THE EFFECTS OF INCENTIVES AND BARRIERS THAT INFLUENCE HEALTH DEPARTMENT PARTICIPATION IN A VOLUNTARY NATIONAL ACCREDITATION PROGRAM AND STATE QUALITY AWARD PROGRAMS IN THE UNITED STATES APPALACHIAN REGION

by

BERTRAM ELLERY THOMAS JR.

(Under the Direction of Joel Lee)

ABSTRACT

The pursuit of continuous quality improvement in public health by local and state health departments has been an increasingly important milestone to achieve. With this increased focus, Public Health Accreditation Board (PHAB) accreditation is a significant benchmark for establishing and maintaining quality among local and state health departments. With successive achievement tier structures, Malcolm Baldrige-type state quality award programs also effectively recognize high-achieving health departments and organizations. However, rural local health departments face geographic; population; economic; and demographic barriers to achieving accreditation and state quality awards that their urban counterparts rarely experience. This qualitative descriptive study was conducted to analyze the effects of and links between the Appalachian region's local health department's 2022 fiscal year service, the economic level of the area's population, and the incentives and barriers that influenced departmental decisions to pursue PHAB accreditation or state quality awards. This study also analyzes the varying

governmental classifications of the Appalachian states and justifies the need for research into the unique public health challenges that the region's health departments face. Appalachia's local and state health departments struggle for limited funding and resources to account for the devastating COVID-19 pandemic, which has presented additional challenges to servicing their target populations. This research determined that the region's local and state governance structures and economic levels did not have a significant effect on the local health department leadership's decision to pursue initial PHAB accreditation or state quality awards, as these decisions were autonomous to each respective department, and guided by their annual budgets and administrative priorities.

INDEX WORDS: Accreditation, Public health, Baldrige, Appalachian Region

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by

BERTRAM ELLERY THOMAS JR.

BA, Morehouse College, 1997

MPH, University of Alabama at Birmingham, 2000

A Dissertation Prospectus Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PUBLIC HEALTH

ATHENS, GEORGIA

2023

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by

BERTRAM ELLERY THOMAS JR.

Major Professor: Joel Lee

Committee: Jori Hall
Kaye Bender

Electronic Version Approved:

Ron Walcott
Vice Provost for Graduate Education and Dean of the Graduate School
The University of Georgia
May 2023

DEDICATION

This dissertation is dedicated to God and my incredibly patient family. First, to God, who has guided my path, provided my spiritual framework, and listened to my silent tears over the years as I stumbled; but who continued to give me the breath and life to accomplish my dreams and those of my parents and ancestors. Thank you for the numerous opportunities to get it right.

Secondly, I would like to dedicate this dissertation to my wife Ann for her patience; cheerleading; strong encouragement; and eventual tough love through the endless late nights of research, data collection, and arduous writing. Tears of pain through intense effort have become tears of joy – I am grateful for all our life experiences during this journey and beyond.

Thirdly, I dedicate this dissertation to our wonderful and brilliant daughters, Bianca and Madison. You were young and oblivious to this intense process when I started. Now, you are teenagers and will hopefully continue to pursue your dreams and maybe even conduct your own research with the support of your loving and patient parents. I am blessed to be a father and a husband who can hopefully learn about the importance of a healthy balance between family life and public health research.

Thank you to our dog Ross for always needing a walk or run during my interviews. That motivation to keep exercising was important.

To my parents, Bert Sr. and Carol Thomas in Oakland, California: thank you for constantly pushing me through my educational and life pursuits, from attaining the rank of Eagle Scout, graduation from Morehouse College and the University of Alabama at Birmingham, and the culmination of my public health graduate education. You instilled incredible values and the ethical foundation upon which I could build. Thank you for your prayers and calls and for believing in me as I explained my doctoral research at the kitchen table when I was home this

past March. I hope that I continue to make you proud. Time for us younger members of the Thomas clan to take care of you two as you enjoy the fruits of your labors. I love you!

To my brother Brian and his wife Marquita: thank you for the words of encouragement; advice; prayers; and the gifts of a brand-new laptop and printer. They, along with the sacrifices that you two made, were instrumental in this process. I send love to the babies Brielle and the newest Thomas addition, Danielle!

To the Gillette; Stewart; Harrison. Rawls; Fallin; Wade; Smith; and Thomas families of San Francisco; Oakland; Antioch; Nice (all California); Chicago; Little Rock; Bessemer, AL; Philadelphia; Birmingham; Houston; New York City; Atlanta; and Augusta, GA: We've lost so many during these years – so many not here to see this day. This dissertation is dedicated to all of them and to all the funerals that I attended or could not attend, due to school and distance.

Thank you for spiritual guidance and prayers from my first pastor, Dr. James Alfred Smith Sr., Emeritus Pastor of Allen Temple Baptist Church, and Elder Henry Dorsey of the Southwest Congregation of Jehovah's Witnesses, who prayed with me and for me during Bible studies every Saturday since 2019. This experience has humbled me and helped me understand the power of having true friends with an undeniable kindness in this oftentimes evil world. Four quotes to live by: "Not failure but low aim is sin" (Dr. Benjamin Elijah Mays) and "Live your life like nobody else will for a few years and you can live your life like nobody else can for the rest of your life" (Anonymous). "Happy are those who dream dreams and are willing to work to make those dreams come true" (Kappa Alpha Psi poem). "To whom much is given, much is required" (Anonymous)

ACKNOWLEDGEMENTS

I would like to thank my dissertation committee chair, Dr. Joel Lee, for admitting me into the DrPH program when he first started, for guiding me into the quality improvement space, and for having extreme patience with me during my life's ups and downs – including myself and family members with COVID-19 during an unforeseeable pandemic. Dr. Lee not only kept me motivated but maintained a high level of expectations and discipline when I needed them.

In 2018, he introduced me to external committee member Dr. Kaye Bender at a time when I did not understand the nuances and inner workings of health department accreditation. Her advice and guidance as a pioneer in starting the Public Health Accreditation Board (PHAB) and embracing the consensus model while steering that organization to prominence is unmatched. She is a true gem and a worldwide icon in quality improvement and health department accreditation. Thank you also for your wisdom and unwavering support while you were busy as President of the American Public Health Association (APHA).

Thank you to my methodologist, Dr. Jori Hall, for guidance and advice in qualitative research. This was not an area in which I had a lot of experience, and I had to learn to navigate NVivo 12 Plus during the data collection and analysis phases. She was and will continue to be a mentor who asked the questions that forced me to look deeper into the results, and I look forward to working with her again in the future.

Dr. Kaye Bender introduced me to Dr. Chelsea Sarri of PHAB, who also wrote a dissertation on accreditation and gave some sound advice. Thank you, Dr. Sarri for taking the time to explain the limitations that you encountered during your research.

Huge thanks to Jessica Kronstadt of PHAB for assisting with my data collection by providing guidance and going above and beyond in assisting me since 2018. You always

responded so quickly to my numerous requests for health department data. Also thank you to Britt Lang for her assistance during the data collection process. Thank you – it all came together like we said it would.

Thank you to Dr. Gurleen Roberts and Health Agency Director Michael Hill for piloting my questionnaire for comprehension and length. Also, thank you to Maggie Carlin from ASTHO for sending me the health department governance information that was a key part of understanding the governance structures. Thank you to Librarian Charles Crisman, Jill Rhoden, and Lisa Jackson at UGA Gwinnett for all your library and administrative assistance. Thank you to Dr. Adam Chen, Dr. Mahmud Khan, Dr. Mumbi Anderson, and Ms. Dell Whitehead for full UGA Athens support through each phase.

Thank you to my former manager and current mentor, Mark Davis of Chickasaw Nation Industries, for being a true mentor and giving me a shot as he was building his public health team. Thank you to Dr. Emma Frazier for my letters of recommendation and pep talks and for always believing in me. Thank you to Ms. Savena Allen and Mrs. Sandra Allen of Idoneous Consulting for being great managers and for being true mentors in public health consulting and entrepreneurship. Continue to be great, and I look forward to working with you in the future.

Thank you to Dr. Craig Thomas and Liza Corso of the Centers for Disease Control and Prevention, who were my preceptors during my doctoral residency. Your passion for health department accreditation and quality improvement truly affected my decision to focus my dissertation on accreditation. Thank you, Tracy Boehmer and Dr. Chandresh Ladva, for the opportunity to research and write a manuscript with you in the Division of Oral Health. Thank you to my current THEEB team Dr. Bryce Smith, Jacqui North, and Amy Bell, for the new research experiences and continued growth. Thank you, Erica Terry of Goldbelt, for making the decision to bring me onto the team while being a positive force in management.

Thank you to Lee Thielen for explaining your previous research on state law mandates and accreditation. Your expert insight was invaluable. Also, I would like to thank Micky Roberts, who provided background and insight into Tennessee state quality awards.

Thank you to my Kappa Alpha Psi Fraternity Inc. line brothers Mark Smith, Dwight Coleman, Donald Pugh, William Hamilton, and Dwayne Grey, who passed away in 2017 and missed this moment. Thank you to NUPES Dr. Hernando Carter and Derrick Johnson, who have looked to me for leadership and have truly inspired me as good brothers and solid human beings. They all had words of encouragement for me as they persevered through their own life struggles. Yo! Also, thank you to my Prince Hall Masonic brothers, especially the brothers Carrollton Lodge No. 57, all York Rite bodies, John L. Martin Consistory No. 367A, and the faithful nobles of Al-Karim Temple No. 242 for giving words of encouragement. Thank you to Past Grand Master of the Most Worshipful Prince Hall Grand Lodge of Georgia, Corey D. Shackleford Sr., and Grand Master Corey Hawkins for the words of encouragement and for letting me know that all of this was worth it.

Thank you to my friend and mentor of Morehouse College and the CDC, Dr. Bill Jenkins who steered me into the public health field and instilled my fire and passion for research through his teaching and guidance at the Morehouse College Public Health Sciences Institute. You are gone too soon, but your legacy continues!

Thank you to my friend and brother, Dave Negustsi, who has persevered through health issues and still found it within himself to provide me with a quiet place to write and decompress. True friends like you only come along once in a lifetime, and I will never forget your kindness and concern. I pray that I can pay it forward someday. Finally, thank you to my original therapist, Dr. Allen C. Carter of Carter and Associates, and my current therapist, Alison Barreiro-Jones, for keeping me grounded during some truly turbulent and uncertain times.

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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

Overview and Objective

This dissertation presents two manuscripts that explore the accreditation of organizations in the public sector as a foundation for the analysis of the process of public health department accreditation and the attainment of Baldrige-based state quality awards. It begins with a review of the evolution of accreditation and the Institute of Medicine's *The Future of the Public Health in the 21st Century* (IOM, 2003) and culminates with an analysis of the standards and measures established by the Public Health Accreditation Board (PHAB), as well as the various state quality award performance standards, to provide a specific framework for public health department accreditation and quality award attainment within the Appalachian region of the United States.

This chapter will open with a comparison of two differently tailored definitions of public health. It will cover the emergence of accreditation in the private and public sectors. The chapter concludes with an in-depth analysis of the incentives and barriers in the public health department accreditation process and the attainment of state quality awards and focuses on the inherent continuous quality improvement challenges within the Appalachian region of the United States.

Public Health Significance

The mission of the United States public health system is to promote and protect the nation's health; historically, the public health system has succeeded in pursuing this goal (Derose et al., 2002). With an increasing emphasis on continuous public health quality improvement in public health, health disparities, and performance measurement, additional research is necessary to understand the unique challenges and continuously changing quality paradigms on the path to health department accreditation

and the attainment of state quality performance awards. The Institutes of Medicine (IOM) define quality of healthcare as the "degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Lohr & Shroeder, 1990). Initiatives that measure local health department (LHD) quality have fostered team building, role clarification among individuals and programs, and communication with external audiences (Griffin & Welch, 1995).

Health disparities are defined as a health difference that is closely linked with a social, economic, and environmental disadvantage that can adversely affect groups of people who have systematically experienced more significant obstacles to health based on their racial or ethnic groups, religion, socioeconomic status, gender, age, mental health, physical disability, sexual orientation, geographic location, and other characteristics historically linked to discrimination or exclusion (USDHHS, 2010). The Appalachian region presents these geographic challenges and many public health disparities due to avoidable barriers within the healthcare delivery system (NCSL, 2014).

Purpose of the Study

More research is needed to explore the intricate factors that guide the decisions of health department leadership in each Appalachian state to pursue either Public Health Accreditation Board (PHAB) accreditation or to pursue state quality awards – or both, or, in some cases, neither. Overall, a genuine commitment to increased quality drives the decision to pursue accreditation and state quality awards, which are one of the cornerstones of continued success in public health practice (Derose et al., 2002). Therefore, research in this area is integral for improving comprehension of these decision drivers and may provide a valuable roadmap for health departments when making these decisions in the future. This study focuses on the Appalachian region because of its unique rural population, socioeconomic demographic, and the challenges of maintaining continuous quality improvement for health

departments that serve a population experiencing a myriad of health disparities and a general lack of healthcare access.

Research Questions

This dissertation consists of two qualitative manuscripts that focus on Appalachia's local and state health departments pursuing PHAB accreditation or state quality awards. The following research question and corresponding hypothesis guide the first manuscript:

Question 1.1: What are the governance structures of the Appalachian states that have PHAB-accredited health departments or departments that have received state quality awards? How do these structures and the county economic levels for the 2022 fiscal year affect the departments' decisions to pursue these benchmarks of quality?

Hypothesis 1.1: Appalachian states and counties with higher economic levels and fewer health disparities will have more local and state health departments of health that received either PHAB accreditation or state quality awards (or are currently pursuing either category) than those with lower economic levels. This may indicate that health departments that meet such quality improvement benchmarks have a more substantial positive effect on economic levels and health disparities within their service area.

The second phase of the dissertation consists of a second manuscript that asks the following research question (with corresponding hypothesis):

Question 2.1: What are the incentives and the barriers experienced by local and state health departments in rural Appalachia during the path to successful PHAB accreditation or state quality performance award attainment? How do such incentives and barriers influence departmental decisions to pursue accreditation or performance awards?

Hypothesis 2.1: Incentives that provide a robust financial foundation during the PHAB accreditation and state quality award application process, along with staff training in continuous quality improvement, are integral for removing barriers – such as financial constraints and a lack of knowledge – that prevent successful PHAB accreditation or state quality award application.

Background

Charles-Edward Amory Winslow, professor of public health at Yale University, defined public health as the science and the art of preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing service for the early diagnosis and preventative treatment of disease, and the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health (Winslow, 1920).

Winslow's broad and complex tailored definition of public health was, in 1920, an attempt to frame the future of public health as a progressive entity, rather than its past existence as primarily a police power (Winslow, 1920). Paul Starr (1982) countered Winslow's definition with the perspective that a broad definition of public health and its intended functions were an "invitation to the conflict," in that public health cannot effectively accomplish all these activities without eventually violating the private beliefs, private property, or the prerogatives of other institutions.

The history of public health also includes an intersection with mandates from external entities. Public health authorities have encountered opposition from religious groups and other groups with "moral objections" to state interventions. By contrast, public health has also faced opposition from businesses and other representatives of commerce seeking to protect their economic interests from

public health agencies "intruding" upon activities that the medical profession believed to be their own (Starr, 1982). Currently, public health agencies, politics, and the medical profession are engaged in a similar conflict regarding the effective management of the COVID-19 pandemic and the various levels of involvement by each entity.

The Emergence of Accreditation

The evolution of public health also includes an increasing emphasis on quality improvement as an overarching goal to create measurable benchmarks in the public sector. Accreditation across industries is "a conformity assessment process where organizations define standards of acceptable operation/performance and then measure compliance with them" (Hamm, 2007). Specifically in healthcare, though, Rooney and Van Ostenberg (1999) define “accreditation” as "a formal process by which a recognized body, usually a non-governmental organization (NGO), assesses and recognizes that a healthcare action meets applicable pre-determined and published standards." These definitions provide a sound framework for this dissertation’s discussion of accreditation to increase the performance and quality of public health organizations in the United States.

As a necessary quality improvement process, accreditation has withstood the test of time. The accreditation process in the public and private sectors is more than one hundred years old and originated with concerns over protecting the public's health and safety (Eaton, 2009). At some point, many industries across the private and public sectors considered the development of performance standards a viable process to measure quality; accreditation bodies play a vital role in these industries’ quality improvement activities (Hamm, 2007).

Mission and Goals of Accreditation Organizations Versus Licensure

Accreditation bodies have similar goals driven by the motivation to define quality and measure quality accurately. The objectives of these accrediting bodies are supported by concise vision and mission statements, which include improving quality in their respective fields (Hamm, 2007). The Joint Commission on Accreditation of Healthcare Organizations (JCAHO- The Joint Commission), the United States' oldest and largest standards-setting accrediting body, has the following mission statement: "To continuously improve health care for the public, in collaboration with other stakeholders, by evaluating health care organizations and inspiring them to excel in providing safe and effective care of the highest quality and value" (JCAHO, 2020). This statement emphasizes continuous quality improvement through healthcare accreditation and supporting performance improvement through supplemental services. The Joint Commission represents 4477 hospitals, or 88% of all accredited hospitals in the United States (Jha, 2018).

The National Committee for Quality Assurance (NCQA), founded in 1979, is a private nonprofit organization dedicated to assessing the quality of managed care plans (Viswanathan et al., 2000). This organization accredits managed care plans and offers the following mission related to health plans and consumer protection: "NCQA's mission is to provide information that enables purchasers and consumers of managed healthcare to distinguish among plans among plans based on quality, thereby allowing them to make more informed healthcare purchasing decisions" (NCQA, 2000).

The American Accreditation Healthcare Commission (AAHC), chartered in 1990 as the Utilization Review Accreditation Commission, Inc. (URAC), changed its name in 1996 because of the expansion of programs targeted to address a broad range of managed care activities. The AAHC's mission statement is as follows: "To promote continuous quality improvement and establish standards for the managed care industry." (Viswanathan et al., 2000). Each of these accreditation bodies focuses

on continuous quality improvement while setting benchmark standards to measure performance levels in the healthcare industry.

Licensure differs from accreditation in that governmental entities oversee the process, whereas non-governmental organizations (NGOs) have direction over accreditation. Rooney and Van Ostenberg (1999) define licensure as "a process by which a governmental authority grants permission to an individual practitioner or healthcare organization to operate or engage in an occupation or profession." While Licensure regulations and standards in public health were established to define the minimal requirements are required by law or regulation to ensure that an individual practitioner or organization meets the minimum standard to protect the public's health and safety, accreditation standards are voluntary and "are usually regarded as optimal and achievable and are designed to encourage continuous improvement efforts within accredited organizations" (Rooney & Van Ostenberg, 1999).

Organizations can be both licensed and accredited; licensure grants an organization the privilege of operating after meeting minimum standards as a function of government oversight. At the same time, accreditation serves as a function of private entities that establish the benchmarks of increasing standards of quality. For example, hospitals must be both licensedlicensed by their respective state tohave valid accreditation status to receive reimbursement for services from external entities. The Centers for Medicare and Medicaid Services (CMS) encourages most hospitals to become accredited and requires that hospitals be accredited or pass state inspection to receive Medicare reimbursement (Jha, 2018).

Accreditation as a Catalyst for Change through Accountability and Increased Responsibility

Accreditation organizations create change elements as an essential component of the quality improvement process. Creating new accreditation programs in the public and private sectors encourages broad institutional change that improves quality and performance (Hamm, 2007).

Accountability and support from an organization's internal stakeholders create a symbiotic relationship that strengthens quality and performance. Accreditation application signatures from an organization's leadership confirms that the organization will follow the accreditation program standards and commit to continual compliance and quality improvement programs – often, these are the essential components for achieving accreditation (Hamm, 2007). This approach increases the commitment of and accountability from the highest levels of leadership throughout successful navigation of the accreditation process.

Accreditation as a catalyst for change can also be found in the quest to balance a team approach to high quality and a commitment to social responsibility. Donabedian (1980) emphasized the importance of a balance between technical care and social responsibility, with high-quality care defined as "that kind of care which expected to maximize an inclusive measure of patient welfare after one has taken into account of the balance of expected gains and losses that attend the process of care in all of its parts." This, in turn, refers to the incorporation of the patient's perspective into almost every quality measure, as it is recognized that outcomes are essential for assessing the performance of today's healthcare organizations and linking them to cost-effectiveness. Ultimately, continuous quality improvement requires team participation, a fundamental component of accreditation (Viswanathan & Salmon, 2000).

Organizational Purposes and Goal Alignment with Accreditation Standards

An accreditation program's purpose and goals correlate directly with the interests of the institution that created the program. Accreditation programs designed by service providers are more likely to emphasize goals of mutual interest to the service industry, distinguishing the industry from

competing service providers while limiting the entrance of new or inferior organizations into the sector (Conover & Zeitler, 2004). By contrast, accreditation programs created by consumers may pursue goals that ensure the quality and value of the services provided by the industry (Mays, 2004). In the case of accreditation programs that fall under the governance of multiple stakeholders, the program's goals may represent objectives shared among all stakeholders; it may also describe a mix of objectives preferred by individual stakeholders, with the combination determined by "the amount of power and control" each stakeholder wields (Mays, 2004). Table 1 lists examples of provider-focused and purchaser/consumer-shared objectives pursued by accreditation programs for health and social service organizations.

Quality improvement and accreditation processes in the private sector have clear and defined benefits with attributes both similar to and different from those in the public health field. These attributes include defining and measuring quality for eligible applicants, which is a critical theme in the vision or mission of most accrediting bodies (Mays, 2004). Organizations that decide to pursue accreditation enhance their quality improvement culture by choosing a path of continuous approval as a condition of achieving and maintaining accreditation: the choice ensures a long-term commitment to quality, one that thereby reduces costs; meets customer demands; increases profits; and improves efficiency/productivity programs (Mays, 2004). Private consultants often use the standards and criteria of good and effective accreditation programs as templates for audits and organizational improvement programs (Mays, 2004). These continuous quality improvement motivations for accreditation in the public and private sectors became the foundation of a national voluntary accreditation program to establish standards and measures for public health agencies while creating effective benchmarks to measure performance.

The Institute of Medicine (2003) report also discussed the need to strengthen public health infrastructure and increase state and local public health agency accountability by performing the core

public health functions and addressing the 10 Essential Public Health Services (EPHS). These 10 services, depicted in Figure 1 below, have served as a framework for carrying out the mission of public health for 28 years (1994). They also suggest a description of activities that public health systems should undertake in all communities, with a focus on the three core functions of public health: assessment, policy development, and assurance (CDC et al., 2020). The IOM released a new framework on September 9, 2020, updating its original with current and future public health practices and a renewed intent to "protect and promote the health of all people in all communities," while acknowledging that "the original [1994] framework was used in the initial phases of the evolution of accreditation in public health and served as the foundation for this study" (CDC et al., 2020).

The following 10 Essential Public Health Services are those "public health activities that all communities should undertake":

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues

4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise available
8. Assure competent public health and personal healthcare workforce

Table 1.

Goals and Objectives Pursued by Accreditation Programs for Health and Social Service Organizations

Provider-Focused Objectives

- Promote professionalization, visibility, and legitimacy of the service industry
- Increase demand for services produced by the industry
- Distinguish industry-provided services from those of competing industries
- Limit entry of new and inferior organizations into the industry
- Reduce the need for direct governmental regulation of the service industry
- Encourage increased public and private contribution of resources necessary to achieve and maintain accreditation
- Facilitate recruitment and retention of skilled staff
- Provide a buffer against political influence

Purchaser, Consumer, and Shared Objectives

- Ensure and improve the overall quality and safety of provided services
- Ensure and improve the overall cost-efficiency and value of provided services
- Reduce variation in the type and nature of services provided and ensure that providers can deliver a standard set of services
- Encourage adherence to best practices in service delivery and operation
- Facilitate coordination and interoperability of services provided by different organizations
- Ensure the institutional and financial stability of service organizations

Note: Adapted from "Can Accreditation Work in Public Health? Lessons from Other Service Industries," by G.P. Mays, 2004, Robert Wood Johnson Foundation., p. 6.

9. Evaluate the effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems (CDC et al., 2020).

The CDC's perspective held that "any national accreditation system would have to be voluntary, run by a non-governmental third party, have standards set by the field, and recognize any state process for accreditation or standard reviews" (Thielen, 2004).

Furthermore, the possible roles that the CDC could assume in the accreditation of public health agencies includes:

> Funding of the infrastructure work needed for the accreditation process and continued support for accountability instrument development; Identifying minimum criteria for any state's accreditation program; sponsoring forums for the exchange of information and evaluation of tools and processes; evaluation of accreditation programs and their impact on the health of the community; and providing support for training, technical assistance, consultants, and peer assistance for state and local programs. (Thielen, 2004).

In 2005, the Robert Wood Johnson Foundation and the CDC funded the "Exploring Accreditation Project," which investigated the desirability and feasibility of public health accreditation (Bender, Kronstadt, Wilcox, & Lee, 2014). The external accreditation expertise provided education and direction to the Steering Committee, Workgroups, and staff on the integral concepts of accreditation while also conducting market research to assess the feasibility of the proposed model and providing final recommendations (Exploring Accreditation Project Report, 2007). The Association of State and Territorial Health Officials (ASTHO) and the National Association of County & City Health Officials (NACCHO) worked in conjunction with the Steering Committee to select the candidates who represented the national public health associations and states with existing standards and accreditation programs. Candidates participated in a series of 22 scripted telephone surveys, conducted in March 2006, to collect marketing data regarding the new credentialing efforts (Exploring Accreditation Project Report, 2006). The 22 participants were made up of seven national public health association

representatives; one member each from a state and local board of health; nine state health department representatives; and four local health department representatives (Exploring Accreditation Project Report, 2006).

The key discussion questions that resulted from these interviews were:

- What are the benefits to high-performing health departments?
- What are the incentives to attract small health departments?
- Is it voluntary?
- What resources are available to apply for and maintain accreditation?
- What are the capacity levels needed to receive accreditation?
- How does this affect existing state accreditation programs?
- What is the federal government's role?
- What will accreditation cost?
- How will it impact categorical programs?
- How will varying governance structures be accommodated?

The results of these surveys were shared with the Steering Committee in April 2006. The findings guided the development of the draft version of the recommendations (Exploring Accreditation Project Report, 2006).

Established accreditation programs can provide valuable insight into the accreditation process and the long-term maintenance of such programs. In developing a viable and sustainable voluntary national accreditation program for state and local health departments, researchers investigated extant accreditation programs across a broad range of fields in an effort at transferring those programs' broad

knowledge and experiences outside the public health field for use in the accreditation study (Exploring Accreditation Project Report, 2006). Table 2 shows the domestic and international organizations included in the investigation, which were instrumental in providing diverse feedback by creating an initial outline for the potential measures and indicators. This outline guided the iterative and outcome refinement process of A voluntary national accreditation program (Exploring Accreditation Project Report, 2006).

The accreditation evaluation results found it both feasible and desirable to proceed with establishing a voluntary program and recommended that such a program include four integral features:

1. Promote high performance and continuous quality improvement;
2. Recognize high performers that meet nationally accepted standards of quality;
3. Clarify the public's expectations of state and local health departments;
4. Increase the visibility and public awareness of governmental public health. (Exploring Accreditation Project Report, 2006).

The steering committee's recommendations became the foundation of the Public Health Accreditation Board. A voluntary national public health agency aims to improve and protect the public's health by advancing the quality and performance of state and local public health agencies (Mays, 2004).

The Emergence of the Public Health Accreditation Board

PHAB was established and incorporated in May 2007 as the nonprofit organization for administering the national public health accrediting body, through funding provided by the Robert Wood Johnson Foundation and the CDC (Bender, Kronstadt, Wilcox, & Lee, 2014). Its mission is to "improve and protect the health of the public by advancing and transforming the quality and performance of governmental public health agencies" (PHAB, 2020). Involved in various elements of the program's development were more than 400

Figure 1. The Original 10 Essential Public Health Services

Figure 1. The 10 Essential Public Health Services (1994). Adapted from "The 10 Essential Public Health Services" by the Core Public Health Functions Steering Committee, 1994.

public health practitioners; public health professionals; members of academic communities; and national partner representatives, among them the American Public Health Association (APHA); the Association of State and Territorial Health Officials (ASTHO); the National Association of Local Boards of Health (NALBOH); and the National Indian Health Board (NIHB) (Bender et al., 2014). (Table 2 displays a partial list of the 400 members.)

The National Public Health Performance Standards (NPHPS) provide a framework to assess the performance of public health systems and public health governance systems to help identify areas for system improvement and strengthen state and local partnerships. The framework can also improve organizational and community communication and collaboration; educate participants about public health and the interconnectedness of activities; strengthen the diverse network of partners within the state and local public health systems; identify strengths and weaknesses to address in quality improvement efforts; and provide a benchmark for public health practice improvements (CDC, 2020).

