

Consolidating Local Health Departments in the United States: Challenges, Evidence, and Thoughts for the Future

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Local health departments (LHDs) in the United States face many challenges, including limited local capacities (eg, staffing, expertise), financial pressures, and potentially strained interactions with affiliated local and state governments that are facing fiscal uncertainties.¹⁻³ At the same time, demands on LHDs continue to grow. Old nemeses such as infectious diseases and natural disasters are being supplemented with growing challenges such as bioterrorism and chronic diseases, and this change requires greater LHD capacities for providing essential services.⁴⁻⁶ Some of these challenges cannot be addressed adequately by LHDs acting individually, particularly by small LHDs. So, LHDs are seeking to collaborate with one another.^{7,8} Collaborative relationships between LHDs develop in various ways,⁹ ranging from the establishment of loose organizations that aid in the sharing of information, resources, expertise, and capacity to full-fledged consolidations (Figure 1).

In this commentary, we discuss legal structures and trends affecting LHDs and their abilities to address the challenges they face in the 21st century. We focus on the consolidation of LHDs, which researchers suggest may result in benefits, particularly for communities served by small LHDs.¹⁰⁻¹⁶ More specifically, we address the extent to which LHD consolidations are occurring and the ways in which they are done, the factors that facilitate these consolidations, and the effects they may have on services and finances. We also summarize recent literature on LHD consolidation and close with thoughts on the state of knowledge on LHD consolidation and areas for future research.

LHDs in the United States: Structures and Trends

Although LHDs are authorized and structured by differing state statutes and constitutional provisions,¹⁷ all 50 states deliver public health services at the local level. However, the governing structures and approaches through which these services are provided differ by state¹⁸ because of varied and

complex relationships between state and local governments and differing public health needs and interests.^{17,19,20} Some states, such as Vermont and Arkansas, deliver public health services through a centralized state agency that provides local public health services. Other states, such as Wisconsin and Ohio, have decentralized structures in which LHDs are parts of local governments under state laws. Still other states provide local public health services through hybrid structures, which have characteristics of both centralized and decentralized systems.

A 2012 review of the structure and organization of local and state public health agencies classified 19 states as decentralized, 13 as centralized, and 18 as hybrids.¹⁸ Some analysts have classified state–local public health arrangements in other ways. For example, the Association of State and Territorial Health Officials (ASTHO) and NORC at the University of Chicago refer to a more complex system based on the leadership of “local health units” and structures of state and local public health authority.²¹ Although these classification schemes provide a broad sense of the variation in structures used to deliver state–local public health services, they do not convey fully the unique structures and processes used in each state. Some states organize public health service delivery at the county level, whereas other states organize services at the level of townships, cities, and substate regional arrangements.

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As-Needed Assistance	Service-Related Arrangements	Shared Programs or Functions	Regionalization and Consolidation
<ul style="list-style-type: none"> • Information sharing • Equipment sharing • Expertise sharing • Assistance for surge capacity 	<ul style="list-style-type: none"> • Service provision agreements (eg, contract to provide immunization services) • Purchase of staff time (eg, environmental health specialist) 	<ul style="list-style-type: none"> • Joint programs and services (eg, shared HIV program) • Joint shared capacity (eg, epidemiology, communications) 	<ul style="list-style-type: none"> • New entity formed by merging local public health agencies • Consolidation of 1 or more local public health agencies into an existing local public health agency
	Looser Integration		Tighter Integration

Figure 1. Cross-jurisdictional sharing arrangements applicable to local health departments in the United States. Used with permission from the Center for Sharing Public Health Services.⁹

States also vary in how they can consolidate LHDs. For example, in Ohio, LHDs may enter into contractual mergers under which 1 LHD provides services for another health district or they may merge local health districts altogether. Municipalities in Connecticut may choose to enter into a unified health district arrangement allowable under Connecticut law.²²

