Service Delivery Innovation Profile

Hospital Partnership Offers Pathways-Based Case Management Program, Leading to Enhanced Access to Appropriate Care for Uninsured

Snapshot

Summary

Two competing hospitals in Lincoln, NE, jointly run a case management program, known as Lincoln ED Connections, for uninsured and underinsured individuals with a history of using the emergency department for nonemergent issues. These individuals are at high risk for poor health outcomes due to untreated or undertreated chronic conditions. Adapted from the "Pathways" model,[1] the program uses case managers, supported by a database and tracking system, to enhance patient access to a medical home where they can receive regular health care. The program also connects patients to other community resources and addresses health, social, and logistical barriers to care. The program significantly enhanced access to appropriate care and improved client understanding of their medical condition, resulting in enhanced health functioning and a significant decline in emergency department use and costs for nonemergent conditions.

Evidence Rating (What is this?)

Moderate: The evidence consists of post-implementation data on the percentage of clients connected to appropriate medical care, the percentage reporting enhanced understanding of their health condition and health-related functioning, and the number of clients completing one or more pathways and/or the entire program. Other evidence includes pre- and post-implementation comparisons of ED use and costs among individuals with nonemergent conditions.

Developing Organizations

ED Connections

Date First Implemented

2005

Patient Population

The program serves individuals who frequently use the ED for nonemergent situations. All those served by the program have household incomes below the Federal poverty level. In addition, 70 percent of those served are uninsured or underinsured and one-fourth are homeless. Approximately 80 percent have behavioral health or substance abuse issues, often undiagnosed or untreated because of cost issues.[5]Vulnerable Populations > Homeless; Impoverished; Medically uninsured; Mentally ill; Substance abusers; Insurance Status > Uninsured

What They Did

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Problem Addressed

Many uninsured and underinsured individuals use the emergency department (ED) for nonemergent (often chronic) conditions that could be better handled in other, lower-cost settings. Frequently, however, these individuals face significant barriers to receiving care outside the ED. This situation creates many problems for both the patient and the health care system, including inadequate management of chronic conditions, ED overcrowding, and unnecessarily high costs.

- **Many inappropriate ED visits (mostly from a small group of individuals):** In 2002, 38 percent of visits to EDs in Lincoln, NE, could have been better served by a primary care provider.[2] A small number of patients accounted for a disproportionate share of these visits, with 34 individuals alone accounting for 377 visits to area EDs in a 12-month period.[3]
- **Driven by barriers to accessing regular care:** ED use tends to be higher among certain groups of individuals who face barriers to accessing regular care. This includes people with self-reported poor health, adults over age 75, people with incomes at or below the Federal poverty level, and Medicaid recipients.[4] The case managers in the ED Connections program report that many patients who frequently used ED services for nonurgent issues faced significant barriers to accessing regular care, including being homeless, having behavioral health or substance abuse issues, and not having adequate insurance, a primary care provider, or reliable transportation to appointments.[5]
- **Leading to multiple problems for patients and health care system:** Frequent use of the ED for chronic, nonemergent conditions creates problems for both patients and the health care system, as outlined below:
  - **Inadequate management of chronic diseases:** EDs are not set up to provide the multidisciplinary followup care, preventive treatment, care coordination, or patient education and engagement associated with better health outcomes for ongoing chronic health issues. Despite frequent visits to the ED, many of these patients had chronic conditions that remained untreated or undertreated.
  - **ED overcrowding:** Many EDs remain overcrowded, in part due to unnecessary use by patients with nonemergent conditions. In the 10 years from 1996 to 2006, the number of ED visits increased 32 percent nationally. In that same time period, the number of hospitals EDs decreased by 25 percent. This has led to overcrowding, hallway boarding of admitted patients, ambulance diversion, and delayed care for both minor and serious problems. It has also led to decreased physician productivity and reduced quality of care, especially in pain management.[6]
  - **Unnecessarily high costs:** Even a small number of frequent ED users can significantly increase costs for the system as a whole. For example, before instituting the ED Connections program, administrators at Bryan LGH (one of the

as a whole. For example, before instituting the ED Connections program, administrators at BryanLGH (one of the two sponsoring hospitals) reported that 12 frequent ED users accounted for $231,869 in unreimbursed care.[3]

Description of the Innovative Activity

Two hospitals (one with one ED and another with two EDs) jointly sponsor Lincoln ED Connections (LEDC), a collaborative, comprehensive case management program based on the "Pathways" model that focuses on serving individuals with a history of using the ED for nonemergent issues. The program uses case managers, supported by a shared database and tracking system, to enhance patient access to regular health care services, connect patients to community resources, and address other health, social, and logistical barriers to care. Key elements of the program include the following:

