

JOURNAL of MANAGED CARE NURSING

“Illuminating the Path for Managed Care Nurses”



JMCN

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Moving Care Management Ahead: The Impact of the Patient Protection and Affordable Care Act on Care Managers

Save the Date: August 27, 2014 for a Complimentary CEU Webinar on the ACA

As care managers, how many of you have taken the time to understand the new Patient Protection and Affordable Care Act and how this law and all its changes will affect you and the way you practice care management? AAMCN wants to help you understand the law and effects more thoroughly.

The Patient Protection and Affordable Care Act (PPACA) was signed into Law in 2010. This law was created to insure that all Americans have affordable access to quality health care. The Congressional Budget Office (CBO) has determined that the cost to manage PPACA will be self-sustaining and will provide coverage to more than 94% of Americans.

This new law contains nine essential components of reform that care managers should be intimately aware of:

1. Access to quality, affordable health care for all Americans
2. Expanding the role of public programs
3. Improving the quality and efficiency of health care
4. Escalating prevention of chronic disease and improving public health
5. Increasing the health care workforce
6. Transparency and program integrity
7. Improving access to innovative medical therapies
8. Community living assistance services and supports
9. Revenue provisions

The introduction of mandatory insurance market reform has been designed to eliminate discriminatory coverage practices such as pre-existing condition exclusions. As care managers, we have had to manage this issue daily. This is one of the largest wins for our patients and their families. The new laws require that all Americans be covered regardless of any pre-existing illness; no one can be turned down.

Under this law, every American is required to apply and obtain health care coverage or pay a penalty. This can be troublesome to those that do not want to obtain coverage but pay out of pocket or use charity care. However with this mandatory requirement, the government will supply tax credits and subsidies for individuals and families to ensure that coverage is affordable for everyone.

There are a few other requirements to the new health care law that will also impact care management practice and responsibilities:

- Elimination of lifetime and unreasonable annual limits on benefits
- Prohibit cancelling of health insurance policies
- Provide assistance for those who are uninsured because of a pre-existing condition
- Require coverage of preventive services and immunizations
- Extend dependant coverage up to age 26
- Develop uniform coverage documents so consumers can make apples-to-apples comparisons when shopping for health insurance
- Cap insurance company non-medical, administrative expenditures
- Ensure consumers have access to an effective appeals process and provide consumer a place to turn for assistance navigating the ap-

peals process and accessing their coverage

- Create a temporary re-insurance program to support coverage for early retirees
- Establish an internet portal to assist Americans in identifying coverage options
- Facilitate administrative simplification to lower health system costs

Beginning in 2014, more significant insurance reforms will begin to take place. Knowing what they are and how they will affect your care management practice is vital to meeting all of your patients needs. These new rules will no longer allow insurers to deny coverage or set rates based on health status, medical condition, claims experience, genetic information, evidence of domestic violence, or other health-related factors. Premiums will vary only by family structure, geography, actuarial value, tobacco use, participation in a health promotion program, and age.

Plan structures will include Platinum, Gold, Silver and Bronze type plans; each will vary in deductible, out of pocket expense and overall cost of plan per month. The Federal government and/or each state will be required to initiate a Health Care Exchange/Marketplace web site where Americans can go to obtain information, cost, coverage levels and what providers will be in the networks. Having insight and expert knowledge of these plans, coverage, deductibles, as well as tax credits qualifications will again be vital to assisting your patients and their families through the changes.

Having knowledge of the details of the law and how and when it is implemented will shape your future in care management. As patients and their families struggle to understand the new law and assure access to the right doctors and facilities, will Care Managers struggle to find their place within the new health care structure?

By reading this article, you have begun the journey of learning more about PPACA but this is just a fraction of what it is all about and how it will affect healthcare, our patients and our profession. Care Management is a vital part of how our healthcare system works but if we do not keep up with the new laws and changes to the health care market we can and will take a back seat while other health care professionals push ahead. Already nurse practitioners (NP) and physician assistants (PA) are stepping up and taking a lead role in the new system. Roles will be expanded or eliminated depending upon willingness to meet the challenges ahead. We must stay on top of the health care market, be able to step outside our current job responsibilities and forge a new path as health care changes.