PHAB encountered significant challenges in creating viable and relevant public health standards applicable to multiple health agency settings. These included assuring that "the standards and measures used to accredit state, local, tribal, and territorial public health departments are relevant to public health practice in each of those settings" while simultaneously accounting for the significant variance and diversity between public health departments to include governance structures and the relationships between state and local public health departments (Ingram, Bender, Wilcox, & Kronstadt, 2014). To ensure that the accreditation program remained consensus based, PHAB convened a workgroup and a series of discussion meetings (i.e., think tanks) to develop standards for measuring health department performance (Ingram et al., 2014). The workgroup, composed of public health professionals, experts, and researchers, was built upon the NPHPS standards' original framework (CDC, 2020).

Workgroup members conducted alpha and beta tests for the standards and measures, as well as for their influence on accreditation. The alpha test assessed the draft standards and measures through a desk review conducted by eight health departments, plus a public vetting period that "yielded approximately 3,690 comments from the public health community" (Bender et al., 2014). The beta test, consisting of eight state, 19 local, and two tribal health departments, was intended to guide the accreditation process and the standards and measures of the draft from the perspective of the health department applicant, site visitor, and PHAB staff accreditation process. This involved three phases:

Table 2.

Organizations included in the Evaluation of Accreditation Programs

American Association of Museums
American Forest & Paper Association's Environmental, Health & Safety Principles Program
American Psychological Association Council on Accreditation
The American National Standards Institute (ANSI)
American Zoo and Aquarium Organization
The Chemical Industry's Responsible Care Program
Council on Accreditation
DIN (German Institute for Standardization)
Green Globe 21
Fair Trade Labeling Organization
Ecotel
International Accreditation Forum, Inc.
The International Electrotechnical Commission
International Organization for Standardization
ISO Environmental Management
Commission on Accreditation for Law Enforcement Agencies

Note. The Full Report is adapted from the "Exploring Accreditation for a National Voluntary National Accreditation Program for State and Local Health Departments" *Full Report.* Winter 2006-2007.

application, self-assessment, and site visit (NORC, 2011). To ensure a diverse cross-section of health departments in the beta test process, PHAB chose departments that varied in size; structure; population served; governance; geographic region; and degree of preparedness (PHAB, 2020). The University of Chicago's non-partisan and objective research organization, the National Opinion Research Center (NORC), used these findings to modify the accreditation process and standards and measures in

preparation for the release of the Voluntary National Accreditation Program for State and Local Health Departments (NORC, 2011).

On September 14, 2011, PHAB celebrated the completion of its accreditation process with a celebratory event in Washington, D.C. that included health department staff; national partner representatives; board members; and other stakeholders (Bender et al., 2014). Then, after 18 months of review, PHAB awarded five-year accreditation to 11 public health departments on February 28, 2013, as shown in Table 3 (Bender et al., 2014).

PHAB Accreditation Standards and Measures

PHAB released Version 1.0 of its standards and measures in July 2011. They accounted for considerable variance between public health departments: the size of the population served, the governance structure, and any services offered (Ingram et al., 2014). As a result, the standards and measures are organized into 12 domains (Appendix B), the first 10 of which address the 10 Essential Public Health Services (EPHS). Domain 11 focuses on management and administration and Domain 12 addresses governance (Public Health Functions Steering Committee, 1994 & Bender et al., 2014). Each domain is composed of two or more standards, which reflect "the required level of achievement that a health department is expected to meet" (PHAB, 2011). Together, the domains and standards function as a roadmap of continuous quality improvement benchmarks for public health agency accreditation. The PHAB domains remain constant for Tribal, state, and local health departments (LHDs), although there is some variation in the measures for which each health department documentation (Bender et al., 2014); two measures for LHDs, reflecting services/activities, do not exist for Tribal organizations (K. Bender, personal communication, 2020).

Table 3.

The First 11 Health Departments Accredited by the Public Health Accreditation Board

Comanche County Health Department (Lawton, Oklahoma)
Franklin County Health Department (Frankfort, Kentucky)
Livingston County Department of Health (Mt Morris, New York)
Northern Kentucky Independent District Health Department (Edgewood, Kentucky)
Oklahoma City-County Health Department (Oklahoma City, Oklahoma)
Oklahoma State Department of Health (Oklahoma City, Oklahoma)
Spokane Regional Health District (Spokane, Washington)
The Public Health Authority of Cabarrus County, Inc., d/b/a Cabarrus Health Alliance (Kannapolis, North Carolina)
Three Rivers District Health Department (Owenton, Kentucky)
Washington State Department of Health (Olympia, Washington)
West Allis Health Department (West Allis, Wisconsin)

Note. Abbreviation: d/b/a. I am doing business as. Adapted from "Overview of the Public Health Accreditation Board," by K. Bender, J. Kronstadt, R. Wilcox, and T.P. Lee, 2014, *Journal of Public Health Management and Practice*, 20(1), p. 6.

State health departments must satisfy more measures, as there are several domains for which PHAB requires them to provide technical assistance or information to LHDs and Tribal health departments (K. Bender, personal communication, 2020). Although the standards are not specific to a particular public health program, many of the functions they address are appropriate for all program areas, including planning, community engagement, and evaluation (Bender et al., 2014). These standards and measures provide a concise baseline of expectations for the health departments to meet, and have likewise been updated since the inception of PHAB accreditation. Version 1.0 included 99 measures for Tribal health departments, 105 for state health departments, and 97 measures for local health departments. Each measure consisted of a description of the measure's purpose; its significance; any required documentation; and additional guidance (Bender et al., 2014). Three years later, in July of 2014, PHAB instituted Version 1.5 of its standards and measures.

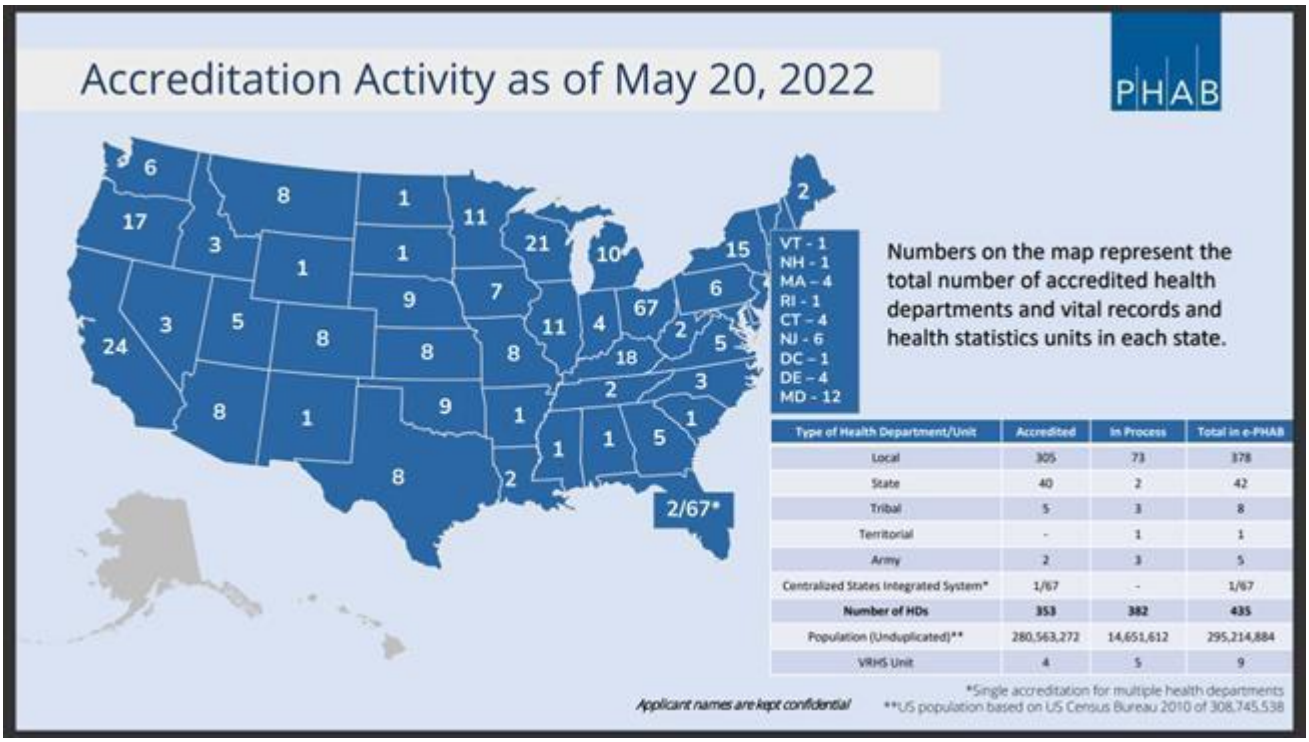
Figure 2 shows that as of May 20, 2022, approximately 15.3% of public health agencies in the United States have been accredited under either the PHAB's Standard and Measures Version 1.0 or 1.5. This figure includes the 40 state, 305 local, and five Tribal health departments; one statewide integrated health system; two Army installations; and four vital records/health statistics units that have achieved initial five-year accreditation, which ensures "the benefits of PHAB accreditation" and public health agency continuous quality improvement for 91% (273,563,272) of the United States' population (308,745,538) (PHAB, 2022 & U.S. Census, 2010). Between 2013 and 2022, PHAB accreditation expanded from 125 applicants and 11 accredited health departments (8.8%) to 2300 agencies and 353 total accreditations (15.3%) (PHAB, 2022).

Furthermore, it is essential to highlight Florida, which is a state of centralized governance, meaning that the employees of its 67 local health departments are also state employees. This makes Florida the only statewide integrated health system to achieve full accreditation for each of its entire

local public health department systems.

In July 2011, PHAB also released a guideline for the seven steps of the accreditation process. As shown in Table 4, the seven steps amount to a rigorous, systematic framework, beginning with a pre- application step assessing the health department. Readiness culminates with the reaccreditation process, one that all PHAB-accredited health departments must complete every five years to maintain their status (PHAB, 2020).

Figure 2. Initial and Reaccreditation Activity by State as of May 20, 2022



Type of Health Department/Unit	Accredited	In Process	Total in e-PHAB
Local	305	73	378
State	40	2	42
Tribal	5	3	8
Territorial	-	1	1
Army	2	3	5
Centralized States Integrated System*	1/67	-	1/67
Number of HDs	**353**	**382**	**435**
Population (Unduplicated)**	280,563,272	14,651,612	295,214,884
VRHS Unit	4	5	9

Figure 2. Initial and Reaccreditation Activity by State as of May 20, 2022. Adapted from "Who is Accredited?" by Public Health Accreditation Board, 2022. Copyright 2022 by the Public Health Accreditation Board.

The Value of a Consensus-Based Approach to Voluntary Accreditation

Expanding accreditation throughout the United States represented a gradual process requiring buy-in from health departments and national partners through a consensus process. The consensus process became the foundation of accreditation standards and measures for the national voluntary accreditation program, one that gained nationwide acceptance and support. PHAB continued its think tank/expert panel methodology to engage thought leaders in conversations on public health and accreditation topics and to show its clear commitment to serving as a consensus organization, one that values and gathers feedback from public health professionals by "providing opportunities to vet the standards and measures" while creating discussion forums at national meetings to solicit input from site visitors and health departments (Ingram et al., 2014).

Table 4.

The Seven Steps of Public Health Department Accreditation

1. Pre-Application
2. Application
3. Document Selection and Submission
4. Site Visit
5. Accreditation Decision
6. Reports
7. Reaccreditation

Note. Adapted from "The Seven Steps of Public Health Department Accreditation" by the Public Health Accreditation Board, 2020. Copyright 2020 by the Public Health Accreditation Board.

Benefits of Health Department Accreditation

Accreditation offers many benefits for local, state, and Tribal health departments, Florida's statewide integrated local public health department system, and Army installation Departments of Health. According to Russo (2007), the "most explicit benefit of public health agency accreditation" is creating a benchmark of consistent standards of public health services that should be recognized in every community in the United States. Additional expected accreditation benefits include improved staff morale; increased awareness of other agency's activities; information sharing; and a platform for quality improvement that emphasizes establishing a means for documenting accountability to both the public and policymakers. Accreditation achieves the latter benefit by demonstrating outcomes and performance data that give public health leaders and advocates the ability to show positive results of public health fund allocations (Russo, 2007).

The benefits of accreditation become even more evident when accredited health departments are compared with non-accredited health departments. A study conducted by Hefferman, Kennedy, Siegfried, & Meit (2018) found that one year after accreditation, accredited health departments were "more likely to report a higher level of staff knowledge of quality improvement and a stronger quality improvement infrastructure within their agency than nonapplicants." The study also found that health departments actively engaged in the accreditation process were more likely to be able to undertake quality improvement initiatives while simultaneously increasing awareness of their own strengths and weaknesses regarding their focus on quality improvement (Heffermann et al., 2018). Public health department accreditation is a reasonable assurance that a given health department can fulfill its roles and responsibilities to ensure continuous quality improvement (Klater, Mason, & Gorenflo, 2011).

Public Health Department Reaccreditation

Initial PHAB accreditation covers a term of five years. The overarching theme of the

reaccreditation process is continuous improvement, rather than maintaining a baseline of quality. Previously accredited health departments must explain how they addressed essential public health services during their accreditation period and reflect on how they plan to continue improving (PHAB, 2021). Departments must apply for and successfully achieve reaccreditation to maintain their active status; without it, they are forced to reapply for accreditation, which can be a time-consuming and cost-prohibitive process (PHAB, 2021).

Reaccreditation is intended to ensure that accredited health departments "evolve, improve, and advance" to become "increasingly effective at improving the health of the population that they serve" (PHAB, 2021). On February 12, 2021, PHAB awarded national reaccreditation to eight departments of health: Clackamas County Public Health (OR); the Cook County Department of Public Health (IL), the Comanche County Health Department (OK); the Erie County Department of Health (PA); the Lexington-Fayette County Health Department (KY); the Kent County Health Department (MI), RiverStone Health (MT); and the DuPage County Health Department (IL) (PHAB, 2021). Three months later, on May 14, four more departments joined them: the Barren River District Health Department (KY); the Houston Health Department (TX); the Johnson County Department of Health and Environment (KS); and the New Orleans Health Department. And as of May 2022, a total of 68 state and local health departments have achieved their five-year national reaccreditation (PHAB, 2022).

Public Health Accreditation Logic Models and Health Outcomes

A public health logic model framework effectively illustrates how accreditation impacts various levels of health outcomes. A logic model is an integral tool used to assist researchers "in understanding the goals of accreditation so that they can systematically test the links between the work of the accreditation system and the outputs, proximate outcomes, intermediate outcomes, and ultimate

outcomes, in turn" (PHAB, 2017). The accreditation literature uses observational design studies primarily, and suggests that the differences in outcomes between accredited and unaccredited organizations may be attributed to two sources of bias: selection bias and program effect (Zaza, Briss, & Harris, 2005). According to Zaza et al. (2005), the former may occur because organizations and health departments of a higher quality and those that serve a larger population may self-select to participate in an accreditation program, while the latter may be attributed to organizations and health departments that participate in accreditation improving their service quality continuously to meet program standards rather than having met the standards of accreditation before participating in the program.

Logic models share a basic universal structure, and some have evolved to illustrate the changing dynamics of accreditation. Below, Figure 3 depicts the Public Health Agency Accreditation System logic model revised by the PHAB Research Advisory Council and the Evaluation and Quality Improvement Committee and approved by the PHAB Board of Directors in June 2007. This logic model presents a scenario for how inputs and strategies might lead to outputs and outcomes for PHAB, participating health departments, and the public health field to include accredited health departments (represented in white) (PHAB, 2020). PHAB's contributions are defined in yellow. Stakeholders; funders; partner organizations; and researchers are represented by pink. And individual public health agencies that participate in the accreditation process are blue (PHAB, 2020). The comparable outcomes column represents results that may become evident in the short term (1-3 years) and that are considered directly related to the accreditation process, while the ultimate outcomes column represents results expected to occur in the longer term (7-10 years) and affected by many confounding factors (PHAB, 2020). This logic model illustrates the systematic relationship between the inputs and outputs of PHAB, health departments, and public health stakeholders, with the expected proximate (short-term), intermediate, and long-term outcomes of transforming the public health system (Roberts, 2019).

Figure 3. Public Health Accreditation Logic Model

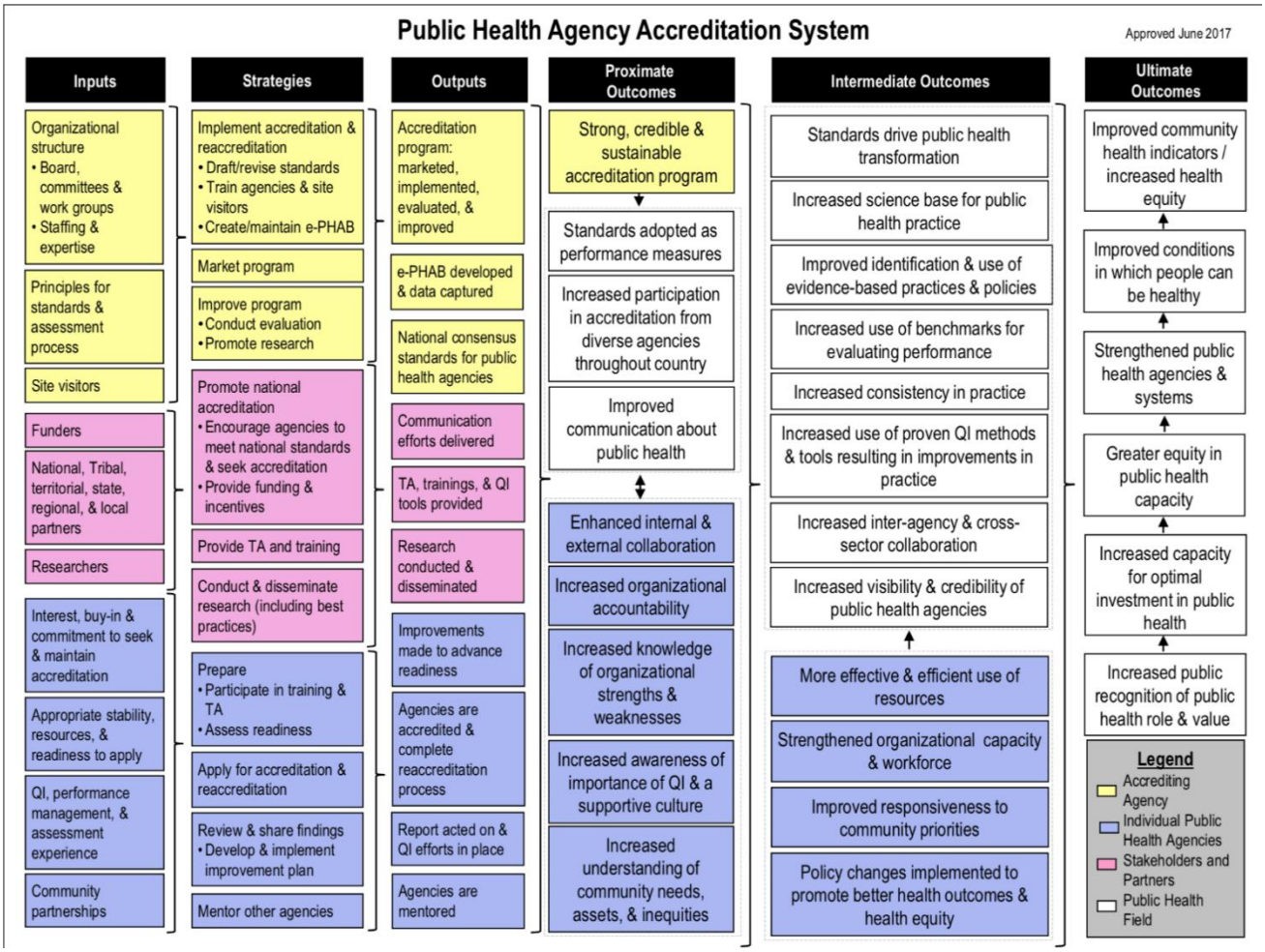


Figure 3. Public Health Accreditation Logic Model. Adapted from "Public Health Agency Accreditation System Logic Model" by Public Health Accreditation Board, 2017. Copyright 2020 by Public Health Accreditation Board.

Public Health Governance Structures in the United States

A 1974 survey of local health officers revealed several organizational patterns in the United States representing the functional and administrative relationships between local health departments, state governments, and local governing bodies (Miller et al., 1977). The three organizational structures that characterize the administrative relationships between local health departments and state

governments are centralized, decentralized, and shared (DeFriese et al., 1981). After receiving valuable input the stakeholders determined that a more accurate description of the administrative relationships between local health departments and state and local governments would be a four-fold topology, one that included an additional category: "mixed centralized and decentralized structures of organizational control" (DeFriese et al., 1981).

The definition of each organizational structure is as follows:

- Centralized Organization: Local health units that function directly under the state's authority and are operated by a state department of public health or a state board of health.
- Decentralized Organization: Local government – a city, township, county, or some combination of them – operates a health department either directly or with the intervening authority of a local board of health. The state health department offers relevant advice and consultation to the local board of health, the local health department, or both.
- Shared Organizational Control: Local health departments are operated by a local government directly or through a local board of health. In certain instances, these health departments also fall under the state health department's authority and may be required to submit program plans and budgets to the state for health departments to qualify for state or federal funds.
- Mixed Centralized and Decentralized Structure of Organizational Control: Local health services in the same state may come from by the state health department, local government entities, or respective health boards.

Each organizational structure presents its own challenges regarding decision-making and the overall administrative direction of the health departments in their respective jurisdictions (DeFriese et al., 1981).

The structural relationship between state health agencies and regional/local health departments has important implications for delivering essential public health services and differs between states (ASTHO, 2017). According to the 2017 profile of state and territorial public health by the Association of State and Territorial Health Officials (ASTHO), approximately 30% (N=14) of states have a centralized or largely centralized governance structure in which state employees primarily lead local health departments. The state maintains authority over issuing public health orders and selecting the local lead health official. By contrast, 8% of states (N=4) have a shared governance system, in which state or local employees lead the local health units.

In 2016, ASTHO published a profile of governance structures and their relationships with local health departments. Appendix C shows the state; governance classification; the number of independent local health departments led by local governments; the number of state-run local health departments led by state governments; the number of independent regional or district health departments led by non-state governments; and the number of state-run regional and district health departments led by each state. According to the data in Appendix C, over half of the states use a decentralized or largely decentralized governance structure, in which local government employees lead local health departments and the local government retains authority over fiscal and most critical decisions (ASTHO, 2016). Health departments with a decentralized governance structure and a local board of health are more likely to apply for accreditation because they have more local authority and the autonomy to make strategic quality improvement decisions (Roberts, 2019).

The states that operate under mixed governance have some local health departments led by state employees (centralized) and some led by employees of local government (decentralized); neither arrangement is predominant (ASTHO, 2012). Shared governance structures have local health departments led by either state or local government employees. The local government retains authority over financial decisions made by state employees (ASTHO, 2012).

Incentives to Achieve Public Health Accreditation

Mays (2004) posited that the success experienced by a voluntary accreditation program achieving widespread adoption hinged mainly upon the "strength of the incentives faced by the organization within the industry to pursue accreditation." Incentives can help overcome the barriers of accreditation efforts. Organizations must weigh any incentives against the required accreditation costs to determine whether accreditation is justified by a sufficient business case (Mays, 2004). In a survey of state and local health departments, Davis et al. (2009) found that agencies valued similar primary incentives: financial support; infrastructure; quality improvement support; and grant application flexibility. Similarly, local health departments considered technical assistance a strong incentive, while marketing and recognition were secondary motivating incentives (Thielen, Dauer, Burkhardt, Lampe, and VanRaemdonck, 2014).

High performance and continuous quality improvement are integral goals supplemented by incentives in public health accreditation. Historically, state and local health departments have placed a high value on continuous quality improvement with a strong emphasis on positive incentives, including access to funding for quality and performance improvement; funding to address infrastructure gaps identified in the accreditation process; opportunities to test new programs and operations; streamlined application processes for grants and programs; acceptance of accreditation instead of other accountability processes; and improved access to resources for recruiting and retaining a high-quality workforce through reputation and an improved working environment (Exploring Accreditation for a Voluntary National Accreditation Program for State and Local Public Health Departments, 2007). As a result of these and other solid incentives, accreditation is anticipated to result in several benefits, among them the expectation that it will strengthen continuous quality improvement efforts and ultimately improve the health of the people in the communities served by the accrediting agency (Beitsch et al., 2014).

Specific incentives have been found to encourage active participation in public health accreditation. One systematic study on public health accreditation incentives by the North Carolina Institute for Public Health (NCIPH, 2008) identified the following potential motivational incentives:

- **Grant Application Incentives.** These are incentives associated with the grant application processes, including preliminary applicant options, streamlining application processes, and accreditation status consideration as part of the scoring criteria.
- **Marketing Incentives.** These are incentives for a health agency that receives public recognition upon achieving accreditation. Marketing incentives include awards (e.g., "provision of awards to accrediting agencies"); classification (e.g., "achieving accreditation with distinction ratings"); outcomes (e.g., "promoting agendas for high-quality services and improved outcomes"); promotion (e.g., "agencies should use accreditation status for self-promotion"); and communication of the utility and value of the public health agency in their respective community service area.
- **Motivational Incentives.** These are incentives that motivate an agency to participate in the public health accreditation process through a perceived benefit. Motivational incentives consist of external and internal incentives:

  -External motivational incentives are incentives that improve working relationships between agency personnel and personnel in other agencies (e.g., "improved relationships between state and local personnel").

  -Internal Motivational Incentives include the fact that the accreditation process can be a team building and strengthening experience for the agency staff. The process promotes staff comprehension of how their specific jobs contribute to the health department's mission and essential services. Additionally, accreditation can be a means of demonstrating leadership throughout the personnel structure.

- **Infrastructure and Continuous Quality Improvement.** These incentives correlate accreditation with infrastructure and continuous quality improvement as an agency prepares for accreditation and post-accreditation functions. Such functions include creating of new policies or revising existing policies, identifying areas for increasing quality and generally improving the health department, and increasing the recruitment and retention of a high-quality workforce by an improved reputation and working environment.
- **Reimbursement incentive opportunities.** These would exist for accredited agencies by making them eligible for insurance reimbursement (e.g., "Medicare, Medicaid, or private insurance").

  Support. Incentives from federal agencies and foundations of visible support for accreditation are a means of continuous quality improvement. These might include policy statements that reflect federal agency support for accreditation; CDC-sponsored conferences that include presentations on accreditation; a preference for CDC field representatives; and recognition from federal agencies (e.g., "an annual listing of accredited agencies, certificates, etc.")
- **Technical assistance**. Technical incentives help agencies prepare for accreditation or address prominent continuous quality improvement areas identified during the accreditation process.
- **Financial incentives.** These involve actual or potential monetary benefits to agencies considering applying for accreditation. Financial incentives for agencies pursuing accreditation might include funds to help prepare; use of federal block grant funds; money to address potential agency deficits before applying; or funds for pilot accreditation projects. For currently accredited agencies, financial incentives can include

> continued eligibility to apply for grants and contracts with additional points or preferences for grant applications and access to funding support for continuous quality improvement following accreditation. (Financial incentives can also be considered motivational or technical assistance incentives.)

Strong partnerships are a vital factor in improving access to incentives and resources. The accrediting entity should partner with public health organizations to promote public health department incentives, which can include access to funding support for continuous quality improvement; access to funding to address gaps in infrastructure identified in the accreditation process; opportunities to pilot new programs; a straightforward application process for grants and programs; and acceptance of accreditation instead of other accountability processes (Bender et al., 2014).

Every aspect of the accreditation process presents opportunities to increase performance and focus on continuous quality improvement. According to Bender and colleagues (2014), "The accrediting entity should maintain active support for continuous quality improvement among accredited public health departments." The components of such a support program should include in-person/web-based services, a best practices exchange, and peer-group data exchange and analysis.

Public health leaders have identified recognition, consistency, and continuous quality improvement as accreditation's most valued benefits, and emphasize uniformly positive incentives (Bender et al., 2007). Other incentives include the development of legal mandates at the state level to encourage accreditation, the completion of accreditation prerequisites, and funding by private foundations and the Centers for Disease Control and Prevention (CDC)-related programs that encourage performance improvement and accreditation preparation. National associations such as ASTHO; APHA; NACCHO; and the NALBOH have provided incentives in the form of technical assistance for health departments, which has been a significant factor in helping agencies prepare for accreditation (Thielen et al., 2014).

State health agencies provide incentives to support local health agencies that decide to pursue accreditation. The following examples were included in the response to a survey administered by Thielen and colleagues (2014):

- Washington and Colorado adopted the PHAB standards as their state public health standards. (North Carolina and Michigan also discussed accepting PHAB accreditation instead of their respective state accreditations.)
- Some respondents noted that state laws and regulations mandated vital aspects of their particular accreditation processes, such as health assessments, health improvement plans, and strategic plans for state and local jurisdictions.
- Some state respondents reported state-linked funding to complete the accreditation prerequisites, and that a focus on progress on community assessments, health improvement plans, or strategic plans were required to receive state funding for the local capacity grants.
- LHD directors noted repeatedly that states support accreditation by preparing for and seeking accreditation for the state agency.

