Background

A key strategy to improve the functioning and performance of local health departments (LHDs) is to institute a public health accreditation system, requiring measurement of LHD capacity and performance against benchmarks or standards. The North Carolina Local Health Department Accreditation program (NCLHDA) was signed into law in 2005, with the final rules approved in 2006. Each fiscal year, 10 NC LHDs undergo the accreditation process which is administered by the North Carolina Institute for Public Health (NCIPH) at the UNC Gillings School of Global Public Health. LHDs typically spend 12 to 18 months preparing for the accreditation process and are provided the following preparation resources: \$25,000 to offset preparation costs; technical assistance from the NC Division of Public Health consultants; and training and technical assistance from NCIPH staff. For more information about the NCLHDA program, please visit: http://nciph.sph.unc.edu/accred/.

Building on previous research on factors that are associated with LHD performance, NCIPH researchers examined the preliminary effects of participation in the NCLHDA program on performance of service delivery indicators and the association between leadership, community engagement and policies on NC LHD performance. Service delivery indicators were chosen from among those identified by a subcommittee of the NC Local Health Director's Association to provide county-specific data about the effectiveness of efforts to promote population health. These indicators are part of health departments' contract addenda reporting requirements with the state and have been explored as outcomes in other research. We explored whether these data are sensitive and specific measures of the NCLHDA program. Data from nine of these service delivery indicators¹, many of which were clinical services, had sufficient variability to be included in this research:

- 1. Percent of Medicaid deliveries where maternity care coordination services were received
- 2. Percent of Medicaid deliveries where prenatal WIC assistance was received
- 3. Ratio of family planning caseload relative to previous three-year average
- 4. Adolescent pregnancy rate among females ages 10 to 17
- 5. Percent of Medicaid-eligible children birth to 21 receiving Health Check/Health Choice services
- 6. Percent of Medicaid-eligible children ages birth to 2 receiving direct blood lead screening test(s)
- 7. Percent compliance with food and lodging inspection requirements
- 8. Percent of breast and cervical cancer prevention age-specific targets achieved for mammograms
- 9. Percent health department clients age 2 who have received age-appropriate immunizations

¹ The state has 13 performance indicators, but four were excluded from this study due to limitations of the data and reporting.

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Specifically, NCIPH researchers assessed:

- 1. Each LHD's rate of performance on 9 performance measures and how that performance changed between 1998 and 2008 to determine if there were any performance differences between accredited and non-accredited agencies (n=40.45):
- 2. The association between leadership, community engagement, and policy and performance on each performance indicator; and
- 3. The extent to which potential service recipients were more likely to receive clinical services in an accredited versus non-accredited LHDs2.

To identify other factors that influenced LHD performance on service delivery indicators, we conducted case studies in six (four accredited and two non-accredited) high performing NC LHDs3. In-depth semistructured interviews were conducted with three to five LHD representatives4. Case records were created and within and cross case content analyses were conducted for theme identification.

Findings: Accreditation and Indicators

We encountered significant challenges with the availability and quality of indicator data which limited our ability to conduct appropriate analyses as to whether these indicators would be sensitive and specific outcomes for the NCLHDA program. Further, only three years of indicator data matched with implementation of the NCLHDA program; thus, we had insufficient years of NCLHDA program implementation to determine if the program could have an effect on these indicators.

In exploring the feasibility of these indicators as outcomes for the NCLHDA program, we identified additional analysis and interpretation challenges for this study as well as other potential outcome studies of public health accreditation programs. These include: a) performance indicators studied may not be changeable solely by achieving accreditation benchmarks; b) non-accredited LHDs are exposed to the accreditation benchmarks and start preparing for accreditation well in advance of the actual accreditation site visit; c) both accredited and non-accredited LHDs strive to improve performance on these indicators to meet their community needs; and d) for all of the indicators, there was a general negative trend in indicator performance, possibly due to confounding factors such as decreasing resources for public health.

Despite these limitations, interviewees from five of the six case study agencies mostly agreed that these indicators were the right indicators for accreditation, primarily because they are related to the contract addendum with the state. One concern raised is that the indicators may not accurately reflect an LHD's performance because of other factors that influence service delivery (e.g., undocumented workers, county residents seeking services elsewhere). However, interviewees discussed ways in which the accreditation program could be designed to further drive these indicators and performance. Their ideas include: building these indicators into the accreditation process and relating them to quality improvement; emphasizing measures based on the leading causes of mortality (e.g., as identified through the Community Health

² This analysis was conducted on indicators for which researchers had numerator and denominator data.

