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You Are MORE Than Your Title

Cheryl Slagle, RN, CMCN, CCM

Summary

The employment landscape for nurses is changing which means many will experience job loss. There are several barriers to nurses finding a new job or career but these can be overcome. This article outlines some suggestions for developing a plan for a job search.

Key Points

- Preparing yourself for change is critical to your success.
- Develop your value proposition.
- Prepare as much as possible for interviews.
- Move on after a job loss.

Imagine you are at a party with people you hardly know. Someone asks you what you do. How do you answer that question? How do you describe the work that you have committed yourself to, that you are passionate about, and have spent countless hours at in pursuit of excellence? It's bad enough to try to describe your work in managed care. You get the blank stares or the inevitable, "I thought you were a nurse". In addition to defining what we do, the jobs nurses do are changing. It can be hard to change how one identifies one's self when forced to change jobs or reinvent a career.

As our nation's largest healthcare occupation, nurses held about 2.7 million jobs in 2012.¹ The areas that employed the most nurses in 2012 were hospitals (61%), nursing and residential care facilities (7%), physician offices (7%), home health care services (6%), and government (6%).

Employment of registered nurses is projected to grow 19 percent from 2012 to 2022, faster than the average for all occupations.¹ Growth will occur for a number of reasons including increased demand for healthcare services because of the aging population with more chronic conditions, such as arthritis, dementia, diabetes, and obesity and improved access to healthcare services as a result of federal health insurance reform.

The financial pressure on hospitals to discharge patients as soon as possible may result in more people admitted to long-term care facilities, outpatient care centers, and greater need for home healthcare. Job growth is expected in facilities that provide long-term rehabilitation for stroke and head injury patients, as well as facilities that treat people with Alzheimer's disease. In addition, because many older people prefer to be treated at home or in residential care facilities, registered nurses will be in demand in those settings.

Growth is also expected to be faster than average in outpatient care centers where patients do not stay overnight, such as those that provide same-day chemotherapy, rehabilitation, and surgery. In addition, an increased number of procedures, as well as more

sophisticated procedures previously done only in hospitals, are performed in ambulatory care settings and physicians' offices.

As shown in Exhibit 1, the landscape of managed care nursing is changing.¹ This is an industry that is evolving at an incomprehensible rate. What nurses do, where they practice, and how they practice is changing. There are jobs out there, but nurses are being displaced from their jobs at an alarming rate. The reasons are as varied as the jobs nurses hold, but the effect is the same. Preparing yourself for change is critical to your success.

Losing your job is very much a part of many nursing careers but it can be very difficult to endure. Nurses know the stages of grief - denial and isolation, anger, bargaining, depression, and acceptance. We've helped our patients through it when we practice in a patient care setting and we may have experienced it with the loss of a loved one or after divorce. When you lose your job, you will grieve - expect it. It is normal to rationalize overwhelming emotions. It is a defense mechanism that buffers the immediate shock. As the masking effects of denial and isolation begin to wear, reality and its pain re-emerge. Sometimes, we are not ready and instead express it as anger. Then, the normal reaction to feelings of helplessness and vulnerability is often a need to regain control. Bargaining is a weaker line of defense to protect us from the painful reality. When a job loss occurs, you will be angry, embarrassed, and humiliated. You will question your career choice; you will question yourself. Expect it. Let it happen for a little while and then get busy moving forward.

Often, in healthcare, there are two phases of job loss - pre-termination and termination. Many times, we know our company has lost a bid, or is reorganizing or the hospital or your company has been "acquired" or is "going in a new direction". In past years, it was common for firings to be swift and merciless, but more and more companies are now providing a transition period (pre-termination phase). While this advance warn-

Exhibit 1: The Landscape

Employment projections data for registered nurses, 2012-22
(Employment in thousands)

Title	Employment	% of industry	% of occupation	Employment	Percent of industry	% of occupation	% change	Employment change
Insurance carriers and related activities	27.1	1.2	1.0	28.3	1.1	0.9	4.5	1.2
Insurance carriers	22.4	1.6	0.8	22.6	1.6	0.7	1.2	0.3
Insurance agencies and brokerages	0.1	0.0	0.0	0.2	0.0	0.0	16.7	0.0
Other insurance related activities	4.6	1.8	0.2	5.5	1.8	0.2	20.5	0.9
Insurance and employee benefit funds	0.5	1.1	0.0	0.7	1.1	0.0	25.7	0.1

Reference: 1

ing seems like a good thing, giving you time to prepare, on the downside, it is similar to being told you have only a short time to live, or a kind of “death sentence.” The terminated phase begins with the actual job loss and unfortunately is still the only phase for many people. Even though the impact of actual unemployment can be lessened by a period of preparation, the grief process will still occur for the termination phase. Many of the emotions do carry over, but the grief is more like that associated with the loss of a loved one. A way of life has ended, along with the security it provided.

To find a new job, a value proposition is needed to define what you can uniquely bring to an employer. This is your elevator speech. Employers are looking for a return on investment. To write your value proposition, consider the answers to three questions – 1)What services/solution can I offer that would benefit a new employer? 2)Why me? And 3) How?

A resume is important in getting in the door for an interview but 85% of submitted resumes are never read. Most large companies now scan resumes with computer programs that look for keywords. To make your resume more likely to be read by a human, print out the job postings that you are interested in and highlight the keywords and industry language used to describe the requirements and responsibilities. Appropriately add these keywords and highlight your accomplishments (including what, how and outcome). Remember, the goal of submitting your resume is to get a face to face interview. Never submit a generic, one-size-fits-all resume or cover letter. Your cover letter will not get you a job, but if not properly done it can certainly COST you the job! If you really want the position, you must customize all documents for each job.

For baby boomers, one barrier to getting a new job can be a lack of technology skills. This age group needs to get better at it or at least move into this century. Employers looking for the work ethic and skills of baby boomers may need programs to bring these nurses up to speed. Be willing to accept that you need the education and training and really focus on building that skill. Generation Xer’s love technology, but can lack the interpersonal skills of the

baby boomers. This group needs to practice interviewing because an interview will not be done by text.

There are tools that you should use to help you in your job search. Networking is invaluable. At least 60% of all jobs are found by networking. LinkedIn is a tool for networking and that many recruiters and hiring managers use to find candidates. According to the Pew Research Center, LinkedIn usage is especially high among the educated (bachelor’s degree holders and up) and high earners (those making \$75,000 a year or more) — exactly the types of people with whom you’d want to connect professionally. It is also the only social networking site Pew measured that showed higher usage among 50-64 year olds than among those ages 18-29, which means that those with more professional experience, who are more likely to be in a position to hire, are on the site. Use your LinkedIn profile to showcase everything that does not fit on your resume. It is important to stay active on the site and to connect strategically with others.

Other ways to network are to develop contacts with friends, family, neighbors, college alumni - anyone who might help generate information and job leads. Contact everyone you know. You may be surprised by the people they know. You can take a direct approach and ask for job leads or ask for information and advice. Make yourself pick up the phone and call. Assign yourself a quota of calls to be made each day. The more phone calls you make, the easier it will become. Email is a perfectly acceptable way to network as well. Keep your message brief and to the point. Check your spelling, grammar, and punctuation. Don’t be too informal. Avoid e-mail jargon and no smiley faces.

Professional organizations, such as the American Association of Managed Care Nurses, are great tools for networking and finding jobs. Most professional organizations offer opportunities for members to post career opportunities. The AAMCN has a career center on their website that is a great place for managed care nurses or those looking to enter managed care nursing to start. <http://careers.aamcn.org/jobseekers/>

If you make it past the scanned resume process and actually

Exhibit 2: The Interview

- ✓ Do Your Research
- ✓ Look Sharp
- ✓ Be Prepared
- ✓ Be on Time
- ✓ Show Enthusiasm
- ✓ Listen
- ✓ Answer the Question Asked
- ✓ Give Specific Examples
- ✓ Ask Questions
- ✓ Follow Up

2

get to the second stage, you may be asked to participate in a video interview. It may or may not be with a human. This can be a humbling process but is a tool that more and more employers are using. You may just be given a list of questions to answer or you may speak virtually with someone from the hiring organization. It is important to practice for this type of interview. Put the camera at a level where you are not looking up or down. Don't look away. Look at the camera as if you are having a conversation with it. Be sure to ask for assistance if you're not sure how to use the equipment. Actually, even if you think you can figure it out, it's good to ask for a quick overview.

