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ORIGINAL ARTICLE

Applying the Chronic Care Model to an Employee Benefits Program

A Qualitative Inquiry

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Objective: To assess how employee benefits programs may strengthen and/or complement elements of the chronic care model (CCM), a framework used by health systems to improve chronic illness care. **Methods:** A qualitative inquiry consisting of semi-structured interviews with employee benefit administrators and partners from a self-insured, self-administered employee health benefits program was conducted at a large family-owned business in southwest Georgia. **Results:** Results indicate that the employer adapted and used many health system-related elements of the CCM in the design of their benefit program. Data also suggest that the employee benefits program contributed to self-management skills and to informing and activating patients to interact with the health system. **Conclusion:** Findings suggest that employee benefits programs can use aspects of the CCM in their own benefit design, and can structure their benefits to contribute to patient-related elements from the CCM.

Chronic diseases, including heart disease, stroke, cancer, and diabetes, are now the leading cause of death and disability in the United States, resulting in seven of every 10 deaths.[1] Although the modification of health risk behaviors, such as physical inactivity, tobacco use, and poor nutrition, can reduce the burden of chronic disease, interventions are provided inconsistently in primary care.[2] Furthermore, the acute care focus of the US health system may hinder effective chronic disease prevention and management.[3]

The Centers for Disease Control and Prevention's Guide to Community Preventive Services recommends a number of evidence-based, worksite-specific interventions, from on-site free vaccinations, to weight management programs, to smoking cessation programs.[4] Such preventive and chronic illness management programs are also a priority in community-based organizations and health systems.[5] Nevertheless, few models or frameworks have been proposed to suggest specific ways in which worksite benefits and wellness programs can link to or influence the quality of care delivered by health system partners. Given that a majority of adults in the United States receive their health insurance through their employers, and that employer-sponsored health care is likely to remain the primary source of coverage for most workers,[6] understanding tangible ways in which employee benefits and wellness programs can supplement or complement health care provided through the health system is of increasing importance.

The chronic care model (CCM) is a predominant framework for addressing quality issues in chronic disease prevention and management at the health system level.[7–9] The CCM, developed out of both practice-based evidence and a thorough review of the literature,[7,9–11] seeks to improve quality and chronic illness outcomes by focusing on system-level changes that impact both patient-related and provider-related factors. The CCM is rooted in the belief that improved quality of care and improved patient outcomes come from productive interactions between informed and activated patients, and prepared practice teams.[9,12] Informed and activated patients are those who have the information, the skills, the ability, and the motivation to make decisions about their care.[12] Prepared practice teams are those who have the patient information, the decision support, and the resources necessary to deliver quality care.[9,12]

The model acknowledges that care is contextual and that health systems exist within the larger community. Within the health system, the organization of care, the delivery system design, decision support, and clinical information systems represent the major elements leading to prepared practice teams.[9] Specific resources and policies within the community can complement clinical care and help foster self-management skills and activate patients.[9] Elements of the CCM are outlined in more detail in Table 1 and illustrated in Fig. 1. [T1] [F1]

A large-scale evaluation of the CCM across 51 participating sites covering almost 4000 patients concluded that the use of the CCM in primary care settings was linked to improved patient care and outcomes.[13] Although the CCM has been widely studied with respect to health care and health systems,[14] little attention has been paid to the role that employers have in working collaboratively with the health system to encourage high-quality care. The CCM acknowledges that the community plays a part in the provision of quality health care.[9] Although worksites and employee benefits programs are implicitly part of the community (eg, external to the health system), their function in chronic illness care is not explicitly discussed in the current CCM.[14] Therefore, the primary objective of this article is to illustrate the ways in which an employer-owned and operated health benefits plan can influence and contribute to chronic disease management within the context of the CCM.