Although LHDs vary greatly, they also tend to share certain traits. One is small size. Of 2533 LHDs in the United States surveyed in 2016 by the National Association of County and City Health Officials (NACCHO), 1561 (62%) served <50 000 persons and 1945 (77%) served <100 000 persons.²³ Small size means that an LHD may not have the tax base and, thus, the resources needed to meet public health challenges. Small size may also mean that the US public health system as a whole does not operate as efficiently as it could because of difficulty achieving economies of scale (in which per-unit costs decline as a greater volume of services is provided).¹¹

LHDs across the United States are also influenced by common national trends. One such trend is a growing recognition of the need to rethink local governance. For several decades, specialists in public administration have chastised governments for lacking coordination. This lack of coordination has led to calls for horizontal governance,⁷ which promotes the linking of jurisdictions to one another through shared services and regionalized governance arrangements.

In public health, the trend toward horizontal governance has been accompanied by a move toward the concept of a New Public Health,²⁴ which posits that a changing mix of public health challenges requires both the use of evidence to guide action and collaboration across organizations. Evidence may include data on such topics as disease epidemiology or vaccination coverage, which can help rationalize interorganizational collaborations. In efforts consistent with the concept of a New Public Health, the Institute of Medicine (IOM)¹² in 2012 and the US Department of Health and Human Services, through its 2017 Public Health 3.0 initiative,²⁵ called for LHDs to facilitate collaborative public health improvement efforts in their communities, as well as deliver mandated services as they have in the past.

Another related trend has been an expansion in the expected roles of LHDs, just as public health resources are lagging. Although the 2010 Patient Protection and Affordable Care Act²⁶ emphasized preventive health and authorized

increased funding for certain preventive health programs, it did not lead to substantial funding increases to LHDs. State and local support for LHDs has also diminished. From 2008 to 2016, mean annual per-capita state and local revenue for local public health services decreased by about 13% and 18%, respectively (from \$15 to \$13 per capita for local revenue and from \$11 to \$9 per capita for state revenue). Mean LHD per-capita spending declined by approximately 25% nationally during the same period (from \$63 per capita in 2008 to \$48 per capita in 2016).²³

With shrinking resources, LHDs are rethinking the core public health services that they provide and their capacities to deliver these services. A 2012 IOM report¹² recommended the creation of a defined set of foundational capabilities for health departments and core program services to be delivered in all jurisdictions. Since that time, leaders in some states have begun to define foundational public health services by following a model developed by the Public Health Leadership Forum, a group of national stakeholders.²⁷

All this is happening in parallel with a move toward accrediting state health departments and LHDs. In 2011, the Public Health Accreditation Board launched a national accreditation initiative. The program is voluntary and is supported by the Centers for Disease Control and Prevention through federal financial aid to help LHDs obtain accreditation.²⁸ Consolidation and other components of the Center for Sharing Public Health Services spectrum of collaborative arrangements may provide pathways for health departments to develop the capacities needed to obtain accreditation.

These trends—fiscal constraints, the move toward horizontal governance, the New Public Health and reconceptualization of the roles of LHDs, the rethinking of foundational capabilities and core public health services, and the accreditation of health departments—are leading public health practitioners and scholars to rethink ways in which public health services are delivered. Sharing services through LHD consolidation is one approach being used to enhance LHD capacities.

Observations on LHD Consolidation

LHD consolidation in the United States is not well characterized, but knowledge is increasing. To our knowledge, no centralized information repository exists to track and report