During a video interview, make sure the area on camera is clean and neat. The microphone picks up all the noise in the room, so do not tap your pen or shuffle papers. Put your barking dog outside. If available, use the Picture-in-Picture feature so you can see how you will look. What's most important is to consider and prepare for this type of interview just as if you were meeting the interviewer in his or her office. The value, for yourself as well as for the hiring manager, is the same. Interviewing successfully, however it takes place, is the key to getting hired.

It is important to dress professionally for all interviews. For a video interview, wear the same interview attire you would for an in-person interview, including the bottom half of your body just in case it gets seen.

An interviewer's objective is to screen candidates for employment. You will be asked the same type of questions in either a video or face-to-face interview. Also, be prepared to ask questions, as well. If you're not sure about how the interview is proceeding, it's fine to ask the interviewer how you are doing.

Overall, be succinct – be clear – be passionate (Exhibit 2). Show the interviewer your passion – let them know they can't possibly be successful without you! Expand on your resume.

One of the most neglected interview skills is listening. Make sure you are not only listening, but also reading between the lines. Sometimes what is not said is just as important as what is said. Candidates often don't think about whether they are actually answering the questions their interviewers ask. Make sure you understand what is being asked, and get further clarification if you

are unsure.

Advance planning for an interview is very important. Make sure that you send any materials (resume, etc.) that the recruiter needs in advance. If the interview is at a company office, arrive early so you have time to get situated. Bring along a folder containing extra copies of your resume, a copy of your references and paper to take notes. You should also have questions prepared to ask at the end of the interview.

Having multiple real life examples of your successes and challenges prepared ahead of time is very important. One specific example of your background is worth 50 vague stories. Give examples that highlight your successes and uniqueness. Your past behavior can indicate your future performance.

It is important to appear confident and cool for the interview. One way to do that is to be prepared to the best of your ability. There is no way to predict what an interview holds, but by following these important rules you will feel less anxious and will be ready to positively present yourself.

Whether it's through email or regular mail, following up after an interview is important to remind the interviewer of all the valuable traits you bring to the job and company. Don't miss this last chance to market yourself.

After a job loss, remember, you are more than your title. Let it go. Learn from your past. For what was good, do it again. For what was not good, do not repeat.

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Case Manager and the Problem with All the “Name-Calling”

Catherine M. Mullahy, RN, BS, CRRN, CCM

The views and opinions expressed in this editorial are those of the authors and do not necessarily represent the views of the American Association of Managed Care Nurses.

Despite the heightened need for case management in our nation’s era of healthcare reform, the profession continues to be undervalued and misunderstood. In the past, case managers could blame the profession’s historical roots in insurance. That history had many within the healthcare industry believing that case management’s primary purpose was to contain costs. Over time, that perception has eroded. Today, many more people within healthcare recognize that the case manager’s role is to advocate for their patients’ well-being, and to facilitate improved health outcomes, while also advancing cost-effective healthcare. Even with this progress, however, case management suffers from a serious identity crisis. Most recently, this has been brought on by the proliferation of different titles assigned to individuals performing various case management functions.

Case managers, care coordinators, patient advocates and patient navigators are among the titles assigned to individuals in case management. Depending on the healthcare provider or setting, the titles mean many different things. In some settings, including managed care organizations, a “Case Manager” is strictly involved in disease management. That same organization might use the title “Health Manager” to refer to those individuals working with patients with specific diseases such as diabetes or chronic obstructive pulmonary disease (COPD), whereas another company might call that individual a “Care Coordinator.” You know there is a real problem when the professionals in the field are confused.

The blame for all of the titles and the resulting problems lies with case managers. Leaders in the field have failed to effectively explain the full scope of case management, and have not been held accountable to do so. Furthermore, other decision makers (i.e., healthcare administrators, managed care and insurance company executives, plan administrators, etc.) began handing off the “quasi-medical” assignments for which nurse case managers, given their nursing backgrounds were qualified to do (even if these assignments did not fall under the scope of services for a case manager), the lines of the profession began to blur. To be more straightforward about it, case managers became a “dumping ground” for these assignments instead of them being assigned to, for example, the Utilization Management staff. As a result, these determinations started to redefine what constitutes case management rather than follow the profession’s own guidelines. With the redefining of the role, came the plethora of titles. Clearly, the profession needs to get a handle on all of this delineation of responsibilities and the associated new “name-calling.”

Case Managers - Stand by Your Code of Professional Conduct and Standards of Practice

Nurses and case managers have several certifying bodies and professional organizations which have defined the scope of the case management role and its various functions. The American Association of Managed Care Nurses (AAMCN) has both Practice Standards and a Certification in Managed Care Nursing (CMCN) credential. Many of the nurses who adhere to the AAMCN’s Practice Standards, and those who also hold the CMCN credential work in case management and also follow other organizations’ professional guidelines. The Commission for Case Manager Certification (CCMC), which provides Board Certification of Case Managers, has established a clear

“Code of Professional Conduct for Case Managers” encompassing the “Standards,” “Rules,” “Procedures” and “Penalties” governing Board Certified Case Managers. The Case Management Society of America (CMSA), the leading member association for case managers, has published “Standards of Practice for Case Management.” Unfortunately, despite these very tangible guidelines, leaders within case management simply did not take a stand on two fronts. They did not speak up when the lines of their practice began to blur, nor did they push back when others started divvying up the case management role and then creating new titles for different functions. Perhaps, it has to do with the culture of nursing; that is, for nurses to be supportive, team players. Perhaps, it is simply a result of a failure for case managers to stand their ground and resist having others define what case management is and is not. This is problematic on several fronts.

The Negative Effects of Role Fragmentation

Fragmenting the case manager’s role fails to respect the profession’s standards of practice, as well as its code of ethics. In doing so, it also diminishes the profession. The more dispersed and fragmented case management becomes, the less value assigned to it. As it becomes less valued, case management also becomes less visible, and soon becomes invisible. This would likely lead to fewer nurses entering the field and ultimately, lead to a shortage of certified, qualified case managers. In turn, this shortage would create a tremendous void in patient care. We can avoid this outcome with a few simple, but critical steps.

Taking Back the Role

However well-intended the idea of multiple titles for different functions may have been, we all first need to agree that it is doing a tremendous disservice to case managers and more importantly, to our patients. Of course, we understand that different settings and patient needs may require a case manager to emphasize different aspects of the role over others. Regardless of this, there needs to be a consensus on what defines case management and all of the component functions of a case manager. In its “Scope of Practice for Case Managers,” the CCMC defines case management as follows:

“Case Management is a collaborative process that assesses, plans, implements, coordinates, monitors, and evaluates the options and services required to meet an individual’s health needs. It uses communication and available resources to promote quality, cost-effective outcomes.”

Once we all agree on this definition by the profession’s various certifying entities, we next must agree that taking away any of the key components of the case management role and then assigning different titles to different functions is not the answer. All individuals performing these tasks, and who hold the necessary professional and educational credentials, should be called a Case Manager. Every case manager should be allowed and encouraged to perform case management as it was intended to be: in accordance with the “Code of Professional Conduct for Case Managers” and “Standards of Practice for Case Management” as determined by CCMC and CMSA, respectively. This will alleviate the confusion among healthcare providers, other healthcare professionals, managed care companies, employers and plan sponsors, as well as consumers, who are increasingly more involved in their own healthcare. Additionally, it will serve to help place case managers on a more equal footing with other healthcare professionals by retaining the full scope of the profession, its identity and the afforded respect for the role.

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Motivational Interviewing Overview for the Healthcare Professional

Connie J. Riggs, BSN, MS, RN, HIA/MHP, CMCN

Summary

Healthcare professionals can use motivational interviewing skills to improve the outcomes of their patients. Implementing these skills requires practice and time for them to become automatic. Stages of change and change talk are two important aspects of moving patients along a path toward improved health.

Key Points

- Motivational interviewing provides numerous patient, healthcare professional, and health system benefits.
- Incorporating motivational interviewing into patient interactions requires practice.
- Recognizing stages of change and reinforcing change talk are integral to success of motivational interviewing.

Even after attending educational presentations on motivational interviewing, many health care providers may still be confused about the process. The purpose of this article is to clarify what motivational interviewing is and define stages of change and change talk, and how it can be useful for you.

Motivational interviewing has several definitions depending on the perspective. A layperson definition is a collaborative conversation style to strengthen the person's motivation and their commitment to change. A practitioner definition is a person centered counseling style for addressing common issues related to ambivalence about change. The technical definition is a collaborative, goal-oriented style of communication with intention to change language designed to strengthen motivation and commitment.¹ It is designed to elicit and explore reasons for change while using acceptance and compassion.