METHODS

Practice-Based Evidence Project

This study was part of a larger practice-based evidence project conducted by the Emory University Cancer Prevention and Control Research Network (CPCRN) to identify and evaluate promising prevention programs developed and conducted by organizations in

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[AQ1]

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[AQ2]

TABLE 1. Elements of the Chronic Care Model[9,12]

Elements	Subject
Organization of health care	Includes visible support for improvement, beginning with organizational leadership; promoting effective improvement strategies; providing incentives on the basis of quality; and facilitating care coordination within and across organizations.
Delivery system design	Includes defining roles and distributing tasks among a team, using planned interactions (eg, that have an agenda and a purpose) to support evidence-based care, providing clinical case management services, ensuring regular and proactive follow-up, and providing care that patients understand and that fits within their cultural framework.
Decision support	Includes embedding evidence-based guidelines into routine clinical practice, using proven provider education approaches, and sharing evidence-based guidelines with patients.
Clinical information systems	Focuses on the use of a database that contains the key clinical information needed to have a productive clinical encounter. This could be a registry or an electronic health record that has the capability to provide reminders to patients and providers, can aggregate data on provider performance, and can facilitate individual patient care planning.
Community resources and policies	Focuses on the idea that practices need to reach out to work with the community to find and promote the development of referral resources to meet the full needs of their patients. Community policies focus on the idea that practices can advocate for policies to improve patient care.
Self-management support	Emphasizes the patients' central role in their care, promoting the use of proven self-management support strategies such as goal-setting, action-planning, problem solving, and follow-up. Also includes the organizations of internal and community resources to provide this support to patients.

FIGURE 1. The chronic care model.

southwest Georgia. Guided by its Community Advisory Board, in 2010 the CPCRN conducted an environmental scan in southwest Georgia to identify eight potential programs; after an initial screening, four were invited to apply for an evaluability assessment and a subsequent evaluation, if appropriate. Evaluability assessment is a pre-evaluation activity, typically composed of a qualitative assessment and intended to identify whether or not programs are ready for full evaluation,[15] and often includes interviews, document review and analysis, and site visits.[16] A committee from the CPCRN and southwest Georgia scored applications and recommended assessments for two programs, including The Langdale Company's employee benefits program.

Description of The Langdale Company Employee Benefits Program

Founded in 1894, the Langdale Company (Langdale) is a family-owned business with 22 affiliated companies in diverse industries, with a focus on forestry and forest products. Although Langdale's subsidiaries span a number of counties, the majority are in or around Lowndes County, in southwest Georgia. Most of Langdale's employees (81.3%) participate in the benefits program. Including dependents, the program covers 1752 lives. The majority of Langdale's 1057 employees are white (65%) and male (84%), with an average age of 40 years. Most of the employees work in either the production/manufacturing (48.5%) or managerial/technical (19.8%) sectors. The company has low employee turnover, with approximately 40% of employees having more than 10 years of tenure in the company.

TLC Benefits Solutions, Inc, (TLC) is Langdale's self-insured and self-administered health benefits and wellness subsidiary; its goals are improved employee health and cost savings for Langdale. Langdale offers employees various incentives and programs to promote health and wellness (eg, free annual health risk assessments [HRA], discounted gym memberships, and tobacco cessation classes at work). Employees working 30 hours or more per week and their dependents are eligible to participate in the Langdale employee benefits program. Langdale's benefits plan is designed to promote prevention (eg, 100% coverage for preventive care, premium differentials for tobacco use and participation in the annual HRA). Langdale has established relationships with local providers to offer affordable rates for plan members, and their plan is structured to encourage members to seek the most cost-effective, quality care.

TLC partners with Doctors' Direct Health Care (DDHC) to manage a central database, called InforMed, that houses participants' claims, pharmacy, HRA, and other program data. TLC works with DDHC to use its extensive database for population management, identifying plan participants as having or being at risk for a chronic disease. Those with chronic disease are automatically enrolled in an opt-out disease management program conducted by DDHC. Participants in the disease management program receive individualized telephone counseling services to manage their disease; assistance with pharmacy costs; mailings or written materials; and medical self-management or monitoring devices, such as glucometers and blood pressure monitors. Through the Lowndes County Partnership for Health, a community-based health organization, TLC also offers free, personalized on-the-job health coaching to plan participants who are identified as high risk. A full-time professional health coach provides individual education, counseling, and assistance, navigating the health system; health coaching is intended to increase compliance for doctor's visits, medication use, and chronic disease management.

To date, no one has opted out of the disease management or health coaching programs.

