

Cultivating Resilience and Change Adaptability in Lower Mainland Laboratories

by


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Abstract

This inquiry investigated how Senior Laboratory Leadership can cultivate a culture of resilience and change adaptability among medical laboratory technologists (MLTs) in Lower Mainland Laboratories. An action research methodology was used. Purposeful sampling recruited participants for four interviews and two focus groups in which MLTs were able to share thoughts, beliefs, and opinions on resilience, change adaptability, and the current laboratory culture. The findings demonstrated that resilience and change adaptability could be enhanced through MLT participation in organizational change. MLT input into determining shared values, inclusion of MLTs in decision making, leadership evaluation of current communication models, and addressing barriers to leadership development are recommendations born out of this inquiry.

Keywords: medical laboratory technologists, resilience, change adaptability

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Chapter One: Focus and Framing

Provincial Health Services Authority (PHSA) is a government agency that holds a unique role in the delivery of healthcare to residents of British Columbia (BC; PHSA, 2016). PHSA provides specialized care and testing via BC Children's Hospital, BC Cancer Agency, and BC Centre for Disease Control. Diagnostic laboratory and pathology services for the Lower Mainland of BC is another service provided by PHSA. Identified as Lower Mainland Laboratories (LM Labs), this entity is responsible for public laboratory services in hospitals and outpatient facilities throughout the Greater Vancouver Area.

The ever-changing frontier of technology forces laboratory professionals to be adept at learning and applying new knowledge (Desjardins & Fleming, 2014). In February of 2015, LM Labs announced that in order to create a fair and consistent technical leadership structure across all Lower Mainland sites, the current technical leadership structure would change. This change would necessitate a new way of doing things for all medical laboratory technologists (MLTs); new reporting structures and job descriptions would be implemented, and the possibility of job displacement became real for many MLTs. While proficiency in new technical processes is expected of MLTs, organizational change presents a different challenge. Jackson, Firtko, and Edenborough (2007) noted that an organizational change, such as a restructure, often leave healthcare workers feeling stressed and burned out. The change goal of this inquiry was to discover strategies that Senior Laboratory Leadership can utilize to cultivate a culture of resilience and change adaptability among MLTs. In conversations at the onset of this research, my project sponsor suggested that a collaborative inquiry into how the current laboratory culture

can be leveraged to ensure MLTs feel supported through major change could provide important learning for the organization (A. Almos, personal communication, August 14, 2015).¹

I have been in a formal leadership position within LM Labs for the past 4 years. Currently, I am the Laboratory Site Supervisor at Peace Arch Hospital in White Rock, BC. Through discussions with the Director of Laboratory Operations, Fraser Health Authority (FHA) and Laboratory Operations Manager for FHA South it was agreed that a focus on laboratories within FHA would be appropriate for the inquiry. As someone directly affected by the proposed technical leadership restructure, at first, I was hesitant to delve into an inquiry that I had my own biases about. However, in reading the work of Coghlan and Brannick (2014) I was reminded that critically important issues such as generating change can only be confronted from within the “swampy lowlands” (p. 4) of the organization. As an organizational insider, my role in this inquiry was to facilitate and create collaborative, democratic partnerships with key stakeholders in order to discover learning outcomes (Coghlan & Brannick, 2014, p. 6).

In collaboration and consultation with the Executive Director of Operations of Lower Mainland Pathology and Laboratory Medicine, the Director of Laboratory Operations for FHA, the Operations Manager for FHA South, and other key stakeholders, I decided that the overarching question to guide the inquiry would be as follows: How can Senior Laboratory Leadership cultivate a culture of resilience and change adaptability among medical laboratory technologists? This inquiry also addressed several subquestions. They were as follows:

1. What is the current culture among MLTs in LM Labs?
2. In what ways are MLTs in LM Labs currently resilient and change adaptable?

¹ All personal communications in this report are used with permission.

3. How could a culture of resilience and change adaptability be amplified and sustained in LM Labs?
4. What are some barriers to cultivating a culture of resilience and change adaptability among MLTs and how might these barriers be overcome?

Significance of the Inquiry

This inquiry allowed Senior Laboratory Leadership to tap into rich employee resources to determine how culture can be leveraged in order to cultivate resilience and change adaptability among MLTs. Schein (2010) noted that culture is a powerful force that influences social and organizational situations. Schein went on to suggest that if leaders fail to understand this force, they would become victim to it (p. 7). In the long run, cultivating employee resilience and change adaptability will have large payoffs for not only the organization and its employees, but also for patients and clients served by LM Labs.

It is vital for senior leaders to ensure that MLTs readily accept organizational change initiatives. The project sponsor asserted, “More organizational changes are coming. We must have employees who are able to understand and adapt to this challenge” (A. Almos, personal communication, August 16, 2015). Failed change efforts not only have financial impacts on an organization, but they also carry implications for future change efforts, and the very culture of the organization itself (Allen, Jimmieson, Bordia, & Irmer, 2007, p. 188).

Internal stakeholders in this inquiry included MLTs, laboratory operations managers, the executive level at PHSA, as well as medical pathologists who work in each of the five laboratory disciplines. External stakeholders can be defined as the Health Sciences Association of British Columbia (HSABC) labour union, the clients and patients who utilize the services of LM Labs, and the tax paying public.

Defining key stakeholder groups and viewing organizational culture from their perspective helps determine what may be required to increase resilience and change adaptability. When attempting to determine what these requirements may be, the challenge is to be able to move past an individual local picture and the imperfect truths it generates to seeing the larger picture and the truths it reveals (Oshry, 2007, p. 8). It is important to remember that the aim of an action inquiry is not to establish the truth or describe what is really happening, but rather to reveal the different truths and realities of the different groups and individuals involved (Stringer, 2014, p. 75).

One consequence of leaving the issues of culture, resilience, and change adaptability unaddressed may be the loss of valuable employee resources (Jackson et al., 2007). Employee resources may be lost not only in the form of employee resignation and retirement, but also in the attitudes and loss of morale of MLTs. To successfully compete for scarce healthcare dollars, Senior Laboratory Leadership must create a nimble, resilient, and change adaptable workforce. More organizational changes are on the horizon for MLTs. To ignore this issue could be detrimental to the organization, employee morale, and patient care in the long run.

Organizational Context

Publically funded outpatient and hospital-based laboratories in FHA, Vancouver Coastal Health, Providence Health Care, and within PHSA (including BC Children's Hospital, BC Cancer Agency, and BC Centre for Disease Control) provide laboratory services to citizens of the BC Lower Mainland area. These laboratories are a service of PHSA identified as LM Labs. A total of 1,900 laboratory professionals are employed at LM Labs (A. Almos, personal communication, January 12, 2016). The area served by LM Labs is shown in Figure 1 (Government of British Columbia, n.d.).

The BC Ministry of Health is responsible for funding the public laboratory system in the province (Lawson, 2012). This funding comes into programs and services via six provincial health authorities. LM Labs is unique in that, while it is a service provided by PHSA, it operates in the jurisdiction of four health authorities: FHA, Vancouver Coastal Health, Providence Health Care, and PHSA. Diagnostic Imaging and Pharmacy Services are similar services in the Lower Mainland of BC.

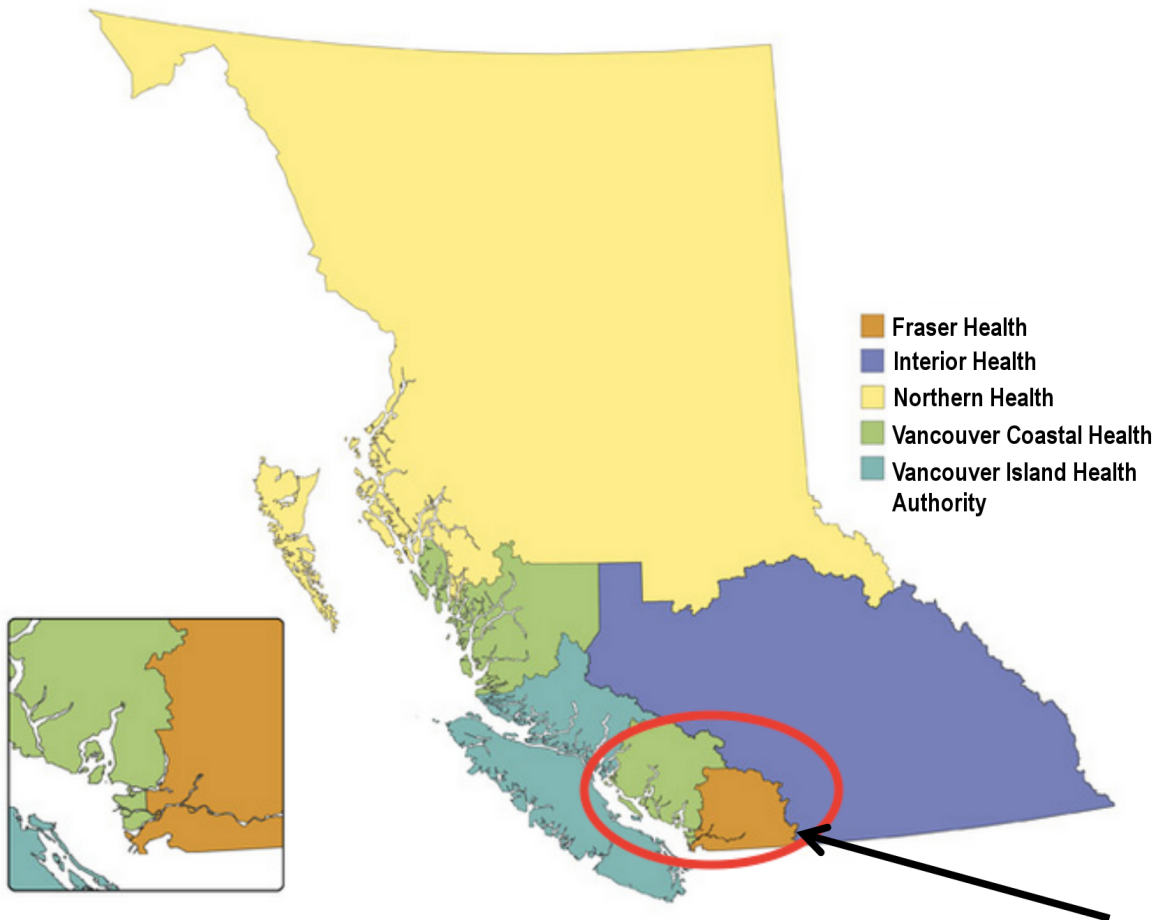


Figure 1. Area served by Lower Mainland Laboratories.

Note. Adapted from *Regional Health Authorities*, by Government of British Columbia, n.d., Victoria, Canada: Queen's Printer. Copyright 2016 by the Government of British Columbia. Reprinted with permission.

It is important to note where LM Labs fits into the healthcare system in BC. Utilizing only 4% of the provincial healthcare budget, laboratories are but a small spoke in the large

healthcare wheel (Bayne, 2003, p. 8). While LM Labs spans four health authorities (FHA, Vancouver Coastal Health, Providence Health Care, and PHSA) in the Lower Mainland of BC; this inquiry only included laboratories in three acute-care facilities within FHA. I chose these laboratories because they are representative of medium- and large-size hospital sites.

This inquiry was in line with the mandate of Government of BC Ministry of Health (2015) as listed in *2015/16-2017/18 Service Plan*. The ministry's goals include supporting the health and wellbeing of British Columbians, delivering responsive and effective healthcare service, as well as ensuring maximum benefit for money spent (Government of BC, Ministry of Health, 2015, pp. 7–14). Research surrounding culture, resilience, and change adaptability in the laboratory will aid in the creation of a work environment that is conducive to the effective provision of laboratory services. This inquiry also aligned with the mandate of PHSA as expressed in its vision, mission, and values statements (PHSA, 2014). To encourage a learning culture as well as the professional development of healthcare employees, this inquiry enabled Senior Laboratory Leadership to engage employees in the change process. The support expressed during this research project also demonstrated Senior Laboratory Leadership's desire for ongoing learning. This desire in turn adds to the provision of quality care for all British Columbians. Ongoing learning is demanded of a forward-thinking organization in which change is continuously on the horizon (PHSA, 2014).

Currently, the demand for laboratory services is placing pressure on the healthcare system's affordability and ability to respond (HSABC, 2010). These pressures include an aging population, greater physician reliance on testing, human resources demands, a more informed patient population, and utilization management issues. In order to address some of these pressures and to seek solutions, laboratory services in BC have been scrutinized at the provincial

level (Lawson, 2012). Forty recommendations were borne out of the 2012 laboratory services review, including the recommendation to establish a provincial laboratory agency to provide provincial direction and leadership for all aspects of the delivery and quality of all clinical laboratory services in BC (Laboratory Reform Committee, 2013, p. 7). During the course of this inquiry, the provincial laboratory agency came into being. While provincial recommendations are made with an eye to optimizing the delivery of laboratory services, the implementation of these provincial recommendations is not done in isolation but rather affects many areas of the healthcare system. MLTs at all levels are impacted by organizational changes (see Figure 2). With many more changes on the horizon for MLTs and the laboratory system as a whole, a resilient, change adaptable workforce is more important now than ever. However, as Lengnick-Hall, Beck, and Lengnick-Hall (2010) shared, efforts to build a capacity for resilience often involve organizational transformation (p. 243).

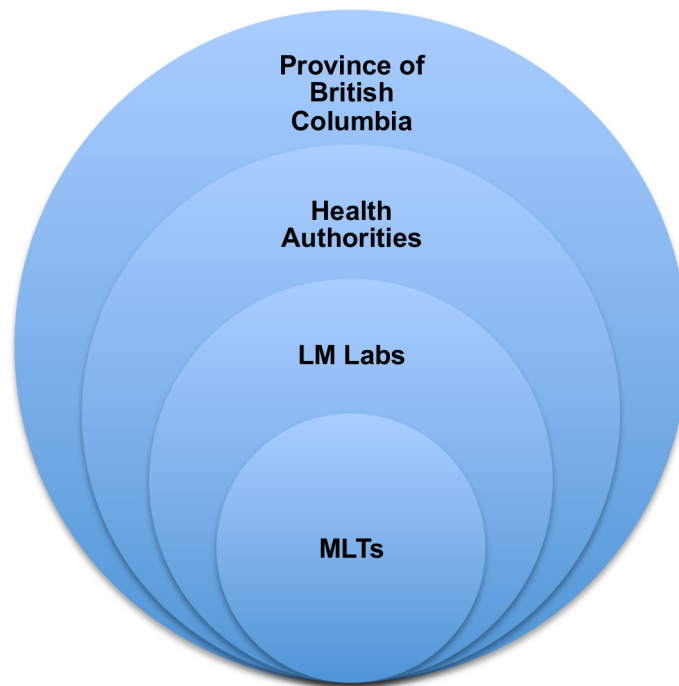


Figure 2. System diagram depicting organizational levels of influence upon medical laboratory technologists.

Note. LM Labs = Lower Mainland Laboratories; MLTs = Medical Laboratory Technologists.

Chapter Summary

This chapter provided an overview of the entity defined as LM Labs and the role of LM Labs in the province. Some background information about recent organizational change initiatives was also included in order to fully appreciate the organizational context of the inquiry.

Chapter 2 includes a review of scholarly literature relevant to this inquiry. In the chapters that follow, I outline the project approach and discuss the findings, conclusions, and project limitations. In the final chapter I share inquiry recommendations, organizational implications, and, lastly, implications for future inquiry.

Chapter Two: Literature Review

This inquiry explored the following inquiry question: How can Senior Laboratory Leadership cultivate a culture of resilience and change adaptability among medical laboratory technologists? In order to thoroughly examine this topic, I reviewed several areas of literature. These areas of literature were chosen based on their close relationship to the focus of the inquiry. This chapter contains an overview of current thoughts, ideas, and discoveries surrounding the topics of (a) organizational change, including communication, stakeholder input, and allocation of resources during organizational change, and (b) culture, which included discussions of culture and its relationship to organizational performance, resilience and change adaptability, and resiliency in organizations. The chapter concludes with a chapter summary.

Organizational Change

Many organizational change models exist in scholarly and mainstream literature to help guide and facilitate successful organizational change. Despite the abundance of change models, scholarly literature suggested many change efforts still fail (Al-Haddad & Kotnour, 2015; Anderson & Ackerman Anderson 2010, 2011; Beer & Nohria, 2000; Elving, 2005; Rouse, 2011). Al-Haddad and Kotnour (2015) acknowledged that while a structured methodological change process is a step in the right direction, change models must be aligned with the organizational change type in order to achieve success (p. 254).