Motivational interviewing can improve treatment adherence, outcomes, increase patient satisfaction, and increase case management retention. Other soft return on investments include helping patients move through stages of change, improving patient contacts, enhancing chronic disease management, and increasing patient rapport.

Implementing motivational interviewing can provide significant return on investment for health systems and managed care. One commercial insurer found that seven percent of their population accounted for 50 percent of expenditures. They implemented a program of motivational interviewing which saved them over four million dollars in the first year. The targeted patients had typical chronic diseases such as heart failure, chronic obstructive pulmonary disease, chronic kidney disease, hypertension, and diabetes. Savings typically come from decreasing high dollar services such as emergency room visits and inpatient admissions.

Other benefits to managed care include improved HEDIS scores by improving medication adherence, increased engagement with primary care provider and increased case manager job satisfaction.

Many times, case managers get frustrated with being unable "to fix" their patients.

Motivational interviewing is patient centered; it puts the patient first. The early emphasis in motivational interviewing is on building rapport with the patient. This is important because later when

Exhibit 1

Stage of Change	Characteristics
Precontemplation	No intention of changing, does not recognize behavior as problematic; denial
Contemplation	Thinking about change; no commitment yet
Preparation	Ready and committed; has intentions to change behavior
Action	Begins to make changes; may be seeing some results; short term changes, may be planning long term changes
Maintenance	Maintains action(s) needed for time period; the behavior becomes a habit; may be aware of triggers and avoids the triggers

Exhibit 2: To Recognize and Reinforce Change Talk...Remember Those DARN CATS!

- **D** – a desire or wish to change
- **A** – ability to change
- **R** – the reason(s) to change
- **N** – the need to change
- **C** – committed to change
- **Activation** – nearly there
- **Taking Steps** – already done something

Reference: 1

7

difficult topics are broached, there is much less resistance, defensiveness, and argumentation by the patient. It is also about engaging, focusing, evolving, and planning. The overall style of this is guiding a patient rather than leading them.

Learning and practicing motivational interviewing skills takes time. Health professionals have to begin using it in their jobs every day for some time to become good at this new skill.

Motivational interviewing and stages of change, although two separate theories, go hand in hand. Exhibit 1 illustrates the five most commonly included stages of change. Some models include relapse and termination. In the precontemplation stage, the patient is unaware there is a problem or is denying the problem. An example would be a 5 foot tall woman weighing 270 pounds who has recently been told she has type 2 diabetes but denies she has a weight issue. Contemplation is intending to make change within the next six months; the patient is starting to think about it, even weighing the pros and cons. The preparation phase is gathering information and preparing to make changes within next 30 days. Actually making changes is the action phase. An example of the action phase would be the previously mentioned patient who has started changes to her diet in order to better manage her diabetes and weight. During the maintenance phase, the newly adopted behaviors are continued. Patients are aware of triggers for relapse during this phase. Relapse can occur during any stage of change and is a normal part of change.

As patients work their way through the stages of change, they may begin to express self-motivational statements or “change talk”. Health care providers can recognize and reinforce change talk using the mnemonic in Exhibit 2. The “DARN” part of the mnemonic is the preparation toward change and “CATS” is the mobilization phase. The preparatory phase could be termed the uphill battle and the mobilization phase the downhill. The process of change for an individual can be linear or it can have hills and valleys.

A desire to change is not always necessary. We have all done something we did not want to do. Ability to change can be deter-

mined by asking the patient what can or could be done- i.e. asking the patient, as an example ‘Ms. Smith, what do you think you could do to help stop drinking?’. The reasons to change are ideally the three best reasons. Some patients may only be able to identify one reason but the provider can help them begin to identify other reasons why they really want to change. The need to change is how important is the change and why. Below are some example change talk statements.

- Desire – I wish I could lose some weight.
- Ability - I cannot go out with my friends who smoke.
- Reason - I need to get feeling better because I started a new job and need to be on my A game.
- Need - I need to get feeling better.
- Commitment- I’ll start to lose weight by cutting out all soda pop
- Activation- I’m ready to stop smoking; I’ve started using nicotine patches that my doctor prescribed.
- Taking Steps - I bought some workout clothes so I can be more comfortable when I walk.

Change talk comes from the patient. It helps the patient see issues clearly and make choices. Hearing it means the interviewer is on the right track and can reinforce the change talk. Responding to change talk should be done with open ended questions that summarize and affirm what the patient has said. Of course, the stage of change where the patient is has to be considered in all this; if the patient is not ready to change, then change will not occur.

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Empowering Diabetes Patients with Virtual Self-Help Health Coaching and Apps

Melanie Morgan, RN

Summary

Although type 2 diabetes is largely a self-managed disease, only half of patients carefully follow care and treatment regimens. Healthcare organizations recognize that improving patient activation/engagement can lead to better self-care practices such as adherence to treatment regimens. Technology now offers new and easy ways to engage patients with diabetes, facilitate better and more consistent self-care practices, and improve communications between patients and their caregivers. Many new “virtual coaching” resources and mobile apps are now available to support patient engagement and augment patients’ treatment plans. Several randomized studies have reported on the effectiveness of diabetes management using web-based self-management patient coaching systems and mobile app interventions.

Key Points

- Patient non-adherence to diabetes treatment plans is a pervasive, persistent and costly problem.
- Diabetes could be much more effectively managed if patients became more actively involved in their own care on a consistent basis
- Studies show that mobile- and web-based self-management patient coaching systems and apps – many of which are available free or at nominal cost – can help patients substantially reduce their glycated hemoglobin levels.

What makes care management for type 2 diabetes so potentially rewarding is that the disease is both preventable and manageable. In its 2014 National Diabetes Statistics Report, the Centers for Disease Control and Prevention (CDC) notes that:

“Diabetes can be treated and managed by healthful eating, regular physical activity, and medications to lower blood glucose levels... Patient education and self-care practices are important aspects of disease management that help people with diabetes stay healthy.”

In fact, according to the Harvard School of Public Health, about 9 in 10 cases of type 2 diabetes could be prevented by taking several simple steps: keeping weight under control, exercising more, eating a healthy diet, and not smoking.

Yet despite the dedicated efforts of nurses and other caregivers, far too many people have been unable or unwilling to take these steps. Today, diabetes affects more than 9.3 percent of the population (29 million people) in the United States and is a factor in more than 230,000 deaths each year. About 1 in 5 healthcare dollars is spent caring for people with diabetes, and the total costs of diagnosed diabetes in the United States in 2012 was \$245 billion.

A Need to Focus on Personal Behaviors

Potential solutions must be multi-faceted and address the full continuum of care. That said, it’s important to keep in mind that

only 10–15 percent of an individual’s health status is attributable to the healthcare services he or she receives. The *New England Journal of Medicine* notes that “the single greatest opportunity to improve health and reduce premature deaths lies in personal behavior. In fact, behavioral causes account for nearly 40% of all deaths in the United States.”

Patients’ behaviors are often especially problematic for patients with diabetes. In fact, a 2014 GSK care management survey of commercial health plan directors and quality managers found that diabetes was the disease state of greatest concern.

Their viewpoint is not surprising when you consider these research findings regarding the behaviors of patients with diabetes:

- Non-adherence rates for chronic illness regimens and for lifestyle changes are about 50%, and patients with diabetes are especially prone to substantial regimen adherence problems
- Only 39% treated with insulin did at least one blood glucose check per day
- Only 35 - 39% adhered to recommended guidelines for diet and exercise

One of the key questions in diabetes care management boils down to this: How can we help patients with diabetes take better care of themselves?

Patient Activation: The Last Mile

For many, the answer lies in improving patient activation and engagement. Activation refers to a measure of patients' knowledge, skills, ability, and willingness to manage their own health and care. Patient engagement is a broader concept that combines activation with interventions designed to increase activation and promote positive patient behavior, such as obtaining preventive care or exercising regularly.

The Institute of Medicine has cited patient engagement as crucial to achieving better care, improved health, and lower healthcare costs. The Affordable Care Act identifies patient engagement as an integral component of quality in accountable care organizations (ACOs).

Patient activation has been called “the last mile in the race to fix healthcare” and is quickly moving to the forefront of care management strategies. The reasons are twofold:

1. A growing body of evidence is showing that patients who are more actively involved in their healthcare experience better health outcomes and incur lower costs, and
2. According to a National Patient Safety Foundation report, the vast majority of Americans are, “relatively uninformed and passive recipients of healthcare services and thus lack the confidence and skills needed to fully engage in their healthcare.”