Among the myriad of incentives in the public health accreditation paradigm, several incentives – among them public recognition of a quality agency and recognizing adherence to the law – have dual functionality and are a clear benefit of accreditation for a health department or organization. In contrast, other incentives remove barriers (e.g., funding, technical assistance with the application process) that hinder an organization from seeking accreditation in the first place (Thielen et al., 2014).

Respondents to Thielen and colleagues' survey (2014) shared several examples of state incentives that may assist in removing barriers to accreditation. Most prominent among them was direct financial support for local health departments. Arizona, Montana, and New York gave grants directly to local health departments to prepare for accreditation, while some states also used federal and state funding as financial incentives, to be used for specific purposes such as paying for PHAB accreditation fees;

paying for external consultants; supporting the cost of an accreditation coordinator; or helping pay the expenses for prerequisites.

The incentives of a national voluntary accreditation program for state and local public health departments were more targeted. The results from the 2006 Exploring Accreditation Project's telephone and internet survey mentioned credibility; maximizing financial resources; accountability; standardizing practices and developing a national standard; improving public trust in health departments; meeting public expectations; and facilitating access to federal funds as perceived incentives to pursuing accreditation.

Barriers to Successful Public Health Department Accreditation

While accreditation has many integral benefits for health departments, some barriers prevent or impede the process of successful PHAB accreditation. Those cited most commonly include a lack of staff resources (e.g., lack of staff time and available positions) or of capacity and the need for targeted training and education on accreditation prerequisites and strategic planning (Thielen et al., 2014). Categorical funding and program silos at the state level were also barriers to creating effective strategic plans, health assessments, and health improvement plans (Thielen et al., 2014).

Nuances in the structure of state governments were also barriers to accreditation preparation. Respondents cited administrative shifts at the gubernatorial and state health agency levels as impediments to designing and implementing the accreditation process, due to transitions that could lead to new priorities and the need to educate new decision-makers on accreditation's short- and long-term benefits (Thielen et al., 2014).

Additionally, several perceived barriers prevent local health departments from pursuing PHAB accreditation. Shah and colleagues' (2015) study of local health departments' willingness to engage in PHAB accreditation found that while 27% of local health departments indicated they planned to apply

for national voluntary accreditation through PHAB, 15% decided not to apply, 13% said that the state would apply on their behalf, and 40% were undecided about their accreditation application plans. Figure 4 shows that the most common reason among the 61 local health departments that indicated they would not apply for PHAB accreditation was time and effort exceeding the accreditation's benefits (72%). A majority of local health departments also reported that the accreditation fees were too high (Shah et al., 2015).

A negative perceived value of the accreditation process and the perceived lack of long-term benefit for the health department's staff and community can be a significant barrier. According to a study of North Carolina-accredited local health departments by Davis et al. (2011), the most frequently cited barriers to accreditation preparation were time and schedule limitations (79%), followed by resource limitations (50%), and a lack of perceived value (42%). Table 5 illustrates the barriers to preparation and those experienced while implementing necessary improvements after state accreditation; in the latter case, the most common barriers were time and schedule limitations (52%), resource limitations (46%), and a lack of perceived value or benefit (15%).

Unique Barriers to Achieving Health Department Accreditation in Rural Communities

Local health departments in rural jurisdictions (RLHDs), such as those in the Appalachian region, face unique challenges that differ from those in urban areas and require different incentives to encourage accreditation and overcome barriers. These differences are due to variations in the scope of services and functions serving the target population. They are based on the level of available resources and on the population's varying geographic isolation (Meit, Harris, Bushar, Piya, & Molfino, 2008). In contrast with thriving urban communities, rural communities are often plagued with lower wages; higher unemployment rates; higher numbers of the uninsured; lower socioeconomic status; fewer educational opportunities; greater travel distances to health departments; a lack of public transportation;

Figure 4. Percentage of Local Health Departments Not Pursuing PHAB Accreditation by Reasons

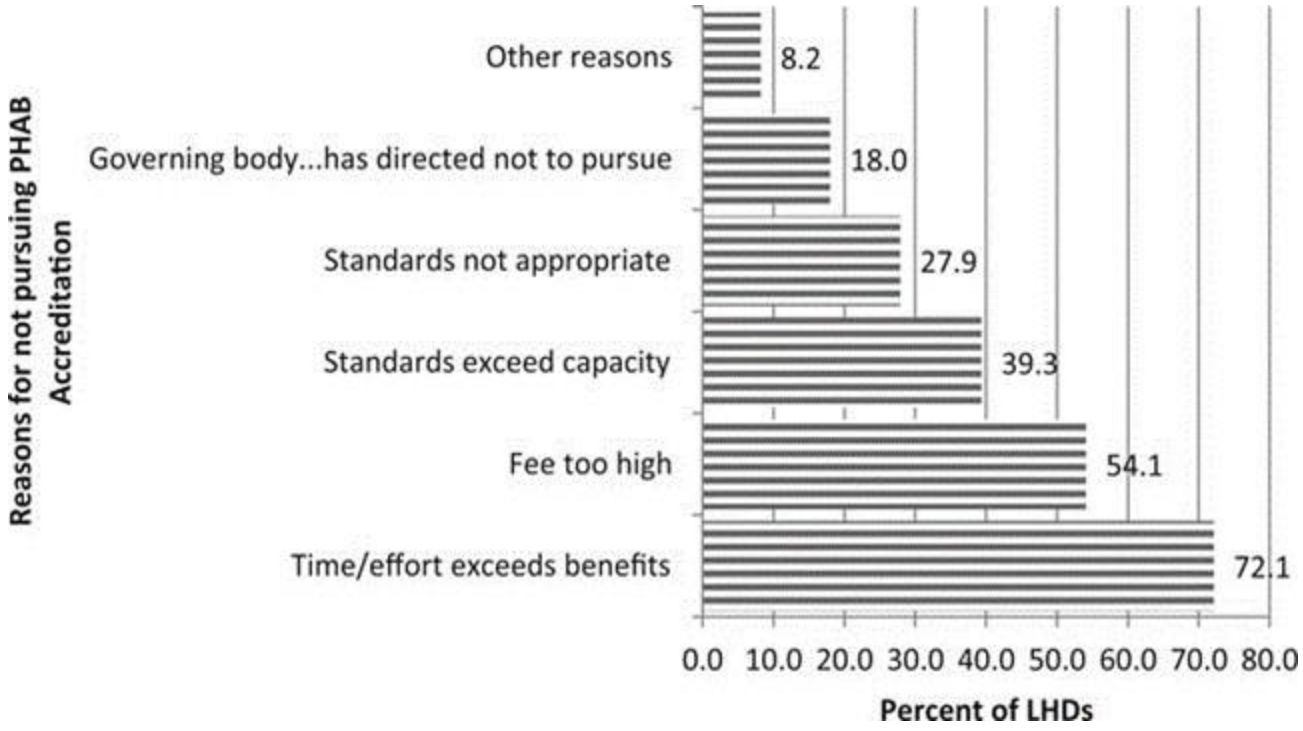


Figure 4. Abbreviations: LHDs, local health departments; PHAB, Public Health Accreditation Board. Adapted from "Public Health Agencies' Level of Engagement in and Perceived Barriers to PHAB National Voluntary Accreditation" by G. Shah, C. Leep, and J. Ye, K. Sellers, R. Liss-Levinson, and K. Williams, 2015, *Journal of Public Health Management Practice, 21*, p. 111. Copyright 2015 by Lippincott Williams & Wilkins.

and continuous youth migration, leaving an older population with limited support and health options (RAC, 2020).

The size of the population served by local health departments correlates positively with the department's level of engagement with the accreditation process (Shah et al., 2015). In a study by Beatty et al. (2018), local health departments were categorized as urban (greater than 50,000), micropolitan (10,000 to 49,999), and rural (defined by "Rural/Urban Commuting Area codes (RUCA), based on zip codes and census tracts with small towns (fewer than 10,000 residents). The study found that health departments serving urban areas are 16.6 times more likely to apply for accreditation than

rural health departments, and metropolitan communities are 3.4 times more likely to do so, in part because rural departments are often understaffed and underfunded. Similarly, 87% of accredited health departments are in urban areas, 8.9% are in micropolitan areas, and just 4.1% are in rural areas (Shah et al., 2015). Other studies, by Gregg and colleagues (2017) and Beatty and colleagues (2018), found that the more rural a health department's jurisdiction, the less likely the department was to apply at all. And the communities that rural health departments serve often have fewer community partners and healthcare organizations than urban health departments (Roberts, 2019).

RLHDs serve smaller populations and have correspondingly lower staffing and funding levels than local health departments serving urban or metropolitan statistical areas (Leep, 2007). Approximately 40% of the LHDs surveyed in 2005 were categorized as serving small-town rural regions; of these, 92% served populations of fewer than 50,000 people (NAACHO, 2007). Although the populations served by RLHD jurisdictions are generally smaller in size, their constituents experience many health disparities related to risky behaviors and a lack of access to medical care (Doescher et al., 2006; Cronk & Sarvela, 1997; Meit et al., 2014; Skillman et al., 2010). A study of rural health department accreditation by Beatty et al. (2016) found that unaccredited RLHDs identified more barriers to accreditation their accredited peers, and that time (i.e., time or schedule limitations and poor time management) was the most significant barrier to accreditation. Additional obstacles to successful accreditation in rural communities included limited human and fiscal health department resources and health department staff lacking formal education and knowledge about accreditation (Meit et al., 2008).

Additional barriers were the expectation that agencies would meet specific workforce characteristics, as well as the lack of a buy-in from the community or local board of health. Furthermore, barriers to RLHD accreditation included issues with locating the appropriate staff for their agencies, a lack of adequate staff to support accreditation efforts, and a lack of the proper compensation to meet expectations commensurate with new responsibilities (Beatty et al., 2016).

Table 5.

Barriers to Preparing for and Implementing Improvements after State Accreditation: Local Health Departments, North Carolina, 2010

Barrier	Experienced During Preparations, No. (%)	Experienced While Implementing Improvements, No. (%)
Resource Limitation	24 (50)	22 (46)
Time and Schedule Limitations	38 (79)	25 (52)
Lack of County Support	1 (2)	3 (6)
Lack of Staff Support	6 (13)	3 (6)
Lack of Perceived Value or Benefit	20 (42)	7 (15)
Not Seen as a Priority	13 (27)	4 (8)

Note. Adapted from "Informing the National Public Health Accreditation Movement: Lessons from North Carolina's Accredited Local Health Departments" by M.V. Davis, M.M. Cannon, D.O. Stone, B.W. Wood, J. Reed, and E.L. Baker, 2011, *American Journal of Public Health, 101,* p. 1545. Copyright 2011 by the American Journal of Public Health.

Health departments planning to pursue future accreditation felt that their current staff would not support the goal of accreditation, with some viewing accreditation tasks as additional work and a barrier to completing their current job responsibilities (Beatty et al., 2016). Along the same lines, the accredited RLHDs included in the survey did not think their communities comprehended the accreditation process or placed a high value on health department accreditation. And the unaccredited RLHDs reported the lack of organizational and leadership capacity as additional barriers (Beatty et al., 2016).

Strategies and Incentives for Rural Communities to Overcome Accreditation Barriers

The barriers to PHAB accreditation in rural communities can be removed by incorporating sound strategies. It was found that the additive effect of multiple barriers identified either before or during the accreditation process led directly to a decrease in the likelihood of a local health department becoming accredited (Beatty et al., 2015). To reduce the size of the meeting workforce standards barrier and to incentivize change, some RLHDs revised their workforce standards away from specific credentials and toward standards aligned with the Council on Linkages Core Competencies for Public Health Professionals (Council on Linkages Between Academia and Public Health Practice, 2014).

Teamwork has also emerged as an essential strategy in removing barriers for RLHDs. Given the burden of producing documentation and the time limitations associated with accreditation, unaccredited RLHD administrators felt alone during the accreditation process' incremental steps (Beatty et al., 2016). However, accredited RLHDs created specific teams for each accreditation task: team members covered each other's routine tasks while also assisting with accreditation (Beatty et al., 2016). This team-building strategy has been very effective in pooling staff resources to accomplish the goal of accreditation.

Partnerships with external stakeholders can extend the concept's efficacy by strengthening a symbiotic relationship to eliminate barriers altogether. Successful RLHDs have partnered with universities to use graduate students as assistants in the accreditation process; the students gained valuable professional insight to supplement their future careers (Beatty et al., 2016). Also, non-profit hospitals must include entities with expertise in public health, such as local health departments, to assist during their community health needs assessment process (Folkemer et al., 2011). Consequently, local health departments can collaborate with hospitals in their geographic area to access the financial and human resources necessary for meeting accreditation prerequisites (Beatty et al., 2016).

Malcolm Baldrige National Quality Award

The Malcolm Baldrige National Quality Award (MBNQA) program and Baldrige-type state quality awards stimulate continuous quality improvement (Frank, 1996). The MBNQA is the flagship award for excellence in the United States, and the state awards represent the highest-performing companies and organizations (ASQ, 2021). The MBNQA was signed into law on August 20, 1987, and honors Malcolm Baldrige, the U.S. Secretary of Commerce from 1981-1987 (Brown, 2014). The Award is based on Public Law 100-107, which created a public-private partnership designed to increase quality standards, maximize productivity growth, and establish quality practices by setting standards of excellence for American companies (Brown, 2014). The partnership is dedicated to continuous quality improvement and focuses specifically on "raising awareness about the importance of performance in driving the United States and [the] global economy; providing organizational assessment tools and criteria; educating leaders in business[;] schools[;] healthcare organizations[;] government[;] and nonprofit agencies about the practices of 'best-in-class'; and recognizing national role models and honoring them with the only Presidential award for performance excellence" (NIST, 2020).

The MBNQA program is run by the National Institutes of Standards and Technology (NIST) within the United States Department of Commerce (Gorenflo et al., 2014). Since the inception of the Baldrige program, the MBNQA has been instrumental in increasing awareness of continuous quality improvement by providing a common framework for organizations to measure and improve quality (Barbrowski & Bantham, 1994). Until this inception, quality was defined "narrowly": by products or services delivered to an external customer without regard to the two-thirds of an organization's workforce disconnected from the final product and the customer (Barbrowski & Bantham, 1994). The award thus represents a broader focus, emphasized by the following core values: customer driven-quality; leadership; continuous improvement; full participation; fast response; design quality and

prevention; long-range outlook; partnership development; and public responsibility (Barbrowski & Bantham, 1994).

Three MBNQA awards can be given annually, in six categories: manufacturing; service company; small business; education; healthcare; and nonprofit (ASQ, 2020). The education and healthcare categories were added to manufacturing, service, and small business in 1999 (Unger, 2013). The nonprofit category was added in 2007 to expand the range of organizations covered by the program (NIST, 2020). The more recently added categories have criteria similar to those for business, but have been tailored to accommodate the unique features associated with healthcare, nonprofit organizations, and educational institutions (Brown, 2014). Since 2005, healthcare organizations represent more than 50% of MBNQA applications (Foster & Chenoweth, 2011). The MBNQA provides a nationwide tangible quality improvement goal for a broad range of the United States' economy, including the health care sector.

Baldrige Criteria for Performance Excellence

The MBNQA Criteria for Performance Excellence, the foundation for the Baldrige program, is framed around seven categories and focuses on the critical aspects of management that contribute to performance excellence (Gorenflo et al., 2014). As organizations develop their ability to integrate strategic planning approaches and use learning to improve quality, they will achieve the highest levels of performance excellence (NIST, 2011).

High-performing organizations have similar values and beliefs. These same shared values guide the Baldrige Performance Excellence Framework: visionary leadership; patient-focused excellence; valuing people; organizational learning and agility; a focus on success; managing for innovation; management by fact; societal contributions, and community health; ethics and transparency; and

delivering value and results (NIST, 2020). Such values and beliefs are integral to the leaders' healthcare and public health decision-making process.

The objectives of the MBNQA Criteria for Performance Excellence contain three fundamental elements (Brown, 2014): first, to assist the organization in improving performance practices and capabilities; second, to disseminate the best practices throughout the United States without regard to industry; and third, to serve as a guide for strategic planning, identifying areas of opportunity, and managing overall performance (Senge, 2004). The MBNQA Criteria for Performance Excellence presents an integral, concise set of guidelines for operating an effective organization. The organization expects to adopt the criteria if its final goal is performance improvement (Brown, 2014).

As shown in Figure 5, the Baldrige Criteria Framework for Healthcare is composed of an organizational profile and seven related categories that can be adapted to the field of public health and scaled across an organization's central and regional offices and local county health departments (Roberts, Reagan, and Behringer, 2020). The philosophy represents a performance improvement (PI) rather than a compliance-based method to promote culture change, and focuses more on voluntary learning, progress, and outcomes than on prescriptive management approaches (Roberts et al., 2020). The seven sections of the Baldrige Performance Excellence Framework and that correspond to the criteria categories are leadership; strategic planning; customer focus; measurement, analysis, knowledge management; workforce focus; operations focus; and results (Brown, 2014). These performance criteria categories give organizations a methodical process to self-assess their operations while also offering sound opportunities for external assessment (Unger, 2013). When using the Baldrige Criteria for Public Health, it is essential to define the public health customer being served by the organization (this is primarily the public, but can include other entities), what the organization and community seek to accomplish, and how performance will be measured (Klater, Mason, & Gorenflo, 2011).

The Baldrige application process begins with an organizational profile, an essential component for internal self-assessment (Brown, 2014). The organizational profile component at the top of Figure 6 addresses the operating environment and its relationships with customers, suppliers, and other stakeholders, while also highlighting their competitive environment and its vital strategic challenges (McGuire, 2006). Updates for the 2013-2014 criteria included questions about the organization's workforce, including contract employees, volunteers, and non-traditional employees usually overlooked when developing human resource systems (Brown, 2014).

Each of the Malcolm Baldrige Performance Excellence Framework's seven categories are further divided into "items." Categories one through six each have several areas to address, as well as related questions on how the organization plans to address each item (Gorenflo et al., 2014). Award applicants are required to submit narrative responses to the questions in which they describe how each of the items has been addressed. Category seven then requests information on the organization's results. (Gorenflo et al., 2014). Below, Figure 5 describes the content for the Malcolm Baldrige Performance Excellence Framework category.

Figure 5. Malcolm Baldrige Performance Excellence Framework

Figure 5. Malcolm Baldrige Performance Excellence Framework. Adapted from "2017-2018 Baldrige Excellence Framework (Healthcare): A Systems Approach to Improving Your Organization's Performance, 2017."

The point assignment (out of 1000 possible points) and their weighted value, as defined by the *Malcolm Baldrige National Quality Award 2019-2020 Health Care Criteria for Performance Excellence* (Baldrige Performance Excellence Program, 2019), are as follows:

- Leadership (senior leadership/governance and societal contributions) = 120 points [12%])
- Strategy (strategy development and strategy implementation) = 85 points [8.5%])
- Customer focus (customer expectations and customer engagement) = 85 points [8.5%])

- Measurement, analysis, and knowledge management (measurement, analysis, and improvement of organizational performance/information and knowledge = 90 points [9.0%])
- Workforce focus (workforce environment and workforce engagement = 85 points [8.5%])
- Operations focus (work processes and operational effectiveness = 85 points [8.5%]).
- Results (health care and process results; customer results, workforce results; leadership and governance results; and financial market and strategy results = 450 [45%]).

The rigorous evaluation process requires an organization to submit a 50-page application that provides complete narrative responses to the assessment criteria. It culminates with a comprehensive review by an independent Board of Examiners, which consists of trained volunteers from all sectors of the economy (Brown, 2014). Of the 1,510 applications received in the program's nearly 30-year history, only 95 organizations (6%) have received the award (NIST, 2013). Baldrige Award recipients typically score around 700 of the 1000 possible points, with a "good organization" scoring approximately 500 points (Klater et al., 2011). The extensive criteria and detailed review of the organization's respective applications ensure the integrity of the award process and its focus on continuous quality improvement.

The Baldrige Criteria have been on a two-year revision cycle, which has proven less disruptive to organizations planning to use the criteria to apply for the MBNQA multiple times (Brown, 2014). In 2015, the Baldrige Excellence Program announced the following changes in the MBNQA eligibility requirements, based on stakeholder recommendations:

> Allow an organization showing a high level of maturity and superior performance metrics to apply for a waiver of the standard requirement of first achieving a top-level award sanctioned by the Alliance for Performance Excellence (state quality award); Organizations that have

> previously received a Baldrige Award will automatically be eligible to reapply five years after the year of their award, even if new or revised requirements (e.g., related to subunits) implemented during subsequent years would otherwise screen them out; base the eligibility of an organizational subunit (such as an individual business unit within a larger manufacturing company) solely on its ability to respond to the Baldrige Criteria for Performance Excellence rather than its size or the percentage of external customers it serves. (NIST, 2014)

The exemption from the requirement that MBNQA applicants be previous state Alliance for Performance Excellence award recipients was intended primarily to open the process to qualifying organizations working without a state performance excellence program (NIST, 2014). Additional caveats to the state quality award exemption include the following:

> If an organization's process and results from band scores total six or higher, the organization will be eligible to apply for the Baldrige Award for four additional years; and if the organization's process and results from band scores total five or lower, the organization will be referred to its applicable Alliance for Performance Excellence Program. (NIST, 2014)

Strengths and Incentives of the Malcolm Baldrige Criteria for Performance Excellence

The foundation of the MBNQA program's strengths and incentives include assessing organizational performance, disseminating awards for continuous quality improvement, and presenting constructive feedback to applicants. The MBNQA program strengthens the United States' organizational competitiveness first by assisting to improve organizational performance practices, capabilities, and results; second by facilitating inter-organization communication and the sharing of best practice information between organizations; and third, by using the law as a tool for understanding

and managing performance (NIST, 2005).

There is a direct correlation between quality improvement and customer loyalty in the MBNQA program. According to Hill and Wilkinson (1995), quality meets customers' requirements, focusing on incentivizing and empowering the people closest to the job to identify and implement the appropriate changes. The aspects of employee empowerment and the view of basic processes in a "quality chain" can be significant factors in an organization's long-term success achieving continuous quality improvement.

Improved performance and quality efforts are linked to the strengthening and incentivizing qualities that several high-scoring MBNQA applicants possess. A United States General Accounting Office report (1991) links improved organizational performance with the quality efforts of 20 of the highest-scoring MBNQA applicants for the years 1988 and 1989 and presents evidence to suggest that these respective organizations achieved improved employee relations; higher quality; lower costs; greater customer satisfaction; improved market share; and improved profitability. The standard features of the successful organizations were customer focus; management leadership in quality values; employee involvement; an open corporate culture; fact-based decision-making; and partnerships with suppliers (GAO, 1991).

Strong leadership and a defined direction from senior management have been integral components in implementing the MBNQA criteria. Brown (2004) and Blazey (2003) suggest that strong leaders are the main drivers of implementation and a substantial incentive for the overall success of the Baldrige Criteria. The MBNQA program encourages aligning an organization's mission, vision, and values with its broadly defined and implemented strategy – which cannot be achieved without full buy-in, including networking with other senior executives who have already achieved positive results (Debaylo, 1999). Leaders must identify and address the organizational changes that accompany adoption and implementation of the Baldrige Criteria to realize the program's full benefits.

Barriers and Criticisms of the Baldrige Criteria for Performance Excellence

As the Baldrige Criteria for Performance Excellence has grown in popularity throughout the United States, criticisms of the program have likewise increased. One major criticism countering the Baldrige Criteria's beneficial claims is that the Criteria are not based on empirical evidence (Black & Porter, 1996). In addition, Byrne & Norris (2003) offered that while the Baldrige Criteria enjoyed an excellent reputation for offering a value-driven, viable framework for values-based leadership and employee engagement, it did not provide organizations with a roadmap for implementing operational excellence. The Criteria are prescriptive, which can create difficulties in determining the best method to achieve the Criteria's overall objectives.

The MBNQA has enjoyed wide recognition among leaders in numerous fields. One survey of Fortune 100 leaders in manufacturing; service; education; and healthcare found that more than 70% of the leaders may use the Baldrige Criteria for Performance Excellence in the future but had no in-depth knowledge of the criteria or the requirements for implementation (Hamilton, 2003). Other criticism included a perceived or actual view of the complexity and associated costs of implementing the criteria and a lack of understanding of criteria components (Hamilton, 2003).

Criticism also focused on perceived apathy of how organizations used the MBNQA Criteria. Bemowski & Stratton (1995) conducted a survey that found that of the approximately one million copies of the Criteria that had been distributed since the program's inception in 1987, 180,000 were discarded, 819,000 were used at least once – and only 546 companies applied for the award. As Figure 6 shows, 70.7% of the respondents who used the MBNQA Criteria did so as a source of information to achieve business excellence, while just 23.9% used it to apply for awards (Bemowski & Stratton, 1995). And while half of the respondents used the criteria as a common language to communicate within their respective companies, that use did not apply to external entities (Bemowski & Stratton,

1995). Conversely, among the respondents who did not use the MBNQA Criteria, the criteria were used infrequently as a tool to communicate with business partners (53.2%), as a tool to share with other companies (54.7%), and communication with the public sector organizations, as Figure 7 shows. These findings suggest that while few companies have applied for the Baldrige Award, the MBNQA Criteria are likely used to apply for company, local, and state awards (Bemowski & Stratton, 1995).

Figure 6. Respondents Who Used the Baldrige Criteria for Performance Excellence

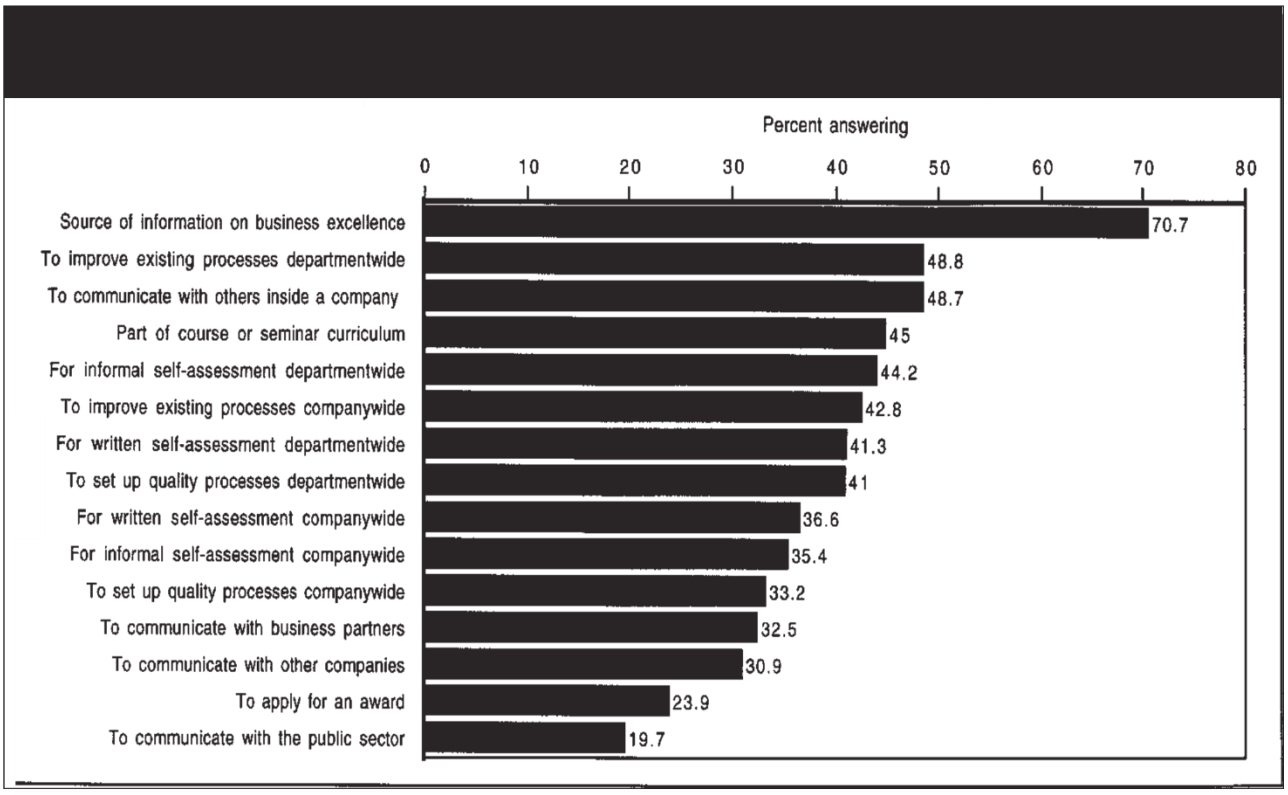


Figure 6. Graph representing respondents who used the Baldrige Criteria for Performance Excellence. Adapted from "How Do People Use the Baldrige Award Criteria?" by K. Bemowski and B. Stratton, 1995, *Quality Progress*, p. 43. Copyright 1995 by Quality Progress.

MBNQA critics also highlighted that the Criteria focus heavily on process and failed to account for additional metrics. Hart (1993) found the criteria so focused on process that they fail to measure the

actual product or service. The management team cannot see the benefits of using the criteria for internal assessment.