³ At the time of this study, one of the four accredited LHDs had recently been accredited.

⁴ Interviewees included health directors, directors of nursing, environmental health specialists, clinic supervisors, quality assurance specialists and/or other staff.

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Assessment) and how agencies are addressing them; and enhancing how program audits are conducted to ascertain program quality.

Findings: Case Studies and Performance

Most interviewees from accredited agencies indicated that accreditation led to their LHD becoming more organized and getting policies and procedures in place, yet just a few thought that such organization led to enhanced performance. Some interviewees noted that it may be too soon to tell if accreditation influences performance but think that accreditation indirectly helps set the stage for agencies to perform well.

Case study interviewees indicated that the following factors led to high performance:

- Access to the Medicaid population Most of the indicators are sensitive to the percent of Medicaid
 patients served. In five of the six agencies, the health department serves the majority, if not all, of the
 Medicaid population so that performance on this indicator is primarily capturing health department
 performance rather than performance of multiple providers.
- <u>Staff Retention, Commitment and Dedication</u> Interviewees discussed the length of staff employment being critical to successful performance on program indicators. They also described staff's diligence and commitment to following up with clients to ensure that they receive services. In many cases, staff at these agencies have worked there for a long time, are familiar with the community, and are often members of the community themselves.
- <u>Leadership</u> Interviewees noted the importance of health director and/or county government leadership in ensuring that the health department has adequate resources to recruit and retain staff by ensuring that the right staff are in the right positions, offering competitive pay and benefits, allowing flexible work schedules, and fostering an innovative workplace.

Case study interviewees described the following LHD practices that they believe leads to high performance on certain indicators:

- Coordinating services (e.g., WIC, MCC, CSC) within the LHD, either through the existence of clinic flow policies (e.g., routing patients, flagging charts, immunization tracking system) and/or co-location of services;
- Providing referral services within geographic proximity to the LHD (e.g., mammograms conducted within walking distance to the LHD);
- Improving efficiencies that lead to improved client services (e.g., Open Access Scheduling, combining services into one appointment, and limiting patient wait time);
- Increasing client load by conducting program outreach to clients as well as to providers for referrals to LHD services;
- Having dedicated coordinators for case management services;
- Obtaining additional funding for BCCCP, lead prevention or abatement programs, and Adolescent Pregnancy Prevention programs;
- Hiring high level providers (e.g., nurse practitioners and other mid-level providers);

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- Overseeing the school nurse program. When the health department employs school nurses they may be able to enhance adolescent pregnancy prevention education at the schools. Two of the LHDs described the benefit of having school based health centers; and
- Collaborating with institutions in geographic proximity to the LHD such as local universities or military bases (i.e., students and military personnel receive services through the LHD leading to higher service delivery numbers).

Nearly all case study interviewees reported that their LHD did NOT have the necessary funding to implement activities related to these indicators. Some interviewees expressed frustration that the state mandates services and performance on these indicators, yet does not provide adequate funding for counties to implement services. Interviewees indicated there was a need for more funding for MCC, Food and Lodging, family planning, adolescent pregnancy prevention, BCCCP, and topic specific projects.

Conclusion and Practice Implications

Performance improvement on these nine indicators occurs in both recently accredited and non accredited NC LHDs. Case study findings indicate that accreditation plays an important role in driving policy development and organizational processes in LHDs. Future research may be needed to determine if accreditation has a longer term impact on these performance indicators.

NC public health leaders may want to consider whether these indicators are the appropriate measures for accreditation and LHD performance in general. Should these indicators continue to be used as measures of LHD performance, public health leaders may need to improve collection methods and standardize reporting formats for these data.

Insights from case study LHDs suggest that public health agency leaders may want to consider fostering enhanced relationships with county government (commissioners, county manager) as a strategy to procure necessary resources to retain critical public health staff and maintain resources to support agency performance.

This research explored the impact of the NCLHDA program on existing performance data for NC LHDs. As the Public Health Accreditation Board develops the national voluntary accreditation model, it may need to identify appropriate state and local health department performance measures that are sensitive and specific to achieving accreditation. Research on the influence of the national public health accreditation program on these performance measures should only occur once the program has been sufficiently implemented.

This report was prepared by Molly Cannon, MPH (<u>mcannon@email.unc.edu</u>) and Mary Davis, DrPH, MSPH (<u>mary_davis@unc.edu</u>). Funding for this research was provided by the Robert Wood Johnson Foundation's Changes in Health Care Financing and Organization (HCFO) Initiative, Special Topic Solicitation on Public Health Systems Research.