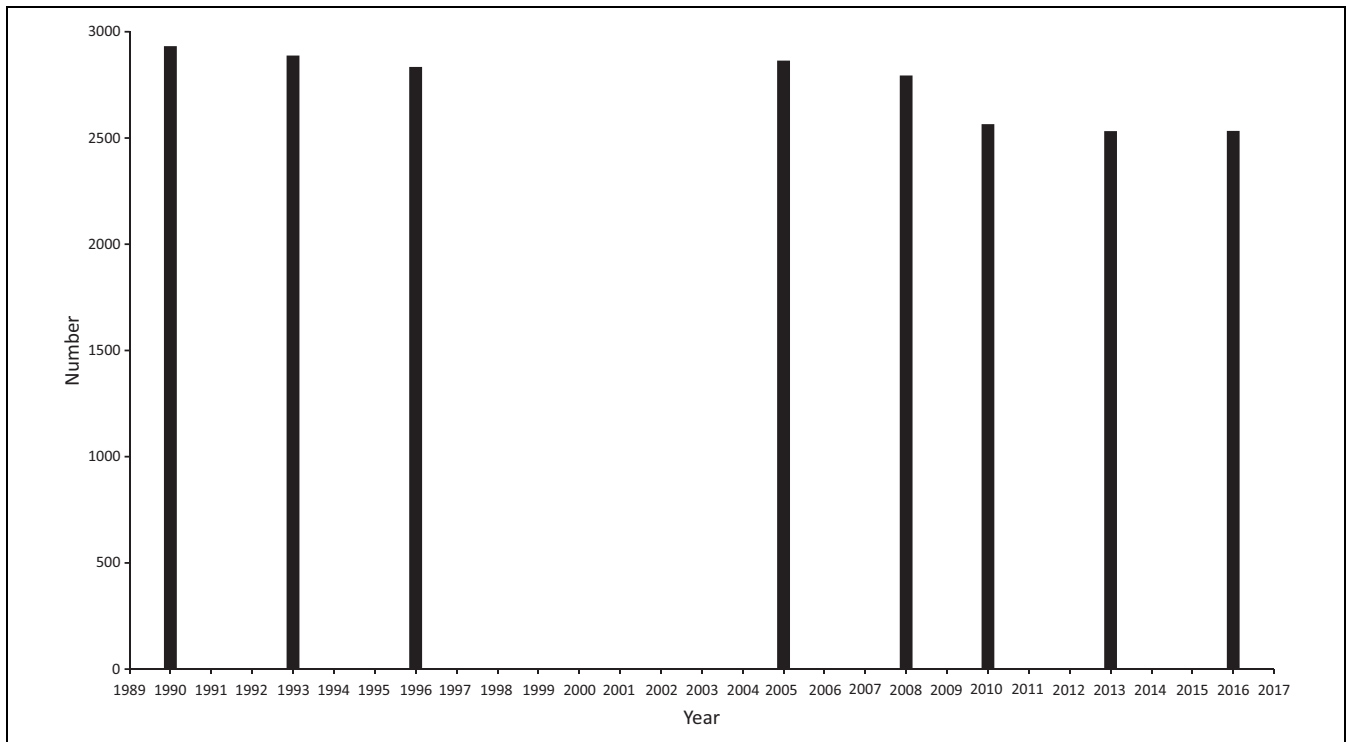


Figure 2. Number of local health departments (LHDs) surveyed by the National Association of County & City Health Officials' (NACCHO)'s national profile of LHDs survey project, 1990-2016. Data source: NACCHO.³⁰

regularly on the extent to which LHDs are consolidating with one another. However, data reported about surveys conducted by NACCHO since 1990 provide some insight. Using the definition of an LHD as “an administrative or service unit of local or state government, concerned with health, and carrying some responsibility for the health of a jurisdiction smaller than a state,”²⁹ the size of the survey frames used by NACCHO suggest that the number of LHDs decreased from 2932 in 1990 to 2533 in 2016.^{23,29} Information on the size of survey frames used by NACCHO is provided in LHD Profile Survey reports from 1990 to 2016 (Figure 2).^{23,29,30} Although we believe that the decrease in the number of LHDs surveyed over time is partially attributable to LHD consolidations, it may also have resulted from other factors, including changes in the ways in which NACCHO and/or the states identify local organizational units. Consequently, it seems likely that LHD consolidation does not account for all of the decrease in the number of LHDs surveyed by NACCHO over time, despite previous suggestions that consolidations of LHDs in the United States could potentially diminish the number of LHDs “from approximately 3000 to an estimated 500-1000 entities.”⁴

