INTRODUCTION

In the United States, the public health system functions at the county level and city level through the work of local health departments (LHDs). Tasked with controlling the spread of disease, protecting against environmental hazards, preparing for and responding to emergencies, and promoting healthy behaviors within locally defined jurisdictions, LHDs are an important point of contact for protecting and improving the health of the communities they serve.¹ Local boards of health (LBoHs) work closely with LHDs as an administrative oversight body.² They assist in ensuring LHDs have the resources and capacity to respond to population health needs within their jurisdiction. Local boards of health are considered the “most common type of public health governing entity”³ and are essential for ensuring the public health system functions effectively at the local level. Boards of health members are appointed or elected and undertake a variety of activities, including budget approval, creating and administering public health rules, setting fees for local public health services, and serving as an adjudicatory body within their city or county of jurisdiction, among others.⁴

More than three-fourths (77%) of LHDs across the United States (US) have an LBoH.⁵ Within the state of Ohio, there are 112 LBoHs that work with LHDs in 5 defined regions across the state: central, northeast, northwest, southeast, and southwest. Each LBoH is comprised of at least 5 appointed members. As stated previously, LBoHs play an important role within the work of LHDs and the...
training and education that LBoH members are equipped with are essential for fulfilling their duties. Public health governance is broadly defined as 6 distinct functions: (1) policy development, (2) resource stewardship, (3) legal authority, (4) partner engagement, (5) continuous improvement, and (6) oversight. A seventh domain pertaining specifically to LBoHs was identified by Shah et al which includes the individual characteristics and strengths of each board and their ability to respond to community needs. The capacity of LBoHs to provide oversight to LHDs is dependent in part on the board’s ability to respond effectively, and ensuring LBoH members are adequately trained (ie, equipped with a working knowledge of their role and its responsibilities therein) is an important component of this. It has been noted by Newman and Leap that while many LBoHs across the US are comprised of health care professionals, fewer than 20% have had formal public health training prior to their appointment and that educational programs are necessary in order to assist them in fulfilling their roles. Indeed, the 2015 “Local Board of Health National Profile” conducted by the National Association of County and City Health Officials (NACCHO) identified that only 1 in 5 LHDs report having a formal, ongoing training program for LBoH members and that only one-third train members on governance-related topics. This report also acknowledged that LBoH members may not take on their roles with a full understanding of their duties and functions. There is a recognized need for comprehensive training pertaining to governance and public health concepts.

Workforce development is an important aspect of many professions, including public health. Within the field, public health workforce development plays a crucial role in not only enhancing the skills and performance of public health workers at all levels but also ultimately improving health outcomes. Evidence of the need for an adequately trained and responsive public health workforce has never been more apparent than in the response to the coronavirus pandemic at the local, state, and national level. Efforts to train public health workers incorporate many different modalities, including in-person trainings, virtual modules, webinars, hybrid trainings, and hands-on skill building, offered through many different organizations and agencies. The purpose of continuing education (CE) is to “update and reinforce knowledge” and the goal is to ensure public health professionals have the appropriate knowledge and skills to guide or govern public health practice. The public health workforce encompasses a variety of different types of professionals including administrators, educators, clinicians, and scientists, among others. As a key oversight body for LHDs and due to the acknowledged need for training, LBoHs are another potential target for workforce development and CE. Due to the responsibilities of LBoHs in overseeing the work of LHDs, adequately training boards of health members is important to ensure that local public health system functions effectively.

Recognizing the need to assure that volunteer boards of health members were competent to exercise their policymaking and oversight responsibilities, the Ohio General Assembly enacted House Bill (HB) 59 in 2013. This legislation and the administrative rules adopted after its passage set forth a series of directives to guide the work of LHDs. Section 3701-36-03 of the Ohio Administrative Code (OAC) establishes a set of “minimum standards” LHDs need to meet in order to receive state subsidy funds. Included among these standards are a requirement that each member of Ohio’s boards of health complete 2 hours of CE each year. Specific guidance on overarching topic areas that should be covered by CE modules are specified in OAC 3701-36-03 and include ethics, public health principles, and boards of health member responsibilities. These standards have been in place since 2016. To fulfill this directive, an annual planning committee of LBoH members and LHD health commissioners convened by AOHC selected CE topics and recruited subject matter experts (SMEs) based on topics or issues identified through a survey of OABH and AOHC members. Continuing education content was delivered through recorded lectures of approximately 15 minutes in length by SMEs provided to OABH member LHDs in compact disc (CD) format.