- **Identification of potential clients:** If the patient indicates a basic need (for food, shelter, etc.) during a visit to one of the three EDs, the attending nurse or physician can initiate a referral to LEDC by giving the patient information about the program and placing an order in the chart. LEDC staff (case managers and program director) receive weekly reports from both hospitals of these identified patients as well as all patients who have used ED services three or more times within a 6-month period.
- **Additional screening and initial contact:** Staff review documentation for all visits that did not result in a hospital admission to determine whether the patient may meet criteria for the program. They look at chief complaint, insurance status, and whether the patient has a medical home. In addition, they review all ED visits for children under 18 who do not have health insurance. Case managers contact patients who meet program criteria by phone, mail, or in person. During this interaction, case managers describe the program and ask if the patient is interested in enrolling.
- **Enrollment and assessment:** For those interested, case managers arrange to meet at the LEDC office, the hospital, or a public place that is accessible to the client. The enrollment process consists of taking a patient history and conducting a needs and risk assessment. The risk assessment includes five questions designed to identify problem areas, including self-care, mental health, pain, general health, and access to medical care. The assessment and enrollment process takes between 1 and 2 hours, and may occur during more than one visit.
- **Development of goals and signed action/care plan:** At the time of enrollment, the case manager instructs the client to decide within 10 days on two goals that he or she would like to pursue over the next 3 months. Goals relate to the needs identified in the assessment process; common examples include establishing a medical home or being able to take care of household chores independently. Based on the information collected in the enrollment process, the case manager and client jointly develop an action/care plan tailored to the individual's needs. The patient signs a contract agreeing to comply with the action plan, keep appointments, notify case manager of needs and progress, and generally be an active participant in his or her care. The goal of the plan is to help the patient attain and sustain better health and well-being.
- **Ongoing support using one or more pathways:** Using an adaptation of the "Pathway" model developed by Mark Redding, MD, and Sarah Redding, MD,[1] the ED Connections case managers work with clients, typically over a 3- to 12-month period, during which they use one or more different pathways to address identified needs by connecting individuals to medical, social, and other needed services:
  - **Medical home:** This pathway connects the client with a primary care provider who can manage and coordinate his or her health care. ED Connections works with the two Federally Qualified Health Centers (FQHCs) in the Lincoln area as well as private physician offices that have agreed to serve as a medical home to clients.
  - **Transportation:** This pathway addresses transportation issues related to accessing medical and social services appointments by providing transportation services, arranging for a taxi, and/or providing a bus pass.
  - **Disease education:** The goal of this pathway is to make sure patients understand their diagnoses, how to take their medicine, and how to control symptoms and prevent complications. It engages patients in their own care by providing accessible and acceptable sources of information, along with counseling and other support. As necessary, case managers connect patients with support groups or other community services that address their specific conditions.
  - **Cultural brokerage:** This pathway identifies community services and resources that address cultural and language-related barriers to care. This may include interpreters and community groups that serve a particular group or need. Some patients from other countries may also need help understanding the American health system and choosing the appropriate care setting (i.e., urgent care clinic rather than ED).
  - **Chronic pain:** Some patients have experienced pain for years, from arthritis, multiple sclerosis, or other conditions. This pathway connects these patients with medication, pain management specialists, and other resources to treat chronic pain.
  - **Narcotics/substance abuse:** Most clients have issues with past or present substance abuse. LEDC connects individuals to support groups, mental health services, treatment center, and provision of appropriate medical care.
  - **Self-care:** There can be many reasons why patients cannot care for themselves, including physical disabilities, mental health issues, or an unsafe environment. In this pathway, case managers try to identify and overcome barriers through community services, such as home health, housing assistance, and protective services.
  - **Financial:** Lack of money or misuse of resources can lead patients to put off needed medical care. Case managers determine and address the root causes of the financial barrier, including employment status, family dynamics, money management skills, and education.
- **Daily or weekly contact with case manager:** Case managers have at least weekly and in some cases daily contact with clients to track their progress and stay informed about and help address current needs. When appropriate or requested by the patient or primary care provider, case managers attend appointments with clients to ensure that they follow through on provider recommendations.
- **Common database and tracking system:** ED Connections uses case management software to track client progress and facilitate communications among case managers and across sites. This software tracks appointments, encounters, and other information across the participating hospitals. Currently, it does not pull data from the electronic medical record (EMR) systems used by either hospital. Consequently, relevant information from the EMR must be manually entered.
- **Cooperation with safety net providers:** Case managers actively seek out and establish relationships with community service organizations providing safety net services, including local health care providers, pharmacies, fire and rescue companies, and social service providers. To date, ED Connections has worked with 74 different organizations in and around Lincoln. If patients have trouble getting appointments and services in a timely manner, case managers work with the organizations to facilitate the process. For some organizations, the case manager fills out intake and other forms so that clients can get services faster.
- **Monthly case manager meetings:** Case managers meet monthly to discuss each client currently enrolled in the program