A detailed description of all organizational change models and theories is beyond the scope of this paper; however, it is important to highlight that during organizational change there is a distinctive human element involved. Schein (2010) noted that while leaders attribute much resistance to change as human nature, a closer look reveals that these reactions are actually a normal response when one is required to change (p. 304). There are current change management

theories that address the human factors involved in change. The Theory O and Theory E model for change presented by Beer and Nohria (2000) as well as the work of Anderson and Ackerman Anderson (2010, 2011) are two such models. I briefly describe these two change models in the following paragraphs. These models for change were chosen from the literature because I felt they addressed the human side of change, took into consideration the practical economic requirements of successful organizations, as well as looked at organizational change through a systems perspective, rather than a series of isolated events.

In order to effect successful change, Beer and Nohria (2000) suggested that two basic change theories must be understood. Described as Theory E and Theory O, these theories were developed by focusing on what the authors described as the six dimensions of change: goals, leadership, focus, process, reward system, and the use of consultants (Beer & Nohria, 2000, p. 137). Theory E emphasizes economic value that can be measured by only stakeholder returns and is referred to as the “hard” (Beer & Nohria, 2000, p. 133) approach to change. Theory E involves a top-down approach for leadership and focuses on structure and systems (Beer & Nohria, 2000).

Theory O acts in direct contrast to Theory E. Identified as a “softer” (Beer & Nohria, 2000, p. 133) approach, Theory O focuses on the human aspect of change. Development of a corporate culture of trust, emotional commitment, and communication are requirements of Theory O (Beer & Nohria, 2000). The goal of this change approach is to develop organizational capabilities, encourage employee participation from the bottom up, and maintain a focus on building up corporate culture by way of employee attitudes and behaviours (Beer & Nohria, 2000). Unfortunately, accomplishing the goals of Theory E takes time.

Despite obvious downsides to both theories, the authors acknowledged there have been instances where the use of Theory O or Theory E in isolation has achieved change success (Beer & Nohria, 2000). However, when Theories E and O are carefully melded together there is a greater chance for change success that allows organizations to “adapt, survive and prosper” (Beer & Nohria, 2000, p. 138). Combing the theories under the headings of the six dimensions allows an organization to capitalize on the best of both approaches. Looking at the dimensions of change when Theories O and E are combined, allows an organization to embrace economic gain and organizational capability and set the direction from the top, but also to engage people from below, focus on both systems and structure, as well as take into consideration corporate culture.

Another change model that holds the human aspect of organizational change as important is that of Anderson and Ackerman Anderson (2011). Citing the need for conscious change leadership and focusing on a multidimensional process of organizational change, this approach that takes into account three main areas of change: content, process, and people (Anderson & Ackerman Anderson, 2011, p. 52). Content focuses on the strategy and structure behind the change, process includes the design of the change and how it will be carried out, while the people area involves the human dynamics side of change, including the behaviour and attitudes of employees. The key to success with Anderson and Ackerman Anderson’s (2011) change management model is to integrate the three key focuses through change leadership (p. 53). The authors argued that change leadership is different from change management; where change managers are only involved in the people side of change, there is a need for change leaders to be also involved in the process and content side of change as well (Anderson & Ackerman Anderson, 2011, p. 51). Anderson and Ackerman Anderson (2011) noted that conscious change leadership begins with a “fundamental shift in how leaders perceive reality” (p. 51).

An added dimension to this model is the determination of the drivers of change (Anderson & Ackerman Anderson, 2010). Using a systems perspective the authors noted that in order to fully determine the scope of the required change and the context in which the change occurs, it is necessary to evaluate what is driving the change (Anderson & Ackerman Anderson, 2010, Chapter 2, para. 2). If this is clearly understood by everyone resistance to change can be minimized.

Communication during change. While change methods are numerous and varied, a common thread is that of organizational communication. The high rate of change failure can be attributed directly to shortcomings in internal communication (Barrett, 2002; Elving, 2005; Lewis, 2000). Communication during change initiatives also has a direct link to building resiliency in employees (Anderson & Ackerman Anderson, 2010, 2011; Beer & Nohria, 2000).

I found numerous communication frameworks within the literature (Elving, 2005; Goodman & Truss, 2004; Johansson & Heide, 2008). Most frameworks include three approaches to communication during change: communication as a tool for change, communication as a socially constructed process, and communication as a form of social transformation (Johansson & Heide, 2008, p. 291). I briefly discuss these three themes within this section.

When used as a tool for change, communication allows members to participate in the change as well as feel in control of the situation (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004). This allows managers to widely share information as well as encourage dialogue and discussion. Change makers can both communicate the vision for change and reinforce the change purpose. The mere provision of information is not enough (Bordia et al., 2004). Goodman and Truss (2004) wrote that focus must be placed on both process and content of the communication.

They posited that context is vital and issued a warning that what works in one area or at one time may not necessarily work in another (Goodman & Truss, 2004, p. 217).

To be effective, communication must be deemed by employees to contain quality information. Allen, Jimmieson, Bordia, and Irmer (2007) noted employees who perceive they receive quality communication are more open to change (p. 187). Similarly, Qian and Daniels (2008) noted employee attitudes towards the organizational change are directly affected when they receive quality information (p. 322). Communication should be meaningful, inform and educate employees at all levels, as well as motivate and position employees to support the change (Barrett, 2002, p. 220). Since communication is a social phenomenon, trust between change agents and change targets must also be examined (Allen et al., 2007). In an effort to define meaningful, quality communication during change, Barrett (2002) shared that communication is deemed meaningful if it accomplishes two objectives. Firstly, it educates and informs employees at all organizational levels of organizational strategy and, secondly, it motivates employees to accept and support the outlined strategy (Barrett, 2002, p. 220).

Communication also plays an important role in reducing employee uncertainty, cynicism, and preventing resistance to the imposed change (Allen et al., 2007; Elving, 2005; Qian & Daniels, 2008). It could be assumed that keeping employees well informed of a change in a contextually appropriate way would lead to change success; however, contextual communication alone does not guarantee success (Elving, 2005).

Communication can also involve socially constructed processes (Johansson & Heide, 2008, p. 293). Capitalizing on sense-making needs of employees, this approach to change communication encourages users to focus on storytelling and narrative, which lead to the production of “new social realities” (Johansson & Heide, 2008, p. 294). To further this point,

Elving (2005) wrote that the purpose of communication is firstly to inform employees, but secondly create a sense of community in the organization. Elving believed that this sense of community would lead to individual readiness for change in the form of increased commitment to the change cause (p. 133).

Communication may also be approached as a form of social transformation. Recognizing that communication is the medium in which change occurs, social transformation allows management to use a systems approach to discuss and dialogue with stakeholder groups to gain insight into what each group is thinking, feeling, or wanting from the change initiative (Johansson & Heide, 2008, p. 296). Dialogue between groups is required to ensure employees remain satisfied with management communication (Nelissen & van Selm, 2008, p. 315).

Examining change communication with a systems perspective, Horne and Orr (1997) suggested that communication is key to creating resilient organizations. They shared that communication is vital to ensure the connectedness of the organizational system, and went on to add, “Information is the dynamic element that energizes the understanding of work, goals, directions, schedules, results and possibilities relating to significant change. Communication focuses on how we share what we do and where are going as an organization” (Horne & Orr, 1997, p. 33).

To truly understand the role of communication in this inquiry, it is important to highlight what scholarly literature has shared regarding communication best practice. Barrett’s (2002) strategic employee communication model outlined three best practices for communication during change (p. 219). Firstly, Barrett’s model illustrates that effective employee communication must be within the context of the organization. Secondly, Barrett’s model provides a tool to determine the organization’s strengths and weaknesses in communication, and, thirdly, the model uses

communication to frame the change program. This allows recommendations to improve the flow of communication that can become a powerful driver of change, rather than simply a vehicle to announce change to employees (Barrett, 2002). Barrett's model also takes a systems approach to include strategic objectives of the organization, the important role of middle managers in the change, the importance of a defined communications team and their role in the change initiative, a reoccurring assessment of the change initiative using measured by defined goals, and lastly the realization that change communication work is integrated work, all levels of the organization must be continually involved in the communication process to aid in success (p. 221).

In closing, Steelman and McCaffrey (2013) offered three simple points to effective communication. Firstly, effective communication must allow room for dialogue (Stelman & McCaffrey, 2013). Secondly, there must be local context and, lastly, communication must be timely, accurate, and useful (Stelman & McCaffrey, 2013, p. 685).

Stakeholder input during organizational change initiatives. The importance of stakeholder participation in decision making has been well documented in literature. Bordia et al. (2004) noted when stakeholders are included in the change process the organization benefits from decreased resistance, increased satisfaction, and a greater feeling of control for those involved. Berger (as cited in Bordia et al., 2004) said that individuals have two basic needs when it comes to change: firstly, the need to predict what is going to happen next and, secondly, the need to explain why things are the way they are. Employee inclusion in the decision-making process during change has the ability to fulfill these needs. While employers have attempted to address uncertainty and explain the reason for a change initiative via communication, this has led to limited success (Bordia et al., 2004). Although participatory methods can enhance and clarify the change process, Lewis and Russ (2012) noted that while asking for stakeholder input can

alleviate misgivings, miscommunication and fears about the change initiative, leaders should be aware that solicitation of input may also lead to stakeholder critiques of the proposed change. These critiques may improve the change effort or help organizational leaders determine whether the change will be as beneficial as decision makers originally believed (p. 272).

Although stakeholder participation can be effective for increasing the success of change initiatives, Bendaly and Bendaly (2012) warned of three pitfalls to be avoided during the shared decision-making process. These pitfalls include the misconceptions that shared decision making will result in democratic rule, a compromise for all stakeholders, as well as the misguided belief that all stakeholders have the right to be involved in every decision (Bendaly & Bendaly, 2012). These misconceptions lead to employee frustration, lack of support for the decision, and poor quality decisions (Bendaly & Bendaly, 2012, p. 99). Along these same lines Kuhn and Deetz (2008) as quoted by Lewis and Russ (2012, p. 271), noted that while leaders may want to solicit employee input during change initiatives, it is often unwise to disclose certain information; sharing power and granting autonomy may have serious organizational implications.

Before input is solicited, Bendaly and Bendaly (2012) suggested that leaders carefully determine who to include and when to include them (p. 98). Careful consideration should be given to stakeholders who hold knowledge and experience. The authors suggested that employees be involved only when their input or involvement would result in increased quality of the decision, improved sense of empowerment among staff, and greater understanding of the proposed change (Bendaly & Bendaly, 2012). Lewis and Russ (2012, p.269) also noted that it is important to be aware of whose opinion is important in the change process and why.

The last key point when inviting stakeholder participation in decision making is to consider at which level employees will be participating (Bendaly & Bendaly, 2012, p. 99).

Describing four levels of influence, Bendaly and Bendaly (2012) shared that a leader may unilaterally make the decision without stakeholder input, may invite stakeholder input but ultimately make the decision, come to a consensus with stakeholders and both groups have contributed, or completely hand over the decision making to the team (p. 98). It is vital that leadership ensures all groups are made aware at of the level of decision making in which they are involved.

Lewis (2011) noted that there are many models for soliciting input from stakeholders during change processes including; direct participation, indirect participation, formal participation or informal. Lewis goes on to argue that timing and duration of this participation also has an important influence on the change effort. It is vital to not only solicit stakeholder input, but to also be aware of the use of the input received (Lewis & Russ, 2012, p. 269).

Allocation of resources during organizational change. As previously noted by Ackerman and Anderson Ackerman (2010, 2011) and Beer and Nohria (2000), change initiatives involve a human element. Shin, Taylor, and Seo (2012) acknowledged, while employees play an important role in successful implementation of organizational change, little attention has been paid to resource allocation during change initiatives (p. 742). Shin et al. (2012) posited, in order to build up and sustain employee commitment to change, it is imperative to increase employee resources prior to the start of the change initiative. Their research went on to demonstrate that employees who had significant amount of “inducements” (Shin et al., 2012, p. 741), such as open communication, training for future jobs, performance feedback, and respectful treatment from higher management, were less vulnerable to strong challenges and more capable of effectively coping with stressors because they were able to utilize these resources. Shin et al. stated that these inducements are critical in the work context to provide employees with the tools to better

cope with and prepare for organizational change. The authors also noted that these inducements enabled employees to enjoy more amounts of discretionary time, gain valuable insight to organizational strategy, as well as receive increased social support (Shin et al., 2012).

Culture

Scholarly literature reported that between 10 and 150 definitions for the word culture exist (Cameron & Quinn, 2011; Scott, Mannion, Marshall, & Davies, 2003). While the meaning of the word culture can be ambiguous, Schein (2010) suggested that culture points to phenomena that are “below the surface but both powerful and yet invisible” (p. 14). Scott et al. (2003) suggested that culture is a shared cognitive and symbolic context, which only a certain faction of society can comprehend (p. 106). Daft (1992) summed up the notion of culture by defining it as the glue that holds the organization together.

Culture is also a pattern of shared values and beliefs (Deshpande & Webster, 1989). Deshpande and Webster (1989) recognized that this knowledge helps individuals understand organizational functioning and thus provides them with the norms for behaviour in the organization. Culture is also the shared assumptions of a group; it is the product of the human need for stability, consistency, and meaning (Schein, 2010). Cameron and Quinn (2011) added that a strong, unique culture allows organizations to reduce employee uncertainty, create social order, create continuity and a collective identity, as well as unveil the future to those in the organization (p. 6).

While I found no consensus on one single definition of organizational culture in scholarly literature, I chose to use Schein’s (2010) definition for the purpose of this inquiry as I felt it described culture as group effort that was perpetuated to allow individuals involved to make sense of their environment. It reads:

The culture of a group can now be defined as the pattern of shared basic assumptions learned by a group as it solved its problems of external adaption and internal integration, which has worked well enough to be considered valid and, therefore to be taught to new members as the correct way to perceive, think and feel in relation to those problems.

(p. 18)

Culture and its relationship to organizational performance. The goal of this inquiry was to gain insider information about how Senior Laboratory Leadership can enhance a culture of resilience and change adaptability among MLTs in LM Labs. According to Scott et al. (2003), such an inquiry is a futile endeavour; they posited that performance and organizational outcomes are completely independent of culture. Scott et al. suggested, while a growing amount of literature exists devoted to the idea of transforming culture in order to improve healthcare organizational performance, these assumptions are rooted in the generic management literature of varying degrees of scholarly acclaim with limited firm evidence to support them (p. 105). In contrast, Schein and Quinn (as cited in Gregory, Harris, Armenakis, & Shook, 2009) shared, while more empirical evidence is warranted, the link between culture and organizational effectiveness is relatively well established.

Beer and Nohria (2000) offered that a culture change involves leaders building trust with employees through listening, debating, and demonstrating a willingness to learn (p. 140). The “soft side” (Beer & Nohria, 2000, p. 140) of change, which includes culture change, takes time and can require difficult long-term efforts (Beer & Nohria, 2000; Cameron & Quinn, 2011). In order to influence culture change, leaders must address organizational values, methods of problem solving, managerial styles, and ways of thinking. Without these actions, culture change efforts will not be successful (Cameron & Quinn, 2011, p. 6).

Cameron and Quinn (2011) proposed nine steps to initiate culture change: (a) determine current culture, (b) determine the desired future culture, (c) address what the change will and will not mean, (d) identify stories that demonstrate the desired future state, (e) set a strategic agenda, (f) identify immediate small wins, (g) assess leadership implications, (h) determine how to identify and measure milestones to encourage accountability, and, lastly, (i) communicate the strategy.

Schein (2010) offered a slightly different approach to culture change closely based on Lewin's (as cited in Schein, 2010) work on human change. In Schein's approach, the first step in culture change is "unfreezing" (p. 300). In this stage, motivation to change must be created by highlighting that the status quo is no longer working. Awareness that the status quo is no longer acceptable will cause employees to experience anxiety. To address this anxiety, organizational leaders must provide psychological safety. Psychological safety can be created by providing a compelling vision, offering training, encouraging employee involvement, providing positive role models, offering groups in which stakeholders discuss changes and receive support, and ensuring systems and structures are consistent with the new way of thinking (Schein, 2010, p. 307).

The second stage of culture change that Schein (2010) suggested involves "moving" (p. 308). Schein noted that within this stage behavioural as well as cognitive changes begin to occur. However, behavioural change alone is not enough. Employees must begin to believe as well as act in a way that is acceptable with the new way of thinking (p. 308).

The third and final stage of Schein's (2010) idea to change or influence culture is "refreezing" (p. 311). The refreezing concept was based on based on Lewin's (as cited in Schein, 2010) belief that new learning will not stabilize until it becomes part of the organizational behaviour, personality, and environment; new learning will not stabilize until it is reinforced by

results (p. 311). If new behaviours do not produce better results, Schein advised the organization launch into a new change process.

