analysis steps for semi-structured interviews & logic model refinement	 48
Figure 7: Description of CSNLC based on participant experience	 65
Figure 8: Participant's perceptions of CSNLC impact upon leadership Development	 69
Figure 9: Participant's perceptions of CSNLC impact upon organizational capacity	 71
Figure 10: Participant's perceptions of CSNLC supporting implementation of innovation	 74
Figure 11: Types of innovation themes	 76
Figure 12: Leadership factor themes	 78
Figure 13: Organizational climate themes	 81
Figure 14: Organizational size themes	 84
Figure 15: Organizational structure themes	 86
Figure 16: Availability of resources	 89
Figure 17: Organizational culture themes	 93
Figure 18: Suggestions for enhancing CSNLC capacity by organizational factor	 109

Figure 19: Participant perspectives of the CSNLC's role in the implementation process	 116
Figure 20: Revised Chicago Safety Net Learning Collaborative Logic Model	 146
Figure 21: Revised conceptual framework	 149

LIST OF ABBREVIATIONS

FQHC	Federally Qualified Health Center
ACA	Affordable Care Act
CSNLC	Chicago Safety Net Learning Collaborative
CDC	Centers for Disease Control and Prevention
CBO	Congressional Budget Office
DE	Developmental Evaluation
HRSA	Health Resources and Services Administration
IHI	Institute for Healthcare Improvement

SUMMARY

Even in the face of medical advancements and substantial healthcare expenditures, health disparities have been a persistent presence in the United States (CDC Health Disparities and Inequalities Report, 2011).

The Patient Protection and Affordable Care Act (ACA) was passed in 2010, in support of developing a health care system capable of reducing health disparities and ensuring access to health insurance for millions of Americans; particularly the medically underserved (Fiscella, 2011).

Since 1965, ACA serves as the U.S. healthcare system's most noteworthy regulatory shift that changed Medicaid eligibility to now cover individuals up to138% of the federal poverty line. In addition, changes were made to individual insurance market and paved the way to state-operated health insurance exchanges (Adkinson, 2014; Griffith et al., 2017; Glifford et al., 2011).

According to a white paper published by Sage Growth Partners in 2015, "expanded health care has created a growing demand for healthcare resources—especially primary care— thereby creating a significant opportunity for Federally Qualified Health Centers (FQHCs)" (DeMarco, 2015). FQHCs play an important role in reducing health disparities and promoting health population by providing high quality care (Kaiser Commission on Medicaid and the Uninsured, 2011).

While healthcare reform has mandated transformative organizational change to occur, preliminary findings from key informant interviews conducted with Chicago based FQHC leadership revealed limitations in their capabilities to continuously absorb organizational

xii

SUMMARY

change, effectively shift business practices and keep pace with the everchanging landscape.

In support of improving optimization of FQHC services and supporting leadership through the innovation process, a Chicago-based Safety Net Learning Collaborative (CSNLC) was launched in 2011, with established goals to develop and disseminate best operational practices. Due to its limited evaluation capacity, little is understood about how this entity supports the implementation of innovation process.

This study sought to explore the role of the CSNLC and what factors impact the implementation process among participants. Study aims included: *1*) To determine the role of the CSNLC in the implementation of innovation among participants, 2) Understand how safety net providers in Chicago have implemented innovation post ACA and associated facilitators and barriers impacting implementation, and 3) To support the CSNLC in strategy development to enhance its capacity to address barriers.

This exploratory study used a developmental evaluation case study design and qualitative methodology. Chicago was selected as the case for this study because Illinois boasts the highest number of FQHC delivery sites and patients served in the Midwest, with Chicago making up 50% of overall patient numbers in the state (HRSA, 2016). Furthermore, the CSNLC represents one of the largest and longest running learning collaborative models comprised largely of community health centers in this region.

For purposes of carrying out this study in collaboration with CSNLC decision makers, the existing CSNLC Steering Committee along with the addition of one McAlpine consultant served as the Developmental Evaluation (DE) Committee. The role of the DE Committee was to guide the evaluation process, inform the study design, research questions, and data collection process.

SUMMARY

Data collection entailed the completion of a content analysis to inform semi-structured guide development efforts and semi-structured interviews with 21 CSNLC participants. Interviews were used to identify alignment and/or gaps between participant perceptions of how the CSNLC operates in practice and test the logic model that was developed by the researcher using CSNLC documents. Furthermore, these interviews worked to support deeper exploration of perceptions speaking to how the organizations have implemented innovation; how the CNSLC has impacted leadership development, organizational capacity to perform continuous quality improvement activities, and supported the implementation of innovation process through the Learning Events, Discussion Networking Sessions, and Leadership Institute.

This study worked to expand knowledge about the innerworkings of the CSNLC and its connection to impact being made upon both individuals and the organizations they represented. The culmination of study findings produced recommendations that will expand the CSNLC's capacity to address identified barriers and support long term sustainability of Chicago's safety net sector.

High level study themes that emerged from the data include:

• A demonstrated need to examine alternative learning collaborative models—the CSNLC represents a unique learning collaborative model, where its deviations resulted in the cultivation of leadership skills among its participants and adoption of innovative approaches to healthcare operations. Validation of organizational factors that impact the implementation of innovation process that include leadership, culture, climate, and infrastructure/capacity.

iii

• Leadership serves as the most significant organizational factor that influences the implementation of innovation, with associations to all remaining organizational factors—demonstrating the importance of continuous development of leadership skills for public health practitioners that aid in driving and sustaining organizational change.

I. BACKGROUND AND PROBLEM STATEMENT

BACKGROUND

Even in the face of medical advancements and substantial healthcare expenditures, health disparities have been a persistent presence in the United States (CDC Health Disparities and Inequalities Report, 2011). In a paper published by Orgera et al., "a health disparity refers to a higher burden of illness, injury, disability, or mortality experienced by one group relative to another". (Orgera et al., 2018). A CDC Health Disparities and Inequalities Report published in 2011, highlights notable gaps in racial and ethnic health outcomes across a range of public health issue areas- with non-Hispanic blacks faring worse than their white counterparts. Thus, contributing to higher rates of morbidity and premature death among this population. Some key findings include:

- "Black men and women are more likely to die of heart disease and stroke than their white counterparts".
- "Hypertension is by far the most prevalent among non- Hispanic blacks (42% vs. 28.8% among whites), while levels of control are lowest for Mexican Americans".
- "Racial/ethnic minorities with the exception of Asians/Pacific Islanders, experience disproportionately higher rates of new human immunodeficiency virus diagnoses than whites, as do men who have sex with men".

The Patient Protection and Affordable Care Act (ACA) was passed in 2010, in in support of developing a health care system capable of reducing health disparities and ensuring access to health insurance for millions of Americans; particularly the medically underserved (Fiscella, 2011).

The Affordable Care Act

Since 1965, ACA serves as the U.S. healthcare system's most noteworthy regulatory shift (Adkinson, 2014). As one study noted, the ACA worked to advance population health approaches that both brought about efficiency and greater impact than what could be achieved through traditional health care delivery models (Alper, 2013). The ACA expanded Medicaid eligibility to now cover individuals up to138% of the federal poverty line. In addition, changes were made to individual insurance market and paved the way to stateoperated health insurance exchanges. (Griffith et al., 2017; Glifford et al., 2011). As DeMarco states in his white paper published in 2015, "the coverage growth, along with the industry move toward tightly coordinated, value-based care, is driving more demand for healthcare resources—especially primary care—creating a significant opportunity for Federally Qualified Health Centers (FQHCs)" (DeMarco, 2015). It is important to note that while ACA expanded coverage for millions of Americans, a report published by the Congressional Budget Office (CBO) in 2012 estimates that "nearly 27 million individuals in need of healthcare services would remain uninsured due to residency status" (CBO Report, 2011). Thus, creating a heavier reliance upon FQHCs to stand in the gap by ensuring adequate access to primary care services for this population.

FQHC's Central to ACA Implementation

According to Adashi et al, "FQHCs were launched in 1965 and designed to reduce or eliminate health disparities that affected racial and ethnic minority groups, the poor, and the uninsured" (Adashi et al., 2010). More than fifty years later these centers are critical primary care source for nearly 20 million people across the nation (Hawkins et al., 2011). (Hawkins et al., 2011). As Fiscella states, "strengthening the primary care safety net is critical to ensuring access in a Post ACA environment because poor and minority patients are at greater risk for lacking primary care; those with access are more often seen within resource strapped safety- net practices; such as FQHCs" (Fiscella, 2011).

In 2015, there were over 9,500 FQHC Health Resources & Services Administration (HRSA) funded sites in urban and rural communities of high need (HRSA, 2015). FQHC status is granted by HRSA, this federal qualification gives way to expanded Medicaid reimbursement, financial resources that cover operational and capital expenses, lower than market price medications for patients, medical malpractice liability protection and access to National Health Service Corps clinicians. These entities must be located in medically underserved communities, where there is a demonstrated shortage of personal health services (Whelan, 2010). FQHCs use a preventive lens to provide quality, holistic, accessible and culturally responsive care to individuals regardless of their ability to pay. In addition to medical services, FQHCs offer a wide range of wraparound services such as health education, case management and childcare services. These services aid FQHCs in serving as medical homes capable of treating the whole patient. Many published studies have highlighted the efficacy of FQHC's ability to improve health outcomes and decrease healthcare system expenditures as a whole. A national study conducted by the National Association of Community Health Care Centers found that "FQHCs on average save about \$1,263 per patient per year, they have 18% lower rates of emergency department visits, 64% lower rates of multi-day hospital admission, and 25% of total hospital inpatient bed days compared with non-health center patients" (National Association of Community Health Care Centers Report, 2012). These highlighted examples demonstrate the impact of the high

quality of the care being provided by FQHCs and how these entities work to serve as the backbone of ACA in the U.S.

FQHCs & Challenges with ACA Reform

While FQHCs may appear to be well positioned to absorb the increased demand for primary care services, they must evolve to become both mission and margin focused in order to remain viable (DeMarco, 2015).

Federal Funding Cuts

Along with healthcare reform, came about the demand for new primary care models, development of chronic disease management teams, and medical homes to ensure positive health outcomes. However, no additional funding was released to support quality improvement nor was the originally promised funding for site expansion kept whole. In fact, there was a 27% cut in the appropriation for health centers from (\$2.6 billion to \$1.6 billion) in 2011. The cut funds were diverted to maintain existing health center operations (Center for Healthcare Research and Transformation, 2013). A report published by the Illinois Primary Care Association states the case for continued advocacy efforts pushing to restore funding at the federal level and avoid any potential suspension of clinical operations (Illinois Primary Care Association, 2017). In a Post ACA environment, these entities will need to decrease their reliance upon federal funding to keep their doors open. In support of achieving long term sustainability, FQHCs will need to identify and apply best practices to evolve and expand their pipeline for funding. Alternate payment models mandated by ACA can work to diversify funding streams, but the pathway of how to effectively transition clinical practices to align with the new delivery care models remains unclear.

Evolving Payment Structures

Currently, FQHCs utilize a prospective payment system—where they receive a predetermined, fixed payment based upon total patient visits conducted annually (Centers for Medicare and Medicaid Services, 2014). With the transition to ACA, these organizations will now round into a retrospective payment system also known as value -based care. According to a study published by LaPointe, "value-based care is a is a form of reimbursement that that ties payments for care delivery to the quality of care provided and rewards providers for both efficiency and effectiveness. Value-based care aims to advance the triple aim of providing better care for individuals, improving population health management strategies, and reducing healthcare costs" (LaPointe, 2015). In 2015, the Department of Health & Human Services and Centers for Medicare and Medicaid Services set goals to transition 90% of reimbursement payments to value-based care by 2018 (Burwell, 2015). To date, there is no documentation of progress being made towards achieving this goal or update on newly established timelines for this when this transition period will occur. This lack of clarity causes much uncertainty and a heightened level of complexity as transitions of this magnitude often requires additional infrastructure and investment, such as enhanced IT and quality improvement capacity. (National Academy for State Health Policy, 2018). With respect to enhanced IT capacity, FQHCs will need to invest in upgrades that will allow for prescriptions and clinical tests to be ordered electronically, the development of patient registries and tracking tools to ensure provision of timely care (Hawkins et al., 2011). Quality improvement capacity enhancement will call for the implementation and routine application of care management practices. According to the Agency for Healthcare Research and Quality, care management is an emergent practice that aids in managing the health of populations. (Agency for Healthcare Research and Quality,

2015). As noted by the Centers for Healthcare Strategies, it is defined as "a promising teambased patient-centered approach designed to assist patients and their support systems in managing medical conditions more effectively" (Centers for Healthcare Strategies, 2007). The existing prospective payment system does not provide reimbursement for care management services. The transition to a value-based payment system will incentivize processes and outcomes associated with effective care management (Agency for Healthcare Research and Quality, 2015). In support of ramping up for this transition, FQHCs are challenged with securing and/or redirecting existing financial resources to provide ongoing training opportunities for staff as well as hire additional staff members to ensure adequate staffing levels needed to provide this comprehensive model of care.

Operational and Process Shifts

According to a report published by Sage Growth Partners, the increase in regulatory requirements and greater reliance on technology make it difficult for today's health care leaders to expand operations. The report goes on to list some process and operational challenges currently faced by FQHC leadership that include integrating medical, dental and mental healthcare, implementing or enhancing electronic health records, and establishing family medicine residency programs (DeMarco, 2015). According studies published by Cohen and Damanpour, operational shifts of this nature will require these centers "to redesign themselves and develop innovative capacities, which will allow them to respond to needs of the external and internal environment, take advantage of and use external resources for the creation and provision of new services, have control over their environment, and respond more rapidly to the changing healthcare landscape" (Cohen, 1999; Damanpour, 1996). Capabilities to innovate is essential for long term viability among

nonprofit organizations (Jaskyte et al., 2008). Reliance upon technical fixes using existing knowledge and practices will not position organizations for the creation of infrastructures that promote innovation and continual learning (Gorey et al., 2016). In turbulent times, where there are fast changes to the market combined with new technology, adoption of innovation is most crucial for organizational viability. Organizations must learn how to effectively find external knowledge and integrate it with internal knowledge in order to foster and develop successful innovations capable of anticipating and withstanding future change (Schweitzer, et al., 2011).

Factors Influencing the Implementation of Innovation Process

Even though billions of dollars are spent every year across the world to cover associated costs for innovations that improve health outcomes, only a small percentage are successfully implemented (National Institutes of Health, 2010; Cooksey, 2006; Haines, et al., 2004). In fact, Balas et al. state that "efforts to implement these practices can take many years" (Balas, et al., 2000). Thus, creating the need for exploring and disseminating best practices for implementing innovation and improving the rate at which successful implementation occurs.

Currently, little is understood about how FQHCs are implementing innovation in an effort to thrive in a fast-paced healthcare environment. Key informant interviews of Chicago based FQHC leadership revealed limitations in their capability to keep pace in the everchanging healthcare landscape, while meeting the increased demand for high-quality primary care services. They spoke of having limited knowledge of best practices for shifting from a prospective payment model to that of value-based and concerns with maintaining organizational capacity to continuously absorb rapid changes.

According to the literature, there are several factors that can influence the implementation of innovation in healthcare organizations. However, only the most commonly cited factors were explored in this dissertation study that include Organizational Culture, Organizational Climate, Organizational Infrastructure, and Leadership. Denison states that Organizational Culture factors "represent the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members" (Denison, 1996). These factors influence the extent in which innovations will be received by members of the organization. Furthermore, culture can determine the success and viability of implemented innovations. Klein et al. defines as Organizational Climate "targeted employees' shared summary perceptions of the extent to which their use of a specific innovation is rewarded, supported and expected within their organization" (Klein et al., 1996). These factors shape the organizational environment in which implementation of innovation may thrive or fail. Organizational Infrastructure encompasses Organizational Size can be defined using several characteristics that include the largeness of the workforce, operations or market share (Ololube, 2016), Mohanta et al. states that Organizational Structure "determines how the roles, power and responsibilities are assigned, controlled, and coordinated, and how information flows between the different levels of management" (Mohanta, et al., 2018), and Resources Availability that can be defined as available or potential financial resources that support the organization as part of the implementation process (Bourgeois, 1981). Collectively, Organizational Infrastructure factors influence organizational capacity needed to implement innovation, whereas capacity is defined as "a collection of organizational resources that support organization-wide reform work and staff change" (Cosner, 2009). Lastly, *Leadership* factors refers to the extent at which individuals with decision-making capabilities have the capacity and willingness to promote and support implementation of

innovation. These factors influence employee behavior, innovation uptake and perceptions of innovation implementation across the organization.

Chicago Safety Net Learning Collaborative

According to a Safety Net report published in 2016, "there are more than 1,300 FQHC grantees operating more than 9,000 delivery sites across the country. In 2015, there were 44 Illinois health center systems that provided care in over 350 sites to approximately 1.2 M patients annually" (Loyola University and Health & Medicine Research Group, 2016). Illinois boasts the highest number of FQHC delivery sites and patients served in the Midwest, with Chicago making up 50% of overall patient numbers in the state (HRSA, 2016). In addition to the provision of primary care services, these entities have largely contributed to boosting insurance enrollment numbers with the execution of ACA. Onsite benefit enrollment within community health centers worked to significantly decrease the number of eligible Illinois residents without insurance. Illinois Department of Insurance data showed a 7.2% decline in the uninsured rate in the state over a two-year period, highlighting the largest drop in the U.S. (Illinois Department of Insurance, 2016). Thus, creating a higher demand for primary care services locally and heavier reliance upon FQHCs to absorb this increase.

The Chicago Safety Net Learning Collaborative (CSNLC) was launched in 2011 in response to ACA reform, demands from stakeholders seeking optimization of clinical operations that result in improved health outcomes, and a new funding opportunity to support a learning collaborative. The CSNLC is currently comprised of 17 local community health centers. As a participating organization, these entities are tasked with appointing senior leadership to support high level planning efforts, distributing materials and

recruitment of staff to participate in learning modalities, collecting data, and executing a memorandum of understanding with the Collaborative. Additionally, all participating organizations pay \$2,500 annually (McAlpine Consulting, 2017). Five executive leaders (three chief executive officers, one chief operating officer, and one vice president) provide additional leadership via Steering Committee, which plans and design learning modalities, reviews evaluation data, acts as liaison with the consulting firm staffing the Learning Collaborative, and conducts fundraising to support long term planning (McAlpine Consulting, 2017).

As Nadeem et al. states "learning collaboratives have become a popular model for providing training and ongoing support in large scale efforts to disseminate and implement innovative practices and improve quality of care" (Nadeem et al., 2006). As a systematic approach, learning collaboratives can accelerate learning by using a shared learning framework, broader development and implementation of best practices. Furthermore, it is considered to be an inexpensive mechanism for supporting leaders in guiding transformation (Janue, 2016). According to The Institute for Healthcare Improvement (IHI), the learning collaborative model was put into practice to help organizations effectively make operational shifts that increase quality and reduce expenses. Furthermore, these entities aim to address gaps in knowledge by developing a mechanism for accelerating the generation of knowledge by leveraging expertise of other practitioners in the field (IHI, 2003). Since 2009, IHI has funded learning collaborative models in both the U.S. and internationally. Currently, two learning collaboratives are being funded to addressing critical challenges within healthcare. The IHI Health Improvement Alliance in Europe is a coalition comprised of healthcare leaders that is seeking to improve operational practices and create new delivery models (IHI Health Improvement Alliance Europe Prospectus, 2018). The second, IHI Leadership

Alliance is made up of healthcare leaders across North America. Similarly, this collaborative is not focused on one healthcare challenge, but a range that will be defined by its members. Key priorities for this group include accelerating the testing and spread of innovative and impactful changes while amplifying the network's influence and collective voice around topics that are top of mind for Alliance leaders (IHI Leadership Alliance Prospectus, 2018). Local examples of learning collaboratives include the Illinois Public Health Institute's Accreditation Peer Network addressing topics related to accreditation for local health departments and Health & Medicine's Behavioral Health & Primary Care Integration Learning Collaborative. This collaborative hosted a spectrum of providers including primary care, facility based, and individuals in recovery. All of the above examples work to highlight the factors that distinguish the CSNLC as a unique model that boasts a concentration of community health centers in Chicago working with similar patient populations and experiencing comparable operational challenges. It serves as the longest running collaborative in the region and works to shift topics most relevant to its participant organizations, often times offering opportunities to work on specific topics over an elongated period of time-while addressing emergent challenges and building evidence to support transferability of efforts to other settings. The literature is gray in documented examples of learning collaborative model evaluations, where the participants are largely community health centers. To this end, there is a significant opportunity to grow the evidence base and inform practice efforts nationally.

According to the CSNLC's 3- Year Sustainability Plan, the goal of this network is to improve patient outcomes by addressing barriers to healthcare, improving communication with patients, and sharing best practice across healthcare centers. They envision a strengthening of their ability to teach and learn systems change in safety net practices,

promote leadership development and adoption of innovative approaches to health center operations (McAlpine Consulting, 2017). The CSNLC has continued to evolve since its inception, that largely consisted of 6 Learning Events annually. The Learning Events are interactive, peer-to-peer knowledge sessions, modeled after the World Café design principles, where the topics are driven by health center participants to ensure structure, utility and engagement (McAlpine Consulting, 2018). As part of these events, participants are tasked with developing Implementation Strategies that will be pushed into practice during the Implementation Action Periods. McAlpine consultants conduct routine follow up with participants at 3-, 6- and 12-month intervals to track progress and document challenges. Using a developmental evaluation ideology, the CSNLC operates in a continuous state of development, adaptation, and innovation to meet the needs of participant organizations (Patton, 2002). Evidence of this can be seen in the addition new community health centers joining the CSNLC as well as the expansion of the model to include a 9-session Leadership Institute and Discussion and Networking Groups-both work to compliment the Learning Events, which serve as anchors to implementing innovation within the organizational setting. The Leadership Institute was designed to train health center managers on a range of topics that include Leading Change, Leading Effective Meetings, and Hiring for the Sweet Spot. These trainings help to build leadership development skills among this critical group of individuals within the organization. The Discussion and Networking Groups, launched in 2017, were developed to create the space for peers in specific positions within the health centers to share challenges and identify solutions to support them in their leadership positions. Currently, there are two groups in operation that include one for Behavioral Health practitioners, and one for Chief Operating Officers (McAlpine Consulting, 2017). To date, the CSNLC's approaches have not been comprehensively evaluated and there is a

desire from their Steering Committee to measure its impact and determine its strategic role in supporting leadership development needed to drive implementation of innovation practices among its participants.

PROBLEM STATEMENT

For many decades, health disparities have remained a persistent problem in the United States highlighting notable gaps in racial and ethnic health outcomes across a range of public health issue areas (CDC Health Disparities and Inequalities Report, 2011).

The Patient Protection and Affordable Care Act (ACA) was passed in 2010 in direct response to the need to develop a more equitable health care system, reduce health disparities and expand access to health insurance for millions of Americans; particularly the medically underserved (Fiscella, 2011). FQHCs are central to the implementation of ACA; and work reduce health disparities and promote population health through the provision of quality care (Kaiser Commission on Medicaid and the Uninsured, 2011). While healthcare reform has mandated transformative organizational change to occur, preliminary findings from key informant interviews conducted with Chicago based FQHC leadership revealed *limitations in their capabilities to continuously absorb organizational*

change, effectively shift business practices and keep pace with the everchanging landscape.

In support of improving optimization of FQHC services and supporting leadership through the innovation process, a Chicago-based Safety Net Learning Collaborative (CSNLC) was launched in 2011, with established goals to develop and disseminate best operational practices. Due to its limited evaluation capacity, little is understood about how this entity supports the implementation of innovation process. This study examined both aspects of the CSNLC and which factors influence the implementation of innovation for participant organizations, with the aims to identify recommendations that work to expand the CSNLC's capacity to address barriers and ensure long-term viability of Chicago's safety net sector.

STUDY AIMS

Due to its limited evaluation capacity, little is known about how the CSNLC performs

it's work or how it addresses factors impacting the implementation of innovation process.

This study sought to explore the role of the CSNLC and what factors impact the

implementation process among participants.

Study aims included: 1) To determine the role of the Chicago Safety Net Learning

Collaborative (CSNLC) in the implementation of innovation among participants, 2)

Understand how safety net providers in Chicago have implemented innovation post ACA

and associated facilitators and barriers impacting implementation, and 3) To support the

CSNLC in strategy development to enhance its capacity to address barriers.

RESEARCH QUESTIONS

The main research questions for this study included:

Q1. How is the Chicago Safety Net Learning Collaborative (CSNLC) being experienced by participants?

Q2. How has participation in the CSNLC facilitated the development of leadership skills among participants?

Q3. How has participation in the CSNLC impacted organizational capacity of its participant organizations to make rapid, sustainable improvements?

Q4. What is the perception of how the CSNLC supports the implementation of innovation process?

Q5. How have CSNLC participant organizations implemented innovation into organizational practice?

Q5A. What factors have influenced the implementation of innovation process?

Q6. What are the differences or commonalities among participant organizations that have implemented innovation and those that have not?

Q7. What do participants recommend to enhance the CSNLC's capacity to address factors identified as having an impact on the implementation of innovation?

Q8. What gaps exist between the support needs of participants in the implementation of innovation process and what is offered by the CSNLC?

Q9. What is the role of the CSNLC in the implementation of innovation among

organizational participants?

Q10. How can the CSNLC shift operations to address unmet support needs identified by participants?

RELEVANCE AND SIGNIFICANCE OF STUDY

The main purpose of this study is to explore factors that influence the implementation of innovation process needed to ensure viability of healthcare organizations in times of constant change. It also seeks to understand how FQHCs in Chicago have implemented innovation through their participation in the CSNLC; developed to support the adoption of innovation. Furthermore, the study will investigate how the CSNLC operates and evaluate whether this entity is meeting established needs of its participants. Collective findings will produce recommendations for how the CSNLC can enhance its capacity to address identified factors and unmet participant needs.

LEADERSHIP IMPLICATIONS

Implementation of innovation is challenging for healthcare leaders but is necessary to master in order to ensure organizational sustainability in an everchanging, complex landscape. This study produced recommendations for the use of learning collaborative models that drive innovation while addressing organizational factors impacting this process, promoting leadership development among participants and expanding organizational capacity needed for sustainable improvements. Insights gleaned highlight a diverse range of innovative approaches to health center operations that can be applied to safety net practices or larger settings such as hospitals. In times of constant change and uncertainty, the use of a learning collaborative can serve as an effective mechanism for testing innovations, learning best practices from other practitioners, and speeding up the rate of successful implementation. Lastly, this study will build the evidence base on the operation and effects of learning collaborative models –shedding light on how their variations impact effectiveness. Findings will result in enhanced learning collaborative models capable of meeting desired aims outlined by its participants. Thus, informing efforts of public health leaders for both existing and future collaboratives locally and nationally.

II. CONCEPTUAL AND ANALYTICAL FRAMEWORK <u>LITERATURE REVIEW</u>

The purpose of this chapter is to demonstrate the relationships between theory and public health practice literature in support of developing a conceptual framework that visually represents aspects of the Chicago Safety Net Learning Collaborative (CSNLC) and factors that may influence the implementation of innovation process among participant organizations. As a participating organization, these entities are tasked with appointing senior leadership to support high level planning efforts, distributing materials and recruitment of staff to participate in learning modalities, collecting data, and executing a memorandum of understanding with the Collaborative (McAlpine Consulting, 2017). The literature review was conducted using Google Scholar and PubMed databases to explore context and define constructs associated with stated research questions. Various search terms such as 'factors impacting the implementation of innovation', 'adoption of innovation' and 'the role of learning collaboratives in the innovation process' were used to identify related articles. There were limited articles solely examining the implementation process as there was much variation in how researchers defined implementation of innovation vs. adoption of innovation. To aid in finding a wider swath of articles, cited works within reviewed literature were also considered as part of the literature reviewed process. Ultimately, only articles with broad definitions of implementation and adoption that encompassed the implementation process were considered.

According to the peer-reviewed literature, there are a multitude of factors that can impact the implementation innovation process. Factors explored in this study are not meant to represent an exhaustive list, but they are the most commonly cited factors in the literature and as a result, hypothesized to be the most reflective of current research questions. This chapter is divided into two key sections. The first provides a high-level overview of constructs and their proposed relationship to impacting the implementation of innovation process. In this section, there are five sub-sections that include: (1) the learning collaborative model, (2) innovation, (3) stages of innovation: implementation vs. adoption of innovation, (4) implementation effectiveness, and (5) organizational factors. The second section works to pull together constructs defined in the first section into a conceptual framework that represents their relationships and connection to stated research questions.

The Learning Collaborative Model

According to The Institute for Healthcare Improvement (IHI), a Learning Collaborative Model is defined as "an improvement method that relies on the spread and adaptation of existing knowledge to multiple, similar sites to accomplish common aims" (IHI, 2003). The use of learning collaborative models in health care date back to the mid-1980's and were typically limited to exploring a single topic (Lindenauer, 2008). According Nembhard, "most collaboratives are modeled after the *Breakthrough Series* (BTS) model developed by IHI" (Nembhard, 2009).

There are three overarching goals connected with *The Breakthrough Series*: (1) build internal capacity of organizations to make rapid, sustainable improvements, (2) maintain a primary focus on the clinical subject matter, and (3) define specific steps required for improvement (IHI, 2003). Collaboratives typically are comprised of upwards of 40 organizations that come and work together over a defined period of time (typically 9 to 12 months) (Kilo, 1998). **Figure 1: Breakthrough Series Model** below depicts how the collaborative operates, highlighting three learning sessions where members learn improvement techniques from experts in the field, complimented with active periods of

testing to occur in-between. Teams return to their organizations during the active periods to test new strategies using the Plan-Do-Study-Act (PDSA) framework (Berwick, 1998). PDSA serves as continuous improvement technique that is defined "as the systematic use of rapid cycle change methodologies to continuously examine shared challenges, create strategies to mitigate said challenges, and track and measure outcomes" (IHI, 2003).

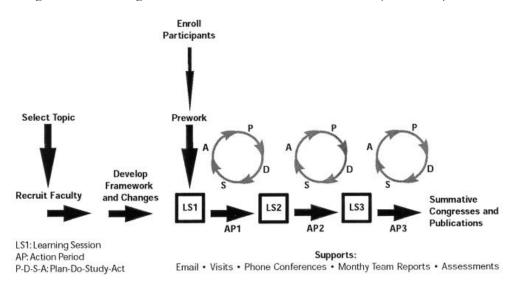


Figure 1: Breakthrough Series Model (IHI, 1998)

According to the literature, learning collaboratives can work to improve peer relationships and support learning across the sector (Bunger et al., 2014; Nembard, 2012; Palinkas et al., 2011). Furthermore, these models can help organizations expand their internal capacity to change its practices and draw upon continuous improvement techniques (Nembhard, 2012; Singer et al., 2012). Organizational capacity is defined as the comprised collection of organizational resources, interactive in nature, that support organization-wide reform work and staff change (Cosner, 2009).

Learning Collaborative Impact

Existing studies examining the impact that learning collaborative models have upon organizations have varied conclusions, with some highlighting notable outcomes (Horbar et al., 2001; Dellinger et al., 2005); Howard et al., 2007) and others indicating no impact (Landon et al., 2004; Homer et al., 2005). According to a report published by the American College of Physicians (2018), there is a lack of research detailing reasons why the collaborative model fails. The report also goes on to state that the identification of best practices highlighting the variations of learning collaborative models and their impact could work to inform existing and future efforts (American College of Physicians, 2018. This assertation speaks to the need for comprehensive evaluation planning and execution for any organizations seeking to launch a learning collaborative. Such efforts would aid in building evidence needed to measure impact and process— these insights could in turn work to inform efforts of both existing and future collaboratives.

Innovation

According to Zaltman et al., "an **Innovation** can be defined as an intangible idea, an activity or material object and its 'newness' is subjectively perceived by the persons in the organizational unit exposed to the innovation" (Zaltman et al., 1973). Similar definitions of innovation include: "any policy, structure, method or process, product or market opportunity that the manager of the innovating unit perceived to be new" (Nohria and Gulati, 1996); "a technology or practice that an organization is using for the first time, regardless of whether other organizations have previously used the technology or practice" (Klein et al., 2001); and "a practice when an organization learns to do something it did not know how to do before" (Shepard, 1967). All definitions above speak to innovation as introducing something new that can either be a product, process or a specific event not previously done by the specific organization. The literature also goes on to explain possible ways to conceptualize innovation as a means to measure it. In this context, it has two

distinct classifications of technical and administrative. Researchers define technical innovations as "a new process and products or services". While administrative innovations refer "to new procedures, policies and organizational forms" (Dewar and Dutton, 1986; Evan, 1966; Hage, 1980; Normann, 1971; Tushman and Nadler, 1986; Utterback and Abernathy, 1975). Oke et al. states that being innovative calls for more than being creative; implementing innovation is an essential piece of this process (Oke et al., 2009).

Stages of Innovation: Implementation vs. Adoption

Upon review of several published articles, much variation in the definition of innovation implementation and adoption was noted. The most widely known and embracing definition is Everett Rogers' diffusion of innovation theory that defines the **Implementation** stage as "the point in time when the innovation is introduced into an organization and includes activities such as training and support programs for organizational members slated to use the innovation". (Rogers, 1995). Klein et al., define implementation as "the transition period following the decision to adopt an innovation, during which intended users bring the innovation into sustained use" (Klein and Sorra, 1996). On the other hand, **Adoption** is defined as "the step that precedes implementation and is defined as the process through which an individual or other decision-making unit passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea and to confirmation of this decision" (Rogers, 1995). Damanpour offers yet a varied view, where "adoption is conceived as a process that includes activities that lead to a decision to adopt as well as activities that facilitate putting innovation into use and continuing to use it". According to this researcher, the implementation stage entails all actions pertaining to the use of the innovation, this includes any changes to the innovation after implementation has begun (Damanpour, 1991). In this definition, adoption occurs first and is both a decision and process to utilize innovation. While implementation serves as an opportunity to adapt the innovation and sustain its use, it should be noted that there a large body of existing studies exploring the adoption of innovation. However, these existing fails to build evidence about the implementation of innovation process (Sawang, 2008). Views similar to that of Damanpour are limited— speaking to the need to research further the distinction between these two processes and build consensus through generalizable findings. This study will focus on the implementation process, defining it as the process that comes after the decision to adopt stage. This approach is most closely aligned with majority of the findings cited as part of the literature review process (Roger, 1995; Klein et al., 1996; Sawang, 2008). Thus, providing a stronger evidence base to support this decision.

Implementation Effectiveness

Implementation Effectiveness can be defined "as the aggregate behavioral phenomenon of innovation use" (Klein et al., 1996). Klein et al. state that "innovation implementation may result in one of three outcomes: (a) implementation is effective and use of the innovation enhances the organization's performance; (b) implementation is effective, but use of the innovation does not enhance the organization's performance; and (c) implementation fails" (Klein et al., 1996). Failure of an innovation most often is the result of poor implementation practices and not the innovation itself (Klein & Sorra, 1996). Figure 2 below represents a model developed by Klein et al. that visually represents how implementation effectiveness is associated with financial resources and organizational climate (Sawang, 2008).

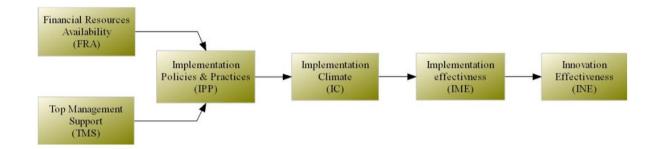


Figure 2: Implementation Effectiveness Model (Klein et al., 2001)

Organizational Factors Influencing the Implementation of Innovation

Organizational Culture

According to the literature, **Organizational Culture** is considered as "one of the factors that can most stimulate innovative behavior among members of the organization because it influences employee behavior". Thus, influencing whether employees accept innovation as an organizational value and can commit to using it (Hartmann, 2006). Despite the importance of culture upon innovation, empirical research remains somewhat limited. Existing literature has largely examined the impact of some organizational culture characteristics upon the implementation of innovation. There's a notable gap in research to better understand which archetypes of culture values play a role in this process (Naranjo-Valencia, et al., 2011).

Organizational culture factors can be defined as "the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members" (Denison, 1996). According to Glisson et al., it can also be stated as "the shared behavioral expectations normative beliefs in the work unit" (Glisson & James, 2002). As Moran et al. states, "organizational culture is an important determinant of organizational climate because the climate reflects the shared knowledge and meaning embodied in an organization's culture" (Moran et al., 1992).

According to Tesluk et al. (1997), "the basic elements of culture have a twofold effect on innovation—from the perspectives of socialization and of co-ordination. Through socialization, individuals can know whether creative and innovative behaviors are part of the path the business trends". Pfeffer et al. states that "organizational norms and routines foster maintenance of the status quo, staff members will give into the "knowing-doing-gap" and not utilize an innovation even when they understand its benefits" (Pfeffer & Sutton, 2000; Klein & Knight, 2005). Thus, increasing the implementation fail rate of innovations that improve organizational operations and performance.

According to Moran and Volkwein, "organizational culture is an important determinant of climate, whereas climate reflects the shared knowledge and meanings embodied in an organization's culture" (Moran & Volkwein, 1992

Organizational Climate

Klein et al. states defines the the **Organizational Climate** as "targeted employees' shared summary perceptions of the extent to which their use of a specific innovation is rewarded, supported and expected within their organization". Furthermore, these perceptions are influences by both their experiences and existence of implementation policies and procedures (Klein et al., 1996). Additional measurement of organizational climate can include perceived organizational openness to and importance of innovation, and availability of financial resources to support implementation practices (Saros et al., 2008; Klein & Knight, 2005).

According to the literature, "there is an association between the strength of an organizational climate and the use of implementation policies and procedures". Consistent use of said policies and incentives both work to promote the willingness among employees to support innovation (Klein et al., 1996). According to Klein et al., "implementation policies and practices include, for example, the quality and quantity of training available to teach the employee to use the innovation, the provision of technical assistance to innovation users on an as-needed basis; the availability of rewards for innovation user and the quality, accessibility, and user-friendliness of the innovation itself" (Klein et al., 2005).

Additional examples of a healthy implementation climate include: the provision of continuous training and ample time to learn, providing incentives for innovation use, and doing away with barriers to innovation use by way of leadership addressing complaints and concerns of users (Klein et al., 1996).

Organizational Infrastructure

In the literature reviewed, organization size, structure and resources availability were commonly cited as elements of **Organizational Infrastructure** that can impact the implementation of innovation process (Damanpour, 1987; Fagerberg et al., 2005; Frambach et al., 2002; Zaltman et al., 1973; Oke et al., 2009; Klein et al., 2001; Klein et al., 2005).

Organizational Size can be defined in "as the number of employees, largeness of operations, market share and overall reach" (Ololube, 2016). In the literature, studies have regarded organizational size as "the most important organizational characteristic predicting innovation adoption among organizations" (Damanpour, 1987; Fagerberg et al., 2005). Although several studies have highlighted an absence of a relationship between organizational size and adoption of innovation (Mohr, 1969; Utterback, 1974), most

published studies have stated that larger organizations adopt more innovations than their small counterparts (Aiken & Hage, 1971; Kaluzny et al., 1974; Kim, 1980; Moch & Morse, 1977; Rosner, 1968). Damanpour (1987) analyzed innovation found "that larger organizations adopted more technology than smaller organizations". Chenall et al. (2003), stated that "large organizations may have greater access to the resources needed to implement innovations"; these organizations also experience greater internal and external pressure to adopt innovation to ensure efficiency and effectiveness.

The evidence specific to the rate which small organizations innovate is conflicting. Damanpour and Gopalakrishnan assert that these organizations often lack resources needed to implement innovation. As a result, these organizations "are forced to make difficult tradeoffs in their investment choices and often forgo implementation of expensive technologies" (Damanpour and Gopalakrishnan, 2001). Alternatively speaking, researchers have also insisted that "smaller organizations are more flexible and innovative, resulting in an enhanced receptiveness towards new products" (Frambach et al., 2002).