and share ideas about community resources that could help them and strategies for overcoming challenges they may face. As needed, they get together between meetings to discuss specific topics and problems.

- **Limited financial assistance:** While the program focuses on connecting clients with services that already exist in the community, sometimes clients may need small amounts of financial assistance to meet their goals. For example, a client may need transportation to a medical appointment or someone may require a one-month deposit on rent to sign a lease for a more stable living arrangement. Through various community foundations and individual donations, case managers have access to resources to overcome these financial obstacles. (No hospital funds are spent on barrier reduction.)
- **Cluster-based planning and outcomes measurement:** The program uses a cluster-based planning and outcomes management tool.[7] A cluster is defined as a subgroup of a larger clinical population that shares common strengths, problems, treatment histories, social/environmental contexts, and/or life situations. Cluster-based planning helps case managers identify and manage adult patients with severe and persistent mental health issues. Approximately 76 percent of patients have been assigned to a cluster. The clusters are as follows:
  - **1:** Adults with chronic physical health conditions and psychiatric disabilities;
  - **2A:** Adults with serious substance abuse, mental health, and community living problems;
  - **2B:** Adults with severe substance abuse problems and less severe mental health problems;
  - **3A:** Adults who are severely disabled in many life areas;
  - **3B:** Younger adults who are severely disabled but are not convinced of the usefulness of treatment;
  - **4A:** Adults who struggle with anxiety and depression, and who avoid growth opportunities;
  - **4B:** Adults who struggle with anxiety and tend to focus on their physical health conditions; and
  - **5:** Adults who have functioned well in their communities.

References/Related Articles

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Wilson MJ, Nguyen K. Bursting at the Seams: Improving Patient Flow to Help America's Emergency Departments.(Lessons Learned by the Urgent Matters Learning Network) Report by George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy. Available at http://urgentmatters.org/media/file/reports_UM_WhitePaper_BurstingAtTheSeams.pdf

The source of the cluster-based planning and outcomes management tool is available from the Region V Systems Behavioral Health Authority Assessment of Cluster Membership; the tool is called "Adults with Severe and Persistent Mental Health Issues: Training and Reference Manual," by Bill Rubin, MA, CEO of Synthesis, Inc., Columbus, OH.

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Innovator Disclosures

Mr. Bernadt reported having no financial interests or business/professional affiliations relevant to the work described in the profile other than the funders listed in the Funding Sources section. Ms. Stilwell has not indicated whether she has financial interests or business/professional affiliations relevant to the work described in this profile.

Results

The program significantly enhanced access to appropriate care and improved client understanding of their medical condition, leading to better health functioning and to a significant decline in the use and costs of ED care for nonemergent conditions.

- **Reduced reliance on ED among frequent users:** Before the program started, 82 of the frequent users visited the ED a total of 846 times in 1 year. After enrolling in the LEDC program, those same 82 patients used the ED 315 times, a reduction of 63 percent. From 2005 to 2008, ED visits for nonemergent reasons decreased by 68 percent.[3] More recent data from February 2012 indicates that total annual ED visits for 126 patients declined by 56 percent after enrolling in the program.
- **Lower ED costs from nonemergent care:** In the first 3 years of the program, the two sponsoring hospitals reported a 67 percent decline in ED costs related to nonemergent care.[5] These savings have allowed the hospitals to continue funding the program even after initial grant funding ran out. (ED charges do not include fees for physician, laboratory, x-ray, or rescue services, so the savings to the community as a whole have been greater.)
- **Enhanced access to appropriate care:** During the first 3 years of operation, the vast majority of clients gained enhanced access to appropriate medical care, including being assigned to a primary care provider (100 percent), attending their first medical appointment (89 percent), and receiving assistance in purchasing needed medications (86 percent).[5]
- **Improved understanding and better functioning:** The vast majority (80 percent) of clients reported understanding the advantages of seeing their provider regularly and demonstrated increased knowledge of their health care options (89 percent). The vast majority (93 percent) also showed improvement in their health functioning.[5]
- **Successful completion of one or more pathways:** Since the program started in September 2005, case managers have worked with 431 patients. Of these, 350 successfully completed at least one pathway, and 189 have completed the entire program, which means that all of the following have occurred: barriers to care have been minimized or eliminated; a medical home has been established with a track record of keeping health care appointments; risk assessment scores are at or below 10 on a 25-point scale; and functioning has reached a level acceptable to the client and their care providers.[2,8]
- **Medical home assignment:** As of February 2012, 100 percent of patients have been assigned to a medical home.

