

Research Findings Brief

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Current Linkages between Local Public Health Departments and Primary Care Clinics in Nebraska to Improve Population Health Outcomes

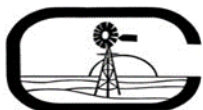
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Research Highlights

- There are several projects in Nebraska that link programs and activities between local health departments and primary care clinics.
- Most of the linkage projects implemented in the last three years focus on the prevention and control of chronic diseases and include health coaching such as the National Diabetes Prevention Program (NDPP), screening programs for hypertension, promotion of cancer screening programs, and worksite wellness programs.
- The majority of Local Health Departments (LHDs) employ community health workers (CHWs) and utilize them in a variety of ways, including activities related to health coaching, translation and interpretation, and screening for hypertension and diabetes. Some CHWs work with physician clinics to follow-up with patients who have missed appointments or track medication usage, but few CHWs have direct connections with primary care clinics.
- There are several other linkage programs and activities such as making home visits for low income families after a birth of a child, sharing educational messages, and assisting clinics in analyzing their electronic health records (EHR) data.
- To expand the scope and reach of these linkages, some challenges must be overcome, including differences in training and culture (treatment of individual patients versus the whole population) and limited capacity and resources (workforce shortages, inadequate short term funding, and lack of sustainable long term funding).

Introduction

For many years, the clinical and public health sectors have operated separately. This separation has led to a fragmented and dysfunctional health system, resulting in higher costs, lower quality, major health disparities, and worse health outcomes.¹ To address these challenges, new models of care with new financial incentives that focused on value instead of volume were created. These new models such as patient-centered medical homes (PCMHs) and accountable care organizations (ACOs) provide strong incentives for physician clinics and partners in health systems to work closely together to improve patient and population health outcomes.² As a result, physician clinics and local public health agencies have begun to explore areas where they can work more closely together. Although many challenges remain, these partnerships are critical in building the capacity to address the major determinants of health which include biological, social, economic, and environmental factors that influence health.³



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To address the major determinants of health and improve health outcomes, it is essential to link the services and programs provided in the clinical and public health sectors. With new financial incentives and better tracking of patients through Electronic Health Record (EHR) information systems, clinical outcomes for patients have improved in the control of coronary artery disease, blood pressure, cholesterol, diabetes, and asthma. Public health programs have also contributed to improved population health outcomes by changing behavioral patterns in the areas of nutrition, physical activity, diabetes self-management behaviors, smoking cessation levels, and medication adherence. Public health agencies have also made major contributions in developing priorities in community health improvement plans (CHIPs), becoming knowledgeable about the latest evidence-based approaches, and serving as a liaison between the clinical sector and the community sector (e.g., employers, schools, faith-based organizations, and nonprofit organizations).⁴ Another study found that communities that implemented a broad spectrum of population health activities and involved partners from multiple sectors reduced their residents' death rates by 10 to 20 percent for the major causes of premature mortality such as heart disease.⁵

Purpose of the Study

The purpose of the study was to identify the linkages in programs and activities that are already being implemented between local health departments (LHDs) and primary care clinics in Nebraska. Understanding and documenting these linkages provides an opportunity to expand the reach of these programs and identify technical assistance opportunities for the College of Public Health and other academic institutions, the Nebraska Department of Health and Human Services (DHHS), and many other entities.

Methods

Information about the linkage projects was obtained through personal and telephone interviews with the directors and, in some cases, staff from 18 of 19 LHDs in Nebraska from February to March of 2017. These departments cover 92 of the 93 counties in the state. The interview consisted of 12 questions and was focused primarily on the types of activities that have been planned or implemented with the primary care clinics in the LHD's jurisdiction. The interviews were recorded and transcribed so that common themes and programs could be identified.