Resilience and change adaptability. The continually changing landscape of healthcare may leave workers with feelings of helplessness. Fear and worry weaken the immune system of an individual experiencing workplace adversity, and researchers have noted a consistent association between employment in human service occupations and the risk of affective and stress-related disorders (Siebert, 2005; Wieclaw, Agerbo, Mortensen, & Bonde, 2006). Tusaie and Dyer (2004) suggested resilience as a strategy to address workplace adversity. Personal and organizational resilience has the ability to allow individuals and organizations to become change adaptable (Kantur & İşeri-Say, 2012). Resilience consists of both behavioural and psychological components (Robertson & Cooper, 2013).

Scholars have described personal resilience as the ability to rebound from adversity and overcome difficult circumstance in one's life (McAllister & McKinnon, 2009), a process of adapting well in the face of adversity (Newman, 2003) and, as Berstene (2014) shared, the ability to deal with large amounts of disruptive behaviour change while remaining effective and productive (p. 39). Tusaie and Dyer (2004) suggested that resilience represents a combination of abilities that interact dynamically to allow an individual to bounce back, cope successfully, and function above the norm in spite of stress and adversity (p. 3). Possession of this skill will help MLTs considerably as they navigate organizational and technological changes in the future.

While there is no finite list of characteristics possessed by those thought to be resilient (Grafton, Gillespie, & Henderson, 2010), researchers have noted that resilient individuals possess characteristics such as empathy, positive self-image, optimism, and a skill for organizing daily responsibilities (McAllister & McKinnon, 2009). Grafton et al. (2010) wrote that recent

research strongly supported the notion that resilience is an accessible inner strength that enables a positive stress response that can be enhanced or supported by external resources (p. 700).

Resilience is shaped and affected by a “dynamic process” (Grafton et al., 2010, p. 700) of frequent disruption and positive adaptation. Scholars noted that repeated experiences of optimism builds multiple personal resources that increase resilience over time (Pipe et al., 2012). Siebert (2005) indicated resiliency in adults consists of five separate dimensions that allow an individual to develop good coping skills: connectedness to social environment, connectedness to family, connectedness to the physical environment, connectedness to a sense of inner wisdom, and lastly a positive mindset that is connected to the individual’s personal values.

Jackson et al. (2007) went on to suggest resilience could be enhanced and developed through various strategies outside of an individual’s experience; in other words, resilience could be a taught. Resilience and change adaptability can be promoted through knowledge of self-enhancement, laughter, positive emotions, autonomy, empowerment, emotional awareness, and self-care (Bonanno et al., 2002; Bright, 1997). However, knowledge of how to enhance resilience and change adaptability alone is not enough (McAllister & McKinnon, 2009). Development of skills that lead to increased personal resilience and change adaptability involve both an exposure to knowledge as well as assistance in applying this knowledge (Jackson et al., 2007).

Healthcare leaders have a role to play in developing resilience among their employees. Pipe et al. (2012) pointed out that a key role of healthcare leadership is to create and sustain an organizational environment that optimizes high quality, safe, and effective patient care but also to ensure the organizational culture is one that supports team members during times of stress. Pipe et al. suggested, by “shifting the perspective to optimize positive ways of coping” (p. 12), healthcare leaders enable employees to cope better with stress and therefore become resilient.

Pipe et al. continued on to suggest that positive emotions help “broaden an individuals thinking allowing them to draw on higher-level connection and broader ranges of possibilities and ideas” (p. 13). It is imperative for leaders to know that the mindset of positivity can be learned. Noting a link between stress, teamwork, and communication, Pipe et al. posited that positivity has the power to reduce stress, increase teamwork and communication, enhance employee satisfaction, as well as improve work culture and morale. However, Newman (2003) cautioned that building resilience in individuals is not a simple process involving the improvement of one behaviour or action, but rather a multidimensional set of behaviours must come into play to increase personal resilience. Newman warned building resilience is more than feeling good during stressful times; rather, resiliency is a journey (p. 44).

Scholars have suggested that resilience is best learned through transformative education (Jackson et al., 2007; McAllister & McKinnon, 2009). This form of education uses critical and constructive methods to encourage learners to look deeply into practice to develop creative ways of thinking, methods of improving problem solving skills, and to help them create social good through concerted personal actions (McAllister & McKinnon, 2009, p. 375). Jackson et al. (2007) suggested five strategies to develop resilience in nurses. These strategies include (a) building positive interpersonal relationships; (b) maintaining positive attitudes through laughter, optimism, and positive emotions; (c) developing personal emotional insight to understand risks at hand; (d) using spirituality and life balance to give meaning to life; and (e) applying reflective practices to foster sense-making and bolster emotional strength (p. 6). Adding to this list, McAllister and McKinnon (2009) advised that health professionals also need to teach and encourage colleagues to identify their own risk factors and share experiences of vulnerability and resilience so that others may learn, acknowledge peer achievements, and

promote feelings of pride in the profession and the work that gets accomplished. To increase resilience among healthcare professionals, leaders must encourage a sharing of experiences so that others may learn to “emulate the strengths and avoid the pitfalls” (McAllister & McKinnon, 2009, p. 375) of adapting to complex changes.

Resiliency in organizations. Resilience is also seen as the collective characteristic of a team or an organization (Jeffcott, Ibrahim, & Cameron, 2009). Organizational resilience is an organization’s ability to bounce back from adversity and to rebound from unexpected events through change adaptability, as well as an “expanded ability to keep pace with and even create new possibilities” (Lengnick-Hall et al., 2010 p. 244). Jeffcott et al. (2009) wrote that resilience describes how individuals learn and adapt to create safety in settings that are riddled with hazards and suggested that resilience has three interconnected levels: an individual level, a team level, as well as an organizational level (p. 256).

Surprisingly, a group of resilient individuals does not create a resilient organization (Horne & Orr, 1997). In fact, Horne and Orr (1997) suggested that it might be quite the opposite, as a group of strong resilient individuals may override the shared vision of other employees (p. 31). In order to prevent this from occurring, the Horne and Orr (1997) encouraged a total system response through the collective actions of individuals in the organization. Research has uncovered seven overlapping or interconnecting streams of behaviour within the organization that contribute to organizational resilience (Horne & Orr, 1997). These interconnecting behaviours support a systems viewpoint; the framework for seeing interrelationships rather than things, for seeing patterns of change rather than strategic snapshots (Senge, 2006, p. 68). The seven streams include (a) fostering a sense of organizational community; (b) creating organizational competence by addressing the demands of the change; (c) seeing, creating, and

enhancing connections throughout the organization; (d) promoting trust throughout the organizations to increase commitment; (e) communicating to connect the parts of the organizational system; (f) coordinating the timing of change efforts to allow employees to gain an overarching perspective of the change; and, lastly, (g) working to create harmony and accountability in the organization through consideration (Horne & Orr, 1997). Jeffcott et al. (2009) echoed this thought and noted, “Resilience offers a system-based approach, allowing an organization to understand both what sustains and what erodes its ability to adapt to changing pressures” (p. 256).

Asserting that organizational resilience is about transforming lessons from past failures into future successes, Hollnagel et al. (as cited in Jeffcott et al., 2009) described three main elements of organizational resilience: the ability to predict something bad is happening, the ability to prevent something bad from becoming something worse, and, lastly, the ability to recover from something bad once it has occurred (p. 258). Offering three other dimensions for organizational resilience, Lengnick-Hall et al. (2010) affirmed cognitive elements, behavioural elements, as well as contextual elements need to be developed in core organizational members in order to enhance organizational capacity for resilience. These three dimensions aligned with Anderson and Ackerman Anderson’s (2010) organizational change model, which suggested a conscious change leadership approach takes into account three main areas of organizational change: content, process, and people.

Cognitive elements in generating organizational resilience involve creating a sense of core values and collective purpose among individuals as well as encouraging constructive sense-making of situations that allow individuals to both understand as well as gain a clear sense of direction (Lengnick-Hall et al., 2010). As mentioned earlier in this chapter, the core values and

collective purpose of individuals can also be described as the culture of an organization (Schein, 2010). Behavioural elements of organizational resilience include resourcefulness, counterintuitive agility, and preparedness. Contextual elements of organizational resilience are those that rely on relationships within and outside an organization that aid in the responses to adversity and complexity (Lengnick-Hall et al., 2010, pp. 246–247).

Chapter Summary

This chapter contained a review of literature of topics viewed as integral to this inquiry. These topics included organizational change, which included communication, stakeholder input, and allocation of resources, and culture, which included discussions of culture and its relationship to organizational performance, resilience and change adaptability, and resiliency in organizations. This literature review set the stage for the research and the findings that will be discussed in the following chapters. The next chapter describes the inquiry approach, including the methods used to collect the data.

Chapter Three: Inquiry Project Approach

In this chapter I discuss the chosen inquiry project methodology of action research engagement (ARE). The chapter also includes details about project participants, inquiry methods, study conduct, and analysis of data. Finally, I review the ethical issues that were a part of this inquiry. The chapter concludes with a chapter summary.

Inquiry Project Methodology

For this inquiry I chose to utilize an action research methodology, specifically the ARE model (Rowe, Graf, Agger-Gupta, Piggot-Irvine, & Harris, 2013). The ARE model focuses specifically on engagement as a way to build momentum for implementing research recommendations (Rowe et al., 2013). This model engages key stakeholders, utilizes stakeholder participatory research processes, and recognizes the researcher as a contributor to understanding and social action, rather than a detached stakeholder (Rowe et al., 2013). See Appendix A for Rowe et al.'s (2013) ARE model diagram. I selected this research methodology because it allowed the organization to see issues through the lens of those directly involved. Using Rowe et al.'s (2013) ARE methodology enabled me to provide MLTs who work at FHA sites with a forum to express their voices, discuss opportunities, and share ideas about how resilience and change adaptability could be enhanced in their organization. By engaging organizational insiders in collaborative inquiry through employing action research I was able to uncover a deeper level of understanding of issues, highlight possible solutions that organizational members feel a part of, as well as generate a level of practical knowing that relates to the community involved (Coghlan & Brannick, 2014, p. 43).

To conduct this inquiry, I worked through Rowe et al.'s (2013) stages of the ARE process. To begin, I carried out a situation analysis in order to determine the organizational

context, explore driving forces that were impacting the organization, as well as uncover key issues. This involved a conversation with the organizational sponsor as well as conversations with MLTs in order to hone in on key issues that they felt needed to be addressed. The combination of information from the sponsor and MLTs helped me to determine the topic for exploration. This stage also involved exploring literature pertinent to the topic and formulating research questions.

In the second stage of the ARE process (Rowe et al., 2013; see Appendix A), I engaged key stakeholders by way of focus groups or interviews. These research methods enabled participants to dialogue and to explore ideas, thoughts, and options that exist in the organization, and from this process I gathered data to answer my inquiry question and subquestions.

During the third stage of the ARE process (Rowe et al., 2013), I analyzed the data that resulted from research. This analysis led to the creation of themes and conclusions. I then cross-referenced the themes and conclusions with current scholarly literature.

The fourth stage of the ARE process consisted of discussions with the sponsor about the outcomes of the research (Rowe et al., 2013). My sponsor and I discussed strategies to best move forward with change initiatives as well as feasible recommendations to address the challenges.

Lastly, the fifth stage of Rowe et al.'s (2013) ARE model occurs at the organizational level. During this phase, the organizational sponsor will formulate a change intervention and begin to work towards implementing a plan as the next step in the change initiative. It would be ideal if a plan based on this inquiry's recommendations was implemented, but this is outside the scope of this project. I have shared the recommendations derived from this inquiry with the organization for them to implement and monitor.

I employed qualitative methods during this inquiry, using participant interviews as well as focus groups to gather data. More information and details on the methods of interviews and focus groups are presented in the Study Conduct section found later in this chapter.

There are several limitations and delimitations to this inquiry. This research was performed with the awareness that results are not necessarily generalizable to all hospital laboratories in Fraser Health, nor are the results generalizable to employees other than MLTs employed in the laboratories studied. It is important to note that the inquiry is also limited by the employees' interpretation of the concepts of resilience and change adaptability. Importantly, it should be noted that the inquiry took place shortly after a major organizational leadership restructure. Limitations are further discussed in Chapter four.

Project Participants

I employed purposeful sampling to obtain research participants for the project, whom I consciously selected based on a "set of attributes" (Stringer, 2014, p. 77). I identified two participant groups for this research. Glesne (2016) noted that the inclusion of more than one type of respondent "can contribute to eliciting more complex perspectives on an issue" (p. 152). Participant Group 1 consisted of MLTs who, at the time of this research, performed direct patient testing. Participant Group 2 consisted of MLTs who, at the time of this research, held recognized laboratory leadership positions.

As laboratory insiders, MLTs who perform direct patient testing have the ability to provide insight into the culture of the laboratory, share viewpoints on resiliency and change adaptability, and make known what kind of supports employees require during change initiatives. This participant group, which consisted of MLTs from two large laboratories and one medium-sized laboratory, took part in focus groups and interviews.

The second group of participants, MLTs holding recognized leadership roles in LM Labs, took part in interviews rather than focus groups due to power-over issues. This group included three site supervisors, an HSABC union steward, the operations manager, and the Executive Director of Operations of Lower Mainland Pathology and Laboratory. I selected these participants because of the unique perspectives they held of laboratory operations. This group offered insight into organizational changes on the horizon. They also possessed an awareness of what would be required from MLTs to adapt to these future changes.

The Executive Director has the power to implement any recommended changes and the ability to move these recommendations beyond the sites studied to LM Labs as a whole. While none of the other stakeholders (the MLTs who perform direct patient testing, the HSABC union steward, the operations manager, and the site supervisors) possessed the power to implement official changes, their ideas, opinions, and beliefs surrounding laboratory culture and what is required for the enhancement of resilience and change adaptability were indispensable.

At the time of this research, none of the employees at the clinical sites studied reported directly to me. However, due to my role in LM Labs and my previous working relationships with some laboratories, it was possible some participants perceived me as holding power over them or their peers. To mitigate this perception, I engaged a member of my inquiry team to facilitate focus groups. I held no real or perceived power over the participants I interviewed. No vulnerable persons were involved in this inquiry.

The inquiry team consisted of an LM Labs administrative assistant, an LM Labs medical laboratory assistant, and a Royal Roads University graduate experienced in focus group facilitation. I chose these inquiry team members because of their skill sets and interest in the nature of the inquiry. All members of the inquiry team signed a confidentiality agreement before

participating in any research aspect of the inquiry (see Appendix B). Each inquiry team member had a specific role. The administrative assistant collated emails from prospective participants as well as transcribed audio recordings. The medical laboratory assistant helped with practical details of data collection such as booking meeting rooms and ensuring the room was set up to accommodate participants. The Royal Roads University graduate helped theme data extracted from transcribed audio recordings as well as facilitated focus groups. An editor also provided assistance in the preparation of the final report.

Inquiry Methods

This section describes the data collection tools that were used during the inquiry as well as the rationale for each data collection method. Study conduct and data analysis processes are also described.

Data collection methods. In this inquiry I used multiple qualitative methods to gather data in an attempt to describe things as they really are (Glesne, 2016, p. 45). I employed these multiple methods along with purposeful sampling in an effort to understand all perspectives, rather than seek the “truth” (Glesne, 2016, p. 45) surrounding the topic of resilience and change adaptability. Triangulation, used in this way, allowed for deeper understanding of the complex issues of resilience and change adaptability.

A member of the inquiry team conducted focus group sessions with MLTs from Surrey Memorial Hospital (SMH) and Royal Columbian Hospital (RCH). I chose this method of data collection because it is a fast, efficient, economical way of obtaining data from a group of participants (Krueger & Casey, 2000); as well, it allowed for minimal impact to daily laboratory operations. This method permitted data collection from multiple individuals simultaneously while considering group norms in action (Onwuegbuzie, Dickinson, Leech, & Zoran, 2009).

Rather than simply gaining answers to the questions posed to participants, this method allowed for group discussion. The facilitator was able to listen, note the emotions, ironies, and contradictions of the group as they moved through the questions (Grudens-Schuck, Allen, & Larson, 2004). The focus group method also allowed participants to understand perspectives shared by other participants and expand these to include their own points of view (Barbour, 2005). However, as Glesne (2016) pointed out, focus groups are not without drawbacks. Special care needed to be taken to avoid any facilitator bias from creeping in. Using an experienced facilitator who was unfamiliar with both the participants and the recent change initiatives mitigated this bias. It should be noted, while the literature suggested 1 to 2 hours for each focus group (Grudens-Schuck et al., 2004; Morgan, 1997), due to operational requirements of the laboratories being researched, focus groups were held for approximately 45 minutes. Also, Krueger and Casey (2000) and Morgan (1997) suggested that three focus groups are adequate to reach the saturation point of information. Unfortunately, holding three focus groups at each site was not possible due to laboratory operational requirements and time limits of the project. While not ideal, these two focus groups combined with interviews at a medium-sized laboratory site provided invaluable information from those MLTs who participated.