Evidence Rating (What is this?)

Moderate: The evidence consists of post-implementation data on the percentage of clients connected to appropriate medical care, the percentage reporting enhanced understanding of their health condition and health-related functioning, and the number of clients completing one or more pathways and/or the entire program. Other evidence includes pre- and post-implementation comparisons of ED use and costs among individuals with nonemergent conditions.

Context of the Innovation

BryanLGH Medical Center and Saint Elizabeth Medical Center are two competing hospitals serving Lincoln, NE, home to 282,000 residents. BryanLGH, a not-for-profit, locally owned health care organization, operates two acute care facilities (each with an ED) with a total of 672 beds and several outpatient clinics. Saint Elizabeth Regional Medical Center runs a 257-bed medical center and a variety of outpatient and specialty care services, including an ED. Saint Elizabeth is owned by Catholic Health Initiatives, the third largest Catholic Health System in the United States. In 2008, the Centers for Disease Control and Prevention named Lincoln the healthiest city in the United States, with 92.8 percent of residents reporting "good" or better health. However, in the presence of this health-related prosperity, the poor, minority, and immigrant residents of Lincoln faced great difficulties accessing care. More than one-fourth of residents living at or below 200 percent of the Federal poverty level lack health insurance.[9] Lincoln is a major refugee resettlement area with three large nonprofit agencies offering refugee resettlement services.

In 2002, the Robert Wood Johnson Foundation selected BryanLGH Medical Center as one of 10 hospitals to participate in Urgent Matters, a study of ED workflow. As noted earlier, statistics gathered for this study indicated that up to 38 percent of ED visits in fiscal year 2001 to 2002 were for situations better served by a primary care provider. Further analysis revealed that 34 patients accounted for 377 visits to area EDs in a 12-month period.[3] One of these patients accounted for 95 visits. However, even as these patients overutilized ED services, they were at high risk for poor health outcomes. Many of these individuals had chronic conditions that had been untreated or undertreated for years because the patients did not have a regular medical home where they could receive ongoing care. This situation led to the idea of developing a program to allow these heavy utilizers to reduce their reliance on ED services by enhancing access to other more appropriate community resources. Information on how the program became a joint initiative of the two hospitals appears in the Planning and Development Process section below.

Planning and Development Process

Key elements of the planning and development process included the following:

- **Community discussions:** In 2004, the Community Health Endowment brought together BryanLGH and St. Elizabeth's to discuss the issue of inappropriate ED use with other health organizations in the area, including Region V System (regional coordinator for state mental health services), Lincoln Medical Education Partnership, Lincoln Fire and Rescue, and Clinic with a Heart (a free clinic in the area).
- **Initial grant challenge:** The Community Health Endowment awarded BryanLGH and St. Elizabeth's $300,000 to design and carry out a 3-year case management program to address overuse of ED services. The funders outlined the following goals for the program: reduced ED visits and costs, increased patient knowledge of health care choices and the ability to care for themselves, increased provider satisfaction (including in the ED), and increased patient satisfaction (also including in the ED).

- **Joint hospital planning:** Representatives from both hospitals worked closely together over a significant period of time on a variety of issues, including human resources, information technology (IT), and legal requirements. For example, considerable time was needed before program launch to ensure that the program complied with Health Insurance Portability and Accountability Act and other requirements.[3]
- **Hiring and training of case managers:** The program's first staff member was hired because of his extensive experience as an ED nurse. He provided training for the additional case managers. Training focuses on learning about community resources, fostering collaborative relationships with other organizations, and providing individual attention to patients.
- **Development of pathways:** ED Connections staff started investigating other community-based programs with similar aims. Tom Hoover, RN, a long-time ED nurse at BryanLGH and ED Connection's first case manager, attended a presentation by Mark Redding, MD, a pediatrician and developer of the Pathways model for linking people to needed services. The staff decided to adapt this model to address the needs of frequent users of ED services. Case managers developed six pathways (described previously); each pathway laid out a step-by-step plan devised to solve specific problems or achieve goals, such as establishing a medical home or allowing a patient to self-manage a chronic disease or condition. More than one agency or community resource may be involved in the completion of each pathway.
- **Adoption of cluster-based approach:** The program began using a cluster-based planning and outcomes management tool in 2011.[7] All program staff were trained in the use of cluster based planning and have found it to be effective and efficient in understanding patients' needs more quickly and obtaining appropriate community resources.