Results

The interviews revealed that the linkage of many programs and activities are already underway between LHDs and some or most of the primary care clinics. Several of these linkage projects have been implemented in the past two years. However, many LHD directors emphasized that some of their more traditional and established programs such as follow-up and tracking of communicable diseases and food borne illness outbreaks and emergency preparedness activities helped build trust and provided a solid foundation for more nontraditional linkage projects. In addition, many LHDs have provided a major role in helping nonprofit hospitals develop their Community Health Needs Assessments (CHNAs) and Implementation Plans. These activities have helped identify common priority health needs and build stronger collaborative partnerships for implementing more robust and cohesive intervention strategies.

Because most LHDs in Nebraska cover a large geographic area, they usually work with only a few of the primary care clinics in the jurisdiction. In terms of new initiatives, most LHDs indicated they tend to focus on the prevention or control of chronic diseases. One of the most common initiatives provided by LHDs is the implementation of an evidence-based National Diabetes Prevention Program (NDPP). NDPP focuses on improving lifestyle choices such as healthy eating, physical activity, stress management, and weight loss. Participants can be recruited from other LHD programs, community organizations, or referrals from physician clinics. It is also very common to offer worksite diabetes prevention programs. This program has been effective

because of peer support groups and the health coaches from the LHD. Several LHDs have hired a nurse or community health workers (CHWs) to be the coach. Although most participants who complete the program are successful in achieving their goals, recruiting an adequate number of participants into the program has been a challenge for some LHDs. This problem could be remedied if there was a better process to refer patients from the primary care clinic into the NDPP. In areas where there is strong referral support from the clinic, the process is more efficient and results in greater patient participation rates.

A few LHDs have a similar program for blood pressure screening. The program is similar to the NDPP and includes regular support group meetings and coaching. In addition, most LHDs conduct screening programs for blood pressure, cholesterol, and diabetes. These screening programs may be done at various community sites, within the LHD, or at a worksite. Participants who have abnormal readings are then referred to a local primary care clinic. Although these screenings have been effective in identifying patients with one or more health issues, there is often little or no communication between the clinic and the LHD in terms of the number of patient visits and any follow up that may be necessary (e.g., medication compliance). This is certainly an area where LHDs and clinics could work more closely together.

Promoting Cancer Screening

Nearly all LHDs are involved in promoting screening for breast, cervical, and colon cancer. Most LHDs encourage cancer screening through a variety of venues. For example, many have developed traditional (newspaper, radio, or television) or social media campaigns. Staff also increase awareness by educating both women and men about the importance of screening during worksite wellness events, health fairs, and community meetings. With funding from the Nebraska DHHS Division of Public Health, they can also help low income women overcome some of the barriers to screening (e.g., lack of transportation). In addition, LHDs are also passing out free fecal occult blood test (FOBT) kits. They also answer any questions and individuals with positive test results are referred to the individual client's health care provider. While these programs appear to be effective as evidenced by the increase in the screening rates, colon cancer screening rates remain low in Nebraska, especially in some rural areas. However, this appears to be a programmatic area where the rates could accelerate rapidly as more clinics become PCMHs or join an ACO and work more closely with LHDs.

Worksite Wellness

Several LHDs are engaged in worksite wellness programs. Although the breadth and scope of these programs vary, they often involve administering a Health Risk Appraisal Survey to identify employee health needs and working with employers to develop a plan of action (e.g., tobacco cessation programs, weight loss strategies, etc.). In addition, the LHD usually provides educational resources such as webinars and brochures. LHDs also provide screening and testing for high blood pressure, cholesterol, and colorectal cancer screening kits. People with abnormal readings or positive test results are referred to a primary care physician.

In one community, the LHD, a physician clinic, and a hospital are working with a large employer to develop and implement a worksite wellness plan. In this partnership, the LHD administers the Health Risk Appraisal Survey and analyzes the results. All of the partners will then work together to develop a comprehensive wellness plan. Although the roles have not been completely defined, the LHD will provide health promotion and education materials and resources, the clinic will conduct screening tests and follow-up consultation, and the hospital will assess occupational risks that may result in injuries. This model has the potential to generate revenue for the LHD, the clinic, and the hospital as well as improve the health of employees.