The Emergence of State Quality Award Programs

In the 1990s, state quality initiatives were the dominant method to advance organizational quality at the state level. Some of these state initiatives had an external focus which showed that the respective states had a vested interest in promoting greater participation in the quality movement by entities that operate within the state, including private and public and not-for-profit and for-profit organizations (Bobrowski & Bantham, 1994). These initiatives included an evaluation, categorical awards, and a recognition process that mirrored the MBNQA process, leading to appropriate nicknames such as "baby Baldriges" or "mini-Baldriges," which became a widespread mechanism by which states encouraged and promoted continuous quality improvement (Barbrowski & Bantham, 1994). These quality-based programs assisted many local organizations in their quest for performance excellence throughout the United States. Many MBNQA recipients began their continuous quality improvement journeys with their respective state quality award programs (Brown, 2014). In addition to providing statewide recognition through the conferring of awards, many state award programs offer training and consultation based on the national agenda (Klater et al., 2011). By building pride in the organizations, they achieved excellence through their award recognition. The states created a culture conducive to promoting a prosperous commercial community while highlighting the best practices that the business and healthcare community can use as benchmarks for quality improvement (Fisher et al., 2014).

Figure 7: Respondents Who Did Not Use the Baldrige Criteria for Performance Excellence

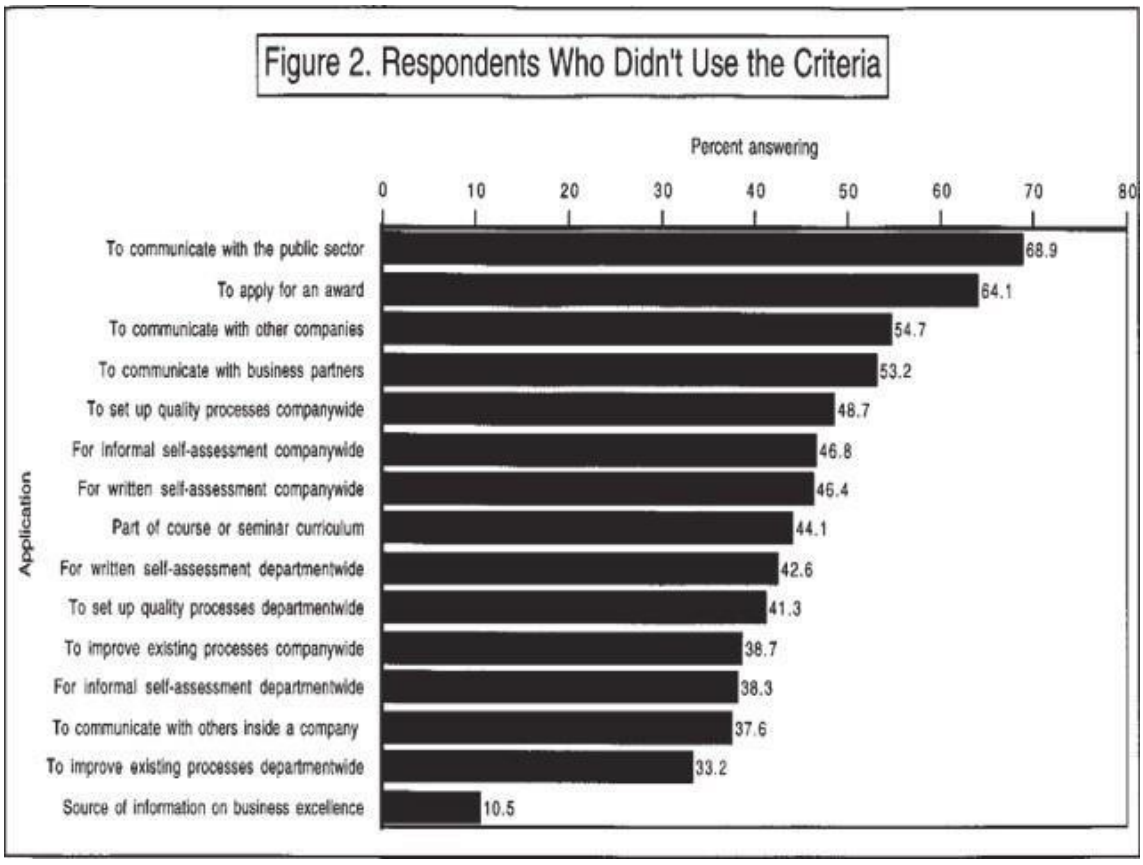


Figure 7. Graph representing respondents who did use the Baldrige Criteria for Performance Excellence. Adapted from "How Do People Use the Baldrige Award Criteria?" by K. Bemowski and B. Stratton, 1995, *Quality Progress*, p. 43. Copyright 1995 by Quality Progress.

Thirty states reported starting their own quality award programs between 1991 and 1995 (Table 7; Fisher et al., 2001). And of the 42 states that reported having quality award programs between 1983 and 2001, 39 were based on The MBNQA Criteria for Excellence (Fisher et al., 2001). These external award programs created high-quality benchmarks for organizations in each state.

Table 6

Year Started and Number of State Award Programs

Year begun	# Of Programs
1983	2
1986	1
1987	1
1991	5
1992	5
1993	6
1994	4
1995	10
1996	2
1997	1
1998	4
2001	1

Note. Adapted from "Economic impacts of quality awards: Does offering an award bring returns to the state?" by C. Fisher, J. Dauterive, and J. Barfield, 2001, *Total Quality Management,* 12:7-8, p. 984.

Alliance for Performance Excellence State and Multi-State Programs

The Alliance for Performance Excellence, incorporated in Arizona, received 501(c) 3 non-profit status designation in 2005 to facilitate its members' organizational excellence and foster competitiveness through state and regional Baldrige processes (Alliance for Performance Excellence, 2020). The Alliance consists of more than 30 local; state; regional; and sector-specific Baldrige-based programs serving nearly 50 states, is an integral partner of NIST's Baldrige Performance Excellence Program, and promotes the long-term success of U.S. organizations based on the Baldrige Criteria for Performance Excellence (NIST, 2014). Many Alliance member programs use the Baldrige Criteria to assist with their performance excellence journey. Since 2012, a recognition award from Baldrige Alliance programs has been a prerequisite for the MBNQA (Gorenflo et al., 2014).

Additionally, since 2014, many states without dedicated quality award programs have entered into multi-state performance excellence award programs that offer states with similar demographic characteristics the chance to collaborate on continuous quality improvement while consolidating their resources. The following states formed such programs within the Alliance for Performance Excellence (The Alliance for Performance Excellence, 2020):

- Alaska, Idaho, Oregon, and Washington (Multi-State Award Program: Washington State Quality Award / Performance Excellence Northwest Award)
- Arizona, Nevada, Utah (Multi-State Award Program: Performance Excellence Program)
- Colorado, Montana, Wyoming, and Nebraska (Rocky Mountain Performance Excellence Award)
- Connecticut, Massachusetts, New York, and Rhode Island (Multi-State Award Program: Connecticut Performance Excellence Award; Massachusetts Performance Excellence Award; New York Performance Excellence Award; and the Rhode Island Performance Excellence Award)
- Florida and Georgia (Multi-State Award Program: Governor's Sterling Award & Georgia Oglethorpe Award)
- Hawaii, American Samoan, Guam, and Northern Mariana (Multi-State and Pacific Islands Regional Award Program: Hawaii Award of Excellence [HAE])
- Indiana, Ohio, and West Virginia (Multi-State Award Program: Awards for Excellence**)**
- Minnesota, North Dakota, and South Dakota (Multi-State Award Program: Minnesota Performance Excellence Award, North Dakota Performance Excellence Award, and South Dakota Performance Excellence Award)
- Missouri and Kansas (Multi-State Award Program: Missouri Quality Award [MQA] and Kansas Quality Award [KQA])

- New Hampshire, Maine, and Vermont (Multi-State Award Program: New Hampshire Performance Excellence Award Program, Maine Performance Excellence Program, and Vermont Performance Excellence Program)
- Pennsylvania, Delaware, and New Jersey (Multi-State Award Program: Mid-Atlantic Award for Performance Excellence [MAAPE])
- Texas and Puerto Rico (Multi-State Award Program: Texas Award for Performance Excellence)
- Virginia and District of Columbia (Senate Productivity Award: U.S. Senate Productivity and Quality Award for Virginia and DC) (The Alliance for Performance Excellence, 2020).

These multi-state, Baldrige-based programs serve large geographic regions and expand continuous quality improvement programs nationwide.

Several common elements are present within the Alliance for Performance Excellence programs. One elements universal to state quality awards is successive award levels that correspond with achievement levels the organization has attained. Table 8 shows the number of states that offered between one and seven awards from 1983 through 2001 (Fisher et al., 2001). Most individual states and Baldrige Alliance multi-state performance collaborations offer annual quality awards. The lowest level provides an entry of interest, and progress to levels four or five represents recognition of increasing excellence (Fisher et al., 2001). For example, Arizona (Southwest Alliance for Excellence), Tennessee (Tennessee Center for Performance Excellence), and Kentucky (Kentucky Center for Performance Excellence) all have a four-tiered scale for their awards: Level 1 (Interest); Level 2 (Commitment); Level 3 (Achievement); and Level 4 (Excellence).

Table 7

Levels of State Awards

Levels	Number
1	6
2	3
3	13
4	13
5	2
7	1

Note. Adapted from "Economic impacts of quality awards: Does offering an award bring returns to the state?" by C. Fisher, J. Dauterive, and J. Barfield, 2001, *Total Quality Management*, 12:7-8, p. 984.

Incentives and Barriers to the Successful Attainment of State Quality Awards

The long-term benefits and incentives of a well-executed state award program include the promotion of awareness of productivity and quality; fostering the exchange of information about productivity and quality; the encouragement of organizations to adopt quality and productivity improvement strategies; recognition of organizations that have instituted successful procedures; furnishing role models for other businesses within the state; and the establishment of a quality-of-life culture that benefits all state residents (Bobrowski & Bantham, 1994). State and regional awards promote quality awareness and an understanding of performance excellence requirements while also helping organizations measure themselves against their local peers (Klater et al., 2011). These state award programs, focused primarily on continuous quality improvement, became the foundation of the Baldrige Alliance for Performance Excellence.

The Baldrige Alliance and its state memberships use key incentives to initiate Baldrige-based quality award programs for advancing organizational excellence in each respective community. The

Alliance's state and multi-state programs assist local organizations via incentives for starting their path toward continuous quality improvement. Among the incentives are promoting the use of Baldrige Criteria in defining performance excellence and the Baldrige Award process; serving as a feeder system for the national award program; opportunities for networking and learning alongside other Alliance program members; and priority access to Baldrige Criteria for Performance Excellence training materials from the national program (NIST, 2020).

Additional incentives that the Alliance and the Baldrige national program offer to local health departments and programs include the following (NIST, 2020):

- Teleconferencing access to planning assistance for the Baldrige Fall Conference and the State and Local Program Workshop.
- Complimentary registration for the Quest for Excellence Conference (in return for using the state or local program's marketing list for future outreach).
- Public recognition of state quality programs that have achieved performance milestones and provided mentorship and encouragement for other state recipients to submit applications for the national award.
- Providing Baldrige staff members as speakers at state conferences and award ceremonies.
- Co-hosting regional conferences to share aggregated data that demonstrates the influence of state and local programs.
- Access to a 1992 report, prepared for the National Governors Association, entitled "Designing and Implementing a State Quality Award," which assists startup quality improvement programs.

Most organizations include continuous quality improvement as a goal of their performance journey. Winning the MBNQA is a considerable reward for these efforts. The labor-intensive process of gaining internal employee support may become a barrier that causes adverse side effects, such as increased stress during the application process and the danger of emphasizing award attainment at the

expense of sound business decisions (Unger, 2013). Past failures in successful implementation of the Criteria for Performance Excellence occurred when an organization focused solely on winning the award rather than on establishing quality processes throughout its organizational structure (Brown, 2014).

Organizations that pursue state quality awards as part of their continuous quality program must have the patience to traverse the iterative process. It is accepted throughout the quality improvement community that Total Quality Management (TQM) is an arduous process, one that takes a great deal of time to implement since it requires organizational changes in both culture and employee mindset, and the benefits of this change are experienced only in the long term (Hendricks & Singhal, 2000).

When analyzing barriers to adoption of the MBNQA Criteria for Performance Excellence, it is essential to evaluate past winners' experiences as well as the experiences of those with little or no previous involvement with the MBNQA or the state quality award application process. A study by Hamilton (2003), commissioned by the NIST, determined that the most significant barriers to adopting and implementing MBNQA Criteria were a lack of understanding of the criteria, its perceived complexity, and the cost of the application process.

Similarities and Differences between the Baldrige Award for Excellence and PHAB Accreditation

The MBNQA program and PHAB accreditation share multiple similarities and differences. Both are nationally recognized programs that generate performance promotion opportunities and drive continuous quality improvement (Klater, Mason, & Gorenflo, 2011). Both use teams of trained individuals to conduct assessments, visit sites, and report development, focusing on generating a description of opportunities to spur further continuous quality improvement (Gorenflo, Klater, Mason, Russo, & Rivera, 2014).

However, the MBNQA and PHAB accreditation programs differ in their origins. The world's first quality award was the Deming Prize, developed in Japan to promote statistical quality control (SQC), which concept was introduced to the Japanese in the 1950s (Chuan & Soon, 2000). The Deming Prize's success in defining quality in Japan inspired the establishment of the MBNQA as well as, in Europe, the European Quality Award (EQA), both of which have served as models for other countries seeking to establish a national quality award (Chuan & Soon, 2000).

PHAB accreditation originated in the United States with a consensus model approach. It evolved to provide initial consultation services for interested countries to ascertain whether the PHAB standards, measures, and review process applied to an international setting while ensuring that all work would be consistent with the principles underlying PHAB's accreditation process (PHAB, 2019). Internationally, PHAB's consulting services encourage participation in the accreditation process through (PHAB, 2019):

- Training for PHAB's accreditation process and requirements
- Development and analyses of a self-assessment tool
- Additional training and potential adjustment of accreditation measures as may be indicated by the self-assessment tool
- A potential visit to the country to acquire additional information
- A report, for the inquiring international entity, on the feasibility of applying for accreditation under the PHAB standards and measures
- The potential for other consulting services related to performance and quality improvement in public health (if PHAB accreditation is not a feasible option)

As of April 2021, two countries have approached PHAB to discuss undergoing the accreditation process, and one of them plans to apply for accreditation (K. Bender, personal communication, April 12, 2021; & J. Kronstadt, personal communication, April 19, 2021).

The Baldrige Criteria and PHAB standards and measures are also distinctly different in their structure and the type of information requested. The Baldrige-type state quality award and MBNQA program require applicants to describe various processes and results, while PHAB requests specific documentation to support the application (Klater et al., 2011). An organization seeking Baldrige recognition can select the version of the criteria most applicable to their field, with different tools and languages tailored to healthcare, education, and business or non-profit. The PHAB standards, though, are specific to public health agencies, and each set of standards comes with its own specific eligibility requirements (i.e., state or territorial, Tribal, and local) (Klater et al., 2011 & Gorenflo et al., 2014).

The PHAB program and MBNQA also have vastly different application formats. Baldrige requires a narrative format, not to exceed 50 pages, with a generic criterion covering a range of related organizational components. While the PHAB program requires specific documentation addressing the standards and measures specifically tailored to public health, it does not have a narrative component (Gorenflo et al., 2014).

The Appalachian Region and the Appalachian Regional Commission

The past 30 years have seen an increased focus on the public's health and the specifically rural geographic challenges experienced by the population in the Appalachian region of the United States. This region, as defined by the Appalachian Regional Commission (ARC), is spread over 205,000 square miles extending along the Appalachian Mountains from southern New York to northern Mississippi. It includes the entire state of West Virginia and, as Figure 9 shows, portions of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia (ARC, 2020). 42% of the Appalachian region's population is rural, compared with 20% of the national population (ARC, 2020). This region was chosen for this study due to its largely rural demographic and many economically distressed counties.

Both factors suggest an increased need for continuous quality improvement to address high health disparities and a general lack of healthcare access.

The Appalachian Regional Commission (ARC) is a regional economic development agency that represents a partnership of federal, state, and local governments (ARC, 2020). It was established by an act of Congress in 1965 and is composed of the governors of the respective 13 Appalachian region states along with a federal co-chair. The group's mission to support and invest in activities that address the following five goals outlined in the ARC strategic plan (ARC, 2020):

- **Goal 1: Economic Opportunities**. Invest in entrepreneurial and business development strategies that strengthen Appalachia's economy
- **Goal 2: Ready Workforce**. Increase the education, knowledge, skills, and health of residents to work and succeed in Appalachia.
- **Goal 3: Critical Infrastructure**. Invest in broadband, transportation (including the Appalachian Development Highway System), and water/wastewater systems.
- **Goal 4: Natural and Cultural Assets**. Strengthen Appalachia's community and economic development potential by leveraging the region's natural and cultural heritage assets.
- **Goal 5: Leadership and Community Capacity**. Build the capacity and skills of current and next-generation leaders to innovate, collaborate, and advance community and economic development.

Figure 8. Appalachian Region State and County Map

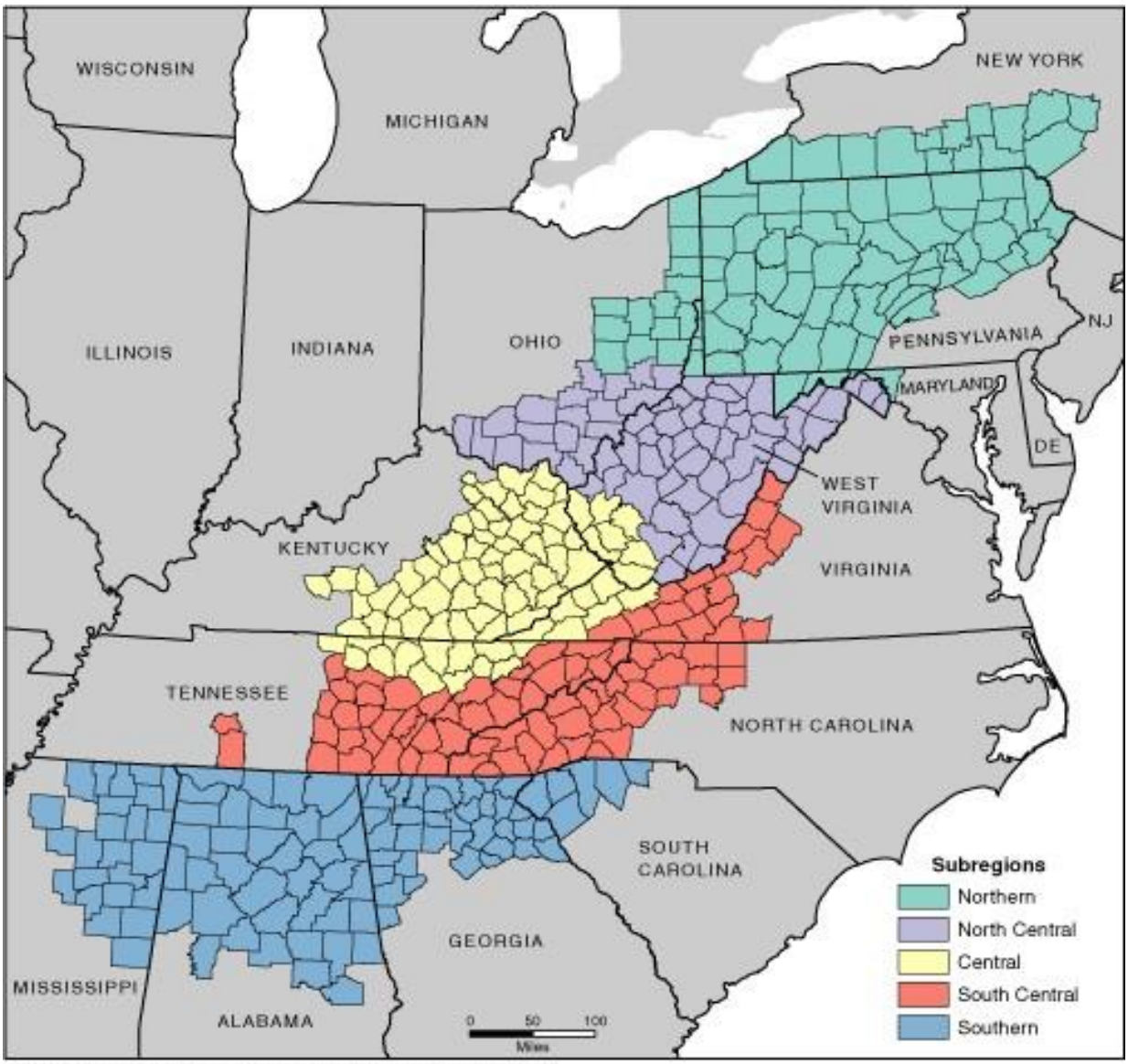


Figure 9. State and regional map of the Appalachian Regional Commission. Adapted from "Appalachian Regional Commission," 2009.

Each year, ARC funds investments Appalachian business development; education; job training; telecommunications; and infrastructure, creating thousands of jobs, improving school readiness, and expanding access to healthcare (ARC, 2020).

Economic Shifts in the Appalachian Region

Since the 1960s, the Appalachian economy has undergone a dramatic shift, making significant socioeconomic strides based on changing industrial customs. Six decades ago, the region was highly dependent on mining; forestry; agriculture; and chemical industry, but has diversified its economy and now includes manufacturing and professional service industries (ARC, 2020). Appalachia's poverty rate, 31% in 1960, decreased to 16.3% from 2013 to 2017; over the same period, the region's number of high-poverty counties – defined as those with poverty rates more than 1.5 times the United States average – declined from 295 to 98 (ARC, 2020).

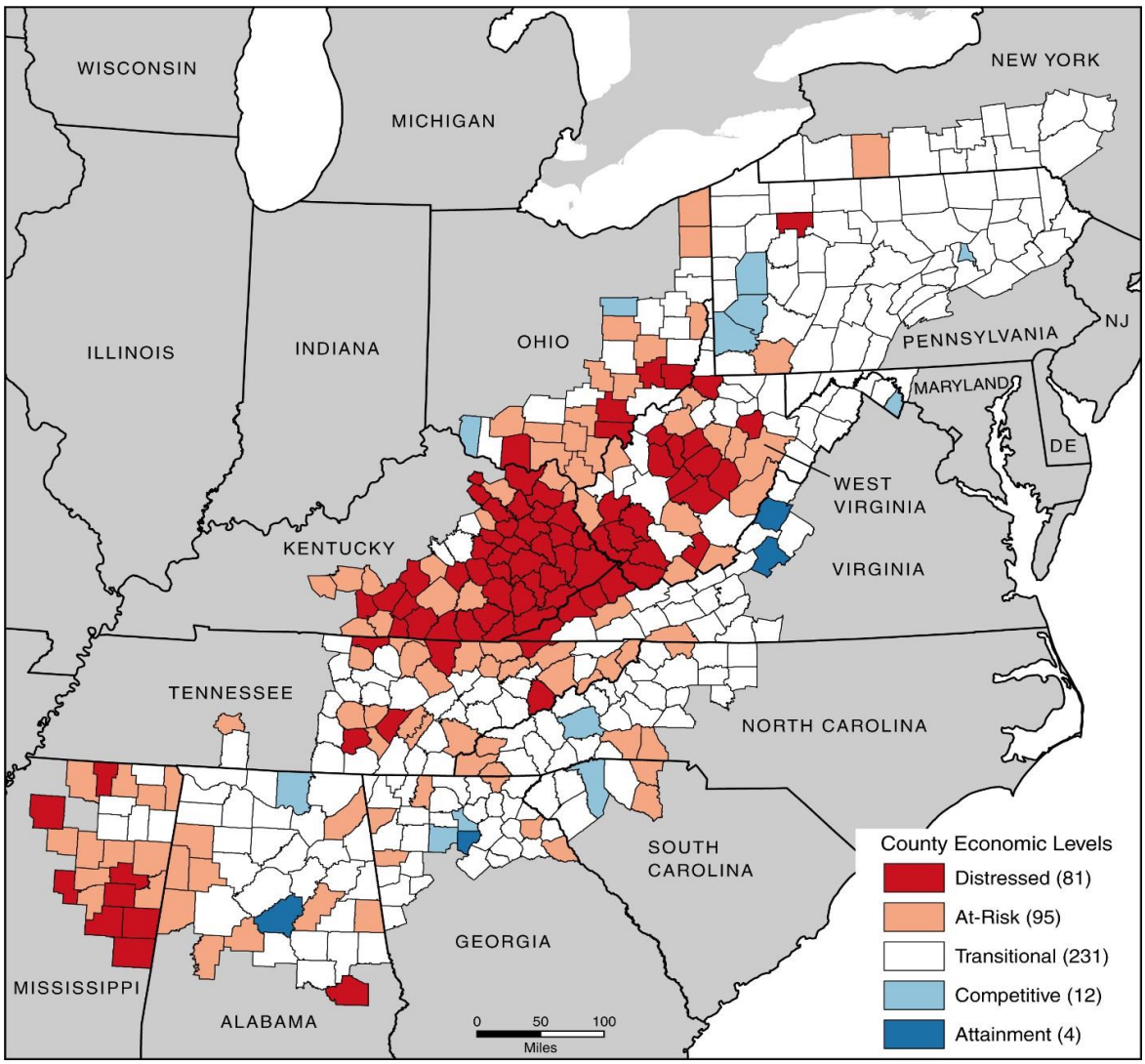
These economic gains and resulting decrease in the poverty rate have turned the Appalachian region into one of economic contrasts. Some communities enjoy successfully diversified economies, while others are still without basic infrastructure such as roads, water, and sewer systems (ARC, 2020). These contrasts are also a function of the region's size and diversity: its 420 counties across the aforementioned 13 states are home to more than twenty-five million people (ARC, 2020).

Economic Distress in Appalachian Counties

While significant positive economic shifts have occurred in the Appalachian region, new challenges to the region's financial stability have also emerged. The main challenges include the economic transition in coal mining communities, the substance abuse crisis, and the uncertainty of the COVID-19 pandemic (ARC, 2021).

Every fiscal year, the ARC compares each Appalachian county with national averages to create economic status designations. ARC then classifies its analysis of each fiscal year of the three-year average unemployment rates, per-capita market income, and poverty rates for all of Appalachia's 420 counties within one of five economic level designations, based on that county's position in the national ranking. The five designations are Distressed, At-Risk, Transitional, Competitive, and Attainment (ARC, 2021). ARC defines Distressed counties (2021) as the 10% most economically depressed counties in the country. At-Risk are on the brink of financial distress and rank between the bottom 10% and 25% (ARC, 2021). Transitional counties are in-between strong and weak economies and rank between the lowest 25% and the highest 25% in the nation – the largest single economic status designation (ARC, 2021). Competitive counties can compete in the national economy, but are not ranked in the highest 10%; and Attainment counties, the strongest and most robust, comprise the highest 10% in the nation (ARC, 2021). Figure 10 shows that for the fiscal year 2022 (October 1, 2021, through September 30, 2022), 81 Appalachian counties were Distressed, 95 were At-Risk, 231 were Transitional, 12 were Competitive, and four were classified Attainment.

Figure 9. County Economic Status in the United States Appalachian Region, FY 2022



Created by the Appalachian Regional Commission, June 2021; Revised November 15, 2021
Data Sources:
Unemployment data: U.S. Bureau of Labor Statistics, LAUS, 2017–2019
Income data: U.S. Bureau of Economic Analysis, LAPI, 2019
Poverty data: U.S. Census Bureau, American Community Survey, 2015–2019

Effective October 1, 2021 through September 30, 2022

Figure 9. County Economic Status in the United States Appalachian Region, Fiscal Year 2022. Adapted from "Appalachian Regional Commission" 2022.

Health Disparities in the Appalachian Region

The ARC's emergence in 1965 led to increased efforts against the known precursors to poor health: low income, limited education, and geographic location (Appalachian Regional Commission, 2020). However, key private investments in healthcare have occurred infrequently since the 1960s and remain low because of the region's low population density: 10 of the 13 states with counties in Appalachia have a lower population density than their respective state averages (Hagga, 2004). In addition, a high percentage of the region's residents are either without health insurance or have high-deductible plans (Behringer & Friedell, 2006).

Public health programs, Medicaid programs, and vital statistics are organized by state and are subject to those state's jurisdictional laws (Behringer & Friedell. 2006). In 1996, the National Center for Health Statistics (NCHS) produced national maps to display mortality rates; these maps which revealed that the Appalachian region suffered from disproportionately poor health compared to the rest of the United States (Pickle, Mungiole, Jones, and White, 1996).

The region is also characterized by its predominantly rural and isolated counties, which creates additional challenges to healthcare access; Appalachia has long suffered a shortage of healthcare professionals and a generally long distance to referral centers from rural areas (Wingo et al., 2005). These barriers to healthcare access might be mitigated by packaging the services of cancer prevention, risk reduction, and screening using a method realistic for rural settings while ensuring access to highly specialized services at larger regional centers (Behringer & Friedell. 2006).