In some states, however, LHD consolidations are certainly occurring. For example, in the 2005 and 2016 NACCHO surveys,^{23,31} the number of LHDs queried decreased in Connecticut and Ohio, where consolidations are known to have occurred.^{14,22,32} Bates et al²² identified decisions by 92 of 169 towns and cities in Connecticut to join a

unified health district, an option that is available to them under Connecticut law. In Ohio, 2 of us (J.H., M.M.), along with others, reported at least 20 LHD consolidations from 2001 to 2011,¹⁴ and additional consolidations have occurred since then.³² In these states, conscious state policy changes may be fostering LHD consolidations. In 2013, the Ohio Department of Health was authorized to require accreditation for its LHDs, and it continues to encourage LHD consolidation. In Connecticut, a 2017 proposal by the commissioner of the Connecticut Department of Public Health sought to accelerate LHD consolidation by replacing municipal health jurisdictions with regional ones.³³

Other states and localities are working to envision their delivery of local public health services, but their work may not yet have yielded many LHD consolidations. Massachusetts, which is home to more than 300 LHD jurisdictions, passed a law in 2016 initiating an assessment of “the effectiveness and efficiency” of local public health services.³⁴ Two of us (J.H., G.P.) had firsthand experience with state public health reform initiatives in West Virginia and Kansas in 2015. However, to our knowledge, these efforts have not yet yielded LHD consolidations.

LHD consolidations may also occur as a result of decisions by individual local governments and without prompting by state policy makers. In Minnesota, for example, 3 independent health departments in the west-central portion of the state consolidated to form a single department, Horizon Public Health, in 2015. In Wisconsin, the Washington County

and Ozaukee County health departments merged in 2016 to form a single LHD that serves 220 000 persons.³⁵

This evidence suggests that LHD consolidation efforts are not uniformly distributed across the United States, at least partly because they are influenced by state and local factors. In many states, LHD consolidation does not appear to be a widely used reform strategy. In other states, LHD consolidation is a recognized means for public health system reform. Differing local circumstances associated with financing and delivering public health services may also influence whether or not states experience LHD consolidations. Some studies suggest that LHD consolidation is motivated by intentions to use resources more efficiently and effectively and to enhance public health services.^{14,36} However, further research on the motivations, facilitators, and impeding factors for LHD consolidation is needed.

Why do LHDs choose to consolidate? To date, we are not aware of any studies that answer this question on a national scale. Studies have examined factors associated with the decision to consolidate health districts and LHDs in Connecticut and Ohio. In Connecticut, Bates et al found that “the prospect of scale economies” may “increase the likelihood that a community consolidates public health services,” whereas differences among communities were “found to inhibit the consolidation of public health services.”²² In Ohio, Morris et al found that fiscal stress and the type of municipal government affected the likelihood of LHD consolidation.³⁶ “Strong mayor” municipal government systems structured around an elected mayor with budgetary responsibility were more likely than other kinds of municipal governments to consolidate their LHD with another LHD.³⁶ Taken together, these studies support the idea that fiscal stress and opportunities for more efficient service delivery were associated with decisions to consolidate LHDs in these 2 states.

What are the effects of LHD consolidation? At least 3 types of studies have addressed this question: (1) case studies of LHD consolidations, (2) studies of the relationship between LHD size and associated services and cost structures, and (3) longitudinal studies assessing the effects of consolidation. With regard to case studies, the Center for Sharing Public Health Services reported positive effects on finances and services resulting from LHD consolidations in Minnesota and Wisconsin.³⁵ One of us (J.H.) and others also reported financial savings and perceptions of improved services in some areas after LHD consolidation in Summit County, Ohio.³⁷

Studies have also examined the relationship between the size of a health department and the effectiveness and cost-effectiveness of service delivery. In a sample of LHDs in 7 states, Mays et al¹⁰ found that larger LHDs tended to be better able than smaller LHDs to perform essential public health services and concluded that LHD consolidation may “hold promise for improving the performance of essential services.” Other studies of the relationship between size and LHD service cost structures provide evidence that economies of scale appear to apply to public health services nationally¹¹

and in Florida and New England.^{13,38} These studies provide evidence that a high prevalence of small LHDs may inhibit the cost-effectiveness of public health service delivery and, potentially, the quality of services.