Vaccination Services

The majority of LHDs provide a full range of vaccinations for children and flu vaccinations for adults. Although most primary care clinics also provide vaccinations, in most instances there is a strong partnership between the LHD and the clinic. In some cases, the clinic will send their patients to the LHD to receive the vaccination. By

working together, the number of people vaccinated has increased. One of the barriers has been documenting the number of children that have received the appropriate number of vaccinations. The major challenge is that some clinics have failed to report the number of children vaccinated into the Nebraska State Immunization Information System registry primarily because of the incompatibility between the registry and most of the clinic EHR systems. One interviewee mentioned that this may be an issue that the Nebraska Health Information Initiative (NEHII) could help resolve. Overall, there appears to be good working relationship between the LHDs and the clinics and this area could serve as a building block for other activities.

Use of Community Health Workers

CHWs have many roles, but they are usually lay people who are involved in connecting patients/clients with community services and resources. Ideally, they have a good understanding of the culture, norms, and language of the individuals and families involved in their programs so appropriate connections can be made. The majority of LHDs have one or more CHWs and/or staff that act as a CHW. Most CHWs provide a variety of services and activities although there is considerable variation across the LHDs. Many CHWs are involved in health coaching activities (e.g., healthy eating, physical activity regimens, cooking classes, etc.). CHWs also conduct screenings (e.g., hypertension, diabetes, etc.) and home visits, serve as interpreters, assist clients in filling out and submitting their Medicaid applications and in some cases Affordable Care Act (ACA) exchange plans, and connect clients with resources in the community such as behavioral health providers, Women, Infants, and Children's Program (WIC), Supplemental Nutrition Assistance Program (SNAP), and social service agencies.

In most LHDs, CHWs do not have a direct role with the primary care clinic. However, in some cases, CHWs work closely with the care coordinator of a patient-centered medical home to track patients who have missed appointments or help the clinic reconnect with these patients. They may also work with the clinic and the pharmacist to determine if they have purchased their prescribed medications and are taking their medications. There is considerable potential to use CHWs more effectively. However, one LHD director stated that many physicians have not yet developed a high level of trust nor see the value of lay connectors. One way to overcome this issue is to evaluate and document the benefits of CHWs in terms of cost savings (e.g., lower hospital admission and ER visit rates) and better health outcomes (e.g., increasing the number of women receiving timely mammograms and reducing the number of pre-diabetics).

There is also considerable variation in the training requirements, skills and competencies, levels of supervision, and experience of CHWs. One interview participant felt that in some cases these differences have contributed to the lack of understanding and use of CHWs by physician clinics and hospitals. For example, some physicians expect CHWs to have a Bachelor's degree while others want a more culturally-based person. It does not appear that these issues have limited the use of CHWs in the past, but they are very likely to cause future problems, particularly as they become part of an integrated team that includes staff from both clinical and community-based organizations. Strong leadership is needed to work through these and other issues (e.g., certification, Medicaid reimbursement, etc.)

Other Programs and Activities

There are many other programs and activities that link LHDs with primary care clinics. A few LHDs receive funding from Nebraska DHHS or other sources to conduct home visits for children up to age 3. These home visits usually involve educating mothers about good nutrition, the importance of breast-feeding, and conducting assessments and referring families to appropriate community organizations. Many LHDs work with low income clients to lower drug costs by connecting them with medication assistance programs. In addition, LHDs work with providers on conveying health messages to patients. For example, one LHD develops educational messages (e.g., substance abuse prevention) that can be placed in physician offices. Another department also sends out a "tip of the month" message that allows the clinic or other agencies to place their logo on the message. LHDs have reviewed instructions and other materials from clinics to assure that the materials meet health literacy standards. Finally, LHDs have worked with clinics to emphasize and help them understand the

importance of lead testing, educate their staff about re-emerging (Tuberculosis) and emerging diseases (Ebola and the Zika virus), and provided materials to physicians to remind patients, especially younger patients, about sun protection.