I developed focus group questions in cooperation with the inquiry team and piloted these on two MLTs from SMH who were not involved in the focus group sessions. I chose these individuals based on their experience and interest in the inquiry. The questions for the focus group sessions at SMH and RCH were the same (see Appendix C).

I selected interviews as a method of data collection for both Participant Groups 1 and 2 because they allowed me, as the researcher, to access participants' feelings, perceptions, and thoughts (Holloway & Wheeler, 2010). As well, interviews allowed participants to describe the

situation in their own terms without group influence (Stringer, 2014). However, Price (2002) warned unstructured or open interviews often result in superficial collection of data. To address this, as well as to be consistent with the focus group research, the same semi-structured five questions were used. The semi-structured format allowed me to guide the questions in order to receive required responses, but also left room for the participant to have some control of the conversation (Holloway & Wheeler, 2010). Due to operational requirements at the medium-sized laboratory, Langley Memorial Hospital (LMH), a focus group with multiple staff members was not feasible. However, individual interviews could be accommodated. Interview questions for LMH can be found in Appendix D. Those in Participant Group 2, identified as MLTs holding a recognized laboratory leadership position, were interviewed individually at their respective work sites. Interview questions for this group can be found in Appendix E.

Study conduct. The following section outlines how my inquiry team and I conducted the focus groups and interviews. Research began after I obtained research ethics board approval from both Royal Roads University and FHA. Data collection took place over the span of several weeks.

Focus groups. An email invitation to participate in a focus group was sent to all 200 MLTs at SMH and RCH by the Director of Laboratory Operations using the FHA global address list. The email included an invitation, an information letter, and a copy of the required consent form (see Appendices F, G, and H). My sponsor and I decided that an email invitation from the Director of Laboratory Operations would demonstrate employer interest in the inquiry. In an effort to help with the practicalities of organizing research participants as well as to mitigate any power-over issues, I requested all expressions of interest to participate be sent to the administrative assistant on the inquiry team, who then forwarded the names to me. These

invitations went out 10 days before the scheduled focus groups. I had anticipated accepting the first 10 invitees who replied; however, for each site, only six employees expressed interest. Six employees participated in the SMH focus group and six employees participated in the RCH focus group. Onwuegbuzie et al. (2009) noted that six to 10 participants are ideal for a focus group.

As previously noted, a member of the inquiry team facilitated both focus group sessions. In order to mitigate any perceived power-over issues due to my role in the organization and relationship to the sites studied, I was not in attendance. Focus groups were held in the conference rooms of the respective laboratory being researched. A member of the inquiry team had arranged the tables in the room to be conducive to conversation and set out a light snack for participants to enjoy during the session. This inquiry team member also collected signed consent forms from all participants. The facilitator held the signed consent documents during the session and then handed them over to me later that day for safekeeping; these documents are currently stored in locked cabinet in my office. The session began when the facilitator called the group to order. The facilitator reminded the focus group that the session was being audio recorded and then guided participants through five questions that I created with the help of my inquiry team (see Appendix C). Two tape recorders were placed among participants to record dialogue. The session lasted approximately 45 minutes. The facilitator closed the session by reviewing data collected from the group to ensure data were valid. This gave the focus group participants a chance to clarify any points that may not have been captured accurately or add any thoughts ideas that may have been overlooked. The facilitator then brought the focus group to a close. Participants dispersed and returned to work. To be able to fully appreciate the body language and emotion in the room during the session, the facilitator also recorded her own observations after the session ended. Later that day, a member of the inquiry team transcribed the audio recordings.

During transcription, all participant identifiers were removed to protect participants. I was provided with the audio recordings and transcriptions. My inquiry team members and I then analyzed the data for common themes and findings. The Data Analysis section found later in this chapter explains this process in more detail.

Interviews at Langley Memorial Hospital. The Director of Laboratory Operations sent an email invitation to participate in a 30-minute interview to all 15 MLTs at LMH using the FHA global address list. The Director attached an invitation letter, information letter, and copy of the required consent to the invitation email (see Appendices I, J, and K). As with focus groups, I requested potential participants send expressions of interest to the administrative assistant inquiry team member, which mitigated any power-over issues. The administrative assistant included the first two respondents to the invitation email as inquiry participants. I have no connection to LMH, so was able to conduct the interviews myself. I began the interview sessions with ensuring that the consent form was signed and reminded participants that the interview would be audio recorded. I conducted an interview that consisted of five questions in the pathologist office at LMH at a mutually agreed upon time that did not impact laboratory operations. These questions were the same as used in the focus groups. I kept notes of the interview session in addition to audio recording participants' responses. At the end of the interview, I reviewed the general themes that resulted from the session with participants to ensure the information captured was valid. See Appendix D for interview questions. The administrative assistant transcribed the interviews. In order to protect the privacy of participants all participant identifiers were removed. The administration assistant then provided both the audio recording and the transcriptions to me for review. I coded and themed the data from these

interviews. Details of this process are shared in the Data Analysis section found later in this chapter.

Interviews with the laboratory leadership group. As previously mentioned, this participant group consisted of MLTs who hold recognized leadership positions in LM Labs: three site supervisors of large and medium sized laboratories, the Laboratory Operations Manager for FHA (North), an HSABC union steward, and the Executive Director of Operations of Lower Mainland Pathology and Laboratory Medicine. The Director of Laboratory Operations sent all prospective participants an email invitation from using the FHA global address list. This email included an invitation letter, information letter, and letter of consent (see Appendices L, M, and N). Of those invited to participate, only two individuals responded. I arranged a mutually acceptable time and place to meet for the interview with these individuals. I began the interviews by ensuring the consent form was signed and reminded participants that an audio recording device would be used. Interviews lasted approximately 50 minutes. Interview questions can be found in Appendix E. At the end of the interview, I reviewed themes that resulted from the interview with the participant to ensure I had captured thoughts and ideas accurately. Due to time restrictions, I transcribed the audio recordings of these two interviews.

To maintain transparency during the inquiry, I answered questions from participants truthfully and in a timely manner. Some participants were curious as to where gathered information would be used. One participant asked if I was employed by LM Labs to perform this inquiry. No power-over issues existed in this inquiry; although, as mentioned previously, some participants may have perceived power-over concerns due to my role in the organization and my relationship to some of the clinical laboratories. I addressed this clearly in the information letters

(see Appendices G, J, and M) that accompanied all invitations, and I also mitigated this issue by engaging a neutral facilitator to conduct the focus group sessions.

In order to further add trustworthiness to the inquiry, I reviewed the data collected from focus groups and interviews with respective participants to ensure their ideas were accurately captured. This form of member checking ensured correct interpretation of participant thoughts (Glesne, 2016). I also kept a detailed project field journal to capture all aspects and nuances of the inquiry. More details regarding authenticity and trustworthiness are addressed in the Data Analysis section that follows.

I met with the organizational sponsor to discuss research findings once I had coded, themed, and summarized the data. The sponsor has the authority and organizational knowledge to offer support in developing recommendations based on the research. As the Director of Laboratory Operations, my sponsor is able to address barriers that may impede the formulation of these recommendations. The Director of Laboratory Operations possesses the power to implement change that will affect all employees.

Data analysis. Stringer (2014) wrote that during the “think phase” (p. 136) or data analysis stage, the researcher sifts through the accumulating body of information that was collected during the “look phase” (p. 136) and identifies significant features and elements that seem to have an influence on events. This phase of the inquiry began immediately after MLTs completed focus groups and interviews.

Once transcription of audio recordings was complete, I read the transcripts aloud. I also listened to the audio recordings while following along with the observation notes I had made during interviews and the audio debrief from the focus group facilitator. This approach allowed me to gain a sense of the atmosphere that accompanied the data collection. I then read the

transcripts several times to become familiar with the contents prior to coding them (Gibbs, 2007; Pope, Ziebland, & Mays, 2000). This approach allowed me to order the data in a way that helped identify the experiences of MLTs and focus on their perceptions of the topics of culture, resilience, and change adaptability (Stringer, 2014, p. 139). Gibbs (2007) noted, “Coding is how you define what the data you are analyzing are about” (p. 38). As Charmaz (2006) suggested, to determining the meaning behind participants’ statements, in each passage I asked the questions, “What is going on? . . . What is the person saying?” (p. 80). Working through each transcript, I made notes in the margins that attempted to capture the essence of the paragraph (Holloway & Wheeler, 2010). It is important to ensure the research is not necessarily exhaustive, but rather balanced (Gibbs, 2007, pp. 144–145). Using a Microsoft Excel workbook I began to capture important phrases, thoughts, and ideas from participants; this is what Saldaña (2009) described as initial coding (p. 4). I then placed these phrases in overarching codes. Each code was listed and defined in my field journal as well as in the Microsoft Excel workbook. Gradually, as I read and re-read the transcriptions, I worked through several cycles of coding, eventually comparing codes found in each focus group and interview transcript (Gibbs, 2007; Holloway & Wheeler, 2010; Saldaña, 2009). I then looked at the codes for common ideas. Saldaña offered that when major categories are compared with each other and consolidated, researchers begin to transcend the reality of the data and move toward the conceptual and theoretical (p. 11). In my field journal I included detailed notes about codes that emerged as well as my thoughts surrounding these codes. As I worked through cycles of codes, I began to categorize the codes into themes. It is important to note that my interpretation of themes was based on context and not on frequency of code words in the transcript (Kidd & Parshall, 2000). I checked emergent themes with my inquiry team to ensure by own biases were not creeping in. Once I had collected, coded, and

themed the data from both participant groups, I turned to the literature to see where my research fit.

In qualitative research, the “researchers aim to develop an understanding of the phenomenon by examining the ways in which participants experience, perceive and make sense of their lives” (Kornbluh, 2015, p. 397). An important tool to assess whether qualitative research accurately reflects the actual experiences of participants is trustworthiness. Kornbluh (2015) highlighted the importance of creating a feeling of genuine trust among research participants that will allow them to share authentic feelings and experiences (p. 398). To develop trustworthiness in qualitative research, Lincoln and Guba (1985) suggested the following five criteria must be met: credibility, dependability, confirmability, transferability, and authenticity.

Credibility refers to the “truth of the data” (Cope, 2014, p. 89). Member checking is an important way in which credibility can be confirmed. As defined by Lincoln and Guba (1985) and Patton (2002), member checking is the process by which the researcher follows up on the findings with the participant to ensure the essence of the participant’s opinions, thoughts, or ideas were correctly captured. In this inquiry, I utilized member checking during the data collection in two ways. Firstly, during focus groups, the facilitator regularly checked in with the group to ensure what she understood was indeed what participants meant. Using phrases like “what I am hearing is” and “just so I can be sure I am understanding correctly,” the facilitator was able to not only ensure participants were clearly communicating their ideas, but also gain participants trust. Secondly, at the end of each interview, I reviewed the notes I had gathered with the participant to ensure accuracy of the thoughts I had captured.

Dependability in research is described as the consistency of data over similar conditions (Cope, 2014). It was difficult, if not impossible, to ensure dependability due to the unique context of my research. One way I could check dependability was through scholarly literature.

I maintained confirmability during this inquiry by keeping a clear audit trail of all research coding, themes, and field notes. This will enable others to challenge my research while also ensuring that my researcher bias has been removed (Cope, 2014). Coded transcripts and field notes will be kept for 5 years after the completion of this thesis.

Transferability speaks to the ability to replicate the research with another similar group. Sandelowski (as cited in Cope, 2014) pointed out that transferability is dependent on the aim of the qualitative study. My research is not intended to be directly transferable to other organizations, but rather for the information and education of LM Labs.

The fifth tenet in developing trustworthiness of research is authenticity. Polit and Beck (2012) shared that authenticity is the ability of the researcher to present the emotions of the participants. This was key to this research. The methodology of action research helps to ensure authenticity because action research allows participants to have a greater awareness of themselves, become empowered, and explore, reflect, and act on the research topic (Coghlan & Brannick, 2014).

Ethical Issues

When conducting this inquiry, I fulfilled all humanistic and ethical obligations as outlined in the *Tri-Council Policy Statement* (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2014) and required by the Royal Roads University Research Ethics Board. The three guidelines as outlined by the *Tri-Council Policy Statement* (Canadian Institutes

of Health Research et al., 2014) include respect for persons, concern for participant welfare, and participant justice.

Allowing stakeholders the right to refuse to participate ensures respect for persons. I ensured potential participants did not experience any coercion, pressure, or negative consequences. I clearly communicated this in the email invitations to participate (see Appendices F, I, and L). I ensured all potential participants received an informed consent document that clearly outlined foreseeable risks and potential benefits should they choose to participate in the research (see Appendices H, K, and N). In the information letters that accompanied the invitations I clearly communicated that those who chose to be involved in the inquiry were free to withdraw at any time and any involvement was voluntary (see Appendices G, J, and M). I also included this information in the consent forms that all participants signed prior to partaking in the research. My inquiry team members and I held participant autonomy and confidentiality in the highest regard.

I also addressed concern for welfare of the participants in this inquiry. I ensured no physical, mental, or material harm came to employees as a result of participating or choosing not to participate. I ensured all participant identifiers in audio recordings, interviews, and field notes were anonymized to protect privacy and confidentiality. Audio recordings will be destroyed once when this thesis is complete. This ensures that no negative consequence will befall any participant based on thoughts or opinions voiced. Until such time, all data will be contained on a memory stick that is password protected and stored in a locked cabinet in my office; paper copies of transcripts and field notes will also be kept in this locked cabinet for 1 year. No children, persons with cognitive impairment, or vulnerable populations were involved in this inquiry. There were no power imbalance considerations during this inquiry.

I also addressed the principle of justice when conducting this inquiry. All MLTs who perform direct patient testing at three hospital laboratories in FHA were invited to participate in either focus groups or interviews. All interested participants were accepted and participated in the research. These MLTs were chosen because they are representative of laboratory culture at both medium and large hospital sites. Three site supervisors, an HSABC steward, the operations manager, and the Executive Director were also invited to participate because of the unique perspectives they hold of organizational culture and MLT resilience. I ensured no participant groups were overestimated or underestimated based on their vulnerable circumstances. By participating in this inquiry participants were able to share concerns, ideas, and suggest solutions to issues they face on a daily basis. This inquiry provided MLTs with an opportunity to take charge of their future and offer input to the organization in which they are employed. As mentioned previously, privacy of all participants was ensured.

Chapter Summary

In this chapter I discussed the inquiry project in detail. The chapter also addressed the methodology of action research and Rowe et al.'s (2013) ARE model. As well, I detailed the inquiry approach, project participants, data collection methods, and data analysis of interviews and focus groups. Finally, I acknowledged ethical considerations relating to this research. The next chapter will discuss project findings.

Chapter Four: Action Inquiry Project Findings and Conclusions

In this inquiry, I explored the following question: How can Senior Laboratory Leadership cultivate a culture of resilience and change adaptability among medical laboratory technologists?

I also sought to answer four subquestions:

1. What is the current culture among MLTs in LM Labs?
2. In what ways are MLTs in LM Labs currently resilient and change adaptable?
3. How could a culture of resilience and change adaptability be amplified and sustained in LM Labs?
4. What are some barriers to cultivating a culture of resilience and change adaptability among MLTs and how might these barriers be overcome?

In this chapter, I present the research findings as well as the conclusions derived from the findings. The chapter concludes with the limitations of this inquiry and the chapter summary.

Study Findings

In this section, findings are supported by anonymous citations from members of focus groups and interviews. Citations from focus groups are noted as FG-1 and FG-2. To protect the anonymity of individuals involved citations from interviews are noted as I-1 through to I-4.

In this inquiry participants offered insight into how Senior Laboratory Leadership could enhance a culture of resilience and change adaptability. Two main observations were noted. Firstly, MLTs feel frustrated with the way change initiatives have been carried out in LM Labs in the past and, secondly, MLTs see a direct link between how change initiatives are carried out and their capacity for resilience and change adaptability.

After carefully analyzing the data generated from interviews and focus groups, several distinct themes began to emerge. These themes led to the following five findings:

1. MLTs view resilience and change adaptability as innate personal qualities that can be enhanced through lived experience.
2. MLTs believe that clearer communication about change initiatives would allow them to become more resilient and change adaptable.
3. MLTs want to have input into organizational change processes.
4. MLTs see lack of leadership development and insufficient fiscal resources as barriers to cultivating resilience and change adaptability.
5. A strong culture of teamwork and pride exists among MLTs.

Finding 1: MLTs view resilience and change adaptability as innate personal qualities that can be enhanced through lived experience. During the inquiry it became evident that MLTs were undecided if resilience and change adaptability were solely innate characteristics that belonged to certain individuals or if they were qualities developed over time due to individual experiences. Describing how a colleague dealt with a recent laboratory consolidation, one participant shared that it was the colleague’s own personal energy that made her resilient and adaptable (I-3). The participant went on to offer her belief that resilient and change adaptable MLTs are “just strong and thrive on change” (I-3). In agreement with this sentiment, a focus group participant noted, “Some people do not adapt well, and it wouldn’t matter what you did!” (FG-1). However, this comment prompted another focus group member to disagree and offer that resilience is more than an innate quality, but rather something that can be affected by external events and take time to develop: “Sometimes people themselves get in the way—their attitudes, their perspective, or they just get stuck. It’s not that they are not resilient; it is that the change is unmanageable” (FG-1).