Key Informants

For this qualitative inquiry, we purposefully selected core staff and representatives as key informants from partner organizations with intimate knowledge of the design and implementation of the program. A total of six individuals were selected to participate in qualitative interviews. Key informants were two individuals representing Langdale's human resources and senior management; one individual representing Langdale's employee benefits subsidiary (TLC); two individuals from the Lowndes County Partnership for Health, the partner organization conducting on-the-ground health coaching with employees; and one individual from DDHC, the partner organization conducting health coaching, medical management, case management, and disease management. This study was considered nonresearch by the Emory Institutional Review Board.

Data Collection Tools

Questions about CCM components and related dimensions were adapted into an open-ended format using the Assessment of Chronic Illness Care survey,[17] which was originally developed to assess the implementation of the CCM in health system settings.[17,18] In adapting the Assessment of Chronic Illness Care for qualitative key informant interviews, the Emory team developed a semi-structured interview guide, consisting of 32 open-ended questions about components of the CCM: delivery system design, decision support, clinical information systems, the community (resources and policies), and self-management support. The health system and overall support and leadership for chronic illness care were assessed separately through group interviews (described later). The interview guide also included 11 general descriptive questions about the company, its employees, and the program and benefit design. Many of the questions contained probes or specific follow-up questions, and the interviewer addressed additional topics as they emerged during the interviews. The research team, including both Emory and Langdale members, tailored the interview guide slightly for each key informant, so that participants responded to those questions most relevant to their roles in the Langdale employee benefits program.

Using the same methods described previously, the team also developed two semi-structured group discussion guides for use in two interviews that included all six participants. The first discussion guide consisted of eight questions about the health system component of the CCM. The second discussion guide consisted of seven questions about successes and challenges in implementing the delivery system design and decision support components of the CCM.

Domains Assessed in the Interview Guide

Organization of health care covered support for chronic disease and wellness programming and improvement at all levels of the organization, promoting effective improvement strategies, encouraging open and systematic handling of errors, providing incentives on the basis of quality, and developing agreements that facilitate care coordination across the organization.

Delivery system design covered roles and tasks among the benefits team, use of planned interactions and evidence-based care, provision of case management services for complex patients, provision of regular follow-up related to chronic disease or preventable behaviors, and provision of culturally sensitive and patient-centered care.

Decision support covered the existence and use of evidence-based guidelines in wellness and chronic disease programs, the use of proven educational methods by nurses and advocates delivering wellness programs, and integration of wellness programs with specialists and primary care providers in the health system.

Clinical information systems covered the presence and use of a system through which benefit vendors shared patient information and coordinate care. In addition, the following system capabilities were assessed: its ability to identify of subpopulations for proactive care, its ability to allow for patient interaction and reminders, and its ability to monitor performance of those providing the wellness and chronic disease care.

Community resources and policies covered ways in which TLC and their vendors encouraged patient participation in community programs, formed community partnerships to fill gaps in services, and advocated for policies to improve patient care.

Self-management support included questions about the extent to which benefit vendors emphasized the patients' central role in managing their health; the use of effective self-management strategies such as goal-setting, problem solving, and action-planning; and the organization of resources to provide ongoing self-management support to patients.

In addition to deductive questions on the basis of these CCM elements, inductive codes suggested ways that TLC and Langdale informs and activates patients. These inductive codes are described in the Results section. **[AQ3]**

Data Collection Procedures

A data collection site visit took place in November 2011 at Langdale in Valdosta, Georgia. The six previously identified key informants each participated in an individual interview and two group interviews. The purpose of the individual interviews was to gather in-depth information from those most knowledgeable of—and instrumental in-–certain aspects of program design and delivery, and to provide a confidential setting for respondents to engage in candid, honest discussion with the interviewers. The group interviews were designed to convene the key informants and facilitate conversations reflective of the individuals' various perspectives regarding program goals as well as successes and challenges. In addition, one follow-up telephone interview was held a few weeks after the site visit to finish one interview that could not be completed in the 1-hour interview time allotted. Most sessions ranged from 45 minutes to 1 hour in length and were conducted in tandem by two interviewers, both members of the research team. All interviews were audio-recorded and transcribed verbatim. Interviewers also took detailed notes during the interviews.