LHDs have also connected with clinics in other ways. For example, a few LHDs have received funding from the DHHS Office of Health Promotion to help some of their clinics analyze EHR data. These data can be very useful in identifying patients who are pre-diabetics, have hypertension, or have not been screened for colon or breast cancer. By assisting clinics in data analysis, the LHD is in a better position to encourage referrals into their programs such as the NDPP, the Living Well program, and other community-based programs. It also helps the clinic better target their highest risk patients.

Challenges

There has been remarkable progress in linking LHD programs and activities with primary care clinics. Although some programs such as monitoring communicable disease outbreaks and emergency preparedness have been in place for several years, many new programs have recently emerged. Despite this progress, many challenges remain. One of the major challenges is the cultural divide that still exists between physicians and public health workers. Physicians and other clinicians tend to focus on providing treatment to individual patients in their offices or the hospital. Public health workers tend to emphasize prevention and focus on disparities and the conditions and factors that influence health outcomes (e.g., behavioral risk factors and the social determinants of health). Even when good working relationships exist, there is often a need to demonstrate short term results (e.g., reducing unnecessary hospital admissions or ER visits). Since many prevention programs take some time to show results, it may be desirable for LHDs to focus initially on high-cost and frequent users of the ER.⁶

A second major factor is the lack of capacity and resources to connect the medical care and public health systems. For example, there is a shortage of primary care physicians and public health workers, particularly in rural areas where turnover rates are higher. As a result, it becomes very difficult to develop strong linkages between these two systems. A second capacity issue is the difficulty of sharing information in a timely manner. The EHR systems are not compatible with one another, so it becomes nearly impossible to share information between clinical providers and public health agencies. The skills and competencies of the workforce may also be an issue in some areas. It is essential to have good information technology and data analytics skills as well as leadership and partnership skills. It is imperative for LHDs to bring the key partners to the table and for clinic representatives to understand how to work effectively as part of a community team.

Another resource issue is the lack of funding. Most of the new linkage initiatives have been funded by grants from the Division of Public Health in DHHS (e.g., Minority Health Initiatives, Health Hub, and 1422). While these grants have been critical to building integration capacity in LHDs, there is no assurance that these grant funds will continue at the same level in future years. Most primary care clinics also generally rely on grant funds to build expertise in data analysis and care coordination. This lack of sustainable funding has produced substantial variability and limited the reach of these programs across the state. Most of the linkage projects are generally operating in only a few clinics across the LHD district. While it is good practice not to spread resources too thin, it will be challenging to expand these projects throughout the service area without sustainable long-term funding.

State and federal pass-through funds have been critical in moving these linkage projects forward, but the funds are tied to various grant programs with different goals and objectives, target populations, and restrictions. Although it is important to adhere to the grant requirements, it has been difficult for LHDs to develop effective and efficient linkage projects and still meet the grant requirements. Several LHD directors recommended convening a meeting of state and local public health officials to determine if more flexible guidelines could be established and still meet the state and federal grant requirements.

Future Opportunities

Given the changing health care environment and the shift from volume- to value-based reimbursement, it appears very likely that a larger number of physician clinics will adopt a new delivery model such as a PCMH and/or an ACO. In Nebraska, there are over 100 PCMHs and 12 ACOs. These models provide strong incentives to improve care coordination, decrease costs, and improve population health outcomes. As a result, many health care providers are beginning to understand the health of individual patients is also related to the factors that influence the overall health of the population in the community.

This new environment should expand the need and demand for many of the current linkage projects such as the NDPP and other health coaching initiatives, worksite wellness programs, medication compliance and assistance activities, community health promotion and education programs, cancer screening activities, and the use of CHWs. It should also expand new opportunities in other areas such as mental health and dental health. A few LHDs are already working in the mental health area. For example, one LHD is involved in screening children in schools and referring to appropriate mental health providers if there is a problem. Other LHDs are working with clinics to assure that patients with a mental health condition have visited a mental health professional and are taking their medications. Some LHDs are also involved in the training of Mental Health First Aid programs. LHDs have also brought together the key partners to examine the major problems and determine the current referral patterns. Although this is a very challenging area because the mental health system is very fragmented and lacks sufficient resources, it is a high priority need in most CHIPs and recognized as a major problem by clinics.