In a 2012 report, the Institute of Medicine urged physicians to use technology to help fill this gap by, for example, making sure people have easy access to their medical records online. Technology also offers new ways for care management providers to engage patients with diabetes, facilitate better and more consistent self-care practices, and improve communications between patients and their caregivers.

While patient activation initiatives often have various and complex aspects and dimensions, two potential technology-powered components for diabetes care management are both readily available and easy to implement: virtual self-help health coaching and diabetes mobile apps.

Health Coaching Helps Patients Reach Health and Wellness Goals

We're all familiar with the adage, “Give a man a fish, and he eats for a day. Teach a man to fish, and he eats for a lifetime.” Health coaching teaches people how to make good decisions and take positive steps every day towards a lifetime of better health.

Broadly defined, health coaching refers to methods and resources that help patients gain the knowledge, skills, tools, and confidence they need to become active participants in their care so that they can reach their self-identified health goals. It is especially well-suited for patients with diabetes who have the prime responsibility for managing their disease and the greatest influence on its progression and impact.

Contrary to a common misconception, health coaching is not just about providing encouragement and emotional support. Instead, it's a process to facilitate healthy, sustainable behavioral changes that is intended to help people:

- Clarify their health goals
- Make good choices on important everyday decisions (What will I

eat? Will I exercise? What medications do I need to take and when should I take them?)

- Initiate and sustain healthy behaviors, lifestyles, and attitudes conducive to optimal health

Unlike traditional health education, which is mostly one-way communication that typically focuses on what can go wrong, health coaching is interactive and focuses patients' attention on the personal benefits of behavioral changes. For example, for an obese patient with type 2 diabetes and other comorbidities, health education might emphasize how non-adherence increases the risks of heart attack or stroke. Conversely, health coaching would leverage the motivating factors that can drive changes in behavior by guiding the patient to identify and use life goals such as dancing with a daughter at her wedding or playing in the yard with grandkids as a constant source of inspiration.

Health coaching generally refers to in-person interactions between patients and RNs, pharmacists, health educators, trained medical assistants, or other patients called peer coaches. Obviously, it would be costly to offer this kind of personal service to each of the nearly 30 million people in the United States affected by diabetes. Virtual health coaching, however, is often available at no charge to anyone with access to the Internet or a smart phone.

Virtual Health Coaching Benefits

A “virtual” health coach can complement and support both health education and live coaching. For example, a central function of health coaching is to teach patients with diabetes their ABC numbers and goals —A for A1c, B for blood pressure, C for cholesterol (specifically LDL-cholesterol). Virtual coaching can explain the recommended tests to patients, enable them to set personal goals based on their providers' counsel (for example, A1c of 7), and remind them when they need to be tested.

Virtual health coaching also can help address and rectify the two most prevalent diabetes self-care problems: blood glucose monitoring and medication adherence. Research over the last two decades has firmly established that 1) tight glycemic control is associated with a significant reduction in serious long-term diabetes-related complications, and 2) increased self-monitoring of blood glucose (SMBG) is associated with improved glycemic control. Yet a national study of patients with type 2 diabetes found that 24% of insulin-treated patients, 65% of those on oral medications, and 80% of those treated by diet and exercise alone either never performed SMBG or did so less than once per month.

Dashboards and gadgets provided by virtual health coaching support services such as HealthCoach4Me.com can send patients daily reminders to reinforce the importance of testing. Blood sugar tracking tools allow patients and caregivers to monitor how glucose levels are trending over time and make appropriate interventions as necessary. Patients also can see how changes in glucose levels affect their moods and sense of well-being, which hopefully can motivate some of them to exercise more and eat healthier.

Other coaching tools include apps for medication adherence that enable patients with diabetes to easily:

- Create, read, and update medication schedules from anywhere
- Record all lab results and vital signs and graph results to track

progress

- Set personal goals and compare them with actual results
- Receive reminders by text or email to take medications and get refills

For health care providers and care managers, virtual health coaching is a convenient means to deliver a modicum of personalized support without requiring additional staff. Equally important, it also supports patient activation and can help patients:

- Better understand diabetes and their role in self-managing their disease
- Set personalized S.M.A.R.T (Specific, Measurable, Attainable, Realistic and Timely) goals
- Use action plans as the foundation for healthy behavioral changes
- Share important information with their physicians and other caregivers
- Take all their necessary medications as prescribed

Mobile Health (mHealth) Apps for Diabetes

Fortunately, patients today are becoming increasingly comfortable using technology for their health. In fact, some 95 million Americans use mobile phones for health information or tools, and 45% of online adults with a chronic condition such as diabetes say the Internet is essential to managing that condition.

Physicians are even more optimistic about the potential benefits of mobile health (mHealth) apps. A recent survey found that:

- 93% of physicians believe mobile health apps can improve a patient's health outcome
- 89% are likely to recommend a mobile health app to a patient

Diabetes management tools are among the most popular mHealth apps with more than 400 now available. Their two primary functions are to help patients with diabetes track blood sugar readings over time and make positive lifestyle choices. A recent survey of patients with diabetes and their caregivers found that 35% use software or mobile apps for diabetes data logging once a month or more.

Diabetes apps offer a wide variety of self-management features and functions such as:

- Charts for blood sugar readings that show how the numbers relate to other things in their lives such as their moods, taking medicines, activity level, and diet.
- Other logs for insulin doses, medications, exercise, and weight.
- Reminders about when to take and enter blood sugar readings, when to take medications and refill prescriptions, and when to exercise.
- Daily questions about mood, medicine, eating habits, and exercise.
- Food databases and calorie counters.
- Education and everyday tips about diabetes, risk factors, the importance of regular blood sugar testing, and making positive lifestyle choices through goal-setting.

Promising Research Results

As noted, consistent SMBG has been shown to be a useful tool in improving glycemic control in type 2 diabetes. Studies also indicate

that mHealth diabetes apps are a useful method for accurately logging and managing SMBG results. The data can be easily reviewed with or by physicians or caregivers, who can then make recommendations about exercise, diet, or medications.

In the not-too-distant future, personalized diabetes care management conceivably could be mostly powered by a combination of virtual health coaching and mHealth apps. One clinical trial, the Mobile Diabetes Intervention Study, has already investigated the effects of a mobile- and web-based self-management patient coaching system. Patients entered diabetes self-care data (blood glucose values, carbohydrate intake, medications, and other diabetes management information) on a mobile phone and received automated, real-time educational, behavioral, and motivational messaging specific to the entered data. A patient portal featured a secure messaging center that enabled providers and patients to share and review personal health records and logbooks with additional diabetes information such as lab values or eye exams. Providers also received quarterly reports summarizing patient's glycemic control, diabetes medication management, lifestyle behaviors, and evidence-based treatment options. The study group that received this level of treatment over one year substantially reduced their glycosylated hemoglobin levels.

Another recent review of smartphone diabetes management apps found that they showed tremendous versatility, usability, and functionality at nominal or no cost. The authors concluded that "as new apps continue to emerge and become more refined, smartphone users will have more options to conveniently track their glycemic control and overall health, which can ultimately improve their ability to effectively manage their diabetes."

Conclusion

Controlling diabetes is an urgent concern for patients, providers and the entire healthcare community. If present trends continue, as many as 1 in 3 American adults will have diabetes by 2050 and their healthcare costs will be 2.3 times higher than those who don't have diabetes.

To gain this control, healthcare professionals must adjust their attitudes and realize that patient behaviors are the ultimate determinants of success. The focus needs to shift from providing care to helping patients become better at diabetes self-management, which will require developing new types of collaborative patient-provider relationships.

The challenge is indeed formidable, since some research indicates that more than 25% of patients with diabetes may lack basic knowledge and confidence in their ability to manage their health, and another 35% may lack the confidence and skills to support the necessary behaviors to become model patients. But there's no question that technology solutions such as virtual health coaching and mHealth diabetes apps will be part of the solution and play a key role in educating and empowering patients. By using an innovative blend of best practices in evidence-based diabetes management and behavior-change science, such tools will be able to capture people's attention, keep their interest, and help motivate and guide them to take real steps to prevent or slow the progression of diabetes.