Resources Used and Skills Needed

- **Staffing:** Each hospital employs two full-time case managers (1 registered nurse and 1 social worker) to work with patients (for a total of 4 case managers). Each case manager handles roughly 30 clients at a time. As noted earlier, these case managers work cooperatively, sharing patient data and information about community resources through a common database. In 2010, with funding from the Community Health Endowment and Region V Systems Behavioral Health Authority, Lincoln ED Connections was able to hire a registered nurse case manager with a strong mental health and substance abuse background.
- **Costs:** Annual program costs are $200,000, consisting primarily of the salaries and benefits for the four full-time case managers. BryanLGH owns the building that houses the LEDC office. In addition, office space is provided at each hospital for the case managers. Computers for the program were purchased as part of the initial startup grant from the Community Health Endowment. Other costs include the aforementioned emergency assistance; in 5 years, $12,000 has been spent to cover these expenses. These funds have come from private donations or grant funds that have been secured by the hospital foundation.

Funding Sources

Community Health Endowment

The Community Health Endowment grant of $300,000 provided enough funding for the first 3 years. Since grant funding ended, the two hospitals have paid for the program out of the savings generated by reduced ED use by uninsured individuals. Emergency expenses for patients have been covered by KENO funds (gambling proceeds in the county), the Lincoln Community Foundation, a Region V Special Populations grant, and individual donors.

Tools and Other Resources

The software tracking system used by the program is called Penelope Case Management Software, developed by Athena Software. For more information, please go to http://www.athenasoftware.net.

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Getting Started with This Innovation

- **Put competition aside for good of patients and community:** Although the two hospitals compete, their leaders chose to cooperate on this program because of its potential to benefit the community and reduce overall costs. Their example, in turn, helped convince other community organizations to get involved.[2]
- **Involve specific departments early in planning process:** As noted, both hospitals had to work closely together on a variety of human resource, IT, and legal issues. Getting relevant departments involved early in the development process maximizes the chances of success.[3]
- **Focus on collaboration, cooperation, and connections:** Most communities already have a wide array of services available, but various barriers keep residents from taking advantage or participating in these programs. By fostering closer relations with community resources, LEDC staff removed barriers and hence could more easily connect clients to needed services.
- **Get physician, staff, and community buy-in:** The involvement of patient/family representatives, area providers (including the FQHCs), and a community foundation (Community Health Endowment) helped ensure that the key stakeholders found the program design to be ethical and acceptable.[3]
- **Set up system for shared information:** The shared case management system facilitates communication among case managers, supports care coordination, and encourages the sharing of information and resources. It also ensures that potential clients can be identified even if they do not use the same ED each time.

Sustaining This Innovation

- **Justify continuation of program based on documented cost savings:** As noted, both hospitals documented significant cost savings associated with reduced use of ED services. These savings justified continuation of the program even after grant funding ran out.
- **Maintain strong relationships with community organizations:** LEDC collaborates with other organizations and agencies in the region. Maintaining good relationships with these organizations ensures smoother operations and better response to LEDC clients. This includes first trying to solve problems internally rather than making an unnecessary referral.
- **Keep up with community resources:** Because community resources change over time, case managers must stay in contact with representatives of different agencies to remain aware of current practices, policies, and service offerings.
- **Seek funding through local foundations for client emergencies:** As noted, staff members have found it quite useful to

- **Seek funding through local foundations for client emergencies:** As noted, staff members have found it quite useful to have resources available to take care of the immediate needs of clients, such as a payment to a landlord to secure safe housing, transportation services to medical appointments, utility payments to maintain services, and other emergencies. Grants and donations from local organizations can be a good source for raising such funds.

Use By Other Organizations

- Although other organizations have developed programs with similar goals, the developers of ED Connections do not know of any other hospitals that have used the same approach.

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[1] Community Health Access Project. *Pathways: Building a Community Outcome Production Model*. Available at: http://chap-ohio.net/press/wp-content/uploads/2010/09/PathwaysManual1.pdf

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