Analysis

Initial development of a qualitative codebook was organized around the major constructs of the CCM and the interview guide, incorporating themes that emerged during the interviews. The codebook was revised after coding the first two interviews; existing code definitions were amended to fit the data, and new, inductive codes were added to capture themes not directly specified in the current CCM constructs. Data were stored, coded, and analyzed using QSR NVivo v8.0 (QSR International, Cambridge, MA). Two team members, one who served as the primary coder and the other as the secondary coder, reviewed all individual and group interview transcripts. All text in each transcript was coded in NVivo by the primary coder; the secondary coder reviewed the codes used in each transcript, and added relevant codes where applicable. The primary coder then reviewed codes added by the secondary coder. All discrepant uses of codes were discussed until resolved through consensus at an in-person meeting.

The primary coder generated NVivo reports with relevant codes and text corresponding to each major element of the CCM and to inductive themes identified from the text (eg, health literacy, navigating the health system, adjunct to physician care, engaging employees in preventive care, and patient-centered care). Individual reports for each code were carefully reviewed by the research team to identify important concepts in the data. The primary coder then

constructed a data matrix comprising the identified themes, with illustrative examples of relevant Langdale work. Findings were shared for additional review and interpretation during meetings with team leadership and stakeholders. Data were then analyzed for context and meaning.

RESULTS

Organization of Health

Overall organizational leadership for chronic illness care and prevention is reflected by Langdale's senior leadership, including the Chairman of the Board, and through dedicated resources and funding, such as the creation of TLC as a Langdale subsidiary focused solely on employee health and benefits. Organizational goals exist with regard to general health outcomes (as described previously under the benefits description), but specific chronic illness goals have not been established. Langdale's recently implemented opt-out HRA program will provide population-level biometric data to support the development of specific and measurable goals for disease reduction.

Although there is no formal process improvement strategy in place, descriptions of program implementation and quality improvement suggest that the team uses plan–do–study–act cycles, which are commonly used as part of the CCM.[9] For example, when implementing a new HRA for employees, TLC Benefit Solutions conducted research to identify HRA systems that would provide adequate data to monitor population-level health improvements over time (plan), piloted their selected HRA system in a small proportion of voluntary employees (do), reviewed results and discussed challenges with the HRA vendor and the team administering the tool (study), and made revisions to the process before implementing the system with all employees (act).

Delivery System Design

Langdale's employee benefits program has a fairly developed delivery system design around chronic illness care. TLC defines roles for the provision of benefits through contracts with the vendors providing the associated chronic disease and prevention programs. A precertification process that DDHC administers for ambulatory and inpatient procedures helps to set or improve the provider's understanding of his or her role in the care process. TLC and its partners use the shared InforMed database to plan interactions with beneficiaries. For example, before visiting an employee, the health coach can check the system to look at recent claims, medication refills (or lack thereof), notes from the case manager or disease manager, and any updated HRA biometrics. "[We] can go into the database and check to see who's been to the doctor . . . if they're diabetic, have they had their eyes checked? Have they had their feet checked? Are they taking or refilling their medication? [We] know all of that before we even meet with that individual." In addition, case management, disease management, and preventive health coaching are all seamlessly integrated into the benefits delivery system design such that queries in the InforMed database prompt automatic enrollment of those at risk for or with chronic disease diagnoses into disease management, and those with specific acute or new diagnoses (eg, transplants, cancer, and myocardial infarction) into case management. The use of appointment systems was deemed not relevant for the employee benefits setting.

[AQ4]

Finally, Langdale has designed a benefits system that relies on local and regional vendors who understand their blue-collar employee workplace firsthand and can deliver prevention and wellness programs from a culturally appropriate standpoint. "Here, change is so much about the culture . . . and if you don't deal with [behavioral] change from a cultural standpoint, you're not going to get it."