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QI to Increase Proper Treatment of Skin Soft Tissue Infections in Medicaid Managed Care Plan

Rose Calhoun, RN, Deborah Boggs, RN, Carl Tapia, MD,
Sheldon L. Kaplan, MD, Angelo P. Giardino, MD, PhD

Summary

Community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) has caused a nationwide epidemic of skin and soft-tissue infections in ambulatory pediatrics. In 2005, skin and soft tissue infections nationally accounted for 14.2 million visits¹, and hospital costs accounted for \$9.4 million that year.² The Quality Improvement (QI) project described in this paper used QI Nurses with cultural competency, sales, and quality training to decrease inpatient admissions in one plan utilizing interventions based on analysis of disease occurrence, member care utilization and specific physician treating patterns. Critical to the success of this project was team's adherence to the six sigma DMAIC process, namely, Define, Measure, Analyze, Improve and Control.

Key Point

- The allocation of QI resources based on geographic and seasonal patterns of utilization maximized the opportunity to change both patient and physician behavior.

Community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) has caused a nationwide epidemic of skin and soft-tissue infections (SSTI) in ambulatory pediatrics. Rates of skin and soft tissue infections increased from 32.1 to 48.1 visits per 1000 population from 1997 to 2005, a 50% increase. ¹ In 2005, skin and soft tissue infections accounted for 14.2 million visits¹, and hospital costs have risen and account for \$9.4 million a year.² The largest increase in prevalence occurred in African Americans and children.¹⁻⁴ Other risk factors for skin and soft tissue infections include family history of skin and soft tissue infections.⁵ Among visits to the pediatric emergency room, the proportion of skin and soft tissue infections with abscess involvement has more than doubled, and CA-MRSA is the primary pathogen associated with this increase.⁶⁻⁹

Several clinical guidelines for diagnosis and management of SSTI have been developed.¹⁰⁻¹³ The Infectious Diseases Society of America's Practice Guidelines for the Diagnosis and Management of Skin and Soft-Tissue Infections recommend that antibiotic treatment alone is effective in most patients with cellulitis while "effective treatment of abscesses and inflamed epidermoid cysts entails incision, thorough evacuation of the pus, and probing the cavity to break up the loculations" at the A1 strength of recommendation.¹¹ Some studies have found successful treatment after incision and drainage and appropriate wound care, even when an inactive antibiotic is used.^{14,15,16} The size of the abscess is important, with lesions greater than 5cm likely requiring systemic antibiotics,¹² and knowledge of community susceptibility patterns are vital in choosing the appropriate therapy.¹⁷⁻²⁵ Other authors have confirmed that, with appropriate treatment, the rate of treatment failure and need for hospitalization is low.^{26,27} Some strategies to prevent recurrences, such as decreasing nasal colonization to prevent, have been found to be ineffective for CA-MRSA.^{5,17,28}

Community studies have echoed our perception that commu-

nity providers are unaware of best practices in treating skin and soft tissue infection. Hersh et al,¹ through focus groups of primary care practitioners, found that few perform incision and drainage, many are not aware of published recommendations and lack of knowledge of community susceptibility patterns for MRSA.¹ Further, the providers cited lack of training, resources, and confidence as barriers to incision and drainage in the office.²⁹ A national survey of pediatricians found that, even among those aware of clinical guidelines, few performed incision and drainage but were willing to do so if supplied with appropriate training.³⁰ A cross-sectional analysis of providers confirmed that, even among emergency room practitioners, there is wide variation in documentation of the physical examination and poor agreement in diagnosing an abscess and need for incision and drainage.³¹ Another survey found wide variability in prescribing patterns among community providers, and a strong preference (88%) preferring topical decolonization as a strategy for preventing recurrent infections.³²

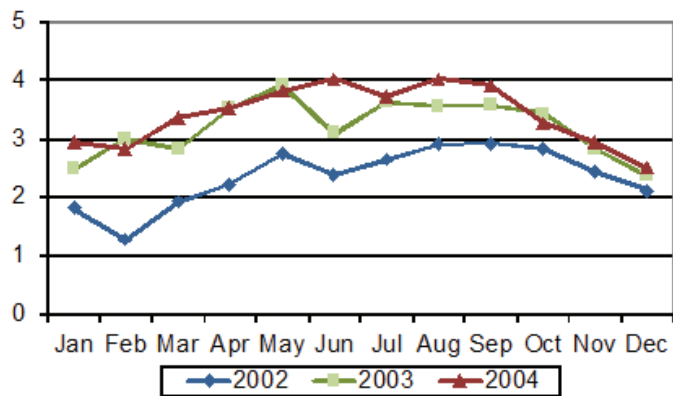
AIM Statement: Texas Children's Health Plan will educate members and Primary Care Practitioners (PCP) to provide improved care for members with skin and soft tissue infections. This will be evidenced by:

- 1) A 30% decrease in the number of inpatient admissions for Skin and Soft Tissue Infections per 1000 members
- 2) A 30% increase in number of targeted Physicians performing incision and drainage procedures in their office following in-office CME.

Methods

Texas Children's Health Plan applies standard Quality Improvement (QI) methodology to Quality Initiatives. The six sigma DMAIC process provides an excellent guideline for understand-

Figure 1. Seasonality of episodes with primary diagnosis of cellulitis per 1000 members



ing the process so it will be utilized in explaining this initiative. DMAIC is the acronym for Define, Measure, Analyze, Improve and Control.³³

Define:

In 2006, the health plan conducted a focus study on members with a diagnosis of skin or soft tissue infections. In December 2006, health plan clinical leaders met with representatives from the Centers of Disease Control to discuss possible approaches to addressing skin and soft tissue infections in our community. The team identified community acquired methicillin S. aureus (CA-MRSA) as the main organism of concern. A geographic analysis of culture results revealed that one zip code accounted for 3% of the isolates and several accounted for 2% but that the occurrence was spread throughout the Houston area and there was therefore no apparent specific geographical clustering.³⁴

In 2007, further analysis focusing on inpatient utilization for skin and soft tissue infections and specifically, performance of incision and drainage in the office setting included the following: mapping inpatient stays for incision and drainage by member residence and by PCP office location, identification of members with repeat CA-MRSA infections by zip codes, recurrence of CA-MRSA with and without incision and drainage and use of non-recommended antibiotic for treatment of skin and soft tissue infections.

A sample of 14 zip codes was selected as a starting point for intervention (“East Corridor”) and compared to the general population for a time period in 2005. Members in the East Corridor represent a consistent percentage of members with emergency department visits and repeat infections (15% in the East Region versus 17% in the general managed care population). Therefore, they were deemed an appropriate target population to pilot and test interventions.

For this study, incision and drainage is defined as CPT Codes 10060 (Incision and drainage of abscess, simple or single) and 10061 (Incision and drainage of abscess, complicated or multiple). Incision & drainage (I&D) is an incision into the abscess to drain the exudate and cleanse the wound. A loop may be used to keep the incision site open for drainage. Place of service is categorized as office visit, emergency department visit or inpatient stay.

Measure:

A measurement system analysis was conducted to identify and limit sources of variation. The report criteria for diagnosis, procedure codes and place of service were defined. The targeted population was identified by zip code of member residence. A grid was developed to track initiation and completion of interventions. This

Figure 2: Texas Children’s Health Plan Member Educational Piece



grid was used to define pilot phase 1 through 3 of the interventions for evaluation purposes.

Analyze:

MiniTab 16 was utilized to graph outcomes and test for statistical significance. A two sample Poisson distribution was used to evaluate impact of incision and drainage on recurrent infections and impact of PCP training on use of incision and drainage in PCP offices. ANOVA was used to evaluate ED visits and inpatient admissions for skin and soft tissue infections with Bartlett’s test used to determine statistical significance.