PHAB Accredited Health Departments in the Appalachian Region

Previous studies have examined the rural and geographic challenges of specific areas within the Appalachian region. But none have focused on health department accreditation and state quality award attainment throughout the entirety of Appalachia. In the 420 counties of the Appalachian region, there

are 33 PHAB-accredited health departments as of May 14, 2022 (PHAB, 2022). By state, these health departments are:

- **Georgia: 2** (Cobb & Douglas Public Health and Gwinnett, Newton, and Rockdale County Health Departments)
- **Kentucky: 5** (Barren River District Health Department; Lake Cumberland District Health Department; Laurel County Health Department; Madison County Health Department; and Montgomery County Health Department)
- **Maryland: 2** (Allegany County Health Department and Garrett County Health Department)
- **North Carolina: 1** (Burke County Department of Health)
- **New York: 4** (Cattaraugus County Health Department; Cortland County Health Department; Schuyler County Public Health; Steuben County Public Health)
- **Ohio: 14** (Athens City-County Health Department; Carroll County Health Department; Clermont County Department of Health; Columbiana County Health District; Crawford County Health Department; Gallia County General Health District; Hocking County Health Department; Mahoning County District Board of Health; Meigs County Health Department; Perry County Health Department; Ross County Health District; Trumball County Combined Health District; Tuscarawas County Health Department; and Vinton County Health Department)
- **Pennsylvania: 2** (Allegheny County Health Department and Erie County Department of Health)
- **Tennessee: 1** (Knox County Department of Health)
- **West Virginia: 2** (Cabell-Huntington Health Department and Kanawha-Charleston Health Department)

Of the 33 PHAB-accredited Appalachian health departments, 31 are local and two are local/multijurisdictional (Schuyler County Public Health and Steuben County Public Health; PHAB, 2022). Also as of May 14, 2022, five Appalachian health departments – Allegany County Health Department; Cobb and Douglas Public Health; Erie County Department of Health; Madison County Health Department, and Mahoning County District Board of Health – achieved five-year re-accreditation. Finally, one Appalachian health department's five-year accreditation expired (Jefferson County Department of Health; PHAB, 2022).

Appalachian States with Quality Award Programs

The May 14, 2022, date also applies to the 46 Appalachian health departments that have received state quality awards (KYCPE, 2021 & TNCPE, 2022). These health departments and their awards are:

- **Kentucky: 1** (Madison County Health Department, Commitment Level 2 Award, 2006)
- **Tennessee: 45** (Anderson County Health Department, Interest Level 1- 2015 & 2017; Bledsoe County Health Department, Interest Level 1 - 2017; Blount County Health Department, Interest Level 1 - 2013 & Achievement Level 3 - 2014; Bradley County Health Department, Interest Level 1 - 2016; Cannon County Health Department, Carter County Health Department, Interest Level 1 - 2013 & Interest Level 2 - 2015; Claiborne County Health Department, Interest Level 1 - 2015; Clay County Department of Health, Commitment Level 2 Award-2018; Cocke County Health Department, Interest Level 1 - 2015; Coffee & Moore County Health Department District, Interest Level 1- 2016; Cumberland County Health Department, Interest Level 1 - 2015 & Commitment Level 2 Award - 2017; Dekalb County Health Department, Interest Level 1- 2015 & Commitment Level 2 Award - 2018; Fentress County Health Department, Interest Level 1 & Commitment Level 2 Award - 2018; Franklin County Health Department, Interest Award

Level 1 - 2017 & Commitment Level 2 Award - 2018; Grainger County Health Department, Interest Level 1 - 2016; Greene County Health Department, Interest Award Level 1 - 2013; Grundy County Health Department, Commitment Level 2 Award - 2014 & Commitment Level 2 Award - 2015; Hamblen and Jefferson County Health Department District, Interest Level 1 - 2015 & Commitment Level 2 Award - 2017; Hawkins and Hancock County Health District, Interest Level 1 - 2016; Jackson County Health Department and Community Health Center, Interest Level 1 - 2013 & Commitment Level 2 Award - 2017; Johnson County Department of Health, Interest Level 1 - 2016; Lawrence County Department of Health, Interest Level 1 - 2016; Loudon County Department of Health, Interest Level 1 - 2016; Macon County Department of Health, Interest Level 1 - 2016 & Commitment Level 2 Awards - 2018 and 2019; Marion County Health Department, Interest Level 1 - 2015; McMinn County Department of Health, Interest Level 1 - 2016; Meigs County Health Department, Interest Level 1 - 2016; Overton County Health Department, Interest Level 1 - 2014 & Commitment Award Level 2 - 2017; Pickett County Health Department, Interest Level 1 - 2016 & Commitment Award Level 2 - 2019; Polk County Department of Health, Interest Level 1 - 2017; Putnam County Health Department, Commitment Award Level 2 - 2017; Rhea County Health Department, Interest Award Level 1 - 2017; Roane and Morgan County Health Department District, Interest Level 1 - 2014; Scott County Health Department, Interest Level 1 - 2015; Sequatchie County Department of Health, Interest Level 1 - 2017; Sevier County Health Department, Commitment Award Level 2 - 2015, Achievement Award Level 3 - 2017, 2018, and 2019; Smith County Health Department and Community Health Center, Interest Level 1 - 2014 & Commitment Award Level 2 - 2017; Sullivan County Health Department, Interest Level 1 - 2005, Commitment Award Level 2 - 2007, Achievement Award Level 3 - 2011, 2013, and 2015; Unicoi County Health Department, Interest Level 1 - 2015; Van Buren County Health

Department, Interest Level 1 - 2016 and Commitment Level 2 Award - 2018; Warren County Health Department, Interest Level 1 - 2016 and Commitment Award Level 2 - 2017; Washington County Department of Health, Interest Level 1 - 2016; and White County Health Department, Interest Level 1 - 2016 and Commitment Award Level 2 - 2018.

Additionally, one Appalachian health department – the Madison County Health Department – has been awarded a state quality award and achieved PHAB accreditation.

This chapter introduced the origins of accreditation in the public sector. It focused on the literature covering the history of accreditation as a benchmark of continuous quality improvement in health departments through PHAB accreditation versus licensure by government entities to establish benchmarks for quality. Developing PHAB domains and standards through consensus revealed incentives and barriers to successful accreditation. The development history of the MBNQA and the incentives and barriers for using the Baldrige Criteria for Excellence were foundations for state award programs administered through the Alliance for Performance Excellence. The Appalachian region is characterized by a rural demographic that can benefit from health departments' attainment of state quality performance awards and PHAB accreditation to achieve continuous quality improvement milestones. Achieving these milestones can inspire additional local and state health departments to elevate the quality of their existing programs and develop a culture of quality and accountability.

CHAPTER 2

METHODOLOGY

Objectives and Research Questions

This study examines the relationship between Public Health Accreditation Board (PHAB) accreditation and state quality award attainment and their effects on improving rural health department performance in the Appalachian region of the United States. One of the purposes of PHAB accreditation and state quality awards is to encourage health departments to improve their performance fulfilling mission statements and serving their target populations.

The first manuscript analyzes the governance of the Appalachian counties and states with PHAB-accredited health departments or state quality awards and how their governance and economic status for fiscal year 2022 influenced any decision to pursue PHAB accreditation or state quality awards. The second manuscript explores the incentives and barriers associated with PHAB accreditation and attaining state-quality performance awards, with a focus on the effects of and links between these incentives and barriers and the decision to pursue quality benchmarks.

This study is significant due to the historic lack of research exploring the factors influencing the decision of Appalachia's state governments and local health department leadership to pursue PHAB accreditation or Baldrige-type state quality awards to stimulate performance improvement of health departments. The results of this research can be translated to future research on rural and urban health departments outside of Appalachia to understand the motives behind other decisions to pursue PHAB accreditation or state quality awards as components of a complete quality improvement program.

The first manuscript asks one research question: What are the governance structures of the states within the Appalachian region that have Public Health Accreditation Board (PHAB)-accredited health departments or health departments that have received state quality awards? How do these governance

structures and fiscal year 2022 county economic levels affect the decision to pursue benchmarks of quality?

That research question's hypothesis is as follows: Appalachian states and counties with higher economic levels and fewer health disparities will have more local and state health departments with either PHAB accreditation or state quality awards or are pursuing either option than states and counties with have lower economic designations. This could indicate that health departments that have met these quality improvement benchmarks have a more substantial positive effect on the economic levels and health disparities of the population within their service area.

The second phase of the dissertation asks the following research question and offers its corresponding hypothesis:

Question 2.1: What are the incentives and the barriers experienced by local and state health departments in the rural Appalachia during the path to successful PHAB accreditation or state quality performance award attainment? How do those incentives and barriers influence departmental decisions to pursue PHAB accreditation or state quality performance awards?

Hypothesis 2.1: Incentives in the form of a robust financial foundation and staff training in continuous quality improvement throughout PHAB accreditation or state quality award application process will be integral to removing the barriers of financial constraint and a lack of knowledge about the PHAB accreditation and state quality award application processes.

Study Design

This qualitative descriptive study used a Qualtrics questionnaire and semi-structured qualitative Zoom interviews to collect data for the two manuscripts for publication. The qualitative descriptive approach is used widely in qualitative studies and has been identified as important and appropriate for research questions focused on the who, what, and where of events (Kim et al., 2017).

The Qualtrics questionnaire, which consisted of 15 questions and took approximately 15 minutes to complete, included fix-choice (closed), yes/no, and 5-point Likert scale closed-ended questions that focused on the respondent's current job title; knowledge of PHAB accreditation; knowledge of state quality awards; co-worker attitudes about accreditation and state quality awards; and the effects of COVID-19 on the maintenance of current accreditation and future reaccreditation plans (Appendix E; Qualtrics, 2022). The questions also concerned the demographics of respective state and local health department (LHD) service areas before the onset of the COVID-19 pandemic and the new challenges, presented by the pandemic, for providing background profile information for each health department. The purpose of the Qualtrics questionnaire was to gauge the respondent's level of familiarity with PHAB accreditation and state quality awards and their coworker's knowledge of these quality benchmarks while serving as a discussion guide during subsequent qualitative interviews. Health department directors and accreditation coordinators that achieved initial PHAB accreditation or a state quality award of any tier received the Qualtrics questionnaire link via email.

This questionnaire was followed by semi-structured qualitative interviews consisting of open-ended questions guided by a written script made up of questions posed to the directors of health departments or their leadership proxies. The qualitative interviews explored the reasons for the success or failure of implementing PHAB accreditation and state quality award attainment (Teddlie & Tashakkori, 2003). The interviews added depth and detail to help fully understand the importance of accreditation or the pursuit of quality awards for the respondents (Appendix F; Patton, 2002). These semi-structured qualitative interviews also included a prepared, open-ended interview protocol that functioned as a guide and allowed some variance in the questions based on the participants' responses, as well as the possibility of further discussion (Roulston, 2010). The same health departments that completed the Qualtrics questionnaire were invited to participate in the qualitative interviews, which included 14 questions tailored to rural work environments.

The interviews were conducted via Zoom Meetings. Zoom is an interactive video conferencing platform that can be used through a computer or mobile app and allows users to connect online for video conference meetings; webinars; live chat; and virtual interviews (Zoom, 2021). This format was chosen because direct observation of each site would have been too labor- and time-intensive, especially given the large span of the Appalachian region. A virtual process allowed for a level of flexibility in scheduling that would likely have been impossible with in-person health department visits (Rose & McCullough, 2017). The electronic format also allows for decreased costs (Chapple, 1999); increased access to geographically challenging subjects (Sturges & Hanrahan, 2004; Sweet, 2002; Tausig & Freeman, 1988); increased interviewer safety (Carr & Worth, 2001; Sturges & Hanrahan, 2004); decreased space requirements (Sweet, 2002); the ability to take notes unobtrusively (Carr & Worth, 2001; Smith, 2005; Sturges & Hanrahan, 2004; Tausig & Freeman, 1988); increased verbal rapport (McCoyd & Kerson, 2006); and the ability to allow the participants to remain comfortable "on their turf" (McCoyd & Kerson, 2006, p. 399). Additionally, the onset and proliferation of COVID-19 created traveling and meeting limitations. The CDC bound each jurisdiction and state by health guidelines that forced an increased reliance on Zoom and other video conferencing modes to promote communication while practicing safe social distancing. Finally, health department leaders were offered a $25 gift card and a thank-you card as an incentive to participate in the Qualtrics questionnaire and qualitative Zoom interview.

The semi-structured qualitative interviews for the health department leadership or accreditation coordinator staff took approximately 50 minutes each. The interviews were recorded with the participant's permission and transcribed for review after data collection using NVivo 12 Plus (QSR International, Ltd.), a qualitative data analysis application. The study received UGA IRB approval on October 22, 2019, and it was determined that the activities proposed are research not involving human subjects.

Study Sample

The accredited health department data was derived from PHAB (2022) and included all accredited health departments between February 2013 and May 14, 2022. The state quality awarded health department data was derived from the Alliance for Performance Excellence (2022). The PHAB-accredited health department database is updated approximately every three months. As of May 14, 2022, the total PHAB data set consisted of the following categories of 357 accredited health departments: Health department name (name); health department state (hdstate accreditation date (accredited_date); health department type (hdtype); and accreditation version (version-1.0,1.5; PHAB, 2022).

The health department types in the United States that have achieved accreditation through PHAB are, as of May 14, 2022, Local (N=299); State (N=40); Integrated (N=1); Tribal (N=5); Vital Records/Health Statistics Units (N=4); Army Installation Departments of Public Health (N=2); and Multijurisdictional (N=6) (PHAB, 2022).

The geographic data sample for this study is derived from the Appalachian region's 420 counties across 13 states spanning 205,000 square miles, as defined by the ARC (2022). The criteria for the selection of health departments for both manuscripts included: 1) PHAB accreditation as of May 14, 2022, and location in one of the ARC-designated Appalachian counties; or 2) have received at least one state quality award of any tier as of May 14, 2022. After removing the PHAB-accredited health departments outside of the Appalachian region, it was found that nine of the region's 13 states had PHAB-accredited health departments. There were a total 30 PHAB-accredited LHDs in the nine Appalachian states, along with two local/multijurisdictional health departments. Although there are 40 PHAB-accredited state health departments in the United States, none of them serve the Appalachian-region counties as defined by ARC (PHAB, 2022 & ARC, 2022). In addition, 45 Appalachian LHDs

(but zero state health departments) earned various state quality award recognitions in Tennessee and Kentucky (TNCPE, 2022 & KYCPE, 2022), and a further Appalachian LHD achieved both PHAB accreditation and a state quality award (PHAB, 2022 & KYCPE, 2022).

The PHAB-accredited and state-quality awarded local health departments were ranked according to their county's 2022 fiscal year economic status. Health departments were identified by each of the five County economic categories: Distressed, At-Risk, Transitional, Competitive, and Attainment (ARC, 2022).

Procedures

Purposeful criterion sampling was used to select the PHAB-accredited and state quality-awarded health departments for analysis in both manuscripts. This method was used to gain critical insights into the differences between the perspectives of the health department leadership teams (Lalchandani et al., 2021). Two LHDs were chosen from each of the nine Appalachian states that had PHAB-accredited health departments. The PHAB-accredited health department leaders, their proxies, or their accreditation coordinators received the Qualtrics questionnaire and an invitation to participate in the qualitative interview following an email introducing the researcher and describing their research. In the two states with LHDs that have received state quality awards (Tennessee and Kentucky), the two LHDs that received state quality awards received both the Qualtrics questionnaire and qualitative interview.

New York was the only state in the ARC-defined Appalachian region with local multijurisdictional PHAB-accredited health departments (N=2). No health departments in Appalachian New York received quality awards of any tier. For the state of New York, both PHAB-accredited multijurisdictional LHDs received the Qualtrics questionnaire and invitation to participate in the qualitative interview.

All qualitative interviews were recorded and the recordings transcribed verbatim for coding accuracy. The researcher had no established relationship with the participants before initiating the study. The researcher facilitated discussion and took notes to capture the responses. Each participant (health department) was interviewed 1-on-1 and did not receive a contact for feedback or follow-up interview. All participating health departments were labeled by their respective governance classification and the economic level of their corresponding county service area.

Interview Guide

An interview guide directed the semi-structured qualitative interviews, which were based on the same questions for all participants. Questions were tailored to answer the study's research question and were designed to broaden the discussion of PHAB accreditation and state quality award attainment, as well as the effects of governance; county economic status; the influence of state government; and the onset of the COVID-19 pandemic.

The interview guide was pilot tested in mid-April 2022 with a local health department (LHD) that achieved PHAB accreditation in February 2018. This health department was selected for pilot testing because its location and geographic county service area were outside the Appalachian region. The purpose of pilot testing this health department was to determine whether portions of the interview guide needed editing to increase the clarity or flow of the interview and to confirm the length of time required for each interview to decrease interviewee fatigue. The pilot test interview was not included in the study sample.

CHAPTER 3

THE EFFECTS OF GOVERNANCE STRUCTURES AND COUNTY ECONOMIC LEVEL STATUS ON THE DECISION-MAKING PROCESSES OF HEALTH DEPARTMENTS IN THE APPALACHIAN REGION TO PURSUE PUBLIC HEALTH ACCREDITATION BOARD ACCREDITATION AND STATE QUALITY AWARDS[1]

The author has no conflict of interest to report.

Abstract

INTRODUCTION: Several different state governance structures and economic levels exist within the Appalachian counties and states defined by the Appalachian Regional Commission (ARC) with Public Health Accreditation Board (PHAB) accredited health departments or state quality program awarded health departments.

PURPOSE: This study analyzes the governance structures and varying Fiscal Year 2022 economic levels of the Appalachian-region counties and states with PHAB-accredited health departments or health departments that received state quality awards, as well as how these governance structures and economic levels influenced their decision to pursue PHAB accreditation or state quality awards.

METHODS: The Appalachian Region states and counties defined by the Appalachian Regional Commission (ARC) were the eligible participants in this study. The PHAB-accredited health departments in the Appalachian region were obtained from the May 2022 update of the Public Health Accreditation Board (2022) database. The state quality-awarded health departments in the Appalachian

[1] Thomas B., Lee J., Hall J., Bender K. To be submitted to the *Journal of Appalachian Health*.

states and counties were identified using the mapping system of the Alliance for Performance Excellence (2022). The 2022 Fiscal Year County economic status levels were obtained from the Appalachian Regional Commission (2022) with the following classifications: Distressed, At-Risk, Transitional, Competitive, and Attainment. This qualitative study used multiple methods with a Qualtrics questionnaire and semi-structured qualitative Zoom interviews for data collection. The health department directors or their accreditation coordinators who completed the pre-interview questionnaire were invited to participate in the Zoom semi-structured qualitative interviews. The interviews were recorded in Zoom and uploaded into NVIVO 12 Plus (QSR International, Ltd.) data analysis software for transcription and data analysis.

RESULTS: As of May 14, 2022, there were 32 PHAB-accredited local and multijurisdictional health departments and 78 state-quality awarded health departments in the Appalachian region, ranging in award recognition levels from Level 1 (Interest) to Level 3 (Achievement). Nine PHAB-accredited and one state quality-awarded health departments participated in this study.

IMPLICATIONS: Most of the Appalachian region health departments that completed the pre-interview questionnaire and participated in the Zoom interview reported that their decision to pursue PHAB accreditation or state quality awards was autonomous and without significant influence from their respective state governments. There was also no significant effect of county economic status on the decision to pursue PHAB accreditation or state quality awards.

Keywords:

Appalachia, Governance, Accreditation, Health Departments, State Quality Awards, Rural H

Introduction

The varying governing structures and economic statuses that span Appalachia's 423 counties, including the entire state of West Virginia, present unique challenges regarding the different approaches to measuring quality improvement and performance. The Appalachian Regional Commission (ARC) (2022) defines the Appalachian region as covering the following states: Alabama (37 counties); Georgia (37 counties); Kentucky (54 counties); Maryland (3 counties); Mississippi (24 counties); New York (14 counties); North Carolina (31 counties); Ohio (32 counties); Pennsylvania (52 counties); South Carolina (7 counties); Tennessee (52 counties); Virginia (25 counties); and West Virginia (all 55 counties in the state).

The Public Health Accreditation Board (PHAB), incorporated in 2007, is the non-profit, national accrediting organization for public health departments dedicated to advancing the continuous quality improvement of Tribal, state, local, and territorial public health departments (PHAB, 2021). Public health agency accreditation directly benefits from creating a benchmark of consistent nationwide public health service standards (Russo, 2007). Additional benefits of accreditation include improved staff morale; increased awareness of other agencies' activities; information sharing; and a sound platform for quality improvement (Russo, 2007).

By 2004, many states had incorporated state quality award programs to promote continuous quality improvement in their respective states. The Alliance for Performance Excellence was incorporated in Arizona and received 501(c) 3 non-profit status in 2005 to facilitate organizational excellence and foster competitiveness through state and regional Baldrige processes by members (Alliance for Performance Excellence, 2020). The Alliance for Performance Excellence consists of more than 30 local, state, regional, and sector-specific Baldrige-based programs serving nearly 50 states, is an integral partner of the Baldrige Performance Excellence Program at the National Institute of Standards and Technology (NIST,) and promotes United States organizations' long-term success based

on the Baldrige Criteria for Performance Excellence (NIST, 2014). Many alliance member programs use the Baldrige Criteria for Performance Excellence to assist their organizations with their performance excellence journey.

As of May 14, 2022, nine states within the Appalachian region, as defined geographically by the Appalachian Regional Commission (ARC), had PHAB accredited health departments. These states were: Georgia (two Appalachian region PHAB accredited local health departments (LHDs), Kentucky (four Appalachian region PHAB accredited LHDs), Maryland (two Appalachian region PHAB accredited LHDs), New York (four Appalachian region PHAB accredited LHDs: two LHDs and two multijurisdictional LHDs), North Carolina (one Appalachian region PHAB accredited LHD), Ohio (14 Appalachian region PHAB accredited LHDs), Pennsylvania (two Appalachian region PHAB LHDs), Tennessee (one Appalachian region PHAB accredited LHD), and West Virginia (two Appalachian region PHAB accredited LHDs)(ARC, 2022).

As of May 14, 2022, 46 health departments in the Appalachian region have received state quality awards (N=45 Tennessee LHDs and N=1 Kentucky LHD) (KYCPE, 2021 & TNCPE, 2022). One LHD in Kentucky has been awarded a state quality award and has achieved PHAB accreditation.

Governing entities are integral in linking health departments with the communities they serve (Carlson et al., 2015). Boards of health are the most common type of public health governing entity and are used in 26 states at the state level and 41 states at the local level (ASTHO, 2010; NALBOH, 2011). There has been significant interest in the role of governing entities as there has been some evidence that has linked having a board of health to a more effective health department, with initial and continued participation by governing entities in national voluntary health department accreditation signifying an integral step toward assessing governing entity performance (Mays et al., 2004; Wallace et al., 2014).

To strengthen the support of governing bodies, the National Association of Local Boards of Health (NALBOH) developed the "Six Functions of public health Public Health Governance," which include the following six governance functions of state health departments:

- Policy development: Lead and contribute to developing policies that protect, promote, and improve public health while ensuring that the agency and its components remain consistent with the laws and rules (local, state, and federal) to which it is subject.
- Resource stewardship: Assure the availability of adequate resources (legal, financial, human, technological, and material) to perform essential public health services.
- Legal compliance: Exercise legal authority as applicable and understand the roles, responsibilities, obligations, and functions of the governing body, health officers, and agency staff.
- Partner engagement: Build and strengthen community partnerships through education and engagement to ensure the collaboration of all relevant stakeholders in promoting and protecting the community's health.
- Continuous improvement: Routinely evaluate, monitor, and set measurable outcomes for improving community health status and the public health agency's/governing body's ability to meet its responsibilities.
- Oversight: Assume ultimate responsibility for public health performance in the community by providing necessary leadership and guidance to support the public health agency in achieving measurable outcomes (NALBOH, 2012).

Local health departments are structured differently but derive their authority from their respective state (McMillan v. Monroe County, 1997). The actual roles, responsibilities, and scope of the public health authority depend primarily on state policy and the governing relationship between the state and local health departments (ASTHO, 2012).

The governance structures of local health departments and their corresponding relationships are (DeFriese et al., 1981):

- Centralized or largely centralized structure: Local health departments function directly under the state's authority and are operated by a state department of public health or a state board of health, and the state retains authority over most decisions related to the budget, issuing of public health orders, and the selection of the local health official.
- Decentralized or largely decentralized structure: Local government (a city, township, county, or some combination) operates a local health department directly or with the intervening authority of a local board of Health, with the local government retaining authority over most key fiscal decisions. The state health department is available to offer advice and consultation to the local board of health or local health department.
- Mixed structure: Some local health departments in the state are led by the state government, and local government entities lead with no one structure being predominant.
- Shared structure: Local health departments are governed by state and local authorities. For example, in some jurisdictions, a local health department may be required to submit program plans and budgets to the state for health departments to qualify for federal or state funds. (DeFriese et al., 1981; ASTHO, 2017; ASTHO, 2020).

Each of these local health department governance structures has different challenges regarding decision-making and the overall administrative direction of the health departments in their respective jurisdictions (DeFriese et al., 1981).

The 2022 fiscal year (October 1, 2021-September 30, 2022) presented varying economic levels within the Appalachian region counties with PHAB-accredited and state-quality-awarded health departments. The Appalachian Regional Commission (ARC) utilizes an index-based county economic classification system to identify and monitor the economic status of Appalachian counties, which

includes a comparison of each county's averages for three economic indicators: three-year average unemployment rate, per capita market income, and poverty rate with national averages (ARC, 2022).

The Appalachian counties are classified into one of five of the following economic status designations based on their position in the national ranking (Figure 2) (ARC, 2022):

- Distressed: Distressed counties are the most economically depressed counties in the Appalachian region and rank in the worst 10 percent of the United States counties.
- At-Risk: At-Risk counties are those at risk of becoming economically distressed and rank in the worst 10 percent and 25 percent of United States counties.
- Transitional: Transitional counties are those transitioning between strong and weak economies and comprise the most extensive economic status category, ranking between the worst 25 percent and the best 25 percent of United States counties.
- Competitive- Competitive counties are those that are able to compete in the national economy but are not in the highest 10 percent of the nation's counties. Counties ranking between the best 10 percent and 25 percent of the nation's counties are classified competitive.
- Attainment- Attainment counties are the economically strongest counties. Counties ranking in the best 10 percent of the nation's counties are classified attainment.