To our knowledge, studies of the effects of multiple LHD mergers have been conducted only in Ohio. Two of us (M.M., J.H.) and others found that recently consolidated LHDs in Ohio documented lower expenditures after consolidation than similar LHDs that had not consolidated their operations.¹⁴ This finding suggests that LHD consolidation may be a useful step for health jurisdictions seeking to reduce expenditures.

Questions also arise about the effects of LHD consolidation during the period immediately after a decision to consolidate is made. For example, what is the nature of the transition to a consolidated organization? What effects does this transition have on public health service delivery? Case studies document political complexities and difficulties during transition,^{37,39} but they also report positive economic and public health service effects of LHD consolidation.

Thoughts for the Future

Our knowledge of LHD consolidation on a national scale is limited, despite investigations supported by the Robert Wood Johnson Foundation through the Center for Sharing Public Health Services and its Practice-Based Research Network at the University of Kentucky, investigations by ASTHO and NACCHO, and valuable contributions by other researchers and organizations. We know of no systematic national effort to track, evaluate, and report on LHD consolidations and their effects. Further developing an evidence base on the patterns, effects, and challenges of LHD consolidation is needed to determine more fully its potential benefits.

The existing evidence suggests that increasing the size of LHDs and, in some cases, merging LHDs may decrease the cost of service delivery and improve public health services. However, LHD consolidation can also be complicated and may present challenges for communities that pursue it. In addition, other contextual elements, such as legal barriers, political circumstances, or community interests and philosophies, may make consolidation not feasible or appropriate.

In our view, future research should recognize that LHD mergers are one part of a spectrum of collaborative reform approaches that may enhance local public health service delivery. By recognizing this range in approaches to collaborative reform, researchers can productively inform state and local efforts to enhance our public health system’s capacity to address problems, trends, and circumstances that now challenge it. It may also be valuable to explore how consolidation and other collaborative arrangements relate to health departments’ decision to pursue accreditation and their success in such efforts. Research in these and related areas holds the potential to yield insights that enable LHDs across the country to address the growing challenges that now confront them.