In 2019, the agreement between OABH and AOHC ended and a partnership between OABH and the Kent State University College of Public Health (KSU-CPH) was established to develop and deliver these CE modules in a new way (ie, utilizing online learning platforms). This work describes the process. Workforce development and CE play an important role in ensuring public health workers and leadership are poised to respond effectively to the population’s health needs. There is currently limited understanding of how workforce development and CE may be implemented within LBoHs. The aim of this paper is to describe the development of a series of CE modules to be delivered to Ohio’s LBoH members to fulfill the requirements established in OAC 3701-36-03.

METHODS

The process for developing the CE modules encompasses 3 steps: (1) needs assessment, (2) module development and delivery, and (3) evaluation. Each step will be undertaken by the research team (MS, KS, and DK) in consultation with OABH and SMEs. The CE modules include materials that were developed within graduate courses in the KSU-CPH, as well as additional content designed by experts in the field. As the modules are developed over the next year, they will be hosted by the KSU-CPH and disseminated to LBoHs. The process for developing the modules is described below.

Setting

With the growing use of online learning in multiple educational settings, many fields, including health-related fields, have opted to deliver CE through online formats. Offering CE online allows for greater flexibility in accessing courses for participants and is a cost-effective way to deliver content. The CE modules described in this program will be delivered online at LBoH meetings. This will allow board members to complete the modules as a group.
The modules will be delivered through guest accounts that enable access to the Blackboard Learn™ learning management system, the platform used for online learning at Kent State University. The modules will be delivered and hosted by the KSU-CPH. Each participating LBoH will have the opportunity to determine when the modules will be accessed during their meetings.

**Educational Program Description**

As previously mentioned, OAC 3701-36-03 requires that LBoH members complete 2 hours of CE each year, encompassing 3 broad topic areas: ethics, public health principles, and board of health member responsibilities. This program fulfills these requirements by delivering CE content to LBoH members. The online nature of the course delivery will allow for increased flexibility in completing the content and meeting OAC 3701-36-03 requirements. This online platform is also an advantageous method for delivering CE content from the previous use of CDs as it allows LBoH members the opportunity to complete modules at their pace, view them as a group during their meetings, and, given the recent environment of remote work and virtual meetings, enables easier access to the modules that would not be possible with hard copy materials. Additionally, the online format allows for greater flexibility on the part of SMEs who have the opportunity to record, as well as easily update, their material while also working remotely/virtually.

**RESULTS**

The process for developing CE modules follows 3 steps: (1) needs assessment, (2) module development and delivery, and (3) evaluation. These steps are displayed in Figure 1 and described in the following section.

**Needs Assessment**

To determine the areas and topics of interest for CE modules, the authors solicited feedback electronically from LBoH members through the OABH and AOHC in winter 2020. Local boards of health members were given a list of possible module topics under the 3 overarching topic areas outlined in OAC 3701-36-03 (ethics, public health principles, and board of health member responsibilities). Members were asked to select each of the topics they were most interested in learning through CE, in addition to sharing other potential module topics not listed. Table 1 presents the potential topics presented to LBoH members. These potential topics were based on past CE modules presented to LBoH members, as well as input from OABH. Local boards of health members were asked to identity the region of the state they represented (based on Ohio Department of Health’s 5 districts) as well as the cities/counties their LHD serves. Respondents serve a variety of communities—urban, rural, and suburban. Future module development beyond this pilot year may take into consideration the differing needs LBoH members may have based on the communities they serve. For this pilot year, the topic areas identified by the majority of respondents were highlighted for module development.

Other topics that members reported an interest in included: foundational public health services, human resources, core competencies, crisis communication, isolation and quarantine, and networking/interfacing with local government. The results of the needs assessment were compiled to guide module development. In this pilot year, a curated set of 8 modules will be developed, with the intent to launch new modules each year based on feedback from LBoH members.

**Module Development and Delivery**

Based on the feedback provided by LBoH members and institutional knowledge from SMEs about workforce development, potential module topics were conceptualized. The following topics were selected for initial module development: Introduction to Ohio’s Sunshine Laws, Introduction to Ohio’s Revolving Door Laws, Financial Management, and Public Health Ethics. Additional modules identified as relevant to LBoH members include: Grant writing, Overview of Community Health Assessments (CHAs) and Community Health Needs Assessments (CHNAs), Health Disparities/Social Determinants of Health, and Performance Management. In cases where there is no existing material available within the KSU-CPH, modules will be developed by SMEs from within the college, as well as from a broader network of academics and public health practitioners locally and statewide. Subject matter experts from outside the state of Ohio may also be invited to present modules when appropriate. The modules will consist of recorded lectures about the content area and will include a brief evaluation at the end to assess whether learning objectives were met and the degree to which new knowledge was gained from viewing the

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**Figure 1. Process for Developing CE Modules**