Dental health is also a high priority need in most rural areas and many LHDs are already providing various types of dental health services. It may also provide an opportunity to work more closely with clinics because of the growing number of patients that are admitted to hospital emergency rooms due to oral health problems. This is an unnecessary expense that could be avoided with better preventive care.

Opportunities would be enhanced if medical students and residents were able to learn about the role of LHDs and the major determinants of health. One LHD works with a residency program to provide them with training modules in areas such as environmental health, child care programs, health promotion, and others. This type of training should be expanded in other areas where residents are trained. With this type of orientation, it would be easier for LHDs to approach physicians and develop linkage projects. To improve this understanding and enhance communication, one LHD works closely with the local medical society. Another department has developed a menu of options for clinics. Clinics can simply check boxes where they may need help or may be interested in learning more about an issue or program.

Finally, the key to long term success is to identify multiple funding options. State and federal grant funds have played a critical role in the past and are likely to be important in the future, especially testing new evidence-based intervention strategies. However, grant funds are usually not sustainable over the long term so other funding sources need to be found. A few LHD programs (e.g., dental health) already generate more revenue than they cost. Other programs such as the NDPP and worksite wellness programs have the potential to generate revenue that exceed costs.

Physician clinics also have the potential to increase revenue through programs such as the federal Chronic Care Management Program. For example, the Chronic Care Management Program pays the clinic \$43 a month or up to \$141 a month, depending on the complexity of the needs for Medicare patients.⁷ Although the clinic must contact the patient for 20 minutes each month, this task could eventually be delegated to the LHD. Clinics are also paid a minimum of \$100 for each Medicare patient that receives an annual exam. Additional revenue could also be generated from follow-up services and treatments such as mammograms and colonoscopies that were promoted by the LHD. Although private insurers have been slower to approve some of these additional payments, they seem to be moving in that direction.

Many LHDs have been very successful in assisting nonprofit hospitals in their jurisdiction in developing their CHNAs and Implementation plans. While most LHDs and hospitals have the same or very similar priority health needs, the implementation activities have generally been fragmented and major gaps continue to exist in many areas. One way to close the gaps and focus on population health strategies is to review the hospital's community benefit spending. All nonprofit hospitals in Nebraska are required to report and invest in community benefits. In the past, most hospitals have directed these payments toward charity care, but a relatively small amount has been invested in the category of community health improvement initiatives. Enlarging this pool of funds could also provide funding for linkage projects, especially for hospitals that own or manage the physician clinic. Investing in common priorities may also attract other funds. One LHD obtained additional funds from a major community organization and a local foundation.

Because grant funds are likely to be more limited in the next few years, the public health community will need to be creative and look for new funding opportunities. As more clinics transition to these new value-based delivery and reimbursement models, it is likely that more clinics will broaden their understanding of the factors influencing population health and the value of public health services. As this understanding expands, LHDs with support from DHHS and the College of Public Health and other academic institutions, will be ready to move forward on a wide variety of linkage projects.

Conclusion

In the past few years, several projects have been initiated that link or have the potential to link LHD programs with primary care clinics. Although many of these projects have been very successful, there is still a wide variation among LHDs in the number of linkage projects and how clinics were involved. However, as more clinics become PCMHs or join ACOs, it is very likely that more clinics will become interested in projects that involve their LHD. One of the major challenges is to find sufficient resources to expand the workforce capacity and funding to support these projects. Some of these challenges can be overcome by forming diverse coalitions, analyzing EHR and other local data to identify the high priority needs, reaching agreement on evidence-based intervention strategies, and obtaining various funding sources to implement the strategies and improve patient and population health outcomes. Finally, it is critical to evaluate the impact of these linkage projects.

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