According to Mohanta et al., "**Organization Structure** determines how the roles, power and responsibilities are assigned, controlled, and coordinated, and how information flows between the different levels of management" (Mohanta et al., 2018). Previous studies have concluded that organizational structure can work in the capacity of either facilitator or barrier in the implementation of innovation process. (Frambach et al., 2002). Zaltman et al. state "that more formalized and centralized organization are less likely to initiate innovation adoption decisions but are better equipped to implement an innovation" (Zaltman et al., 1973). Lastly, researchers posit that organizational structures "should work to ensure integration of ideas across the organization and alignment with overall organization goals" (Lawrence & Lorsch, 1967).

Resources Availability is defined as "the cushion of actual or potential resources which allows an organization to adapt successfully to internal pressures for adjustment or to external pressures for change in policy as well as to initiate changes in strategy with respect to the external environment" (Bourgeois, 1981). According to Oke et al., successful innovations call for both commitment from leadership and allocation of financial resources that are controlled by said leadership (Oke et al., 2009). Klein et al. states that "the implementation process requires money to offer extensive training, to provide ongoing user support, to launch a communications campaign explaining the merits of the innovation, and to relax performance standards while employees learn to use the innovation" (Klein et al., 2005). Furthermore, Klein et al. (2001) found "financial-resource availability to be a significant predictor of the overall quality of an organization's implementation policies and practices and thus, indirectly a predictor of the organization's implementation effectiveness".

Leadership

The literature on leadership cited as a factor in influencing the implementation of innovation process is limited. However, there is a large body of literature citing **Leadership** as a critical factor in fostering an organizational climate capable of supporting innovation. Thus, stating an indirect relationship between leadership and the implementation process. Leaders can serve as change agents in developing organizational cultures that support innovation, , "can be product champions who support innovation throughout the process of its implementation and create organizational structure needed to support innovativeness" (Peters and Waterman, 1982; Van de Van, 1986). In addition, "leadership can expand organizational innovation capacity by way of lending its internal influence of power and allocating financial resources to support implementation" (Hasenfeld, 1983).

Existing literature highlights that transformational leadership has been adequately studied as part of innovation science (Mumford et al., 2004) and evidence suggests that leadership style is conducive to achieving effective innovation outcomes (Jung et al., 2003). While there are many types of leadership styles, "many authors identify transformational as an ideal leadership style for promoting innovation" (Bass, 1985; Howell & Higgins, 1990). Transformational leadership uses six factors: "articulating a vision for the future, providing an appropriate role model, fostering the acceptance of goals, setting high performance expectations, providing individual support, and providing intellectual stimulation" (Podsakoff et al., 1990). Transformational leadership "involves binding people around a common purpose through self-reinforcing behaviors that followers gain from successfully achieving a task and from a reliance on intrinsic reward" (Oke et al., 2009). Bass refers to these leaders "as change drivers, actively involved in creating an environment and culture that foster change and growth; they are future-oriented, open-minded, dynamic and concerned about planning" (Bass, 1985).

CONCEPTUAL FRAMEWORK

Innovations in healthcare often fail due in part to poor implementation (Jacobs et al., 2015). The implementation process has proved to be challenging for most organizations due to the factors noted above However, if done with intentionality and adequate support, implementation of innovation can yield in bringing about organization change capable of improving performance. This research study seeks to better understand the factors that influence the implementation of innovation process for CSNLC participants by testing whether these factors apply. Instances where they are applicable, the researcher is seeking measure the extent of their influence upon this process.

The central theoretical framework for this study is the Diffusion of Innovation (DOF) because it serves as the most widely known and accepted definition for implementation by researchers. DOF was developed by Everett Rogers in 1995 and states that "diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system". (Rogers, 1995). This five-step process is noted below in Figure 3. As part of the conceptual framework developed for the study, this process was adapted to show the fullness of the innovation process and utilize select elements that include **Knowledge**- which was defined as the transfer of knowledge from the CSNLC to the organizational practice site, Persuasion-defined as "the process in which individuals develop a favorable or unfavorable attitude toward the innovation", Decision- defined as the decision to implement an innovation or not, and **Implementation**- that encompasses the start of using a new procedure, process, service; activities used to support the use of the innovation; as well as the and outcome (implementation effectiveness). These elements will serve as the frame for defining the implementation of innovation process for CSNLC participants. It is important to note that this study will only examine factors impacting the Implementation stage outlined in Rogers' model.

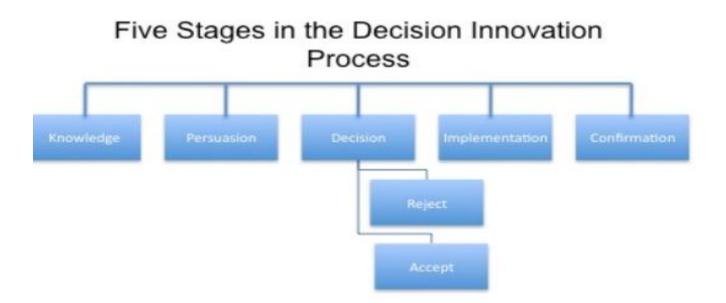


Figure 3: Rogers' Decision Innovation Process Stages (Rogers, 1995)

The study's conceptual framework represented in Figure 4 highlights activities of the CSNLC, the innovation implementation process, as well as factors that may influence this process. This framework will be used to examine aspects of the Chicago Safety Net Learning Collaborative (CSNLC) and which factors impact the implementation of innovation for participant organizations and what approaches are needed to expand the CSLNC's capacity to address barriers. The conceptual framework largely reflects two processes that include: (1) how the CSNLC performs its activities and (2) the Innovation-Decision Process; and four organizational factors: leadership, infrastructure, culture, and climate. These factors were cited in the literature as being associated with impacting the implementation of innovation process.

In reviewing the conceptual framework, move from top left starting with **Knowledge** encompassing **Chicago Safety Net Learning Collaborative Activities** that showcases activities currently occurring within this entity that will be explored as part of the study. The activities listed are consistent with what has been documented by the CSNLC as part of their annual report and 3-Year Sustainability Plan. Moving to the right, the model highlights **Persuasion** as the next step in the Decision Innovation Process—where participants bring the knowledge gleaned from the CSNLC back to their organizations and develop an attitude toward the selected Implementation Strategies that impact the next Round of **Decision to Adopt**. As part of this particular stage, a decision is made by leadership to either reject or accept the innovation. In the instance where there is a decision made to Accept the innovation, the Implementation Process commences. As part of the implementation process, and with support from the CSNLC, organizations must account for the **Organizational Factors** that impact the implementation of innovation process. Consistent with the literature, these factors include *Leadership*, *Infrastructure*, *Culture*, and Climate. Whereas, Leadership works to shape Culture and informs Infrastructure, and Culture drives *Climate*. Another critical piece in the implementation process is **Implementation** Effectiveness, which is a direct result of the implementation process used to put the innovation into place. For this study, the researcher will categorize organizations by a generated implementation score. These three categories include High Implementers, Moderate Implementers, and Low Implementers—these categories will be examined as part of Round 2 focus groups. The Feedback Loop represents the bi-directional communication between the organizations and CSNLC leadership during the Implementation Action Periods. Evaluation of the CSNLC and organizational factors impacting the implementation process will inform recommendations for enhancing the CSNLC's capacity to address barriers and support **Desired Outcomes**. Some of these outcomes include improved patient outcomes, enhancement of care coordination practices, dissemination of best practices, and an increase in organizational capacity for continuous quality improvement and implementation of innovation. Lastly, the solid arrows represent the current state of activities, while the dotted lines reflect the desired state.

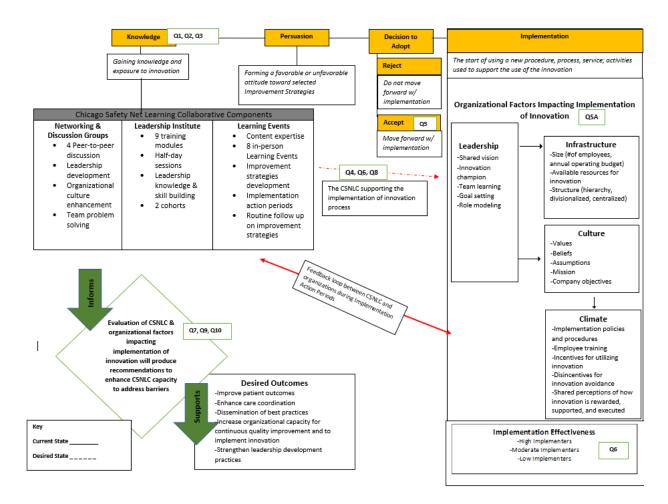


Figure 4: Conceptual framework for aspects of the CSNLC & organizational factors impacting the implementation of innovation process

SUMMARY

In summary, the literature identified a range of factors that can influence the implementation of innovation process for CSNLC participants. Furthermore, the literature presented gaps in knowledge around the efficacy of learning collaborative models- showing the need for evaluation practices to measure impact and alignment of its activities with the organizational needs of its participants. Expansion of this knowledge base could also work to shed light on the role of learning collaboratives. This study will provide a deeper understanding of which factors and the extent to which they are influencing the implementation process for CSNLC participants. In the next chapter, the study design and

methodology used to explore the stated research questions and conceptual framework will be presented.

III. STUDY DESIGN, DATA AND METHODS ANALYTICAL APPROACH

To explore the factors and aspects of the Chicago Safety Net Learning Collaborative (CSNLC) that influence the implementation of innovation process, this exploratory study used a developmental evaluation case study design and qualitative methodology. Chicago was selected as the case for this study because Illinois boasts the highest number of FQHC delivery sites and patients served in the Midwest, with Chicago making up 50% of overall patient numbers in the state (HRSA, 2016). Furthermore, the CSNLC represents one of the largest and longest running learning collaborative models comprised largely of community health centers in this region. The CSNLC serves as a model of practice that could inform other urban cities experiencing similar challenges. The aim of this study is to better understand how the following organizational factors of culture, climate, infrastructure, and leadership impact the implementation of innovation process and how the CSNLC can expand its capacity to best support organizations and improve organizational performance.

In support of drawing upon the most appropriate study design needed to achieve study aims, the researcher conducted several meetings with McAlpine Consulting, the firm serving as the facilitator and project manager for the CSNLC. These meetings worked to provide some insight to how the entity operates, identify aims established by the Collaborative, and gain access to sample data reflecting the Learning Events topics and implementation strategy outcomes for three de-identified cases. The researcher also received a copy of the 2017 Annual Report and 3-Year Sustainability Plan.

According to Yin, a case study design is appropriate when looking at factors affecting programs or new policies. He also goes on to state that case studies are most appropriate when seeking to answer the "why" questions to uncover factors that may be relevant to the study and to the understanding of how the decision-making, adoption and implementation process occurred (Yin, 2009). Exploring multiple organizations that comprise the CSNLC offers an opportunity to deeply examine the inner workings of the Collaborative and organizational factors influencing the implementation of innovation, a key performance indicator determining the impact of this entity.

When using a developmental evaluation lens, the researcher's role is "to elucidate the innovation and adaptation processes, track their implications and results, and facilitate on going, real-time, data-based decision-making in the developmental process" (Patton, 2011). According to Patton (2011), "the purpose of developmental evaluation is to inform and support innovative and adaptive development in complex dynamic environments by way of asking evaluative questions, applying evaluation logic, and gathering and reporting evaluative data to support project, program, product, and/or organizational development with timely feedback". Thematically, developmental evaluation is well suited for instances in which innovation is central such as collaborative initiatives (Patton, 2011). Furthermore, this approach is the best fit for entities and situations where there is a continuous state of development, adaption, and innovation (Patton, 2002). Since its inception, the CSNLC has fostered a continuous state of evolution. Evidence of this can be seen in the addition new community health centers joining the Collaborative as well as the expansion of the model to include a 9-session Leadership Institute and Discussion and Networking Groups-both work to compliment the Learning Events. The selected methodology can attempt to explain the links between an initiative such as the CSNLC and its outcomes (Mark, 20008; Shavelson et al., 2002). To date, a comprehensive evaluation documenting the impact of the CSNLC has not been performed. Furthermore, this entity is seeking to understand what's working and identify areas of opportunity to ensure optimal performance.

For purposes of carrying out this study in collaboration with CSNLC decision makers, the existing CSNLC Steering Committee along with the addition of one McAlpine consultant will serve as the Developmental Evaluation (DE) Committee. The role of the DE Committee is to guide the evaluation process, inform the study design, research questions, and data collection process. In addition, this group will provide support for study recruitment efforts through the dissemination of communications to executive leadership across the participant organization network to garner buy-in. While the DE Committee will not have access to primary data, they will work collaboratively with the researcher in developing recommendations for enhancing the CSNLC capacity to address study findings. Members of this committee include Lee Francis (CEO and President, Erie Family Health Center), Dan Fulwiler (CEO, Esperanza Health Centers), Lynn Hopkins (COO, PCC Community Wellness Center), Len Messner (Vice President for Patient Care Services, Illinois Eye Institute), Bruce Miller (CEO, Lawndale Christian Health Center), and Laura McAlpine (Principal, McAlpine Consulting for Growth). The researcher will maintain constant communication with the DE Committee— using email to provide monthly updates during the data collection and analysis process. Furthermore, Laura McAlpine and Dan Ren will serve as co-primary liaisons between the DE Committee and researcher-ensuring the flow of the information between both entities and keeping the researcher abreast of any changes made to the CSNLC during the research study period. Upon completion reaching mid-way completion of key informant interviews, the researcher will conduct an in-person meeting to share progress to-date and preliminary study findings. Upon full completion of the data collection and analysis processes, a formal presentation of findings will be presented to the DE Committee in support of co-developing recommendations for the final report.

In the summer of 2018, the researcher presented to the DE Committee to provide a high-level overview of the researcher's current thinking around the problem statement, background, proposed study design and research questions (See **Appendix 1**:

Developmental Evaluation Committee Presentation 1). Upon conclusion of the presentation, the DE Committee provided feedback regarding their desired aims of the study and amendments to the research questions. While the researcher was initially exclusively focused on the implementation of innovation process, the DE Committee was passionate about expanding this lens to include questions that captured how participants were developing leadership skills and how organizational capacity was being impacted. The presentation also highlighted the need to include the co-development of a logic model documenting how the CSNLC operates noted below in Figure 5. According to Martin et al., "logic modeling surfaces and summarizes the explicit and implicit logic of how a program operates to produce its desired benefits and results. Applying logic modelling helps to explain the relationships between structures and activities advocated by the model and their anticipated benefits so that these relationships can be tested in future evaluations of the model" (Martin et al., 2015).

	GOAL: Improve	all facets of operations and addr	rning Collaborative – Logic Mod ess operational barriers to providin ad uninsured patients.		
INPUTS Eunding Fry Foundation, Grant Healthcare, Polk BrosFunding from each of participating organizations I8 Safety net community health centers Steering Committee (6 executive leaders)) -Designated staff in various leadership roles, representing 300 (annually) McAlpine Consulting for Growth LLC -1 lead facilitator -1 data coordinator SynerChange Consulting -1 lead facilitator Affordable Care Act	ACTIVITIES ACCIVITIES ACCONTRES Appoint senior leadership for high level planning and consider Steering Committee membership -distribute LC materials and assist in recruiting participants for all learning modalities -create interactive center presentations and design center team-based implementation of identified strategies for improvement to support evaluation -sign an MOU and pay \$2,500 to participate McAlpine Consulting -host 8 learning events annually -host 4 Bicrossion & Networking sessions annually -develop and disseminate evaluations upon completion of each tearning Event and Discussion & Networking Group -host meetings w/ Steering Committee -track project spending -develop and disseminate evaluations upon completion of each evaluation -develop and disseminate evaluation -track project spending -develop and disseminate evaluation -track project spending -develop and disseminate evaluation upon completion of each training session	OUTPUTS -Improvement strategies implementation database -Annual report -3. Year Sustainability Plan -Dropbox repository that stores the collection of best practices, center success, and challenges with implementation of new tactics -Learning Events evaluation data -Leadership Institute evaluation data -Discussion & Networking Groups evaluation data	SHORT-TERM OUTCOMES -Each Learning event was attended by an average of 62 people (range 40-84) -Learning Events received an overall average rating of 4.46 on a 1 to 5 scale -Leadership Institute modules received an overall rating of 4.84 on a 1 to 5 scale -Difficulty with bringing back learning for integration into operation due to lack of resources, time constraints, and internal changes -Average implementation of 1 out of 3 strategies -Implementation of at least 1 strategy is helpful and creates significant change -Vertified and the second strategies -Thip is the second strategies -Thip is the second strategies -FYT is 18 Annual Reports -3 Year Stutinability	INTERMEDIATE OUTCOMES -Increased implementation of improvement strategies -Improvements in organizational infrastructure to absorb change -Leadership development in the areas of innovation champion, shared vision, team learning, goal setting and role modeling -Organizational –wide use of continuous quality improvement activities -Identification of factors impacting implementation of innovation -Identification of recommendations to enhance the CSNLC's capacity -Evaluation forma -Evaluation forma -PyT1 R is Annual Repors -J Yar Sustinability Plam	LONG-TERM OUTCOMES -Improved health outcomes of patients served -Improvement in achieving outlined UDS metrics -Increased funding for safety net providers -Increased patient volume -Inhanced CSNLC capacity to address study findings -Development and dissemination of best practices for influencing organizational change through innovation According to the research literature, this long-term outcome is associated with ackievenues of the intermediate extromes in this model.
			Plan		be measured.

Figure 5. Chicago Safety Net Learning Collaborative logic model

Feedback received from this group was formally incorporated into this study—the updated problem statement, study aims, research questions, design and has been shared with the DE Committee.

DATA COLLECTION & SAMPLING APPROACH

The study's data collection activities represented in Table I below showcases a comprehensive overview of said activities along with their alignment to study aims and research questions. The table is stratified by study aims and their alignment with stated research questions. For each aim, the researcher outlined step-by-step activities reflecting how the aim will be achieved through the data collection, sampling and analysis processes. For example, the researcher will conduct a presentation to the DE Committee to present

study findings in support of co-developing recommendations that will enhance the CSNLC's

capacity. These activities will also work to answer research question 10.

TABLE I. DATA COLLECTION ACTIVITIES

Aims	Activities	Research Questions
Ensure alignment between study aims and CSNLC's practice-based needs.	 Step 1: Host preliminary session with the Developmental Evaluation (DE) Committee to share the researcher's current thinking around the problem statement, research questions, design, and study aims 1a. Refine study design, aims, and questions 	N/A
Better understand how the CSNLC operates, develop a logic model, and identify how the CSNLC impacts leadership development and organizational capacity.	 Step 1: Conduct content analysis of FY17 & FY 18 Annual Reports, 3- Year Sustainability Plan, and attendance sheets for Learning Events, Leadership Institute, and Discussion & Networking sessions during the period of April 1, 2018- March 31, 2019 1a. Stratify cases for semi-structured interviews 1b. Develop semi-structured interview guide 1c. Develop a logic model for depicting CSNLC activities and aims Step 2: Conduct 23 semi-structured interviews (includes 2 pilot interviews) with individuals that meet 1 or more of the study eligibility criteria: 2a: Use deductive thematic analysis to identify gaps and /or alignment between logic model and participant perceptions of the CSNLC operates; and capture participant perceptions of the CSNLC impact upon their leadership development and organizational capacity 2b: Incorporate missing elements into the final logic model 	Q1, Q2, Q3
Learn how CSNLC participants are implementing innovation, identify which factors are impacting the implementation process and to what extent by Implementation Category, learn about participant perceptions of how the CSNLC supports the implementation process, and the impact being made among participants and in their organizations. Identify the role of the CSNLC in the implementation process.	 Step 1: Conduct 23 semi-structured interviews (includes 2 pilot interviews) with individuals that meet study eligibility criteria 1a. Use deductive thematic analysis to explore the presence of organizational factors impacting the innovation process, how the CSNLC supports implementation, and the role of the CSNLC in the implementation process 1b. Draw upon cross-case analysis to identify commonalities and differences among participant organizations that have implemented innovation and those have not 	Q4, Q5, Q5A, Q6, Q7, Q8, Q9
Share study results with DE Committee and co-develop recommendations for enhancing the CSNLC's capacity to address study findings.	 Step 1: Present findings to DE Committee 1a. Co-develop recommendations for enhancing CSNLC's capacity to address barriers 1b. Incorporate feedback to produce final report 1c. Share final dissertation with DE Committee 	Q10

There were two sources of data collection for this study that included semi-

structured interviews and document reviews such as the FY17 & FY18 Annual Reports, 3-

Year Sustainability Plan, and Strategies for Implementation data set. Due to permission

granted by the DE Committee, the researcher had full access to the secondary data,

complete with names of staff and participating organizations (See Appendix: 2: McAlpine

Consulting Letter of Support). As part of the findings report, organizational identifiers were removed to maintain confidentiality. **Appendix 3: MEASUREMENT TABLE** reflects the constructs that were measured, their respective data collection method, and indicators for how they were recorded during the observation and analysis processes. The measurement table was developed using concrete descriptions reflective of the literature review conducted for each of the constructs outlined in the conceptual framework. The constructs were organized in the table by stated research questions. The respective data collection approach is also noted showing the types of data that were accessed in measuring each construct. The possible sub-codes documented in the table are consistent with findings in the literature review and document analysis—capturing a comprehensive listing of codes that the researcher should note as part of the coding process. Lastly, the table reflects the analysis approach that was used to interpret findings for each construct.

The researcher and second coder have both completed the required human subjects trainings in accordance with outlined guidelines. This study was granted exemption status through the UIC Office for the Protection of Research Subjects in March 2017 (See

Appendix 4: UIC IRB Exemption Determination).

Document Reviews

There are four types of documents that will be reviewed for this study: 1) Strategies for Implementation data set that reflects how participants have implemented innovation, as well as associated barriers and facilitators for FY17 & FY18 (July 1, 2016- June 30, 2018); 2) attendance sheets indicating individual participation by organization for Learning Events, Discussion & Networking Sessions, and Leadership Institute spanning from April 1, 2018-June 30, 2019, 3) FY17 & FY18 Annual Reports that capture activities of the CSNLC and associated outcomes, and 4) 3-year Sustainability Plan which serves as this entity's strategic plan. Key objectives guiding the archival review are as follows:

- a) Gain a deeper understanding of how the CSLNC operates across its 3 Components: Learning Events, Discussion & Networking Sessions, and Leadership Institute
- b) Co-develop a logic model reflecting how the CSNLC operates
- c) Identify factors influencing the implementation of innovation process
- d) Stratify cases for semi-structured interviews
- e) Inform semi-structured interview guide development

Semi Structured Interviews

Semi-structured interviews were conducted to identify alignment and/or gaps

between participant perceptions of how the CSNLC operates in practice and test the logic model that was developed by the researcher using the FY17 Annual Report and 3-Year Sustainability Plan documents. Furthermore, these interviews worked to support deeper exploration of perceptions speaking to how the organizations have implemented innovation; how the CNSLC has impacted leadership development, organizational capacity to perform continuous quality improvement activities, and supported the implementation of innovation process through the Learning Events, Discussion Networking Sessions, and Leadership Institute. Furthermore, contextual information will be gained to better understand differences and commonalities between organizations that have implemented innovation and those that have not.

Semi Structured Interview Sampling Approach

In selecting participants for semi-structured interviews, a two-step process will be used. In Step 1, organizations will be stratified into three distinct scoring categories using a calculated Implementation Score (combined total # of implemented FY17 & FY18 strategies/combined total # of FY17 & FY18 strategies). The three scoring categories are as follows: High Implementers, Moderate Implementers, and Low Implementers (see below scoring breakdown). These scoring categories will aid in gathering diverse perspectives and capture the full breadth of experiences associated with implementing innovation across participating organizations. This approach is consistent with stratified purposeful sampling in qualitative studies, whereby the researcher selects cases and there is a breakdown of above average, average, and below average cases. Each of the strata constitute a fairly homogenous sample. The purpose of this strategy is to capture major variations, rather than to identify a common core (Patton, 1990). In developing these strata, the researcher utilized data from the Strategies for Implementation data set reflecting data collected during FY17 and FY18 (July 1, 2016- June 30, 2018). This selected timeframe captured the range of implementation of efforts by organizations over a two-year period—working to adjust for adequate time needed to implement strategies and report progress to McAlpine Consulting.

Implementation Score Categories:

- High Implementers (N=7) organizations that have an Implementation Score of 75% or higher
- Moderate Implementers (N=7) organizations that have an Implementation Score between 74-50%
- Low Implementers (N=7) organizations that have an Implementation Score between 0-49%

*N represents the number of semi-structured interviews to be completed

It is also important to note that selected individuals will also represent a mix of

staffing roles noted below. These role tiers serve as the existing groups selected by the CSNLC ensuring the diversity in roles participating in the Learning Events. To aid in minimizing recall bias, special attention will be paid to ensure that individuals aren't placed in the same focus groups as their superiors.

Role Tiers:

• Executive Leadership responsible for strategic direction and making high-

level decisions at the organizational level. Titles include chief operating

officer and chief executive officer.

- Senior Management responsible for making high-level operational decisions at the clinic level. Titles include clinic and program director.
- Front Line Staff responsible for carrying out day-to-day operation functions. Titles include medical assistants, case managers, and clinicians

A purposeful sampling approach will be used in Step 2 of this process. The researcher will review Learning Events and Discussion and Networking sessions attendance sheets reflecting individual participation during the time period of April 1, 2018- March 31, 2019. Also, attendance records for the last full year of Leadership Institute sessions will also be reviewed (July 1, 2017- June 30, 2018). Individuals from each organization who meet at least 1 of the following criteria will be deemed eligible for the study:

- Serve as the designated Learning Event Contact Person- defined as an individual that is responsible for reporting the progress of Implementation Strategies to McAlpine Consulting at 3-month, 6-month, and 12-month intervals.
- Serve as the designated CSNLC Point Person for their organization and has attended at least 1 session of any CSNLC component- a CSNLC Point Person is defined as an individual who has been charged with sharing CSNLC activities with their fellow staff members and identifying staff to participate in activities. It is their primary role to ensure engaged participation in the CSNLC and to troubleshoot any challenges that may arise.
- Has attended at least 25% of Learning Events occurring from April 1, 2018-March 31, 2019
- Is a FY18 Leadership Institute Graduate

 Has attended at least 25% of Discussion and Networking Sessions occurring from April 1, 2018-March 31, 2019

Individuals that meet at least 1 or more of the criteria will be placed on an eligibility list in ranking order by the total number of criteria they meet, organization, and role they represent. Study recruitment will start from the top of the eligibility list for each Implementation Category and move downard until the total number of desired interviews have been completed for each category.

In developing the eligibility criteria for semi-structured interviews, an assumption was made regarding the relationship between participant attendance (dosage) and participant's knowledge of how the CSNLC operates. Thus, greater participation in CSNLC Components increases said knowledge. The 25% threshold for CSNLC Component(s) attendance was selected as the target threshold to ensure a large eligibility pool for interview participation. The ideal participant attendance (dosage) threshold is 75%. Furthermore, it is anticipated that the CSNLC Point Person will also meet the target Learning Event attendance threshold because these individuals are typically responsible for reporting back progress to CSNLC regarding its Implementation Strategies.

Semi Structured Interview Guide

A semi-structured interview guide was developed upon completion of the document analysis process (see **Appendix 5: Semi-structured Interview Guide**). The interview guide was piloted with two CSNLC participants in May 2019, before utilizing it as part of the official study data collection process. The pilot process helped to ensure alignment between interview questions and research aims. Furthermore, this process worked to highlight the total amount of time needed to complete the interview—allowing the researcher to make adjustments to its length accordingly. Upon close of the pilot interview, content feedback was requested from participants. The pilot interviews worked to cut the interview guide down accordingly and led to the development of **TABLE II. SEMI-STRUCTURED**

INTERIVEW GUIDE MATRIX noted below. This table reflects the breakdown of questions to be asked by the researcher based on the participant's experience with the CSNLC Components. For example, individuals that meet the eligibility criteria for participation in the Learning Events were asked questions in Sections 1 and 4. All participants were asked questions in Section 4 because this section captured participant perceptions of factors impacting the implementation of innovation, how the CSNLC currently supports this process, and identification of between existing support and participant needs.

×	Study Eligibility Criteria					
Ask	Learning	Discussion &	Leadership	Learning	Org. Point Person	2 or More
to	Events	Networking	Institute	Events	& 1 CSNLC	CSNLC
su	Only	Only	Only	Contact Only	Comp.	Components
tio					Attendance	
Questions	Section 1:	Section 2: All Q's	Section 3: All	Section 4: All	Section 4: All Q's	Focus on 1
ð	All Q's +	+ Section 4: All	Q's + Section	Q's		CSNLC
de	Section 4:	Q's	4: All Q's			Component that is
Guide	All Q's					underrepresented
-						for the respective
lew						Implementation
, LA						Category: All Q's
Interview						+ Section 4: All
Ĥ						Q's

TABLE II. SEMI-STRUCTURED INTERVIEW GUIDE MATRIX

Interview Procedures

Once the researcher selected participants for the interviews, support from the organization's CEOs, Point Persons, and DE Committee Lead; Dan Ren. Mr. Ren was charged with notifying the CEOs about the study and providing the informed consent and recruitment list for their respective organizations (See **Appendix 6: Informed Consent**). The researcher followed up with individual email invitations to all eligible participants, forwarding the informed consent and scheduling link indicating available options (See

Appendix 7: Email Invitations). The scheduling link offered day, evening and Saturday interview slots to aid in multiple options for participants to choose from. As part of the script, individuals were informed of the study's purpose, their voluntary participation, and the fact they can withdraw at any time, and that while name, professional role, and organization name will be collected, no other identifying information was collected.

For subjects seeking to participate in the study, a signed consent was collected prior to the participant's scheduled interview date and kept on file. At the beginning of each interview, the resarcher began with reviewing the informed consent form to remind subjects that participation is voluntary, they can refuse to answer or end at any time, and their responses will remain confidential. Study participants were also given the opportunity to ask questions and seek clarity. Lastly, all interviews were recorded using the Free Conference Call platform, electronically transcribed and uploaded into Atlas ti®. The interviews on average lasted 35 minutes in duration.

DATA ANALYSIS

The researcher followed a structured set of analysis steps for both the semistructured interviews and modifying the CSNLC logic model (See **Figure 6. Analysis Steps**

for semi structured interviews & logic model refinement). In support of jumpstarting the data analysis process, memos will be documented in Microsoft Word upon the completion of each key informant interview. The researcher generated memos were used to capture performed research procedures, preliminary reflections, themes, and relationships across established a prori codes. The established a priori codes are consistent with those in the conceptual framework. To seize constructs during the data analysis process, an emergent code was created (see **Appendix 8: Codebook**). In developing a codebook that worked to ease coding and promote reliability, the researcher stratified the table's contents by constructs outlined in the conceptual framework. A codename was assigned to each construct and the definition consistent with the literature review was also documented. Subcodes and instructions on how to code the respective construct were developed using insights gleaned as part of the literature review reflecting how the construct can serve as a facilitator or barrier. Lastly, concrete examples of how the construct could present in the data are reflected in the measurement table. These examples are reflective of both findings in literature review and document analysis.

Literature review and content analysis findings were utilized to support the creation of a semi-structured interview guide that was in alignment with stated research questions and offered capabilities to capture a comprehensive spectrum of key themes. Collectively, these critical steps laid the foundation for data collection activities and analysis.

1.Hosted 21 audio record, semi-structured interviews with CSNLC participants

2.Generated memos upon completion of each interview

3.Created and cleaned transcripts using digital audio files

4. Conducted "big bucket" coding exercise to refine the codebook using a subset of research questions

5. Hosted meeting with the Developmental Evaluation Committee to share preliminary findings and gather feedback

6. Researcher and second coder manually coded transcripts independently and discussed coding decisions using a subset of randomly selected Moderate Implementers Category transcripts—achieved 80% consistency and made recommendations for final code book

7. The final code book was used to code all transcripts in Atlas ti®—the researcher developed additional memos to captures themes, emergent themes, and relationships in real time

8. Atlas ti [®] analysis tools were utilized to develop co-occurrence tables, code manager reports and network views 9. The researcher compared study findings to the logic model and added missing elements

10. Cross case analysis was used to identify commonalities and differences among participant organizations

11. Researcher conducted a final presentation to the Developmental Evaluation Committee to share study findings and work collaboratively to develop CSNLC recommendations

Figure 6. Analysis steps for semi structured interviews & logic model refinement

Document Review Analysis

A document analysis approach was used in reviewing the FY17 Annual Report,

FY18 Annual Report, 3-Year Sustainability Plan, attendance sheets, and Strategies for Implementation data set. Aims for this analysis was to identify implementation process, get a glimpse into how organizations have implemented innovation, stratify cases, and develop the interview guide. According to Bowen (2009), "a document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic". Also, as part of this process, the development of a logic model as an analytic technique was used. According to Yin (2018), a qualitative analysis using a logic model "would first compare the consistency between the observed and the originally stipulated sequence for each case, affirming (or rejecting or modifying) the original sequence".

Semi Structured Interviews Analysis

Upon the completion of 21 audio recorded, semi-structured interviews with CSNLC participants and development of researcher generated memos, the researcher utilized an external party to transcribe the audio files. All transcriptions were thoroughly reviewed and cleaned by the researcher. This process entailed conducting a comparison between the written transcript and audio files, while making changes to the transcript to ensure alignment across both.

The researcher completed a preliminary round of manual, "big bucket" coding, using a subset of transcripts to get a sense of the data and inform changes to be made to the codebook. Consistent with the developmental evaluation framework and ensuring consistent engagement with the DE Committee, the researcher presented preliminary findings in June 2019 (See Appendix 10: Developmental Evaluation Committee **Presentation 2).** As part of this presentation, the researcher shared "big bucket" themes for a subset of research questions and gathered feedback about whether said findings were either in alignment or inconsistent with DE Committee CSNLC experiences. During the discussion portion of the presentation, DE Committee members shared how the findings resonated with them. Notably, none of the preliminary findings stood out as being inconsistent with DE Committee experiences with the CSNLC. One participant said "that it felt good to finally have data to support what we've felt in our guts was happening for quite some time". Some others talked about how they want to use the findings to help reframe aims and value that the CSNLC brings to participants— as they believe that this shift could work to support in how they talk about the CSNLC to others, specifically funders. Lastly, next steps included the researcher moving forward with data analysis and returning to present to final study findings to the DE Committee.

Findings from the "big bucket" coding process resulted in an updated codebook that was used to support a co-coding process with a second coder to boost the study's internal reliability. The researcher selected a subset of randomly transcripts that were manually and independently coded; and discussed by both the researcher and second coder. Findings from discussions around coding decisions between both researchers yielded in 80% consistency and recommendations for the final codebook (See **Appendix 11: Final Codebook**).

Interview transcription documents were then coded in Atlas ti® using the final code book, where a priori codes and then elements of the data were collated into two groups: 1) data that fits into a priori codes and 2) data outside of a prori coding i.e. emergent codes. From there, the coded data was grouped into themes using a deductive thematic analysis approach. As Aronson (1994) states "themes are identified by bringing together components or fragments of ideas or experiences, which often are meaningless when viewed alone". Additional researcher memos were also developed during the coding process to capture "*Ahas*" themes, and potential relationships in real time.

Atlas ti® tools such as code manager and network views were used to support the analysis process (See **Appendix 12: CODE MANAGER TABLE**). The code manager functionality helped to highlight the frequency of codes across and within the transcripts; whereas codes were placed in ranking order. The researcher was able to start at the top of the report and review findings connected to each code in support of elevating patterns. The co-occurrence report served as a tool for identifying potential associations between codes (See **Appendix 13: CO-OCCURRENCE TABLES**). In instances were associations were highlighted in the report, the researcher examined respective transcripts to gain an understanding of context that could explain the nature of such associations. Network views

were then created to serve as the visual representation of these associations and helped to expand the researcher's thinking about potential explanations behind "the why".

Once analysis of all transcripts was completed and themes were identified, the researcher compared study findings to the logic model to confirm alignment and/or identify gaps. Missing elements in the logic model were added to the final model to ensure an accurate depiction of CSNLC operations, the aims, and associated outcomes.

Cross case analysis was then used identify the commonalities and differences among participant organizations that have implemented innovation and those that have not. The layering of this approach helped with outlining the combination of factors that facilitate the implementation process and concrete ways the CSNLC can provide support to organizations. Yin states that "the aim of cross-case analysis is to reach conclusions about the variables, but not necessarily the cases themselves" (Yin, 2018).

Lastly, the researcher presented study findings to the DE Committee and worked collaboratively to develop recommendations (See **Appendix 14: Development Committee Presentation 3**). As part of this process, the researcher presented a slide deck that was submitted to the DE Committee 10 days in advance of the schedule meeting. This timeframe allowed for DE Committee to thoroughly review materials beforehand and ensure rich discussion. The presentation included an in-depth overview of study findings and supporting evidence. Upon conclusion of the presentation, the researcher led the DE Committee in a discussion to start the development of CSNLC recommendations that would address findings and enhance this entity's capacity to meet participant needs.

DATA MANAGEMENT

All collected data was accessed only by the researcher and research assistants that have received human subjects training. Formal approval was granted by the DE Committee for the researcher to receive full access to available datasets. When findings were reported, organizational identifiers were removed to maintain confidentiality. Despite the role of the DE Committee in this research study, these participants did not have full access to primary data. A table data management table was created to capture the sources of the data collected that was collected, what will be stored, how and for how long (See **Appendix 9: DATA**

MANAGEMENT OVERVIEW TABLE). Semi-structured interviews were digitally audio recorded. The recording files were uploaded by the researcher to a centrally secure web-based site for transcription. The files were transcribed verbatim. Transcription accuracy was validated by a comparision of audio files to the transcribed documents. Furthermore, the transcription process entailed dedacting specifc names of places and people. The data analysis was only conducted with the de-identified transcripts and did not refer back to the audio recordings. Final transcripts were uploaded into Atlas ti® for backup and analysis. All research data was housed on a password protected flash drive, serving as the case study's database.

VALIDITY & RELIABILITY

As Yin states, testing for validity and reliability in case studies must be applied throughout the subsequent conduct of the study, not just at the beginning (Yin, 2018). This study drew upon two case study tactics to address construct validity that include the use of multiple data collection methods (document reviews and focus groups) and review of the

case study's preliminary findings with the DE Committee will take place upon completion of the data analysis process.

Bolstering internal validity will be addressed during the analytic round of the study through the co-developed logic model using CSNLC documents—the completeness of this logic model will be examined as part of the deductive thematic analysis being done using the semi structured interview transcripts. Cross-case analysis was used as a technique to control for researcher-induced inferences by way of converging participant responses to build a trail of evidence leading to more accurate depictions of events using the data to drive conclusions. This analysis type aided in better understanding similarities and differences between participant organizations that have implemented innovation and those had not.

A second coder analyst, also a doctoral candidate, was utilized to aid in enhancing internal validity. The primary researcher and second coder reviewed three randomly selected transcripts from the Moderate Implementation Category, testing the amended codebook, reviewing coding and developing agreement around the interpretation of findings. In addition to enhancing internal validity, the aim of the exercise was to measure the consistency of coding between both researchers and create the space for discussion to better understand coding decisions. Both researchers worked through the passages together noting instances of dissonance and similarities. In instances of dissonance, discussion occurred until alignment was achieved 80% of the time. Upon completion of this exercise, the final codebook was developed, and all remaining transcripts were coded using this tool as a guide.

Additional measures prompting internal validity also include hosting two member checking sessions with the DE Committee and reviewing all documents and interview transcripts a minimum of two times before any conclusions were made.

External validity of the study was strengthened by the decision to utilize theory associated with single-case studies as part of the research design phase. The intentional use of "how and "why" research questions lend themselves well to case study research and analytic generalizability of study findings (Yin, 2018). In addition to the utilization of a rigorous and systematic study design approach, the CSNLC represented a rich case that offers transferable learning for other settings seeking to utilize a learning collaborative model. The literature is gray in documented examples of learning collaborative model evaluations, where the participants are largely community health centers. Thus, creating a significant opportunity to grow the evidence base and inform practice efforts nationally.