Decision Support

Within the scope of employee benefits, TLC and its vendors have adopted and adapted selected decision support components. The National Committee for Quality Assurance's Healthcare Effectiveness Data and Information Set (HEDIS) measures serve as an evidence-based guide to administering benefits programs at Langdale and guide the approval of evidence-based clinical procedures delivered within the health system. "We incorporated HEDIS into the [InforMed] system to help us identify gaps in quality care." Nevertheless, beyond reinsurance and precertification processes, it is challenging for TLC to coordinate the use of evidence-based care within the health system itself. Although TLC does not currently offer a pay-for-performance program to incentivize provider quality, they track providers' HEDIS scores in their InfoMed database and try to encourage employees to use providers with higher documented performance. TLC also utilizes preselected "centers of excellence" such as the Mayo Clinic and Jack Hughston Memorial Hospital to provide high-quality specialty care that is often unavailable in their local area. TLC covers the cost of hotels for patients and their families, provides a reduced coinsurance rate, and works to ensure care coordination with local primary care providers after procedures at centers of excellence.

Clinical Information Systems

TLC has a fully developed clinical information system for chronic illness care and care coordination. Langdale opted to be both self-insured and self-administered, so TLC and other disease and wellness vendors could have full access to members' claims and pharmacy data. In partnership with DDHC, TLC has adapted a comprehensive database that functions much like an electronic health record, but for benefits administration. The database, developed by InforMed (InforMed Health Care Solutions, Annapolis, MD), includes medical claims, pharmacy, and HRA data, as well as case notes from disease managers, case managers, and the on-the-ground health coach. "It's basically a patient record . . . [it's] the hub that indicates not just the clinical and not just the claims data, but both the subjective and objective components from the health coaching, etc." The InforMed system is used to prompt patients for annual visits and other preventive care screenings. Although providers within the primary care or specialty care health system cannot access the database, DDHC uses it for precertification of specific inpatient and outpatient procedures, allowing them to remind physicians of specific evidence-based protocols that have been built into the precertification algorithm. Finally, data in the InforMed system are used to monitor risk, providing a risk stratification of beneficiaries, or to track overall cost and return on investment.

Community Resources and Policies

As a worksite, Langdale is arguably more a part of the community than the health system. Accordingly, Langdale's entire benefit structure is based on established partnerships within the community. Health advocacy services and HRA biometrics are provided through a local health partnership; medical management, case management, and disease management are provided through a regional partner. TLC maintains a list of resources available in the communities in which Langdale employees live and work; TLC benefits staff, case managers, disease managers, and the health coach routinely link patients to these outside resources. Referral resources bridge a gap between what Langdale's benefits offer and what the health system provides, and include diabetes self-management programs at the local hospital, local cancer support groups, and exercise or nutrition programs at the YMCA. Furthermore, Langdale has built partnerships with local providers in the communities they serve, obtaining quality care at cost-effective rates.

Self-Management Support

In addition to working with the community to extend their own benefit offerings, TLC plays a critical role in supporting patient self-management by providing services that are an adjunct to the physician's care. Through health coaching and disease management, TLC provides additional education in areas that clinicians may not have time to cover. A nurse for the disease management program describes this: "We know what it's like to be in a practice that's too busy—they're seeing 50 patients and the last thing they want to do is teach somebody how to do something . . . our goal is to assess where they are, find out their current level [of understanding about the disease], and meet them where they are. Is it a basic understanding of the disease? Is it to educate them to truly understand they're a partner in the management? Their management is not done by the physician. He orders certain things, but their management is a day-to-day involvement with their condition."

Improving compliance for medication, scheduling and keeping checkups, and monitoring chronic diseases is a focus for the health coach and disease managers. The health coach describes this: "I help keep them compliant . . . make sure they're seeing their doctor on time, they're keeping their appointments, they, they get a wellness check and they get a physical each year . . . to make sure they're doing that. If you are diabetic, I'm making sure that you are doing what you're supposed to—getting your A1Cs, checking blood sugar on time, taking any meds."

The focus on compliance also leads to a focus on building skills in self-management. A nurse from disease management explains: "We're checking to see if they're doing it [taking their blood pressure or blood sugars], but that's also giving them the exercise of how to do it. You're your blood pressure monitor, here's how you check your blood pressure."