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References

- Alliance for Innovation. The next big things: the next twenty years in local government. 2015. <https://transformgov.org/sites/transformgov.org/files/The%20Next%20Big%20Things%20v1.0.pdf>. Accessed October 2, 2018.
- Schroeder I. Federal fiscal indecision causes uncertainty for states. The Hill. <https://thehill.com/blogs/pundits-blog/economy-budget/261132-federal-fiscal-indecision-causes-uncertainty-for-states>. Published November 24, 2015. Accessed December 20, 2018.
- McNichol EC, Williams E. Extracting lessons for state finances: what other states should learn from energy-producing states' revenue woes. Center on Budget and Policy Priorities. <https://www.cbpp.org/sites/default/files/atoms/files/2-14-17sfp.pdf>. Published February 14, 2017. Accessed December 20, 2018.
- Baker EL Jr, Koplan JP. Strengthening the nation's public health infrastructure: historic challenge, unprecedented opportunity. *Health Aff (Millwood)*. 2002;21(6):15-27. doi:10.1377/hlthaff.21.6.15
- Baker EL, Potter MA, Jones DL, et al. The public health infrastructure and our nation's health. *Annu Rev Public Health*. 2005;26:303-318. doi:10.1146/annurev.publhealth.26.021304.144647
- Mays GP, Smith SA, Ingram RC, Racster LJ, Lamberth CD, Lovely ES. Public health delivery systems evidence, uncertainty, and emerging research needs. *Am J Prev Med*. 2009;36(3):256-265. doi:10.1016/j.amepre.2008.11.008
- Peters BG. *Pursuing Horizontal Management: The Politics of Public Sector Coordination*. Lawrence, KS: University Press of Kansas; 2015.
- Shah GH, Badana ANS, Robb C, Livingood WC. Cross-jurisdictional resource sharing in changing public health landscape: contributory factors and theoretical explanations. *J Public Health Manag Pract*. 2016;22(2):110-119. doi:10.1097/PHH.0000000000000368
- Center for Sharing Public Health Services. Spectrum of cross-jurisdictional sharing arrangements. <https://phsharing.org/2017/03/10/spectrum-of-cross-jurisdictional-sharing-arrangements>. Published 2017. Accessed October 2, 2018.
- Mays GP, McHugh MC, Shim K, et al. Institutional and economic determinants of public health system performance. *Am J Public Health*. 2006;96(3):523-531. doi:10.2105/AJPH.2005.064253
- Santerre RE. Jurisdiction size and local public health spending. *Health Serv Res*. 2009;44(6):2148-2166. doi:10.1111/j.1475-6773.2009.01006.x
- Institute of Medicine, Committee on Public Health Strategies to Improve Health. *For the Public's Health: Investing in a Healthier Future*. Washington, DC: National Academies Press; 2012.
- Bernet PM, Singh S. Economies of scale in the production of public health services: an analysis of local health districts in Florida. *Am J Public Health*. 2015;105(suppl 2):S260-S267. doi:10.2105/AJPH.2014.302350
- Hoornbeek J, Morris ME, Stefanak M, Filla J, Prodhon R, Smith SA. The impacts of local health department consolidation on public health expenditures: evidence from Ohio. *Am J Public Health*. 2015;105(suppl 2):S174-S180. doi:10.2105/AJPH.2014.302450
- Pickett G. The future of health departments: the governmental presence. *Annu Rev Public Health*. 1980;1:297-321. doi:10.1146/annurev.pu.01.050180.001501
- Emerson H. *Local Health Units for the Nation*. New York, NY: Commonwealth Fund; 1945.
- Turnock BJ, Atchison C. Governmental public health in the United States: the implications of federalism. *Health Aff (Millwood)*. 2002;21(6):68-78. doi:10.1377/hlthaff.21.6.68
- Hyde JK, Shortell SM. The structure and organization of local and state public health agencies in the US: a systematic review. *Am J Prev Med*. 2012;42(5 suppl 1):S29-S41. doi:10.1016/j.amepre.2012.01.021
- Turnock BJ. *Public Health: What It Is and How It Works*. 6th ed. Burlington, MA: Jones and Bartlett Learning LLC; 2016.
- Koh HK, Elqura LJ, Judge CM, Stoto MA. Regionalization of local public health systems in the era of preparedness. *Annu Rev Public Health*. 2008;29:205-218. doi:10.1146/annurev.publhealth.29.020907.090907
- Association of State and Territorial Health Officials & NORC at the University of Chicago. State public health agency classification: understanding the relationship between state and local public health. <http://www.norc.org/PDFs/Projects/Classification%20of%20State%20Health%20Agencies/ASTHO%20NORC%20Governance%20Classification%20Report.pdf>. Published 2012. Accessed October 2, 2018.
- Bates LJ, Lafrancois BA, Santerre RE. An empirical study of the consolidation of local public health services in Connecticut. *Public Choice*. 2011;147(1-2):107-121.
- National Association of County & City Health Officials. 2016 national profile of local health departments. http://nacchoprofilestudy.org/wp-content/uploads/2017/10/ProfileReport_