Participants also stated that experience in combination with innate qualities influences resilience and change adaptability. During an interview one participant noted, “It’s not because of my training, but because of my own beliefs and my experiences I am getting better at it [being resilient and change adaptable]” (I-2). While offering a somewhat contradictory statement, another participant echoed this by noting the MLTs who have been around the longest have the least ability to survive change without damage and shared her belief that younger technologists seem to be more open to change (I-4). However, the participant went on to point out that there is a group of MLTs who have been through change so many times and have been around the laboratory a long time, they adjust to change very well (I-4).

Finding 2: MLTs believe that clearer communication about change initiatives would allow them to become more resilient and change adaptable. While participants acknowledged that employee resilience and change adaptability are individual characteristics, when asked what would make MLTs more resilient and change adaptable, focus group participants and interviewees shared that clear change communication is one method to increase resilience (FG-1; FG-2; I-1; I-2; I-3; I-4). Participants became animated while discussing leadership communication to staff during recent change initiatives. Focus group members began speaking at the same time, sharing incidents when they felt communication was lacking during recent organizational changes (FG-2). Participants also shared the negative effect poor communication had on them personally during recent consolidation efforts, technical leadership restructure events, as well as during technical changes (FG-1; FG-2; I-3). One focus group member noted during the recent technical leadership restructure, rumours were rampant and employees felt left in the dark about the reason for the restructure and the timelines for the imminent changes (FG-2). One participant stated,

We just went through a major reorganization with little to no communication during the process. Lack of information that was passed down to directly impacted people, . . . and when we asked for information, the responses I received were very vague with no reason behind it. If you can't answer a question because of a confidentiality issue, just say that. Give us a reason why you can't answer these questions. For me, that was the most recent dramatic change I have had to deal with. It was incredibly stressful. (FG-2)

In this same vein, another participant stated, "Speaking with people, letting us know why . . . that is what helps us feel supported" (FG-1).

I feel like everything is kept away from us and we don't know what is going on. There are rumours and then all of a sudden it happens. There needs to be more communication. I feel like everything is hidden and private and then all of a sudden it is thrown at us, and . . . I don't do well with it. (I-1)

With tears welling up in her eyes as the recent technical redesign process was described, one focus group member offered,

Some regular updates would have been great. We only got two or three updates irregularly, and it would be in question-and-answer format. It was very vague and raised more questions than answers, and in between there was nothing. Months would go by with nothing. You are dealing with people's lives, careers, and our families, and we deserve to know this information, and we didn't get it. (FG-2)

When asked what form of communication seemed to work well, one focus group participant offered that "town hall" (FG-2) meetings were helpful to disseminate news and updates surrounding a recent change initiative, but noted that often, not all employees were able to attend due to laboratory operational requirements. Another participant went on to share that

she felt emails are a great way to summarize information, but added often they are too vague (FG-2).

Finding 3: MLTs want to have input into organizational change processes. While research participants mentioned the importance of communication during change initiatives, it also became clear that MLTs believe communication should not be unidirectional. Both focus group and interview participants repeatedly mentioned that the employer and the labour union left them out of important change decisions. Focus group participants' voices became raised, as they each offered their perspectives and expressed their feelings of being left out.

One focus group member used the word engagement to describe what would make change go better for MLTs: "You need employee engagement. . . . Everyone has to know that they are part of the change and that they are contributing to the change and that they understand the change" (FG-2). Another focus group member offered,

Not getting people involved, not getting their opinions is showing a lack of respect for our knowledge. We are educated people and working in this department, the more options you give us, the more input (we can give) . . . we are going to want to embrace it more if we are a part of the reason for change . . . if we take ownership for it. (FG-1)

Recognizing the importance of employee participation in change initiatives, one participant suggested, "Even if they [senior management] don't listen to our input, they need to pretend, and allow us time to share our thoughts and ideas" (FG-1). Interviewees echoed these sentiments as well. One interviewee shared, "They recently took away one of our responsibilities; they didn't even ask us how we thought the task could be done better. They just took it. Isn't my opinion important? I am the one that does this job" (I-1). This participant went on to say, "They don't know what we need, and they don't know how we work" (I-1). Lastly,

another interviewee summed up her thoughts on enhancing resilience and change adaptability by sharing, “What makes people resilient is keeping them involved” (I-3).

Finding 4: MLTs see lack of leadership development and insufficient fiscal resources as barriers to cultivating resilience and change adaptability. Participants in both focus groups and interviews seemed aware of the fiscal climate in the healthcare system, and specifically the current fiscal restrictions in LM Labs. When asked to explore barriers to creating resilience and change adaptability among MLTs, both participant groups stated that fiscal limitations are the number one barrier to be able to “do things right” (FG-2) during change initiatives (FG-2; I-1; I-2; I-3).

One focus group participant stated that if resources were allotted to change management, extra staff could be brought into work, which in turn would allow employees to have more time to be brought into changes (FG-2). Along this same vein, another focus group participant mentioned that extra resources could allow for a designated laboratory change management consultant or project manager to be hired. Participants believed that this would allow them “to actually see the person doing the change. This would put a human face on the change” (FG-1). Another focus group participant added, “If we saw a project manager, we could approach them. If we knew who this person was it would have made a difference” (FG-1). Agreeing that the organization lacks in funding for proper change management, one interviewee shared, “The organization doesn’t invest enough in change management” (I-4).

When probed further about barriers to resilience and change adaptability, an interviewee posited that the ability to attend more leadership courses could be helpful (I-3). Acknowledging that avenues for leadership development are currently available, she believed there could be more offered to those in leadership positions (I-3). She stated leaders lacked sufficient time to

support staff in the way staff needed, but noted, “Everyone was striving to do the best job they could” (I-3).

In another interview, a participant described some members of laboratory leadership as “in over their head” (I-4) when it came supporting of staff during change. This participant also suggested that the laboratory system seems to promote individuals into formal leadership roles, but it does not continue to educate and support them in their development as leaders (I-4). Drawing a connection to laboratory leadership and resilience, this participant shared, “A leader needs to have a positive attitude about their role and impact others in a positive way, then employee resilience can be increased” (I-4). One participant reported that her own supervisor was not informed when it came to change information: “She didn’t know what was going on either. How could she support us?” (FG-1).

Many research participants noted leadership development was a barrier to creating resilience and change adaptability among MLTs; however, one focus group participant shared that good leadership support was not only present at her work site, but was also key to helping her navigate a recent change:

Some of the things that I saw one of the managers do that was very helpful to me was ensuring that people were reminded about the access to the resources available, also acknowledging that this is a very stressful time and to make sure that you look after yourself. (FG-2)

Referring to this same manager, the participant further shared,

The technical structure redesign was a standing item at every meeting that happened, and those that were impacted had the opportunity to ask questions, and the operations manager was very forthcoming, and I perceived [that] as being very transparent because

when she didn't have the information, she outright said, "I don't know." But when she did, she was very good at articulating that. (FG-2)

Finding 5: A strong culture of teamwork and pride exists among MLTs. When participants were asked to describe the culture in their laboratory, many mentioned a culture of teamwork and expressed pride in the profession of medical laboratory science (FG-1; FG-2; I-1; I-2; I-3). One participant commented, "All in all, everyone steps up and everyone has everyone's back. With our crazy schedules most of us are very willing to pick up and help. We are a team" (I-1). Members in both focus groups shared this belief. When the facilitator asked focus group participants, "What is it like to work here?", one participant offered, "We are team based" (FG-2). Another participant stated, "This site has a really accepting atmosphere. There is such a family feel here. We are a team" (FG-1).

Participant comments revealed that MLTs have pride in their profession and are proud of the work they do: "If we have to get something done, we will, despite all the changes" (FG-2). Another focus group member nodded her head and added, "I am contributing to patient care" (FG-2). An interview participant noted, "When you work here, you aren't just doing a job and going home, you are more involved than that. This place becomes part of your life. I am happy here and proud of the work I do" (I-2).

Summary of findings. The findings presented in the previous section were based on the analysis of data collected from interviews and focus groups. The study findings revealed that MLTs view resilience as a personal characteristic, which can be enhanced by experience. MLTs believe that clear communication and input into organizational changes would help them become more resilient and change adaptable. Participants see fiscal restrictions and lack of leadership development as key barriers to enhancing resilience and change adaptability among MLTs.

Lastly, participants shared that MLTs have a strong culture of teamwork and pride. Conclusions regarding resilience and change adaptability in LM Labs are discussed in the next section.

Study Conclusions

I developed five conclusions from the study findings and the literature reviewed in Chapter 2. These conclusions provide key information to address the questions central to this inquiry and lay the foundation for the recommendations that will be presented in Chapter 5. Conclusion 1 responds to Subquestions 2 and 3. Conclusion 2 and 3 responds to Subquestion 3 and 4 as well as the main inquiry question. Conclusion 4 responds to the main inquiry question as well as Subquestion 3, respectively, while Conclusion 5 responds to the main inquiry question and Subquestions 1, 3 and 4. The conclusions are as follows:

1. Individual resilience may be a combination of innate characteristics and personal experiences.
2. Clear communication about change initiatives may amplify resilience and change adaptability.
3. Employee participation in change initiatives could enhance resilience and change adaptability.
4. Leadership development and allocation of resources may enhance change initiatives and therefore increase resilience.
5. Including MLTs in change initiatives could leverage the current culture to cultivate resilience and change adaptability.

Conclusion 1: Individual resilience may be a combination of innate characteristics and personal experiences. This conclusion responds to Subquestions 2 (in what ways are MLTs in LM Labs currently resilient and change adaptable) and 3 (how could a culture of resilience

and change adaptability be amplified and sustained in LM Labs). Participants believed the personal qualities of resilience and change adaptability allowed some individuals to navigate recent changes in LM Labs in a less stressful way. As evidenced in Finding 1, participants noted some MLTs are naturally resilient and change adaptable, while others have become resilient and change adaptable because of events they have experienced during their career. The literature shared in Chapter 2 supports this opinion by suggesting that every individual has an accessible inner strength that can be enhanced through either a dynamic process of frequent disruption and positive adaptation or through transformative learning (Grafton et al., 2010; Jackson et al., 2007; McAllister & McKinnon, 2009; Newman, 2003).

Literature also shared direction for cultivating personal resilience and change adaptability. Health professionals need to be reminded to identify their own risk factors and share experiences of vulnerability and resilience so that other group members may learn as well as acknowledge peer achievements and promote feelings of pride in the profession and the work that gets accomplished (McAllister & McKinnon, 2009, p. 375). As noted in Chapter 2, Jackson et al. (2007) suggested five strategies to develop resilience in nurses that could be extended to MLTs. These strategies include (a) building positive interpersonal relationships; (b) maintaining positive attitudes through laughter, optimism, and positive emotions; (c) developing personal emotional insight to understand risks at hand; (d) using spirituality and life balance to give meaning to life; as well as (e) becoming more reflective in order to help with sense-making and find emotional strength (Jackson et al., 2007, p. 6).

The organization has the opportunity to capitalize on these suggestions within LM Labs. Ideal times for these resiliency-building exercises might be at the beginning of department and site meetings, or daily in the form of a group check-in session after shift change or before going

home. Laboratory Leadership would need to frame the check-in session in an organic way to develop some of the suggestions mentioned by Jackson et al. (2007), keeping in mind the nuances of the group. This check-in session could provide space to laugh (possibly through a joke of the day), build relationships (perform a partner exercise or share something about one's life outside of work), and share experiences about current technical issues or positive experiences in general. It could also be a time to communicate information and create space for staff to ask questions in an informal way.

Conclusion 2: Clear communication about change initiatives may amplify resilience and change adaptability. As evidenced in the study findings, MLTs believed communication during change was key to creating resilience and change adaptability. Participants stated that communication was lacking throughout recent organizational changes. This conclusion answers Subquestions 3 (how could a culture of resilience and adaptability be amplified and sustained in LM Labs) and 4 (what are some barriers to cultivating a culture of resilience and change adaptability and how might these barriers be overcome), as well as answering the main inquiry question: How can Senior Laboratory Leadership cultivate a culture of resilience and change adaptability among medical laboratory technologists?

As noted in Chapter 2, literature demonstrated that effective communication during change initiatives has a direct link to building resiliency in employees (Anderson & Ackerman Anderson, 2010, 2011; Beer & Nohria, 2000). As well, scholars suggested that communication is one of seven collective behaviours required by organizations comprise a systems response to change and cultivate organizational resilience (Horne & Orr, 1997). Effective communication not only ensures the connectedness of the organizational system, but also ensures that all

employees are aware of where the organization is headed. It also addresses employee feelings of uncertainty and resistance (Elving, 2005; Horne & Orr, 1997).

While the literature surrounding organizational communication is voluminous, Barrett's (2002) strategic employee communication model outlined three best practices for communication during change (p. 219). Firstly, effective employee communication must be within the context of the organization. Secondly, organizational strengths and weaknesses in communication should be monitored. Thirdly, communication is used to frame the change program. Barrett's model takes a systems approach to include strategic objectives of the organization, the important role of middle managers in the change, the importance of a defined communications team and their role in the change initiative, a reoccurring assessment of the change initiative measured by defined goals, and lastly the realization that change communication work is integrated work, all levels of the organization must be continually involved in the communication process to aid in success (p. 221).

Steelman and McCaffrey (2013) suggested effective communication could be reduced down to three simple points. First, effective communication must allow room for dialogue (Steelman & McCaffrey, 2013). Second, there must be local context, and, last, communication must be timely, accurate, and useful (Steelman & McCaffrey, 2013). Keeping these points in view, there is opportunity for Senior Laboratory Leadership to address gaps in current communication strategies. Firstly, as noted during inquiry research, different individuals prefer communicate through various mediums. One participant noted that town hall meetings are very useful, as information could be shared and questions answered in real time; however, the downside is that not all employees have the opportunity to attend these meetings (FG-2). Asking staff their communication style preference would be an excellent first step. Another opportunity

to address gaps could be found in performing a postmortem exam on the recent technical redesign communications. The organization could survey MLTs via the global address list to see what worked well, and what did not work well. As well, the organization could gather important information. Such actions show employees that the organization recognizes there is room for improvements in communication strategies, and are eager to solicit employee input.

Conclusion 3: Employee participation in change initiatives could enhance resilience and change adaptability. This conclusion answers Subquestions 3 (how could a culture of resilience and adaptability be amplified and sustained in LM Labs) and 4 (what are some barriers to cultivating a culture of resilience and change adaptability and how might these barriers be overcome), as well the main inquiry question: How can Senior Laboratory Leadership cultivate a culture of resilience and change adaptability among medical laboratory technologists? As noted in the study findings, inquiry participants felt left out of recent change processes. Participants reported that change was forced upon them without their consent or input. Employees were clear in their desire for active participation in future change initiatives (FG-1; FG-2). Employees in LM Labs are not alone in this need.

Organization change literature that was shared in Chapter 2 focused on the importance of employee participation in decision making. Using a systems perspective, Anderson and Ackerman Anderson (2010) noted, in order to fully determine the scope of the required change and the context in which the change occurs, it is necessary to evaluate the drivers of change. If what is driving the change is clearly understood by everyone, resistance can be minimized. Employees need to be involved in change decisions in order for them to fully appreciate the scope of the change and the drivers involved. Determining reasoning behind change initiatives has been shown to increase employee willingness to participate in the change, decrease

resistance to the change, and improve employees' feelings of control (Bordia et al., 2004). In other words, participatory decision making is able to attend to the basic human needs during change of being able to predict what will happen next, as well as explaining why the change is occurring (Bordia et al., 2004).

With this in mind, Senior Laboratory Leaders might include MLTs in future change decisions in the form of working groups or change teams. This act would allow laboratory leadership to emphasize, clarify, and energize the change process (Lewis & Russ, 2012). However, literature warned that it is important to enter into shared decision making carefully. The process of shared decision making is neither simple nor harmless. Careful attention must be paid to when leaders decide to engage in participatory decision making and whom to include in the process. There are several pitfalls that lead to employee frustration, lack of support for the decision, and poor quality decisions (Bendaly & Bendaly, 2011; Lewis & Russ, 2012).

Conclusion 4: Leadership development and allocation of resources may enhance change initiatives and therefore increase resilience. This conclusion answers the main inquiry question: How can Senior Laboratory Leadership cultivate a culture of resilience and change adaptability among medical laboratory technologists? As well, this conclusion addresses Subquestion 3 (how could a culture of resilience and change adaptability be amplified and sustained in LM Labs).