Lastly, reliability was addressed through the development of a priori codes, measurement table, and semi-structured interview guide. In addition, the researcher created a case study database that housed primary and secondary data, findings, memos, procedures, etc. The collective database will aid in replicating the findings if the same procedures were followed by a subsequent researcher.

RECRUITMENT OUTCOMES

Table III. below highlights the distribution of interview invitations and outcomes by Implementation Category. In addition to counts for each interview outcome, it also reflects the completion rate. For example, for the High Implementer Category and Role Tier 1 (participants), there were eleven email invitations sent by the researcher that resulted in three scheduled interviews (27%), one cancellation (33%), and two completed interviews (66%).

A total of seven interviews were completed by the researcher for each Implementation Category, totaling 21 interviews. The number eligible participants for each category had no impact in achieving the target number of interviews—participants were highly responsive to the email invitations and effectively followed stated instructions when scheduling their interviews. There were minimal occurrences of participant requests to reschedule their interview. In these instances, they were instrumental in utilizing the scheduling link provided to select an alternate day and time. 100% of rescheduled interviews were successfully executed. Thus, resulting in a 61% completion rate for all scheduled interviews.

The researcher was unable to secure a total of two interviews with Role 3 participants for the Moderate Implementers Category. In an effort to meet interview recruitment aims, a total of three targeted outreach emails per participant was used. For individuals were no responses were received after three recruitment attempts over a threeweek timeframe, communication was ceased with said individuals and recruitment outcomes were documented.

TABLE III. INTERVIEW INVITATIONS AND OUTCOMES BY IMPLEMENTATION CATEGORY

		High Impler	menters	
Role Tier	Invitations Sent	Scheduled	Cancelled	Completed
		Interviews	Interviews	Interviews
1	11 (44%)	3 (27%)	1 (33%)	2 (66%)
2	37 (61%)	9 (24%)	6 (66%)	3 (33%)
3	12 (20%)	3 (25%)	3 (33%)	2 (66%)
Total	60 (44%	15 (25%)	8 (53%)	7 (48%)
		Moderate Imp	lementers	
Role Tier	Invitations Sent	Scheduled	Cancelled	Completed
Role Her	Invitations Sent	Interviews	Interviews	Interviews
1	12 (23%)	5 (41%)	2 (40%)	3 (60%)
2	24 (47%)	2 (8%)	0 (0%)	2 (100%)
3	15 (29%)	2 (13%)	0 (0%)	2 (100%)
Total	51 (37%)	9 (17%)	2 (22%)	7 (77%)
		Low Impler	nenters	
Role Tier	Invitations Sent	Scheduled	Cancelled	Completed
		Interviews	Interviews	Interviews
1	4 (16%)	2 (50%)	0 (0%)	2 (100%)
2	16 (64%)	7 (43%)	3 (42%)	4 (57%)
3	5 (20%)	1 (20%)	0 (0%)	1 (100%)
Total	25 (18%)	10 (40%)	3 (30%)	7 (70%)
Total Across 3 Categories	136	34 (25%)	13 (38%)	21 (61%)

Lastly, cancellations documented in the table were generated by the researcher because of the decision to shift the sampling approach and use a convenience within purposeful sampling to aid in managing the high volume of responses to participate in the study. As interviews were completed in accordance with study targets for each category, the researcher would contact remaining for the respective category thanking the participant for their interest in the study, informing them that recruitment aims had been achieved and their participation was no longer needed.

KEY CHARACTERISTICS OF ELIGIBLE CSNLC PARTICIPANT ORGANIZATIONS, RESPONDING ORGANIZATIONS AND NON-RESPONDING ORGANIZATIONS

Using 2018 health center data from the Health Resources & Services Administration (HRSA) website, the researcher was able to compile key characteristics of participating centers for the study. See Table IV below that reflects Federally Qualified Health Center (FQHC) characteristics of all invited organizations with those that responded to participate vs. those that did not respond. While the CSNLC is comprised of safety net, community health center, with FQHCs accounting for the largest proportion of centers (88%). As a result, there are a small number of centers that don't have HRSA designation. The researcher wishes to acknowledge that the table below does not include data for these centers. In 2018, over 389,000 patients were served at 9 responding organizations vs. 89,000 served at 6 non-responding organizations. Collectively, two-thirds of patients receiving their care at CSNLC organizations are below or at 200% Federal Poverty Level, 59% of patients that are Medicaid recipients, and 25% are uninsured; this data is consistent with findings in the literature highlighting that FQHCs largely serves populations in communities of great need; and further indicating the important role that these entities play in addressing health disparities and achieving health equity.

TABLE IV. CHARACTERISTICS OF HEALTH CENTERS AND RESPONDENTS

Health Center Characteristics	CSNLC Participant Organizations	Responding CSNLC Participant Organizations	Non-Responding CSNLC Participant Organizations
Total # of patients	479,030	389,631	89,399
served			
Total # of patients @ or below 200 Federal Poverty Line	316,788 (66%)	248,304 (63%)	68,484 (76%)
Total # of uninsured patients	121,519 (25%)	94,339 (24%)	27,180 (30%)
Total # of Medicaid patients	269,619 (56%)	230,720 (59%)	38,896 (43%)

KEY CHARACTERISTICS OF INTERVIEWEES

Using both internal CSNLC documents and publicly available data, the researcher developed a table documenting key characteristics of interviewees that participated in the study. Table V below captures the respective role tier, and Implementation Category, CSNLC participation and health center characteristics for each individual. Eleven of seventeen eligible participant organizations are represented in the study. The High Implementer Category was largely made comprised of one organization, while 6 organizations and 3 organizations represent Moderate Implementers and Low Implementers respectively. Sixty-two participants met only one of the study eligibility criteria—highlighting the variance in participation in CSNLC activities across organizations. With respect to CSNLC activities, 33% of interviews were focused on the Discussion & Networking Sessions, 29% for the Leadership Institute and 19% for Learning Events respectively.

Participant	Role Tier	Implementation	CSNLC Participation	Health Center
#		Category	*	Characteristics
1	1- Executive Leadership	High	 Attended 4 Learning Events Attended 3 Discussion & Networking Sessions Learning Events Contact Person 	Annual Operating Budget: \$50M+ # of Employees: 600+ Total Pt. Visits Annually: 290K+
2	1-Executive Leadership	High	Attended 2 Discussion & Networking Sessions	Annual Operating Budget: \$50M+ # of Employees: 600+ Total Pt. Visits Annually: 290K+
3	2-Senior Management	High	• FY18 Leadership Graduate	Annual Operating Budget: \$50M+ # of Employees: 600+ Total Pt. Visits Annually: 290K+
4	2-Senior Management	High	• FY18 Leadership Graduate	Annual Operating Budget: \$50M+ # of Employees: 600+ Total Pt. Visits Annually: 290K+
5	2-Senior Management	High	Attended 2 Learning Events	Annual Operating Budget: \$50M+ # of Employees: 600+ Total Pt. Visits Annually: 290K+
6	3-Front Line Staff	High	Learning Events Contact Person	Annual Operating Budget: \$50M+ # of Employees: 600+ Total Pt. Visits Annually: 290K
7	3-Front Line Staff	High	• FY18 Leadership Graduate	Annual Operating Budget: \$16M+ # of Employees: N/A Total Pt. Visits Annually: 42K+

TABLE V. INTERVIEWEE KEY CHARACTERISTICS

8	1-Executive Leadership	Moderate	 Attended 2 Discussion & Networking Sessions Organization Point Person 	Annual Operating Budget: \$23M+ # of Employees: 160+ Total Pt. Visits: 87K+
9	1-Executive Leadership	Moderate	 Attended 4 Discussion & Networking Sessions Organization Point Person 	Annual Operating Budget: \$23M+ # of Employees: 160+ Annual Pt. Visits: 87K+
10	1-Executive Leadership	Moderate	 Attended 2 Learning Events Organization Point Person 	Annual Operating Budget: \$35M+ # of Employees: 200+ Annual Pt. Visits: 112K+
11	2-Senior Management	Moderate	Attended 1 Discussion & Networking Session	Annual Operating Budget: \$35M+ # of Employees: 150+ Annual Pt. Visits: N/A
12	2-Senior Management	Moderate	Attended 4 Discussion & Networking Sessions	Annual Operating Budget: \$35M+ # of Employees: N/A (PCC) Annual Pt. Visits: 183K+
13	3-Front Line Staff	Moderate	FY18 Leadership Graduate	Annual Operating Budget: \$73K+ # of Employees: 150+ Annual Pt. Visits: N/A
14	3-Front Line Staff	Moderate	FY18 Leadership Graduate	Annual Operating Budget: \$73M+ # of Employees: 150+ Annual Pt. Visits: N/A
15	1-Executive Leadership	Low	 2 Discussion & Networking Sessions Organization Point Person 	Annual Operating Budget: \$16M+ # of Employees: 100+ Pt. Visits Annually: 42K+

16	1-Executive Leadership	Low	 Attended 2 Discussion & Networking Events 	Annual Operating Budget: \$12M+
			Attended 3 Learning EventsOrganization Point Person	# of Employees: N/A
				Annual Pt. Visits: 72K+
17	2-Senior Management	Low	Attended 4 Learning EventsLearning Events Contact	Annual Operating Budget: \$50K+
			Person	# of Employees: 500+
				Pt. Visits Annually: 189K+
18	2-Senior Management	Low	 Attended 4 Discussion & Networking Sessions 	Annual Operating Budget: \$16M+
				# of Employees: 100+
				Pt. Visits Annually: 42K+
19	2-Senior Management	Low	Learning Events Contact Person	Annual Operating Budget: \$16M+
				# of Employees: 100+
				Pt. Visits Annually: 42K+
20	2-Senior Management	Low	FY18 Leadership Institute Contact	Annual Operating Budget: \$50K+
			 Learning Events Contact Person 	# of Employees: 500+
				Pt. Visits Annually: 189K+
21	3-Front Line Staff	Low	Learning Events Contact Person	Annual Operating Budget: \$12M+
				# of Employees: N/A
				Annual Pt. Visits: 72K+

IV. RESULTS

BACKGROUND

This study sought to examine aspects of the Chicago Safety Net Learning Collaborative (CSNLC) and organizational factors impacting the implementation of innovation process; and how this entity can expand its capacity to best support organizations and improve organizational performance. The researcher executed an exploratory study, using both a developmental evaluation case study design and qualitative methodology. For purposes of carrying out this study in collaboration with CSNLC decision makers, the existing CSNLC Steering Committee along with the addition of two McAlpine consultants served as the Developmental Evaluation Committee (DE Committee). In this capacity, the DE Committee provided guidance for the evaluation process, informed critical study elements such design and data collection, and established of CSNLC recommendations.

The CSNLC was launched in 2011 as a direct response to ACA reform, demands from stakeholders seeking optimized clinical operations that improve patient care, and a foundation opportunity supporting learning collaborative models. According to CSNLC's 3 Year Sustainability Plan, it's aim is to improve patient outcomes by addressing barriers to healthcare, improving communications with patients, and sharing best practice across healthcare centers. The CSNLC's collective vision is to strengthen their ability to teach and learn systems change in safety net practices, promote leadership development and adoption of innovative approaches to health center operations (McAlpine Consulting, 2017). The CSNLC has three components that include: Learning Events that serve as a peer-peer knowledge sessions aimed at implementing innovation, a Leadership Institute developed to build leadership development skills for both executive and middle management, and Discussion and Networking Sessions created to share challenges and identify solutions

62

among specific role types such as Chief Operating Officers and behavioral health practitioners.

Currently, the CSNLC is comprised of 17 Chicago-based community health centers. Participant organizations are defined as entities that are tasked with appointing senior leadership to support high level planning efforts, distributing materials and recruitment of staff to participate in learning modalities, collecting data, and executing a memorandum of understanding with the Collaborative. Additionally, all participating organizations pay \$2,500 annually (McAlpine Consulting, 2017).

The researcher used data documented in the CSNLC FY17 & FY18 Annual Reports to stratify organizations in the following three categories: High Implementers, Moderate Implementers, and Low Implementers. Sixteen CSNLC participant organizations were considered eligible for this study, one organization was excluded because there was no implementation data available.

This chapter provides an in-depth description of data collection and analysis efforts,

associated outcomes, and a summation of study findings categorized by the following stated

research questions:

Q1. How is the Chicago Safety Net Learning Collaborative (CSNLC) being experienced by participants?

Q2. How has participation in the CSNLC facilitated the development of leadership skills among participants?

Q3. How has participation in the CSNLC impacted organizational capacity of its participant organizations to make rapid, sustainable improvements?

Q4. What is the perception of how the CSNLC supports the implementation of innovation process?

Q5. How have CSNLC participant organizations implemented innovation into organizational practice?

Q5A. What factors have influenced the implementation of innovation process? Q6. What are the differences or commonalities among participant organizations that have implemented innovation and those that have not?

Q7. What do participants recommend to enhance the CSNLC's capacity to address factors identified as having an impact on the implementation of innovation?

Q8. What gaps exist between the support needs of participants in the implementation of

innovation process and what is offered by the CSNLC? Q9. What is the role of the CSNLC in the implementation of innovation among organizational participants? Q10. How can the CSNLC shift operations to address unmet support needs identified by participants?

RESULTS

Findings for this study are organized by ten main research questions and respective sub-questions. Key informant interviews were used to gain a deeper understanding of participant perceptions of how the CSNLC operates, the role this entity plays in the implementation of innovation process, and exploration of organizational factors impacting this process. Gaps between support that the CSNLC currently provides and participant needs was also examined.

RESEARCH QUESTION 1: *How is the CSNLC being experienced by participants?*

Participants shared their experience with the three CSNLC Components that included Learning Events, the Leadership Institute, and Discussion & Networking Sessions by describing objectives of each, the types of activities that were occurring, and what they believed to be outcomes of their participation. Figure 6 highlights the themes that were captured by the data. According to participants, the purpose of the CSNLC was described as a platform created to share best practices and challenges among a peer group with similar challenges and successes. One participant described the objective of the CSNLC Components as,

"A forum for sharing problems areas and best practices for leading FQHCS. It's our main focus to share our challenges and successes."

- A safe environment of trust and respect driven by skilled facilitators
- Well-planned and structured sessions, with topics that are relevant to healthcare practice
- An entity that brings together similar organization types to address shared challenges using team-based problem solving as a central practice
- The use of team-based problem solving promotes peer to peer learning, formation of relationships across organizations, and building of evidence to support decision making

Figure 7. Description of CSNLC based on participant experience

Safe environment that is driven by skilled facilitators

Several participants shared how they viewed the CSNLC sessions as a safe space where they come together to share freely without the worry of being judged by their peers. Some descriptors used speaking to the environment created by the facilitators included "warm", "welcoming", and "respectful". In coming together over time, trust among the group was developed. There was mention of the role that the facilitators played in stating and holding participants accountable to the ground rules of confidentiality. Furthermore, the facilitators were credited for leveraging this confidentiality by asking thought provoking questions, encouraging participants to share and be inquisitive. One participant said,

"The facilitator encourages communication and respect. The groups chosen to facilitate these sessions, I would argue is a huge reason why they've been so successful because they have built the right structure and culture process to make it what's it become."

Well planned and structured sessions

The facilitators were praised for how well organized and planned the sessions were. According to participants, each session was equipped with an agenda of topics to be explored and activities to be conducted; there was mention of the types of materials provided at the sessions to support learning such as a leadership textbook, worksheets, and access to a Dropbox that could be referenced after the sessions have ended. Participants found the tools to be helpful and spoke of utilizing them in practice. One participant stated, "There's also a Dropbox where everything is saved. So even after you leave the Learning Collaborative, you can circle back to the Dropbox and look at everyone's presentations. And there is one set of presentations that I've probably looked at like 50 times in the last two months."

All participants reported finding the CSNLC sessions topics relevant to healthcare practice largely because of the collaborative process used by the facilitators in gathering insight into the types of topics that participants wanted learn about and work through with their peers. The Discussion and Networking Session topics are selected by participants in real-time, with the topics for the upcoming session being determined during the session preceding it. While the Leadership Institute and Learning Events topics are set at the beginning of the fiscal year and generated through participant evaluation data and input from the Steering Committee.

Similar types of organizations coming together for a common purpose

The CSNLC brings together community health centers with similar missions and accountabilities to meet the needs of the underserved patients across the city. Several participants shared that there was value in bringing together like-minded entities to build awareness around the local FQHC landscape (shedding light on the many variations of health center operations) and share challenges and successes across the sector. Thus, helping to creating a sense of normalcy among peers and decreasing isolation that is often felt in the pursuit of solutions that have stumped your organization for some time. One participant stated,

"I'm a newer leader and I've been able to talk with peer who have been in this type of role for years or maybe more than a decade. And so, them being able to provide a little more context and wisdom about how things are and how they can go is helpful. It's really supportive and a nice way to feel validated and affirmed that there is a group of likeminded people working through the same challenges." The unveiling of experiences ultimately served as the gateway for the use of teambased problem solving as tool to address challenges being faced by the collective group. Challenges discussed by participants ranged from having difficulties with the staffing shortages to absenteeism among front line staff members. Team-based problem solving was described as a practice where participants would discuss challenges and open the floor to the group to share their experiences, best practices, and resources used to address the challenges in their own organizations. Thus, giving way to peer-to-peer to learning. Peer-to-peer learning as described as the process of learning how their peers have managed similar challenges, how to avoid the pitfalls experienced, and the implications of applying lessons learned in their home organizations. Several participants provided specific examples highlighting the connection between how they've benefitted from their peers sharing best practices and managed complex situations such as board management or recruitment of new staff. Participants also noted the sharing of a wide range of resources such as workflows, staff schedules, and patient satisfaction survey tools. One participant stated,

"I have a board that I struggled with. So, for me the session managing your board was really helpful. It was really nice to see how other people had their board structured, how they manage things, what their committee structures were, I actually brought that (information) back and started trying to quietly implement some of those things."

Team-based problem solving used as a central practice

The data showed that the use of team-based problem solving as a practice during the sessions helped to support the building of relationships among participants because it worked to identify how members of the group were addressing challenges. This intel aided participants in knowing who they could connect with outside of the sessions to glean more insight in support of addressing challenges experienced in their home site. One participant stated,

"I'm a part of the COO Networking Sessions and I love them, love them, love them. I have a whole group of friends out there and we talk to each other almost daily about what are you doing about this, how do you think about this, all of those things constantly. And that really just didn't exist before this."

Several participants shared that were also opportunities during the sessions carved out to support networking across the organizations and that attendee contact lists were provided so that they could continue networking activities as desired.

Furthermore, team-based problem solving worked to highlight best practices being used at the health centers in support of promoting learning among participants and jumpstart the critical thinking process for how these practices could be scaled within their home organizations. These discussions not only opened the floor for launching innovative practices across the safety net sector, but also helped to build efficacy evidence needed to both appropriately vet and tailor these practices. One participant stated,

"Members bring to the table best practices. And so, when you see best practices with the clear data, empirical data to support what they are doing, it allows you come back and feel good about any potential changes you might make."

RESEARCH QUESTION 2: How has participation in the CSNLC facilitated the development of leadership skills among participants?

Participants were asked an opened question to explain outcomes that can be attributed to participating in the CSNLC. The researcher followed up with a probing question that asked participants to explain how their participation in the CSNLC has impacted overall leadership development. Themes that emerged through the data are summarized in Figure 7 below.

Learning more about oneself and through others

Participants were able to provide concrete examples of ways they believed they have grown through their participation and the role the CSNLC played in this process. Overall, Findings showed that leadership development was connected to participants learning about more themselves (exploring their own beliefs, values and tendencies) and others through peer engagement occurring during the sessions. When asked how participation in the Learning Events has impacted their leadership development, a participant offered the following response,

"Well, I think it's always good for anyone at any level in an organization to stand up in front of their peers and to share their craft. I think you end up learning something about yourself and others."

- Leadership skills development was made possible through learning more about one's self and others and peer engagement
- Developing leadership skills was both a process and outcome
- Increased confidence in one's capabilities to make decisions and effectively deal with tough situations
- Enhanced communication skills

Figure 8. Participant perceptions of CSNLC impact upon leadership development

Leadership characterized as a process and an outcome

Furthermore, leadership development was characterized as both a process and an outcome. As a process, participants described how CSNLC facilitators utilized a myriad of activities to aid in sharpening leadership skills that included fostering collaboration through the group by way of role playing activities, encouraging public speaking by reporting back lessons learned, conducting presentations, and using self-reflection as a tool to enhance critical thinking.

Increased self-confidence

With respect to outcomes, participants shared examples of how increased confidence has impacted their leadership capabilities to make decisions, address challenges with staff performance in a timely manner, speak publicly and instill confidence in their direct reports. Some examples of participant responses included,

"One of the things I've gained is confidence.... just knowing that the decisions I make are the right ones and not to second guess myself.

This same participant goes on state,

"I know for myself sometimes I don't want to deal with that right now, but if you deal with it right now, it's over and the next time you can then move forward. It gives you the confidence to have those conversations right then and there regardless of how difficult they may be."

Another participant shared,

"T'm kind of shy person. They ask you to speak up and to participate. So, to me it has been really good, it has made more open and more confident to speak in a group."

Enhanced communication skills

Finally, a few participants talked through their enhanced communication skills that included learning effective tools for identifying their own and communication styles of others. This skill set aided participants in being more flexible in tailoring their messaging to fit the styles of their audience, while balancing their own default communication style. Thus, making concise and authentic communication possible. One participant response supporting this finding included,

'It's made me a lot more self-aware about myself, personality tendencies, and preferences. With this awareness, I'm more flexible in the way I communicate so that I identify those things in other people and speak in another person's language."

RESEARCH QUESTION 3: How has participation in the CSNLC impacted the organizational capacity of its participant organizations to make rapid and sustainable improvements?

Participants were asked to share their perceptions of how their participation in the CSNLC has impacted their organization's capacity to make rapid and sustainable improvements. Organizational capacity is a comprised collection of organizational resources, interactive in nature, that support organization-wide reform work and staff change (Cosner, 2009). According to the literature, learning collaboratives can potentially build an organization's capacity for innovation and continuous improvement (Nembard, 2012; Singer et al.,2012). As a result, the researcher was seeking to gather evidence speaking to how the CSNLC was influencing organizational change through the lens of its participants. Figure 8 reflects themes associated with findings. Participant responses ranged from the CSNLC having no impact upon organizational capacity to this entity supporting leadership development skills needed to make organizational improvements occur.

- There's no evidence of CSNLC influencing organizational capacity
- The CSNLC expedites the organizational change process through the increased access to network experts and best practices
- The CSNLC supports the enhancement of leadership skills that has an organizational impact

The CSNLC does not impact organizational capacity

Some participants reported that there was no evidence of the CSNLC having an impact upon their organization's capacity because key decision makers that are central to driving organization-wide change, were not actively engaged in CSNLC activities. As one participant stated,

Figure 9. Participant Perceptions of CSNLC Impact Upon Organizational Capacity

"I don't think (my participation) has necessarily changed our organization because those who have the ability to suggest changes or make them happen have not gone through this."

Another participant shared a similar sentiment,

"To be completely frank, I went through the Leadership Institute and wished that our senior leadership would go through a program like that. I think that would have an impact on our organization that is exponentially higher than my participation in it."

CSNLC expedites the organizational change process

In response to the stated research question, participants noted that the CSNLC worked to expedite the process to making changes within their organizations by providing access to experts in the field and expanding knowledge of best practices. These two components collectively worked to encourage ongoing assessment of organizational operations and inform the development of strategies to address challenges and alignment of resources to support organization-wide improvements. As one participant stated regarding participation in the Learning Events,

"The most common thing that these (sessions) do for us is to bring us to an "Aha" moment very quickly on something we may have done a huge process improvement on or something where this organization is doing it this way and that seems eight times more effective and simpler."

Participants were also able to provide examples of organizational-wide reform occurring that was attributed to their participation in the CSNLC. An example supporting this finding included,

"We committed to evaluating the need for and the model brining nurses into our care team. So, that is something that we did work on and we actually developed a care team structure, community nurse job descriptions and did all of those sorts of things.

CSNLC supporting leadership development

Several participants used their responses as an opportunity to make a connection between the development of leadership skills and perceived impact occurring in their home organizations, both considered to be outcomes associated with CSNLC participation.

According to participants, enhancement of leadership skills such as "communication", "selfawareness" and "meeting facilitation" enabled their capabilities to improve the quality and frequency of communication, support cohesion, and collaboration within their organizations. Participant responses included,

"Well, in my mind, I didn't have to have team meetings because I talked to my staff on a daily (basis. But (my participation) kind of showed that okay, if you're having team meetings, then you are bringing everyone together and if you are keeping them on the same accord as an agency, that's success for the agency because you don't have misinformation that being distributed."

"I think for me personally going through this kind of made me a lot more responsive and nimble as far as adjusting myself and working style to best work with different teams that I engage with. So, I do think that that's had an impact in our organization and a lot of different areas because of my role specifically and the fact that I work with a lot of different areas of our organization."

RESEARCH QUESTION 4: *What is the perception of how the CSNLC supports the implementation of innovation process?*

A tenant of the CSNLC's vision is to support the adoption of innovative approaches to health center operations. As a complementary question to Research Question 1, this question explicitly asked participants "how the CSNLC currently supports the implementation process". Thus, making a connection between CSNLC operations and innovation occurring in the participant organizations. The researcher's intent was to capture the full range of participant responses that work to highlight both existing CSNLC operations and associated outcomes. Implications of associated findings will result in the codevelopment of CSNLC recommendations that address the gap between this entity's current and desired state. Figure 10 below captures associated themes.

- Brings to best practices to the table
- Creates greater visibility into health center operations across the safety net sector
- Equipping leaders with enhanced skillsets that can drive and navigate change
- Highlights and enforces the importance of employing quality improvement practices

Figure 10. Participant perceptions of CSNLC supporting implementation of innovation

Brings best practices to the table, creates greater visibility

Participants discussed how the CSNLC has helped to create greater visibility into

operations occurring across the safety net sector as well as identify supporting factors that

can improve implementation success rates such as building relationships across the sector

and disseminating practice-based tools like the crucial conversations template referenced by

several participants. Participant responses serving as evidence included,

"I think it supports it tremendously because they bring to the table best practices. So, I think they're critical in that they've done a great job of fostering an environment that works towards innovation."

'It's a great way for us to send staff to learn about what other organizations are doing. The whole way that the Collaborative is structured, I think is great because you start out really thinking about how your own organization is structured. When you answer the questions they have...put together a poster board and you've really kind of done some like introspective thinking in terms of, how we're running things and what are we doing and what are our best practices?"

Equipping leaders with enhanced skillsets

Some participants noted how the CSNLC helped to enhance skillsets among leadership so that are better equipped to drive and navigate change within their organizations. As one participant shared,

"Leadership have learned a tremendous amount so that when we do have some changes that occur there, they're better at what they do now than before."

Highlighting and enforcing the importance of quality improvement

According to participants, the CSNLC has helped to support the implementation of innovation process by highlighting and enforcing the importance of employing quality improvement practices in the safety net sector. Participants noted how the CSNLC has

emphasized quality through its Learning Events Component over the years. This continued focus has helped organizations realize the many levers within their organizations impacting the quality of care being provided. One participant in particular was able to discuss how the CSNLC helped their organization pinpoint how their current electronic medical record system wasn't equipped to adequately capture the clinical care being provided in their centers. Furthermore, their participation helped to gather evidence needed to garner buy-in support from the board of directors to purchase and implement a new system. Electronic medical record systems serve a critical role in public health practice by serving as a tool to help with both accessing and measuring data to inform decision making. The following participant response supports this finding,

"Every year, we really realized how the (EMR) system that we were using wasn't fueling our ability to track and properly document a lot of outcomes. And every time, one of our action items was to change our software and do something different. So for us from a technology standpoint, the learning collaborative really helped us keep that front and center as a priority, year in and year out in a way that it may not have been as clear and as obvious if we hadn't been participating in this."

RESEARCH QUESTION 5: How have CSNLC participants implemented innovation into organizational practice?

In addition to learning about CSNLC operations, the research also sought to gain insight into participant organizations' operations through the identification of innovation occurring over the past 12 months. Overall, many participants were able to provide 2-3 examples of innovation during this timeframe. There were a few participants that asked the researcher to provide a formal definition of innovation before responding. In these instances, the researcher drew upon the definition utilized in the literature, stating that "innovation refers to an intangible idea, an activity or material object and its 'newness' is subjectively perceived by the persons in the organizational unit exposed to the innovation" (Zaltman, et al., 1973). The following participant statement aligns with literature review findings, "You know sometimes when you use the word innovation it can make you think that you're supposed to give this really big answer, right? But sometimes changing the roles and responsibilities of each care team member in order to facilitate a better cycle time can transform the experience of our patients and therefore I categorize that as innovative."

Types of innovation being implemented within participant organizations highlighted three key themes noted in Figure 11 below.

- Newly developed programs aimed at providing comprehensive care or service expansion
- Process changes to improve patient experience
- New delivery of care models and sites

Figure 11. Types of innovation themes

Newly developed programs

Several participants talked about newly developed programs aimed at providing comprehensive care and expanding access to services that serve the whole patient. These programs often came as a result of newly identified unmet meet patient needs reflected in surveys, clinical data outcomes or staff observation. Some examples of these programs included the launch of anxiety groups for adolescents, depression groups, and diabetes groups. In some instances, participants made mention that a specific innovation was developed as part of their participation in the CSNLC, whereas this participation helped to increase knowledge of best practices occurring at another organizations and offered insight into how these practices could be scaled at their own organization; and support the assessment of current operations and development of innovations that will address identified challenges. An example highlighting this finding is noted below,

"When I conducted my pilot study myself, I created a schedule in the way that the other FQHC had it and got inundated with referrals. So, the volume helped to see that access is a challenge for these services and the need is tremendous. So, I ended up with a caseload of over 25 clients and noticed that majority of them were young teen girls dealing with anxiety and depression. And so, because of that, I decided to start a group for our girls to try and help address the systems of anxiety."

Process Changes

Secondly, participants shared examples of process changes made to improve the patient experience within their health centers. One participant talked about s/he implemented the AIDET (Acknowledge, Introduce, Duration, Explanation and Thank) Patient Communication Framework to improve the way the staff communicated with one another and patients. According to the Studer Group, "AIDET works to decrease patient anxiety, increase patient compliance and improves clinical outcomes" (Studer Group, 2019). While another participant talked about the implementation of new processes to support their provider empanelment process—creating procedures to help with determining provider patient load and how new patients get added and transitioned.

New delivery of care models and sites

Finally, several participants were able to talk the researcher through innovation implemented to support new delivery of care models and sites. These examples included the launch of new school-based health centers, with guidelines to expand services to the community at-large, development of an immediate care clinic to complement existing fullservice locations and a dedicated an Innovation Center. With respect to the Innovation Center, one participant shared,

"We established one of our health centers as the Innovation Center. So, we hired a provider that's a site leader. The site has been set up to be a place where can take a look at new workflows, job descriptions, etc. Innovations start at this site and then gets rolled out."

RESEARCH QUESTION 5A. *What factors have influenced the implementation of innovation process?*

The most commonly cited organizational factors that influence the implementation

of innovation process explored in this study included Leadership, Organizational Climate

Organizational Culture, and Organizational Infrastructure; they are presented below in order of significance determined by their respective coding frequencies identified by the researcher using Atlas ti® code manager report. Coding frequencies worked to highlight how often or seldom each organizational factor was playing a role in the implementation of innovation process.

Leadership

For purposes of this study, characteristics of transformational leadership were explored and defined as having a vision, serving as a champion for innovation, serving as a role model and setting organizational goals (Peters and Waterman, 1982; Van de Van, 1986). According to the literature, transformational leadership sills refers to having a vision, serving as a champion and role model for innovation, "fostering the acceptance of goals, and providing intellectual stimulation and individual support" (Podsakoff et al., 1990). CSNLC participants were asked a series of probing questions that included "how has leadership in your organization impacted the implementation of innovation process?", "how has leadership provided individual support for implementation of innovation?", and "how has leadership expressed a vision for innovation?" Figure 12 below showcases three key themes. Collectively, participant responses largely reflect their experiences with individuals within their organizations that sit in roles that have decision making capabilities and/or oversee a work functions of others.

- Leadership is the most influential organizational factor, with associations to all remaining factors
- Leadership's role is to define the vision for innovation—the lack of a vision leads to competition priorities having a negative impact on the implementation of innovation
- Leadership impacts the pace of innovation –can serve as either a barrier or facilitator to the implementation of innovation process

Figure 12. Leadership factor themes

<u>Leadership is the most influential organizational factor, with associations to all</u> <u>remaining factors</u>

Study findings highlighted leadership as the most influential organizational factor impacting the implementation of innovation process, with it being coded a total of sixty-five times as a facilitator and twenty-five times as a barrier. Furthermore, leadership was noted as having an association to all of the remaining organizational factors being explored in the study.

When participants were asked to provide examples of how leadership within their organization is involved in the implementation of innovation process, concrete examples were provided that included leadership serving as champions for innovation projects being implemented, key decision makers in determining which innovations get implemented and the associated timeline for rollout and identifying and aligning individuals within the organization to support innovation. Collectively, participants noted the role of leadership was to define and select organizational priorities, put resources (both fiscal and human) and staffing structures in place to support implementation—ensuring that changes don't overburden the system and staff. The association between leadership and organizational climate supporting implementation was referenced by several participants—highlighting the importance of leadership shaping organizational climate by setting the vision for innovation through both the development and execution of strategic plans, annual action plans, or project charters. When asked the question "how has leadership expressed a vision for innovation?", one participant shared,

"So I think it all starts with having a strategic plan showing the strategic direction that we're going, it's implementing best practices and it's advancing, you know, our models of care and how we are being competitive, um, you know, and how we do that and that we have strategies that make us competitive within the industry. Um, so it really, I mean it's, it's gotta be something that's embedded in your strategic plan and then that flows into staff performance goals for the year. So that's how you have to make things happen, is that it's got to be a goal and objective and you keep people accountable for that."

Lack of central vision for innovation

With respect to barriers, several participants highlighted competing priorities playing a role within their organization due to the lack of leadership having a central vision for innovation. The absence of vision resulted in leadership pushing too many innovations forward at the same time or without proper buy-in from staff at large within the organization. Therefore, causing staff burnout and the creation of a culture overwhelmed by organizational change. One participant stated,

"When there's a lot of change, it happens very quickly and sometimes not a lot of time to plan for it. A lot of times that ends up overwhelming staff—leading to change burnout and fatigue with the amount of change."

Leadership impacting the pace of innovation

Another participant provided a similar sentiment around the pace of innovation occurring and the need for leadership to foster buy-in before moving forward with the implementation process. The participant stated,

"I think sometimes we seek to change too quickly. So, I think I've sometimes seen the attempts in innovation to fail because we didn't really seek to foster buy-in at all levels before sort of pulling the trigger."

Participants also noted how leadership served as a barrier by declining innovation opportunities proposed by staff or slowing down the implementation process to vet organizational implications.

Organizational Climate

Literature defines organizational climate as "employees' shared summary perceptions

of the extent to which their use of innovation is rewarded, supported and expected within the organization" (Klein et al., 1996). Participants were asked a series of open-ended questions to both define their organization's climate for innovation and how climate was impacting the implementation of innovation process. Figure 13 below shows a high-level summary of respective themes.

- Participants describe organizational climate as robust training programs, communication
- across the organization, existence of incentive programs and implementation policies and procedures
- Organizational climate most often served in a facilitator capacity supporting the implementation of innovation process
- Organizational climate has an association to organizational size

Figure 13. Organizational climate themes

Organizational climate definition

With respect to study findings, organizational climate was the second highest coded factor and was described by participants as the development of robust training programs to support the implementation of innovation, communication of innovation across a range of mechanisms (inclusive of emails, memos, and staff meetings) execution of incentive programs to encourage the use of innovation, and some presence of implementation policies and procedures.

Organizational climate serving as a facilitator

According to the data, this factor often times had served as a facilitator supporting the implementation of innovation. When asked to discuss how training is occurring within their organization to support the implementation of innovation, one participant shared,

[&]quot;We have an online training system where we can do special presentations on any change. Sometimes the training that you need on the change is really just communication of the change, so we develop independent communication plans just around that change. In addition, we have electronic communication and in-person communications, etc. We've also had communication ambassadors and those would typically be some of the

people who sitting around the table making some of the decisions and can go back to their peers to communicate what the change is."

Participants also shared their perceptions of how staff within their organizations were rewarded for the use of innovation. Specifically, participants talked about staff being recognized through positive feedback, award ceremonies, pizza parties and promotions into new roles that elevate impact within the organization. Some participants shared the following sentiments,

"We have a program called "Rising Leaders" that have been identified probably by their wonderful work ethic and just some projects and opportunities that upper management has been able to witness. We charge them with being innovative and showing us the thoughts they have."

"I think we organizationally do a good job of calling out those successes, those end up being things that other team can try. Innovation is then supported and exported to others and rewarded. I know we even do things like a care team pizza party."

Some participants reported existence of implementation policies and procedures being

developed and used within their organizations to support the implementation process. The

following participant responses support this finding,

"We probably have more procedures for new workflows then a policy per se. We'll write a policy often times for the new procedure."

"I do think that we have a policy manager that is available on our intranet for our company... (that has) all policies, procedures, (and) anything new that has been implemented."

On the other hand, some participants admitted to either not having said policies

available or no knowledge of their existence. One organization identified this an area of

focus that also presents an opportunity for the CSNLC to provide some support. When

asked if their organization had implementation policies or procedures, a participant shared,

"No, we don't have anything like that. That was actually on my to do...just having a formalized process or tools for project management. I think that it would be really helpful. That could be something for the learning collaborative."

Association between organizational climate and size

Similar to leadership, organizational climate also had the capability of impeding the implementation process, in instances where there was presence of another organizational factor also serving as a barrier. Using co-occurrence reports, the researcher identified an association between organizational climate and organizational size. Upon further examination, findings highlighted organizations experiencing challenges with offering robust training modalities or rolling out training plans to support staff use of innovation due to having a large number of clinical sites. With having multiple sites, organizations struggled with getting staff members in the same room at the same time or having enough training bandwidth to ensure that training reaches all staff members. For one organization, there was mention of drawing upon a "train the trainer" model to expand organizational capacity to meet the demands around training. When asked "what types of training is provided when a new innovation is introduced to staff, the participant shared,

"People are sort of doing the training and then you pull people out of their day jobs or whatever. I think we can improve on that. I feel like you need to have a formal plan and have the right tools and time allocated. We tend to do a train the trainer....and identify people that are to be the lead and then the training gets distributed to the rest of the site.

Organizational Infrastructure

According to the literature, organization size, staffing structure, and availability of resources were the most commonly cited elements of organizational infrastructure (Damapour,1987; Fagerberg et al., 2005; Frambach, et al., 2002; Zaltman et al., 1973; Oke et al, 2009; Klein et al., 2001; Klein et al., 2005). Noted below are the findings for each organizational infrastructure sub-factor.

Organizational Size

Organizational size can be defined in a several ways such as the number of employees, largeness of operations, market share and overall reach (Ololube, 2016). Documented below are participant descriptions of each factor and the extent which they influence the implementation of innovation of innovation process. Associated themes for organizational size are documented in Figure 14 below.

- Organizational size was defined using three characteristics of annual operating budget, number of employees and operational sites
- Being a small sized organization has both benefits and challenges impacting the implementation of innovation process
- The number of operational sites can impact the implementation process as either a barrier or facilitator

Figure 14. Organizational size themes

Organizational size definition

Participants were asked the following open-ended question: "please define the size of your organization". Participants responded using three characteristics of annual operating budget, number of employees (ranging from 125 to 750) and operational sites (ranging from 1 to 17).

Being a small organization has both benefits and challenges

Organizational size does play a role in the implementation of innovation process, but there was much variation in participant responses when trying to determine the extent. Several participants that defined their organization's size as small, often times noted that size made the implementation of innovation process easier because there were less staff to train and communicate the change to; also being a smaller organization translated to have a manageable number of locations. As one participant stated, "We're all together in one location. Communication is a lot easier. All of the decision makers are pretty close in proximity to each other in the building."