AAMCN is offering a comprehensive program to assist in your understanding of the constant changes. In addition to this article, we are planning two webinars that will provide you with education on the Affordable Care Act. Keep an eye on your email for the save the dates and webinar invitations! All of us look forward to your participation and input. If there is a specific question you want addressed, email Lauren Skrobacz at lskrobacz@aamcn.org.

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possibility,

mobility,

sustainability,

ability.



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The New Oncology Care Management Model

Sheryl A. Riley, RN, OCN, CMCN

Summary

For the first time in many years we can say that we have seen a true increase in cancer survivors for most types of cancer. This incredible success is fraught with many new challenges for oncology care managers. Assisting our patients in making the transition from cancer patient to cancer survivor is critical. This article is the first step in understanding how we will need to improve our clinical, communication and advocacy skills to meet the needs of the changing landscape in oncology care management.

Key Point

- The key to successful transition from cancer patient to cancer survivor is ongoing education and prevention for cancer patients, which lies in the care managers hands

WE ALL HAVE A VARIETY OF REASONS FOR ENTERING the nursing profession. My wish to not only be a nurse but to specialize in oncology developed from a desire to be challenged by new situations each day. Oncology care management is on the cutting edge of new treatments, improved testing and screening as well as continual advancements in research. When I was still new to the profession there was a conversation I overheard that particularly solidified this drive to be an oncology nurse. Two seasoned nurses were discussing that as “an oncology nurse you have the ability to manage any patient but other nurse specialties can really only manage within their own specialty”. Subsequently, more than 25 years over my tenure as a nurse I have had the opportunity to interview, hire and manage hundreds of nurses. During this process I have been instrumental in encouraging nurses to move toward oncology care management for which I am proud and honored.

I am newly energized about the field of oncology care management, for the first time in many years we can say that we have seen a true increase in cancer survivors for most types of cancer. Even 5 to 10 years ago we could not be so bold to make that type of statement. At that time our focus was on treatment options, side effect management and transitioning to hospice care. Currently, there are 14 million cancer survivors and growing every year. We have begun to treat certain cancers as a chronic illness. This extraordinary feat does not come without strings. This incredible success is fraught with many new challenges for oncology care managers. Some of these challenges are:

- Lasting side effect from cancer treatments
 - o Chemo brain (concentration, memory, focus, order)
 - Can last 6 months to years after chemotherapy, this is a constant reminder when you are trying to put cancer behind you
 - o Body images changes (surgical and treatment related)
 - Patient will deal with physical and physiological changes that can have lasting effect. As survivors return to life and work they will be faced with new challenges that will be a constant reminder of their cancer
 - o Changes in lung capacity (SOB, unable to do task previously done)
 - Patient might have changes in lung capacity either through surgical and or medication related treatments. This can change a patient’s life dramatically especially as survivors try to return to a normal life without cancer, this will be a constant reminder. This could possibly change the work they do, they may need to find a new job, overwhelming challenges for the survivors
 - o Changes in elimination (kidney, bladder and bowel; appliance)
 - Patient might have surgical treatments that have left them with an external appliance. This can and will change how the patient interacts with family and friends. There are many physiological changes dealing with this change after the cancer is gone. It remains a reminder of cancer as well as the feeling of being different since the cancer.

o Changes in circulation (heart, vascular), Changes to lymphatic system (edema, lack of circulation), Changes in nervous system (neuropathies)

- Chemotherapy and radiation therapy can have a devastating and lasting effect on the heart and circulatory system. Leaving patients with decreased cardiac function, decreased or poor peripheral circulation and overall fatigue. This process could render the patient disabled and make them feel “worthless”; we need to address these concerns and take proactive steps to minimize this process.

o Depression and anxiety

- This is an underserved area of cancer management and is not always obvious to everyone. It is vital to identify and treat.