Figure 10. Local Health Departments Governance Structures by State and Reaccreditation Activity by State as of 2016

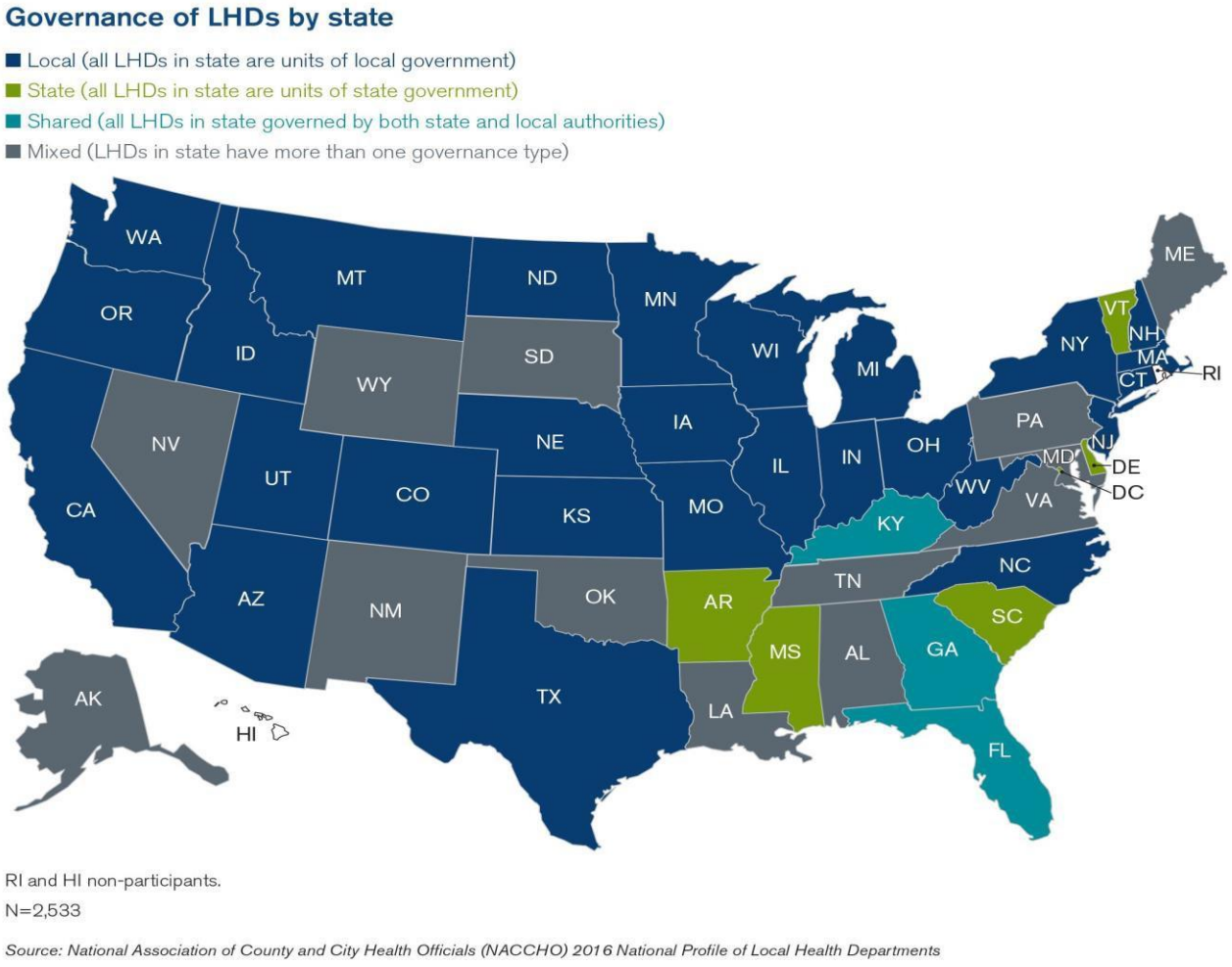
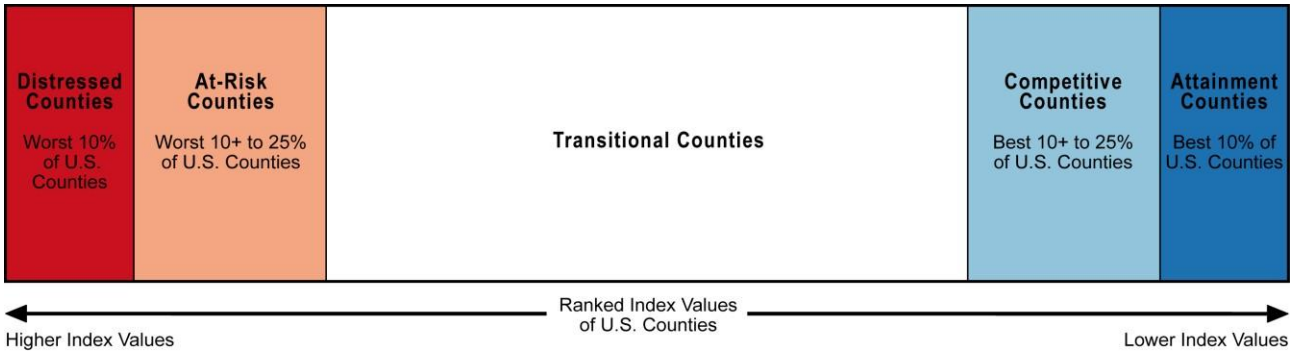


Figure 1. Local Health Departments Governance Structures by State and Reaccreditation Activity by State as of 2016. Adapted from the National Association of County and City Health Officials (NACCHO) 2016 National Profile of Local Health Departments.

The mission of the public health system in the United States is to promote and protect the nation's health, and historically, the public health system has achieved success in pursuing this goal (Derose, et al., 2002). With an increasing emphasis on continuous quality improvement in public health, additional research is necessary to understand the linkages between governing structures and the

Figure 11. ARC County Economic Status Designation



Note. This figure displays the Appalachian Regional Commission fiscal year county economic status by National Index Value Rank.

economic levels of Appalachian counties and their decisions to pursue initial health department accreditation through PHAB or state quality awards.

Health disparities are defined as a "particular type of health difference that is closely linked with a social, economic, and environmental disadvantage that can adversely affect groups of people who have systematically experienced more significant obstacles to quality healthcare based on their racial or ethnic groups, religion, socioeconomic status, gender, age, mental health, physical disability, sexual orientation, geographic location, and other characteristics historically linked to discrimination or exclusion (USDHHS, 2010). The Appalachian Region presents geographic challenges and elements of public health disparities due to rural socioeconomic factors and avoidable barriers within the healthcare delivery system (NCSL, 2014).

Methods

Study Overview

This study aimed to research the factors that guide the decisions of governing stakeholders within each of the Appalachian states to pursue health department accreditation versus the pursuit of state quality awards or the attainment of both. Therefore, research in this area is integral to developing a greater comprehension of these decision drivers by public health leaders and may provide a valuable roadmap for health departments when making future continuous quality improvement decisions. This study focuses on the Appalachian region because of the many distressed rural economic population levels and the challenges associated with pursuing and maintaining successful continuous quality improvement programs.

The following research question and corresponding hypothesis guided this study: What are the governance structures of the states within the Appalachian region that have Public Health Accreditation Board (PHAB) accredited health departments or health departments that have received state quality awards, and how do these governance structures and Fiscal Year 2022 county economic status levels affect their decision to pursue these benchmarks of quality?

It is hypothesized that there are more states with higher economic levels and fewer health disparities within the Appalachian region that have PHAB accreditation or have received state quality awards than states and counties that have lower economic level designations which could indicate that health departments that achieve these quality improvement benchmarks have a more substantial positive impact on the economic levels and health disparities of the population within their service area.

Study Design

This qualitative descriptive study used a Qualtrics questionnaire and semi-structured qualitative Zoom interviews for data collection. The qualitative descriptive approach has been widely used in

qualitative studies and has been identified as important and appropriate for research questions focusing on discovering the who, what, and where of events (Kim et al., 2017).

The Qualtrics questionnaire included fix-choice (closed) yes/no and 5-point Likert scale closed-ended questions that focused on the Appalachian region state governance structures, and county economic levels of the population served by the Public Health Accreditation Board (PHAB) accredited health departments and state quality awarded health departments (Qualtrics, 2020). The questions also focused on the demographics of their respective state and local health department (LHD) service areas before the onset of the COVID-19 pandemic and the new challenges presented by the pandemic to provide background profile information for each health department. The purpose of this Qualtrics questionnaire was to gauge the respondent's level of familiarity with PHAB accreditation and state quality awards and their coworker's knowledge of these quality benchmarks while providing a guide for the discussion during the subsequent qualitative interviews. The Qualtrics questionnaire link was emailed to the health department directors or their accreditation coordinators in the Appalachian region and only included LHDs and state health departments that have attained initial PHAB accreditation or have achieved state quality awards of any tier. The Qualtrics questionnaire consisted of 15 questions and took approximately 15 minutes to complete.

The Qualtrics questionnaire was followed by semi-structured qualitative interviews consisting of open-ended questions that were guided by a written script consisting of questions that were administered to health department directors or their accreditation coordinators, added depth and detail to fully understand the level of importance of accreditation and the pursuit of quality awards to the respondents (Patton, 2002). These semi-structured qualitative interviews included a prepared open-ended interview protocol that will be used as a guide which will allow some variance in the questions according to the responses given by the participants to elicit further discussion (Roulston, 2010). Only

the health departments that completed the Qualtrics questionnaire were invited to participate in the qualitative interviews.

The qualitative interviews were administered through Zoom Meetings. Zoom is an interactive video conferencing platform that can be used through a desktop/laptop computer or mobile app and allows users to connect online for video conference meetings, webinars, live chat, and virtual interviews (Zoom, 2021). The Zoom format was chosen because direct observation site visit travel is difficult concerning the changing public health concerns presented by the COVID-19 pandemic and health department staff scheduling time restraints. The telephone/Zoom format also allows for decreased costs (Chapple, 1999), increased access to geographically challenging subjects (Sturges & Hanrahan, 2004; Sweet, 2002; Tausig & Freeman, 1988), increased interviewer safety (Carr & Worth, 2001; Sturges & Hanrahan, 2004), decreased space requirements (Sweet, 2002), the ability to take notes unobtrusively (Carr & Worth, 2001; Smith, 2005; Sturges & Hanrahan, 2004; Tausig & Freeman, 1988), increased verbal rapport (McCoyd & Kerson, 2006), and the ability to allow the participants to remain comfortable "on their own turf" (McCoyd & Kerson, 2006, p. 399).

The participants were offered a $25 gift card and a thank you card as an incentive for completing the Qualtrics questionnaire and participating in the Zoom qualitative interview. This study, received University of Georgia Institutional Review Board approval in October 2019, and it was determined that the activities proposed are research not involving human subjects.

Study Sample

The geographic data sample for this study was derived from 423 counties within 13 states spanning 206,000 miles of the Appalachian region as defined by the ARC (2023). The accredited health department data was derived from PHAB (2022) and included all health departments accredited between February 2013 and May 14, 2022. The state quality awarded health department data was

derived from the Alliance for Performance Excellence (2022). The criteria for the selection of health departments for this study included: 1) Initial PHAB accreditation as of May 14, 2022, and a location in one of the ARC-designated Appalachian counties; or 2) have received at least one state quality award of any tier and located in one of the ARC-designated counties as of May 14, 2022. After eliminating the PHAB-accredited health departments outside of the Appalachian region, it was found that nine of the 13 states had health departments that attained initial PHAB accreditation. There were 31 PHAB-accredited LHDs in the nine Appalachian states and two local/multijurisdictional health departments. New York state was the only state in the ARC-defined Appalachian region with local multijurisdictional PHAB-accredited health departments (N=2). One non-multijurisdictional LHD in the Appalachian region of New York state was PHAB accredited. Although there were 40 PHAB-accredited state health departments throughout the United States as of May 14, 2022, there were zero PHAB-accredited state health departments in the Appalachian region counties as geographically defined by the ARC (PHAB, 2022 & ARC, 2022). There were 45 LHDs and zero state health departments that attained varying state quality award recognitions in the Appalachian region states of Tennessee and Kentucky (TNCPE, 2022 & KYCPE, 2022). One LHD in the Appalachian region states achieved PHAB accreditation and a state quality award (PHAB, 2022 & KYCPE, 2022).

Procedures

Purposeful sampling was used to select the PHAB-accredited and state quality awarded health departments for this study. This method was used to gain the critical insights into the differences that exist between the perspectives of the health department leadership teams (Lalchandani et al., 2021). Two PHAB-accredited LHDs were chosen from each of the nine Appalachian states with PHAB-accredited health departments to participate. In January 2022, the LHD directors, their proxy, or the accreditation coordinator received an email introducing the principal investigator, a description of the

research study, a link to the Qualtrics questionnaire, and a date by which the potential participant should respond to the invitation to participate in the study. These initial emails garnered minimal response, and at the request of the principal investigator, an email was sent by PHAB in March 2022 to the eligible health departments making them aware of this study, that they may receive an email from the principal investigator requesting their participation in this study, and that a health department's decision to participate or not participate in this study would have no bearing on their current accreditation status or future application for re-accreditation. If a reply was not received from a health department by the date in the original email invitation, the researcher followed up with an additional email. If a health department did not respond or declined to complete the Qualtrics questionnaire, another Appalachian region PHAB-accredited health department was chosen until two Qualtrics questionnaires were completed from each ARC region-defined state. The Qualtrics questionnaire comprised 15 questions and took approximately 15 minutes to complete. The total number of completed questionnaires was 23, with three being test cases to gauge the length of the questionnaire, which were deleted. The questionnaires were numbered in the order of submission and numbered from number 1 to number 20.

The introductory email also included an invitation to participate in the subsequent qualitative Zoom interview. The LHD directors or the accreditation coordinators of two state quality-awarded LHDs in Tennessee and one LHD in Kentucky that achieved initial PHAB accreditation and a state quality-award were also selected to receive the introductory emails that include the link to the Qualtrics questionnaire and an invitation to participate in the qualitative Zoom interview.

The qualitative Zoom interviews were conducted between April and October 2022. The method of recruitment was also through email invitation only to the health departments that completed the initial Qualtrics questionnaire. The principal investigator conducted all the interviews with the health departments and had no previous relationship with the participants before this study was initiated. The

confidential study agreement presented in the invitation email was discussed at the beginning of each interview and reinforced the anonymity of participants. The interviews were designed to be flexible, iterative, and continuous rather than rigid and locked in stone and included 14 questions tailored to the rural work environment of the LHDs and lasted between 35 and 65 minutes with an average duration of 50 minutes. The total number of qualitative interviews was 11, with one being rejected due to the health department not being in or its service area covering an ARC-designated county. The participants were numbered in the order of interview conducted from number 1 to number 10 and paired with their respective completed questionnaires.

The interviews were recorded in Zoom and uploaded into NVIVO 12 Plus (QSR International, Ltd.) data analysis software for transcription and data analysis. For theoretical saturation, the criteria to discontinue data collection occurred when 10 health departments completed interviews from six of the nine (66.6%) Appalachian region states that had PHAB-accredited or state-quality-awarded health departments, which eliminated the need to follow up with additional participants that did not initially respond to the invitations as no new themes or codes emerged (Park et al., 2021; Yoosefi et al., 2020). After each of the interviews, any new codes that emerged after analysis were included in the discussion for each subsequent interview to check the codes to determine if other interviewees have had similar experiences so that richer concepts could emerge (Yoosefi Lebni et al., 2020).

All the qualitative interviews were recorded and transcribed verbatim for coding accuracy. The researcher had no established relationship with the participants before initiating the study. Each participant (health department) was interviewed 1-on-1 and did not receive a contact for feedback or a follow-up interview. All participating health departments were also labeled with their respective governance classification and economic level of their corresponding county service area.

Results

Thirty-four PHAB-accredited and state quality-awarded local health department (LHDs) directors and accreditation coordinators were sent introductory email invitations, including a link to the Qualtrics questionnaire. Twenty-three LHDs completed the questionnaire with two test cases eliminated, which were used to determine questionnaire length and level of comprehension. Six LHDs were ineligible because they were not located in one of the Appalachian region counties. Ten of the eligible 15 LHDs completed the qualitative Zoom interviews.

Data Analysis

1. Profile of the Respondents

Leaders in multi-staff roles completed the Zoom interviews with the ten eligible LHDs. These stakeholders included Accreditation Coordinator, Health Department Director, Office Supervisor, Public Health Registered Nurse, Executive Assistant, Program Manager, Health Department Chief Officer, quality improvement manager, and Performance Management director.

The Qualtrics questionnaire was used to guide each interview to tailor the questions with some variance to each of the respondents. Each of the transcripts from the interviews were coded, and the data was analyzed using content analysis in the style of the constant comparative method to discover conceptual similarities and patterns (Tesch, 2013). The coding structure for the responses was developed based on open iterative coding to allow for emergent codes to be placed into categories, which were ranked (Lalchandani et al., 2021). Braun and Clarke's (2006) six-step framework thematic analysis was followed to include collating the codes into potential themes, reviewing these themes, and refining the specifics of each theme to generate clear definitions for each theme. Table 1 displays the codes themes: Accreditation (N= 5 codes), governance classification (N= 2 codes), economic level status (N= 4 codes), state quality awards (N= 2 codes), and quality improvement (N= 3 codes), and

COVID-19 (N=

3 codes). The additional codes gleaned from the Zoom interview responses were deleted as they were out of the scope of the content of the research question.

2. Governance Classification

The eligible LHDs that participated in the Zoom interviews reported varying governance classifications. Table 9 illustrates the following governance classifications of LHD respondents' respective states: Georgia (shared), Kentucky (shared), North Carolina (decentralized), Ohio (decentralized), Tennessee (mixed), and West Virginia (decentralized).

When asked about the influence of the state governance classification on the decision of the PHAB-accredited and state-quality-awarded LHDs to pursue these quality benchmarks, the majority (N=7) reported that the governance classification of their respective states had no correlation with their decision to pursue PHAB accreditation or state quality awards. These seven respondents also reported that their respective state governments gave them full autonomy to pursue PHAB accreditation. While these PHAB-accredited LHDs were given the decision autonomy to pursue PHAB accreditation, none of them were familiar with the state quality awards. The one state quality awarded LHD respondent reported that while they were familiar with PHAB accreditation, they were not an entity currently receiving accreditation because they were classified as rural by their central and regional offices. Two of the ten LHD respondents reported that they were mandated by Ohio state law to be PHAB accredited by 2020 (Ohio Laws & Administrative Rules, 2021). One LHD that only attained state quality awards reported that their state government had a mixed governance classification, which strongly encouraged the pursuit of the state quality awards, with the final decision to proceed with the application process made by the health department director. The two LHDs from the "shared governance" classification states reported that small grants were offered for technical assistance during the accreditation process

Table 9. Governance Classification by Appalachian States that Participated and have PHAB Accredited and State Quality Awarded Health Departments

State	Governance Classification
Georgia	Shared
Kentucky	Shared
North Carolina	Decentralized
Ohio	Decentralized
Tennessee	Mixed
West Virginia	Decentralized

but became unavailable as the state government administrations changed. Below is a listing of several of their responses:

–**Decentralized classification**: "The state's governance classification of Decentralized had no bearing on our decision to pursue PHAB accreditation or reaccreditation."

–Two respondents from a "shared governance" classification state reported that "while their state government provided options for technical assistance during the initial accreditation phase, the decision to pursue PHAB accreditation and subsequent reaccreditation was left to the health department director and leadership."

–"Our state government did not influence our decision to pursue PHAB accreditation and did not provide any funding to support this effort."

1. County Economic Status

The PHAB accredited and state-quality awarded LHDs that participated in this study were located in counties and states with varying 2022 fiscal year economic status within the Appalachian region. The economic status classifications of LHD respondents' respective states and counties are: Georgia (two PHAB accredited LHD respondents reported serving two Georgia Appalachian counties classified as transitional with a total service demographic covering eight distressed areas); Kentucky (two PHAB accredited LHD respondents reported serving four Appalachian counties classified as transitional

Table 10. Local Health Department Interview Themes and Codes

Themes		
Code	Definition	Example
Health Department Accreditation (5 codes)		
Pursuing initial PHAB accreditation or a state-quality Awards	Respondent describes the reasons the health department pursued and achieved initial PHAB accreditation.	"The previous director set a goal and valued accreditation as a high priority that continued with the current leadership."
Technical assistance	Respondent describes the technical assistance the state or other entity provides to achieve accreditation.	"Small grants have been offered, but that changes with the changing administrations and budgets."
Geographic service area	Respondent describes the type of service area that the health department covers.	"Our health department services a 100% rural population and provides a myriad of services."
PHAB accreditation or state quality award mandate	Respondent describes if there is a mandate in their state to achieve PHAB accreditation or state quality awards.	"There are no mandates by the state government to require achieving PHAB accreditation or state quality awards."
Accreditation and quality award maintenance	Respondent describes how they maintain their PHAB accredited or state quality awards.	"We have created a culture of continuous quality improvement that maintains quality and prepares us for re-accreditation."

Governance Classification (2 codes) Governance classification	Respondent mentions how the state's government structure affected their decision to pursue PHAB accreditation or state quality awards.	"The state's governance classification Decentralized had no bearing on our decision to pursue PHAB accreditation or reaccreditation."
Decision Autonomy	Respondent describes the influence of state government on the decision to pursue accreditation or state quality awards.	"Our state government did not influence our decision to pursue PHAB accreditation and did not provide any funding to support this effort."
County Economic Status (2 codes) Current county economic conditions	Respondent describes the economic condition of the service area of their health department.	"The economic service area of our health department is rural and distressed."
Economic status effects	Respondent describes how the economic status of their service area affected their decision to pursue PHAB accreditation or quality awards.	"The county economic status of our health department's service area is rural and distressed."
State quality awards (2 codes) Award tier levels earned	Respondent describes state quality award tier earned since 2002.	"Our health department has received level 2 and 3 award recognitions in 2015, 2017, 2018, and 2019."

Reasons	Respondent describes reasons for the original application for awards and future award application plans.	"Our health department has changed priorities to focus on the COVID-19 response."
Quality Improvement (3 codes)		
Quality improvement culture	Respondent describes the continuous quality improvement culture among the staff in the health department.	"Our health department has fostered a culture of increased performance and quality among the staff where quality is the priority and an expectation."
Accreditation	Respondent describes how accreditation affects health department quality improvement.	"Accreditation has enhanced the pursuit of quality among our staff."
State quality awards	Respondent describes how the attainment of state quality awards affects health department quality improvement.	"The pursuit of state quality awards has enhanced the morale of our staff."
COVID-19 (3 codes)		
COVID-19 and accreditation	Respondent describes the challenges of focusing on maintaining PHAB accreditation and pursuing state quality awards at the onset of the COVID-19 pandemic.	"We were forced to shift staff to other roles due to changing priorities."

COVID-19 and staff	Respondent describes the challenges of focusing on maintaining PHAB accreditation and pursuing state quality awards at the onset of the COVID-19 pandemic.	"We were forced to shift staff to other roles due to changing priorities and staff burnout brought on by the COVID-19 pandemic."
COVID-19 and state quality awards	Respondent describes the challenges of pursuing future state quality awards during the COVID-19 pandemic.	"We were very committed to pursuing these awards under previous health department directors, and the COVID-19 pandemic, along with a new director, has placed the pursuit of these back burner."

(N=1), at-risk (N=2), and distressed (N=1) with a total service demographic covering six distressed areas); North Carolina (one PHAB accredited LHD respondent reported serving one Appalachian county classified as transitional with a total service demographic covering three distressed areas); Ohio (two PHAB accredited LHD respondents reported serving two Appalachian counties that are both classified as at-risk with a total service demographic covering one distressed area); Tennessee (one PHAB accredited LHD respondent and one state quality awarded LHD reported serving one Appalachian county classified as transitional with a total service demographic covering 18 distressed areas); and West Virginia (one PHAB accredited LHD respondent reported serving one Appalachian county classified as transitional with a total service demographic covering 11 distressed areas; ARC, 2023).

Implications

With an increasing emphasis on continuous quality improvement in public health and targeted efforts to decrease health disparities in rural communities, this study is integral in understanding the

unique rural demographic challenges and varying economic conditions presented on the path to health department accreditation and the attainment of state quality performance awards.

The results from the Zoom interviews show that the governance designations of the participating health departments had very little influence on the health department director's decision to pursue initial PHAB accreditation or state quality awards. One PHAB accredited LHD reported that their state-provided small grants for technical assistance during the initial phases of accreditation, but this support did not continue as state administrations changed and new budgets were created.

These PHAB accredited health departments pursued and successfully achieved PHAB accreditation on their own volition with the belief that accreditation would create a "culture of quality improvement" and accountability among the staff supporting the "10 Essential Public Health Functions" (1994) and their own unique health department mission statements.

There was only one LHD respondent that achieved state quality awards. They were in a mixed governance state, and they achieved state quality awards four times between 2002 and 2019. They reported that they were a rural LHD and that a previous state health commissioner was "heavily into Baldrige awards and strongly promoted and encouraged health departments to seek these awards in order to review processes to make them more efficient for or patients". It can be concluded that in this state, the previous health commissioner had a vested interest and strong influence on the LHDs attaining state quality awards, but it must be noted that this emphasis changed as the state administrations and governing vision transitioned.

Ohio was the exception for governance and autonomous PHAB accreditation decisions. Ohio has a decentralized governance structure meaning that the local government directly operates local health departments or with the intervening authority of a local board of health. Even with a decentralized governance structure, the state mandated that all health departments apply by July 1, 2018

and have full PHAB accreditation by July 1, 2020 (Ohio Revised Code 3701.13, 2011). The Ohio local health department respondents did highlight the importance of accreditation and the challenges associated with staff attrition due to the COVID-19 pandemic.

While it was hypothesized that there are more Appalachian counties with higher economic levels and fewer health disparities within the Appalachian region or have received state quality awards than states and counties that have lower economic levels, 100% of the LHD respondents reported that the economic status of their service area demographic had no influence on their decision to pursue PHAB accreditation or state quality awards. There were more Transitional and At-risk counties with PHAB accredited LHDs serving more distressed areas (N=47) than counties identified as distressed. The respondents attributed this service area coverage to the effects of COVID-19, and large amount of staff attrition and the increased responsibilities of LHDs in rural areas to cover the gap in the duties of hospitals that may be greater than 50 miles from the health department service area.

Limitations

While this study focuses only on the Appalachian region PHAB accredited and state quality awarded LHDS, there were several limitations. A primary limitation is the lack of response from LHDs that can possibly be related to COVID-19 pandemic fatigue, decreased staff, and rearranged priorities away from quality improvement and accreditation. Health department directors and associated leaders have assumed the additional duties of the accreditation coordinator, Chief Operations Officer, and other administrative positions to manage the maintenance of their current accreditation status while directing the preparations for reaccreditation.

This study did not incorporate the perspectives of non-PHAB accredited LHDs and their reasons for not pursuing PHAB accreditation or state quality awards. The non-PHAB accredited health departments did not respond to requests to participate in this study, which may be explained by the

Appalachian non-PHAB accredited LHDs usually having smaller numbers of staff (N<10) and offer fewer comprehensive services to their service area demographic.

Lastly, future studies can address reaccreditation and the challenges experienced by LHDs and state health departments. For the respondents in this study, three out of ten (3/10) successfully reaccredited by May 2022. While this study did not focus on the in-depth challenges associated with reaccreditation, additional research can explore the intricate factors that guide the decisions by health department leaders to continue to maintain their accredited status and pursue reaccreditation and state quality awards.

SUMMARY BOX

What is already known about this topic?

Previous studies have focused on the evolution of the Public Health Accreditation Board (PHAB) being, the nonprofit national accrediting organization for public health departments dedicated to advancing the continuous quality improvement of Tribal, state, local, and territorial public health departments incorporated in 2007. The Alliance for Performance Excellence aids with the successful attainment state specific quality awards.

What is added by this report?

There is a lack of research focusing on state government support of health department accreditation and state quality award attainment in the Appalachian region. This current study also illustrates the impacts of county economic statuses on these health departments' decisions to pursue PHAB accreditation and state quality awards. There was no significant relationship between the state governance structure or the Appalachian County economic status on the decision to pursue PHAB accreditation or state quality awards.

What are the implications for future research?

Future studies can address reaccreditation and the challenges experienced by local health departments and state health departments in maintaining a culture of quality among staff. Additional research can also explore the factors that guide the decisions by non-PHAB accredited health department leaders to pursue PHAB accreditation or state quality awards, or other quality improvement programs in the future.

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CHAPTER 4

THE INCENTIVES AND BARRIERS ASSOCIATED WITH SUCCESSFUL PHAB ACCREDITATION AND STATE QUALITY AWARD ATTAINMENT BY HEALTH DEPARTMENTS IN THE APPALACHIAN REGION OF THE UNITED STATES[2]

The authors have no conflict of interest to report.

Abstract

CONTEXT: This article focuses on the incentives and barriers associated with local health departments (LHDs) successfully attaining Public Health Accreditation Board (PHAB) accreditation and Baldrige-type state quality awards.

OBJECTIVES: Incentives that ensure a robust financial foundation during the PHAB accreditation and state quality award application process will be integral to removing barriers such as financial constraints and a lack of knowledge from the PHAB accreditation process. This qualitative study explores incentives integral to overcoming those barriers.

DESIGN: This qualitative study used multiple methods with a Qualtrics questionnaire and semi-structured qualitative Zoom interviews for data collection. The Qualtrics questionnaire included fix-choice (closed) yes/no and 5-point Likert scale closed-ended questions followed by Zoom interviews that focused on the Appalachian region LHD incentives and barriers. The responses were coded and thematic by themes and analyzed.

[2] Thomas B., Lee J., Hall J., Bender K. To be submitted to the *Journal of Public Health Management & Practice*.

SETTING: PHAB-accredited and state quality-awarded local health departments as of the fiscal year 2022 (October 1, 2021, through September 30, 2022) in the Appalachian Region states and counties as defined by the Appalachian Regional Commission (ARC) were the eligible participants for this study.

PARTICIPANTS: The eligible participants were ten health department directors, accreditation coordinators, and office managers from nine PHAB-accredited local health departments and one state quality awarded health department completed Qualtrics questionnaires and participated in Zoom semi structured recorded interviews.

RESULTS: The qualitative data from the 10 PHAB-accredited Appalachian region health departments that completed the pre-interview questionnaire and participated in the Zoom interviews showed that the local health departments used the following incentives: financial support, technical assistance, state law mandates, public recognition, pursuit of a culture of quality, and health department support groups. These health departments also reported that these incentives were effective in removing the following barriers to PHAB accreditation and state quality award attainment: Budget cuts, staff turnover, COVID-19 pandemic, and resource limitations.

CONCLUSIONS: Most of the health department respondents reported that the desire to create a culture of quality through PHAB accreditation or the attainment of state quality awards was one of the most significant incentives to remove the barrier of staff apathy and attrition. In addition to promoting a culture of quality, public recognition on the PHAB website and throughout the public health community emerged as a common theme among the LHDs.

Keywords: public health accreditation, Appalachia, incentives, barriers, rural health

Introduction

The Public Health Accreditation Board (PHAB) was established and incorporated in May 2007 as the nonprofit organization to administer the national public health accrediting body through funding provided by the Robert Wood Johnson Foundation and the CDC (Bender, Kronstadt, Wilcox, & Lee, 2014). The voluntary accreditation of public health agencies, started by PHAB in 2011, requires adherence to national standards focused on public health infrastructure, completion of prerequisite requirements, and payment of fees (Exploring Accreditation Project Report, 2006).