Throughout the inquiry, participants linked being resilient and change adaptable with the ability to navigate organizational change successfully. Participants believed that if laboratory leaders were more supportive it would help MLTs to become more resilient and change adaptable, and therefore able to navigate organizational changes in a less stressful way.

As discussed in Chapter 2, scholarly literature demonstrated that leaders have a definite role to play in good change management practices. Pipe et al. (2012) pointed out that a key role of healthcare leaders is to create and sustain an organizational environment that optimizes high quality, safe, and effective patient care, but also to ensure the organizational culture is one that supports team members during times of stress. Pipe et al. continued on to suggest that through the practice of positive psychology (or empowering individuals with skill and techniques that allow them to remove stress from situations), healthcare leaders enable employees to become resilient and change adaptable. By “shifting the perspective to optimize positive ways of coping” (Pipe et al., 2012, p. 12), healthcare leaders enable employees to cope better with stress, and therefore become resilient. Positive psychology allows individuals to broaden their thinking beyond the current situation to access a broader range of possibilities and ideas (Pipe et al., 2012, p. 13). It is imperative to know that the mindset of positivity can be learned. Noting a link between stress, teamwork, and communication, Pipe et al. posited that positivity has the power to reduce stress, increase teamwork and communication, enhance employee satisfaction, as well as improve work culture and morale.

Referring to the seven behaviours that create resilient organizations, Horne and Orr (1997) shared that the leadership behaviour of “consideration” (p. 34) is an important factor in creating organizational resilience. Through understanding how change “surrounds and interweaves” (Horne & Orr, 1997, p. 34) into employee lives, leaders are able to create accountability and harmony in the workplace daily. Horne and Orr offered that consideration is how organizations accommodate the human factor into daily organizational life (p. 33).

Additionally, Lengnick-Hall et al. (2010) wrote, in order to enhance organizational capacity for resilience and change adaptability not only do cognitive elements, behavioural

elements, and contextual elements need to be developed throughout the system, but special attention must be paid to developing these areas in core organizational members. By developing laboratory leaders in the areas of cognitive elements, behavioural elements, and contextual elements, a system will be created in which all employees are aware of the expectations of the organization, thereby decreasing employee uncertainty (Lengnick-Hall et al., 2010, p. 248). Cognitive, behavioural, and contextual elements to be encouraged include resourcefulness, ingenuity, counterintuitive agility, preparedness, as well as vision, purpose, a strong belief in core values of the organization, mindfulness, and a focus on building relationships. These skills allow leaders to support employees as well as encourage the development of organizational resilience and change adaptability.

There are current opportunities in the laboratory system to encourage development of laboratory leaders in the ways scholars suggested (Horne & Orr, 1997; Lengnick-Hall et al., 2010; Pipe et al., 2012). One such opportunity is at the monthly manager meeting. All site supervisors, technical practice leads, operations managers, and medical pathology leads are required to attend. This provides a prime opportunity to share teaching about some of the cognitive, behavioural, and contextual elements that Lengnick-Hall et al. (2010) suggested.

As noted in Finding 4, participants shared that there was a need for resources to be allocated to change initiatives. Participants felt that fiscal barriers were a key reason for the dearth in leadership development, lack of communication, and the organization's inability to perform change management.

Shin et al. (2012) noted that typically employees are reluctant to commit to organizational changes because they view them as disruptive to their regular routines and relationships and often result in increased workload. Shin et al.'s research demonstrated that employees who had

significant amount of inducements (such as open communication, training for future jobs, performance feedback, and respectful treatment from higher management) were less vulnerable to strong challenges and more capable of effectively coping with stressors because they were able to utilize these resources (p. 741). The authors stated that these inducements are critical in the work context to provide employees with the tools to better cope with and prepare for organizational change (Shin et al., 2012). Shin et al. also noted that these inducements enable employees enjoy more amounts of discretionary time, gain valuable insight to organizational strategy, as well as receive increased social support. Many of these inducements do not come without some financial investment from the organization.

Enhancing resiliency and change adaptability in organizations is not accomplished overnight. Horne and Orr (1997) noted seven behaviours that contribute to the development of resilience in an organization: community, competence, making connections, commitment, communication, coordination, and consideration. These behaviours all take resources to realize. However, Senior Laboratory Leaders must be made aware that these resources possibly exist within the organization already. Innovative ways to stretch scarce dollars must be explored through discussion with employees.

Conclusion 5: Including MLTs in change initiatives could leverage the current culture to cultivate resilience and change adaptability. This conclusion answers the main inquiry question: How can Senior Laboratory Leadership cultivate a culture of resilience and change adaptability among medical laboratory technologists? As well, this conclusion addresses Subquestions 1 (what is the current culture among MLTs in LM Labs), 3 (how could a culture of resilience and change adaptability be amplified and sustained in LM Labs), and 4 (what are some barriers and limitations to cultivating a culture of resilience and adaptability among MLTs and

how might these barriers be overcome). Focus group and interview participants reported that MLTs have a strong culture of teamwork and pride in their profession. As such, MLTs already possess many elements of resilience and change adaptability.

As shared in Chapter 2, scholarly literature demonstrated that the culture of a group or organization could be leveraged, changed, or influenced (Beer & Nohria, 2000; Cameron & Quinn, 2011; Schein, 2010). However, it is imperative for change leaders to recognize two things. Firstly, culture change takes time and, secondly, culture change is a difficult long-term effort (Beer & Nohria, 2000; Cameron & Quinn, 2011). Cameron and Quinn (2011) noted once current culture is defined and the desired future state is determined, an organization can move through the following seven steps to influence change: (a) determine what the changes will and will not mean, (b) identify stories illustrating the desired future culture, (c) set a strategic action agenda, (d) identify small wins, (e) assess leadership implications, (f) determine how to measure and maintain accountability, and (g) develop a communication strategy (p. 103).

Schein (2010) offered a slightly different approach to influencing culture. Based on the human change work of Kurt Lewin (as cited in Schein, 2010), Schein proposed a three-stage approach: unfreezing, moving, and refreezing. A strong, unique culture allows organizations to reduce employee uncertainty, create social order, create continuity and collective identity, as well as unveil the future to those in the organization (Cameron & Quinn, 2011, p. 6). Cameron and Quinn (2011) went on to offer that, while change management techniques are helpful in creating organizational change, without addressing the values, ways of problem solving, managerial styles, and ways of thinking, change efforts will not be successful (p. 6).

MLTs are proud of their profession. As well, they appear to hold strong beliefs about teamwork and possess a team mentality. This culture creates a strong foundation for the creation of a resilient and change adaptable workforce. As an MLT who holds a supervisory role, this research helped me better understand how the pride MLTs feel in their profession propels them through difficult circumstances when changes suggested by management are not fully understood. Despite misunderstanding and disagreement, MLTs continue to prioritize the needs of patients. Through the course of this research I came to realize that while senior leadership are imposing change initiatives that they feel are clearly communicated, MLTs are struggling to understand the future and what it means for them, yet they continue to lean on one another and focus on what is important to each of them: producing accurate, timely laboratory results to help patients and clients that need them.

Within the newly created provincial laboratory agency, Senior Laboratory Leaders have an excellent opportunity to address the values held by MLTs. By addressing these values in a formal way, fostering trust with employees through listening, demonstrating a willingness to learn, and building on the strong foundation of teamwork and pride, Senior Laboratory Leaders will enhance MLTs' ability to respond to workplace adversity in a more successful way. As well as influencing MLTs, these actions could also enable the organization of LM Labs to become more resilient and change adaptable (Beer & Nohria, 2000).

Summary of study conclusions. In this section I detailed five conclusions that were derived from data collected during interviews and focus groups. These conclusions were supported by scholarly literature that was previously discussed in Chapter 2.

Conclusions addressed either the main inquiry question, subquestions, or in some case both.

Scope and Limitations of the Inquiry

Coghlan and Brannick (2014) shared, “Action research projects are situation-specific and do not aim to create universal knowledge” (p. 172). As such, this action research inquiry has limitations. This section details the limitations of this inquiry.

While LM Labs are located throughout the Lower Mainland of BC, the conclusions of this inquiry are representative of the three laboratories studied in FHA, and the results are not necessarily generalizable throughout FHA or LM Labs located in other health authorities. While various size laboratories (large and medium) were chosen for the inquiry, caution should be taken not to generalize the conclusions to laboratories that may have dissimilar subcultures.

The focus of the study was that of MLTs. As such, results may not be the same for other employees in the laboratory or those who hold administrative roles in the LM Labs organization. While MLTs make up much of the staff in LM Labs, working alongside MLTs on a daily basis are medical laboratory assistants, medical pathologists, and those who hold administrative roles. Organizational changes also affect these groups, but it should be noted that these groups might react in differing ways.

Participants’ level of seniority in LM Labs was not recorded for this inquiry. This information may have provided greater depth in the analysis on resilience and change adaptability. Those with more seniority may be more familiar with organizational changes over the years, and their “lived experience” (Stringer, 2014, p. 213) could shed helpful light on the issues addressed and add rich interpretation on the topic of resilience and change adaptability.

Those with less seniority may be moving through their first major organizational change, and could offer new refreshing ideas about resiliency, change adaptability and culture.

It is also important to note that this inquiry was held soon after a major organizational technical leadership restructure as well as a FHA-wide Microbiology department consolidation. The views expressed by participants were possibly a result of how this restructure and consolidation affected them personally, which may not be true for all organizational members.

Lastly, but importantly, this inquiry was limited by employees' interpretations of the concepts of resilience and change adaptability. During interviews and focus groups, I noted that employees made no distinction between the characteristics of resilience and change adaptability, and often used the terms interchangeably. In retrospect, this could have been avoided by providing participants with clear definitions of these terms.

Despite the limitations of this action research inquiry, a core benefit of the inquiry is that it provides context-specific insight for the organization. Focusing on LM Labs and MLTs yielded valuable data upon which to build organizational recommendations.

Chapter Summary

This chapter provided an overview of the data collected in two focus groups and four interviews. I discussed the themes that surfaced from the data and used that as a basis for the conclusions, which I also presented in this chapter. I then acknowledged the inquiry limitations. The next and final chapter will put forward recommendations created from the conclusions noted in this chapter.

Chapter Five: Inquiry Recommendations and Implications

Chapters 1 and 2 reviewed the context in which this inquiry took place and provided an overview of recent literature significant to the inquiry topic of resilience and change adaptability. Chapter 3 contained the details of the inquiry approach and the research methodology. Chapter 4 went on to outline key themes that were generated from the research, share findings, conclusions, as well as discuss inquiry limitations. This final chapter contains the recommendations, organizational implications, and opportunities for further research.

The five study conclusions in combination with relevant literature discussed in the previous chapter formed the basis for the following four recommendations, which I explore in more detail in the subsections that follow:

1. With input from MLTs, determine the shared values of LM Labs.
2. Explore opportunities to include MLTs in organizational decision making.
3. Evaluate the current model for change communication in LM Labs.
4. Evaluate and enhance current leadership development strategies in LM Labs.

Recommendation 1: With input from MLTs, determine the shared values of LM Labs. One recommendation borne out of Lawson's (2012) *Options for Laboratory Transformation* review was the creation of a provincial laboratory agency. During the course of this inquiry, MLTs came closer to experiencing this reality. While the specifics of the new agency have yet to be revealed, the recommendation resulting from this inquiry is an invitation for Senior Laboratory Leadership to engage MLTs at this opportune time to discuss the organizational values that the new provincial laboratory agency will hold. From these values, the Senior Laboratory Leadership has an opportunity to engage MLTs in determining the organizational vision. In the event that the newly created agency holds a public interest role only,

rather than that of an employer of MLTs, the recommendations resulting from this inquiry will be helpful to LM Labs.

None of the MLTs involved in the inquiry mentioned organizational values or their alignment or familiarity with them. However, in Chapter 2, the scholarly literature was clear that organizational values are a strong underpinning of the culture of an organization (Cameron & Quinn, 2011; Deshpande & Webster, 1989; Schein, 2010). This recommendation presents an opportunity for Senior Laboratory Leadership to create something that employees believe in and can be a part of. Senge (2006) wrote, “A shared vision is the first step in allowing people who mistrusted each other to work together” (p. 194).

A commitment to a common vision enables employees to work together during periods of uncertainty (Horne & Orr, 1997). Lengnick-Hall et al. (2010) shared a similar view of the importance of shared vision. They noted that in order to increase organizational capacity for resilience, cognitive, behavioural, and contextual elements must be developed (Lengnick-Hall et al., 2010, p. 246). Cognitive elements include creating a sense of core values and collective purpose among members.

Recommendation 2: Explore opportunities to include MLTs in organizational decision making. Study participants repeatedly stated they felt left out of change initiatives, and they believed their opinions, thoughts, and ideas were unimportant to Senior Laboratory Leadership (FG-1; FG-2; I-1; I-2). Participants were clear in their belief that greater involvement would lead them to become more resilient and change adaptable. This recommendation speaks to MLTs’ desire to be included in the decision-making process. Scholarly literature clearly asserted engaging organizational members in change decisions results in organizational benefits (Bordia et al., 2004). Employee participation in decision making fulfills two basic needs of employees: to

predict what is going to happen next and to explain why things are the way they are (Bordia et al., 2004). Lewis and Russ (2012) added that participatory methods have the ability to emphasize, clarify, and energize the change process.

However, prior to implementing this recommendation it is important to consider three common pitfalls that can befall leaders. Bendaly and Bendaly (2012) clearly affirmed that leaders must carefully determine who will be involved in the change process and at what point to include them. As well, leaders must clearly communicate what level of influence employees will have in the decision-making process (Bendaly & Bendaly, 2012). Clarifying this will avoid staff frustration, lack of support for the decision, and poor quality decisions (Bendaly & Bendaly, 2012, p. 100).

In consideration of the current laboratory culture of teamwork, I recommend that LM Labs create change teams or working groups for organizational changes on the horizons. Fitting in with this recommendation is the opportunity to employ a change manager or project manager who is familiar with the laboratory. A designated change manager would allow MLTs to see the person behind the scenes of change and would provide them with a point of contact during the initiative.

Recommendation 3: Evaluate the current model for change communication in LM Labs. Inquiry participants indicated communication during change initiatives was lacking in LM Labs (FG-1; FG-2; I-1; I-2). Participants suggested that current communication strategies utilized by LM Labs were insufficient. Horne and Orr (1997) noted that organizational communication is key to creating resilient organizations. Communication is vital to ensuring the connectedness of the organizational system (Horne & Orr, 1997, p. 33).

Clearly communicating about the change and conveying information regarding the vision for the change allows members to participate in the change, feel more in control of the situation, and reduces employee uncertainty (Bordia et al., 2004; Elving, 2005). An evaluation of current communication strategies followed by soliciting employees about their thoughts and preferences for the medium and method of communication would allow Senior Laboratory Leadership to cater to employee preferences and help assure effective communication. This also presents an opportunity to involve employees in shared decision making regarding which method of communication will be utilized by the organization going forward.

Recommendation 4: Evaluate and enhance current leadership development strategies in LM Labs. This recommendation resulted from participants' desire to receive support through change from laboratory leaders. The literature shared in Chapter 2 revealed that Senior Laboratory Leaders have an important role to play in change management (Pipe et al., 2012). In fact, a key role of leaders in healthcare is to create and sustain an organizational environment that optimizes high quality, safe, and effective patient care, as well as supports team members during times of stress (Pipe et al., 2012). As such, leaders in LM Labs should be well versed in ways to support their team during times of change. Evaluating and enhancing leadership development offers an opportunity to allow leaders time to hone these skills. Leadership development also provides an opportunity to further focus on the values of the organization and the vision of where the organization is going in the future.

Summary of recommendations. These recommendations were developed from the research findings, conclusions, and scholarly literature. These recommendations respond to the inquiry questions and offer a starting point for the organization to address cultivating a resilience and change adaptable workforce.

Organizational Implications

In order to secure organizational commitment to the research findings, I engaged the organizational sponsor in conversation throughout the inquiry project. We met regularly during the early stages of this inquiry. The sponsor was involved in drafting inquiry questions, discussing participant groups, and creating the research documents. As the project progressed, we continued to hold regular meetings to discuss research findings and review proposed recommendations. It was important that the recommendations be feasible yet optimistic. During each step of this inquiry project, the organizational sponsor provided support, offered ideas, and shared thoughtful feedback.

The results of this inquiry do require Senior Laboratory Leaders to act. While the laboratory has limited financial resources, there will need to be a commitment from Senior Laboratory Leaders to support the recommendations. Although I developed these recommendations with an eye to fiscal responsibility, it would be naïve to suggest that implementation will bear no financial cost. However, organizational benefits resulting in improved resilience and change adaptability of employees will far outweigh any extra expenses incurred.