Improve:

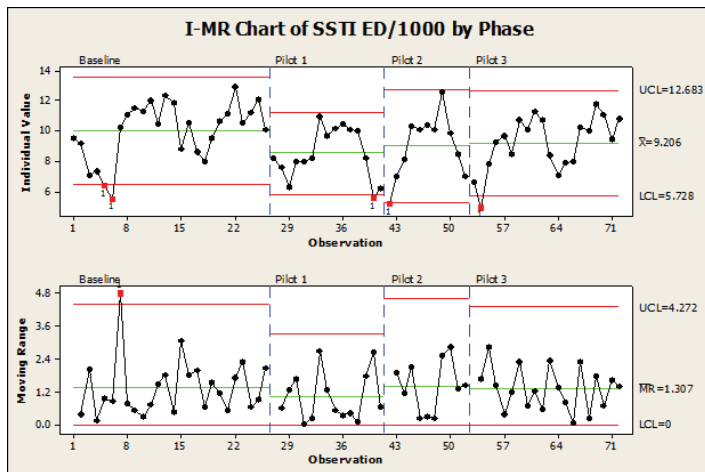
As this project was a direct patient care initiative, IRB approval was not deemed necessary per standard operating protocols of our academic affiliates. The improvement initiative was hinged on two components, provider education and member education that are described below:

1) Provider education:

An algorithm for appropriate antibiotic use based on local susceptibility patterns was developed by a team of academic partners. Provider education focused on following this treatment algorithm. The PCP targeted for this intervention received a CME training session and consultation by a Quality Improvement RN. The in-office training began with an overview for all PCP personnel. The QI RN explained each staff member’s role in appropriate treatment of skin and soft tissue infection and the consequences of lack of treatment. Nonclinical personnel were invited to attend the remainder of the training, though most opted not to remain. The clinical training centered on the treatment algorithm with a review of the Infectious Disease Society of America Practice Guidelines for the Diagnosis and Management of Skin and Soft-Tissue Infections,¹¹ the New England Journal of Medicine’s article and training video “Performing Medical Procedures: Abscess Incision and drainage.”³⁵

The review of materials was followed by a discussion of workflow for implementation of guidelines within the practice. A barrier analysis was completed by the QI RN with problems resolved during the discussion. A commitment to implement the clinical practice guidelines was obtained from the PCP and their staff prior

Figure 3: Skin and Soft Tissue Infection ED Visits/1000 versus Pilot Phase



to the QI RN's exit from the office.

Incision and drainage Reimbursement Rate

Texas Children's Health Plan reviewed the adequacy of existing reimbursement rates for Simple, Single Incision and Drainage and for Complex, Multiple Incision and Drainage through a provider survey and a KANO Analysis of the results identifying the optimal price points for each procedure. Reimbursement for simple incision and drainage was increased by 67% and for complex incision and drainage by 69% (results not shown).

2) Member education:

Utilization was analyzed to determine if seasonal trends existed and if member outreach should be timed based on utilization patterns. Spring and summer were identified as peak seasons for educational outreach to members, based on an analysis of data from 2002, 2003, and 2004 (See Figure 1). The team developed simple messaging timed to the historical seasonal trends in skin and soft tissue infections to direct members to provide appropriate care at home and to seek medical care earlier in the infectious process. The member education included signs of infection: redness, swelling, pain, and pus or drainage. The parents were given three instructions for home care that is repeated on all literature (See Figure 2).

1. Keep it clean
2. Keep it covered
3. Keep an eye on it

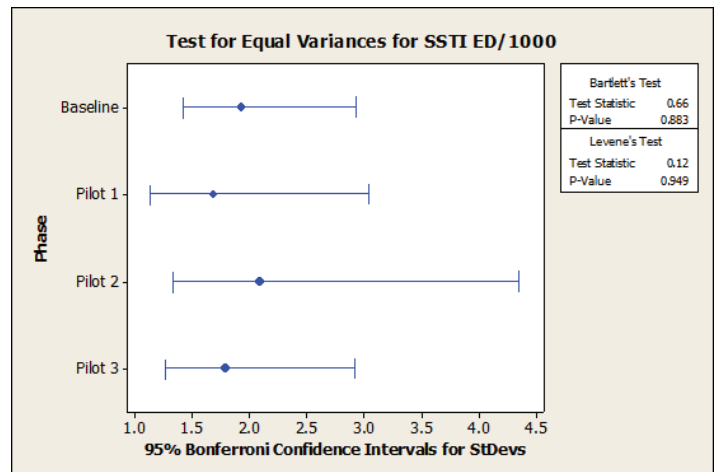
The educational pieces end with instructions not to wait to seek medical care. A photograph of a quarter is presented with instructions to put a quarter up to the infected area and if the red area is bigger than the quarter, to seek medical attention immediately.

Control:

The majority of members are children age 19 years or younger. The most commonly reported ethnicity is Hispanic at 55.5% and the male population slightly outnumbered the female population 50.06% to 49.94% of population. The members are served by 952 PCP, 45% of whom have been in practice for more than 25 years and 27% of who trained in a non U.S. medical school.

Claims data were utilized to assess recurrence of infections with and without incision and drainage for calendar years 2006 and 2007. Infections recurred twice as often when an incision and drainage was not performed. $p < 0.0005$.

Figure 4: ANOVA Test of Skin and Soft Tissue Infection ED Visits/1000 versus Pilot Phase



Results

Analysis of outcomes is based on timing of interventions. Member education is coordinated with provider training. All analysis of outcomes dependent on both member and practitioner actions follow distinct time periods and are based on completion of each pilot phase of physician training.

The first outcomes analysis was of intervention impact on PCP performing incision and in the office. The goal was to increase performance of incision and drainage by 30 percent in the targeted physician group. This was measured following the first pilot phase of Primary Care Practitioner training. Incision and Drainage in the target practices for Pilot Phase 1 increased from 18 to 141 practitioners. $p < 0.0005$.

The next outcomes analysis was of intervention impact on ED visits. There was some decrease in ED visits for Skin and Soft Tissue Infections, but it was not statistically significant (See Figure 3 & Figure 4, $p=0.883$). The primary goal to significantly decrease in inpatient stays for skin and soft tissue infections was achieved with a decrease from 1.90 per thousand members in September 2006 to 0.91 per thousand members in August 2012. (see Figure 5 & Figure 6, $p < 0.0005$).

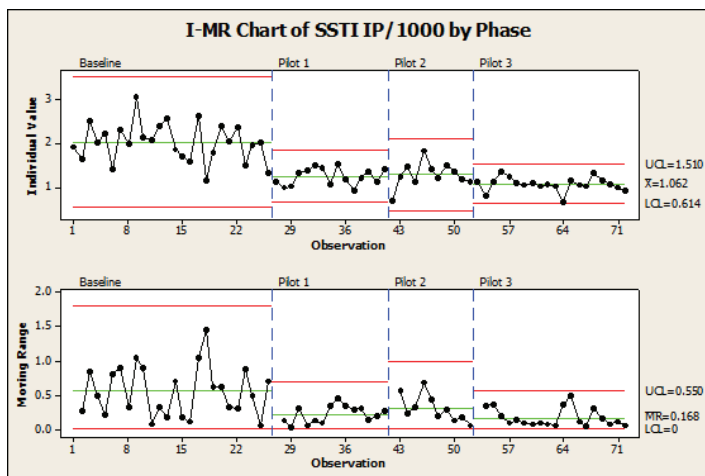
Discussion

Change in member care seeking behavior and physician treatment patterns requires coordinated, stratified interventions based on analysis of disease occurrence, member care utilization and specific physician treating patterns. Simple member education with repetitive key messages, timed to seasonal patterns increases the effectiveness of the education. QI Nurses who have sales training and cultural competency training in addition to quality training had a combination of skill sets necessary to change Primary Care Practitioner's practice patterns for a large Medicaid Managed Care Population cared for by a diverse population of practitioners. TCHP believes that Primary Care Practitioners want to provide the best care possible to their patients. Health plan QI nurses who partner with physicians have demonstrated improved compliance with clinical practice guidelines as well as patient satisfaction.³⁶

Limitations

This study was limited to Medicaid and Children's Health Insurance Program enrollees residing in the target zip codes who selected Texas Children's Health Plan as their health plan. The first pilot phase targeted zip codes are located on the east side of Houston. The early outcomes may have been influenced by social cultural factors within the group of contiguous zip codes in the eastern part

Figure 5: Skin and Soft Tissue Infection Inpatient Stays/1000 versus Pilot Phase



of Houston. There is also the possibility that a cohesiveness and commitment to the community exists to a higher degree within the physician community in this geographic area than in other areas of Houston. The effects of these potential limitations were tested when the initiative was expanded to another geographic area with different patient and physician populations. Texas Children’s Health Plan continued to see improvement as a new geographic area was added to the project.

Conclusion

Texas Children’s Health Plan inpatient utilization rates for skin and soft tissue infections were significantly decreased through the implementation of coordinated, stratified interventions based on analysis of disease occurrence, member care utilization, and specific physician treating patterns. Analysis of inpatient and emergency department utilization for skin and soft tissue infections identifies opportunities to move the place of service to a more appropriate level of care. Allocation of resources based on geographic and seasonal utilization patterns permit efficiencies within the QI initiative while maximizing opportunities to change patient and physician behavior. prevent or slow the progression of diabetes.