- Disability (Am I disabled? Is it permanent or just temporary?)
- Return to work (When can I go back? Will I need to change the way I do my job? Will my boss and co-workers understand? Should I tell them? Who should I tell? What if I cannot do my job anymore?)
- Change in job (How can I find a job if I have cancer, Do I tell them? If they know they may not give me the job. If I do get a new job, how can I keep up with regular scheduled appointments, screening and lab work?)
- Return to life post cancer treatment (transitioning back to life post cancer with family and friends, being able to hug and kiss children and grandchildren, transitioning from oncologist to PCP while still following up with oncologist
- Medications and side effects
- Exercise and nutritional health
- Transition back to PCP from Oncologist - Letting go but staying in-touch

Assisting our patients in making the transition from cancer patient to cancer survivor is critical, however to do this we must also change the way we think and apply our care management tools and expertise. There will be a small percentage of patients that will gladly walk away from cancer and will attempt to forget the whole ordeal and move on with their lives. This is good and bad. We must help them understand that emotionally putting cancer behind them is a good thing yet there is maintenance involved in keeping them from regressing back to cancer patient from cancer survivor. The importance of keeping post treatment, scheduled follow up appointments, blood work and screening as well as being aware of signs and symptoms of recurrence are essential parts of survivorship. As nurses, far too many of us have heard sad stories of patients, a family member or friends who did not stick with their follow up schedule past 5 to 10+ years only to have a recurrence or metastases that go undetected until it is too late.

Another costly example is in breast cancer, hormonal therapy

medicines can lower the risk of breast cancer recurrence. Still, many women, in fact 33%, stopped taking their hormonal therapy medicine before completing the full 5 years of treatment; studies show they stopped on average after 3.5 years. Even with strong evidence that it can decrease recurrence of cancer not only in the first 3 to 5 years but over their lifetime. The question still remains why, some women want to move on and think by not taking the medication, somehow that means cancer is over, others are depressed and have side effects while others simply cannot afford the medication. This is a care management teaching moment. We need to proactively educate and advocate for our cancer patient and their families, opening the door for conversation with a healthcare professional at year 2, 3, 4 and beyond. We need to utilize care coaching skills to keep the door open and have the patient and or family feel comfortable calling and asking questions about side effects, cost and recurrence. Ask open ended questions, keep patient and family engaged at each visit or on the phone, send new educational materials quarterly to educate and keep patient focused on the key issues as hand.

This article is the first step in understanding how we will need to hone and improve our clinical, communication and advocacy skills to meet the needs of the changing landscape in oncology care management. The key to successful transition from cancer patient to cancer survivor and ongoing education and prevention for cancer patients lies in our hands. We must continue to strive for better patient and family education, stronger communication and coaching skills and overall improved engagement with patients and their families. We are the front line for our patients; if we are not there to assist them, who will be?

Sheryl A. Riley RN, OCN, CMCN is the Director of Clinical Services at SAI Systems in Shelton, CT.

Acknowledgment

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Technology

- ✓ Data Analysis
- ✓ Patient Identification and Stratification
- ✓ Workflow
- ✓ Quality Matrix
- ✓ Outcome Reporting

Programs

- ✓ Chronic Care
- ✓ Oncology Care
- ✓ Utilization Management
- ✓ Care Coordination
- ✓ Supported Services

Consulting

- ✓ Technology
- ✓ Data Analysis
- ✓ Operations
- ✓ Care Management
- ✓ Outcome Reporting



intriCare Delivery...

Technology

- ✓ Patient Qualification
- ✓ Workflow
- ✓ Documentation of Patient Data, Visits & Care Plans
- ✓ Aggregation of Lab and Medication Data
- ✓ Tracking of Clinical and Financial
- ✓ Outcomes

Clinicians

- ✓ LPNs, RNs & APRNs
- ✓ 24/7 Caregiver Support Program
- ✓ Office Visits With the Patient
- ✓ Hospital at Home
- ✓ Lead Community Meetings

Consulting

- ✓ Operational Know-How
- ✓ Experience in Scaling
- ✓ Clinical and Software Training



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Powered by Technology
Driven by Ideas

Managing ER Utilization: How Behavioral Health Drives Healthcare Costs

Mark Rosenberg, MD, Ph.D.