I provide an implementation plan based on Burke's (2009) prelaunch, launch, and postlaunch phases in the subsections that follow. Although organizational change is not a linear occurrence (Burke, 2009, p. 738), for ease of understanding I present the plan in a phased approach. However, it is important to note the phases may overlap due to the size of the organization and the nature of the recommendations.

Prelaunch (fall 2016). This phase will consist mainly of sharing the knowledge that has been created from this inquiry with key stakeholders. First of all, commitment to act must be

secured from Senior Laboratory Leadership. The need for organizational change must be clearly established (Burke, 2009, p. 759). In order to do this, the recommendations must be presented to the Executive Director of Operations of Laboratory Medicine and Pathology. This will occur soon after this thesis is complete. The Executive Director has been kept abreast of inquiry findings and recommendations, but his final approval and commitment will need to be obtained before moving forward. Once approval is granted, the recommendations will be shared with other key stakeholder groups who will become involved in planning the implementation of the recommendations. Some ideas for implementation will be outlined in the following paragraphs, but in reality key stakeholders will need to analyze the recommendations to avoid the organization jumping into a change process too quickly (Burke, 2009). As mentioned earlier in the inquiry, the laboratory system is in the early stages of the introduction of a separate provincial laboratory agency that is as yet unnamed. This may be a stumbling block to obtaining Executive Director approval. At the time of writing it is unclear what the role of the provincial laboratory agency will be, and what relationship it will hold with LM Labs. It is also unclear if employees will move into the laboratory agency or the organization LM Labs will remain as it is.

Kotter (1996) suggested that errors could be made by change leaders during this phase by not creating enough urgency around the change initiative and not forming a powerful enough coalition to carry out the change (p. 61). Care needs to be taken to ensure key stakeholders are on board with the initiative.

Launch (spring 2017). Due to the nature of the recommendations, all proposed actions could be implemented at once; however, caution must be taken. The launch phase includes communicating the need for change, initiating key activities, as well as preparing for and dealing with resistance (Burke, 2009, p. 759). I suggest implementing Recommendation 1 as soon as

Senior Laboratory Leadership commitment has been secured. Given the mystery and current lack of awareness surrounding the newly created provincial laboratory agency, there will need for extensive communication to MLTs. Creating a list of the new organization's shared values in conjugation with MLTs' values will provide Senior Laboratory Leadership with the opportunity to also move on implementing Recommendation 2: Explore opportunities to include MLTs in organizational decision making. At this time, Recommendations 3 and 4 can also be implemented. The announcement of the new provincial laboratory agency will provide an excellent opportunity to evaluate the current model for change communication in LM Labs, regardless of what the MLTs role will be in this agency. Once the role of laboratory employees is revealed, evaluation and enhancement of current leadership strategies can also occur.

Postlaunch (fall 2017 – ongoing). During this stage, leaders must seek out and continue to create short-term wins (Kotter, 1996). Burke (2009) shared that taking the heat, consistency, perseverance, and repeating the message are key points to remember during the postlaunch phase (p. 750). In order to maintain change, momentum leaders must continue to support and communicate the change (Burke, 2009). During this phase all recommendations will have been implemented. Recommendation 3—evaluate the current model for change communication in LM Labs—will have taken place, and knowledge learned can be integrated into organizational communication practices.

Implications for Future Inquiry

A future inquiry into expanded topics has the potential to give LM Labs further insight into cultivating a resilient and change adaptable workforce. During the process of this inquiry, several topics emerged that warrant further research. The first topic for future research that may lead to further insight is to compare findings from the sites studied to that of smaller hospital

laboratories. The second topic is that of employee responsibility during change initiatives. And the third is an exploration of how collaboration between the HSABC labour union and the organization may be utilized during organizational change.

Large and medium sized laboratories were studied for this inquiry. It may be helpful to further look at small laboratory sites to compare research findings. This may shed light on resilience and change adaptability for MLTs who work in isolation or are required to being a more active member of the healthcare team. Small laboratories may feel the affects of change more keenly, or due their need to provide an essential service, may not be affected by organization changes at all. Thoughts from these MLTs could provide another perspective to how LM Labs can cultivate a culture of resilience and change adaptability.

Inquiry participants were able to identify several shortcomings in how LM Labs managed change initiatives. MLTs clearly indicated that current communication practices are insufficient, some laboratory leaders lack the ability to support MLTs through change, and that LM Labs was remiss to not include MLTs in change decisions. While this research offers the organization insight into resilience and change adaptability, it would also benefit the LM Labs to explore what employees view as their responsibility during change.

There were times during this inquiry that participants expressed frustration with the mixed messages they receive from LM Labs and HSABC. As unionized employees, MLTs are both protected and handicapped by the HSABC collective agreement. Participants indicated that communication from LM Labs to MLTs during change initiatives had been complicated by union involvement. An inquiry into how these two powerful forces could align to share information and ideas for the benefit of employees, and ultimately patients and clients of LM Labs, would benefit all key stakeholders.

Senior Laboratory Leaders will be able to utilize findings discovered by this inquiry to further address ways the organization as a whole can cultivate a culture of resilience and change adaptability. While this inquiry studied a sample of medium- and large-sized laboratories in FHA, information gained could be used as a springboard to create a culture of resilience and change adaptability among MLTs in other health authorities in the Lower Mainland or throughout the province. The creation of the provincial laboratory agency provides Senior Laboratory Leadership with a daunting task, but it also presents an excellent opportunity. Findings and conclusions of this inquiry could be used to frame future efforts of creating and influencing culture in the new provincial laboratory agency as well as to address where and how LM Labs employees fit into this change. As well as adding to a very limited amount scholarly literature available on the subject of MLTs, this inquiry demonstrated that MLTs have the qualities required of a resilient and change adaptable workforce. Furthermore, this inquiry highlighted that MLTs commitment to teamwork is a leverage point possibly unique to the profession of Medical Laboratory Technology. This knowledge will add to the current body of literature. With this knowledge in hand, Senior Laboratories Leaders are better prepared for the many changes on the horizon in healthcare in BC.

Thesis Summary

This chapter has provided recommendations and an implementation plan to support LM Labs in enhancing a culture of resilience and change adaptability in its laboratories. The recommendations to LM Labs are as follows: gather input from MLTs in order to determine the shared values of the organization, explore opportunities to include MLTs in organizational decision making, evaluate the current model for change communication, and evaluate and enhance current leadership development strategies. This chapter outlined an implementation plan

that will require support and further input from Senior Laboratory Leadership as it moves through the phases of prelaunch, launch, and postlaunch, as well, the chapter discussed implications for further inquiry. The chapter ended with the idea that the knowledge gained from this inquiry can move beyond the laboratories researched. The results of this inquiry have the potential to create a wider community of inquiry among people who are not known to each other (Reason & McArdle, 2004) that may be used as a segue for enhancing resilience and change adaptability among MLTs in the Lower Mainland of BC, throughout the province, and possibly nation wide. It is the hope of the author that this inquiry is the spark that sets off a change in which individuals and groups reframe beliefs and perspectives and change begins to occur in the fundamental nature of the organization” (Rowe et al., 2013, p. 36).

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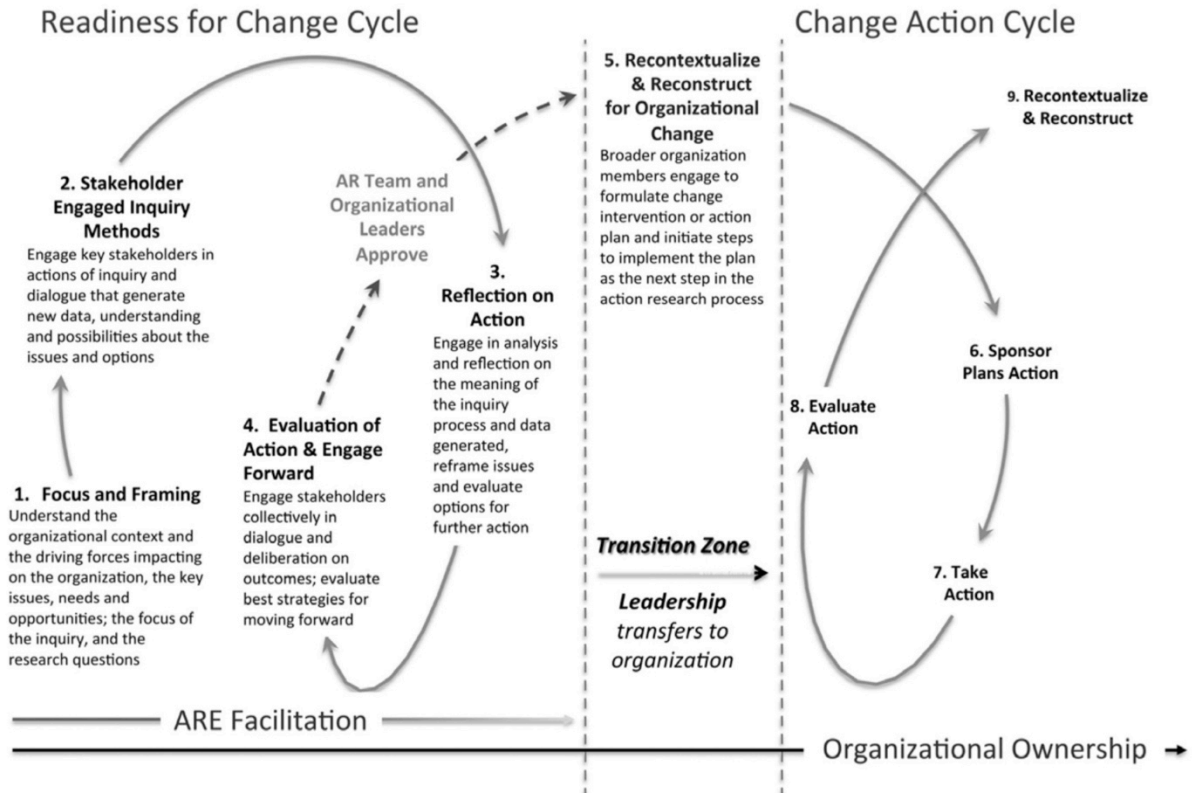
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Appendix A: Action Research Engagement Model



Note. AR = Action Research; ARE = Action Research Engagement.

From *Action Research Engagement*, by Rowe, Graf, Agger-Gupta, Piggot-Irving, & Harris, 2013, *ALARA Monograph Series No. 5*, p. 20. Copyright 2013 by Rowe et al. Reprinted with permission.

Appendix B: Inquiry Team Member Letter of Agreement

In partial fulfillment of the requirement for a Master of Arts in Leadership Degree at Royal Roads University, Heather Kelly (the Student) will be conducting an inquiry research study at Laboratories within Fraser Health Authority to discover ways in which Provincial Health Services Authority (PHSA) can cultivate a culture of resilience and change adaptability among front-line Medical Laboratory Technologists (MLTs). The Student's credentials with Royal Roads University can be established by calling Dr. Brigitte Harris, Director, School of Leadership, at [telephone number] or email [email address].

Inquiry Team Member Role Description

As a volunteer Inquiry Team Member assisting the Student with this project, your role may include one or more of the following: providing advice on the relevance and wording of questions and letters of invitation, supporting the logistics of the data-gathering methods, including observing, assisting, or facilitating an interview or focus group, taking notes, transcribing, or reviewing analysis of data, to assist the Student and the PHSA's change process. In the course of this activity, you may be privy to confidential inquiry data.

Confidentiality of Inquiry Data

In compliance with the Royal Roads University Research Ethics Policy, under which this inquiry project is being conducted, all personal identifiers and any other confidential information generated or accessed by the inquiry team advisor will only be used in the performance of the functions of this project, and must not be disclosed to anyone other than persons authorized to receive it, both during the inquiry period and beyond it. Recorded information in all formats is covered by this agreement. Personal identifiers include participant names, contact information, personally identifying turns of phrase or comments, and any other personally identifying information.

Bridging Student's Potential or Actual Ethical Conflict

In situations where potential participants in a work setting report directly to the Student, you, as a neutral third party with no supervisory relationship with either the Student or potential participants, may be asked to work closely with the Student to bridge this potential or actual conflict of interest in this study. Such requests may include asking the Inquiry Team Advisor to: send out the letter of invitation to potential participants, receive letters/emails of interest in participation from potential participants, independently make a selection of received participant requests based on criteria you and the Student will have worked out previously, formalize the logistics for the data-gathering method, including contacting the participants about the time and location of the interview or focus group, conduct the interviews (usually three-five maximum) or focus group (usually no more than one) with the selected participants (without the Student's presence or knowledge of which participants were chosen) using the protocol and questions worked out previously with the Student, and producing written transcripts of the interviews or focus groups with all personal identifiers removed before the transcripts are brought back to the Student for the data analysis phase of the study.

This strategy means that potential participants with a direct reporting relationship will be assured they can confidentially turn down the participation request from their supervisor (the Student), as this process conceals from the Student which potential participants chose not to participate or simply were not selected by you, the third party, because they were out of the selection criteria range (they might have been a participant request coming after the number of participants sought, for example, interview request number six when only five participants are sought, or focus group request number 10 when up to nine participants would be selected for a focus group). Inquiry Team members asked to take on such third party duties in this study will be under the direction of the Student and will be fully briefed by the Student as to how this process will work, including specific expectations, and the methods to be employed in conducting the elements of the inquiry with the Student's direct reports, and will be given every support possible by the Student, except where such support would reveal the identities of the actual participants.

Personal information will be collected, recorded, corrected, accessed, altered, used, disclosed, retained, secured and destroyed as directed by the Student, under direction of the Royal Roads Academic Supervisor.

Inquiry Team Members who are uncertain whether any information they may wish to share about the project they are working on is personal or confidential will verify this with Heather Kelly, the Student.

Statement of Informed Consent:

I have read and understand this agreement.

Name (Please Print)

Signature

Date

Appendix C: Focus Group Questions

1. Could you share a story about a time when you had to be resilient and change adaptable?
2. In what ways has LM Labs supported through you change in the past?
3. How can LM Labs better support you to become more resilient and change adaptable?
4. What are some barriers that you see to LM Labs creating a culture of resilience and change and how may these barriers be overcome?
5. How would you describe the culture in your laboratory?

Appendix D: Interview Questions – Langley Memorial Hospital – Participant Group One

1. Could you share a story about a time when you had to be resilient and change adaptable?
2. In what ways has PHSA supported through you change in the past?
3. How can PHSA better support you to become more resilient and change adaptable?
4. What are some barriers that you see to PHSA creating a culture of resilience and change and how may these barriers be overcome?
5. How would you describe the culture in your laboratory?

Appendix E: Interview Questions – Laboratory Leadership – Participant Group Two

1. Could you share a story about a time when you had to be resilient and change adaptable?
2. In what ways have PHSA supported through you change in the past?
3. How can PHSA better support you to become more resilient and change adaptable?
4. What are some barriers that you see to PHSA creating a culture of resilience and change and how may these barriers be overcome?
5. How would you describe the culture in the laboratory or area you work in most?

Appendix F: Email Invitation Letter – Focus Group – Participant Group One

Creating a Culture of Resilience and Adaptability in LM Labs

Hi!

I would like to invite you to be part of a research project that I am conducting. This project is part of the requirement for my Master of Arts Degree in Leadership at Royal Roads University.

The objective of the research project is to discover how Provincial Health Services Authority can cultivate a culture of resilience and change adaptability among Medical Laboratory Technologists (MLTs). I would like to learn how MLTs could become more ready to face changes in healthcare that are on the horizon.

Your name was chosen as a prospective participant because as a Medical Laboratory Technologist, your opinion, thoughts and ideas about change resilience and adaptability in the laboratory are valued. While all MLTs have been invited, I will be accepting the first 10 who email [email address] their desire to participate in the research.

This phase of my research project will consist of a focus group and is estimated to last approximately 45 minutes. The focus group will be held in the Laboratory Conference Room during lunch break. Date and time TBD.

The attached document contains further information about the study conduct and will enable you to make a fully informed decision on whether or not you wish to participate. Please review this information before responding.

Please know that you are not required to participate and, should you choose to participate, your participation would be entirely voluntary. If you do choose to participate, you are free to withdraw at any time without prejudice. If you do not wish to participate, do not reply to this request. Your decision to not participate will also be maintained in confidence. Your choice will not affect our relationship or your employment status in any way.

Please feel free to contact me, Heather Kelly ([email address]) at any time should you have additional questions regarding the project and its outcomes.

If you would like to participate in this research project, please contact:
Anna Reid at [email address].

Sincerely,
Heather

Appendix G: Information Letter – Focus Group – Participant Group One

Creating a Culture of Resilience and Adaptability in LM Labs

Hi, my name is Heather Kelly, and this research project is part of the requirement for a Master of Arts in Leadership Degree at Royal Roads University. My credentials with Royal Roads University can be established by contacting Dr. Brigitte Harris, Director, School of Leadership Studies: [email address] or [telephone number].