Contradictory sentiments of smaller organizations were also found in the data, with participants from smaller organizations finding this factor making the implementation of innovation process challenging due to the lack of physical space and limited staffing to support the change. When asked how organizational size has made the implementation of innovation process difficult in their organization, one participant stated,

"Organizational size has its challenges because you when have a smaller staff and talk about innovation, sometimes you may not be to move to that point because you don't have the manpower to implement that idea."

Number of operational sites impacting implementation

Second to the number of staff available to support implementation, were the number of operational sites working to either facilitate or impede this process was mentioned by several participants. Again, there was presence of conflicting sentiments across participants. Organizations with more than one operational site spoke to the advantage of being able to pilot an innovation at one site before scaling it to other sites. In these instances, they were able to work out challenges in real time and modify the innovation— creating minimal disruptions to clinical operations across the organization. There was also presence of a relationship between organizational size, organizational climate and leadership. As organizations have grown, leadership's expectations to innovate has also increased to keep pace with size. One participant shares her experience with working in a large organization and provides evidence supporting findings noted above,

[&]quot;So unfortunately, I think as we've grown larger, innovation a little more expected to be at the top and really well discussed and passed out. Whereas very small organizations can say we are going to try this today, no problem, quick pilot and roll it out a little more easily."

On the flip side, participants also highlighted that larger organizations have a tougher time coordinating the moving elements related to the implementation process such as communicating changes, gathering buy-in across the organization, and managing schedules to accommodate training needs. As one participant noted,

"Being a large organization makes change really hard to coordinate. So, when we do reach a point where we want to change something across multiple sites or we need to implement something for staff that work at multiple locations. I think that's where it just on a practical level, can be really hard to coordinate because you are trying to coordinate conflicting schedules and things like that. And then on a relational level, it can be really hard to sort of achieve that buy-in that you really need to kind of push something forward."

Furthermore, some participants noted that the presence of having more than one location often led to these sites having their own cultures that ultimately impacted the interpretation of implementation procedures and policies. Hence, moving operations further away from standardization and achieving intended outcomes across the organization.

Organizational Structure

Organizational structure "determines how the roles, power and responsibilities are assigned, controlled, and coordinated, and information flows between the different levels of management" (Mohanta, et al., 2018). Participants were asked to provide a high-level description of their organization's staffing structure starting with the CEO. Themes are noted in Figure 15 below.

- There is minimal variation in structural hierarchies across participant responses
- Complex organizational structures presented challenges with requiring multiple layers of approval and successful navigation
- Responsive organizational structures have dedicated staff that can lead and/or support the implementation of innovation process; and work to ease the flow of communication across the organization

Figure 15. Organizational structure themes

Minimal variation of participant descriptions

Several participants weren't able to provide this information due to lack of knowledge the structure. For those that were able to describe their organizational structure, not much variation in the hierarchy was found across participant responses. Their structures highlighted how the CEO reports to the board of directors and then moves down to senior executive staff such as the chief operating officer and chief medical officer –charged with setting the strategic direction and vision for the organization. Mid-level directors were typically noted as the next level down in the hierarchy, responsible for overseeing day-to-day operations. Lastly, front line staff was described as the final tier, comprised of individuals responsible for carrying out manager-led directives and providing direct services within their organizations. Participant descriptions of organizational tiers were consistent with those utilized by the CSNLC—ensuring diversity in the types of roles and perspectives across the three Components.

Complex organizational structures present challenges

Similar to other organizational factors, structure can work as either a facilitator or barrier influencing the implementation process. As a barrier, the presence of multiple layers of approval and buy-in, resulted in slowing down the pace of this process. Members of the implementation team noted challenges in learning how to best navigate the organizational structure due to limited knowledge of who staff members reported to and continuous shifts in leadership. An example of this can be found in the following statement,

^{&#}x27;Implementation takes a while.... there have been a lot of organizational changes in terms of who those leaders are. So changes in leadership has made it difficult, but then also many people at the implementation level have different bosses and so we'll want to make a change and then we'll each have to go to our separate bosses, and there may be an issue at one site and it goes to the office manager, which then goes to the CEO, but then it's really behavioral issues. Then it goes to CPA and then down to me. They're all these different lines of reporting."

<u>Responsive organizational structures can support the implementation process</u>

As a supporting factor to the implementation of innovation process, participants provided examples that included the influence of responsive organizational structures that included having process improvement teams charged with assessing innovative needs and leading the implementation process, an innovation center that develops and tests innovations with aims of scaling best practices across other sites, and clinical education staff responsible for managing organizational training team needs. Participants also noted that their organizational structures worked to support the ease of communication by way of having individuals embedded within the various organizational levels that are responsible for realizing the vision for innovation and carrying critical implementation messaging to their teams.

Availability of resources

Study findings show that this organizational factor was coded the least amount of times, relative to the other two sub-infrastructure factors, reflecting a total of thirty-two times. Figure 16 below documents respective themes. When responding to the researcher's question of "please describe your organization's availability of resources to support the implementation of innovation", participants shared a range of responses that included "feeling lucky to work a financially healthy organization", being in a resource stark environment that gets worse every year" and "not having a reliance upon state grants to keep their doors open". Furthermore, participants went on to disclose specific examples of how resources had been used in the past to purchase supplies associated with launching new clinical programs, cover capital improvement projects when building new health center

locations, and support staff salaries for new hires needed to expand the patient scheduling

department. As one participant shared,

"(Resources) has supported the process. I know that about 18 months ago, we only had maybe 10 schedulers, but based on the fact we were going to make changes, they started added more scheduler employees to the department."

- Leadership was the determining factor influencing the availability of resources to support the implementation process
- Participant organizations reported a reliance on grant funding to support the implementation of innovation
- There's an association between availability of resources and organizational structure

Figure 16. Availability of resources themes

Leadership is the determining factor influencing implementation

According to study findings leadership served as a determining factor in influencing the role availability of resources played in the implementation process. Participants shared that when leadership (inclusive of executive level and board leadership) buy-in has been achieved to implement an innovation, resources are then aligned to support this process. As one participant shared,

" I think that we're fairly fiscally responsible, but I feel like when we have the buy-in that there's that we want to do an innovation, we find the funds to be able to do the innovations we want to do."

In fiscally constrained environments that have minimal or no existence of dedicated resources available to support innovation, participants shared how leadership often vetted how much an innovation will cost the organization, examined the alignment with organizational priorities, and determined long-term financial implications before making a decision to move forward with implementation Some examples included,

"There's always a question that comes up, would this cost us money? Like how much would this cost?"

"For us, we go back to we are extremely focused on (the) strategic plan and annual action plan. Was this one of our goals? Like is this something that helps us move one of these goals forward? And there are so many good things out there that we would love to do, but don't do that." "Each month, we meet and have an open and honest presentation by our CFO sharing where we are year-to-date, where we expect to be by the end of the fiscal year, where the lack of the money is coming from, why certain things have to be adjusted or postponed. Which I think is very transparent for us to see if it's worth the investment."

Grant funding impacting the implementation process

Participants working in stark resourced environments with minimal or no available resources to support the implementation process also shared and how grants played an influential role contributing to the availability of resources—in the absence of said grants or other identified funding within the organization's budget, leadership made the decision to halt innovations implementation or changed innovation's scope to support a leaner approach. to keep pace with existing financial resources. When asked to provide examples of how the availability of resources has impacted the implementation of innovation process, a participant shared,

"We are currently strapped for money. Money's definitely a big concern at the moment. And so yes, we cannot implement a lot of things that cost money just because at the moment we just don't have any."

Association between availability of resources and organizational structure

Lastly, co-occurrence reports indicted an association between organizational structure and availability of resources factors was identified using the co-occurrence reports. Upon further exploration of respective participant responses, the researcher discovered that existence of development staff to seek and secure funding within organizations worked to remove barriers to the implementation process by ensuring access to resources to cover associated costs. As a participant stated,

"I feel like we have a very aggressive, strategic development team and finance team. Our organization does a great job going for the grants we know will really support the work we do."

Organizational Culture

Organizational culture is defined "as the deep structure of organization, which is rooted in values, beliefs, and assumptions held by organizational members" (Denison, 1996). Participants were asked to first describe their organizational culture as the researcher was seeking to learn about types of culture and their respective influencing factors to the implementation of innovation process. In turn, participants largely defined their organizational cultures as "mission-oriented", "family oriented", and "collaborative". A mission-oriented culture was described as one where staff were committed to the quality of the care being provided and their role in this process, respect for each other and patients, and serving patients being at the top of the priority hierarchy. Participant stated,

"Our organization's culture really goes through every clinic site and all levels of our organization. It's really like a mission centered focus and like everyone really feeling connected to that mission." "I'll say that 97% of people here are very mission oriented and are here to serve our patients."

Several participants also described their organizational culture as "family oriented", where staff are a cohesive group of individuals, many of them with co-occurring long running tenures at the organization. These individuals were described as being supportive of one another in achieving the central goal of meeting the community's needs through patient care. As one participant shared,

"We have a very familial culture and some of that is just because of our roots, we were started in the eighties by a group of people that were largely based out of one church and were really seeking to meet a need in the community."

Another culture type, "collaborative culture" was described as having fluid communication across the organization, presence of staff members showing a willingness to use their talents and skills to help one another, the use of cross training practices makes collaboration possible, and there is a shared openness among staff to build consensus to support the implementation of innovation process. Some participants offered additional descriptions of their organizational that were dissonant from the ones noted above that referenced multiple types of cultures existing within the same organization and disconnection amongst staff based upon positions and associated perceptions held about their counterparts. Examples of this finding included,

"I feel like our organization has like two sets of cultures. One is the medical provider culture and then the other one is behavioral health. Staff has felt in the past like sometimes the medical provider don't respect (behavioral health) as providers...it's just like a conflict with staff amongst each other."

"There are perceptions of disconnect between sort of like the ones on the ground, frontline folks and the more admin people that are trying to continue operate a growing organization."

Organizational culture supporting implementation of innovation

Study findings show that culture can influence the implementation of innovation process, serving as either a barrier or facilitator. Figure 17 shows themes for the role that culture can play in this process. As a facilitator, support of innovation among staff occurs when there's alignment between the organizational mission, values, vision and innovation. For organizational culture's that are mission focused and staff have a personal connection to the mission, there is a perception that implementation of innovation is possible because staff hold a commitment to going above and beyond to meet the needs of patients. Thus, helping to realize the organizational mission. The following participant response serves as evidence of this finding,

"Our biggest strengths, I think when an innovation or change is being implemented, if it's done in a way the people impacted by it are bought in and really see the potential that this changes has for improving people's lives. I think they're willing to go above and beyond to make that thing happen."

- Support of innovation among staff occurs when there's alignment between the organizational mission, values, vision and innovation
- Culture impedes the implementation process when staff attitudes, beliefs, and behaviors are resistant to change
- Leadership shapes organizational culture and supports an organizational climate conducive to the implementation of innovation

Figure 17. Organizational culture themes

Organizational culture serving as a barrier

Common barriers associated with organizational culture were described as perceptions of stagnant work environments, staff attitudes and beliefs that are resistant to change, and behaviors showing an unwillingness to support shifts in work practices and perpetuation of old behaviors as leadership tries to move the organization in a new direction; and friction occurring between staff role types –with opinions of one role type not being as open to change than the other. When asked to share how culture within their organization serves as a barrier to the implementation process, one participant shared,

"I think it very much depends on what it is, what exactly the innovative idea is. I think providers for some things tend to be more much more excited and Gung Ho and especially groups of them very not bewildered by change, right? Like, sure, great, let's try it out and see what happens. Then typically it is the operations folks who are the ones who (don't want to), and I think this is where the conflict came in."

Organizational culture's association to organizational climate and leadership

The co-occurrence report indicated an association between leadership, organizational climate and culture factors working together in support of the implementation of innovation process. In these instances, leadership worked to shape the culture that supports an organizational climate conducive to implementation by setting the tone of innovation's importance and value. As one participant stated,

"It's known throughout our organization that the work we do with the safety net is extremely important and extremely valuable. So, when someone or a team comes back with an innovative idea that they want to test out or look into more, it's immediately accepted as a fact that it's something we'll explore. Our CEO set the tone that this is important and prioritized within our organization."

RESEARCH QUESTION 6: *What are differences or commonalities among participant organizations that have implemented innovation and those that have not?*

Cross case analysis was used to identify differences and commonalities among organizations that have implemented and those have not. In support of answering the research question, the researcher examined both the types of innovations implemented by Implementation Category and organizational factors impacting implementation.

Using the three innovation types noted earlier in the chapter, the researcher developed a table reflecting the number of times each innovation type was coded by Implementation Category (See **TABLE VI. TYPES OF IMPLEMENTED**

INNOVATION BY IMPLEMENTATION CATEGORY).

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Innovation Category	High	Moderate	Low	Totals
Туре	Implementers	Implementers	Implementers	
Process changes to improve patient experience	5	2	2	9 (36%)
Newly developed programs aimed at providing comprehensive care or service expansion	0	3	0	3 (12%)
New delivery of care models and sites	3	9	1	13 (52%)
Totals	8 (32%)	14 (56%)	3 (12%)	25

All Implementation Categories implemented new process changes to enhance and

optimize services currently being offered, with High Implementers ranking the highest.

Supporting evidence that reflect new processes implemented included,

High Implementer Response: "We continue to work on and evolve our empanelment process. I would say is number one being how we decide which providers are seeing new patients in a way that is stellar and acceptable to all the providers and easy enough to be implemented for our operations staff."

Moderate Implementer Response: *"We answer about 97% of our phone calls, so that's great. Last month was 96%, but we did make changes in our department and the changes that we made have worked."*

Low Implementer Response: *"We transitioned our practice management system that we were using.* So, our dental clinic was using Centrix for their practice management and now they're using Dentrix."

In addition, the table highlights that all Implementation Categories were

implementing new delivery of care models, this also included the launch of new service

locations. Moderate Implementers ranked the highest for this innovation type. Participants

stated,

High Implementer Response: *"We are redesigning the oral health care model. Redesigning the way we are providing dental care to our patients....so that involves changing treatment plans and just how much treatment is being completed but also the customer service."*

Moderate Implementer Response: *"We opened up a primary care clinic in a community mental health organization."*

Low Implementer Response: "We recently opened the senior day center....and are seeking to provide adult day services and maintain better and more consistent contact with our patients who are elderly...engage them in new ways."

Lastly, participants representing High and Low Implementers offered no examples

of new programming being implemented during the specified 12-month period. As one

participant shared,

"We have a few (groups) that are just in behavioral health, but we have started doing more diabetes groups and we have one starting this week."

With respect to organizational factors that influence the implementation process, the researcher developed a table for each factor that captured the number of times each factor was coded as either a facilitator or barrier by Implementation Category. Examined

organizational factors in ranking order are noted below and included *Leadership*, *Organizational Climate*, *Organizational Infrastructure*, and *Organizational Culture*.

a. Leadership

TABLE VII. LEADERSHIP SIMILIARITIES & DIFFERENCES

COMPARISION noted below shows that leadership facilitators were higher than that of barriers across all Implementation Categories. High Implementers and Moderate Implementers each accounted for 34% of overall coded leadership facilitators, while Low Implementers made up 32%.

	High	Moderate	Low	Totals
	Implementers	Implementers	Implementers	
Facilitator	22	22	21	65 (72%)
Barrier	8	6	11	25 (28%)
Total	30 (33%)	28 (31%)	32 (36%)	90

Leadership serving as a facilitator

Across all Implementation Categories, participants highlighted the association between organizational climate and leadership; and were able to share specific examples such as having champions in their organizations that lead the charge for innovation, rewarding staff for the use of innovation, and leadership setting the strategic direction for innovation. Strategic and annual action plans were utilized to concretize the organization's commitment to innovation and expectations for staff. These findings give more credence to the important role that leadership plays in shaping an organizational climate capable of supporting the implementation of innovation. Noted below are some examples of participant responses highlighting the incentives used to reward the use of innovation as part of the

implementation process:

High Implementer Response: *"When someone has a wonderful call using AIDET, we given them an AIDET award and maybe a lunch voucher, and a trophy full of candy that they can get refills for the entire month."*

Moderate Implementer Response: "We've created new jobs that offer a path for advancement so that they get to do more interesting work and see the improvement its made and they're allowed to have, um, more direct involvement in patient care."

Low Implementer Response: "I also think I've been really impressed by senior leadership's ability to identify innovators...I think I've been really pleased in a lot areas to see people who are strong in that be approached to continue to do it more, whether that's through promotion...(for example) a really strong medical assistant who has come up with like really effective ways to do things and we're going to make them a peer trainer."

High Implementers also showed some similarities with Low Implementers, with leadership serving as the conduit communicating changes, fostering buy-in from staff for innovation, extending trust to staff to make changes, and the process being driven in a topdown fashion; whereas innovation ideas come from leadership and then pushed down to staff members. Some examples of responses specific to the extension of trust from leadership to staff at large included,

High Implementer Response: "So leadership trusts you to do what you're supposed to do what you are responsible for. And so, it allows you that buy-in to make rapid decisions whenever possible."

Low Implementer Response: 'I would say that we have the trust of leadership that we can make the changes that we need to make when we're implementing innovation."

An examination of study findings revealed minimal differences for leadership facilitators across the three categories. Only Moderate Implementers talked about the association between availability of resources, organizational structures and leadership. Participants praised leadership for using financial resources to fund innovation and erect to staffing structures that worked to support implementation efforts. Evidence of this finding can be seen in the following response,

"We utilize a lot of grant funding for unique opportunities that could support expansion and behavioral health. These initiatives are well supported by senior leadership and our development departments, (where) they help out with grants and raising money."

Leadership serving as a barrier

Low Implementers had the highest number of coded leadership barriers, accounting for 44% of documented respective barriers; with High Implementers coming in second place with 32% and Moderate Implementers making up 24%.

All three categories expressed how leadership impacted the pace to which implementation of innovation occurs. Some examples included leadership pursuing changes too quickly or perceptions of leadership slowing down the pace of implementation process to vet fiscal and operational implications or ensure alignment with organizational priorities before making the decision to move forward. High Implementers and Moderate Implementers spoke to the lack of leadership having a central vision, perhaps giving way to why innovations were being pushed through so quickly. Some examples of participant responses supporting these findings included,

High Implementer Response: "We financially analyze everything, we risk analyze everything, so we don't jump in without really assessing and understanding the implications to things, which slows things down."

Moderate Implementer Response: "So, as a leader, one of things that I have to find myself doing often is saying we're too much. We have to prioritize these things, which may mean that some things get paced on what they call the parking lot or back burner."

Low Implementer participant response: *"Maybe the first time you mention something (an innovation idea), it doesn't necessarily get done or really thought about. Sometimes you have to bring it to the table multiple times in multiple different ways to kind of be heard.*

Study findings reflected no notable differences in the types of barriers provided by participants for any given Category.

b. Organizational Climate

Organizational climate serving as a facilitator

In Table VII below, both Moderate Implementers and Low Implementers reflect the same total number of times organizational climate was coded as a facilitator (22). Despite High Implementers having the highest number of coded facilitators for this organizational factor, participant responses were similar to those provided by the other two Implementation Categories. Collectively, participants shared that training is occurring when a new innovation is introduced, there is some presence of implementation policies and procedures, and the vision for innovation is made clear through the use of strategic and/or annual action plans. Lastly, innovation incentive programs are used to encourage the use of innovation. Examples of participant responses specific to included,

High Implementer Response: "The medical assistants may get a training at their MA grand rounds or at competencies or they'll bring them all together."

Moderate Implementer Response: *"We provided behavioral health an hour and half trainings to all the medal assistant staff."*

Low Implementer Response: *"We recently had an implementation of a new EMR system. So, um, we started with a super users training, the super users then went to train everybody."*

# of Times	High	Moderate	Low	Totals
Coded	Implementers	Implementers	Implementers	
Facilitator	22	15	15	52 (98%)
Barrier	0	1	0	1 (2%)
Total	22 (42%)	16 (30%)	15 (28%)	53

TABLE VIII. ORGANIZATIONAL CLIMATE SIMILIARITIES &DIFFERENCES COMPARISION

Study findings reflected no notable differences related to leadership facilitators between the Implementation Categories.

Organizational climate serving as a barrier

For this organizational factor, only one barrier was documented by Moderate Implementers that highlighted the association between organizational size and climate, where large organizations found challenges with being able to offer a range of training modalities to support the implementation process and reach the whole staff. One participant stated,

"I mean it's something that it's hard, especially with our 17 sites. It's a tough thing to accomplish, but the only thing you can do is like a train the trainer kind of model."

c. Organizational Size

Organizational size serving as a facilitator-commonalities

Table IX below shows that facilitators for organizational size was coded the highest number of times for Low Implementers, accounting for 56% of all facilitators coded for this organizational factor. High Implementers ranked second making up 25% of coded facilitators and Moderate accounting for 19%.

Participant responses for all Implementation Categories shared that being a larger

organization came with the advantage of being able to pilot innovation and scale to

remaining sites after associated challenges had been addressed. Participants stated,

High Implementer Response: I think we have done a fair job at finding ways to pilot things at least one site, and know which sites are amenable to which type of change or trial."

Moderate Implementer Response: "Being that we're a little bigger, what we'll usually do is pick one site to pilot program and then kind of started an initiative there and then from that and then slowly roll it out and adapt it to other sites."

Low Implementer Response: "So, like I want to do something new, I can pilot it with one particular care team and can be pretty confident that if I can make it work on that care team, I can make it work on other care teams because we've found the right size for us for that type of care that we're providing."

# of Times	High	Moderate	Low	Totals
Coded	Implementers	Implementers	Implementers	
Facilitator	4	3	9	16 (36%)
Barrier	11	9	9	29 (64%)
Total	15 (33%)	12 (27%)	18 (40%)	45

TABLE IX. ORGANIZATIONAL SIZE SIMILIARITIES & DIFFERENCES

In addition, both High Implementers and Moderate Implementers mentioned that as a larger organization, innovation was expected within their organizations because it helped to support efficient and higher quality operations. These findings worked to support the association between organizational climate and organizational size.

As for noted differences, organizations that deemed themselves small and also in the Moderate Implementers category, explained that their size helped to support the constant flow of communication and capabilities to diagnose implementation challenges quicker. Hence, allowing for a shorter response time to fix said challenges. As a participant indicated,

"I like the fact that we're a small staff because you can put your finger on it. So, if there's a problem in the innerworkings, you have a better chance of seeing the process of elimination of where its' coming from versus when you such a big major (site)."

Lastly, only Low Implementers saw benefit in being a small sized organization because there were less staff to train –making coordination of these activities easier to manage. This finding further supports the association between organizational climate and organizational size.

Organizational size serving as a barrier

Documented frequencies for barriers related to organizational size were the same across all three Implementation Categories, each reflecting a total of nine barriers.

All Implementation Categories had similar challenges that included having too many clinical sites—causing a lot effort and increased coordination of implementation-related

activities. High and Moderate Implementer categories also mentioned the geographical

spread of their sites serving as a barrier.

These two Categories also shared the association between organizational culture and

size; with challenges presenting due to each clinical site having its own culture and

interpretation of implementation policies and procedures. As participants shared,

High Implementer Response: "We're very spread out. Every site has its own culture. I've just learned whenever there was a new workflow, I would present it to my teams and there some tweaks and kind of how they did it because how their site ran. Now, being at a bigger site, it's even more evident that sites are doing things differently."

Moderate Implementer Response: "We have many (sites), so each site historically has developed its own, its own operational approach...workflows and policies are maybe the same, but they're implemented differently. Then each clinic has its own, the patients have their own cultural backgrounds and demographics, so there may be changes with the languages that are spoken, cultural practices that are there."

Moderate Implementers serves as the sole category with documented barriers related

small organization size, with respect to limited physical needed to carryout innovation. As a

participant shared,

"So, now we're looking to expand psychiatry, but yet it seems like, you know, our space becomes really limited in terms of like how we can, you know, still provide that service."

d. Organizational Structure

Organizational structure serving as a facilitator

Table X below shows High Implementers had the highest number of coded

facilitators for organizational structure, accounting for 53% of overall coded facilitators.

Moderate Implementers came in second with 31% and Low Implementers ranking last,

making up 16% of all coded organizational structure facilitators.

TABLE X. ORGANIZATIONAL STRUCTURE SIMILARITIES & DIFFERENCES

# of Times	High	Moderate	Low	Totals
Coded	Implementers	Implementers	Implementers	
Facilitator	10	6	3	19 (58%)
Barrier	4	7	3	14 (42%)
Total	14 (43%)	13 (39%)	6 (18%)	33

In addition to having structures developed with intentionality to support innovation,

both High and Moderate Implementers had dedicated staff within their organizations to

make implementation of innovation a reality. Examples of this finding included,

High Implementer Response: *"We have a process improvement team, that is pretty much assigned to each new project or each new innovation. And they kind of manage it from beginning to end."*

Moderate Implementer Response: *"We also have some staff who are dedicated to just clinical education, who can do in-clinic at the elbow training."*

As for differences, Low Implementers serves as the only category where participants

shared how leadership staff roles within the organizational structure are charged with

communicating innovation-related messaging to their teams. One participant stated,

"I think I listed seven or eight key positions. Those people have direct responsibilities to people underneath them and they take messages back to work it out, whatever the issues are. We've got a real nice system of communication."

Organizational structure serving as a barrier

Overall coding frequencies for organizational structures in ranking order were as follows: High Implementers made up 43%, Moderate Implementer accounted for 39% and Low Implementers totaled 18%.

All three categories spoke to implementation process being slowed down as a result of organizational structures. However, there was some variances in the reasons provided that included a needing to get approval from leadership and report the progress of innovations across multiple layers within the organization; and a breakdown of communication caused by

lack of clarity of who staff report to. Examples of this finding included,

High Implementer Response: "I think that we've had moments where there wasn't necessarily clear direction to support staff on who reports to who."

Moderate Implementer Response: "You have too many people that you report to. And so sometimes there's a breakdown of communication."

Low Implementer Response: "You have to sort of navigate because of the way that we structure the care team and the site managers. It means when you're trying to implement a quality improvement project that might impact all of the registration team or all of the medical assistants, you actually need to get all of their site managers on board as well. So, I think that for some of this mobility or agility is slowed down because you don't have one person who supervises all of the medical assistants."

e. Availability of Resources

Availability of resources serving as a facilitator

Table XI below shows that Low Implementers had the highest number of coded facilitators in connection to availability of resources, making up 43% of overall facilitators. Moderate Implementers ranked second, accounting for 36% and High Implementers totaled 21%

Study findings show there was no overlap across Implementation Categories. High Implementers and Moderate Implementers highlighted the association between leadership and the availability of resources. For High Implementers, there was mention of was open dialogue with senior leadership about the availability of resources. This transparency not only kept staff informed, but also helped to inform decisions about whether to pursue innovation. While Moderate Implementers noted that leadership's approval and buy-in was the determining factor in making resources available to support innovation.

Lastly, Low Implementers talked about their reliance upon grant funding or the identification of a funding stream in order to move forward and/or sustain the implementation of innovation. Also, Low Implementers credited leadership for ensuring

financially stable business models that worked to support implementation occurring in their

organization. When asked "to describe their organization's availability of resources to

support innovation, a participant shared,

"Our CEO has been relay engaged, um, you know, fostering financially sustainable business models."

TABLE XI. AVAILABILITY OF RESOURCES SIMILARITIES & DIFFERENCES

# of Times	High	Moderate	Low	Totals
Coded	Implementers	Implementers	Implementers	
Facilitator	3 (21%)	5 (36%)	6 (43%)	14 (44%)
Barrier	8 (44%)	7 (39%)	3 (17%)	18 (56%)
Total	11 (34%)	12 (38%)	9 (28%)	32

Availability of resources serving as a barrier

With respect to barrier, High Implementers came in first with the highest number of time availability of resources was coded at 44%. Moderate Implementers was ranked second and Low Implementers was in third place, accounting for 39% and 17% (respectively).

All Implementation Categories shared challenges with having financial resources to support the implementation of innovation. Moderate Implementers referenced this factor has having the biggest impact upon innovation. Both High and Low Implementers stated that their limited availability of resources has resulted in not pursing innovation at times. Specifically, for High Implementers, innovations outlined in annual action plans were seen as organizational priorities—making it difficult to move forward new innovations that are identified later in the fiscal year.

Both High Implementers and Low Implementers reflected similar barriers that included the existence of resource strapped environments, where implementation of innovation was not pursued without the identification of funding or only innovations with minimal or low-cost implications were pushed forward. Some participant responses supporting these findings included, **High Implementer Response:** "I don't think any innovation that we've been doing has been something that been very expensive or they (leadership) are looking for ways for it not to be expensive."

Low Implementer Response: *'Not if it costs money...improving practices that we can improve internally that don't cost money? Yes. We're at a standstill with anything where we might have to have money for it. No, not right now. Not in the situation that we're in financially.?*

As for differences noted based upon study findings, High Implementers served as the only category of mention regarding limited capacity to pursue innovation due to the high costs associated with provider time. As one participant shared,

"Provider time is so expensive, and our providers aren't given a ton of administrative times...and we aren't reimbursed for those kinds of (innovation) activities."

f. Organizational Culture

Organizational culture serving as a facilitator

Low Implementers ranked first place for having the highest number of coded organizational culture facilitator, accounting for more than half of respective documented code at 55%. High Implementers came in second, making up 35%, and Moderate Implementers were in last place with 10% (See Table XII below).

TABLE XII. OKOALUZATIONAL COLTOKE SIMILARITIES & DITTERENCES					
# of Times	High	Moderate	Low	Totals	
Coded	Implementers	Implementers	Implementers		
Facilitator	7	2	11	20 (63%)	
Barrier	7	2	3	12 (37%)	
Total	14 (44%)	4 (12%)	14 (44%)	32	

TABLE XII. ORGANIZATIONAL CULTURE SIMILARITIES & DIFFERENCES

Organizational culture serving as a facilitator

According to study findings, all Implementation Categories noted organizational culture similarities that included an engaged a connection between perceptions of staff willingness to innovate and alignment with mission, vision, and/or values. Participants stated,

High Implementer Response: "I feel like a lot of people are willing to make that change and willing to learn more innovation... I think a lot of employees who work here are very mission based and mission focused."

Moderate Implementer Response: 'I would say that say that's our key to our implementation of innovation, a lot of what we're really driven by is our mission, um, core values."

Low Implementer Response: "A huge strength (of our culture) is that when people really feel like an innovation or a change will have a positive impact on our patients, people are willing to do the extra work to make that happen."

Differences documented between categories highlighted that High Implementers served as the only category where participants spoke about their organizations as having a culture of learning and leadership that has intentionality behind innovation decisions ensuring clear connections between said decisions and organizational mission, vision and values.

In comparison, Moderate Implementers commented to having an engaged

workforce that shows commitment and fosters collaboration can serve as a facilitator

supporting the implementation of innovation process. A participant shared,

"My feeling is that if you've got an engaged workforce and everybody is really committed to the organization and we've got this culture, like everybody, we're all on the same page that people will work together."

Organizational culture serving as a barrier

As for organizational culture barriers, the ranking shifted, with High Implementers making up 58%, Low Implementers reflecting 25%, and Moderate Implementers coming in last at 17%.

Both High and Moderate Implementers experienced challenges related to their organizational cultures because of varied perceptions of staff willingness toward innovation across role types. Examples of participant responses included,

High Implementer Response: "There are certain occasion where I think it's more typical that medical providers are pushing for something because it's really good for patient care. We get push back from

operations staff, who in full disclosure are often the one having to pick up the work or do the implementation and I feel that's where the friction comes in."

Moderate Implementer Response: "I think that struggle with it (innovation) a little bit more are the rules-based people, like our nurses. We have fabulous nurses, but they don't like their apple cart upset very much."

Differences across categories highlight Low Implementers sharing how shifts in leadership perpetuating negative attitudes and beliefs served as an impeding barrier and High Implementers discussing how their culture of quality worked to slow the implementation of innovation process.

RESEARCH QUESTION 7: What do participants recommend to enhance the CSNLC's capacity to address factors identified as having an impact on the implementation of innovation?

Overall, many participants showed some hesitancy in responding to questions related to ways the CSNLC could improve its operations to better support organizations in the implementation of innovation process. In response, participants would respond with their satisfaction with this entity and reiterate examples supporting their statements. A participant that was interviewed because of their participation in the Discussion and Networking Series noted,

"There's nothing really that can be done to support the organization. I am also a part of the Leadership Institute, which has been amazing. I think it's amazing that they offer that to. So, in terms of support, I feel like it's really been awesome."

However, several participants were able to provide some concrete ideas of how the CSNLC could expand its capacity to meet this need. Figure 18 below provides a high-level summary of participant suggestions by organizational factor type.

Organizational Infrastructure

- Expand access to include remote/dial in options for CSNLC Components (i.e. webinars or video conferencing) in addition to in-person sessions
- Bring in external experts to share best practices

Organizational Climate

- Support organizations in the development of implementation policies and procedures
- Provide trainings that teach organizations how to embed innovative approaches into longer term planning practices (i.e. strategic plans and annual action plans)
- Intertwine CSNLC Learning Events over time
- Develop and widely disseminate CSNLC materials explaining Component aims, annual calendar, and outcomes

Leadership

- Help organizations in garnering formal support among leadership for CSNLC participation
- Expand Leadership Institute capacity and boundaries to allow for greater executive leadership participation and allow front-line staff participation
- Provide trainings that help leaders develop skills needed to effectively navigate the implementation process

Figure 18. Suggestions for enhancing CSNLC capacity by organizational factor

Organizational capacity related recommendations

In regard to organizational capacity, some of these suggestions included the

expansion of how participants can access the CSNLC Components. In addition to the inperson modality currently being offered, there was a recommendation for alternative options such as webinars and video conferencing—as they would help with reducing time loss related to travel and minimize interruptions to clinical operations. Furthermore, several participants mentioned the desire for the CSNLC to bring in external experts to share best practices occurring outside of the participants themselves. There was no mention of preference indicating whether these experts would have local representation or come outside of the state. As one participant shared,

"Maybe bringing in someone in that's from healthcare. There are probably some other things that are happening that are more innovative. Although they might require a lot more money than we what have, but maybe having somebody external because we don't bring anybody in. We just work together, and we do our own problem solving." Another participant shares a similar sentiment and shared,

"All of us are struggling with provider and medical assistant retention/recruitment. There are things that none of us has figured out. Wow. Is there a way that this collaborative can harness its power and dollars to bring in somebody that knows about best practices because maybe that some of things doesn't already live within any of us?"

Organizational climate related recommendations

In the area of organizational climate, some participants discussed the lack of having implementation policies and procedures when asked about their organization's climate for innovation. A recommendation was made to have the CSNLC support the development of these tools and further their implementation of innovation efforts.

Also related to improving organizational climate, was the mention of the CSNLC providing trainings that help teach organizations how to embed innovative approaches into longer term planning practices such as strategic plans or annual action plans. While participants credit the CSNLC for highlighting organizational changes through the development of the Implementation Strategies in the Learning Events and goal setting practices as part of the other two Components, there is some desire in learning how to effectively translate them into organizational priorities.

In addition, there was discussion around intertwining the Learning Events over time to provide technical assistance to organizations in real time during the implementation process—as only anticipated challenges are addressed at the time of developing Implementation Strategies and goals. According to the participants, the current structure leaves little room to present ongoing challenges and draw upon solutions collectively specific to topics from previous sessions.

Lastly, a recommendation for developing and widely disseminating CSNLC materials across organizations; explaining Component aims, annual activities calendar, and outcomes

110

was made. Building awareness around the CSNLC could help participants and their superiors collectively make decisions about which activities are best suited for individual engagement and why.

Leadership related recommendations

A recommendation for expanding the CSNLC's capacity to address leadership factors included helping organizations garner formal support among their home site's leadership for CSNLC participation. Several participants shared their desires for formal buyin from leadership and the CSNLC working to reshape their mental models to better understand the role of this entity. Thus, enabling leadership's willingness to support attendance choices made by respective staff members.

Secondly, a recommendation was made to expand Leadership Institute boundaries and capacity to allow for greater executive leadership participation and included front-line staff participation. There was concern among participants that executive leadership participation didn't penetrate across organizations to support shared levels of communication and understanding. Furthermore, there was talk about the benefit the Leadership Institute could provide to front line staff by way developing their leadership skills—as these individuals are often charged with implementing innovation into practice and faced with implications of said changes as part of their daily patient interactions.

Lastly, participants recommended changes that be made to the Leadership Institute curriculum that work to sharpen leadership skills to help navigate the implementation of innovation process. Specifically, providing tools and enhancing knowledge around best practices for building stakeholder buy-in and communication patterns.

111

RESEARCH QUESTION 8: What gaps exist between the support needs of participants in the implementation of innovation process and what is offered by the CSNLC?

In support of responding to this corresponding research question, the researcher reviewed findings from following research questions: *What is the perception of how the CSNLC supports the implementation of innovation process?* and *What do participants recommend to enhance the CSNLC's capacity to address factors identified as having an impact on the implementation of innovation?* Relationships were sought between support currently being provided by the CSNLC and suggestions made. Table XIII below works to highlight said relationships and potential gaps that were used to inform the co-development of CSNLC recommendations aimed at shifting operations to address unmet participant needs. Across all support needs identified, is the need for funding and CSNLC Steering Committee buy in to redirect existing funding or secure additional financial resources to support the following: bringing in external experts, covering costs related to garnering more facilitator time, and purchasing a digital, remote access platform.

Another noted gap lies the area of addressing any knowledge limitations of current facilitators and CSNLC participants needed to expand the current menu of training topics. Identification of this gap is important because considerations will need to be made before jumping to possible solutions that could include providing training support to existing facilitators or increase the utilization of external experts.

Thirdly, when proposed changes to the existing CSNLC format have been identified, approval across participant organization leadership will be needed before changes are executed because the current participation rests upon expectations outlined in the MOU. Any changes will need to be carefully vetted and openly communicated across the network to secure buy-in for continued partnership. At the crux of this buy-in, lies a proactive agreement to play a supporting in addressing challenges that may arise as changes are pushed forward.

Lastly, shifts in mental models of CSNLC participant executive leadership was documented as a gap to be addressed in support of meeting participant needs. Unlike other gaps listed below, this one in particular deserves further exploration – efforts targeted at shifting mental models requires some understanding of drivers impacting the current state. These underlying factors should be thoroughly considered in order to adequately develop recommendations capable of aligning resources and changes to CSNLC capacity needed to meet participant needs.

DEVELOPMENT CONSIDERATION					
Support Currently Provided by CSNLC	Noted Gaps	Suggestions for Enhancing CSNLC Capacity			
Accelerating knowledge about viable options that can drive change within participant home organizations through the provision of best practices proven to work in similar settings across the city	 Funding to support the cost of bringing in external expertise Knowledge and availability of experts in the field Buy-in from the Steering Committee to redirect existing funding or secure additional funding 	Bring in external experts to share best practices			
Developing leaders so that they can play a more engaged role in innovation occurring within their organizations	 Expertise of CSNLC participants and/or facilitators to develop training curriculum, tools, and/or conduct trainings Shifts in mental models of executive leadership that align with expectations for participating outlined in the MOU Funding to support additional trainings, materials, etc. Buy in from the Steering Committee to redirect existing funding or secure additional funding 	 Help organizations garner increased support among leadership for participation in CSNLC activities Develop and widely disseminate CSNLC materials explaining Component aims, annual calendar, and outcomes Expand Leadership Institute capacity and boundaries to allow for greater executive leadership participation and allow front-line staff participation Provide trainings that help leaders develop skills needed to effectively navigate the implementation process Support organizations in the development of implementation policies and procedures 			
Creating a safe environment for organizations to both learn how others are implementing innovation and assess their home organization operations	 Buy-in from the Steering Committee to redirect existing funding or secure additional funding Identification and selection of remote access platforms Collective support for modifying the fidelity of the existing learning collaborative model 	• Expand access to include remote/dial in options for CSNLC Components (i.e. webinars or video conferencing) in addition to in-person sessions			
Helping to highlight and enforce the importance of employing quality	• Collective support for the reduction or increase in the number of	Intertwine Learning Event sessions over time			

TABLE XIII. NOTED GAPS FOR CSNLC RECOMMENDATIONDEVELOPMENT CONSIDERATION

improvement practices in the safety net sector	different topic offerings that can be employed annually	
	• Expertise of CSNLC participants and/or facilitators to develop training curriculum, tools, and/or conduct trainings	

RESEARCH QUESTION 9: *What is the role of the CSNLC in the implementation of innovation process?*

The purpose of this research question was to identify the strategic role that the CSNLC should play in the implementation of innovation process from the participant's perspective—as the researcher did not want to make assumptions about whether participants believed that the CSNLC should be involved in a formal capacity. While no specific questions were posed to participants capturing their sentiments of the CSNLC's role in the implementation of innovation process, the researcher asked questions regarding the participant perceptions of CSNLC Component objectives, how the CSNLC currently supports the implementation process, and garnered suggestions for expanding this entity's capacity to gaps identified. Responses from corresponding questions were analyzed and measured against literature findings to identify alignment, dissonance, and elevate themes.