Summary

Emergency rooms visits are among the most costly method of care and contribute greatly to the rising costs of healthcare. Managing behavioral health patients in the emergency center setting can reduce healthcare costs, reduce emergency wait times, and solve the problem of overcrowding.

Key Points

- Broad Areas for Potential Solutions
- Community-Based Clinics
- Crisis Stabilization Unit
- ER Throughput Process

EMERGENCY ROOM UTILIZATION MANAGEMENT HAS risen to the forefront of healthcare concerns in terms of severity and importance. Emergency rooms visits are among the most costly method of care and contribute greatly to the rising costs of healthcare. Some of the issues contributing to these costs include: long wait times, over-crowded emergency rooms, and the use of the emergency room in lieu of primary care. Long wait times negatively impact patient and employee satisfaction and increase the likelihood of patients leaving without being seen. Overcrowding increases health care costs through longer lengths of stay and increased negligence claims. However, the use of an emergency room visit as a primary care visit alternative is one of the greatest factors driving up the cost of healthcare today.

One of the primary drivers of emergency room costs is treating patients with a behavioral health and physical health comorbidity. Treating behavioral health within the traditional emergency room setting requires more resources, more time, more expertise, longer bed usage, additional processes such as psychiatric evaluation, additional time to reach out to the behavioral health provider and/or family, and, perhaps even more importantly, increased potential for patient safety issues (both to the patient and those in close proximity). All of these issues contribute to the rising costs of healthcare.

Statistics

- The National Association of State Mental Health Program Directors estimated that states have cut \$3.4 billion in mental health funding since FY 2009, while the demand for services has increased during this time period by 56% and the demand for emergency room, state hospital, and emergency psychiatric care has climbed 18%.
- According to a 2010 survey by the Schumacher Group, more than 70% of emergency department administrators said that they have

kept patients waiting in the ER for 24 hours and 10 percent said that they “boarded” some patients for a week or more. Boarding patients – keeping them in the ER after they have been admitted to the hospital because no inpatient beds are available – places a large economic burden on communities. For example, in Texas, the average cost per day of community-based services is \$12 for adults and \$13 for children, as compared to \$401 for a State Hospital bed and \$986 for an emergency room visit.

- According to the NC Hospital Association (NCHA), from 2001 to 2008, visits by mental health and substance abuse patients increased by 38%. That compares with an overall 6 percent increase in ER trips. According to the same study, the average stay for behavioral health patients has increased 65% since 2010, to almost 16 hours per patient per stay.

- In 2007, according to United States Agency for Healthcare Research and Quality (US AHRQ), there were 12 million visits to the emergency department for behavioral health conditions.

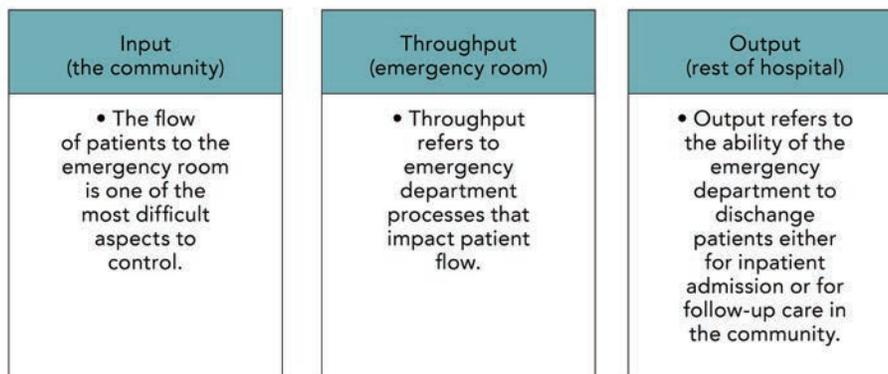
3 Broad Areas for Potential Solution

There are 3 main areas in which solutions may be implemented to reduce costs for behavioral health treatment in the emergency room: Input, Throughput, and Output (Exhibit 1). We will now examine these areas and potential solutions to mitigating the over-utilization of Emergency services.

Potential Solutions

There are many issues surrounding the treatment of mental health patients in an emergency setting and there are just as many, if not more, potential solutions. Following is a list of some of the more prevalent solutions which may assist in overcoming the obstacles and barriers currently in existence.