Purpose of the study and sponsoring organization

The purpose of my research project is to discover how Provincial Health Services Authority (PHSA) can cultivate a culture of resilience and change adaptability among Medical Laboratory Technologists (MLTs) who work in Fraser Health sites. I would like to learn how MLTs could become more ready to face changes in healthcare that are on the horizon.

Your participation and how information will be collected

The research will consist of a focus group is anticipated to last approximately 45 minutes. A focus group is a gathering of people to seek to answer the questions asked by a facilitator. The anticipated questions include: could you share a story about a time when you had to be resilient and change adaptable? In what ways has PHSA supported through you through change in the past? How can PHSA better support you to become more resilient and change adaptable? What are some barriers that you see to PHSA creating a culture of resilience and change and how might these barriers be overcome? And lastly, how would you describe the culture in your laboratory?

Benefits and risks to participation

Participation in this research holds many benefits for individuals, our organization and the patients we serve. Your benefits include the opportunity to have your voice heard within PHSA. You will also benefit from the opportunity to gather with co-workers to hear their thoughts and viewpoints about resilience, change adaptability, and culture within the laboratory. By participating you possess the opportunity to impact positive change. There are also benefits to PHSA such as an opportunity to gain insight into employees thoughts, ideas and perceptions, an opportunity to address findings through recommendations that may enhance resilience and change adaptability, and create a stronger, more change ready workforce. It is important to note that risk is involved in participating. One such risk is an increased expectation for change among participants.

Inquiry team

My inquiry team consists of two PHSA employees; one who is also a Master of Arts in Leadership student and the other an Administrative Assistant. Key duties include: assist in creating themes from collected data, performing transcription and logistical help in room preparation for sessions. All inquiry team members have signed letters of confidentiality that are kept on file.

Real or perceived conflict of interest

There are no conflicts of interest with this inquiry. There may be perceived conflict due to my role as Laboratory Site Supervisor at Peace Arch Hospital and my relationship with Managers and the Director of Laboratory Operations. To mitigate this perception, focus groups will be led by a neutral third party consultant, who is employed outside the laboratory. All recordings and notes from the focus groups will have identifying information removed during transcription before I receive them. I disclose this information here so that you can make a fully informed decision on whether or not to participate in this study.

Confidentiality, security of data, and retention period

I will work to protect your privacy throughout this study. All information I collect will be maintained in confidence with hard copies (e.g., consent forms) stored in a locked filing cabinet in my office. Electronic data (such as transcripts) will be stored on an encrypted USB Memory stick that will be kept at my home. **NOTE: Information will be recorded in hand-written format as well as audio recorded.** Audio recordings will be transcribed immediately, and audio files deleted after transcription has occurred. Where appropriate, information will be summarized, in anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential. Information will be stored on a USB memory stick for five years after the completion of my Masters Degree. At this time all data and field notes will be deleted and destroyed. Any information pertaining to an individual who has withdrawn from the research will be removed and destroyed at the time of withdrawal. Due to the nature of focus groups and interviews it is not possible to keep identities of the participants anonymous from the researcher, facilitator, or other participants. As a courtesy to other I would request that all participants respect the confidential nature of the research by not sharing names or identifying comments outside of the group.

Sharing results

In addition to submitting my final report to Royal Roads University in partial fulfillment for a Masters of Arts in Leadership Degree, I will also be sharing my research findings with executive at PHSA. My findings will be published through deposit with the Library and Archives Canada, through the Thesis Canada Portal, and the ProQuest/UMI database. My thesis will be available in pdf format to any employee of PHSA.

Procedure for withdrawing from the study

If at any time during the inquiry you should chose to withdraw as a research participant you can contact [email address]. Any research data you contributed will be immediately destroyed. Please note that if your contribution has already been anonymized it may not be possible to identify your comments in order to remove them.

You are not required to participate in this research project. By replying directly to the e-mail request for participation attending the focus group session or one-on-one interview you indicate that you have read and understand the information above and give your free and informed consent to participate in this project.

If you have any concerns or complaints about your rights as a research subject and/or your experiences while participating in this study, contact Dr. Anton Grunfeld and or Dr. Allen Belzberg, research Ethics [REB] co-Chairs by calling [telephone number]. You may discuss these rights with the co-chairman of the Fraser Health REB.

Please keep a copy of this information letter for your records.

Appendix H: Consent Form – Focus Group – Participant Group One

Creating a Culture of Resilience and Adaptability in LM Labs

By signing this form, you agree that you are over the age of 19 and have read the information letter for this study. Your signature states that you are giving your voluntary and informed consent to participate in this project.

- I consent to the audio recording of the focus group
- I commit to respect the confidential nature of the focus group by not sharing identifying information about the other participants
- I consent that I have received a copy of this consent form and information letter.

I understand that due to the group nature of this study, the audio recording will be ongoing throughout the focus group and my voice cannot easily be removed.

Name: (Please Print): _____

Signed: _____

Date: _____

Witness: (Please Print): _____

Signed: _____

Date: _____

**Appendix I: Email Invitation Letter – Interview Langley Memorial Hospital – Participant
Group One**

Creating a Culture of Resilience and Adaptability in LM Labs

Hi!

I would like to invite you to be part of a research project that I am conducting. This project is part of the requirement for my Master of Arts in Leadership Degree at Royal Roads University.

The objective of the research project is to discover how Provincial Health Services Authority (PHSA) can cultivate a culture of resilience and change adaptability among Medical Laboratory Technologists (MLTs).

Your name was chosen as a prospective participant because as a Medical Laboratory Technologist, your opinion, thoughts and ideas about change resilience and adaptability in the laboratory are valued. While all MLTs at Langley Memorial Hospital (LMH) have been invited, I will be accepting the first two MLTs who email [email address] their desire to participate in the research.

This phase of my research project will consist of an interview that is estimated to last approximately 30-45 minutes. I will be conducting the interview in the Pathologist's Office in the laboratory at LMH. Date and time TBD.

The attached document contains further information about the study conduct and will enable you to make a fully informed decision on whether or not you wish to participate. Please review this information before responding.

Please know that you are not required to participate and, should you choose to participate, your participation would be entirely voluntary. If you do choose to participate, you are free to withdraw at any time without prejudice. If you do not wish to participate, do not reply to this request. Your decision to not participate will also be maintained in confidence. Your choice will not affect our relationship or your employment status in any way.

Please feel free to contact me, Heather Kelly ([email address]) at any time should you have additional questions regarding the project and its outcomes.

If you would like to participate in my research project, please contact:
Anna Reid at [email address]

Sincerely,
Heather

**Appendix J: Information Letter – Interview Langley Memorial Hospital – Participant
Group One**

Creating a Culture of Resilience and Adaptability in LM Labs

Hi, my name is Heather Kelly, and this research project is part of the requirement for a Master of Arts in Leadership Degree at Royal Roads University. My credentials with Royal Roads University can be established by contacting Dr. Brigitte Harris, Director, School of Leadership Studies: [email address] or [telephone number].

Purpose of the study and sponsoring organization

The purpose of my research project is to discover how Provincial Health Services Authority (PHSA) can cultivate a culture of resilience and change adaptability among Medical Laboratory Technologists (MLTs) who work in Fraser Health sites. I would like to learn how MLTs could become more ready to face changes in healthcare that are on the horizon.

Your participation and how information will be collected

The research will consist of a short interview and is anticipated to last approximately 30-45 minutes. The anticipated questions include: can you share a story about a time when you had to be resilient and change adaptable? In what ways has PHSA supported through you through change in the past? How can PHSA better support you to become more resilient and change adaptable? What are some barriers that you see to PHSA creating a culture of resilience and change and how can these be overcome? And lastly, how would you describe the culture in your laboratory?

Benefits and risks to participation

Participation in this research holds many benefits for individuals, our organization and the patients we serve. Your benefits include the opportunity to have your voice heard within PHSA. By participating you possess the opportunity to impact positive change. There are also benefits to PHSA such as an opportunity to gain insight into employees thoughts, ideas, and perceptions, an opportunity to address findings through recommendations that may enhance resilience, change adaptability and create a stronger, more change ready workforce. It is important to note that risk is involved in participating. One such risk is an increased expectation for change among participants.

Inquiry team

My inquiry team consists of one other Master of Arts in Leadership student and an Administrative Assistant. All inquiry team members have signed letters of confidentiality that are kept on file.

Real or perceived conflict of interest

There are no conflicts of interest with this inquiry. All recording and notes from the Interviews will have identifying information removed. I disclose this information here so that you can make a fully informed decision on whether or not to participate in this study.

Confidentiality, security of data, and retention period

I will work to protect your privacy throughout this study. All information I collect will be maintained in confidence with hard copies (e.g., consent forms) stored in a locked filing cabinet in my office. Electronic data (such as transcripts) will be stored on an encrypted USB Memory stick that will be kept at my home. **NOTE: Information will be recorded in hand-written format as well as audio recorded.** Audio recordings will be transcribed immediately, and audio files deleted after transcription has occurred. Where appropriate, information will be summarized, in anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential. Information will be stored on a USB memory stick for five years after the completion of my Masters Degree. At this time all data and field notes will be deleted and destroyed. Any information pertaining to an individual who has withdrawn from the research will be removed and destroyed at the time of withdrawal. Due to the nature of focus groups and interviews it is not possible to keep identities of the participants anonymous from the researcher, facilitator, or other participants. As a courtesy to other I would request that all participants respect the confidential nature of the research by not sharing names or identifying comments outside of the group.

Sharing results

In addition to submitting my final report to Royal Roads University in partial fulfillment for a Masters Degree, I will also be sharing my research findings with executive at PHSA. My findings will be published through deposit with the Library and Archives Canada, through the Thesis Canada Portal, and the ProQuest/UMI database. My thesis will be available in pdf format to any employee of PHSA.

Procedure for withdrawing from the study

If at any time during the inquiry you should chose to withdraw as a research participant you can contact [email address]. Any research data you contributed will be immediately destroyed. Please note that if your contribution has already been anonymized it may not be possible to identify your comments in order to remove them.

You are not required to participate in this research project. By replying directly to the e-mail request for participation attending the focus group session or one-on-one interview you indicate that you have read and understand the information above and give your free and informed consent to participate in this project.

If you have any concerns or complaints about your rights as a research subject and/or your experiences while participating in this study, contact Dr. Anton Grunfeld and or Dr. Allen Belzberg, research Ethics [REB] co-Chairs by calling [telephone number]. You may discuss these rights with the co-chairman of the Fraser Health REB.

Please keep a copy of this information letter for your records.

Appendix K: Consent Form – Interview Langley Memorial Hospital – Participant Group**One**

Creating a Culture of Resilience and Adaptability in LM Labs

By signing this form, you agree that you are over the age of 19 and have read the information letter for this study. Your signature states that you are giving your voluntary and informed consent to participate in this project.

- I consent to the audio recording of the Interview
- I consent that I have received a copy of this consent form and information letter.

Name: (Please Print): _____

Signed: _____

Date: _____

Witness: (Please Print): _____

Signed: _____

Date: _____

Appendix L: Email Invitation Letter – Interview Participant – Group Two Laboratory**Leadership**

Creating a Culture of Resilience and Adaptability in LM Labs

Hi!

I would like to invite you to be part of a research project that I am conducting. This project is part of the requirement for my Master of Arts in Leadership Degree at Royal Roads University.

The objective of the research project is to discover how Provincial Health Services Authority (PHSA) can cultivate a culture of resilience and change adaptability among Medical Laboratory Technologists (MLTs). I would like to learn how MLTs could become more ready to face changes in healthcare that are on the horizon.

Your name was chosen as a prospective participant because your opinion, thoughts and ideas about change resilience and adaptability in the laboratory are valued. I believe you hold a unique perspective on the organization.

This phase of my research project will consist of an interview that is estimated to last approximately 30 minutes. I will be conducting the interview at a date, time and location TBD.

The attached document contains further information about the study conduct and will enable you to make a fully informed decision on whether or not you wish to participate. Please review this information before responding.

Please know that you are not required to participate and, should you choose to participate, your participation would be entirely voluntary. If you do choose to participate, you are free to withdraw at any time without prejudice. If you do not wish to participate, do not reply to this request. Your decision to not participate will also be maintained in confidence. Your choice will not affect our relationship or your employment status in any way.

Please feel free to contact me, Heather Kelly ([email address]) at any time should you have additional questions regarding the project and its outcomes.

If you would like to participate in this research project, please contact at:

Anna Reid at [email address]

Sincerely,
Heather

Appendix M: Information Letter – Interview Participant – Group Two Laboratory

Leadership

Creating a Culture of Resilience and Adaptability in LM Labs

Hi, my name is Heather Kelly, and this research project is part of the requirement for a Master of Arts in Leadership Degree at Royal Roads University. My credentials with Royal Roads University can be established by contacting Dr. Brigitte Harris, Director, School of Leadership Studies: [email address] or [telephone number].

Purpose of the study and sponsoring organization

The purpose of my research project is to discover how Provincial Health Services Authority (PHSA) can cultivate a culture of resilience and change adaptability among Medical Laboratory Technologists (MLTs) who work in Fraser Health sites. I would like to learn how MLTs could become more ready to face changes in healthcare that are on the horizon.

Your participation and how information will be collected

The research will consist of a short interview and is anticipated to last approximately 30 minutes. The anticipated questions include: in what ways do you see MLTs as resilient and change adaptable? In what ways has PHSA supported you through change in the past? How can PHSA better support you to become more resilient and change adaptable? What are some barriers that you see to PHSA creating a culture of resilience and change and how might these barriers be overcome? And lastly, how would you describe the culture in the laboratory or area where you work the most?

Benefits and risks to participation

Participation in this research holds many benefits for individuals, our organization and the patients we serve. Your benefits include the opportunity to have your voice heard within PHSA. By participating you possess the opportunity to impact positive change. There are also benefits to PHSA such as an opportunity to gain insight into employees thoughts, ideas, and perceptions, an opportunity to address findings through recommendations that may enhance resilience, change adaptability and create a stronger, more change ready workforce. It is important to note that risk is involved in participating. One such risk is an increased expectation for change among participants.

Inquiry team

My inquiry team consists of one other Master of Arts in Leadership student and an Administrative Assistant. All inquiry team members have signed letters of confidentiality that are kept on file.

Real or perceived conflict of interest

There are no conflicts of interest with this inquiry. All recording and notes from the interviews will have identifying information removed. I disclose this information here so that you can make a fully informed decision on whether or not to participate in this study.

Confidentiality, security of data, and retention period

I will work to protect your privacy throughout this study. All information I collect will be maintained in confidence with hard copies (e.g., consent forms) stored in a locked filing cabinet in my office. Electronic data (such as transcripts) will be stored on an encrypted USB Memory stick that will be kept at my home. **NOTE: Information will be recorded in hand-written format as well as audio recorded.** Audio recordings will be transcribed immediately, and audio files deleted after transcription has occurred. Where appropriate, information will be summarized, in anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential. Information will be stored on a USB memory stick for five years after the completion of my Masters Degree. At this time all data and field notes will be deleted and destroyed. Any information pertaining to an individual who has withdrawn from the research will be removed and destroyed at the time of withdrawal. Due to the nature of focus groups and interviews it is not possible to keep identities of the participants anonymous from the researcher, facilitator, or other participants. As a courtesy to other I would request that all participants respect the confidential nature of the research by not sharing names or identifying comments outside of the group.

Sharing results

In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts in Leadership Degree, I will also be sharing my research findings with executive at PHSA. My findings will be published through deposit with the Library and Archives Canada, through the Thesis Canada Portal, and the ProQuest/UMI database. My thesis will be available in pdf format to any employee of PHSA.

Procedure for withdrawing from the study

If at any time during the inquiry you should chose to withdraw as a research participant you can contact [email address]. Any research data you contributed will be immediately destroyed. Please note that if your contribution has already been anonymized it may not be possible to identify your comments in order to remove them.

You are not required to participate in this research project. By replying directly to the e-mail request for participation attending the focus group session or one-on-one interview you indicate that you have read and understand the information above and give your free and informed consent to participate in this project.

If you have any concerns or complaints about your rights as a research subject and/or your experiences while participating in this study, contact Dr. Anton Grunfeld and or Dr. Allen Belzberg, research Ethics [REB] co-Chairs by calling [telephone number]. You may discuss these rights with the co-chairman of the Fraser Health REB.

Please keep a copy of this information letter for your records.

Appendix N: Consent Form – Interview Participant – Group Two Laboratory Leadership

Creating a Culture of Resilience and Adaptability in LM Labs

By signing this form, you agree that you are over the age of 19 and have read the information letter for this study. Your signature states that you are giving your voluntary and informed consent to participate in this project.

- I consent to the audio recording of the Interview.
- I consent that I have received a copy of this consent form and information letter.

Name: (Please Print): _____

Signed: _____

Date: _____

Witness: (Please Print): _____

Signed: _____

Date: _____