Literature states that learning collaboratives were put into practice to help organizations effectively make operational shifts that increase quality and reduce expenses. Furthermore, these entities aim to address gaps in knowledge by developing a mechanism for accelerating the generation of knowledge by leveraging expertise of other practitioners in the field (The Institute for Healthcare Improvement, 2003; Janue, 2016). Study finding themes are documented in Figure 19 below.

- The CSNLC accelerates knowledge of community health center operations and scaling of best practices
- Supports organizations in the development and execution of improvement strategies that address shared organizational challenges impacting the implementation process
- Cultivates leadership skills
- Fosters team-based problem solving

Figure 19. Participant perspectives of the CSNLC's role in the implementation process

CSNLC supporting the development and implementation of innovations

According to participants, the CSNLC's role is to support their organizations in the development and implementation of innovations that address shared organizational challenges. This process is made possible through the acceleration of learning that is occurring through the trainings being, utilization of team-based problem solving, and cultivation of leadership skills. These three elements pave the way toward increased awareness of community health center operations across the sector, scaling of best practices, continuous assessment of existing practices, and a laser focus on improving the quality of care provided.

CSNLC addressing organizational factors impacting the implementation process

Existing literature doesn't explicitly state that the role of learning collaborative models is to address organizational factors impacting the implementation of innovation process. However, CSNLC participants have identified this as part of the role that this entity currently plays—

as suggestions made by participants to enhance the capacity of the CSNLC are in alignment with addressing organizational factors that are impact the implementation process. As a result, operational changes made will help to bolster the role that this entity plays in meeting the needs of participant organizations.

RESEARCH QUESTION 10: *How can the CSNLC shift operations to address unmet support needs identified by participants?*

According Patton, when using a developmental evaluation framework, the researcher's role is to bring to the table evaluative thinking that is supportive of the organization's goals and facilitate data-based decision making (Patton, 2009). In September 2019, the researcher met with the DE Committee to share finalized study results and codevelop recommendations that will enhance the CSNLC's capacity to address findings. Recommendations were developed through both discussion and consensus building that occurred over a two-week period. In support of launching this process, the researcher led the DE Committee in a reflective group discussion using a summation of the researcher's conclusions—said conclusions were developed using study findings, researcher observations, and discussions conducted with the DE Committee throughout the dissertation process. Each conclusion was discussed thoroughly, vetted for relevance and resulted in the development of researcher notes. Upon completion of the presentation, the researcher utilized said notes to draft five recommendations that were then submitted electronically to the DE Committee for a two-week feedback period. DE Committee feedback was returned to the researcher through the Committee's liaisons, Laura McAlpine and Dan Ren. Their feedback resulted in the confirmation of the previously submitted five recommendations and one addition (Recommendation #6). Final recommendations and their alignment with researcher conclusions are documented below in Table XIX. It should be noted that not all conclusions resulted in a CSNLC recommendation as the DE Committee wanted to be strategic in only putting forth recommendations that they felt strongly would be implemented. In addition, the last recommendation was not the result of an explicit

researcher conclusion but came out of discussion among DE Committee members upon the

completion of another review of study findings.

TABLE XIV. CSNLC RECOMMENDATIONS

So What? Researcher Conclusions	Now What? CSNLC Recommendations
The CSLC lacks a defined theory of change	1) Develop a theory of change that weaves together the aims and intended outcomes of the CSNLC activities that include Learning Events, Discussion & Networking Series,
There's limited cohesion across the 3 CSNLC and knowledge into how they work together	and Leadership Institute.
There are varied participant perspectives of where the CSNLC's role/impact "begins" or "ends"	2) Enhance evaluation tools to capture impact made upon participant leadership skills and identify areas of improvement for each CSNLC activity type
	3) Develop a readiness/organizational change assessment tool that examines how and which organizational factors (leadership, organizational climate, culture, and infrastructure) can impact the implementation of innovation process within the respective participant organizations.
There's an opportunity to maximize impact by weaving sessions/CSNLC components together over time	4) Create a sequencing framework that integrates Learning Event topics over time.
There's a need for deeper penetration for leadership participation in CSNLC activities within organizations	N/A
Visibility within health center operations/expertise outside of the CSNLC network offers access to diverse perspectives and solutions	5) Approve the use external experts as part of the CSNLC and make associated funding available.
N/A	6) Train executive leadership and middle management on best practices for incorporating innovation into organizational strategic planning practices

V. DISCUSSION

GENERAL DISCUSSION

This study examined aspects of the Chicago Safety Net Learning Collaborative (CSNLC) and organizational factors impacting the implementation of innovation for participant organizations. Study aims included: 1) To determine the role of the CSNLC in the implementation of innovation process, 2) Understand how safety net providers in Chicago have implemented innovation post Affordable Care Act (ACA) environment and associated factors impacting implementation, and 3) To support the CSNLC in strategy development to enhance its capacity to address study findings. At the time of the study, the researcher had identified a critical gap in public health practice where Chicago based Federally Qualified Health Center (FQHC) leadership had expressed limitations in their capabilities to keep pace with the everchanging landscape in the face of transformative, mandated change prescribed by the Affordable Care Act. With FQHCs serving as vital primary care providers for communities of greatest need, it's imperative to shed light on challenges faced by this sector and identify comprehensive approaches that promote long-term sustainability. While the CSNLC was launched in 2011, without the deployment of formal an evaluation of all three Components, little has been understood about this entity operates and its impact among participant organizations. Furthermore, existing studies examining the impact of learning collaboratives have varied conclusions, with some highlighting notable outcomes., (Horbar et al., 2001; Dellinger et al., 2005); Howard et al., 2007) and others indicating no impact (Landon et al., 2004; Homer et al., 2005). This study worked to expand knowledge about the innerworkings of the CSNLC and its connection to impact being made upon both individuals and the organizations they represented. The culmination of study findings produced recommendations that will expand the CSNLC's capacity to address identified

119

barriers and support long term sustainability of Chicago's safety net sector. This chapter provides a summation of said findings, researcher conclusions, and implications for both public health practice and future research efforts.

High level study themes that emerged from the data include:

- A demonstrated need to examine alternative learning collaborative models—the CSNLC represents a unique learning collaborative model, where its deviations resulted in the cultivation of leadership skills among its participants and adoption of innovative approaches to healthcare operations.
- Validation of organizational factors that impact the implementation of innovation process that include leadership, culture, climate, and infrastructure/capacity.
- Leadership serves as the most significant organizational factor that influences the implementation of innovation, with associations to all remaining organizational factors—demonstrating the importance of continuous development of leadership skills for public health practitioners that aid in driving and sustaining organizational change.

It should be noted that the researcher has developed a comprehensive table documenting the crosswalk between study questions, associated themes and key findings (See **Appendix 15. STUDY FINDINGS CROSSWALK TABLE**). This table serves a visual reference for the reader to gain a greater understanding of the alignment between these elements.

KEY FINDINGS

Key Findings: How the CSNLC is being experienced by its participants?

Participant CSNLC experiences were more similar than dissonant

Collective experiences shared by participants offered more similarities than variation largely noting the value of bringing together like-minded entities experiencing similar challenges to leverage expertise of the group, erect change and improve outcomes of patients served. Through the use of team based problem solving as a primary technique, participants were learning from their peers and able to provide several concrete examples of how this learning worked to gain access to resources already being utilized in other settings, assess their own existing organizational practices and build empirical data needed to make informed decisions about potential organizational changes. Hence, changing their approach to addressing challenges, improving the probability for achieving intended outcomes, and increasing the rate at which best practices are scaled across the sector. These findings are consistent with the literature, which speaks to learning collaborative models serving as an improvement method with the aim of widely disseminating knowledge its members with shared challenges and stated goals (IHI, 2003).

<u>CSNLC participation results in the formation of peer relationships</u>

CSNLC participants also spoke a great deal about forming relationships with other participants – the expansion of professional networks was considered to be an outcome of CSNLC participation that worked to build in additional supports for individuals as they worked on challenges outside of the sessions. CSNLC facilitators helped to support the development of these newly built relationships by ensuring there was time carved out during the sessions for participants to network, disseminating lists with participant contact information, and drawing upon group activities that encouraged peer engagement. With

121

respect to the literature, said findings are also in agreement and highlight how learning collaboratives have the potential to strengthen interorganizational learning and social networks (Bunger et al., 2014; Nembard, 2012; Palinkas et al., 2011).

CSNLC facilitators play in an influential role in shaping participant experience

At the crux of CSNLC operations and success factors described by participants was the evident role that the facilitators played. Their facilitation styles and expertise informed the culture and structure of the sessions across the three CSNLC Components. In setting the ground rules for participants and expectations for confidentiality, the facilitators worked to create a safe environment for participants that supported authentic communication among peers to speak freely about successes and challenges experienced within their organizations.

It should be noted that the researcher never asked any questions examining the facilitation of the various sessions or measuring facilitator skillsets. However, every participant made mention of their satisfaction with the chosen facilitators. This is important to highlight because it speaks to the impression that the facilitators made and the role these individuals played in shaping participant experiences. Furthermore, these findings shed on light on the importance of having strong facilitators with demonstrated expertise and success in developing relevant, practice-based curricula and guiding individuals through rich discussion that cultivate leadership skills and promote innovation. Research to date speaks little about the role of facilitators as part of the learning collaborative model and offers much room for further exploration.

Key Findings: CSNLC Impact upon Leadership Development

CSNLC demonstrates a commitment to impacting leadership development

At the time of the study, the researcher was not able to locate any literature indicating an association between participation in a learning collaborative and leadership development. The CSNLC initially only consisted of the Learning Events, which largely followed elements of the learning collaborative model with participants focusing on organizational challenges and developing strategies to address them. However, the Steering Committee identified a need to modify this structure to include the addition of two components that focused on leadership development and supporting leaders in their roles. The Leadership Institute and Discussion and Networking Sessions do not follow the traditional aims of a learning collaborative but serve as compliments to the Learning Events and demonstrate a commitment from the Steering Committee to leadership development. This commitment is highlighted through the DE Committee's request to expand the researcher's lens to explore leadership development as a possible outcome of CSNLC participation.

The CSNLC is making an impact upon leadership development

Study findings showed that the CSNLC is making an impact upon leadership development skills of its participants across all three Components. Participant responses highlighted how leadership development was both a process and outcome. As a process, participants described how facilitators utilized specific activities to help sharpen participant leadership skills such as presenting to their peers and using self-reflection to pull out major takeaways from the sessions. As an outcome, participants were able to provide the researcher with tangible ways that the CSNLC had impacted their individual leadership development that was connected to learning more about themselves and through their peers. Learning more about one's self supported the development of leaders with heightened selfawareness and sharpening of skill sets that increased willingness to extend the learning from others during the CSNLC sessions to learning about their direct reports in practice.

Key Findings: CSNLC Impact Upon Organizational Capacity

Existing literature speaks to how learning collaboratives can build organizational capacity for innovation and continuous improvement (Nembard, 2012; Singer et al., 2012). However, study findings present a mix of perspectives around the impact the CSNLC has made upon capacity of participant organizations. Three themes that emerged from the data included the CSNLC having no impact upon organizational capacity, expedites the organizational change process and supports leadership development.

<u>The CSNLC impacts leadership development skills and speeds up the change</u> <u>process</u>

The breadth of associated themes highlights that this entity indirectly impacts organizational change through individuals that participate in the CSNLC components, where these individuals are able to enhance their leadership skillsets and speed up the change process through increased knowledge of best practices across the sector access to experts in the field. An example of the indirect impact upon organizational capacity can be seen below, with a participant sharing how their organization developed a care team structure because of their CSNLC participation. The participant stated,

"Something that we did work on and we actually developed a care team structure. On our end, the community health nurse job description did all of those sorts of things. And um, that work helped fuel some of our input for our newest strategic plan, and we were able to sort of piece some of the work that we did at the Safety Net into our strategic plan so that we can really get the board's ultimate approval so that we can prioritize this as a big sweeping change in the organization."

The participant noted that the CSNLC informed elements of their efforts, but there was no specific mention to the role that this entity played in ensuring that CSNLC activities were formalized as part of this organization's strategic plan.

In support of digging deeper into the CSNLC's impact upon organizational reform, additional questions could've been asked of Role Tier 1 participants, whose positions in the organization offered the most visibility into organization-wide operations and how changes may have come about.

<u>Findings did not yield expanded knowledge, but highlights opportunity for further</u> <u>exploration</u>

While study findings did not yield expanded knowledge into how learning collaborative models impact the organizational capacity of its participant organizations to make rapid and sustainable improvements, it did help to recognize there's still much to be understood about whether this is a gap that learning collaborative models could fill in public health practice.

Key Findings: CSNLC Supporting Implementation of Innovation

<u>The CSNLC's aims are consistent with literature findings that explain the role of</u> <u>learning collaboratives</u>

According to the literature, learning collaboratives were "developed to bridge the gap between the distribution of information and facilitating the adoption of evidence-based and evidence-informed practice" (Stephan et al.,2015). The CSNLC's aim is in alignment with the literature, with a vision to support the adoption of innovative approaches to health center operations (McAlpine Consulting, 2017).

<u>The CSNLC is supporting organizations through the Knowledge, Persuasion and</u> <u>Adoption of Innovation Phases</u>

In drawing sound conclusions about respective study findings, it's critical to highlight the variance in the definitions being used for adoption. For purposes for this study, adoption was defined as "the step that precedes implementation and entails making a decision to reject or move forward with implementing the innovation" (Rogers, 1995). Using this respective definition, study findings bring to light the many steps that can take place from the knowledge, persuasion and adoption phases of the Decision Innovation Process. Participants shared that the CSNLC accelerates knowledge of best practices and health center operations across the city, builds skills among leadership, and reinforces the importance of quality improvement practices. These activities are in alignment with activities of the knowledge phase where participants both gain knowledge and exposure to innovation. According to Rogers, the persuasion phase entails using the knowledge gain to to shape a participants' attitude toward and innovation that can either be favorable or unfavorable. As part of the decision to adopt phase, participants draw upon evidence from the previous two phases to inform their decision making to determine whether to proceed through to implementation. The summation of these steps and progression through the phases work to confirm that the CSNLC is supporting organization from the knowledge phase to the adoption of innovation phase.

Findings are inconsistent with researcher intent

While supporting participants through the adoption process indirectly supports the implementation of innovation, the researcher's intent was to capture how the CSNLC provides direct support for the implementation process. This process was defined as "the point in time when the innovation is introduced into an organization and includes activities

such as training and support programs for organizational members slated to use the innovation" (Rogers, 2005).

Participant responses blurred the adoption and implementation stages

For a large majority of participant responses, the adoption and implementation stages are blurred because there was no explicit mention of how the CSNLC provides support after the innovation has been put to use. In the participant response noted below describing an example of an innovation developed in connection with CSNLC participation, there was no confirmation of how the CSNLC facilitated this process beyond the adoption stage. The participant stated,

"We implemented an Attendance Club and that came out of just some general conversations from the collaborative session on employee satisfaction. This is something that I was able to move forward extremely quickly and then share those best practice with other departments or other people in the collaborative of how well that went."

Technical assistance received after the commencement of the implementation process is largely participant-led, where individuals are reaching out to their peers in the CSNLC to work through challenges that arise. As one participant shared,

"Because we've built relationships.... we do our own networking. So, there'll be time in between meetings (where) something will come up and you know, it's a spur of the moment and I will reach out and send an email to ask questions."

<u>The CSNLC's serves as a distinct approach to learning collaborative models</u>

The CSNLC serves as a unique approach to collaborative learning and extends knowledge of non-traditional models being used in public health practice. The CSNLC's

current structure is inconsistent with the most widely used learning collaborative framework created by the Institute for Healthcare Improvement, where the selected topic is explored and tested for approximately 9 to 12 months (Lindenauer, 2008; Nembhard, 2009; Berwick, 1998). Study findings did not support evidence of topics being worked on as part of the CSNLC sessions over time in support of addressing emergent issues, as participants didn't reference this being the case and the existing annual calendar of CSNLC scheduled activities didn't reflect topics being covered more than once. The CSNLC's model deviates from the traditional learning collaborative model results in an enhanced understanding of new approaches to practice-based problem solving that can yield in achieving the shared goal of facilitating the adoption of innovative practices. In addition, the CSNLC model works to capture learning occurring within and across organizations. Thus, utilizing the CSNLC as a mechanism for generating new knowledge, capturing lessons learned in real time, and drawing upon said lessons to inform future action.

It should also be noted that findings highlight that the work of the CSNLC truly "stops at the front door of participant organizations" and respective CEOs/COOs are then charged with taking next steps to push forward the implementation of innovation process. Thus, further affirming the importance of sponsorship and champions of innovation amongst leadership within organizations.

Key Findings: How Organizations are Implementing Innovation

<u>Community health centers are implementing innovation despite the ever-changing</u> <u>healthcare landscape</u>

Even in the face of federal funding cuts and evolving payment structures creating an uncertainty around financial sustainability for community health centers, study findings show that 88% of CSNLC organizations had implemented innovation in the past year. These innovations work to demonstrate community health centers' commitment to improving patient outcomes and evolving operations to treat the whole patient in communities of great need.

Findings were consistent with literature's definition for innovation

In support of conceptualizing innovation as a means to measure it, study findings were consistent with the literature where all reported types of innovation falling into two, distinct categories: technical innovations and administrative innovations (Dewar and Dutton, 1986; Evan, 1966; Hage, 1980; Normann, 1971; Tushman and Nadler, 1986; Utterback and Abernathy, 1975).

Technical innovations, which are defined as new programs and processes, accounted for the largest number of innovations that included the launch of new programs such as diabetes and anxiety groups.

While administrative innovations accounted less than a third of examples provided, defined as new procedures, policies and organizational forms. Innovations in this category included new delivery care models and changes to customer service procedures.

<u>A mental model shift is needed to recognize that innovation is organizational change</u>

Lastly, some interviewed participants struggled with conceptualizing what innovation looked in their organizations. At the heart of innovation is organizational change and a mental model shift is needed to move organizations forward—as there's a widely held belief that innovation means something novel vs. a shift between what you are doing today to improve outcomes for tomorrow. In instances where there's existence of beliefs that innovation must be novel, there may also be hesitancy toward trying out new practices and/or under-reporting of efforts that aren't defined as such. Ultimately resulting in stagnant operations that can't compete in a fast- evolving healthcare landscape, where organizations must work to continuously shift their operations in order to remain viable and capable of meeting complex patient needs.

Key Findings: Organizational Factors the Impact the Implementation of Innovation Process

<u>All examined factors influence the implementation of innovation process</u>

Study findings show that all examined factors impacted the implementation of innovation process. Equally important, these findings worked to produce a ranking order of influence.

Leadership

Leadership plays a highly influential role in the implementation process

Leadership was highlighted as the most predominant organizational factor that had an explicit association to all remaining factors. Participants discussed that the role of leadership in their organizations was to set the strategic vision for innovation and alignment of financial resources and staffing. In organizations where leadership was serving in this capacity, there mention of said individuals working to develop and lead the execution of strategic plans and annual actions plans to ensure clarity around organizational aims and expectations of staff to move the organization forward. In the absence of strong demonstration of leadership's vision for innovation, participants spoke of leadership negatively impacting the pace at which innovation occurred that could include halting innovation altogether or pushing through too many innovations at one time.

Leadership's association to other factors is consistent with literature findings

With respect to leadership's association to other examined organizational factors, existing literature supports study findings. Leadership has been cited as being a critical factor fostering an organizational climate capable of supporting innovation, "creating an organizational culture and structures that promotes innovation, and enhancing organizational capacity to innovate by directing resources and energy toward innovation" (Peters and Waterman, 1982; Van de Van, 1986; Hasenfield, 1983).

<u>Study findings highlight connection between the CSNLC commitment to leadership</u> <u>development and leadership's critical role in the implementation of innovation</u> Study findings work to create a connection between the CSNLC commitment to

fostering leadership development among its participants, evidence of leadership skills being positively impacted through CSNLC participation, and leadership serving as a significant organizational factor influencing the implementation process. There's an opportunity for this entity to create greater impact by bolstering its leadership skill development efforts by way of providing either technical assistance during the early stages of the implementation process or additional support during the adoption phase that aids in conducting an organizational change readiness assessment.

Organizational Climate

Similar descriptions for organizational climate across participants

Participants were able to share descriptions of their organization's climate that largely consisted of drawing upon multiple methods to communicate innovations across the organization, training programs to educate and support the technical assistance needs of staff, and existence of incentive programs that worked to both promote and reward the use of innovation. In addition, participates noted that implementation policies and procedures served as tools to formalize standardization of the implementation process.

Organizational climate was more often a facilitator than barrier

Literature suggests that "an organization's implementation and practices should be conceptualized and evaluated as a comprehensive, interdependent whole that together determines the strength of the organization's climate for implementation" (Klein et al, 1996). Study findings showcase that organizational climate often served as a facilitator in the implementation process, with minimal discussion of its role in impeding this process.

Organizational climate served as a barrier in larger sized organizations

As a barrier, organizational climate highlighted challenges with coordinating staff training in larger sized organizations. Inability to adequately train staff on innovations in a timely fashion creates a missed opportunity to disseminate knowledge about the innovation's intent and tools for proper utilization. In consequence, leading to improper use of the innovation and/or non-use when staff experience challenges with said innovation.

Collectively, participant organizational climates are moderately strong

Based upon study findings, the strength of participant organizational climate as a whole could be classified as moderate, with room for improvement in the areas of finding creative and effective ways to conduct staff training for larger organizations and development of implementation of policies and procedures for organizations that don't currently have them.

Organizational Infrastructure/Capacity

<u>The influence of organizational size was more evident than other sub-infrastructure</u> <u>factors</u>

Of the three sub-organizational infrastructure factors being explored, organizational size was coded more frequently than the other two. Therefore, giving the notion that its influence was evident upon the implementation process. This conclusion is an extension of existing literature stating that "organizational size is the most important organizational characteristic predicting innovation adoption among organizations" (Damanpour, 1987; Fagerberg et al.,2005).

<u>Benefits and challenges related to organizational size that consistent with the</u> <u>literature</u>

Study participants defined organizational size using descriptors of the number employees, annual operating budget and number of operational sites. Similar to the literature, study findings noted both benefits and challenges related to organizational size with participants describing how being in smaller organization lends itself to having less staff to train on the innovation and lower numbers of clinical locations helped with easing communication efforts said innovation easier to coordinate. According to Frambach et al. (2002), "smaller organizations are more flexible and innovative, resulting in an enhanced receptiveness towards new products". Being in a small organization also comes with challenges of limited physical or not enough manpower to implement innovation. This conclusion is in alignment with the literature, asserting that these organizations often lack resources needed to implement innovation (Damanpour and Gopalakrishnan, 2001).

With respect to larger sized organizations, the evidence of this factor having an association with other factors such as climate, culture and structure was more apparent. As a facilitator, larger sized organizations are able to pilot innovations at one site before scaling to

remaining sites. In addition, leadership's expectations for innovation increased with size in order to evolve and improve their practices. This finding is in accordance with the literature stating that "larger organizations may have greater access to resources needed to implement innovations and feel a greater need to adopt innovations in order to support and improve their performance" (Chenall et al., 2003).

Being a larger organization also comes with some challenges that include coordination challenges with managing the various moving parts related to implementation such as staff training, communication, and garnering buy-in across locations.

Organizational size findings expand and contradict existing literature

Collectively, study findings helped to expand existing literature that highlight the relationship between organizational size and the implementation of innovation process—and also work to contradict findings of Damanpour and Fagerberg et al. that have argued that there is no evidence of this relationship (Damanpour, 1987; Fagerberg et al., 2005). In addition, study findings underscore the importance of organizations recognizing the nuisances of organizational size before choosing to embark upon the implementation process. Thus, allowing organizations to take advantage of the benefits that their respective organizational size can bring and execute sound planning practices that can proactively mitigate anticipated challenges.

Organizational structure can serve as a facilitator and barrier

Study findings related to organizational structure show this factor capable of serving as either role a facilitator or barrier. As a facilitator, organizational structures that have dedicated staff charged with overseeing and executing the implementation process were described being invaluable in making innovation happen. Structures were also deemed as beneficial in helping the flow of communication about innovation remain fluid, where specific individuals within various levels within the organizations were responsible for being the conduit that allow for bi-directional communication and problem solving to occur. When asked how their organizational structure worked to support the implementation of innovation, one participant shared,

"I think I listed seven or eight key level positions. Those people have direct responsibilities to people underneath them and they take messages back, to work it out, whatever the issues are, they bring it back. We've got a real nice system of nice communication."

Findings help to expand evidence base that organizational structures can influence the implementation process and are in accordance with the works of Mohanta et al., which stated that "organizational structures determine how the roles, power and responsibilities are assigned, controlled, and coordinated, and how information flows between the different levels of management" (Mohanta et al., 2018).

Identification of organizational structure types that influence the implementation process is unknown

It should be noted that the findings did not lend themselves to indicate which the types of organizational structures that can either impede or support the implementation of innovation process.

<u>Availability of resources has limited influence on the implementation process</u> <u>compared to other sub-infrastructure factors</u>

Availability of resources was coded the least of all sub-infrastructure factors, giving way to the notion that it's overall influence upon the implementation of innovation process may be less in comparison. Study findings showed that the participant organizations offered a mix of organizations that described their organizations as being "financially stable" on one end of the spectrum and "a resource stark environment" on the other. In organizations characterized as having resources to innovate, participants were able to recount ways finances were used to support the addition of staff, capital improvement projects, and programmatic-related expenses. Furthermore, there was an identification of an association between the availability of resources and organizational structure where there were development staff responsible for securing revenue to support innovation initiatives. Existence of these staff helped to expand the organization's capacity to go after funding opportunities and oversee the management of grants that were obtained.

Limited or absence of available resources stalls or scales down implementation efforts

Organizations with limited or no financial resources, spoke of the impact upon their ability to move forward with implementing innovations. Without the identification of supporting funds, opportunities to innovate were stalled or scaled down to ensure alignment with available funds. These findings support that the availability of funds can impact the implementation process because all innovations come with an associated price tag needed to support implementation activities. According to Klein et al. (2005), "the implementation process requires money to offer extensive training, to provide ongoing user support, to launch a communications campaign explaining the merits of the innovation, and to relax performance standards while employees learn to use the innovation". The following participant's sentiments serves as additional evidence substantiating conclusions being drawn,

"One of the difficult things for an organization of any size is funding innovation. Typically, any change costs some money, whether it's staff time, needing to purchase new software, needing to hire a consultant, do an assessment, pay staff differently because they've changed their job description. At the very least, there's the cost of someone who's currently employed to be doing that versus something else. And I would say by far and away, that's always the biggest barrier."

<u>Leadership serves as the gatekeepers for making funding available to support</u> <u>implementation</u>

In all instances highlighted above, leadership within those organizations served as gatekeepers making the decision to make funding available to support innovation. Hence, highlighting the influential role that leadership plays in vetting proposed innovations and understanding long-term implications that can have a significant impact upon the organization's sustainability down the road. Findings serve as additional evidence supporting existing literature works stating, "that innovations are able to succeed when there's commitment of key and strategic resources that controlled by the top management or leadership of the organization" (Oke et al., 2005).

<u>There's a demonstrated link between organizational infrastructure and capacity</u>

Lastly, study findings also helped to shed light on the link between an organization's infrastructure and capacity to support change. Through participants' responses about their organization's size, structure and availability of resources; the researcher was also able to glean insight into participant's perceptions of the availability of time needed to support innovation and bandwidth to manage multiple organizational priorities simultaneously. Organizations that deemed themselves as large and had access to dedicated staff to support the implementation of innovation, in essence helped to demonstrate how these two elements collectively helped to expand the organization's capacity to make innovation occur. As one participant stated,

"I feel like just having someone else's team help with this innovation is so beneficial...it's really, really hard (for me) to manage the operations of the site and directly manage people and then you know, fulfill a project change or change to a workflow or things like that."

Furthermore, existing literature highlights the association between leadership and organizational capacity. According to Hasenfeld, leadership "can expand organizational

innovation capacity to by allocating financial resources and energy toward implementing new programs and lending power and legitimation to innovative activities" (Hasenfeld, 1983). In organization's where there is a perception that capacity to implement innovation exists, said capacity can be used to explain why innovation is occurring and there's an increased willingness among staff to support future innovations.

Organizational Culture

<u>Specific organizational culture archetypes that support the implementation of innovation</u>

Study findings related organizational culture confirmed that specific organizational culture types can predict staff's willingness to support the implementation of innovation process. In consequence, expanding the field's knowledge about this phenomenon because there are only a few studies that have focused on the effect of culture on innovation (Naranjo-Valencia et al., 2011). Specifically, study findings show that there's support of innovation among staff where the culture has been defined as "mission oriented" because there's a demonstrated commitment to move innovations forward if said innovation are deemed to be in alignment with organizational mission, values, or vision.

Findings are inconsistent with literature speaking to the "knowing-doing-gap"

The aforementioned findings serve as a contradiction to literature works that infer that staff members will often give in toto the "knowing-doing-gap" and not utilize an innovation even when they understand its benefits (Klein and Knight, 2005). It's unclear if existing literature represents sentiments of the nonprofit sector, where individuals are typically drawn to the sector because of an intrinsic motivation to make a difference. All CSNLC participant organizations represent the nonprofit sector and study findings help to shed some light into the various culture archetypes that can support the implementation of innovation process.

Organizational culture archetypes that impede the implementation process

Organizational cultures that were described by participants as "discordant" and "stagnant work environments", there was existence of staff attitudes and beliefs that were resistant to organizational change and friction among staff role types with perceived differences of acceptance toward implementation. This type of culture served as a barrier in the implementation process, making it challenging for organizations to move innovations forward. Ultimately, causing innovations to fail.

Organizational culture is an important determinant of organizational climate

Lastly, key findings worked to expand existing literature recognizing that

"organizational culture is an important determinant of organizational climate because the climate reflects the shared knowledge and meaning embodied in an organization's culture" (Moran et al., 1992). The association between organizational climate and culture was made apparent through the co-occurrence reports. In addition, these reports also assert leadership's role in shaping culture that serves as the foundation for the organizational climate capable of implementing innovation. These conclusions are supported through the works of Peters and Waterman and Van de Van that were discussed as part of the leadership factor section earlier in the chapter.

Key Findings: Differences & Similarities by Implementation Category

Cross case analysis helped to illuminate any similarities and differences among the Implementation Categories. Due to study findings confirming that most organizations are innovating to some degree, the aim of this question has shifted to better understand if there are distinguishing organizational characteristics that influence the pace at which organizations innovate.

Cross case analysis yielded in the following conclusions:

- The calculated implementation scores represented the completion rate at which organizations were executing the Implementation Strategies set forth as part of their participation in the Learning Events. In digging a bit deeper into the High and Moderate Implementer Categories, the use of strategic and annual action plans worked to support the implementation of innovation. Consequently, highlighting a distinguishing characteristic not represented in Low Implementer organizations. Perhaps indicating the importance of developing Implementation Strategies that are in alignment with or inform organizational strategic and annual action plans yield in implementation.
- The types of implemented innovation represented varied levels of complexity and associated costs. Moderate Implementers served as the only Category that implemented innovation across all three innovation types. While High and Low Implementers largely executed process changes that typically don't require the same level operational lift as the other two innovation types. Study findings elevated Moderate Implementers as the only category that expressed an association between availability of resources, organizational structures and leadership that collectively worked together to support the implementation of innovation process. Thus, helping to explain why Moderate Implementers have been able to implement a range of innovations relative to the other categories. In these instances, leadership directs financial resources to support the development

of responsive structures and cover costs associated with the implementation process. Existence of these organizational factors can help both expand innovation possibilities and aid in organization wide reform.

- As an organizational factor impacting the implementation process, leadership largely operated in a facilitating capacity across all Implementation Categories. Traits of leadership that work to facilitate the implementation of innovation looked the same no matter the Implementation Category—building greater confidence in the evidence indicating that leadership's role is to serve as key visionaries and champions for innovation. "As change drivers, they are actively involved in creating an environment and culture that fosters change and growth" (Bass, 1985).
- High and Moderate Implementers offered more similarities in both coding frequencies and examples provided by respective staff across the examined organizational factors than differences. Some notable similarities included having leadership playing an engaged role in the implementation process, existence of strong organizational climates for innovation, and supportive staffing structures that also worked as barriers to the process because of the presence of too many layers of approval and navigation. For organizations considering implementation of innovation, assessment of their leadership, organizational structures and climates are key indicators for success.

Key Findings: Identifying the Gap between Participant Needs and What the CSNLC Provides

Research questions 4 and 7 helped to highlight ways the CSNLC currently supports participants during the adoption of innovation phase and suggestions for how this entity

could change its operations to address organizational factors impacting this process. Collectively, these findings produced a list of potential gaps standing in between the current value the CSNLC provides to its participants and wishes for enhancement and greater impact.

<u>Proposed CSNLC suggestions aligned with three of four examined organizational</u> <u>factors</u>

With some hesitation from participants, suggestions were provided to the researcher that were connected to only three of the examined organizational factors that included organizational infrastructure/capacity, organizational climate, and leadership. Proposed enhancements included expanding access to sessions via a virtual platform, supporting organizations in the development of implementation policies and procedures, and expanding Leadership Institute capacity to allow for greater executive leadership participation. Many of the technical fixes could be addressed without the requirement of a heavy lift from the CSNLC. However, what remains unclear is whether these fixes will better position organizations as they move forward in the implementation phase because they were developed under the assumption from the participants that the CSNLC was already supporting them in the implementation of innovation. Study findings have confirmed that this is not the case.

The recommendation seeking support from the CSNLC to garner increased support from leadership participant organizations poses an interesting opportunity that could be addressed through greater participation in the CSNLC activities from leadership within various levels of the organization or contractually in the MOU.

<u>Organizational culture was not represented in participant suggestions for CSNLC</u> <u>enhancement</u>

Notably missing from this list is organizational culture. One could speculate that this exclusion is the product of beliefs about the CSNLC's role to indirectly impact organizational change through the impact being made upon the individuals that attend the sessions. The CSNLC directly impacting organizational culture extends beyond this boundary—as culture is inherently embedded with an organization's innerworkings that are hard to understand or be penetrated by an external source. Further questioning of participants is needed to better understand if this boundary truly exists and why suggestions for organizational culture were not proposed.

<u>Considerations to be made before pursing CSNLC recommendations</u>

Before moving forward with CSNLC recommendations, there are some intermediate steps to be taken that include the identification of topics currently missing from the CSNLC menu that participants believe could be taught by external experts, conducting an assessment of knowledge held by the CSNLC network and it's facilitators to identify gaps to be filled by external experts.

Additional important step includes the development of a formal process to get proposed changes in front of the CSNLC network at large to garner feedback and buy-in. Without this step, an unintended outcome could be membership attrition.

Key Findings: Defining the CSNLC's Role in Addressing Factors Impacting Implementation

The CSNLC is meeting the aims of its vision

The vision outlined in the CSNLC's 3-Year Sustainability Plan and existing literature reflecting aims of the learning collaborative model both serve as great starting places in

trying to define the CSNLC role in addressing factors impacting implementation. According to the Plan, the CSNLC envisions a strengthening of their ability to teach and learn systems change in safety net practices, promote leadership development and adoption of innovation approaches to health center operations (McAlpine Consulting, 2017). Study findings confirm that the CSNLC is meeting aims of its stated vision that includes participants learning about systems change, sharpening their leadership skills, and receiving support through the adoption stage that work to build evidence needed to make a determination whether to move forward with implementation of an innovation.

Non-conclusive relationship between CSNLC and implementation

The literature states that "learning collaborative models are popular for providing training and ongoing support in large scale efforts to disseminate and implement innovative practices and improve quality of care" (Nadeem et al., 2006). Study findings were not able to conclusively show the relationship between CSNLC activities and implementation of innovative practices. However, one can suggest that supporting the adoption stage indirectly impacts the implementation of innovation.

The CSNLC represents a distinct model than those represented in the literature

It should be noted that comparisons made between the CSNLC and traditional learning collaborative models presents an interesting conflict because CSNLC operations are dissonant from those documented in the literature that are modeled after *The Breakthrough Series. The Breakthrough Series Model* boasts a focus a single topic of interest and uses the Plan-Do-Study-Act (PDSA) framework to pilot strategies and bring lessons learned back to the group (Berwick, 1999). Currently, only the Learning Events Component has a focus on developing implementation strategies to address organizational challenges. Implementation efforts and associated challenges are largely driven by participants outside of the Learning Event sessions. Study findings illuminate that the CSNLC's role is to support participants from the knowledge phase through the adoption phase of innovation. Thus, indirectly supporting the implementation of innovation process.

Participants are seeking additional support

While this entity is meeting the aims of its stated vision, participants are seeking additional support during this stage that works to address organizational factors that impact the implementation of innovation process—helping to move them along the Decision Innovation Process Continuum. Expansion of the CSNLC's capacity to better support its participants during the adoption phase could work to build the knowledge of best practices around the use of learning collaboratives in mitigating organizational factors that impact the implementation of innovation. Ultimately, improving the rate at which successful implementation occurs.

LOGIC MODEL REVISIONS

As a tool used in qualitative analysis, "the researcher first compared the consistency between the observed and the originally stipulated sequence for each case, affirming (or rejecting or modifying) the original sequence" (Yin, 2018). The first four research questions were developed to examine CSNLC operations and associated outcomes. Findings for these specific questions were used to inform modifications made to the final CSNLC Logic Model noted below in Figure 20.

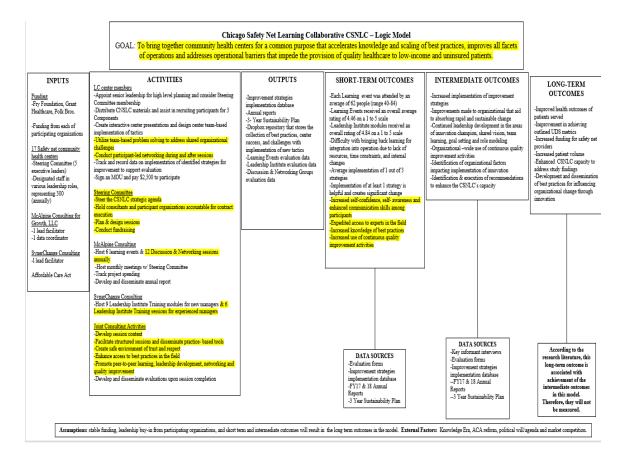


Figure 20. Revised Chicago Safety Net Learning Collaborative logic model

Testing of the logic model resulted in no deletions, but instead content additions that worked to highlight the expansive nature of CSNLC activities and individual impact made upon participants. As a result, the final logic model serves a visual representation documenting how the CSNLC operates in practice and intended impact using the following time intervals: short-term, intermediate, long-term. It should be noted that the final logic model serves a foundation to support the development of a theory of change for the CSNLC discussed in the recommendations above.