Exhibit 1: Three Main Areas Where Cost-Reducing Solutions Could Prove Beneficial



Action Plan

Create an action plan between the patient and the behavioral health provider. Emergencies are likely to occur with behavioral health patients. Creating an action plan before the fact may help to reduce emergency room visits. The action plan is a document which provides instructions to the patient in the event his condition escalates. It spells out who to contact, how to contact, and when to contact. It establishes a contact list of family members, friends, behavioral health provider/counselors, local crisis centers, and as a last alternative the emergency department. After an emergency has passed, the action plan is reviewed and tweaked to make the process even smoother next time.

Community Based Clinics

Many community based clinics are specially licensed, certified and staffed for the substance use disorder population. Community organizations are equipped to manage the medical and psychological aspects for this patient base and also have the specific licensure to run programs both as a dedicated outpatient facility, or in a hospital-based facility. Community clinics deliver the medical home equivalent that keeps chronic disease and substance use disorder patients out of the emergency room and into the most appropriate medical service environment – reducing unnecessary hospitalization, adjusting length of stay to appropriate and effective parameters, and improving quality indicators and data outcomes.

Crisis Stabilization Unit

A Crisis Stabilization Unit (CSU) is an emergency mental health resource. It allows patients to receive prompt action, gentle response and effective support in a respectful environment. These facilities are open 24 hours a day, seven days a week and are staffed with a multi-disciplinary team of RNs, LPNs, social workers, psychologists, mental health professionals and a psychiatrist to provide assessment and evaluation to best determine an appropriate level of care for individuals with mental illness, mental retardation, and/or substance abuse issues. Team members evaluate and stabilize the crisis, and make referrals to the most appropriate level of care. Psychiatric consultation and medication are available when necessary.

Education

Education for all involved parties is essential in decreasing unnecessary emergency room utilization and should include efforts on the part

of the payers, providers, patients, and community. From the payer side, there can be specific guidelines as to appropriate and inappropriate use of the emergency room. Appropriate use might be such things as suicide attempt, inability to function because of confusion, new or recent onset of hallucinations, and extreme anxiety. Examples of inappropriate use might include: refill medications, patient doesn't have a place to stay, patient can't sleep, or other non-life-threatening reasons. These stipulations should be spelled out plainly in the insurance information and reviewed with the insured, as well as with any contracted organizations which provide Utilization Management or authorization services so that all parties know what is and is not appropriate in terms of emergency room admissions.

From the patient perspective education should be a joint effort on the part of the primary care provider, behavioral health specialist, and any other health plan or party involved. Patients who may be high risk for emergency room utilization, such as those with a behavioral/physical co-morbidity, or a chronic condition should be specifically focused on for educational initiatives. Care Management, Case Management, and Integrated Care can be extremely helpful as part of this initiative. Education should allow the patient to be appropriately informed of what constitutes a crisis and what does not, where they can receive after hours or emergency assistance outside of the emergency room, and why it benefits them from a care perspective to receive treatment in a more appropriate setting. Those with chronic conditions, or co-morbidities, can also benefit from coordinated care follow ups which can mitigate the occurrence of their condition if it becomes unmanageable, and thereby requiring emergency treatment. These follow-ups can include monitoring of medication adherence, verification of attendance at regularly scheduled appointment (with either a primary care physician, or behavioral health specialist) and assistance with other issues that may be impacting care (such as transportation and housing).

For primary care and behavioral health providers, an effort should be made to route patients to the most appropriate treatment facility and options should be provided to people outside of the emergency room for after-hours care and urgent situations. For the most part, primary care and behavioral health practitioners emphasize the emergency room as a treatment option by relaying messages to patients (online and via phone recording) that tell patients to either call 911 or go directly to the emergency room. Additionally, many primary care physicians sent their patients to the emergency room if they don't have the capacity to treat them

either because of scheduling or availability. Often times this patient could be more effectively treated in another way, such as via an urgent care center or through another primary care provider. Educating primary care as to the many community resources and/or having a live clinical person to speak with could make a difference between routing large numbers of patients to the emergency room, or referring them to a more cost efficient and more treatment appropriate alternative.