TLC and their partners are careful not to take on the role of the clinician, but rather to serve as an adjunct, sending patients back to their clinicians for things related to their care plan. One participant describes this: "It's sending them back to their physician, and if [the health coach] can help them make contact or go with them, you know, that type of thing, but we don't take on any of those roles—anything that a physician would do, we always push them back to their doctor."

Informed, Activated Patients

Beyond the role they play in self-management and in the community, TLC and their benefit partners play a more direct role in informing and activating patients. TLC encourages beneficiaries to engage with the health system, teaches them to interact with health care providers, and works to improve employee health literacy. Each of these themes is described briefly here.

TLC encourages employees to engage with the health system by using peer anecdotes and testimonials, and by having an on-the-ground health coach who visits employees individually during work hours, at their place of work. For example, a manager at TLC says: "When given proper permission by the employee, testimonials and word of mouth does more in effective communication. They'll say, you know, I was a heart attack waiting to happen, or I had undiscovered diabetes . . . and because of this process, have become more aware of something that I can now get control of." The health coach describes getting employees to engage with the health system by developing trusted relationships and being direct: "I've got a relationship with these guys. I can talk to them and just tell them straight out, 'look, if you don't take care of you, you could die.'" Cost is an important issue for employees as well. TLC provides no-cost wellness visits, and allows the health coach to take people to the doctor during work hours. Nevertheless, sometimes, the health educator has to rationalize the cost of an acute care visit for the employees: "Here's another way I put it to them, you can either go pay a $35 copay to get a doctor's visit, or you can wait and go to the hospital and have something major happen, which is going to cost you a lot more."

In addition, the health coach and TLC work to help employees understand how to interact with health care providers, including how to ask questions if they do not understand something. A key informant describes the problem: "It can sometimes be intimidating because, you know, you have a short window of time [with the provider] to try to get information, and if you don't, if you're not real organized, you might leave without getting the information you need." The health coach describes the same barrier: "A lot of these people don't know that they can ask for [information]. They just think that what the doctor says is the word, and that's it. That's been a problem. People don't question doctors." The education approach includes encouraging employees to go back to their doctor with specific questions. A key informant describes this: "We're pushing them back to the doctor to make sure they understand what they have, what the medicine does, understand their rights as a patient, help them know what to ask when they go back to the physician . . . "

An important barrier to understanding the information they get from health care providers is health literacy. Langdale employs primarily a blue-collar workforce. Many of them do not have beyond a junior high school education. One of the key informants describes the challenge this presents: "The doctor, the nurse, nurse practitioner, whoever talked to them and explained [their condition], the pharmacist, they may have said everything right . . . you certainly don't want to look stupid, so you may nod your head. Then they go home and they really don't understand their disease state . . . or what that particular drug does, or that they can be proactive in their own health by going back to their physician."

TLC and their benefits vendors work together to make sure employees understand their condition, their medication, and the instructions from their doctor. They also try to work face to face or via phone with employees rather than mailing them information or asking them to go on-line. A disease management nurse describes this process: "You've got people who cannot read, that person that has been told they have diabetes and was sent on with medication and that's it. They don't even have a machine to check their blood sugar because, 'the doctor didn't tell me anything about that.' So then we [disease management] start at the very bottom, reaching out to [the health coach] to go on site. Sometimes we'll call back the physician and talk to the nurse. So, you know, [what we provide] depends on their level."

Increasing Patient Access to the Health System

Although not a direct component of the CCM, key informant interviews have suggested that one important way that TLC helps foster productive patient–provider interactions is simply by increasing access to care. Access to care is addressed primarily through the field-based health coach. Employees are given time out of work to meet individually with the health coach. The health coach uses data from the annual HRA, as well as medical and pharmacy claims data, to encourage employees to use their free annual wellness examination and follow up with clinicians about any biometric data that are concerning. The health coach helps connect employees with a physician, if they have not been to a doctor, and is able to take employees to the doctor during work hours, if needed. The health coach describes this: "I've had to make appointments to go to the doctor, on company time, to take them to the doctor, get their meds, get them back on track." In addition, both the health coach and employees at TLC benefits work with patients to reduce their out-of-pocket costs, particularly related to prescriptions: "We've intervened through [the health coach] several times with doctors who don't know how much prescriptions are . . . we'll sometimes call the physician if the patient is not comfortable talking to them . . . they will usually say, 'oh my gosh, I didn't know [the price]'".