- Aug2017_final.pdf. Published 2017. Accessed October 2, 2018.
24. Tulchinsky TH, Varavikova EA. What is the “new public health”? *Public Health Rev.* 2010;32(1):25-53.
 25. DeSalvo KB, Wang YC, Harris A, Auerbach J, Koo D, O’Carroll P. Public health 3.0: a call to action for public health to meet the challenges of the 21st century. *Prev Chronic Dis.* 2017;14:170017. doi:10.5888/pcd14.170017
 26. Patient Protection and Affordable Care Act. Pub L No 111-148 (2010).
 27. RESOLVE—Public Health Leadership Forum. Defining and constituting foundational “capabilities” and “areas.” <http://www.resolv.org/site-foundational-ph-services/files/2014/04/V-1-Foundational-Capabilities-and-Areas-and-Addendum.pdf>. Updated 2018. Accessed May 15, 2018.
 28. Centers for Disease Control and Prevention. National voluntary accreditation for public health departments: CDC’s role in accreditation. https://www.cdc.gov/stltpublichealth/accreditation/cdc_role.html. Updated 2017. Accessed May 15, 2018.
 29. National Association of County & City Health Officials. National profile of local health departments: an overview of the nation’s local public health system. http://nacchoprofiles.tudy.org/wp-content/uploads/2014/01/1990_NationalProfileofLocalHealthDepartment.pdf. Published 1990. Accessed October 12, 2018.
 30. National Association of County & City Health Officials. Guide to data collected in national profile of local health departments and infrastructure studies, 1990-2016. <http://nacchoprofiles.tudy.org/data-requests>. Accessed December 20, 2018.
 31. National Association of County & City Health Officials. *2005 National Profile of Local Health Departments*. Washington, DC: National Association of County & City Health Officials; 2006.
 32. Dawar S, Filla J, Hoornbeek J. Environmental scan: a brief overview of findings from scholarly and professional work on shared services relevant to local public health in Ohio and beyond. <https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/a/39824/files/2016/10/ENV-Scan-of-SharedSvces-Final5-5-18-210uxk9.pdf>. Published 2018. Accessed October 2, 2018.
 33. Craven T. Health commissioner proposes consolidating local health departments into county districts. *Monroe Courier*. <https://www.monroecourier.com/44347/health-commissioner-proposes-consolidating-local-health-departments-into-county-districts>. Published January 20, 2017. Accessed October 2, 2018.
 34. Commonwealth of Massachusetts. Special Commission on Local and Regional Public Health. <https://www.mass.gov/service-details/special-commission-on-local-and-regional-public-health>. Updated 2018. Accessed May 15, 2018.
 35. Center for Sharing Public Health Services. Cross-jurisdictional sharing implementation and impact measurement program: final report. <http://phsharing.org/wp-content/uploads/2018/04/ImpactMeasurementFinalReport.pdf>. Published 2018. Accessed October 12, 2018.
 36. Morris ME, Stefanak M, Filla J, Smith SA, Pradhan R, Hoornbeek J. Explaining consolidation decisions: motivations for recent local health department consolidations in Ohio [online]. *J Health Care Finance*. 2017.
 37. Hoornbeek J, Budnik A, Beechey T, Filla J. Consolidating health departments in Summit County, Ohio: a one year retrospective. <https://www.odh.ohio.gov/~media/ODH/ASSETS/Files/lhd/Final%20SCPH%20Report.ashx>. Published 2012. Accessed October 12, 2018.
 38. Kodrzycki YK. The quest for cost-efficient local government in New England: what role for regional consolidation? New England Public Policy Center, Federal Reserve Bank of Boston. Report 13-1. 2013. <https://www.bostonfed.org/publications/new-england-public-policy-center-research-report/2013/the-quest-for-cost-efficient-local-government-in-new-england-what-role-for-regional-consolidation.aspx?AspxAutoDetectCookieSupport=1>. Accessed October 2, 2018.
 39. Harvard Kennedy School. *The Consolidation of the Health Departments in Summit County, Ohio*. HKS Case Number 1987.0. Cambridge, MA: Harvard Kennedy School; 2013.