Instituted changes to the logic model were categorized by their respective research question and include:

• **RESEARCH QUESTION 1**: *How is the CSNLC being experienced by its participants?* Findings from the content analysis, discussions held with the DE Committee, and respective research question yielded in modifications to the **GOALS** and **ACTIVITIES** sections of the logic model. The CSNLC's overarching goal was expanded to capture participant responses in how they collectively described this entity's objective. The updated goal now reads, *"To bring together community health centers for a common purpose that accelerates knowledge and scaling of best practices, improves all facets of operations and addresses operational barriers that impede the provision of quality healthcare to lowincome and uninsured patients."*

- Notable changes to the ACTIVITIES section consisted of adding activities conducted by the CSNLC's Steering Committee that included steering this entity's strategic agenda, holding consultants and participant organizations accountable for contract execution, and planning and designing CSNLC sessions.
- In addition, joint consultant activities were also added to the **ACTIVITIES** section in support of integrating the critical role these individuals play in shaping participant experiences that included developing session content, facilitating sessions and promoting rich discussion among participants.
- RESEARCH QUESTION 2: *How has participation in the CSNLC facilitated the development of leadership skills among participants?* Findings resulted in changes to the **SHORT-TERM OUTCOMES** section in the logic model. The researcher included the following leadership development outcomes: increased selfconfidence, self-awareness and enhanced communication skills.
- RESEARCH QUESTION 3: *How has participation in the CSNLC impacted the organizational capacity of its participant organizations to make rapid and*

sustainable improvements? With respect to integrating findings for Research Question 3, the researcher included the addition of expedited access to experts in the field, increased knowledge of best practice and use of continuous quality improvement activities to the **SHORT-TERM OUTCOMES** section.

 RESEARCH QUESTION 4: What is the perception of how the CSNLC supports the implementation of innovation process? Findings resulted in minimal additional changes to the ACTIVITIES section that included promoting quality improvement among CSNLC participants and enhancing access to best practices in the field.

CONCEPTUAL FRAMEWORK REVISIONS

The initial conceptual framework largely reflected two processes that included: (1) how the CSNLC performs its activities and (2) the Innovation-Decision Process; and four organizational factors: leadership, infrastructure, culture, and climate. An expanded conceptual framework was developed to capture both findings from the literature review and results from data collection efforts (See **Figure 21. Revised conceptual framework**).

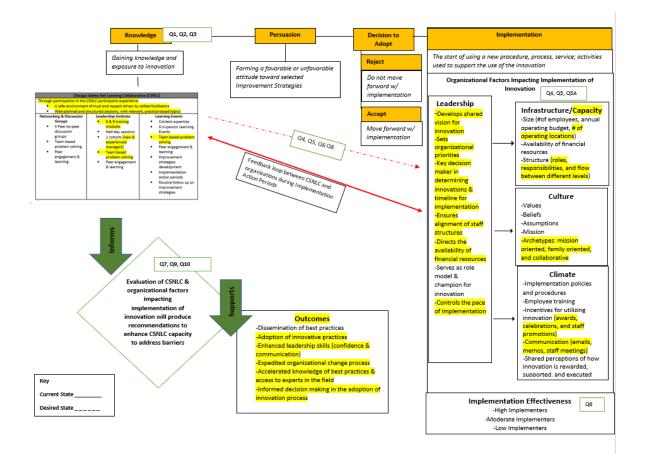


Figure 21. Revised conceptual framework

Modifications to the **Chicago Safety Net Learning Collaborative** activities included the addition of participant descriptions used to explain how they were experiencing CSNLC activities. This change aided in the inclusion of the role that facilitators play in shaping participant experiences. Other changes made include the addition of team based problem solving (a central practice used across all CSNLC activities and representation of two Leadership Institute cohorts that support new and experienced managers.

 Modifications to the Organizational Factors Impacting the Implementation section worked to expand definitions for each factor using participant descriptions elevated through study findings. These changes work to provide clarification of elements associated with each factor—that can dictate the extent of it's influence and determine whether the factor will serve as a barrier or facilitator.

In addition, changes were made to the scale of leadership factors to highlight its significance in the implementation process as well as it's association to the remaining organization factors.

The term organizational objectives was removed from culture because CSNLC participants made no mention of it. This element was replaced with culture archetypes provided by participants used to describe their organizational cultures that included "mission oriented", "family oriented" and "collaborative".

Lastly, terms located in the literature that define organizational structures (decentralized, centralized, and hierarchy) were replaced with the following descriptors roles, responsibilities, and flow between different levels—this change resulted in greater alignment with study findings.

ii. Changes to the Outcomes section included the deletion of improved patient outcomes and enhanced care coordination because study findings did not confirm their occurrence. Instead, this section was expanded to include confirmed outcomes attributed to CSNLC participation such as enhanced leadership communication skills, adoption of innovative practices, and accelerated access to best practices and access to experts in the field.

RECOMMENDATIONS

Existing literature, documented CSNLC aims, study findings, and consensus building among the DE Committee worked to support the co-development of six recommendations. These recommendations will work to enhance the capacity of the CSNLC operations,

inform operations of both existing and future learning collaboratives, and expand the knowledge base around best practices for using learning collaboratives to support leadership development and adoption of innovation. Recommendations are as follows:

• Develop a theory of change that weaves together the aims and intended outcomes of the CSNLC activities that include Learning Events, Discussion & Networking Series, and Leadership Institute. According to the literature, theory of change is a method that is used to demonstrate initiative and program logic through the characterization of long-term goals and then mapping backward to identify the changes that need to happen earlier (Taplin et al., 2013). The CSNLC has worked to evolve its programming using participant feedback and strategy led by its Steering Committee. According to study findings, the addition of the Leadership Institute and Discussion & Networking Series has worked to enhance participant experiences. However, there's no common thread that binds all three components together in support of achieving the intended outcome. In addition to making these connections and respective impact clear, execution of this recommendation could also better position the CSNLC for grant funding because funders

seek this alignment as a means to measure the value add of their funding efforts.

• Develop a readiness/organizational change assessment tool that examines how and which organizational factors (leadership, organizational climate, culture, and infrastructure) can impact the implementation of innovation process within the respective participant organizations. This tool will support organizations in building additional evidence for deciding the optimal implementation timeline or whether to pursue the implementation stage at all. Furthermore, the use of this tool helps participants draw upon evidence informed decision making, a critical skill in public

health practice. The value that data brings to decision making is critical as it provides practitioners with greater insight into the complexities of adaptive challenges before jumping to a solution.

- Enhance evaluation tools to capture impact made upon participant leadership skills and identify areas of improvement for each CSNLC activity type. Study findings assert that participation in the CSNLC cultivates leadership skills. Also, important to note is the connection between the CSNLC's stated goal of impacting leadership development and study findings elevating leadership as the most significant organizational factor impacting the implementation of innovation process. Tracking and measurement of the CSNLC's impact upon leadership development across its activities will help drive programmatic decisions and ensure that participants continue to receive support needed to grow as leaders. Lastly, the literature is gray with respect to learning collaboratives and they role play in leadership development. The CSNLC represents a unique model in the field—any data documenting its operations and indicating its impact will build the evidence base.
- **Create a sequencing framework** that integrates Learning Event topics over time. This shift would aid in participants receiving formal technical assistance within the CSNLC structure as part of adoption phase and early stages of the implementation phase. Currently, support received to address emergent practice-based challenges is largely driven by participants outside of sessions. Lastly, weaving topics together helps to leverage elements of a traditional learning collaborative that provides support to participants using a single topic of interest, predetermined timeframe, techniques to mitigate challenges, and measurement of progress along the way.

- Approve the use external experts as part of the CSNLC and make associated funding available. The use of external experts could be used as a compliment to knowledge within the CSNLC network. Specifically, external experts could be utilized for topics where there a gap in internal expertise as been identified as part of the annual planning process. Ultimately, access to external experts could work to expand visibility into best practices for safety net operations and give way to a wider range of diverse perspectives needed to see old challenges in a new light.
- Train executive leadership and middle management on best practices for incorporating innovation into organizational strategic planning practices. This would help participants to embed implementation strategies into long-term organizational planning efforts and support the alignment of critical elements such as financial resources and organizational structures needed to facilitate execution.

Recommendations for future research include:

- Assessment of learning collaborative model facilitation and impact upon learning participant experience.
- Expand the assessment of alternative learning collaborative models that impact leadership development and/or organizational capacity to adopt innovative practices.
- Identify additional elements of organizational factors that influence the implementation of innovation process.
- Expand the analysis of the distinction between the adoption and implementation of innovation process.

IMPLICATIONS

This study sought to understand aspects of the CSNLC and organizational factors that influence the implementation of innovation process. Existing literature and environmental scan revealed the need for healthcare organizations to continuously evolve their operations in order to keep pace in a fast paced landscape, challenges experienced with successfully navigating the implementation of process, and the use of learning collaborative models as a mechanism that support organizations. Study findings resulted in the leadership implications that inform efforts of public health leaders locally and nationally.

Alternative Learning Collaborative Models

Study findings helped build the evidence base for the use of alternative learning collaborative models to promote leadership development needed to drive organizational change and facilitate the adoption of innovative approaches to health center operations. In this capacity, learning collaborative models help accelerate knowledge of current operations occurring across the field and best practices that have proven to work in similar settings, foster relationship building among practitioners, and draw upon the use of team-based problem solving to address challenges experienced across the network. These collective efforts ultimately provide practitioners with enhanced skill sets and resources to make informed decisions about whether to adopt an innovation and lays the foundation for successful implementation to occur.

Organizational Factors that Impacted the Implementation of Innovation

Findings identified organizational factors that impacted the implementation of innovation as well as elevated elements of each that determined whether the factor served as

a facilitator or barrier. All examined factors of leadership, organizational climate, culture, and infrastructure influenced the implementation process to some extent. However, leadership was unveiled as the most significant factor and that held capabilities to shape the influence of the remaining factors. Thus, indicating the importance of continuous cultivation of leadership skills among public health practitioners. Respective skillsets will need to evolve to produce both visionaries and champions for the innovation decision process as well as support the development of organizational infrastructures capable of driving and sustaining change.

Innovative Approaches to Safety Net Healthcare Operations

The study used innovation as a frame for measuring organizational change within community health centers in a post ACA environment. Due to the timing of the study, little has been published revealing how these organizations have implemented innovation during a time of constant change and uncertainty about the financial sustainability of these centers. The themes identified in the study provided some insight into the diverse range of approaches to health center operations that can be applied to safety net practices or larger settings such as hospitals.

<u>Recommendations that Enhance Learning Collaborative Capacity</u>

Lastly, the study produced recommendations that will enhance the capacity of the CSNLC to both address study findings and aid in meeting the needs of its participants through the adoption of innovation process. Ultimately, working to better position participants to move forward with the implementation process because of accelerated knowledge of best practices proven to be effective in similar settings, access to tools that support the use of evidence informed decision making, and expanded support networks to troubleshoot challenges that may arise. Recommendations will inform efforts of existing and future learning collaborative models.

LIMITATIONS

One limitation of this study is that recruitment challenges for the first round of focus groups caused researcher to the data collection method to semi-structured interviews. This shift allowed for only one 60-minute touch point with CSNLC participants to achieve study aims. As a result, the researcher made significant changes to the interview guide to ensure balance between CSNLC operations, how participant organizations were implementing innovation and examination of organizational factors impacting this process.

In addition, the change from focus groups to semi-structured interviews resulted in a smaller sample size. Whereas, the target recruitment population shrunk by 50% and participant views represented may not be generalizable to all CSNLC participants.

Furthermore, case study approaches do lend themselves to generalizability because findings represent a single case (Yin, 2018). However, the CSNLC represents a rich case that offers transferable learning for other settings seeking to learn about how community health centers are implementing innovation, factors impacting the implementation of innovation process or utilize a learning collaborative model to support the adoption of innovative practices.

Another study limitation included a shift to convenience within purposeful sampling was used in the selection of interview participants to aid in managing the high volume of responses to participate in the study. Recruited and study participants reflected the intended

target numbers for each role type and mix of CSNLC components. Interviews were completed on a first-come-first basis and as study targets were met for each Implementation Category, the researcher would cancel remaining interviews in the respective category.

Participant opt-in bias serves another study limitation, whereas only individuals that had positive experiences with the CSNLC and were proponents of this entity chose to participate in the study. Hence, resulting the researcher being able to capture the full breadth of CSNLC participant perspectives.

As noted in the literature, "researcher bias is inherent with qualitative studies because the researcher serves as the instrument and considered the greatest threat to trustworthiness, if time is not spent on preparation of the field, reflexivity of the researcher staying humble and preferring to work in teams so that triangulation and peer evaluation can take place" (Poggenpoel & Myburgh, 2003). To address this limitation, several measures were taken to avoid bias that included the use of a second coder to ensure systematic coding practices, consideration of alternative explanations before drawing conclusions, and presenting to the DE Committee researcher interpretations of study findings both at the preliminary analysis stage and upon completion of data analysis stages.

Lastly, the study examined organizational factors impacting the implementation of innovation process. Identified factors revealed some elements of each factor that determine whether the factor serves as a facilitator or barrier. There many other associated elements that can influence the extent which these factors impact the implementation process. These elements can include the archetypes of organizational cultures, structures, and leadership styles; and extend beyond the study's scope and aims.

VI. CONCLUSION

The launch of ACA expanded access to healthcare services to millions of Americans, highlighted the critical role of FQHCs, and demonstrated an enhanced focus on the quality of care provided. These shifts are steeped in adaptative leadership challenges that require organizations to learn how to effectively find external knowledge and integrate it with internal knowledge in order to foster and develop successful innovations capable of anticipating and withstanding future change (Schweitzer et al., 2011).

Study findings confirm that alternative learning collaborative models can both support the adoption of innovative approaches to health center operations and cultivate leadership skills needed to effectively drive and sustain change. However, organizations still are confronted with challenges of how to successfully navigate the implementation of innovation process due to the myriad of organizational factors that either support or impede efforts. In addition, public health practitioners will need to balance the fast pace at which the healthcare landscape continuously shifts, and time needed to conduct important functions such as capacity building and gathering diverse perspectives as part of the implementation process. Said balance will prove beneficial in paving the pathway toward a more equitable healthcare system.

Future research must work to better understand underlying elements of organizational factors and the extent of their influence in order to unveil potential solutions that best support public health practitioners.

There's also an opportunity to build the implementation science evidence base to bring more clarity to the distinction between adoption and implementation of innovation processes—as there is still much contradiction in existing literature. Increased knowledge

will lead the pathway to the identification of specific steps related to each process and the creation of tools to guide practitioners.

These collective efforts work to both inform and strengthen the application of best practices, aid in the development of a more equitable healthcare system, and a reduction in health disparities.

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Tiosha Bailey

2324 Robertson Lane Flossmoor, IL 60422 708-257-2862 tioshabailey@gmail.com

EDUCATION

University of Illinois at Chicago- Chicago, IL

DrPH (candidate), Leadership in Public Health, Expected December 2019

Master of Public Health, Health Policy and Administration Division, May 2007 **Capstone:** "Organizational Death: A Result of Gentrification in Chicago Neighborhoods and its Impact upon Breast Cancer Out- comes"

Bachelor of Arts, Sociology, December 2004 Graduated with Highest Distinction in Sociology

PROFESSIONAL EXPERIENCE

Susan G. Komen Chicago, Chicago IL

Susan G. Komen is the world's largest and most comprehensive breast cancer organization, with a mission to meet critical needs in the community and invest in breakthrough research to prevent and cure breast cancer. Komen Chicago was established in 1997 and has invested over \$18.1 million in direct services and over \$6 million in research.

Executive Director

06/18- Present

Lead organizational development, optimize financial performance, expand systems and procedures to accomplish strategic goals. Drive organizational strategy and supportive relationships that further the mission. Works closely with the Affiliate Board of Directors, Komen's HQ, the Associate Board, and collaborate with metro Affiliate Chapters across the country.

Notable Achievements

- Served as key visionary in the development of the Chicago Health Equity Initiative, the Affiliate's first collective impact initiative aimed at eliminating breast cancer mortality disparities and achieving health equity by addressing the systemic barriers driving them.
- Improved overall organizational financial health: decreased expense ratio to 28.09% from 36.30%, 2% budget variance for revenue aims—lowest in 2 years, and expansion of revenue streams i.e. MBC Conference and Jewel Pin Pad Program.
- Lead the establishment and dissemination of Komen 2.0 vision and 5 strategic priorities both work to set the foundation for organizational aims and activities over the next 2-3 years.
- Increased research and community grants investments year-over-year by 33.6% (\$288K to \$385K) and 48.7% (\$369K to \$549K) respectively

Chicago Department of Public Health, Chicago IL

The Chicago Department of Public Health is the 2nd largest municipal health department in the United States, with a mission to make Chicago a safer and healthier city through the

promotion of health, disease prevention, and reduction of environmental hazards and barriers to health care.

Deputy Commissioner- Clinical Services

10/14-06/18

Serve as the key advisor and liaison on all clinical services. Lead a strong team of 100 staff whose primary responsibilities fall within the following programs: Mental Health, Breast Health, HIV and STI. Provide leadership, direction, and vision for strategic planning, program development, and communications for clinical programs and services. Manage federal and state grants across programs. Steer performance management and quality improvement initiatives. Spearhead workflow reengineering initiatives to enhance efficiency, patient experience and quality outcomes. Engage internal and external entities around programs, policies, and operations in medical and public health services. Serve as part of the Executive Leadership Team. Advise the Commissioner on clinic performance, outcomes, and opportunities. Represent the Department in media and public instances related to clinic services, policies, practices at the discretion of the Commissioner.

Notable Achievements

- Selected to serve as the project manager for a \$2M cost savings EMR development and implementation project spanning across five clinical programs
- Developed quality dashboards for the Breast Health program to measure and track outcomes

Erie Family Health Center, Chicago IL

01/09-08/14

Erie Family Health Center is a federally qualified health center that delivers high-quality, culturally-sensitive health care to more than 50,000 medical patients and 9,300 dental patients.

Health Center Operations Director (12/12-08/14)

Planned, directed, organized and evaluated clinical operations for the Evanston/Skokie physician practice site. Drove strategic vision for marketing, growth and sustainability. Oversaw \$3.4M overall operating budget, ensured adequate funding streams and financial viability. Controlled and evaluated operational drivers: productivity, patient revenue and payor mix. Implemented Continuous Improvement guidelines to measure performance of business operations. Managed a clinical support team of thirteen. Conducted HR, ongoing training and performance management practices. Monitored and guided support in the areas of patient and staff satisfaction. Led and enforced regulatory compliance efforts according to Federal guidelines, including The Joint Commission and CMS. Facilitated the launch and evaluation of site-based public health, prenatal, and case management programming. Supervised referral coordination process and monitored auxiliary service linkages with key hospital partners and community-based agencies.

Notable Achievements

- Championed 78% year-over-year growth in unduplicated users
- Fiscal 2014 YTD projected visit volume 12% above budget
- Exceeded projected visit volume by 10% and patient revenue by 54% for Fiscal 2013

School Based Health and Adolescent Services Manager

(01/09-11/12)

Oversaw daily operations at five school-based health centers and one adolescent health center. Supervised and evaluated two managers and seven clinical support staff. Managed broad public health programs focused on regional priorities and initiatives such as HIV/AIDS, pandemic flu, family planning and childhood immunizations. Guided evaluation planning, data collection and analysis efforts for interdisciplinary public health programming that involved external government agencies at the community, state and national levels. Coordinated and analyzed Title X initiatives related to IDPH programs, operations and special community endeavors. Provided project oversight and technical management of Title X family planning and state government grants. Conducted health center outreach measures and ensuring visibility of programming through the creation of promotion materials, conducting presentations, and attending various community events. Defined and implemented strategies to achieve oral health program expansion including managing the oral health educator, hosting medical and staff education opportunities, overseeing education outreach and evaluation activities.

Notable Achievements

- Consistently met productivity at all 5 school-based health centers
- Project lead for successful EHRS simultaneous implementation at 3 sites
- Led the transition and launch of Erie Clemente School Based Health Center

Communities In Schools of Chicago, Chicago, IL

05/07-01/09

Communities In Schools of Chicago is non-profit that works to address the gap between students' needs and schools' ability to respond to these needs through the connection of free social, emotional, health and enrichment programs.

Agency/School Coordinator

Managed a portfolio of twelve Chicago Public Schools and twenty agency partners. Trained and provided assistance to school site coordinators in portfolio related to needs assessments, community partnership coordination, program evaluation and strategic planning. Assisted in the planning and facilitation of organizational trainings and networking events for school and agency partners. Contributed to the writing and editing of CISC publications, including articles for newsletters and annual reports. Spearheaded Oral Health Initiative, which included monitoring the delivery and quality of oral health services to schools, reviewing existing oral health pro- grams and curricula, coordinating curriculum development and implementing strategies for promoting oral health education and ser- vices in schools and with parents. Collected and analyzed data to evaluate student, school and agency outcomes as related to the oral health project, and generating quarterly report to share project development and successes.

Notable Achievements

- Connected over 120 services to portfolio schools, while meeting 75% of identified priorities
- Led team assessment efforts by surveying 8 of 9 target schools using the Personal Health Inventory tool
- Created and implemented dental program pilot that served 50 homeless emancipated youth with preventative and restorative dental care

PAPER PRESENTATIONS

National Association of School Based Health Centers Convention (2010): "The Transitioning of a School Health Center from Com- munity Based Organization to Federally Qualified Health Center"

Sociology Day Conference (2004): "The Changing Age at Marriage in the United States, 1930-2000: Was There Regional Convergence within the Temporal Shifts?"

The Undergraduate Research Symposium (2004): 3rd place winner in Humanities and Social Sciences: "The Significance of the Women's Movement Reflected Today by Feminist Ideologies"

PUBLICATIONS

Goss, Tiosha T. and Vachon, G. "America's Health Insurance Plans (AHIP)", <u>Encyclopedia</u> of Health Services Research, 2009, 77-78

VOLUNTEER EXPERIENCE

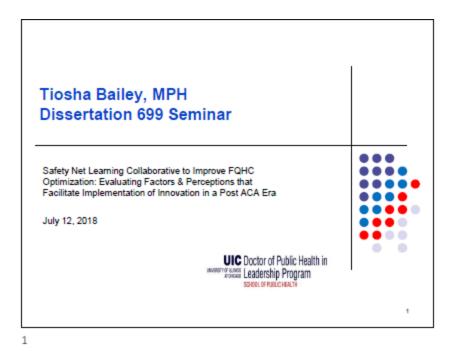
Girls Maturing into Young Sisters (2018- present), Sunrise Senior Living (2014), Loyola Alumni Volunteer Day (2011 & 2012), St. Thomas Canterbury Meal Program (2006), New Life Volunteer Society Tutoring Program (2004), Women in Science and Engineering Mentoring Program (2003-2004)

COMPUTER SKILLS

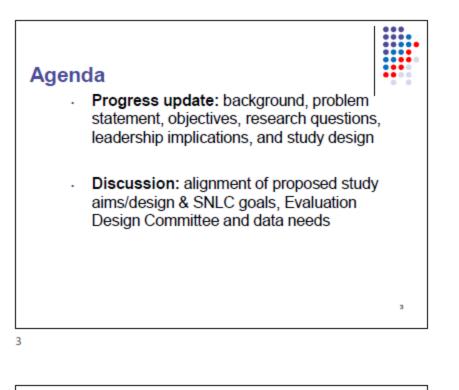
Microsoft Office, SPSS, Adobe, Centricity Practice Solutions, Atlas Ti

APPENDICES

Appendix 1: Developmental Evaluation Committee Presentation 1



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Problem Statement

The Affordable Care Act (ACA) has aided in achieving expansion to healthcare access for many individuals, particularly the medically underserved and uninsured. As a result, there is a growing demand for healthcare resources-especially primary carecreating a significant opportunity for Federally Qualified Health Centers (FQHCs) (DeMarco, 2015). While healthcare reform has mandated transformative organizational change to occur, healthcare leadership has expressed limitations in their capabilities to effectively shift business practices and keep pace in the Knowledge Era. As a response to healthcare reform and improve optimization of FQHC services, a Chicago-based Safety Net Learning Collaborative was launched in 2011 to aid in developing and disseminating best operational practices. Although literature has shown that learning collaborative models have been effective in generating new knowledge and tools, little is understood about the strategic role of these entities in supporting the implementation of innovation into practice. In order to ensure safety net system sustainability and continued access to primary care for communities of high need in Chicago, it is critical to better understand factors influencing the innovation process in the post ACA environment.



6

Study Objectives

5

1) To determine the strategic role of the Safety Net Learning Collaborative (SNLC) in the implementation of innovation among participants

 Understand how safety net providers in Chicago have implemented innovation post ACA and associated facilitators and barriers impacting implementation

 To support the SNLC in strategy development to enhance its capacity to address the identified factors impacting the implementation of innovation

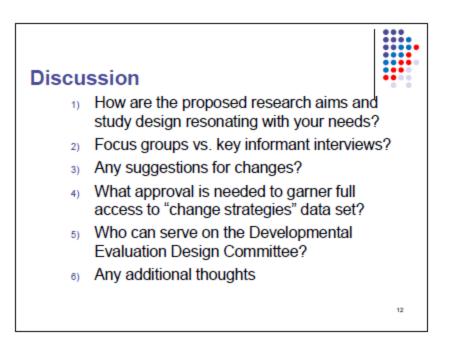








Study	Phases	
Timeline	Phase	Aim
Summer 2018	1: Pre-Inquiry session with the SNLC Steering Committee to share the background, questions, and design 1a: Develop logic model to document how SNLC performs its work	 Gather insight about desired study aims needed to inform evaluation design Identify factors associated with Implementation
Fall 2018	2: Secondary data review and analysis of "change strategies" data set & document review of PowerPoint slide decks	1) Thematic analysis of Implementation factors 2) Categorization of cases
Spring 2019	 Conduct focus groups or key informant Interviews with pre-determined cases 	Assess perceptions of the SNLC's strategic role, support provided, gaps, and associated facilitators and barriers impacting implementation of innovation
Summer 2019	4: Present findings to SNLC Steering Committee	Vet findings
		11





Appendix 2: McAlpine Consulting Letter of Support



Appendix 3: Measurement Table

1. How is th	ne Chicago Safety Net Le	arning Collaborative (CSNI	LC) being experienced by participa	ants?
Constructs	Descriptions & Factors	Data Collection Approach	Possible Sub-codes	Analysis
Learning Collaborative	An improvement method that relies on the spread and adaptation of existing knowledge to multiple, similar sites to accomplish common aims (IHI, 2003)	• Semi-structured interviews	 Learning events Content expertise Steering Committee Improvement strategies Follow up with participants Collaboration Team based problem solving 	 Construct table Deductive thematic analysis (Atlas ti®) Logic model
Implementation of innovation	Refers to the process when the innovation is introduced into an organization (Rogers, 1995)	 Semi-structured interviews Secondary data: - Strategies for Implementation Data sets 	 Implementation Score Process innovation Product/services innovation 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)
Implementation Effectiveness	Refers to outcome of the innovation; a direct result of the implementation process (Klein, 1996)	• Secondary data: - Strategies for Implementation Data Set	• Implementation Score- High, Moderate, Low Implementer	 Construct table Document analysis
			eadership skills among participan	
Constructs	Descriptions & Factors	Data Collection Approach	Possible Sub-codes	Analysis
Leadership skills	Refers to having a vision, serving as a champion for innovation, role modeling, and setting organizational goals	• Semi-structured interviews	 Articulates visions Fosters acceptance of goals Provides individual support Provides intellectual stimulation Provides appropriate role model Persuasion 	 Construct table Deductive thematic analysis (Atlas ti®)
	participation in the CSN d sustainable improveme		l capacity of its participant organi	zations to make
Constructs	Descriptions & Factors	Data Collection Approach	Possible Sub-codes	Analysis
Organizational Capacity	Comprised collection of organizational resources, interactive in nature, that support organization-wide	Semi-structured interviews	 Involved middle management Accountable cultures Trustworthy leadership Communication systems 	 Construct table Deductive thematic analysis

	reform work and staff change (Cosner, 2009)		Innovative culture	(Atlas ti®)
Rapid, sustainable improvements	The systematic use of rapid cycle change methodologies to investigate quality problems, develop plans, implement small scale changes, measure the effects, and make changes until satisfaction with outcomes is achieved (IHI, 2003)	Semi-structured interviews	• Plan, Do, Study, Act (PDSA) Rapid Cycle Improvements	 Construct table Deductive thematic analysis (Atlas ti®)
4. What is		CSNLC supports the imple	ementation of innovation process?	
Constructs	Descriptions & Factors	Data Collection	Possible Sub-codes	Analysis
Perception	Perspectives on how the CSNLC facilitates the innovation implementation process	Approach Semi-structured interviews	 Attitudes Beliefs Individual acceptance/rejection 	 Construct table Deductive thematic analysis (Atlas ti®)
Supports	Identification and description of enablers to the innovation implementation process	• Semi-structured interviews	 Understanding the value of innovation Creative behaviors Rewards for innovation use Fiscal resources Leadership support Disincentives for non- use Training Technical assistance Perceived benefits 	 Construct table Deductive thematic analysis (Atlas ti®)
			into organizational practice?	
Constructs	Descriptions & Factors	Data Collection Approach	Possible Sub-codes	Analysis
Implementation of innovation	Refers to the process when the innovation is introduced into an organization (Rogers, 1995)	 Semi-structured interviews Secondary data: - Strategies for Implementation Data sets 	 Implementation Score Process innovation Product/services innovation 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)

				• Cross case analysis
5A: What factor Constructs	rs have influenced the imp Descriptions &	ementation of innovation p Data Collection	rocess? Possible Sub-codes	Analysis
Infrastructure	Factors Refers to basic components of an agency including its size, structure, and resources availability	Approach•Semi-structured interviews•Secondary data: - Strategies for Implementation Data sets	 # of employees Operating budget Resource allocation/supply Decentralized, formalized, centralized structure 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)
Culture	Refers to the deep structure of the organization, which is rooted in values, beliefs, and assumptions held by organizational members (Denison, 1996)	 Semi-structured interviews Secondary data: - Strategies for Implementation Data sets 	 Mission Values Objectives Organizational norms Stability 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)
Climate	Refers to employees' shared summary perceptions of the extent to which their use of the innovation is rewarded, supported and expected within the organization (Klein et al., 1996)	 Semi-structured interviews Secondary data: - Strategies for Implementation Data sets 	 Implementation policies Implementation procedures Technical assistance Incentives for innovation use Performance orientation Support for innovation 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)
Leadership	Refers to having a vision, serving as a champion for innovation, role modeling, and setting organizational goals (Podsakoff et al., 1990)	 Semi-structured interviews Secondary data: - Strategies for Implementation Data sets 	 Vision Acceptance of goals Provides individual support Provides intellectual stimulation Provides appropriate role model Persuasion 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)
Facilitators	Identification and description of enablers to the innovation implementation process	 Semi-structured interviews Secondary data: - Strategies for Implementation Data sets 	 Understanding the value of innovation Creative behaviors Rewards for innovation use Fiscal resources Leadership support Disincentives for non- use Training Technical assistance 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)

			Perceived benefits	
Barriers	Identification and description of hinderances to the implementation process	 Semi-structured interviews Secondary data: - Strategies for Implementation Data sets 	 Fiscal constraints Lack of reinforcement of policies and procedures Limited time for implementation Lack of shared vision 	 Construct table Document analysis Deductive thematic analysis (Atlas ti®)
6.What are diff that have not?	ferences or commonalities	among participant organiza	tions that have implemented inno	vation and those
Constructs	Descriptions & Factors	Data Collection Approach	Possible Sub-codes	Analysis
Note: utilizing o	data above	Semi-structured interviews	Note: utilizing data above	 Construct table Deductive thematic analysis (Atlas ti®) Cross- case
	rticipants recommend to e ation of innovation?	nhance the CSNLC's capaci	ty to address factors identified as	having an impact on
Constructs	Descriptions & Factors	Data Collection Approach	Possible Sub-codes	Analysis
Capacity building	Refers to training, technical assistance, and support for the CSNLC	Semi-structured interviews	 Technical assistance Training Support 	 Construct table Deductive thematic analysis (Atlas ti®)
8. What gaps end offered by the		eeds of participants in the ir	nplementation of innovation proc	ess and what is
Note: utilizing data above		Semi-structured interviews	Note: utilizing data above	 Construct table Deductive thematic analysis (Atlas ti®)
		mplementation of innovation	among organizational participar	nts?
Note: utilizing data above		Semi-structured interviews	Note: utilizing data above	 Construct table Deductive thematic analysis

				(Atlas ti®)
10. How can the CSNLC shift operations Constructs Descriptions & Factors		s to address unmet support 1 Data Collection Approach	eeds identified by participants? Possible Sub-codes	Analysis
Note: utilizing da	ata above	Semi-structured interviews	Note: utilizing data above	 Construct table Deductive thematic analysis (Atlas ti®)

Appendix 4: UIC IRB Exemption Letter



Exemption Granted

March 27, 2019

Tiosha Goss Public Health Phone: (312) 996-4500

RE:

Protocol # 2019-0345 "Aspects of the CSNLC and Organizational Factors"

Dear Ms. Goss:

Your application was reviewed on **March 27, 2019** and it was determined that your research meets the criteria for exemption as defined in the U.S. Department of Health and Human Services Regulations for the Protection of Human Subjects [45 CFR 46.104(d)]. You may now begin your research.

Please note that Tinesha Banks could not be approved as research personnel at this time as she has no investigator training on file at UIC.

Also, please note that investigator training for the faculty advisor, Christina Welter, will expire on 29 April 2019 and she will no longer be eligible to supervise or conduct human subject research at UIC unless or until her training is updated.

In future, please remember to use only current application forms, available on the OPRSLive site, in order to avoid the rejection of your application without review and/or delays in the review and approval of your research.

Please ensure that the consent documents presented to subjects are, at minimum, in 12 point font or its equivalent.

Exemption Granted Date:	March 27, 2019
Sponsor:	None
Institutional Proposal (IP) # :	Not applicable
Grant/Contract No:	Not applicable
Grant/Contract Title:	Not applicable

The specific exemption category under 45 CFR 46.104(d) is: 2 Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through

identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy.

Please remember to:

- \rightarrow Use your research protocol number (2019-0345) on any documents or correspondence with the IRB concerning your research protocol.
- → Review and comply with the <u>policies</u> of the UIC Human Subjects Protection Program (HSPP) and the guidance <u>Investigator Responsibilities</u>.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 996-2014 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS via <u>OPRS Live</u>.

Sincerely,

Sandra Costello Assistant Director, IRB #7 Office for the Protection of Research Subjects

cc: Wayne Giles, Public Health, M/C 923 Christina Welter (faculty advisor), Public Health, M/C 923

> UNIVERSITY OF ILLINOIS AT CHICAGO Office for the Protection of Research Subjects

201 AOB (MC 672) 1737 West Polk Street Chicago, Illinois 60612 Phone (312) 996-1711



Exemption Determination Amendment to Research Protocol – Exempt Review UIC Amendment # 2

June 20, 2019

Tiosha Goss Public Health Phone: (312) 996-4500

RE: Protocol # 2019-0345 Aspects of the CSNLC and Organizational Factors

Dear Dr. Goss:

The amendment to your research has been reviewed. Your research continues to meet the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.104(d)].

The specific exemption category under 45 CFR 46.104(d) is: 2

You may now implement the amendment in your research.

Please note the following information about your approved amendment:

For future Amendments involving changes to research personnel, please be sure to specify the individuals who are being added/removed in the Amendment Summary, and provide a tracked copy of Appendix P to reflect the changes.

Amendment Approval Date:June 20, 2019Amendment:Interval Date:

Summary: UIC Amendment #2, dated June 14, 2019 and received via OPRS Live on June 17, 2019, includes the addition of Anna Baccellieri as key research personnel.

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy.

Please remember to:

- \rightarrow Use your research protocol number (2019-0345) on any documents or correspondence with the IRB concerning your research protocol.
- → Review and comply with the <u>policies</u> of the UIC Human Subjects Protection Program (HSPP) and the guidance <u>Investigator Responsibilities</u>.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 413-4060 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS via <u>OPRS Live</u>.

Sincerely,

Samantha S. Bettinger, MS IRB Coordinator, IRB # 7 Office for the Protection of Research Subjects

cc: Paul Brandt-Rauf, Public Health, M/C 923 Christina Welter, Faculty Sponsor, School of Public Health

> UNIVERSITY OF ILLINOIS AT CHICAGO Office for the Protection of Research Subjects

201 AOB (MC 672) 1737 West Polk Street Chicago, Illinois 60612

Phone (312) 996-1711

Appendix 5: Semi-structured Interview Guide

Introduction: Thank you again for taking your time today to share your experiences with the Chicago Safety Net Learning Collaborative. I have requested to speak with you because of your involvement in_____. Do you have any questions before we begin?

SECTION 4 ONLY Introduction:

Thank you again for taking your time today to share your experiences with the Chicago Safety Net Learning Collaborative. A key aim of the Learning Collaborative is to support the adoption of innovative approaches to health center operations. I would like to talk with you about your experience serving as the Learning Event Contact for your organization, how implementation of innovation is occurring, what factors are impacting this process and ways the Learning Collaborative can provide support. Do you have any questions before we begin? MOVE to SECTION 4 (Page 6).

SECTION 1: LEARNING EVENTS

1. Can you please tell me what is the objective of the Learning Events?

Activities: What occurs during the Learning Event?

2. Please share what occurs during the Learning Event

2A. Probing question: How does it begin?

2B. Probing question: What types of activities occur during the middle of the Event?

2C. Probing question: What can you share about the materials that are distributed during the Learning Events?

2D. Probing question: Types of materials/content?

2E. Probing question: How are they used during the sessions?

2F. Probing question: How are these materials used in practice at your organization?

3. In what ways would say that you are learning from your peers during the Learning Events?

3A. Probing question: Tell me more about this

3B. Probing question: In what ways are you taking knowledge learned from peers back to your practice?

3C. Probing question: In ways are the Learning Events facilitating the exchange of knowledge between participants?

3D. Probing question: In what ways are the Learning Events facilitating peer engagement?

4. How does a Learning Event end?

4A. It is my understanding that participants are asked to develop Improvement Strategies at the end of each Learning Event. What are Improvement Strategies and how do you use them in practice?

4B. Probing question: Tell me about the evaluation process that occurs at the end of a Learning Event?

4C. Probing question: How are results of the evaluations shared with participants?

Activities: What occurs after the Learning Event?

I would like to transition the discussion to talk about what occurs after the Learning Event ends.

- 5. Tell me about what happens in between Learning Events?
 - 5A. Probing question: Is there follow up happening?
 - 5B. Probing question: If yes, by who?
 - 5C. Probing question: If yes, how the does the follow up occur?
 - 5D. Probing question: If yes, at what intervals does the follow up occur?
 - 5E. Probing question: Is there engagement between participants across organizations?
 - 5F. Probing question: If yes, tell me more about this.
 - 5F1. How does the engagement occur?

5F2. What is the frequency of the engagement?

Participant Satisfaction w/ Operational Elements of the Learning Events:

For the next set of questions, I would like to hear from you about the ways the Learning Events have met your needs, and also the changes you would suggest so that these events could be improved.

6. In what ways are the current Learning Events topics relevant to your work.

6A. Probing question: If you could change the topics, what types of topics would you find most helpful to your work?

- 7. What are your thoughts about the total number of Learning Events available each year?
- 8. Tell me about the duration of the Learning Events.

8A. Probing question: Do you feel that the duration of the Learning Events is adequate?8B. Probing question: If no, in what ways could the duration be changed?

- 8C. Probing question: If yes, tell me more about how the duration is adequate.
- 9. What are your thoughts about the current structure of the Learning Events?

9A. Probing statement: Remember, structure can be defined in many ways. It can refer to the format, the flow of activities that participants experience or the curriculum that is shared with the group.

Closing for Learning Events Section:

For the next set of questions, I would like to learn more about outcomes associated with your participation in the Learning Events.