The Alliance for Performance Excellence was incorporated in Arizona and received 501(c) 3 non-profit status designation in 2005 to facilitate organizational excellence and foster competitiveness through state and regional Baldrige processes by members (Alliance for Performance Excellence, 2020). The Alliance for Performance Excellence consists of more than 30 local, state, regional, and sector-specific Baldrige-based programs serving nearly 50 states, is an integral partner of the Baldrige Performance Excellence Program at the National Institute of Standards and Technology (NIST) and promotes United States organizations' long-term success based on the Baldrige Criteria for Performance Excellence (NIST, 2014).

State and regional awards promote quality awareness and understanding of the requirements for performance excellence while assisting organizations in benchmarking themselves against their local peers (Klater et al., 2011). These state award programs, primarily focus on continuous quality improvement, which became the Baldrige Alliance for Performance Excellence.

As of May 14, 2022, nine states within the Appalachian region, as defined geographically by the Appalachian Regional Commission (ARC), had PHAB-accredited and state-quality awarded local health departments (LHDs). These states are: Georgia (two Appalachian region PHAB accredited LHDs), Kentucky (four Appalachian region PHAB accredited LHDs and one state quality awarded health department), Maryland (two Appalachian region PHAB accredited LHDs), New York (four

Appalachian region PHAB accredited LHDs: two LHDs and two multijurisdictional LHDs), North Carolina (one Appalachian region PHAB accredited LHD), Ohio (14 Appalachian region PHAB accredited LHDs), Pennsylvania (two Appalachian region PHAB LHDs), Tennessee (one Appalachian region PHAB accredited LHD and 45 state quality awarded health departments), and West Virginia (two Appalachian region PHAB accredited LHDs) (ARC, 2023; PHAB, 2022; KYCPE, 2021; TNCPE, 2022).

Incentives and Barriers to Successful PHAB Accreditation and State Quality Award Attainment

Mays (2004) posited that the success experienced by a voluntary accreditation program achieving widespread adoption hinged mainly upon the "strength of the incentives faced by the organization within the industry to pursue accreditation." Incentives can help overcome the barriers associated with accreditation efforts. Organizations must weigh the incentives against the required accreditation costs to determine whether a sufficient business case exists to pursue accreditation (Mays, 2004). Davis et al. (2009) surveyed state and local health departments and found that these agencies valued similar primary incentives: financial support, infrastructure, quality improvement (QI) support, and grant application flexibility. Similarly, local health departments cited technical assistance as a strong incentive, with marketing and recognition as secondary motivating incentives (Thielen et al., 2014).

State and local health departments have historically placed a high value on achieving continuous quality improvement with a strong emphasis on positive incentives, including access to funding support for quality and performance improvement, access to funding to address gaps in infrastructure identified in the accreditation process, opportunities to pilot new programs and operations, streamlined application processes for grants and programs, acceptance of accreditation instead of other accountability processes, and improved access to resources to enhance recruitment and retention of a

high-quality workforce through reputation and improved working environment (Exploring Accreditation for a Voluntary National Accreditation Program for State and Local Public Health Departments, 2007). Some incentives "create a clear benefit of accreditation" for the organization (e.g., recognition as a quality agency), and others remove barriers that hinder an organization from seeking or successfully achieving accreditation (external funding or technical assistance) (Thielen et al., 2014). As a result of utilizing these sound incentives and others, accreditation is anticipated to result in several additional benefits, including the expectation that it will strengthen continuous quality improvement efforts, ultimately improving the health of the people in the communities served by the accrediting agency (Beitsch et al., 2014).

The long-term benefits and incentives associated with a well-executed state award program are the promotion of awareness of productivity and quality; the fostering of information exchange; the encouragement of organizations to adopt quality and productivity improvement strategies; the recognition of organizations that have instituted successful procedures; the furnishing of role models for other businesses within the state; and the establishment of a quality-of-life culture that will benefit all residents of the respective state (Bobrowski & Bantham, 1994). State and regional awards promote quality awareness and understanding of the requirements for performance excellence while assisting organizations in benchmarking themselves against their local peers (Klater et al., 2011).

While accreditation has many integral benefits for health departments, some barriers prevent or severely impede the process of successful PHAB accreditation or state quality award attainment. Commonly cited barriers in preparing for accreditation and completion of the process included lack of staff resources (e.g., lack of staff time and available positions), lack of capacity, and the need for targeted training and education regarding the accreditation prerequisites and strategic planning (Thielen et al., 2014).

State government structural nuances also create barriers while preparing for accreditation and state quality award attainment. Shifts in administration at the gubernatorial and state health commissioner level were cited as delays in designing and implementing the accreditation process due to transitions that could lead to new priorities and the need to educate new decision-makers on the short and long-term benefits of accreditation (Thielen et al., 2014).

Unique Barriers to Achieving Health Department PHAB Accreditation in Rural Communities

Local health departments in rural jurisdictions (RLHDs), such as those in the Appalachian region, face unique challenges that differ from those in urban areas and require different incentives to encourage accreditation and overcome barriers. These differences are due to variations in the scope of services and functions serving the target population, which are based on the level of resources available and varying amounts of geographic isolation of the population (Meit et al., 2008). In contrast to thriving urban communities, rural communities are often plagued with lower wages, higher unemployment rates, higher numbers of uninsured, lower socioeconomic status, fewer educational opportunities, greater travel distances to health departments, lack of public transportation, and continuous youth migration leaves an older population with limited support and health options (RAC, 2020).

RLHDs serve smaller populations and have correspondingly lower staffing and funding levels than local health departments serving urban or metropolitan statistical areas (Leep, 2007). Approximately 40% of the LHDs surveyed in 2005 were categorized as serving small-town rural regions, with 92% of these LHDs serving populations of less than 50,000 people (NAACHO, 2007). Although the populations served by RLHD jurisdictions are generally smaller in size, these populations experience many health disparities related to risky health behaviors and lack of access to medical care (Doescher et al., 2006; Cronk & Sarvela, 1997; Meit et al., 2014; Skillman et al., 2010). A study of rural health department accreditation by Beatty et al. (2016) found that unaccredited RLHDs identified

more barriers to accreditation than accredited RLHDs, with time (time/schedule limitations and poor time management) identified as the most prominent barriers to accreditation for unaccredited RLHDs. Additional obstacles to successful health department accreditation in rural Communities include limited human and fiscal health department resources and health department staff lacking formal education and knowledge about accreditation (Meit et al., 2008).

This qualitative descriptive study aims to examine the incentives used by local health departments in the rural Appalachian region to overcome the various barriers to PHAB accreditation and state quality award attainment. Research in this area is integral to developing a greater comprehension of these incentives and may provide a valuable roadmap for health departments to determine if they have a significant or negligible effect on overcoming the barriers to successfully achieving PHAB accreditation or attaining state quality awards. This study addresses the following research question: What are the incentives and the barriers experienced by local and state health departments in the rural communities of the Appalachian region during the path to successful PHAB accreditation or state quality performance award attainment, and how do these incentives and barriers influence their decision to pursue PHAB accreditation or state quality performance awards? The incentives that provide a robust financial foundation during the PHAB accreditation and state quality award application process, along with staff training in continuous quality improvement, will be integral in efforts to remove barriers such as financial constraints and a lack of knowledge to navigate the PHAB accreditation successfully and state quality award application processes. It is important to focus on the Appalachian region because of the many distressed rural economic populations within the counties, which can create additional challenges associated with pursuing and maintaining successful continuous quality improvement programs.

Methods

Study Design

The geographic data sample for this study was derived from 420 counties within 13 states spanning 205,000 miles of the Appalachian region as defined by the Appalachian Regional Commission (ARC) (2022). The accredited health department data was derived from PHAB (2022) and includes all accredited departments between February 2013 and May 14, 2022. The state quality awarded health department data was derived from the Baldrige Alliance for Performance Excellence (2022). The criteria for the selection of health departments for this study included: 1) Initial PHAB accreditation as of May 14, 2022 and located in one of the ARC-designated Appalachian counties, 2) or have received at least one state quality award of any tier and located in one of the ARC-designated counties as of May 14, 2022. After eliminating the PHAB-accredited health departments outside of the Appalachian region, it was found that nine of the 13 states had LHDs that attained initial PHAB accreditation. There were 31 PHAB-accredited LHDs in the nine Appalachian states and two local/multijurisdictional health departments. New York state was the only state in the ARC-defined Appalachian region with local multijurisdictional PHAB-accredited health departments (N=2). One non-multijurisdictional LHD in the Appalachian region of New York state was PHAB accredited. Although there were 40 PHAB-accredited state health departments throughout the United States as of May 14, 2022, there were zero PHAB-accredited state health departments in the Appalachian region counties as geographically defined by the ARC (PHAB, 2022 & ARC, 2022).

There were 46 LHDs and zero state health departments that attained state quality award recognitions in the Appalachian region states of Tennessee and Kentucky (TNCPE, 2022 & KYCPE, 2022). One LHD in the Appalachian region states achieved PHAB accreditation and a state quality award (PHAB, 2022 & KYCPE, 2022).

This qualitative descriptive study used a Qualtrics questionnaire and semi-structured qualitative Zoom interviews for data collection. The qualitative descriptive approach has been widely used in qualitative studies and has been identified as important and appropriate for research questions focusing on discovering the who, what, and where of events (Kim et al., 2017).

The Qualtrics questionnaire included 15 fix-choice (closed) yes/no and 5-point Likert scale closed-ended questions that focused on the incentives and barriers experienced by LHDs during their path toward PHAB accreditation or state quality award attainment (Qualtrics, 2020). The questions also focused on the demographics of their respective state and LHD service areas before the onset of the COVID-19 pandemic and the new challenges presented by the pandemic to provide background profile information for each health department. The purpose of incorporating the questionnaire into the study was to identify the responder's current employment position and provide a background framework for the discussion presented in the subsequent qualitative Zoom interviews.

The Qualtrics questionnaire was followed by semi-structured qualitative interviews consisting of open-ended questions that were guided by a written script consisting of questions that were administered to health department directors or their accreditation coordinators, which added depth and detail to fully understand the level of importance of accreditation and the pursuit of quality awards to the respondents (Patton, 2002). These semi-structured qualitative interviews included a prepared open-ended interview protocol that was used as a guide that allowed some variance in the questions according to the responses given by the participants to elicit further discussion (Roulston, 2010). Only the health departments that completed the Qualtrics questionnaire were invited to participate in the qualitative interviews.

The qualitative interviews were administered through Zoom Meetings. Zoom is an interactive video conferencing platform that can be used through a desktop/laptop computer or mobile app and allows users to connect online for video conference meetings, webinars, live chat, and virtual

interviews (Zoom, 2021. The Zoom format was chosen because direct observation site visit travel is difficult concerning the changing public health concerns presented by the COVID-19 pandemic and health department staff scheduling time restraints. The telephone/Zoom format also allows for decreased costs (Chapple, 1999), increased access to geographically challenging subjects (Sturges & Hanrahan, 2004; Sweet, 2002; Tausig & Freeman, 1988), increased interviewer safety (Carr & Worth, 2001; Sturges & Hanrahan, 2004), decreased space requirements (Sweet, 2002), the ability to take notes unobtrusively (Carr & Worth, 2001; Smith, 2005; Sturges & Hanrahan, 2004; Tausig & Freeman, 1988), increased verbal rapport (McCoyd & Kerson, 2006), and the ability to allow the participants to remain comfortable "on their own turf" (McCoyd & Kerson, 2006, p. 399).

Study Sample

Purposeful sampling was used to select the LHDs for this study. Two PHAB-accredited LHDs were chosen from each of the nine Appalachian states with PHAB-accredited health departments. In January 2022, the LHD directors, their proxy, or the accreditation coordinator were sent an email introducing the researcher, a description of the research study, and a date by which the potential participant should respond to the invitation to participate in the study. These emails garnered minimal response, and an email was also sent by PHAB in March 2022 to the eligible health departments making them aware of this study, that they may receive an email from the principal researcher requesting their participation in this study, and that a health department's decision to participate or not participate in this study would have no bearing on their current accreditation status or future application for re-accreditation. If a reply was not received from a health department by the date in the original email invitation, the principal researcher followed up with an additional email. If a health department did not respond or declined to complete the Qualtrics questionnaire, another ARC region-defined PHAB-accredited health department was chosen until two Qualtrics questionnaires were completed

from each ARC region-defined state. The Qualtrics questionnaire consisted of 15 questions and took approximately 15 minutes to complete.

The introductory email also included an invitation to participate in the subsequent qualitative Zoom interview. The directors or the accreditation coordinators of two state quality awarded LHDs in Tennessee and one LHD in Kentucky that achieved both initial PHAB accreditation and a state quality award were also selected to receive the introductory emails that include the link to the Qualtrics questionnaire and an invitation to participate in the qualitative Zoom interview. The prerequisite for participating in the Zoom interview was completion of the Qualtrics questionnaire.

The qualitative Zoom interviews were conducted between May and October 2022. The semi-structured qualitative interviews consisted of open-ended questions that were guided by a written script of questions that were administered to health department directors or their accreditation coordinators, which added depth and detail to fully understand the level of importance of accreditation and the pursuit of quality awards to the respondents (Patton, 2002). These interviews included a prepared open-ended interview protocol that functioned as a guide which allowed some variance in the questions according to the responses given by the participants to elicit further discussion (Roulston, 2010). A confidentiality agreement presented in the invitation email was discussed at the beginning of each interview to reinforce the anonymity of participants.

The principal investigator conducted all the interviews with the health departments and had no previous relationship with the participants before this study was initiated. The interviews were designed to be flexible, iterative, and continuous rather than rigid and included 14 questions tailored to the rural work environment of the LHDs. Each interview lasted between 35 and 65 minutes with an average duration of 50 minutes. Interview respondents were asked to discuss the current and additional incentives from the state and external entities that influenced their decision to pursue PHAB accreditation or state quality awards. The reported incentives were labeled as either providing a direct

benefit to the LHD or an element that removes a barrier to successful accreditation or state quality awards, while the barriers included anything tangible or intangible that makes accreditation or state quality award attainment difficult to achieve including time, fees, costs, completion of prerequisites, specific standards and measures, and various levels of agency resistance (Thielen, 2014).

The interviews were recorded in Zoom and uploaded into NVIVO 12 Plus (QSR International, Ltd.) data analysis software for transcription and data analysis. For theoretical saturation, the criteria to discontinue data collection occurred when 10 health departments completed interviews from six of the nine (66.6%) Appalachian region states that had PHAB-accredited or state-quality-awarded health departments, which eliminated the need to follow up with additional participants that did not initially respond to the invitations as no new themes or codes emerged (Park et al., 2021; Yoosefi et al., 2020). After each of the interviews, any new codes that emerged after analysis were included in the discussion for each subsequent interview to check the codes to determine if other interviewees have had similar experiences so that richer concepts could emerge (Yoosefi Lebni et al., 2020).

All the qualitative interviews were recorded and transcribed verbatim for coding accuracy. The principal researcher had no established relationship with the participants before initiating the study. Each participant (health department) was interviewed 1-on-1 and did not receive a contact for feedback or a follow-up interview.

The following research question and corresponding hypothesis guided this study: What are the incentives and the barriers experienced by local and state health departments in the rural communities of the Appalachian region during the path to successful PHAB accreditation or state quality performance award attainment, and how do these incentives and barriers influence their decision to pursue PHAB accreditation or state quality performance awards? Incentives that provide a robust financial foundation during the PHAB accreditation and state quality award application process, along with staff training in continuous quality improvement, will be integral in efforts to remove barriers such

as financial constraints and a lack of knowledge to navigate the PHAB accreditation successfully and state quality award application processes.

This study received University of Georgia Institutional Review Board approval on October 22, 2019, and it was determined that the activities proposed are research not involving human subjects.

Results

Thirty-four PHAB-accredited and state quality-awarded local health department (LHDs) directors and accreditation coordinators were sent introductory email invitations, including a link to the Qualtrics questionnaire. Twenty-three LHDs completed the questionnaire with three test cases eliminated, which were used to determine questionnaire length and level of participant comprehension. The questionnaires were numbered in the order of submission and numbered from number 1 to 20. Six LHDs were ineligible because they were not located in one of the Appalachian region counties. Eleven of the eligible 14 LHDs that completed questionnaires also completed the qualitative Zoom interviews. One LHD interview was rejected due to the health department not being located in a service area covering an ARC-designated county. The participants were numbered in the order of interview conducted and paired with their respective completed questionnaires.

The Zoom interviews from the ten eligible LHDs were completed by leaders that served in multiple internal staff roles. These respondents included two Accreditation Coordinators, two Health Department Directors, Office Supervisor, Public Health Registered Nurse, Executive Assistant, Program Manager, Health Department Chief Officer, and quality improvement manager.

The Qualtrics questionnaire was used to guide each interview to tailor the questions with some variance to each of the respondents. Each of the transcripts from the interviews were coded, and the data analyzed using content analysis in the style of the constant comparative method to discover conceptual similarities and patterns (Tesch, 2013). The coding structure for the responses was

developed based on open iterative coding to allow for emergent codes to be placed into categories, which were ranked (Lalchandani et al., 2021). Braun and Clarke's (2006) six-step framework thematic analysis was followed to include collating the codes into potential themes, reviewing these themes, and refining the specifics of each theme to generate clear definitions for each theme. The theory that guided the data analysis is based on an inductive process of comparisons within the dataset that involved comparing data with data and category with category to generate successively more concepts and theories (Mik-Meyer & Järvinen, 2020). The questions were open-ended and exploratory to allow the stronger perspectives of the respondents to emerge during the interviews (Lalchandani et al., 2021). Through the process of internal comparison of each of the health department leader's responses during different segments of the interviews, emergent categories were developed with the most appropriate codes to determine inconsistencies in the responses (Boeije, 2002). Table 1 displays the codes that spanned across the following themes: Accreditation (N= 5 codes), incentives (N= 5 codes), barriers (N= 5 codes), accreditation (N= 5 codes), state quality awards (N= 2 codes), and quality improvement (3 codes). The additional themes and codes gleaned from the Zoom interview responses were deleted as they were out of scope of the content of the research question.

Accreditation and State Quality Awards

Most of the respondents (N=7) reported that the decision to pursue initial PHAB accreditation and state quality awards was made by the health department director and the corresponding leadership. There was also full autonomy to decide to pursue accreditation without mandate from the state government. The Ohio health department respondents (N=2) reported that they were mandated by Ohio state law to be PHAB accredited by 2020 (Ohio Laws & Administrative Rules, 2021). All 10 of the respondents reported that their respective health department serviced primarily rural geographic area.

There was only one LHD respondent that achieved state quality awards. They are in a mixed governance state, and they achieved state awards four times between 2002 and 2019. This LHD reported that they were a rural LHD with a new director that would follow the directive of the previous director and focus on state quality awards and not pursue PHAB accreditation.

Incentives

Six of the 10 health departments reported that there was technical assistance for achieving initial PHAB accreditation through collaboration opportunities with other health department data sharing workgroups. One health department reported financial incentives in the form of small grants for initial accreditation were available but disappeared when the gubernatorial administration changed with the changing budget priorities. Public recognition by government officials and the news media incentivized the staff to continue the culture of quality fostered during the PHAB accreditation and state quality award application process. The health department directors that were not mandated by law to achieve PHAB accreditation cited that that their personal drive to create and maintain a strong culture of quality where all staff bought into the quality improvement mindset was the strongest incentive to achieve initial accreditation and reaccreditation.

Barriers

All respondents (N=10) reported that largest barrier to PHAB accreditation was the COVID-19 pandemic. The COVID-19 pandemic caused a large amount of staff turnover and a lack of accreditation training opportunities for accreditation coordinators. All respondents also reported that their existing

Table 11. Local Health Department Interview Themes and Codes-Incentives and Barriers

Themes		
Code	Definition	Example
Health Department Accreditation (3 codes)		
Maintaining PHAB accreditation or state-quality Awards	Respondent describes the reasons the health department pursued and achieved initial PHAB accreditation.	"The previous health department director set a goal and valued accreditation as a high priority that continued with the current leadership."
Geographic service area	Respondent describes the type of service area that the health department covers.	"Our health department services a 100% rural population and provides a myriad of services."
PHAB accreditation or state quality award mandate	Respondent describes if there is a mandate in their state to achieve PHAB accreditation.	"There are no mandates by our state government to require achieving PHAB accreditation or state quality awards."
Incentives (5 codes)		
Technical assistance	Respondent describes the technical assistance incentive the state or other entity provides to achieve accreditation.	"Technical assistance has been offered, but this opportunity changes with the changing administrations and budgets."
Public recognition	Respondent describes how recognition from the state government and the public is a strong incentive.	"The state government recognized our PHAB accreditation during their state of the state address."

Collaboration opportunities	Respondent describes how PHAB accreditation has provided new opportunities to collaborate with other health departments.	"PHAB accreditation allowed for increased opportunities to collaborate with other local health departments across our state."
Quality culture	Respondent describes how their state provides a small grant for quality improvement	"We have created a culture of continuous quality improvement that maintains quality and prepares us for re-accreditation."
Financial	Respondent describes how state the state provides a small grant for quality improvement	"Our state offers an annual grant to all health districts to pursue accreditation, reaccreditation, or other quality improvement projects."
Barriers (5 codes)		"Our staff has had to take on additional duties in addition to accreditation tasks"
Lack of staff	Respondent describes the issues associated with staff Turnover and accreditation	
Lack of training	Respondent describes how a lack of training and knowledge of the accreditation standards is a barrier.	"There were not many training opportunities during the onset of COVID-19 pandemic".
		"The COVID-19 pandemic was a barrier

COVID-19	Respondent describes how COVID-19 created a reallocation of resources.	that forced a reallocation of resources and a shift of priorities that did not include PHAB accreditation".
Negative staff perspectives	Respondent describes how negative staff perspectives toward accreditation is a barrier.	"Staff attitudes that represent a resistance to change and the adoption of a true culture of quality was a huge barrier for our health department."
State mandate priority	Respondent describes how the local health departments must first achieve 5-year state accreditation.	"Local health departments in this state must achieve state accreditation first and it can be a drain on resources to apply for additional accreditation.
State quality awards (2 codes)		
Award tier levels earned	Respondent describes the state quality awards earned between 2002 and 2022.	"Our health department has received level 2 and 3 award recognitions in 2015, 2017, 2018, and 2019."
Reasons	Respondent describes their reasons for the original application for awards and future awards.	"The pursuit of state quality awards has enhanced the morale of our staff."

Quality Improvement (3 codes)		
Quality improvement culture	Respondent describes the continuous quality improvement culture among the staff in the health department.	"Our health department has fostered a culture of increased performance and quality among the staff where quality is the priority and an expectation."
Accreditation	Respondent describes how accreditation affects the overall health department quality improvement plan.	"Accreditation has enhanced the pursuit of quality among our staff and has changed attitudes toward sustaining a quality improvement environment."
State Quality Awards	Respondent describes how the attainment of state quality awards affects health department quality improvement plan.	"The attainment of state quality awards shows that our health department is serious about meeting performance measures."

staff experienced burnout from assuming additional duties to include COVID-19 testing and vaccine administration, which became the priority. Negative attitudes from longer serving health department employees that were resistant to change also affected the morale in one health department which forced the health department director to add internal health department incentives to strengthen the culture of quality.

Discussion

With an increasing emphasis on continuous quality improvement in public health and targeted efforts to decrease health disparities in rural communities, this study is integral in understanding the incentives that support accreditation and state quality award attainment with an additional focus on the barriers that impede or prevent this process in the rural Appalachian region of the United States.

While previous research has explored the importance of incentives in strengthening the process of achieving PHAB accreditation among health departments in rural regions of the United States, there is a lack of research focusing on the incentives and the barriers to PHAB accreditation and state quality award attainment of local health departments specifically in the Appalachian region. It should be noted that there were no PHAB accredited, or state quality awarded state health departments in the ARC designated counties. Many state health departments are in urban areas, and future research can analyze the incentives and barriers that they experience on their quality improvement path to accreditation and state quality award attainment.

A strong incentive that states can use for accreditation are those mandated by state law. The only state in the Appalachian region that mandates PHAB accreditation by law is Ohio. This law provides a clear roadmap incentive for the health departments to follow as accreditation was mandated to be completed by 2020. The COVID-19 pandemic affected this mandate and extensions were granted to health departments to accommodate the changes in staff and priorities. Another state reported that their state required accreditation from their state accrediting body before pursuing voluntary accreditation. There was limited financial assistance to achieve the five-year state accreditation and time, and cost were cited as prominent barriers to pursuing PHAB accreditation after achieving the state accreditation.

Maintaining a continuum of quality improvement was reported as an incentive to achieving PHAB accreditation and state quality awards. Six respondents identified that they joined their

respective health departments because they were PHAB accredited, and they believed that the previous director and leadership played a critical role in communicating a vision for quality and accountability through accreditation. One respondent reported leaving one PHAB accredited health department to assume the role of director at his new PHAB-accredited health department, with PHAB accreditation being the main driver of for his decision to transition and lead his health department toward reaccreditation. The one LHD respondent that achieved state quality awards noted that they were a rural LHD and that a previous state health commissioner was "heavily into Baldrige awards and strongly promoted and encouraged health departments within the state to seek quality awards in order to review processes to make them more efficient for our patients". It can be concluded that in this state, the previous health commissioner had a vested interest and strong influence on the LHDs attaining state quality awards, but it must be noted that this emphasis changed as the state administrations and governing vision transitioned. This LHD reported no plans to pursue PHAB accreditation in the future. Conversely, with the exception of the one LHD that was PHAB accredited and received a state quality award, none of the PHAB accredited LHD respondents reported knowledge of the state quality awards in their respective states.

Financial incentives, technical assistance, and collaboration opportunities can also be used to support the process of PHAB accreditation or state quality award attainment. Small grants were available in one state from the state government to prepare for accreditation, but these grants did not continue throughout the accreditation process and were not part of a long-range management of a culture of quality improvement or reaccreditation. Technical assistance through data sharing collaborations among peer workgroups and joint training increased comradery and fostered an increased collegial environment among health departments.

Creating and sustaining a strong culture of quality improvement was one of the strongest incentives to decreasing the barriers to achieving PHAB accreditation and state quality awards. The

directors and accreditation coordinators of the PHAB accredited LHDs that were not mandated by state law to become accredited (N=7), reported full autonomy to pursue initial accreditation and reaccreditation. Each respondent felt that fostering an overall culture of increased performance and quality creates a high priority of achievement among the staff. This culture of quality extended to every aspect of quality to include increased staff training leading to a full knowledge of the accreditation process. Building and sustaining this culture of quality through the onset of the COVID-19 pandemic barrier requires time and resources, which are often commonly cited barriers among LHDs that already experience shrinking resources and budget cuts (Verma & Moran, 2014).

Limitations

While this study focuses only on the Appalachian region PHAB accredited and state-quality awarded LHDs, there were several limitations. A primary limitation is the lack of response from LHDs, possibly due to COVID-19 pandemic fatigue, decreased staff, and rearranged priorities away from quality improvement and accreditation. Health department directors and associated leaders have assumed the additional duties of the accreditation coordinator, Chief Operations Officer, and other administrative positions to maintain the accreditation status while directing the preparations for reaccreditation.

This study did not incorporate the perspectives of non-PHAB accredited LHDs and their current decision not to pursue accreditation or state quality awards. The non-PHAB accredited health departments did not respond to requests to participate in this study, which could be explained by the Appalachian non-PHAB accredited LHDs having smaller numbers of staff (N<10) and fewer comprehensive services to their service area demographic.

Recommendations

Future research can focus on reaccreditation and the challenges experienced by LHDs and state health departments. For the respondents that participated in this study, three out of 10 health departments successfully achieved reaccreditation by the end of fiscal year 2022 (September 30, 2022). While this study did not focus on the in-depth challenges associated with reaccreditation, additional research can explore the intricate factors that guide the decisions by health department leaders to continue to maintain their accredited status and pursue reaccreditation and state quality awards.

Lastly, future studies should address the challenges experienced by non-PHAB accredited local health departments in rural communities. Many of these health departments have a small number of staff (<10) and have smaller budget allocations for their services to their communities. These health departments have also been greatly affected by the COVID-19 pandemic and may experience an even greater level of staff attrition due to fatigue and burnout than the larger local health departments in their same state.

Implications for Policy & Practice

- This study describes some of the incentives local health departments used to overcome barriers to successful PHAB accreditation and state quality award attainment.
- Rural local health departments face unique challenges relating to reduced access to financial resources, strained budget allocations, and smaller numbers of staff to effectively achieve PHAB accreditation and attain state quality awards.
- Technical assistance in the forms of grants and collaborations with previously successfully PHAB-accredited health departments can be strong incentives to achieving PHAB accreditation and reaccreditation.

- Existing state laws and future policy decisions made on the state level can provide direction for local and state health departments on their path to PHAB accreditation and state quality award attainment.

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CHAPTER 5

Conclusion

This research provided an opportunity to focus on the Appalachian region because of the unique rural socioeconomic demographic and the challenges associated with health disparities. This research is relevant because it highlights the experiences that local health department leaders and staff encounter while simultaneously prioritizing the quality of their services and addressing the geographic and funding challenges among populations that have historically had a lack of access to healthcare. While the research in this study only explored the local health departments in the Appalachian region, there are opportunities for these outcomes to be applied to research in other rural and urban geographic regions throughout the United States.