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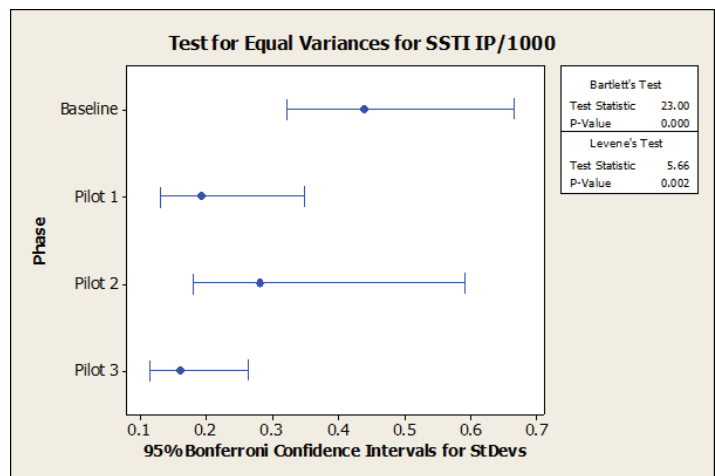
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Figure 6: ANOVA Test of Skin and Soft Tissue Infection Inpatient Stays/1000 versus Pilot



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Call For Articles

The Journal of Managed Care Nursing (JMCN) is now accepting article submissions. The JMCN is a digital, peer-reviewed publication with a circulation of 20,000 nurses in case, utilization and quality management. We are looking for articles or opinion pieces dealing with the clinical and business side of managed care nursing. Please email lskrobacz@aamcn.org if you would like to hear more information and receive the article guidelines.

AAMCN 2014 Innovation Award Winner: MDwise

MDwise works with the State of Indiana and Centers for Medicare and Medicaid Services to provide several programs including the Hoosier Healthwise, Healthy Indiana Plan, Indiana Care Select and MDwise Marketplace health insurance programs. MDwise is a delivery system model and performs core managed care functions like utilization management, case management, provider relations and claims processing at. However, some of their Delivery System partners perform these functions themselves also known as delegation. MDwise retains full accountability and responsibility for assuring that any delegated function is performed in a manner that is compliant with our contractual obligations with the State of Indiana, CMS, and NCQA. MDwise has a large network of doctors, specialists and hospitals throughout the State of Indiana.

Background of Program

According to data from the CDC's National Center for Health Statistics (NCHS), ER use has risen by almost 20 percent since 1990, to 110 million visits in 2002. As many as 95% of all ER visits are treated and discharged, with no hospital inpatient admission. In the case of Medicaid, 90% of all ER visits result in discharge from the ER. Yet only 20% of ER visits are for emergent conditions, and at least 1/3 of all visits are for non-urgent health problems.

MDwise has implemented initiatives to divert members from utilizing the emergency room inappropriately and promoting a medical home. Studies have shown that having a regular source of health care – often referred to as a 'medical home' or a 'health care home' – reduces ER use significantly, not only for healthy patients but also for those who are sicker and have greater health care needs.¹

While some members do require care in an emergency room or urgent care setting, it is more costly and does not effectively manage the member's care. MDwise seeks to reduce the inappropriate over-utilization of emergency room visits for primary care purposes by outreach and education of members. Educating members about the importance of primary care and facilitating future utilization through the medical home is more cost effective and promotes improvement in health outcomes.

With appropriate tools, managed care nurses can identify members utilizing the emergency room for non-emergent purposes and initiate interventions to educate the members and redirect them to the medical home for primary care, episodic treatment, and chronic disease management.

Identifying Members

The State of Indiana prohibits requiring prior authorization of an emergency room visit, thus MDwise had to identify an alternative source to determine those members seeking emergency room services.

Indiana Health Information Exchange partners with the Regenstrief Institute to leverage its cutting-edge internationally recognized technology infrastructure, providing solutions that address short and long term healthcare issues.

MDwise has collaborated with the Indiana Health Information Exchange (IHIE) since 2009 to receive immediate notification

when our Hoosier Healthwise, Healthy Indiana Plan, and Indiana Care Select members present to a participating IHIE emergency room. Some of the state of Indiana's busiest emergency departments participate in IHIE.

IHIE provides immediate emergency room notifications to MDwise 24 hours per day, 7 days per week, 365 days per year. The immediate notification of a member's emergency room visit, which includes the date, time, chief complaint and the identity of the hospital, allows MDwise to act swiftly to outreach to members and divert them from the emergency room for future care.

Evaluation and Implementation of Interventions

Upon receipt of the emergency room visit notification from IHIE, eligibility is confirmed and the member specific data is provided to the MDwise Medical Management Registered Nurse Department. The MDwise Medical Management Registered Nurse reviews the notification including the chief complaint. The review also includes of the member's emergency room claims history along with review of the member's medical, behavioral health, and pharmacy data. This comprehensive clinical review by the nurse is critical to determining the most appropriate intervention applicable to the member and his/her health care needs. The nurse's clinical review may result in one or more interventions including referral to the Interac-



tive Voice Recognition (IVR) education call or referral to a Health Advocate (LSW) or nurse Care Manager.

Collaborating with IHIE provides MDwise Medical Management with a unique and more immediate method to identify member emergency room visits instead of relying on emergency room claims, which may not be received for several weeks. This timely notification allows MDwise to implement appropriate interventions to members that support the use of the medical home and ensures access to necessary preventive care services.

Care Management Referrals

The managed care nurses referred 6% of IHIE ER identified members to care management during the first quarter 2014 while 16% of IHIE ER identified members were referred to care management during the second quarter 2014. The referral by the managed care nurse to care management facilitated a care management assessment, education of the member concerning appropriate use of the emergency room, development of a care plan, and communication with the member's providers concerning the member's care plan goals.

2014 IHIE Care Management Referrals

Quarter	Number of Referrals
First Quarter	475
Second Quarter	1,078

Interactive Voice Recognition (IVR) Calls

While reviewing the IHIE emergency room notifications, the managed care nurse evaluates the member's emergency room history, authorization history, and pharmacy claims to identify those members who do not need care management but need education regarding when to seek emergency room services. For example, a member who seeks an emergency room visit for a sore throat and no other chronic health conditions would be indicative of a member who could benefit from education on when to use the emergency room. These members are referred to the Interactive Voice Recognition (IVR) call intervention.

MDwise partners with a vendor for their Interactive Voice Recognition technology. A script was developed by MDwise to educate members on the availability and importance of calling their

primary medical physician. The script also serves as a reminder to members about the availability of our nurse triage line. The professionally recorded script is available in both English and Spanish.

Members evaluated by the managed care nurse from the IHIE notifications who are deemed as not needing care management but need education are provided to the IVR vendor. This results in an IVR call to the member's primary telephone number with the pre-recorded script educating the member on appropriate use of the emergency room and reminding the member of the availability of his/her primary physician. At any time during the pre-recorded IVR call, the member may opt out to speak with a MDwise Customer Service Representative. Emergency room utilization data for members completing the IVR is tracked before and after the call to identify changes in member behaviors.

For the initial year of this intervention (2010 calls), MDwise found that member emergency room visits following the automated call were 8.2% points lower for the successful call group versus the control group. There was also a corresponding increase (10.2% points in the number of provider office visits following the call intervention. Both differences were significant with $p < .0026$.

The most recent data indicates a large difference on pre- and post-emergency room visits following the call. The chart at the bottom of the page details the data from those time periods.

Summary

This unique process of receiving immediate emergency room notifications at the managed care level provides MDwise managed care nurses with the ability to quickly implement interventions to address unnecessary emergency room utilization and direct members to more appropriate health care resources including the primary physician, care management, and the nurse triage line.

As evidenced by the data provided above, the interactive voice recognition (IVR) initiative makes an overall difference in the utilization of emergency room services for contacted members and the return on investment is such that MDwise continues to utilize this intervention to educate members on when to utilize the emergency room and redirect to the medical home.