10. What would you say are some outcomes that can be attributed to participating in the Learning Events?

11. Probing question: In ways has your participation in the Learning Events impacted your leadership development?

12. Probing question: In ways has your participation in the Learning Events impacted your organization's capacity to make rapid and sustainable improvements?

13. In your opinion, how can the Learning Events be improved?

14. Before we wrap up with this section, is there anything else we haven't discussed yet that you think is important for me to know about as we consider tailoring the Learning Events?

SECTION 2: DISCUSSION & NETWORKING SERIES

1. Can you please tell me what is the objective of the Discussion and Networking Series?

Activities: What occurs during the Discussion & Networking Sessions?

Please share what occurs during a Discussion and Networking Session 2.

2A. Probing question: How does it begin?

2B. Probing question: What types of activities occur during the middle of the session?

2C. Probing question: What can you share about the materials that are distributed during the session?

2D. Probing question: Types of materials/content?

2E. Probing question: How are they used during the sessions?

2F. Probing question: How are these materials used in practice at your organization?

3. In what ways would say that you are learning from your peers during the **Discussion and Networking Session?**

3A. Probing question: Tell me more about this

3B. Probing question: In what ways are you taking knowledge learned from peers back to your practice?

3C. Probing question: In ways are the Discussion and Networking Sessions facilitating the exchange of knowledge between participants?

3E. Probing question: In what ways are Discussion and Networking Sessions facilitating peer engagement?

4. How does a session typically end?

4A. Tell me about the evaluation process that occurs at the end of a session

4B. How are results of the evaluations shared with participants?

Activities: What occurs after the Discussion and Networking Session?

I would like to transition the discussion to talk about what occurs after a Discussion & Networking Session ends.

5. Tell me about what happens in between Discussion and Networking Sessions?

- 5A. Probing question: Is there follow up happening?
- 5B. Probing question: If yes, by who?
- 5C. Probing question: If yes, how the does the follow up occur?
- 5D. Probing question: If yes, at what intervals does the follow up occur?
- 5E. Probing question: Is there engagement between participants across organizations?
- 5F. Probing question: If yes, tell me more about this.
 - 5F1. How does the engagement occur?

5F2. What is the frequency of the engagement?

Participant Satisfaction w/ Operational Elements of the Discussion & Networking Sessions:

For the next set of questions, I would like to hear from you about the ways the Discussion & Networking Sessions have met your needs, and also the changes you would suggest so that these sessions could be improved.

6. In what ways are the current Discussion & Networking Sessions topics relevant to your work?

6A. Probing question: If you could change the topics, what types of topics would you find most relevant to your work?

- 7. What are your thoughts about the total number of Discussion & Networking Sessions available each year?
- 8. Tell me about the duration of the Discussion & Networking Sessions.

8A. Probing question: Do you feel that the length of the session is adequate?

- 8B. Probing question: If no, in what ways could the duration be changed?
- 8C. Probing question: If yes, tell me more about how the duration is adequate.
- 9. What are your thoughts about the current structure of the Discussion & Networking Sessions?

9A. Probing statement: Remember, structure can be defined in many ways. It can refer to the format, the flow of activities that participants experience or the curriculum that is shared with the group.

Closing for Discussion & Networking Sessions:

For the next set of questions, I would like to learn more about outcomes associated with your participation in the Discussion & Networking Sessions.

10.What would you say are some outcomes that can be attributed to your participation?

10A. Probing question: In what ways has your participation in the Discussion & Networking Sessions impacted your leadership development?

11. Probing question: In what ways has your participation in the Discussion & Networking Sessions impacted your organization's capacity to make rapid and sustainable improvements?

12. In your opinion, how can the Discussion & Networking Sessions be improved? 13. Probing question: Please tell me more about that....

13.Before we move on, is there anything else we haven't discussed yet that you think is important for me to know about as we consider tailoring the Discussion & Networking Sessions?

SECTION 3: LEADERSHIP INSTITUTE SERIES

1. Can you please tell me what is the objective of the Leadership Institute Series?

Activities: What occurs during the Leadership Institute Sessions?

Now, we are going to transition the discussion to talk about the activities that occur during these sessions

2. Please share what occurs during a Leadership Institute Session

2A. Probing question: How does it begin?

2B. Probing question: What types of activities occur during the middle of the session?

2C. Probing question: What can you share about the materials that are distributed during the session?

2D. Probing question: Types of materials/content?

2E. Probing question: How are they used during the sessions?

2F. Probing question: How are these materials used in practice at your organization?

3. In what ways would say that you are learning from your peers through your Leadership Institute participation?

3A. Probing question: Tell me more about this

3B. Probing question: In what ways are you taking knowledge learned from peers back to your practice?

3C. Probing question: In ways are the Leadership Institute Sessions facilitating the exchange of knowledge between participants?

3D. Probing question: In what ways are Leadership Institute Sessions facilitating peer engagement?

4. How does a Leadership Institute Session typically end?

4A. Probing question: Tell me about the evaluation process that occurs at the end of a session

4B. Probing question: How are results of the evaluations shared with participants?

Activities: What occurs after the Leadership Institute Session?

I would like to transition the discussion to talk about what occurs after a Leadership Institute Session ends.

5. Tell me about what happens in between Leadership Institute Sessions?

- 5A. Probing question: Is there follow up happening?
- 5B. Probing question: If yes, by who?
- 5C. Probing question: If yes, how the does the follow up occur?
- 5D. Probing question: If yes, at what intervals does the follow up occur?
- 5E. Probing question: Is there engagement between participants across organizations?
- 5F. Probing question: If yes, tell me more about this.

5F1. How does the engagement occur?

5F2. What is the frequency of the engagement?

If no, move on to next question....

Participant Satisfaction w/ Operational Elements of the Leadership Institute Sessions:

For the next set of questions, I would like to hear from you about the ways the Leadership Institute Sessions have met your needs, and also the changes you would suggest so that these sessions could be improved.

6. In what ways are the current Leadership Institute topics relevant to your work?

6A. Probing question: If you could change the topics, what types of topics would you find most relevant to your work?

7. What are your thoughts about the total number of Leadership Institute Sessions available each year?

7A. Probing question: If you could change the number of sessions available each year, what would this number be?

- 8. Tell me about the duration of the Leadership Institute Sessions.
- 9. What are your thoughts about the current structure of the Leadership Institute Sessions?

9A. Probing statement: Structure can be defined in many ways. It can refer to the format, the flow of activities that participants experience or the curriculum that is shared with the group.

Leadership Institute Sessions Outcomes:

For the next set of questions, I would like to learn more about outcomes associated with your participation in the Leadership Institute Sessions.

10. What would you say are some outcomes that can be attributed to participating in the Leadership Institute?

10A. Probing question: In what ways has your participation impacted your overall leadership development?

- **11.** In what ways has your participation impacted your organization's capacity to make rapid and sustainable improvements?
- 12. In your opinion, how can the Leadership Institute be improved?
- 13. Is there any additional information you would like to share about the Leadership Institute that we have not discussed yet that you think is important for me to know as we consider tailoring these sessions?

SECTION 4: IMPLEMENTATION OF INNOVATION

A key aim of the Learning Collaborative is to support the adoption of innovative approaches to health center operations. Now we are going to switch gears to talk about the implementation of innovation occuring at your organization, how specific organizational factors may impact this process and ways the Learning Collaborative can provide support.

LE Contact Person ONLY Prompt: Thank you again for taking your time today to share your experiences with the Chicago Safety Net Learning Collaborative. I have requested to speak with you because of your involvement in serving as the Learning Event Contact Person for your organization. In this role you are responsible for reporting the progress of Implementation Strategies developed by your team members at 3-month, 6-month, and 12-month intervals. A key aim of the Learning Collaborative is to support the adoption of innovative approaches to health center operations. For this discussion, I would like to learn about the implementation of innovation at your organization, how specific organizational factors may impact this process and ways the Learning Collaborative can provide support.

1. In the past year, what are some examples of how your organization has implemented innovation? Examples can include: the start of a new clinical process or the introduction of a service for staff or patients.

Infrastructure

Size

- 2. How would you describe the size of your organization? (Organization size can be described in different ways such as the number of employees and overall operating budget.)
- 3. How has your organization's size made the implementation of innovation difficult?
- 4. In what ways has your organization's size supported the implementation of innovation?

Structure

- 5. Please walk me through your organization's staffing structure starting with the CEO.
- 6. In what ways has your organization's staffing structure made the implementation of innovation difficult?
- 7. In what ways has your organization's staffing structure supported the implementation of innovation?

Availability of Resources

- 8. Please describe your organization's availability of financial resources to support the implementation of innovation.
- 9. In what ways has the availability of financial resources made the implementation of innovation process difficult?
- 10. In what ways has the availability of financial resources supported the implementation of innovation process?

Culture

11. Please describe your organization's culture.

13A. Probing question: In what ways has your organization's mission, values or objectives influenced the implementation of innovation process?

13B. Probing question: How has organizational norms impacted the implementation of innovation process?

- 12. How has organizational culture made implementation of innovation difficult?
- 13. In what ways has your organization's culture supported the implementation of innovation?

Climate

14. Please describe how the use of innovation is rewarded, supported or expected within your organization. What you have described is your organization's climate for innovation.

14A. Probing question: Does your organization have implementation policies? If yes, please tell more about this.

14B. Probing question: When a new innovation is introduced to staff, what types of trainings are provided? Follow up: How can a staff member receive technical assistance when challenges come up?

15. How has your organization's climate for innovation made implementation of innovation difficult?

16. In what ways has your organization's climate for innovation supported the implementation of innovation?

Leadership

17. How has leadership in your organization been involved in the implementation of innovation process?

17A. Probing question: How has leadership provided individual support for implementing innovation?

17B. Probing question: In what ways has leadership served as champions for innovation in your organization?

17C. Probing question: How has leadership expressed a vision for innovation? Tell me more about this.

- 18. How has leadership in your organization made the implementation of innovation difficult?
- **19.** In what ways has leadership in your organization supported the implementation of innovation?
- 20. In what ways does the Learning Collaborative currently supports the implementation of innovation within your organization?
- 21. You've shared how the Learning Collaborative currently supports your organization, is there anything else this entity can do to provide additional support organization in the implementation of innovation? Tell me more about this.
- 22. Before we wrap up the interview, are there other organizational factors influencing the implementation of innovation process that we have not discussed?

This concludes the interview. Thank you again for your time and responses.

Appendix 6: Informed Consent

Participant Name: ____

Organization: _____

Role/Title: _____

INFORMED CONSENT LANGUAGE BELOW:

Purpose: The purpose of this telephone interview is to gather information from community health center staff that have participated in the Chicago Safety Net Learning Collaborative Learning Components (Learning Events, Discussion & Networking Sessions, and Leadership Institute) to learn about your experience, how these Components operate and their connection to the implementation of innovation process, and the alignment between CSNLC activities and stated goals. This information will help us better understand how to enhance the Collaborative and increase the impact being made in your health centers. This research study is being conducted by Tiosha Goss, a doctoral candidate in the Public Health Leadership program at the University of Illinois at Chicago. The interview will take no more than 60 minutes; and will be digitally audio recorded in order to accurately capture your responses.

Your rights as a participant: Your participation in the study is voluntary. Your decision whether to participate will not affect your current or future dealings with the CSNLC or the University of Illinois at Chicago. During the interview, you may request that the recording be paused at any time. Your individual answers will not be shared as part of reporting study findings. Thus, all responses will be aggregated to protect participants' confidentiality. Audio recordings and subsequent typed transcripts will be kept on a password protected computer. Only members of the research team will have access to files or typed notes. There are no costs to you for participating in this study. There are no incentives or gifts provided for your participation. You are free to withdraw your consent and discontinue participation at any time. If you have any questions about your rights as a participant, including questions, concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 312-996-1711 or 1-866-789-6215 (toll-free) or e-mail OPRS at <u>uicirb@uic.edu</u>.

Benefits and risks of participation: To the best of our knowledge, participation has no more risk of harm than you would experience in everyday life. There is a very small chance that a breach of privacy or a breach of confidentiality occurs. More details about the measures taken to reduce such risks appear above. Your participation in this study, will contribute to the researcher's understanding of how the Collaborative's Components are facilitated, activities that are performed outside of these Components that support them, and associated outcomes. What is learned can help inform how to improve these Components to ensure that they meet the needs of participants and the organizations that they were designed to serve.

What will happen with the information shared today: The information shared during the interview today will be kept confidential—we will not release any information that identifies you or your organization without your prior consent, except as required by law.

Who should I contact if I have questions?

Contact Tiosha Goss (Study PI) at (708) 257-2862 or tgoss1@uic.edu:

- if you have any questions about this evaluation or your part in it, or
- if you have questions, concerns or complaints about the evaluation.

I have read the consent form and understand that the interview will be recorded. I agree to participate in this study.

Signature

Date: _____

Appendix 7: Email Invitations

A. (CEOs and Point Persons)—Make sure this is the language that was sent from Dan....

With the subject line of "Staff Recruitment Support Needed for Safety Net Learning Collaborative Research", the following text will be included in the emails that are sent to selected CEOs and Point Persons:

Dear (insert recipient's name),

I am contacting you on behalf of Tiosha Goss, MPH, a doctoral student at UIC's School of Public Health who is helping us understand the impact of the Safety Net Learning Collaborative through her research. I am writing to ask for your support in recruiting your staff listed on the attached document titled Participant List. These individuals have been selected to participate in a 60-minute telephone interview. As part of this request, I am asking that you send an email to each staff member encouraging their participation in addition to the email invitation from the researcher noted below and attached Informed Consent. Interviews will be conducted <u>5/9/2019</u> through 6/30/2019</u>. For any questions regarding the study, please contact Tiosha directly at tgoss1@uic.edu or 708-257-2862.

Thank you in advance, Dan Ren COO, Illinois Eye Institute

B. (Participants)

With the subject line of "Telephone Interview Request: Safety Net Learning Collaborative Research", the following text will be included in the emails that are sent to selected, prospective study participants:

Dear (Recipient's name):

I am a doctoral student at the University of Illinois at Chicago School of Public Health (UIC SPH) and I am reaching out asking for your participation in a telephone interview that is part of my dissertation process. I am interested in learning about your experience with the Chicago Safety Net Learning Collaborative, how it operates, and the alignment between activities and stated goals. Your input is also critical to further understand the factors that impact the implementation of innovation needed to support new healthcare delivery models and long-term sustainability. This information will help us better understand how to enhance the Collaborative and increase the impact being made in your health centers.

Attached, you will find an Informed Consent form indicating that the interviews will be digitally audio recorded for documentation purposes and your comments will be used for doctoral research. Participation in the study is voluntary and no individual responses will be identified in any of the reports of the findings. All your responses are confidential. I anticipate that the interview will take no longer than one hour. Once the project has been completed, I will share my findings with the Collaborative's Steering Committee and you, if that would be of interest to you. A signed consent form must be submitted to me

electronically prior to your scheduled interview date.

Thank you so much for your consideration of this request. To schedule your telephone interview, please click the link below that provides available days and times. **Interviews will take place 5/9/2019 through 6/30/2019.** If you would like to have a discussion before making a decision, please do not hesitate to contact me via email at tgoss1@uic.edu or 708-257-2862.

(INSERT SCHEDULING LINK HERE)

Sincerely, Tiosha Goss, MPH DrPH Candidate, UIC SPH

Appendix 8: Code Book

Learning Collaborative	CODE NAME	DEFINITION	INSTRUCTIONS
Learning Collaborative	CSNLC	An improvement method that relies on the spread and adaptation of existing knowledge to multiple, similar sites to accomplish common aims (IHI, 2003)	Use for codes that mentions how this entity operates; as well as associated facilitators and barriers that highlight how this entity impacts the implementation of innovation process Possible sub-codes include: • Learning events • Content expertise • Steering Committee • Improvement strategies • Follow up with participants • Collaboration • Team based problem solving Examples: problems with participant follow up on implementation strategies at defined time intervals, learning event selection process, language around learning event materials.
Leadership Skills	LeadSK	Refers to having a vision, serving as a champion for innovation, role modeling, and setting organizational goals (Podsakoff et al., 1990)	 Use for codes that mentions how the CSNLC has helped to foster leadership skills among participants Possible sub-codes include: Articulates visions Fosters acceptance of goals Provides individual support Provides intellectual stimulation Provides appropriate role model Persuasion Examples: the CSNLC helped to guide discussions around visioning, the CSNLC has helped to define leadership styles that support the implementation of innovation process, the CSNLC has provided training opportunities specific to building leadership skills

Learning Collaborative Aspects

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Organizational Capacity	OrgCap	Comprised collection of organizational resources, interactive in nature, that support organization-wide reform work and staff change (Cosner, 2009)	Use for codes that speaks to how the CSNLC has helped to enhance or inform organizational capacity of participant organizations Possible sub-codes include: • Involved middle management • Accountable cultures • Trustworthy leadership • Communication systems • Innovative culture Examples: the CSNLC has helped to provide organizational capacity assessment tools, the CSNLC has helped to provide trainings on how to expand organizational capacity needed to implement innovation
Capacity Building	CapB	Refers to training, technical assistance, and support for the CSNLC	Use for codes that mention how the CSNLC can enhance its capacity to address unmet needs identified by participants Possible sub-codes include: • Technical assistance • Training • Support Examples: the CSNLC can hire additional staff to facilitate the Learning Events and follow up in between sessions, additional funding is needed to adequately support the CSNLC, the CSNLC can bring in national experts on "value-based payment transition" to support the Learning Events

Implementation of Innovation Context

CONSTRUCT	CODE NAME	DEFINITION	INSTRUCTIONS
Implementation of Innovation	ImpInno	Refers to the process when the innovation is introduced into an organization (Rogers, 1995)	Use for codes that mentions how organizations have implemented innovation by way of a new process, product, or service over a 12-month period. Possible sub-codes include: Implementation Score Process innovation Product/services innovation

			Examples: creation of a training for employees to learn about a new process, product or service; creation of guidelines to rollout a new implementation strategy, utilization of communication tools to inform employees about the launch of a new process, product or service.
Implementation Effectiveness	ImmEff	Refers to outcome of the innovation; a direct result of the implementation process (Klein, 1996)	Use for codes that speak to the total number of strategies developed by a participant organization and the outcome of an implemented innovation: implemented vs. not implemented reported to the CSNLC over the course of a 12-month period. Possible sub-codes include: • Implementation Score- High, Moderate, Low Implementer Examples: Total # of implemented strategies/total # of FY18 strategies

|--|

CONSTRUCT	CODE NAME	DEFINITION	INSTRUCTIONS
Infrastructure	Infra	Refers to basic components of an agency including its size, structure, and resources availability	Use for codes that speak to barriers or facilitators connected with organizational infrastructure elements that influence the implementation of innovation process
			 Possible sub-codes include: # of employees Operating budget Resource allocation/supply Decentralized, formalized, centralized structure
			Examples: amount of resources available/allocated to support implementation of innovation activities, staffing structure, overall operating budget
Culture	Culture	Refers to the deep structure of the organization, which is rooted in values, beliefs, and assumptions held by	Use for codes that mention barriers or facilitators connected with organizational culture influencing the implementation of innovation process

		organizational members	Possible sub-codes include:
		(Denison, 1996)	 Mission Values Objectives Organizational norms Stability
			Examples: participants knowledge of their organizational values, mission and objectives; organizational turnover
Climate	Climate	Refers to employees' shared summary perceptions of the extent to which their use of the innovation is rewarded, supported and expected within the organization (Klein et al., 1996)	Use for codes that speak to barriers or facilitators associated with organizational climate impacting the implementation of innovation process Possible sub-codes include: Implementation policies Implementation procedures Technical assistance Incentives for innovation use Performance orientation Support for innovation Examples: participants knowledge of knowledge of decision to adopt process; knowledge of existing implementation policies and procedures and their application; trainings to support implementation; types of
Leadership	Leadership	Refers to having a vision, serving as a champion for innovation, role modeling, and setting organizational goals	incentives to utilize innovation Use for codes that speak to barriers or facilitators associated with organizational leadership impacting the implementation of innovation process Possible sub-codes include: • Vision • Acceptance of goals • Provides individual support • Provides intellectual stimulation • Provides appropriate role model • Persuasion Examples: participants'
			knowledge of leadership engagement and support of

implementation of innovation,
knowledge of decision to adopt
innovation process, scenarios of
how individuals in leadership have
exhibited the behaviors noted
above.

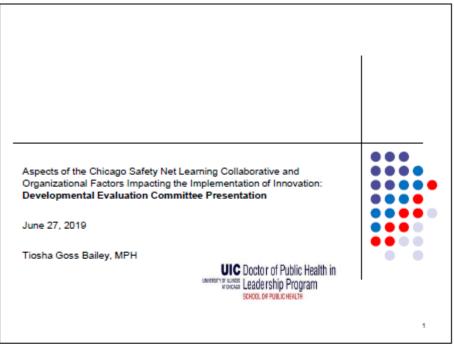
Other

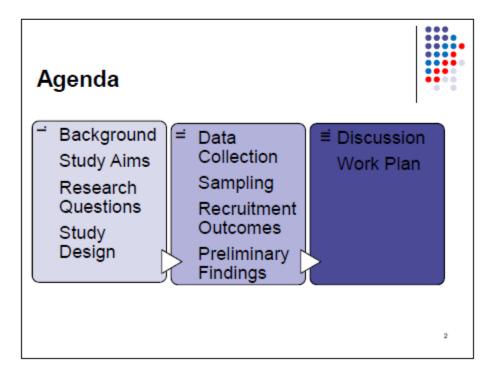
CONSTRUCT	CODE NAME	DESCRIPTION	INSTRUCTIONS
Emergent	Emerg	Examples or comments that are different than the preset codes	Use this code for specific examples or comments that are different than the pre-set codes and show relation to influencing the implementation of innovation process. Can be described as a prohibiting or facilitating role in the process.

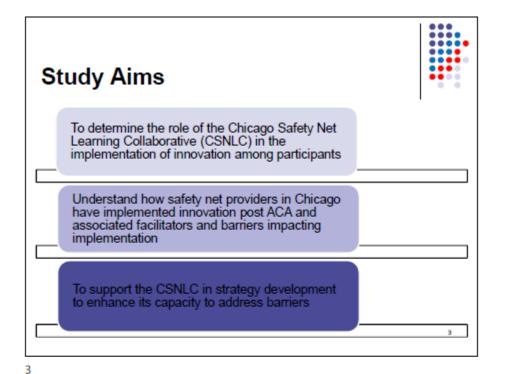
Data	Why	How	Where	Security	Duration	Identifiers
FY 17 & FY 18 Annual Reports	Study data	Pdf file folder	Personal laptop	Password protected	Until study end	Organization name, # of Implementation Strategies developed and # implemented by organization, names of Steering Committee members, changes to be made for programming in the coming year
Implementation Strategies Dataset	Study data	Excel spreadsheet	Personal laptop	Password protected	Until study end	Organization name, name of Learning Event Contact Person, broad categories of organizational factors impacting implementation of innovation over a 24- month period
3 Year Sustainability Plan	Study data	Pdf file folder	Personal laptop	Password protected	Until study end	Organizational names, names of Steering Committee members, aims of the CSNLC, documentation of 3 Components
Learning Events, Networking & Discussion Sessions, and Leadership Institute Attendance Records	Identification of eligible study participants	Excel spreadsheet	Personal laptop	Password protected	Until study end	Name, professional role, organization name, and total number of CSNLC sessions completed over a 12-month period
Interview participants	Recruitment tracking of interview participants	Excel spreadsheet	Personal laptop	Password protected	Until study end	None—generic alpha numeric coding only
Executed informed consents	Documentation of contractual agreement to participate in the study	Word document	File cabinet in home office	Kept in locked file cabinet	Until study end	Name of participant, organization name, and role/title
Semi-structured interviews	Study data	Recordings with consent	Personal laptop	Password protected	Until study end	Pseudonym coding

Appendix 9: Data Management Overview Table

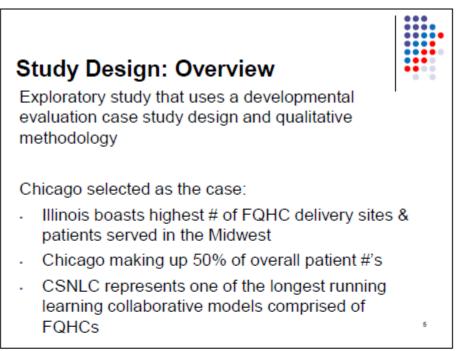
Appendix 10: Development Committee Presentation 2

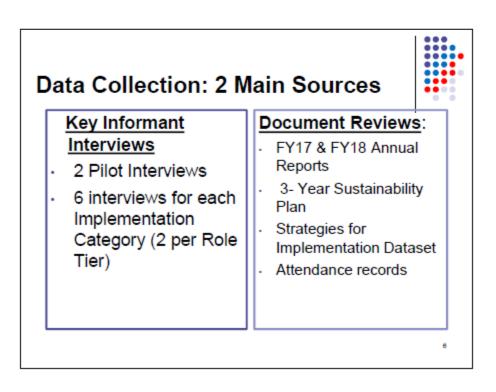


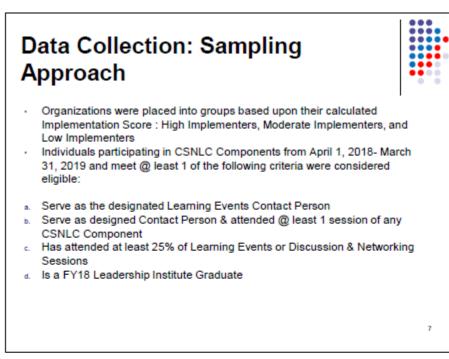




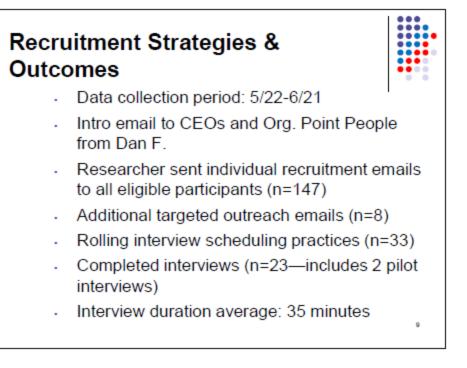
... Research Questions Q1. How is the Chicago Safety Net Learning Collaborative (CSNLC) and its three components of Learning Events, Discussion & Networking Sessions, and Leadership Institute experienced by its organizational participants? Q2: What is the role of the CSNLC in the implementation of innovation among organizational participants? Q3: How have CSNLC participants implemented innovation into organizational practice? 3A. What factors have influenced the implementation of innovation process? Q4: What are the differences or commonalities among participant organizations that have implemented innovation and those that have not? Q5: What is the perception of how the CSNLC supports the implementation of innovation process? 5A. How has participation in the CSNLC facilitated the development of leadership skills among participants? 5B. How has participation in the CSNLC impacted the organizational capacity of its participants to make rapid, sustainable improvements? Q8: What gaps exist between the support needs of participants in the implementation of innovation process and what is offered by the CSNLC? Q7: What do participants recommend to enhance the CSNLC's capacity to address factors identified as having an impact on the implementation of innovation? 7A. How can the CSNLC shift operations to address unmet support needs identified by 4 participants?



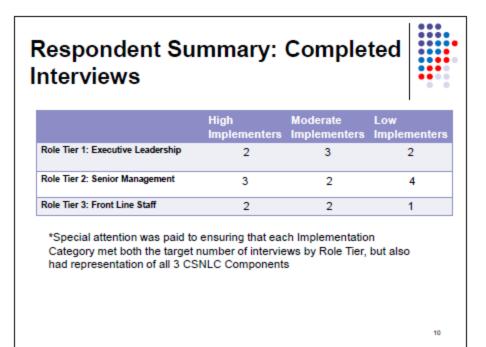




Data Analysis	
Data Collection Type	Analysis Approach
Logic model	Co-development of a logic model
Document review	Content analysis
Key Informant Interviews	Deductive thematic analysis and cross- case analysis
	8



. ...



Key Preliminary Findings: Content Analysis



Key Reflections:

- Limited information speaking to how organizations have implemented innovation
- Implementation strategy outcomes were clear--making case stratification possible
- Documents lacked details reflecting factors impacting the implementation process
- Annual report documents provided adequate details need to support CSNLC logic model development

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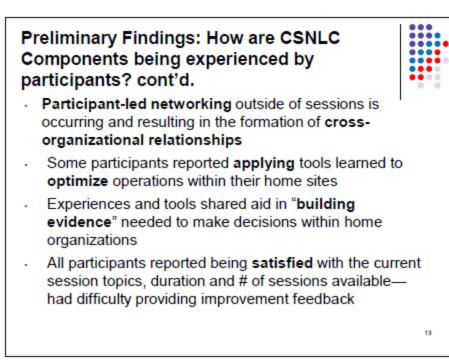
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Preliminary Findings: How are CSNLC Components being experienced by participants?

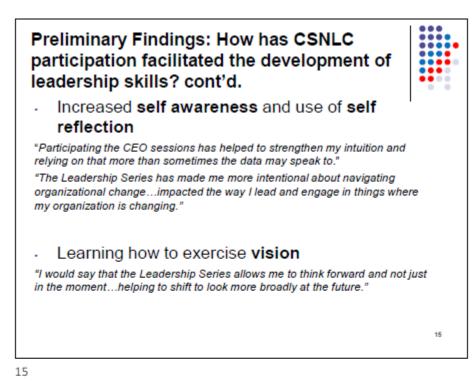


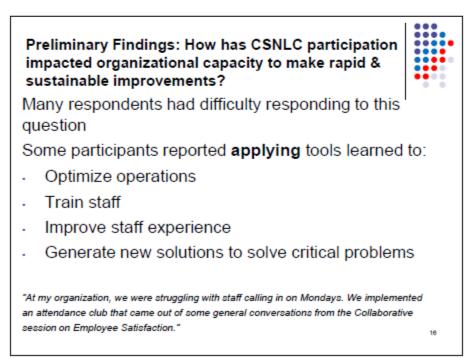
- CSNLC sessions provide a safe, open and trusting environment
- Participation in CSNLC Components created a platform to share best practices, data and tools among a peer group with similar experiences
- · Learning, learning, learning
- Sessions offer opportunities for peer engagement through group work and networking
- All participants spoke highly of the facilitation facilitators are knowledgeable, aided in evoking critical thinking, skilled in focusing discussions and moving through scheduled activities

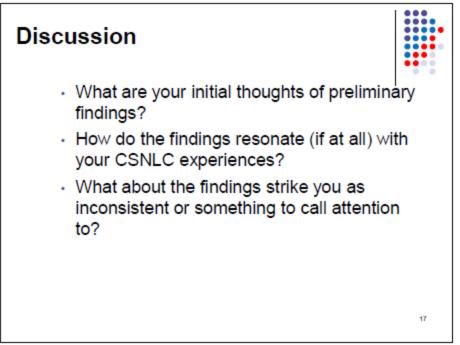


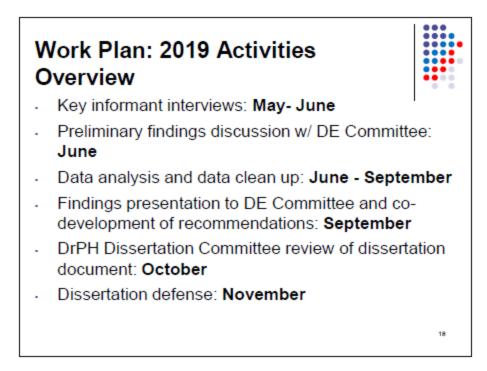
Preliminary Findings: How has CSNLC participation facilitated the development of leadership skills?

- Increased capabilities to authentically communicate with others
- Learning how to motivate team members by way of showing vulnerability
- Enhancement of creative problem-solving skills
- Learning how to leverage the use of diverse perspectives in order to see a problem more comprehensively
- Drawing upon evidence to make more rapid decisions











Appendix 11: Final Code Book

CONSTRUCT TYPE	CONSTRUCT	CODE NAME	DEFINITION	INSTRUCTIONS
Parent Code	Learning Collaborative	CSNLC	An improvement method that relies on the spread and adaptation of existing knowledge to multiple, similar sites to accomplish common aims (IHI, 2003)	Use for codes that mentions descriptions of participant experience and how this entity operates across its 3 Components (Learning Events, Networking & Discussion Sessions, and Leadership Institute). Examples: problems with participant follow up on implementation strategies at defined time intervals, learning event selection process, language
Child Code		CSNLC- applying tools learned CSNLC- engaging		around learning event materials. Use for codes that mentions examples of how participants have applied tools into practice in their home site Use for codes when participants mention that the CSNLC is engaging or how they have found
		CSNLC- environment	-	the CSNLC be engaging Use for codes that are descriptions of the environment created by the CSNLC
		CSNLC- evaluation CSNLC-	-	Use for codes that describe evaluation practices to gather feedback from participants Use for codes that mention
		exposure to diverse perspectives		exposure to diverse perspectives due to participation in the CSNLC
		CSNLC- facilitation		Use for codes that speak to facilitation of sessions can include comments facilitator themselves (i.e. skills, knowledge), pre-planning efforts for session, structure of sessions due to facilitators
		CSNLC-follow up		Use for codes that speaks to follow up conducted by CSNLC after the sessions ends can be connected to improvement strategies or other follow up
		CSNLC- improvement strategies		Use for codes that mention of improvement strategies developed by organizations to improve operations within their organizations

Learning Collaborative Aspects

LearningDescriptionlearningoccurring is a result of participating in the CSNLC (no specific mention of learning from pers or facilitators. Mention of pers or facilitators. Mention of learning occurring broadly.CSNLC- networkingUse for codes that mention of networking occurring the CSNLG sessionsCSNLC- networkingUse for codes that mention of networking occurring the CSNLG sessionsCSNLC- networkingUse for codes that mention of participant-led networking outside of the CSNLC sessionsCSNLC-peer engagementUse for codes that mention of participant-led networking outside of the CSNLC sessionsCSNLC- reflectionUse for codes that mention of participant-led networking outside of the CSNLC sessionsCSNLC- reflectionUse for codes that speaks to reflection being sed a to during the CSNLC sessionCSNLC- relevant topicsCSNLC sessionCSNLC- relevant topicsUse for codes that mention of the CSNLC session or nention of reflection being sed a a tool during the CSNLC sessionCSNLC- specific mention of sharing best practicesUse for codes that make specific mention of sharing/sepretucing same problemsCSNLC-staringUse for codes that make specific mention of sharing/sepretucing same problemsCSNLC-staringUse for codes that mention fifty mention of sharing/sepretucing same problemsCSNLC-staringUse for codes that mention mention team-based problem solving courring in and outside of CSNLC session	CSNLC-	Use for codes that describe any
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		Discussion and Networking Series-objective		Use for codes that speaks to the participant's perception of the Discussion & Networking Series objective
		Learning Event- objective		Use for codes that speaks to the participant's perception of what the objective of the Learning Events is
		Leadership Series-Objective		Use for codes that speaks to the participant's perception of what the objective of the Leadership Series is
Parent Code	Leadership Skills	LeadSK	Refers to having a vision, serving as a champion for innovation, role modeling, and setting organizational goals (Podsakoff et al., 1990)	Use for codes that mentions how the CSNLC has helped to foster leadership skills among participants Possible sub-codes include: • Articulates visions • Fosters acceptance of goals • Provides individual support • Provides intellectual stimulation • Provides appropriate role model • Persuasion Examples: the CSNLC helped to guide discussions around
Parent Code	Organizational Capacity	OrgCap	Comprised collection of organizational	visioning, the CSNLC has helped to define leadership styles that support the implementation of innovation process, the CSNLC has provided training opportunities specific to building leadership skills Use for codes that speaks to how the CSNLC has helped to
			resources, interactive in nature, that support organization- wide reform work and staff change (Cosner, 2009)	enhance or inform organizational capacity of participant organizations Possible sub-codes include: Involved middle management Accountable cultures Trustworthy leadership Communication systems Innovative culture
				Examples: the CSNLC has helped to provide organizational capacity assessment tools, the CSNLC has helped to provide trainings on how to expand

				organizational capacity needed to implement innovation
Parent Code	Capacity Building	СарВ	Refers to training, technical assistance, and support for the CSNLC	Use for codes that mention how the CSNLC can enhance its capacity to address unmet needs identified by participants
				Possible sub-codes include: • Technical assistance • Training • Support
				Examples: the CSNLC can hire additional staff to facilitate the Learning Events and follow up in between sessions, additional funding is needed to adequately support the CSNLC, the CSNLC can bring in national experts on "value-based payment transition" to support the Learning Events

CONSTRUCT TYPE	CONSTRUCT	CODE NAME	DEFINITION	INSTRUCTIONS
Parent Code	Implementation of Innovation	ImpInno	Refers to the process when the innovation is introduced into an organization (Rogers, 1995)	Use for codes that mentions how organizations have implemented innovation by way of a new process, product, or service over a 12-month period. Also use for codes that speak to how the CSNLC impacts the implementation of innovation process; as well as associated facilitators and barriers that highlight how this entity impacts the implementation of innovation process Possible sub-codes include: Process innovation Process innovation Product/services innovation Adoption of innovation Rejection of innovation
				Examples: creation of a training for employees to learn about a new process, product or service; creation of guidelines to rollout a new implementation strategy, utilization of communication tools to inform employees about the launch of a new process, product or service, and learning how other organizations approach a health center operations challenge.
Parent Code	Implementation Effectiveness	ImmEff	Refers to outcome of the innovation; a direct result of the implementation process (Klein, 1996)	Use for codes that speak to the total number of strategies developed by a participant organization and the outcome of an implemented innovation: implemented vs. not implemented reported to the CSNLC over the course of a 24-month period.

		Possible sub-codes include: Implementation Score- High, Moderate, Low Implementer
		Examples: Total # of implemented strategies/total # of FY17 & FY18 strategies

Implementation of Innovation Context

Organizational Factor		CODENANE	DEEDUELON	INGTRUCTIONS
CONSTRUCT	CONSTRUCT	CODE NAME	DEFINITION	INSTRUCTIONS
TYPE Parent Code	Infrastructure	Infra	Refers to basic components of an agency including its size, structure, and resources availability	Use for codes that speak to barriers or facilitators connected with organizational infrastructure elements that influence the implementation of innovation process Possible sub-codes include: • # of employees • Operating budget • Resource allocation/supply • Decentralized, formalized, centralized structure
				Examples: amount of resources available/allocated to support implementation of innovation activities, staffing structure, overall operating budget
Child Code		Infra-resources- description		Use for codes that details of availability of resources for innovationno mention of how this factor impacts implementation
		Infra-resources- support		Use for codes that speaks to how availability of resources supports implementation in their organization
		Infra-resources- barrier		Use for codes that speaks to how availability of resources serves as barrier to implementation in their organization
		Infra-size description		Use for codes that details of organizational size (can be the number of employees, number of operating sites, operating budget, and number of patients served annually)
		Infra-size-barrier		Use for codes that mentions of how org size serves as a barrier to implementation

Organizational Factors Context

		Infra-structure description Infra-structure- barrier Infra-structure- support		Use for codes that details of organizational structureno mention of how structure influences implementation Use for codes that speaks to how org structure serves as a barrier to implementation Use for codes that speaks to how org structure supports implementation
Parent Code	Culture	Culture	Refers to the deep structure of the organization, which is rooted in values, beliefs, and assumptions held by organizational members (Denison, 1996)	Use for codes that mention barriers or facilitators connected with organizational culture influencing the implementation of innovation process Possible sub-codes include: • Mission • Values • Objectives • Organizational norms • Stability Examples: participants knowledge of their organizational values, mission and objectives; organizational turnover
Child Code		Culture-barrier Culture- description Culture-support	-	Use for codes that speaks to culture serving as a barrier to implementation Use for codes that details of their organizational culture does not mention the influence upon implementation Use for codes that mention of how culture serves as a facilitator for implementation
Parent Code	Climate	Climate	Refers to employees' shared summary perceptions of the extent to which their use of the innovation is rewarded, supported and expected within the organization (Klein et al., 1996)	Use for codes that speak to barriers or facilitators associated with organizational climate impacting the implementation of innovation process Possible sub-codes include: Implementation policies Implementation procedures Technical assistance Incentives for innovation use Performance orientation Support for innovation Examples: participants knowledge of knowledge of decision to adopt process; knowledge of existing implementation policies and procedures and their application;

				trainings to support implementation; types of incentives to utilize innovation
Child Code		Climate description		Use for codes that details of what climate for innovation looks like in their organizationdoes not mention the influence upon implementation
		Climate-support		Use for codes that provide specific examples of how climate supports implementation in a participant's organization or factors of climate that can support implementation
		Climate-barrier		Use for codes that provide specific examples of how climate serves as a barrier to implementation in a participant's organization or factors of that can thwart implementation
Parent Code	Leadership	Leadership	Refers to having a vision, serving as a champion for innovation, role modeling, and setting organizational goals	Use for codes that speak to barriers or facilitators associated with organizational leadership impacting the implementation of innovation process Possible sub-codes include: • Vision • Acceptance of goals • Provides individual support • Provides intellectual stimulation • Provides appropriate role model • Persuasion Examples: participants' knowledge of leadership engagement and support of implementation of innovation, knowledge of decision to adopt innovation process, scenarios of how individuals in leadership have exhibited the behaviors noted above.
Child Code		Leadership- barrier Leadership-		Use for codes that mentions of how leadership serves as a barrier to implementation Use for codes that
		support Leadership-	-	mentions of how leadership supports implementation Use for codes that
		description		description of leadershipgeneral mention of how leadership is involved in implementationno mention of how leadership impacts implementation

CONSTRUCT TYPE	CONSTRUCT	CODE NAME	DESCRIPTION	INSTRUCTIONS
Parent Code	Emergent	Emerg	Examples or comments that are different than the preset codes	Use this code for specific examples or comments that are different than the pre-set codes and show relation to influencing the implementation of innovation process. Can be described as a prohibiting or facilitating role in the process.