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**Needs assessment**

Identifying topics of interest for LBoH members

**Module development and delivery**

Curating content from KSU-CPH graduate courses and from SMEs and delivering modules to LBoH members at regularly scheduled meetings

**Evaluation**

Evaluating satisfaction with CE modules and determining future content
module. Because the state requirement is for LBoH members to engage in 2 hours of CE per year, a set of 8 modules (15 minutes each) will be delivered over the course of the year. The brief duration of each module is to ensure LBoH members have the opportunity to complete the CE during regularly scheduled meetings and as a group. The modules will be hosted by KSU-CPH using Blackboard Learn™, an online learning platform. Local boards of health members will be granted guest accounts to access the content. The online format allows for flexibility in how the content is accessed and also provides LBoHs the opportunity to learn from SMEs without needing to schedule an in-person lesson. At the end of each lesson, SMEs will provide their contact information to allow LBoH members to reach out with further questions and to network with instructors. Following this pilot year, additional supplemental materials may be included with each module to ensure LBoH members have the information they need in the absence of in-person instruction.

Modules can be structured in different ways but will likely follow similar formats. As an example, a Public Health Ethics module that will be delivered through this new partnership begins with a set of learning objectives that introduce learners to the purpose and expectations for the CE session which include “Identify the principles of ethical practice in public health” and “Apply an ethical framework for the analysis of ethical issues to decision making in the local health department.” In the narrated lecture, learners are also introduced to the differences between clinical ethics and public health ethics, the principles of ethical practice in public health, the complementary roles of law and ethics, ethical frameworks for decision making, and examples of ethical issues that LHDs may confront. These topics are pertinent to the functioning of LHDs, and relevant to the role of LBoHs as governing entities. Additional modules featuring new content that cover other topics would be structured in a similar way, where the content would be focused on the needs of LBoHs as oversight bodies for LHDs.

**Evaluation**

In order to assess the program’s ability to effectively deliver CE content, as well as informing future module topics, an evaluation will be conducted at the beginning and end of the program, as well as after each module. At the start of the program, LBoH members will be asked to rank their current understanding of the content areas, as well as at the end, to measure the effectiveness of the training. Additionally, following each module, LBoH members will be asked to comment on the module’s content in order to understand the effectiveness of each individual module.

**DISCUSSION**

Ohio has taken a proactive approach in assuring that its LBoH members develop the skills necessary for effective governance of LHDs. Effectively delivering this skill-building training through high-quality continuing education content may pave the way for other boards of health across the US to extend similar requirements to their members. Expanding CE requirements and opportunities for more LBoHs is consistent with the model of Six Functions of Public Health Governance developed in 2012 by the National Association of Local Boards of Health (NALBOH). Among these 6 functions is continuous improvement, in which boards of health are called upon to support a culture of quality improvement within the governing body and at the public health agency; hold

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**Table 1. Potential Model Topic Areas Presented to LBoH Members for Feedback**

| Public health ethics                                      | Board of health member responsibilities |
|-----------------------------------------------------------|----------------------------------------|
| Introduction to public health ethics                      | Board of health overview                |
| Frequently occurring ethical issues in LHDs              | Financial statements/financial management|
| Addressing unethical behavior within LHDs                 | Public health accreditation board (PHAB) accreditation |
| Introduction to Ohio’s Sunshine Laws                      | General rules for establishing fees     |
| Introduction to Ohio’s Revolving Door Laws                | Governance functions                    |
| HIPAA and LHDs                                            | Performance management                  |
| Interfacing with state public health agencies             | Communications                          |
| Social determinants of health/health disparities          |                                        |
| Ten essential services                                    |                                        |
| Health equity in all policies (HEIAP)                     |                                        |
governing body members and the health director/health officer to high performance standards and evaluating their effectiveness; and provide orientation and ongoing professional development for governing body members. By drawing upon academic content tailored to the needs of LBoH members, the relevance of subject matter to the end users is assured. There is currently limited understanding about the workforce development and CE needs of LBoH members. This educational program fills the gap in Ohio and introduces a potential area of growth for other LBoHs across the US. Of additional note, while this work is grounded in Ohio’s requirement that LBoH members engage in CE, there is value in considering CE needs of LBoHs nationwide. Similar assessments of training needs and the subsequent development of educational materials may enhance the work of LBoHs across states.

PUBLIC HEALTH EDUCATION IMPLICATIONS

According to Caron et al, an unexplored area of collaboration is between LBoHs and academic institutions, particularly in terms of workforce development. The CE program described in this paper highlights a unique opportunity for an academic institution to fulfill and sponsor the CE needs of Ohio’s LBoHs, in addition to establishing a relationship that may create future public health workforce training opportunities. This partnership ensures that state requirements are fulfilled, while also leveraging existing, tailored content to meet the training needs of LBoH members.

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