DISCUSSION

This study is the first that we are aware of that describes the use of the CCM in an employee benefits setting. Results indicate that Langdale, a self-insured employer, is using many aspects of the model to strengthen their employee benefits program, suggesting that the CCM may hold value for other self-insured employers and benefit administrators. In addition, an important finding from this inquiry is that employee benefits programs may be able to contribute in a meaningful way to developing and supporting both in-person and remote self-management programs, including health coaching and disease management. A number of studies have concluded that self-management is a critical component of the CCM and necessary to improve chronic illness care.[13,19] Nevertheless, self-management skills can be difficult to cultivate in the context of a health system because of provider time constraints and a lack of resources. These findings suggest that employee benefits programs can be designed to provide support that complements clinician efforts to address self-management.

Results also suggest that employee benefits programs be designed to inform and activate patients to engage with the health care system. The CCM posits that information and activation comes from the community and from developing self-management skills,[9] but it does not explicitly identify where employers and benefit plans fit within the model. As the primary source of health care for US adults,[6] workplaces may be a key part of the broader community, providing additional resources to support and activate patients around health, and thus playing an important role in the CCM. For example, employers and health plans can provide patients with incentives to engage in preventive and proactive chronic disease care (eg, premium differentials and wellness "points" for prizes), possibly increasing patient motivation to engage in behavior change. They can also provide supplemental or adjunct resources to support and sustain the care provided through the health system.

Applying this logic, a revised CCM that expands the "community" construct to specifically delineate the interdependent relationship between the health system and employers, health plans and the community may yield a framework that all entities can use to improve the quality of care. Because employers and health systems often exist at a regional or local level, the adoption of a more integrated CCM that engages various stakeholders could provide a framework for improving care across not just a system, but an entire community or even county.

Lastly, results suggest that employee benefits programs can adapt a number of CCM-based elements to the design of their own programs. For example, TLC and their benefit partners utilize CCM-based approaches to the design of their benefit delivery system, include evidence-based support for providers both in and outside their program, and utilize a database that allows them to identify beneficiaries that have or are at risk for certain diseases. More research is needed to evaluate the effect that a CCM-based employee benefits design has on the quality of benefits care delivered and the impact on disease-related outcomes. Future studies could also seek to identify components within the health system side of the CCM that may be particularly relevant to employee benefits program design and implementation.

Limitations

The following limitations exist when considering findings from this qualitative inquiry. First, these findings are from a single employer and cannot be used to make larger inferences about employee benefits programs or self-insured employers in general. Additional studies and larger demonstration projects would be needed to determine the true fit of the CCM within the employee benefits setting. Further research would also be needed to assess the true interest that self-insured employers or employee benefits programs have in adopting aspects of the CCM in their benefit design. Second, the assessment of how the program utilizes and contributes to the CCM was based on interviews with the employer and their benefits stakeholders; employee views or opinions were not included as part of this inquiry and, although beyond the scope of this study, would likely have provided a more complete view of the use of the CCM in the self-insured employer context. Finally, outcomes data and return-on-investment data are not included in this study, limiting our ability to conclude that Langdale's use of the CCM results in improved or more cost-effective care. Although data suggest cost savings for health systems that adopt and use the CCM, no such data are available for employee benefits settings.

CONCLUSIONS

This qualitative inquiry suggests that employee benefits programs can be designed to contribute to patient-related aspects of the CCM, such as self-management skills and creating informed, activated patients. In addition, results suggest that the CCM can be applied to the employee benefits context and that self-insured employers such as Langdale may be highly interested in guiding their benefits design with the support of a model like the CCM.

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Author Queries

[AQ1]: Author: Please check whether the author affiliations, especially Mr and Ms, are OK as set.
[AQ2]: Author: Column heads have been included in the table. Please check.
[AQ3]: Author: The phrase "inductive codes suggested ways that TLC and Langdale informs and activates patients" is not clear. Please amend as appropriate.
[AQ4]: Author: "heart attack" has been changed to "myocardial infarction". Please check.