Appendix 12: Code Manager Table

Code Name	Groundedness
CapB	54
Climate description	7
Climate-support	
CSNLC-applying tools learned	17
CSNLC-engaging	5
CSNLC-environment	15
CSNLC-evaluation	9
CSNLC-exposure to diverse perspectives	2
CSNLC-facilitation	49
CSNLC-follow up	11
CSNLC-improvement strategies	4
CSNLC-learning	29
CSNLC-materials	7
CSNLC-networking	10
CSNLC-networking outside	23
CSNLC-peer engagement	24
CSNLC-peer to peer learning	21
CSNLC-reflection	9
CSNLC-relevant topics	18
CSNLC-sharing best practices	11
CSNLC-experiencing same problems	14
CSNLC-sharing	37
CSNLC-team based problem solving	20
Culture-barrier	12
Culture-description	31
Culture-support	20
Discussion and Networking Series-objective	9
ImpInno example	25
ImpInno-CSNLC supports	23
Infra-resources-description	8
Infra-resources-support	14
Infra-resources-barrier	18
Infra-size description	30
Infra-size-barrier	29
Infra-size-support	16

Infra-structure description	15
Infra-structure-barrier	14
Infra-structure-support	19
Leadership Description	21
Leadership Series-Objective	6
Leadership-barrier	25
Leadership-support	65
LeadSK	36
Learning Event-objective	3

Appendix 13: Co-Occurrence Tables

TABLE I. CAP B CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Cap B		
CSNLC Follow Up	1	
Leadership Support	1	
OrgCap	1	

TABLE II. CLIMATE DESCRIPTION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Climate Description		
Implnno Example	1	
Infra-size support	1	
Leadership description	1	
Leadership support	3	

TABLE III. CLIMATE-BARRIER CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Climate Barrier	
Infra-resource-support	1
Infra-size barrier	1
Leadership barrier	1

TABLE IV. CLIMATE-SUPPORT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Climate Support	
Culture description	1
Culture support	3
Implnno-example	1
Implnno CSNLC	1
Infra-size support	2
Infra-structure description	1
Infra-structure support	4
Leadership support	7

TABLE V. CSNLC APPLYING TOOLS LEARNED CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Applying Tools Learned	
Climate support	1
CSNLC experiencing same problems	1
CSNLC peer to peer learning	2
CSNLC reflection	1
CSNLC relevant topics	3
CSNLC sharing	2
Implnno CSNLC supports	2
LeadSK	1

TABLE VI. CSNLC ENVIRONMENT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Environment	
CSNLC facilitation	2
CSNLC sharing	3
CSNLC team based problem solving	1
Discussion and Networking Sessions	2
Implnno CSNLC supports	1
OrgCap	1

TABLE VII. CSNLC EVALUATION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Evaluation	
CSNLC facilitation	1
CSNLC relevant topics	1

TABLE VIII. CSNLC EXPERIENCING SAME PROBLEMS CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Experiencing same problems	
CSNLC applying tools learned	1
CSNLC learning	1
CSNLC peer to peer learning	1
CSNLC sharing	1
CSNLC sharing best practices	2
CSNLC team based problem solving	7
LeadSK	1
Learning Event objective	1

TABLE IX. CSNLC EXPOSURE TO DIVERSE PERSPECTIVES CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC exposure to diverse perspectives	
CSNLC networking	1

TABLE X. CSNLC FACILITATION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC facilitation		
CSNLC environment	2	
CSNLC evaluation	1	
CSNLC follow up	1	
CSNLC materials	1	
CSNLC peer engagement	3	
CSNLC reflection	1	
CSNLC relevant topics	1	
CSNLC sharing	1	
LeadSK	1	

TABLE XI. CSNLC FOLLOW UP CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Follow up		
CapB	1	
CSNLC facilitation	1	
CSNLC improvement strategies	1	
Learning Event Objective	1	

TABLE XII. CSNLC IMPROVEMENT STRATEGIES CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Improvement Strategies	
CSNLC follow up	1
Leadership support	1
Learning Event Objective	1

TABLE XIII. CSNLC LEARNING CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC learning	
CSNLC applying lessons learned	2
CSNLC experiencing same problems	1
CSNLC networking outside	1
CSNLC peer engagement	2
CSNLC relevant topics	1
CSNLC sharing	2
CSNLC sharing best practices	1

CSNLC team based problem solving	1
Discussion and Networking Objective	1
Implnno CSNLC supports	2
Leadership Series Objectives	1
LeadSk	3
Learning Events objectives	1

TABLE XIV. CSNLC MATERIALS CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Materials	
CSNLC facilitation	1
CSNLC peer engagement	1

TABLE XV. CSNLC NETWORKING CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Networking	
CSNLC exposure to diverse perspectives	1
CSNLC peer engagement	1
CSNLC sharing best practices	1
Leadership	1
Leadership Series Objective	1

TABLE XVI. CSNLC NETWORKING OUTSIDE CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Networking Outside	
CSNLC learning	1
CSNLC peer to peer learning	2
CSNLC sharing	6
Implnno CSNLC supports	1

TABLE XVII. CSNLC PEER ENGAGEMENT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC peer engagement	
CSNLC facilitation	3
CSNLC learning	2
CSNLC materials	1
CSNLC networking	1
CSNLC peer to peer learning	1
CSNLC reflection	1
CSNLC sharing	3
CSNLC sharing best practices	1
CSNLC team based problem solving	1
Discussion and Networking objective	1

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TABLE XVIII. CSNLC PEER TO PEER LEARNING CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC peer to peer learning	
CSNLC applying tools learned	2
CSNLC experiencing same problems	1
CSNLC networking outside	2
CSNLC peer engagement	1
CSNLC relevant topics	1
CSNLC sharing	4
CSNLC team based problem solving	5

TABLE XIX. CSNLC REFLECTION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC reflection		
CSNLC applying tools learned	1	
CSNLC facilitation	1	
CSNLC peer engagement	1	
CSNLC sharing	1	
Implnno CSNLC supports	1	

TABLE XX. CSNLC RELEVANT TOPICS CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC relevant topics		
CSNLC applying tools learned	3	
CSNLC evaluation	1	
CSNLC facilitation	1	
CSNLC learning	1	
CSNLC peer to peer learning	1	
CSNLC sharing	1	

TABLE XXI. CSNLC SHARING CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC sharing	
CSNLC applying tools learned	2
CSNLC environment	3
CSNLC experiencing same problems	1
CSNLC facilitation	1
CSNLC learning	2
CSNLC networking outside	6
CSNLC peer engagement	3
CSNLC peer to peer learning	4

CSNLC reflection	1
CSNLC relevant topics	1
CSNLC sharing best practices	3
CSNLC team based problem solving	3
Discussion and Networking objectives	6
Implnno CSNLC supports	2
LeadSK	1
Learning Event Objective	1

TABLE XXII. CSNLC SHARING BEST PRACTICES CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC sharing best practices	
CSNLC experiencing same problems	2
CSNLC learning	1
CSNLC networking	1
CSNLC peer engagement	1
CSNLC sharing	3
CSNLC team based problem solving	4
Discussion and Networking objectives	4
Implnno example	1
Implnno CSNLC supports	1
Leadership	1
Leadership Series Objective	1
Learning Event Objective	2
OrgCap	1

TABLE XXIII. CSNLC TEAM BASED PROBLEM SOLVING CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC sharing best practices	
CSNLC environment	1
CSNLC experiencing same problems	7
CSNLC learning	1
CSNLC peer engagement	1
CSNLC peer to peer learning	5
CSNLC sharing	3
CSNLC sharing best practices	4
Discussion & Networking Series Objective	3
Implnno CSNLC example	1
LeadSK	2
Learning Event Objective	1
OrgCap	1
	1

TABLE XXIV. CULTURE BARRIER CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Culture Barrier	
Infra-resources barrier	1
Infra-size barrier	2
Leadership barrier	3

TABLE XXV. CULTURE DESCRIPTION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Culture Description		
Climate support	1	
Infra-resources description	1	
Infra-size barrier	1	
Infra-structure description	1	
Leadership	1	

TABLE XXVI. CULTURE SUPPORT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Culture Support	
Climate support	3
Leadership support	2

TABLE XXVII. DISCUSSION & NETWORKING SERIES OBJECTIVE CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Discussion & Networking Series Objectiv	'e	
CSNLC environment	2	
CSNLC learning	1	
CSNLC peer engagement	1	
CSNLC sharing	6	
CSNLC sharing best practices	4	
CSNLC team based problem solving	3	

TABLE XXVIII. IMPLNNO EXAMPLE CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Implnno example	
Climate description	1
Climate support	1
CSNLC sharing best practices	1
CSNLC team based problem solving	1
Implnno CSNLC support	1
Infra-resources barrier	1
Infra-structure support	1
Leadership support	3

OrgCap 2	UrgCap	2
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TABLE XXIX. IMPLNNO CSNLC SUPPORTS CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

CSNLC Implnno supports	
Climate support	1
CSNLC applying tools learned	2
CSNLC environment	1
CSNLC learning	2
CSNLC networking outside	1
CSNLC reflection	1
CSNLC sharing	2
CSNLC sharing best practices	1
Implnno example	1
Leadership support	1

TABLE XXX. INFRA-RESOURCES DESCRIPTION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-resources description	
Culture description	1
Leadership barrier	1

TABLE XXXI. INFRA-RESOURCES SUPPORT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-resources support	
Climate barrier	1
Implnno example	1
Infra-size description	1
Infra-structure support	2
Leadership description	1
Leadership support	1

TABLE XXXII. INFRA-RESOURCES BARRIER CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-resources barrier	
Culture barrier	1
Leadership barrier	1
Leadership support	3
Infra-structure support	2

TABLE XXXIII. INFRA-SIZE DESCRIPTION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-size description	
Infra-resources support	1
Infra-size barrier	1
Infra-structure support	2

TABLE XXXIV. INFRA-SIZE BARRIER CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-size barrier		
Climate barrier	1	
Culture barrier	2	
Culture description	1	
Infra-size description	1	

TABLE XXXV. INFRA-SIZE SUPPORT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-size support	
Climate description	1
Climate support	2
Infra-structure support	2
Leadership support	2

TABLE XXXVI. INFRA-STRUCTURE DESCRIPTION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-structure description	
CSNLC support	1
Climate description	1
Infra-structure support	1
Leadership description	1
OrgCap	1

TABLE XXXVII. INFRA-STRUCTURE BARRIER CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-structure barrier	
Leadership barrier	1
Leadership support	1

TABLE XXXIX. INFRA-STRUCTURE SUPPORT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Infra-structure support		
Climate support	4	
Implnno example	1	
Infra-resources support	1	
Infra-structure support	2	
Infra-size description	2	
Infra-size support	2	
Infra-structure description	1	
Leadership support	7	

TABLE XL. LEADERSHIP DESCRIPTION CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Leadership description		
Climate description	1	
CSNLC networking	1	
CSNLC sharing best practices	1	
Culture description	1	
Infra-resources support	1	
Infra-structure description	1	
OrgCap	1	

TABLE XLI. LEADERSHIP SERIES OBJECTIVE CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Leadership series objective		
CSNLC learning	1	
CSNLC networking	1	
CSNLC sharing best practices	1	

TABLE XLII. LEADERSHIP BARRIER CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Leadership barrier		
Climate barrier	1	
Culture barrier	3	
Infra-resources description	1	
Infra-resources barrier	1	
Infra-structure barrier	1	
Leadership support	1	

TABLE XLIII. LEADERSHIP SUPPORT CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Leadership support		
CapB	1	
Climate description	3	
Climate support	7	
CSNLC improvement strategies	1	
Culture support	2	
Implnno example	3	
Implnno CSNLC supports	1	
Infra-resources support	2	
Infra-size support	2	
Infra-structure barrier	1	
Infra-structure support	7	
Leadership barrier	1	
OrgCap	1	

TABLE XLIV. LEADSK CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

LeadSK	
CSNLC applying tools learned	1
CSNLC experiencing same problems	1
CSNLC facilitation	1
CSNLC learning	3
CSNLC peer engagement	5
CSNLC sharing	1
CSNLC team based problem solving	1
OrgCap	2

TABLE XLV. LEADSK CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

LeadSK			
CSNLC applying tools learned	1		
CSNLC experiencing same problems	1		
CSNLC facilitation	1		
CSNLC learning	3		
CSNLC peer engagement	5		
CSNLC sharing	1		
CSNLC team based problem solving	1		
OrgCap	2		

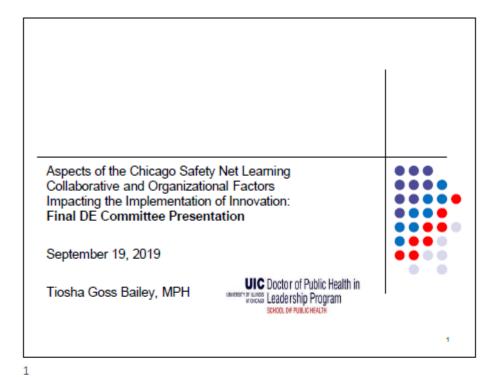
TABLE XLVI. LEADERSHIP EVENT OBJECTIVE CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

Leadership Event Objective			
CSNLC experiencing same problems	1		
CSNLC follow up	1		
CSNLC improvement strategies	1		
CSNLC learning	1		
CSNLC sharing	1		
CSNLC sharing best practices	2		
CSNLC team based problem solving	1		
OrgCap	2		

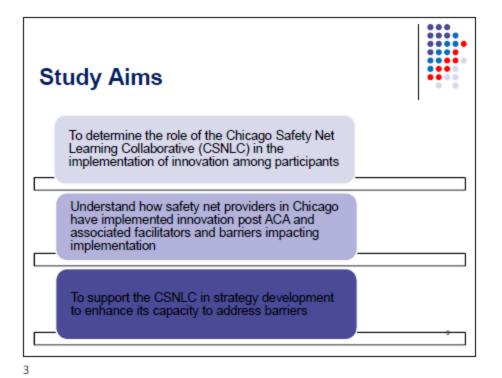
TABLE XLVII. ORGCAP CODE AND SELECT CO-OCCURRING FACTORS WITH CODING REFERENCE COUNTS

OrgCap	
CapB	1
CSNLC environment	1
CSNLC sharing best practices	1
CSNLC team based problem solving	1
Implnno example	2
Infra-structure description	1
Leadership description	1
Leadership support	1
LeadSK	2

Appendix 14: Development Committee Presentation 3

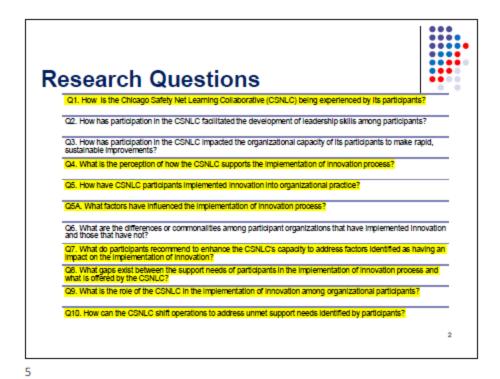


Age	nda		
	Agenda Item	Time Allotted	
	Background	5 mins	
	Study Findings	30 mins	
	Recommendations Discussion	20 mins	
	Next Steps	5 mins	
			2



Study Design & Data Collection Sources
Exploratory study that uses a developmental evaluation case study design and qualitative methodology
Document review using CSNLC FY17 & FY18 Annual Report, Implementation Dataset, 3 Yr. Sustainability Plan & attendance records
23 semi-structured interviews (includes 2 pilot interviews)

*IRB approval received 5/2/2019



Q1: How is the CSNLC being experienced by participants?

- A safe environment of trust and respect driven by skilled facilitators
- Well-planned and structured sessions, with topics that are relevant to healthcare practice
- An entity that brings together similar organization types to address shared challenges using teambased problem solving as a central practice
- The use of team-based problem solving promotes peer to peer learning, formation of relationships across organizations, and building of evidence to support decision making

Q1: How is the CSNLC being experienced by participants?

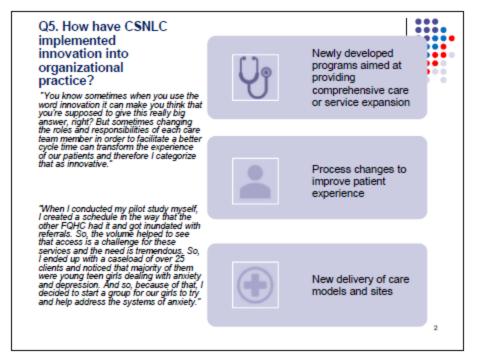
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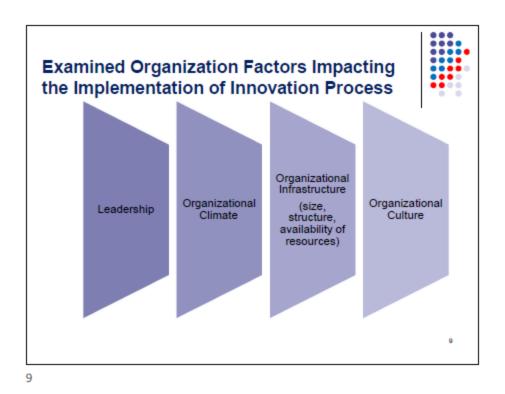


"The facilitator encourages communication and respect. The groups chosen to facilitate these sessions, I would argue is a huge reason why they've been so successful because they have built the right structure and culture process to make it what's it become."

"I'm a part of the COO Networking Sessions and I love them, love them, love them. I have a whole group of friends out there and we talk to each other almost daily about what are you doing about this, how do you think about this, all of those things constantly. And that really just didn't exist before this."

"Members bring to the table best practices. And so, when you see best practices with the clear data, empirical data to support what they are doing, it allows you come back and feel good about any potential changes you might make."





Q5A. What organizational factors influence the implementation of innovation process?

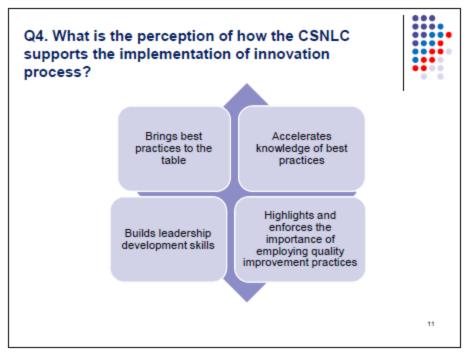
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High Level Summary

- All examined factors influenced the process to some extent
- Cross-case analysis conclusions are forth coming

Top 3 Ranking Factors

- Leadership was highlighted as the most influential organizational factor, with an association to all remaining factors
- Organizational climate often serving as a facilitator
- Organization size contradictory participant responses



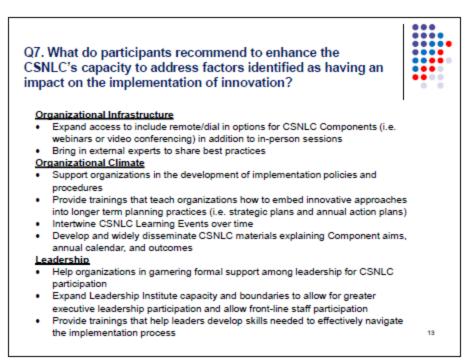
Q4. What is the perception of how the CSNLC supports the implementation of innovation process?

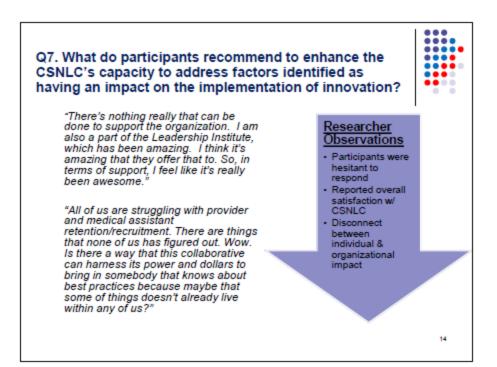


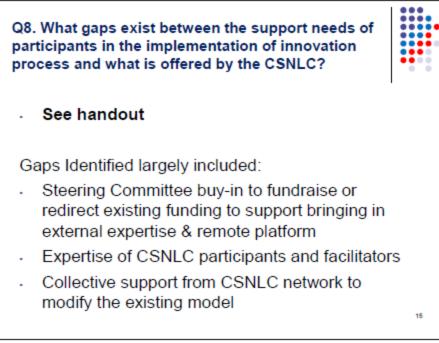
"I think it supports it tremendously because they bring to the table best practices. So, I think they're critical in that they've done a great job of fostering an environment that works towards innovation."

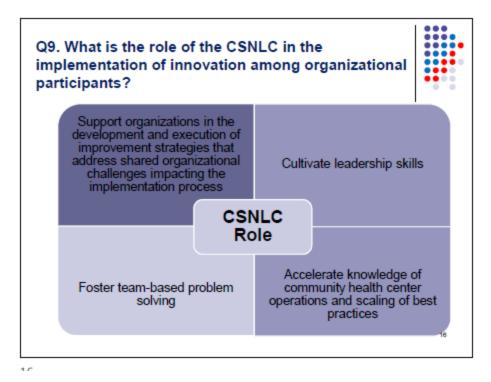
"It's a great way for us to send staff to learn about what other organizations are doing. The whole way that the Collaborative is structured, I think is great because you start out really thinking about how your own organization is structured. When you answer the questions they have...put together a poster board and you've really kind of done some like introspective thinking in terms of, how we're running things and what are we doing and what are our best practices?"

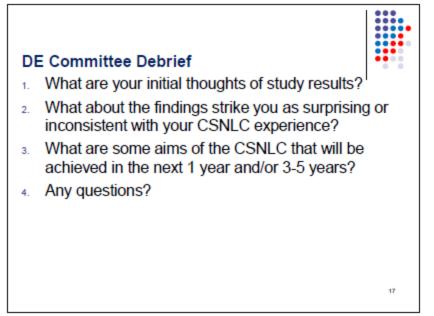
"Every year, we really realized how the (EMR) system that we were using wasn't fueling our ability to track and properly document a lot of outcomes. And every time, one of our action items was to change our software and do something different. So for us from a technology standpoint, the learning collaborative really helped us keep that front and center as a priority, year in and year out in a way that it may not have been as clear and as obvious if we hadn't been participating in this."

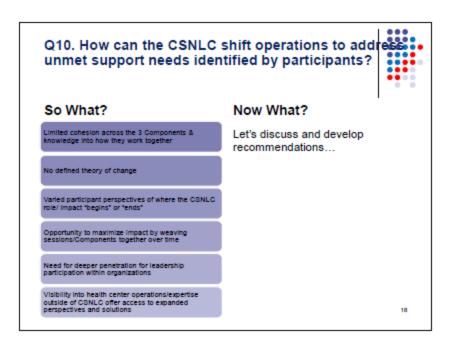
















Appendix	15.8	Study	Findings	Crosswalk Table
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Research Questions	Themes	Key Findings
	 A safe environment of trust and respect driven by skilled facilitators Well-planned and structured sessions, with topics that are relevant to healthcare practice An entity that brings together similar organization types to address shared challenges using team-based problem solving as a central practice The use of team-based problem solving promotes peer to peer learning, formation of relationships across organizations, and building of evidence to support decision making 	 Key Findings Participant CSNLC experiences were more similar than dissonant – largely noting the value of bringing together likeminded entities experiencing similar challenges to leverage expertise of the group, erect change and improve outcomes of patients served. CSNLC participation changed the way individuals approach problem solving—improving the probability for achieving intended outcomes, and increasing the rate at which best practices are scaled across the sector—findings are consistent with the literature and the role that LC's play as an improvement method that relies on the spread and adaptation of existing knowledge to multiple, similar sites to accomplish common aims (IHI, 2003) CSNLC participation results in the formation of peer relationships CSNLC facilitators play in an
Q2. How has participation in the CSNLC facilitated the development of leadership skills among participants?	 Leadership skills development was made possible through learning more about one's self and others and peer engagement Developing leadership skills was both a process and outcome Increased confidence in one's capabilities to make decisions and effectively deal with tough situations Enhanced communication skills 	 influential role in shaping participant experience No known literature indicating an association between learning collaborative participation and leadership development CSNLC demonstrates a commitment to impacting leadership development –seen in their evolution to expand to include components that support leadership development and their request to expand the evaluation scope to examine this potential outcome The CSNLC is making an impact upon leadership development

Q3. How has participation in the CSNLC impacted organizational capacity of its participant organizations to make rapid, sustainable improvements?	 There's no evidence of CSNLC influencing organizational capacity The CSNLC expedites the organizational change process through the increased access to network experts and best practices The CSNLC supports the enhancement of leadership skills that has an organizational impact 	 The CSNLC impacts leadership development skills and speeds up the change process Findings did not yield expanded knowledge, but highlights opportunity for further exploration
Q4. What is the perception of how the CSNLC supports the implementation of innovation process?	 Brings best practices to the table Creates greater visibility into health center operations across the safety net sector Equips leaders with enhanced skillsets that can drive and navigate change Highlights and enforces the importance of employing quality improvement practices 	 The CSNLC's aims are consistent with literature findings that explain the role of learning collaboratives The CSNLC is supporting organizations through the Knowledge, Persuasion and Adoption of Innovation Phases Adoption of innovation findings are inconsistent with researcher intent Participant responses blurred the adoption and implementation stages The CSNLC serves as a distinct approach to learning collaborative models
Q5. How have CSNLC participant organizations implemented innovation into organizational practice?	 Newly developed programs aimed at providing comprehensive care or service expansion Process changes to improve patient experience New delivery of care models and sites 	 Confirmed that community health centers are implementing innovation despite the ever- changing healthcare landscape Findings were consistent with literature's definition for innovation A mental model shift is needed to recognize that innovation is organizational change
Q5A. What factors have influenced the implementation of innovation process?	See below	• All examined factors influence the implementation of innovation process
	 Leadership Leadership is the most influential organizational factor, with associations to all remaining factors Leadership's role is to define the vision for innovation—the lack of a vision leads to 	 Leadership Leadership plays a highly influential role in the implementation process

 competition priorities having a negative impact on the implementation of innovation Leadership impacts the pace of innovation –can serve as either a barrier or facilitator to the implementation of innovation process 	 Leadership's association to other factors is consistent with literature findings Study findings highlight connection between the CSNLC's commitment to leadership development and leadership's critical role in the implementation of innovation
 Climate Participants describe organizational climate as robust training programs, communication. across the organization, existence of incentive programs and implementation policies and procedures Organizational climate most often served in a facilitator capacity supporting the implementation of innovation process Organizational climate has an association to organizational size 	 Climate Existence of similar descriptions for organizational climate across participants Organizational climate was more often a facilitator than barrier Organizational climate served as a barrier in larger sized organizations Collectively, participant organizational climates are moderately strong
 Organizational Size Organizational size was defined using three characteristics of annual operating budget, number of employees and operational sites Being a small sized organization has both benefits and challenges impacting the implementation of innovation process The number of operational sites can impact the implementation process as either a barrier or facilitator Organizational Structure There is minimal variation in structural hierarchies across participant responses Complex organizational structures presented challenges with requiring multiple layers of 	 Organizational Infrastructure/Capacity The influence of organizational size was more evident than other sub-infrastructure factors Benefits and challenges related to organizational size are consistent with the literature Organizational structure findings expand and contradict existing literature Organizational structure can serve as a facilitator and barrier Organizational structure can serve as a facilitator and barrier Identification of organizational structure the finding expanded barrier
 challenges with requiring multiple layers of approval and successful navigation Responsive organizational structures have dedicated staff that can lead and/or support the implementation of innovation process; and work to ease the flow of communication across the organization Availability of Resources Leadership was the determining factor influencing the availability of resources to support the implementation process 	 structure types that influence the implementation process is unknown Availability of resources has limited influence on the implementation process compared to other sub-infrastructure factors Limited or absence of available resources stalls or scales down implementation efforts

	 Participant organizations reported a reliance on grant funding to support the implementation of innovation There's an association between availability of resources and organizational structure 	 Leadership serves as the gatekeepers for making funding available to support implementation There's a demonstrated link between organizational infrastructure and capacity
	 Culture Support of innovation among staff occurs when there's alignment between the organizational mission, values, vision and innovation Culture impedes the implementation process when staff attitudes, beliefs, and behaviors are resistant to change Leadership shapes organizational culture and supports an organizational climate conducive to the implementation of innovation 	 <i>Culture</i> "Mission oriented" or "collaborative" both serve as organizational culture archetypes that support the implementation of innovation Findings are inconsistent with literature speaking to the "knowing-gap" Organizational culture archetypes that impede the implementation process include those that are defined as "discordant" and "resistant to change" Organizational culture is an important determinant of organizational climate
Q6. What are the differences or commonalities among participant organizations that have implemented innovation and those that have not?	 Types of Implemented Innovation All Implementation Categories implemented new process changes to enhance and optimize services currently being offered, with High Implementers ranking the highest All Implementation Categories were implementing new delivery of care models, this also included the launch of new service locations. High and Low Implementers offered no examples of new programming being implemented during the specified 12-month period Leadership Facilitators were higher than that of barriers across all Implementation Categories, participants highlighted the association between organizational climate and leadership; and were able to share specific examples such as having champions in their organizations that lead the charge for innovation, rewarding staff for the 	 Due to study findings confirming that most organizations are innovating to some degree, the aim of this question has shifted to better understand if there are distinguishing organizational characteristics that influence the pace at which organizations innovate. High and Moderate Implementers use strategic and annual action plans –indicating the importance of aligning implementation strategies with these plans Moderate Implementers was the only category that expressed an association between availability of resources, organizational structures and leadership— explaining why this category has been able to implement a

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Both High Implementers and Moderate	
Implementers mentioned that as a larger	
organization, innovation was expected within	
their organizations because it helped to support	
efficient and higher quality operations. These	
findings worked to support the association	
between organizational climate and	
organizational size.	
Organizations that deemed themselves small	
and also in the Moderate Implementers	
category, explained that their size helped to	
support the constant flow of communication	
and capabilities to diagnose implementation	
challenges quicker.	
• Only Low Implementers saw benefit in being a	
small sized organization because there were	
less staff to train –making coordination of these	
activities easier to manage. This finding further	
supports the association between organizational	
climate and organizational size	
 Documented frequencies for barriers related to 	
organizational size were the same across all	
three Implementation Categories	
All Categories had similar challenges that	
included having too many clinical sites—	
causing a lot effort and increased coordination	
of implementation-related activities.	
High and Moderate Implementer categories	
also mentioned the geographical spread of their	
sites serving as a barrier also shared the	
association between organizational culture and	
size; with challenges presenting due to each	
clinical site having its own culture and	
interpretation of implementation policies and	
procedures.	
Moderate Implementers serves as the sole	
category with documented barriers related	
small organization size, with respect to limited	
physical needed to carryout innovation.	
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High Implementers had the highest number of	
coded facilitators for organizational structure,	
accounting for 53% of overall coded	
facilitators. Moderate Implementers came in	
second with 31% and Low Implementers	
ranking last, making up 16% of all coded	
organizational structure facilitators.	
• In addition to having structures developed with	
intentionality to support innovation, both High	
and Moderate Implementers had dedicated staff	
within their organizations to make	
implementation of innovation a reality	
 Low Implementers serves as the only category 	
• Low implementers serves as the only category where participants shared how leadership staff	
roles within the organizational structure are	

charged with communicating innovation-related	
messaging to their teams.	
Organizational Structure	
• High Implementers made up 43%, Moderate	
Implementer accounted for 39% and Low	
Implementers totaled 18%.	
• All three categories spoke to implementation	
process being slowed down as a result of	
organizational structures—there were some	
variances in the reasons provided that included	
a needing to get approval from leadership and	
report the progress of innovations across	
multiple layers within the organization; and a	
breakdown of communication caused by lack of	
clarity of who staff report to.	
Availability of resources	
• Low Implementers had the highest number of coded facilitators in connection to availability	
•	
of resources, making up 43% of overall	
facilitators. Moderate Implementers ranked	
second, accounting for 36% and High	
Implementers totaled 21%	
• Study findings show there was no overlap	
across Implementation Categories. High	
Implementers and Moderate Implementers	
highlighted the association between leadership	
and the availability of resources.	
Low Implementers talked about their reliance	
upon grant funding or the identification of a	
funding stream in order to move forward and/or	
sustain the implementation of innovationalso	
credited leadership for ensuring financially	
stable business models that worked to support	
implementation occurring in their organization.	
All Implementation Categories shared	
challenges with having financial resources to	
support the implementation of innovation.	
Moderate Implementers referenced this factor	
has having the biggest impact upon innovation.	
Both High and Low Implementers stated that	
their limited availability of resources has	
resulted in not pursing innovation at times.	
• High Implementers served as the only category	
of mention regarding limited capacity to pursue	
innovation due to the high costs associated with	
provider time.	
Organizational Culture	
• Low Implementers ranked first place for having	
the highest number of coded organizational	
culture facilitator, accounting for more than	
half of respective documented code at 55%.	
 all Implementation Categories noted 	
• an implementation categories noted organizational culture similarities that included	
an engaged a connection between perceptions	
an ongaged a connection between perceptions	

	of staff willingness to innovate and alignment with mission, vision, and/or values.	
	High Implementers served as the only category where participants spoke about their	
	organizations as having a culture of learning	
	and leadership that has intentionality behind	
	innovation decisions—ensuring clear	
	connections between said decisions and	
	organizational mission, vision and values.	
	 Moderate Implementers commented to having 	
	an engaged workforce that shows commitment	
	and fosters collaboration can serve as a	
	facilitator supporting the implementation of	
	innovation process.	
	 organizational culture barriers, the ranking 	
	shifted, with High Implementers making up	
	58%, Low Implementers reflecting 25%, and	
	Moderate Implementers coming in last at 17%.	
	 High and Moderate Implementers experienced 	
	challenges related to their organizational	
	cultures because of varied perceptions of staff	
	willingness toward innovation across role types.	
	Differences across categories highlight Low	
	Implementers sharing how shifts in leadership	
	perpetuating negative attitudes and beliefs	
	served as an impeding barrier and High	
	Implementers discussing how their culture of	
	quality worked to slow the implementation of	
	innovation process.	
Q7. What do	Organizational Infrastructure	
participants	• Expand access to include remote/dial in options	 Proposed CSNLC suggestions
recommend to	for CSNLC Components (i.e. webinars or video	aligned with three of four
enhance the	conferencing) in addition to in-person sessions	examined organizational factors
CSNLC's capacity	Bring in external experts to share best practices	-suggestions were largely
to address factors	Organizational Climate	technical fixes. However, it's
identified as having	• Support organizations in the development of	unclear whether these fixes will
an impact on the	implementation policies and procedures	better position organizations as
implementation of	• Provide trainings that teach organizations how	they move forward in the
innovation?	to embed innovative approaches into longer	implementation phase because
	term planning practices (i.e. strategic plans and	they were developed under the
	annual action plans)	assumption from the
	Intertwine CSNLC Learning Events over time	participants that the CSNLC
	Develop and widely disseminate CSNLC	was already supporting them in the implementation of
	materials explaining Component aims, annual	the implementation of
	calendar, and outcomes	innovation. Study findings
	Leadership	confirm that this assumption is
	Help organizations in garnering formal support	not true.
	among leadership for CSNLC participation	Organizational culture was notably missing—one can
	• Expand Leadership Institute capacity and	speculate that this exclusion is
	boundaries to allow for greater executive	the product of beliefs about the
	leadership participation and allow front-line	CSNLC's role to indirectly
	staff participation	
	Provide trainings that help leaders develop	impact organizational change

Q8. What gaps exist between the support needs of participants in the implementation of innovation process and what is offered by the CSNLC?	 Funding to support the cost of bringing in external expertise Knowledge and availability of experts in the field Buy-in from the Steering Committee to redirect existing funding or secure additional funding Expertise of CSNLC participants and/or facilitators to develop training curriculum, tools, and/or conduct trainings Shifts in mental models of executive leadership that align with expectations for participating outlined in the MOU Funding to support additional trainings, materials, etc. Identification and selection of remote access platforms Collective support for modifying the fidelity of the existing learning collaborative model 	 the sessions. The CSNLC directly impacting organizational culture extends beyond this boundary—as culture is inherently embedded with an organization's innerworkings that are hard to understand or be penetrated by an external source. Further exploration is needed. There are some considerations to be made before pursing any of the proposed recommendations that include: assessing knowledge of existing CSNLC network and facilitators to identify gaps that could be filled through external expertise and development of a formal process to get proposed changes in front of the CSNLC network at large to garner feedback and buy-in.
9. What is the role of the CSNLC in the implementation of innovation process?	 The CSNLC accelerates knowledge of community health center operations and scaling of best practices Supports organizations in the development and execution of improvement strategies that address shared organizational challenges impacting the implementation process Cultivates leadership skills Fosters team-based problem solving 	 The CSNLC is meeting stated aims of its vision -participants are learning about systems change, sharpening leadership skills, and receiving support from the knowledge through adoption stages that work to build evidence needed to make a determination to adopt or reject an innovation Participants are seeking additional support that works to address organizational factors that impact the implementation of innovation—helping organizations move along the Decision Innovation Process Continuum Findings didn't conclusively show the relationship between CSNLC activities and implementation of innovation practices The CSNLC represents a dissonant model from those documented in the literature modeled after The Breakthrough Series—offering room for increased learning and impact One can infer that supporting organizations through the

Q10. How can the CSNLC shift operations to address unmet support needs identified by participants?• Develop a theory of change that weaves together the aims and intended outcomes of the CSNLC activities that include Learning Events, Discussion & Networking Series, and Leadership Institute• Enhance evaluation tools to capture impact made upon participant leadership skills and identify areas of improvement for each CSNLC activity type• Develop a readiness/organizational change assessment tool that examines how and which organizational factors (leadership, organizational climate, culture, and infrastructure) can impact the implementation of innovation process within the respective participant organizations• Create a sequencing framework that integrates Learning Event topics over time • Approve the use external experts as part of the CSNLC and make associated funding available.• Train executive leadership and middle management on best practices for incorporating innovation into organizational strategic planning practices	 adoption of innovation phase does indirectly support the implementation of innovation Proposed recommendations will work to enhance the capacity of CSNLC operation, inform operations of both existing and future learning collaboratives and expand the knowledge base around best practices for using learning collaboratives to support leadership development and adoption of innovation
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