The overarching framework that provided the foundation for the creation of a voluntary health department accreditation program also guided this research study. The longitudinal process of expanding health department accreditation throughout the United States was a gradual process that required buy-in and support from the health departments and national partners through the consensus process. In refining the PHAB standards and measures and accreditation process, PHAB solicited feedback from the public health community. The research that comprised my two studies also went through a consensus process that obtained feedback from the health department leaders regarding their experiences with incentives, barriers, and state government influence during their PHAB accreditation and state quality award process. The think tank/expert panel methodology approach to engage thought leaders and stakeholders in conversations on public health and accreditation topics is a key feature of PHAB and demonstrates a clear commitment to being a consensus organization that values feedback from public health professionals by "providing opportunities to vet the standards and measures" (Ingram et al., 2014). The findings from this dissertation can also provide beneficial feedback to health

departments by demonstrating that through continuing the consensus approach, valuable knowledge can be gained utilizing the new 2022 PHAB Standards and measure to achieve initial accreditation and reaccreditation.

The semi structured interviews that were utilized in both manuscripts were analyzed using content analysis to gain valuable insight from the respondents by utilizing the constant comparative method (Grounded theory). This theory that guided the data analysis is based on an inductive process of comparisons within the dataset that involves comparing data with data and category with category to generate successively more concepts and theories (Mik-Meyer & Järvinen, 2020). The questions were open ended and exploratory to allow the stronger perspectives of the respondents to emerge during the interviews (Lalchandani et al., 2021). Through the process of internal comparison of each of the health department leader's responses during different segments of the interviews, categories were developed with the most appropriate codes to determine inconsistencies in the responses (Boeije, 2002).

The manuscript entitled "The Effects of Governance Structures and County Economic Level Status on the Decision-making Processes of Health Departments in the Appalachian Region to Pursue Public Health Accreditation Board Accreditation and State Quality Awards" will be submitted to the Journal for Appalachian Health. Submission to this journal is appropriate as it focuses on the unique aspects of public health in the Appalachian region. In this study it was hypothesized that there are more states with higher economic levels and fewer health disparities within the Appalachian region that have PHAB accredited health departments or have received state quality awards than states and counties that have lower economic level designations which could indicate that health departments that achieve these quality improvement benchmarks have a more substantial positive impact on the economic levels and health disparities of the population within their service area. Through this research it was found that the hypothesis must be rejected as while the decrease in the number of health disparities in each Appalachian region county and state could not be ascertained from this study, the Appalachian states

with the largest number of PHAB accredited health departments (Ohio, N=14; Kentucky, N=5) have a large number of fiscal year 2022 Distressed (Ohio, N=5; Kentucky, N=39) and At-Risk (Ohio, N=14; Kentucky, N=12) counties (ARC, 2023). The governance designations of the participating health departments had very little influence on the director's decision to pursue initial PHAB accreditation or state quality awards as these decisions were autonomous. 100% of the local health department respondents reported that the county economic status had no influence on their decision to apply for initial PHAB accreditation or future plans for achieving reaccreditation. These outcomes can apply to future studies and recommendations to health department leadership to continue to prioritize achieving initial accreditation, reaccreditation, and state quality awards regardless of government support and economic status of the community as these quality benchmarks can be beneficial in gaining trust and recognition in the community.

The manuscript entitled "The Incentives and Barriers Associated with Successful PHAB Accreditation and State Quality Award Attainment by Health Departments in the Appalachian Region of the United States" will be submitted to the Journal of Public Health Management & Practice. This study hypothesized that incentives that provide a robust financial foundation during the PHAB accreditation and state quality award application process, along with staff training in continuous quality improvement, will be integral in efforts to remove barriers such as financial constraints and a lack of knowledge to navigate the PHAB accreditation successfully and state quality award application processes. From the results reported by the health departments, we can accept the hypothesis because while all of the health department respondents agreed that a robust financial foundation is beneficial before starting the PHAB accreditation and state quality award application process, these same departments reported that there were few financial incentives provided by their respective state governments to successfully navigate the initial PHAB accreditation or state quality award journey. Staff training and education before and during the PHAB application process coupled with technical

assistance and shared knowledge between local health departments proved to be beneficial. Health department leaders can apply these findings to their staff by providing PHAB accreditation training activities and increased access to technical assistance and data sharing to increase the culture of quality within their health department.

Cultivating a strong culture of quality and maintaining a continuum of quality improvement before applying for initial PHAB accreditation and state quality awards and maintaining this status emerged as one of the strongest incentives to decreasing the barriers to achieving PHAB accreditation and state quality awards. The majority of the respondents reported that fostering an overall culture of high expectations and accountability increased performance and set a high priority of achievement among the staff. One interview respondent reported that he joined his respective health department in a leadership capacity because they were PHAB accredited and believed that the previous director and leadership played an integral role in creating a vision for quality and accountability through accreditation. This culture extended to every aspect of quality to include increased staff training leading to a full knowledge of the PHAB accreditation and state quality award process, while encouraging the aging staff to fully engage in this change. This outcome from this dissertation can be applied to all health departments as a culture of quality is a sustainable incentive to encourage PHAB accreditation as part of a comprehensive quality improvement program.

The prominent and common theme that links the two manuscripts is the public health accreditation law mandate. The Ohio public health law mandates PHAB accreditation for all health departments with full PHAB accreditation by July 1, 2020 (Ohio Revised Code 3701.13, 2011). This mandate was cited as a strong incentive to achieve PHAB accreditation while removing the decision autonomy to pursue accreditation from the health department directors. The Ohio respondents also highlighted the importance of achieving PHAB accreditation and the challenges associated with staff attrition due to the COVID-19 pandemic. A previous study by Thielen et al. (2014) examined state laws

and policies throughout the United States that focused on public health accreditation. This study is the first to focus on rural states and the effects of accreditation law mandates and the effects of COVID-19. I would like to expand on this research in the future to include how COVID-19 effects legislative decisions to enact public health law mandates in other rural states.

Limitations

The research that comprised both manuscripts had limitations in the original study design and data collection methodology. The original methodology included interviewing state health commissioners and other governing public health officials in each of the nine Appalachian states that had PHAB-accredited local health departments to determine their level of influence on the local health department director's decision to pursue PHAB accreditation or state quality awards. I had to remove the state health commissioners and governing public health officials from both manuscript methodologies as there was a zero-response rate from them during the data collection phase. This may be attributed to COVID-19 and the high volume of other research requests inundating their office. It is recommended that future research focus on obtaining their insight as they are high level administrators not directly involved in the daily operations of the local health department quality improvement and administrative functions. Gaining and understanding into the political climate that may have an impact on providing incentive grants could be helpful for future local and state health departments in their decision-making process to pursue PHAB accreditation or state quality awards.

An additional limitation is the lack of response from local health departments that can possibly be related to COVID-19 pandemic fatigue, decreased staff, and rearranged priorities away from quality improvement and accreditation. Health department directors and associated leaders have assumed the additional duties of the accreditation coordinator, Chief Operations Officer, and other administrative

positions to manage the maintenance of their current accreditation status while directing the preparations for reaccreditation.

This study did not incorporate the perspectives of non-PHAB accredited local or state health departments and their current decision not to pursue accreditation or state quality awards. The non-PHAB accredited health departments did not respond to requests to participate in this study, which can be explained by the Appalachian non-PHAB accredited local health departments usually having smaller numbers of staff (N<10) and offer fewer comprehensive services to their service area demographic.

Future Research and Recommendations

Future studies can address reaccreditation and the challenges experienced by local and state health departments to continuously improve. For the respondents in this study, three out of ten (3/10) successfully reaccredited by the end of the fiscal year 2022 (September 30, 2022). Additional research can explore the intricate factors that guide the decisions by health department leaders to continue to maintain their accredited status while pursuing reaccreditation.

Since the outset of this study, there have been updates to the PHAB Standards and Measures and the CDC Essential Public Health Services. All of the health departments that participated in this study were accredited under Version 1.0 or 1.5 of the PHAB Standards and Measures. After engaging with think tanks and expert panels through the consensus approach and a comprehensive public vetting process, PHAB finalized 2022 Standards and Measures in February 2022 (PHAB, 2023). It should also be noted that PHAB awards five-year accreditation to health agencies approximately every three months and most research studies can become out of date after each fiscal year.

State quality awards were focused on a broad area of organizational performance to include service, healthcare, education, manufacturing, government, and non-profit (TNCPE, 2023). Within these sectors, the Tennessee Center for Performance Excellence (TNCPE) outlines the following areas

of focus for the four levels of their state quality awards: Continuous improvement, creating value, results-driven processes, customer focused excellence, fiscal sustainability, and f act-based management. Healthcare systems, health rehabilitation centers, and medical centers have been the main winners of the state quality awards in Tennessee since its inception in 1993, and this is a trend across the United States with the state award programs. Although public health has not been a focus for the national Baldrige Award or state quality awards, a strong push in Tennessee by a previous health commissioner led to the high number LHDs receiving level 1 interest or higher-level awards that continued until 2019. Although one health department in Kentucky received both PHAB accreditation and a state quality award, the respondents were not able to confirm if there was a both PHAB-accredited and state quality-awarded local health department in Tennessee. Future research can confirm the validity of this and separately explore their process to achieve this accomplishment while highlighting the unique challenges associated with attaining both benchmarks of quality. Future research can also explore the possibility of LHDs and state health departments applying for PHAB accreditation and Baldrige-type state quality awards at the same time and if the financial resources can be shared for this endeavor.

In November 2022, the Centers for Disease Control and Prevention (CDC) awarded approximately $3.2 billion to improve United States public health workforce and infrastructure. CDC's financial award is a first-of its- kind that provides awards directly to state, local, and territorial health departments to provide the workforce, services, and systems needed to promote and protect the health in United States communities (CDC, 2022). The $3.2 billion includes $3 billion from the American Rescue Plan Act reserved for jurisdictions to recruit, retain, and train critical frontline public health workers such as epidemiologists, contract tracers, laboratory scientists, community health workers, and data analysts (CDC, 2022). Future research can analyze the levels of funding by state and how much will be allocated toward accreditation as the goal for the Public Health Infrastructure Grant Program is

to ensure that "everyone in the United States lives in a jurisdiction that will receive funding under the new CDC grant" (CDC, 2022).

Lastly, based on the information obtained from the respondents during data collection, it is recommended that future research focus on the challenges faced by non-PHAB accredited rural LHDs. There was a zero percent response rate after reaching out to them for several months, which eliminated the opportunity to compare the non-PHAB accredited and PHAB accredited health departments. A concerted approach that includes state health departments and the local boards of health that are sensitive to lower socioeconomic status demographics may increase the response rate to determine readiness for PHAB accreditation or state quality award attainment. The results described in the two manuscripts in this dissertation can benefit non-PHAB accredited health departments and PHAB accredited health departments by encouraging all local health and state health departments, regardless of size, to develop a solid and ever-evolving culture of quality that includes staff training on the new 2022 PHAB Standards and Measures, increasing staff morale, and the use of incentives to remove the barriers to cultivating a robust and sustainable quality improvement program. It must be emphasized that even though governance and low county economic statuses did not have a significant effect on the decisions to pursue PHAB accreditation or state quality awards, public health state legal mandates and a desire of health department leadership to continuously improve were formidable incentives to overcome the barriers to successfully achieving these quality benchmarks.

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Appendix A. IRB Protocol and Determination

UNIVERSITY OF GEORGIA

Human Research Protection Program

NOT HUMAN RESEARCH DETERMINATION

October 22, 2019

Dear Bertram Thomas:

On 10/22/2019, the Human Subjects Office reviewed the following submission:

Title of Study:	THE EFFECTS OF INCENTIVES AND BARRIERS THAT INFLUENCE PUBLIC HEALTH DEPARTMENT PARTICIPATION IN A VOLUNTARY NATIONAL ACCREDITATION PROGRAM AND STATE QUALITY AWARD PROGRAM IN THE UNITED STATES APPALACHIAN REGION
Investigator:	Bertram Thomas
Co-Investigator:	Joel Lee
IRB ID:	PROJECT00001276

We have determined that the proposed activity is not research involving human subjects as defined by DHHS and FDA regulations. The project is designed to study practice and not the people who participate in the interview.

University of Georgia (UGA) IRB review and approval is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities are research involving human subjects, please submit a new request to the IRB for a determination.

Sincerely,

Kimberly Fowler, Director
Human Subjects Office, University of Georgia

Appendix B.

Public Health Accreditation Board

STANDARDS AND MEASURES VERSION 1.5

DOMAIN 1: Conduct and disseminate assessments focused on population health status and public health issues facing the community

Standard 1.1: Participate in or Lead a Collaborative Process Resulting in a Comprehensive Community Health Assessment

Standard 1.2: Collect and Maintain Reliable, Comparable, and Valid Data that Provide Information on Conditions of Public Health Importance and On the Health Status of the Population

Standard 1.3: Analyze Public Health Data to Identify Trends in Health Problems, Environmental Public Health Hazards, and Social and Economic Factors that Affect the Public's Health

Standard 1.4: Provide and Use the Results of Health Data Analysis to Develop Recommendations Regarding Public Health Policy, Processes, Programs, or Interventions

INVESTIGATE

DOMAIN 2: Investigate health problems and environmental public health hazards to protect the community

Standard 2.1: Conduct Timely Investigations of Health Problems and Environmental Public Health Hazards

Standard 2.2: Contain/Mitigate Health Problems and Environmental Public Health Hazards

Standard 2.3: Ensure Access to Laboratory and Epidemiologic/Environmental Public Health Expertise and Capacity to Investigate and Contain/Mitigate Public Health Problems and Environmental Public Health Hazards

Standard 2.4: Maintain a Plan with Policies and Procedures for Urgent and Non-Urgent Communications

INFORM & EDUCATE

DOMAIN 3: Inform and educate about public health issues and functions

Standard 3.1: Provide Health Education and Health Promotion Policies, Programs, Processes, and Interventions to Support Prevention and Wellness

Standard 3.2: Provide Information on Public Health Issues and Public Health Functions through Multiple Methods to a Variety of Audiences

COMMUNITY ENGAGEMENT

DOMAIN 4: Engage with the community to identify and address health problems

Standard 4.1: Engage with the Public Health System and the Community in Identifying and Addressing Health Problems through Collaborative Processes

Standard 4.2: Promote the Community's Understanding of and Support for Policies and Strategies that will improve the Public's Health

POLICIES & PLANS

DOMAIN 5: Develop public health policies and plans

Standard 5.1: Serve as a Primary and Expert Resource for Establishing and Maintaining Public Health Policies, Practices, and Capacity

Standard 5.2: Conduct a Comprehensive Planning Process Resulting in a Tribal/State/Community Health Improvement Plan

Standard 5.3: Develop and Implement a Health Department Organizational Strategic Plan

Standard 5.4: Maintain an All-Hazards Emergency Operations Plan

PUBLIC HEALTH LAWS

DOMAIN 6: Enforce public health laws

Standard 6.1: Review Existing Laws and Work with Governing Entities and Elected/Appointed Officials to Update as Needed

Standard 6.2: Educate Individuals and Organizations on the Meaning, Purpose, and Benefit of Public Health Laws and How to Comply

Standard 6.3: Conduct and Monitor Public Health Enforcement Activities and Coordinate Notification of Violations among Appropriate Agencies

ACCESS TO CARE

DOMAIN 7: Promote strategies to improve access to health care

Standard 7.1: Assess Health Care Service Capacity and Access to Health Care Services

Standard 7.2: Identify and Implement Strategies to Improve Access to Health Care Services

WORKFORCE

DOMAIN 8: Maintain a competent public health workforce

Standard 8.1: Encourage the Development of a Sufficient Number of Qualified Public Health Workers

Standard 8.2: Ensure a Competent Workforce through Assessment of Staff Competencies, the Provision of Individual Training and Professional Development, and the Provision of a Supportive Work Environment

QUALITY IMPROVMENT

DOMAIN 9: Evaluate and continuously improve processes, programs, and interventions

Standard 9.1: Use a Performance Management System to Monitor Achievement of Organizational Objectives

Standard 9.2: Develop and Implement Quality Improvement Processes Integrated into Organizational Practice, Programs, Processes, and Interventions

EVIDENCE-BASED PRACTICES

DOMAIN 10: Contribute to and apply the evidence base of public health

Standard 10.1: Identify and Use the Best Available Evidence for Making Informed Public Health Practice Decisions

Standard 10.2: Promote Understanding and Use of the Current Body of Research Results, Evaluations, and Evidence-Based Practices with Appropriate Audiences

ADMINSTRATION & MANAGEMENT

DOMAIN 11: Maintain administrative and management capacity

Standard 11.1: Develop and Maintain an Operational Infrastructure to Support the Performance of Public Health Functions

Standard 11.2: Establish Effective Financial Management Systems

GOVERNANCE

DOMAIN 12: Maintain capacity to engage the public health governing entity

Standard 12.1: Maintain Current Operational Definitions and Statements of the Public Health Roles, Responsibilities, and Authorities

Standard 12.2: Provide Information to the Governing Entity Regarding Public Health and the Official Responsibilities of the Health Department and of the Governing Entity

Standard 12.3: Encourage the Governing Entity's Engagement in the Public Health Department's Overall Obligations and Responsibilities

Appendix C.

Structure and Relationship with Local Health Departments, 2016 ASTHO Profile

State	Governance Classification	# Of Independent Local, Led by Local	# Of State-Run Local, Led by State	# Of Independent Regional/District, Led by Non-State	# Of State-Run Regional/District, Led by State
Alabama	Largely Centralized	2	65	0	0
Alaska	Mixed	2	0	0	0
Arizona	Decentralized	15	0	0	0
Arkansas	Centralized	0	94	0	5
California	Decentralized	61	0	0	0
Colorado	Decentralized	54	0	0	0
Connecticut	Decentralized	53	0	20	0
Delaware	Centralized	0	0	0	0
District of Columbia	Centralized	0	1	0	0
Florida	Shared	0	67	0	0
Georgia	Shared	159	0	0	18
Hawaii	Centralized	0	0	0	3
Idaho	Decentralized	0	0	7	0
Illinois	Decentralized	96	0	0	7
Indiana	Decentralized	93	0	0	0
Iowa	Decentralized	101	0	0	0
Kansas	Decentralized	100	0	0	6
Kentucky	Shared	61	0	0	0
Louisiana	Largely Centralized	2	63	5	9
Maine	Mixed	2	0	0	9
Maryland	Largely Shared	1	23	0	0
Massachusetts	Decentralized	351	0	16	0
Michigan	Decentralized	45	0	0	0
Minnesota	Decentralized	49	0	0	8
Mississippi	Centralized	0	80	0	9
Missouri	Decentralized	115	0	0	9
Montana	Decentralized	58	0	0	0
Nebraska	Decentralized	2	0	19	0
Nevada	Largely Decentralized				
New Hampshire	Largely Centralized	2	0	0	0
New Jersey	Decentralized	90	0	1	0

New Mexico	Centralized	0	0	0	4
New York	Decentralized	58	0	0	12
North Carolina	Decentralized	85	0	6	0
North Dakota	Decentralized	28	0	8	0
Ohio	Decentralized	120	0	0	2
Oklahoma	Mixed	2	1	0	68
Oregon	Decentralized	34	0	0	0
Pennsylvania	Mixed	10	0	0	6
Rhode Island	Centralized	0	0	0	0
South Carolina	Centralized	0	63	0	4
South Dakota	Largely Centralized	1	0	0	7
Tennessee	Mixed	0	89	6	7
Texas	Largely Decentralized	59	0	0	8
Utah	Decentralized	13	0	0	0
Vermont	Centralized	0	0	0	12
Virginia	Largely Centralized	2	128	0	0
Washington	Decentralized	35	0	0	4
West Virginia	Decentralized	49	0	2	0
Wisconsin	Decentralized	88	0	0	5
Wyoming	Largely Shared	5	18	0	0

Appendix D.

Content of the Seven Categories of the Malcolm Baldrige Performance Excellence Framework

Category	Description
1. Leadership	Poses questions about senior organizational leadership and how senior leaders review the performance of key goals. The 2013-2014 criteria included a new question regarding how the leaders of the organization create an environment for innovation and risk-taking.
2. Strategic Planning	Addresses strategic development and deployment of the strategies. The 2013-2014 criteria included questions regarding "work systems" and how innovation and competencies were considered in deciding who would perform the various types of work.
3. Customer and Market Focus	Presents questions regarding how the organization targets customers, customer groups, and market segments. This category also asks questions to ascertain how effectively the organization develops customer relationships.
4. Measurement, Analysis, and Knowledge Management	Measurement, Analysis, and Knowledge Management: focuses on how the organization selects, analyzes, manages, and improves information and knowledge assets.
5. Workforce Focus	Examines the work systems (how work is designed), employee learning and motivation, and alignment of overall objectives and action plans. Minor revisions to the 2013-2014 Criteria include a new question that asks about past changes in staffing and future workforce capacity planning to prevent future layoffs or reductions to meet demands that have occurred in the past.

6. Process Management	Analyzes how key work processes of value creation and support are designed and how the organization manages and improves these processes. A revision in the 2013-2014 Criteria included an in-depth focus on how support processes are identified, what the processes are, and how they are managed.
7. Results	Investigates customer focus, product and service, human resource, financial, organizational effectiveness, governance, and social responsibility. In the 2013-2014 revision of the Criteria included requests for supply chain results with a focus on levels and trends in key measurements of supplier performance.

Note. Adapted from "Baldrige Award Winning Quality: How to interpret the Malcolm Baldrige Criteria for Performance Excellence" by M.G. Brown, 2014, p. 30. Copyright 2014 by CRC Press, Taylor & Francis Group.

Appendix E.

Qualtrics Questionnaire for Health Departments

Dear Prospective Participant,

My name is Bert Thomas. I am a Doctor of Public Health student at the University of Georgia College of Public Health. As part of my doctoral dissertation, I am studying Public Health Accreditation Board (PHAB) accreditation and State Quality Award attainment as a component of a more extensive continuous quality improvement curriculum incorporated by health departments, and I would like to ask you several questions regarding your health department and its quality improvement goals in public health. Some health departments focus on pursuing PHAB accreditation as a benchmark for quality, and some seek state Baldrige-type quality/performance improvement awards. We would like to understand the rationale for pursuing one or the other or neither and the benefits of achieving this benchmark level of quality recognition. Your answers are important to us as you represent public health professionals in quality improvement at the health department level.

Suppose you agree to participate in this pre-interview questionnaire and consent to allow your answers to be collected. In that case, you will be expected to complete a series of Qualtrics questions related to your health department and its current quality improvement program. This Qualtrics questionnaire should take approximately 20 minutes to complete. Your responses will provide insight into your quality improvement decisions and guide the upcoming zoom interview that you will be requested to participate in. Please note that, while at no point will you be asked to disclose any private or confidential information, this questionnaire involves the transmission of data over the internet.

If you have any questions related to this research, please feel free to contact me at mrthomas@uga.edu. If you have any complaints or questions about your rights as a research volunteer, contact the IRB at (706) 542-3199 or by email at IRB@uga.edu

- Privacy
    - Full names will not be used, and we will not keep any written record of your names, nor will anyone besides the researchers have access to any information collected through this questionnaire. The results of this study will only include your health department name, county, and state of location.

Qualtrics Questionnaire:

1	Health Department Name	Open text field
2	Sex (Source: BRFSS)	Male ❑ Female
3	What is your job title?	Open text field
4	How is your health department county economic service area classified?	❑ Distressed ❑ At-Risk ❑ Transitional ❑ Competitive ❑ Attainment ❑ Don't Know
5	Are you familiar with Public Health Accreditation Board (PHAB) Accreditation?	Yes ❑ No ❑ Do not know/not sure
6	How familiar are you with PHAB accreditation?	❑No knowledge ❑Not very familiar❑ Neutral ❑Somewhat familiar ❑Very familiar

7	Do you know if your health department has been awarded or is currently pursuing PHAB accreditation?	❑Yes ❑No ❑Do not know/not sure
6	If currently not PHAB accredited and not currently pursuing PHAB accreditation, does your health department plan to pursue PHAB accreditation in the future?	❑Yes ❑ No ❑N/A ❑ Do not know/not sure
7	Are you familiar with state quality awards?	❑ Yes ❑ No ❑ Do not know/not sure
8	How familiar are you with PHAB accreditation?	❑No knowledge ❑Not very familiar❑ Neutral ❑Somewhat familiar ❑Very familiar

9	Do you know if your health department has been awarded any level of state quality award, or if the health department is currently pursuing any level of state quality award?	❑ Yes ❑ No ❑ Do not know/not sure
10	If your state has not received a state quality award on any level, does your health department plan to pursue any level of state quality award in the future?	❑ Yes ❑ No ❑ Do not know/not sure
11	Has COVID-19 affected your health department's plans to pursue initial PHAB accreditation, PHAB reaccreditation, or state quality awards?	☐ Strongly agree ☐ Agree ☐ Neither Agree nor Disagree ☐ Disagree ☐ Strongly disagree
12	Are your coworkers familiar with PHAB accreditation or state quality awards as part of your health department's quality improvement program?	❑ Yes ❑ No ❑ Do not know/not sure

13	What are the general attitudes of your coworkers toward pursuing health PHAB accreditation and state quality awards?	☐ Positive ☐ Negative ☐ Do not know/not sure
14	Continuous quality improvement and the attainment of PHAB accreditation or the pursuit of state quality awards is a key priority of my health department's mission.	☐ Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree
15	The health department's service area population values health department accreditation or the attainment of state quality awards as a benchmark of quality and high performance.	☐ Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree

Appendix F.

Qualitative Interview for Health Department Leaders

Dear Prospective Participant,

My name is Bert Thomas. I am a Doctor of Public Health student at the University of Georgia College of Public Health. As part of my doctoral dissertation, I am studying Public Health Accreditation Board (PHAB) accreditation and State Quality Award attainment as a component of a more extensive continuous quality improvement curriculum incorporated by health departments. Thank you for participating in the pre-interview questionnaire. I want to ask you several additional questions through the Zoom Meeting format to analyze further your health department's accreditation and quality improvement goals. I would like to understand the rationale for pursuing PHAB accreditation versus seeking state quality awards and the benefits of achieving these benchmark levels of quality recognition. Your answers are essential as you represent public health professionals in quality improvement at the health department level.

If you agree to participate in this interview and consent to collect your answers, you will be expected to answer questions about your health department and its current quality improvement program. This interview should take approximately 45 minutes to complete. Your responses will provide insight into your quality improvement decisions and guide the upcoming zoom interview that you will be requested to participate in. Please note that, while at no point will you be asked to disclose any private or confidential information, this involves the transmission of data over the internet. Your responses will be recorded, and your names will not be used in this study. This project has been determined by the University of Georgia Human Subjects Office Institutional Review Board to be not research involving human subjects as defined by the Department of Health and Human Services (DHHS) and the Food and Drug Administration (FDA) regulations.

If you have any questions related to this research, please feel free to contact me at mrthomas@uga.edu. If you have any complaints or questions about your rights as a research volunteer, contact the IRB at (706) 542-3199 or by email at IRB@uga.edu

- Privacy
    - Full names will not be used, and we will not keep any written record of your names, nor will anyone besides the researchers have access to any information collected through this questionnaire. The results of this study will only include your health department name, county, and state of location.

Zoom Interview Questions

1. How many full-time employees do your health department employ vs. part-time employees in all departments?

2. If your health department is Public Health Accreditation Board (PHAB) accredited, why did you choose PHAB accreditation and not state quality Award attainment?

3. If your health department has attained quality awards of any tier, why did you choose to pursue state quality awards and not PHAB accreditation?

4. If your health department is neither PHAB accredited nor in possession of state quality awards of any tier, why has your health department made this decision? Does your health department plan to pursue either or another type of quality benchmark designation in the future?

5. If your Health Department is currently PHAB accredited and pursuing Public Health Accreditation Board (PHAB) reaccreditation or state quality awards in the future, how many of these employees are dedicated full-time to quality improvement? How many are part-time?

6. Is there a committee dedicated to the accreditation/state quality award continuous quality improvement process? If so, who participates? Is their participation by leadership, or is this delegated to staff?

7. Please define the geographic service area that your health department serves.

8. What is the total population your health department serves, and what is its median income level?

9. What were the determining factors for choosing PHAB Accreditation, state quality award attainment, or both or neither. Did the state governing body influence this decision?

10. How engaged is the health department's governing body to pursue accreditation or state quality awards in the decision-making process?

11. How did you achieve buy-in from your staff and other stakeholders in the decision to pursue accreditation or state quality awards or both?

12. How frequently did the accreditation committee staff meet during the initial PHAB accreditation process?

13. How engaged is the state Health officer (medical officer or commissioner) in your health department's quality improvement plan selection process (Accreditation vs. state quality awards)? Does the officer mandate accreditation or pursuit of state quality awards, or does the health department have autonomy regarding this decision? Is there pressure to become accredited?

14. Does the state health officer mandate accreditation or pursuit of state quality awards, or does the health department have autonomy regarding this decision?