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Time Period Measured	MDwise	Members Contacted/ Called	Pre Call ED Visits	Post Call ED Visits	Average ED Visits Pre	Average ED Visits Post	Percent Difference
7/1/12 – 12/31/12	Successful Contacts	583	2875	1264	4.93	2.16	-56.03
	Control Group	1665	9505	4773	5.71	2.87	-49.78
1/1/13 – 6/30/13	Successful Contacts	582	2889	1270	4.96	2.18	-56.04
	Control Group	1542	8799	4437	5.70	2.87	-49.57

Telehealth: An Integral Component of Future Healthcare Delivery

Pat Stricker, RN, MEd

Summary

The healthcare system will be experiencing a dramatic increase in the number of patients due to the Patient Protection and Affordable Care Act, the unprecedented number of “baby boomers” entering the Medicare system, and longer life spans. In addition, the current physician shortage will get worse, due to the number of “baby boomer” physicians who will be retiring. How are we going to manage the increased number of patients who need to be cared for with the dwindling number of physicians? How can we ensure that patients get the right care, in the right setting, at the right time? Many are looking to technology, and more specifically telehealth, to help manage these challenges.

Key Point

- Telehealth can be used to provide services to millions of new patients with fewer physicians.
- Technological advancements have allowed telehealth to increase dramatically over the past few years and this capability will only continue to grow.

The United States (U.S.) is currently facing a shortage of physicians. This shortage is made worse by the fact that a third of today’s practicing physicians are expected to retire within the next 10 years. The American Association of Medical Colleges predicts that by 2020 there will be a shortage of 90,000 physicians, including 45,000 primary care physicians.¹

In addition to the physician shortage, the number of patients will dramatically increase due to the Patient Protection and Affordable Care Act, the influx of “baby boomers” reaching the age of 65, and longer life spans. By 2030 one in every five Americans will be 65 or older, and by 2050 the number of older adults will be twice that of 2010. The cost of providing healthcare to older adults is three to five times higher, due to two-thirds of them having multiple chronic conditions. This means that by 2030 healthcare costs will account for about 66 percent of the U.S. healthcare budget.²

Currently in the U.S., the average number of primary care physicians (PCPs) per 100,000 population is 90. However, this number varies significantly depending on the size and population of the state, and whether the area is metropolitan or urban. For example, there are 132 PCPs per 100,000 in Massachusetts compared to only 63 per 100,000 in Mississippi. The 10 lowest physician ratios are found in southern states or large, remote western states (Mississippi, Idaho, Arkansas, Wyoming, Utah, Nevada, Oklahoma, Alabama, Texas, and Georgia).¹ Only about 10 percent of U.S. physicians practice in rural areas, yet almost a quarter of the country’s population live in these areas.³

In order to handle the increased number of patients who will need care, as well as the dwindling number of physicians, the healthcare system will be looking to technological innovations to meet these challenges. An excellent Personal Health Management report⁴ describes the importance of health information technology tools in managing patient populations and explains that telehealth is an essential component for managing large populations.

Telehealth is the use of electronic information and telecommunications technologies to support and promote long-distance health care, patient and professional health-related education, public health, and health administration. It is often used interchangeably with telemedicine and telemonitoring, but it is generally thought of as a broader category that includes the other disciplines.⁵ Telemedicine is more care specific, providing two-way voice and visual communication using satellite, computer, or smartphones for patient counseling, video consultations, remote medical evaluations and diagnoses, and the digital transmission of medical imaging.⁶ Telemonitoring relates to the use of audio, video, and other electronic technologies to monitor the health status of a patient. These programs provide alerts about real-time emergencies, track lifestyle changes over time, and help manage risks associated with chronically ill or elderly patients living independently.

Telehealth has the unique ability to increase service to millions of patients by providing care to more patients with fewer healthcare providers, especially for patients in remote areas (more than 30 minutes from a provider), and those who are chronically ill or need monitoring because they are at-risk living independently. Telehealth programs provide: (1) improved access to care for more patients; (2) cost efficiencies by reducing travel time and sharing professional healthcare team members; (3) reduced overall costs by decreasing ED visits, hospital admissions, and hospital lengths of stay; (4) improved quality of care; and (5) increased patient satisfaction and engagement resulting in patient self-management.

Most people think of telehealth as being a new innovation, since the beginning of the internet. However, the first transmission of clinical data was attributed to Dr. Willem Einthoven, the inventor of the EKG, when he used telephone lines to submit data in 1906. The first instance of modern telehealth was in 1955 when a clinic in Nebraska established a closed circuit TV link with a hospital in another city.⁷

Telehealth has grown slowly over the past 60 years, because of issues related to infrastructure and high equipment costs. Those problems have been resolved and telehealth is now being adopted at an amazing rate due to the following:⁸

- Technology, equipment, and infrastructure are much more available and affordable: Devices are smaller and more user-friendly. For example, stethoscopes and otoscopes are now available with integrated video technology and can be loaded onto a smartphone for use in home monitoring. Cloud technology allows for more capabilities and better usage of network and system resources.
- Licensing and regulation issues for physicians are being addressed: The Federation of State Medical Boards is studying the feasibility of an interstate compact for physician licensing that would allow mutual recognition of professional licensing for interstate telehealth, instead of requiring physicians to be licensed in all states where their patients reside.⁹
- Reimbursement issues are being resolved: About 40 states now allow reimbursements for telemedicine visits, and about 20 states require private payers to pay for telemedicine. The Centers for Medicare and Medicaid Services (CMS) announced on October 31, 2014 that reimbursement for non-face-to-face care coordination services would begin after January 1, 2015 for beneficiaries that have two or more chronic conditions.¹⁰

The Global Telemedicine Market Outlook to 2018 report¹¹ predicts that worldwide telehealth will be a \$22 billion market by 2018, up from \$14.2 billion in 2012, an increase of 56 percent. Another study, the “World Market for Telehealth - 2014 Edition”,¹² predicts that telehealth devices and services will be worth \$4.5 billion by 2018, up from \$440.6 million in 2013. It also predicts the number of worldwide patients using telehealth will increase from 350,000 in 2013 to 7.3 million in 2018. The U.S. market is predicted to increase to 3.2 million patients from 250,000 in 2013.

Telehealth is expanding dramatically and becoming a dynamic area of healthcare. It has the ability to provide healthcare to millions of rural patients who would not have access without it. Remote monitoring and video teleconference visits reduce or eliminate travel time for patients and the healthcare team, thereby allowing more chronically ill patients to be cared for, and increasing the overall quality of care and patient satisfaction. Telehealth has also demonstrated reductions in ED visits, hospital admissions, and hospital lengths of stay.

The American Telemedicine Association states that over 2,000 evaluative studies have been published on the cost effectiveness, quality of care, and patient satisfaction of telehealth.¹³ Initial concerns that patients would not embrace telehealth have not been validated. Surveys show consistently high satisfaction rates, with patients citing the ability to see a specialist, the feeling of personalized care, and the ability to communicate with the provider in a very personal and intimate manner. A Veterans Affairs (VA) telehealth program¹⁴ designed to keep chronically ill patients in their home instead of assisted living facilities, provided care to 144,520 enrolled patients in 2013, many living in rural Virginia with limited access to care. 41,430 patients received care management services and in-home and mobile technologies. The program demonstrated a 35 percent reduction in hospital admissions, a 59 percent decrease in bed days, satisfaction rates of 84 percent, with annual saving per patient of \$1,999.

According to the American Hospital Association, 42 percent of U.S. acute care hospitals have telehealth capabilities.⁸ Cameras, computers, and robots are being used to provide physician consultations and real-time monitoring of patients. A rural hospital e-ICU program that included remote monitoring for patients at

risk of sepsis and blood clots demonstrated a 20 percent reduction in mortality rates, an 82 percent reduction in ventilator-acquired pneumonia, nearly 50 percent reduction in deaths from sepsis, and savings of \$25 million annually from reduced ICU lengths of stay.¹⁵ Large employers are also embracing telehealth. In 2014, about 28 percent offered telehealth services to fill gaps in primary care for minor conditions.¹⁶ The majority of these programs were home monitoring devices for diabetes, CHF, and prevention programs.

The following articles provide additional trends, innovative programs and devices, and in-depth statistics related to the growing telehealth industry.

- 115 Mind Blowing mHealth and Telehealth Statistics and Trends¹⁷
- 10 Cool, Amazing Gadgets and Trends to Help Your Practice¹⁸
- 15 Game-Changing Wireless Devices to Improve Patient Care¹⁹

There is no doubt that telehealth is becoming an integral part of healthcare delivery and is central to improving clinical and financial outcomes. It is positioned to be a game-changer by removing distance as a barrier, and allowing healthcare professionals to manage a large influx of patients with dwindling numbers of physicians. Technological innovations have certainly changed healthcare practices today compared to 25 years ago, and the changes in the next 25 years will be even more dramatic. One thing is for sure, telehealth is here to stay!

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