Communication

Communication should occur between the hospital and both primary and behavioral care providers as part of overall case management, and as a means of working toward total care integration. Both behavioral health providers and primary care providers should be made aware that their patient has presented to the emergency room and should be notified once treatment has begun, the patient has been admitted, the patient has been discharged, or the patient has been transferred to a more appropriate facility. Hospitals that are starting to institute these processes are experiencing positive results. More widespread adaptation of these communicative measures can continue to decrease unnecessary emergency room utilization.

Relationships should be formed amongst healthcare providers. Referral networks should be established to help reduce the number of behavioral health patients who are treated in the emergency room, and education should be emphasized. Many patients would receive better care through mobile crisis units, psychiatric emergency facilities, and behavioral health clinics. These patients require a different skill set than most emergency rooms are able to offer, but there is currently a gap in referrals. This trend is changing but the change is slow and there are great strides to be made in this area which can be accomplished by education and communication.

ER Throughput Process

The throughput process is the efficiency by which a patient flows through the emergency department. A thorough review should be conducted including triage, appropriate staffing levels, and availability of community and hospital based behavioral health resources. Having psychiatric staff in the emergency department who are licensed to perform consults will greatly assist in the patient flow. Many times the mental health patients are kept in the emergency room for extended periods of time which slows the process down considerably and occupies valuable bed space. Other processes should be reviewed for efficiency such as when a patient is escorted to the emergency room by a police – either with or without a mental health warrant. The flow of these patients tends to be particularly slow and cause bottlenecks to occur. The sooner a consult can be completed, the sooner the patient can be moved to an inpatient or psych unit as appropriate. Additionally, the emergency room can use mobile crisis units to assess and begin treatment in an expedient fashion. Emergency departments should thoroughly analyze this process from beginning to end to discover inefficiencies in care, and establish process efficiencies. Benchmarks for treatment times should be established, and protocols should be put in place to route or re-route patients to avoid costly delays.

Fast Track Triage

Hospitals such as Spartanburg Regional Medical Center have in-

stituted fast track triage to specialty areas beyond the traditional trauma center. Some of these specialty areas include: major care, chest pain, women's, pediatric, urgent care, disaster preparedness, and behavioral health. These fast track mechanisms allow for quick triage and the appropriate care to begin in an expedient manner, based upon level of acuity and whether the patient is behavioral and/or medical. For example, placing behavioral health patients in a designated area is vital to patient, staff, and other visitor safety. The behavioral area provides almost a safe haven. Access to behavioral health professionals, an appropriate level of compassion, and a heavily monitored area some of the advantages to behavioral health fast tracking. Triage which emphasizes appropriate patient flow allows staff to be trained effectively to deal with specialty cases, and those patients or services which are prone to over utilization can be dealt with more effectively and in a more cost efficient manner.

Conclusion

The cost of healthcare is rising astronomically. There are many measures which have been put in place to help reduce these costs such as Healthcare Reform. A high portion of the costs are attributed either directly or indirectly to the utilization management of the emergency room and specifically the treatment of behavioral health patients. Many emergency rooms are either not staffed with mental health professionals or the processes which are in place are targeted to treating medical conditions primarily. This causes overcrowding, long wait times, and more importantly, the inability to properly diagnose and treat mental health patients in particular. Currently the emergency rooms are doing a disservice to this population. Many hospitals are beginning to look at their processes and patient flow to find better, more economical ways to treat patients. This epidemic requires additional communication and education to all who are or could be involved in the patient's care. Some of the players include: the patient and the patient's support system, the hospitals, the emergency room, primary care, behavioral health providers, and community resources, just to name a few. Healthcare costs are the responsibility of everyone not just the emergency room but by effectively examining the issue as a whole change can be made.

Mark Rosenberg, MD, PhD is the President of BHM Healthcare Solutions.

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An Integrative Review of Interprofessional Collaboration

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Summary

Healthcare reform legislation specifies team-based clinical practice sites of health homes and nurse-managed clinics where nurses can fill key intercollaborative roles. Interprofessional collaboration relates to nursing as it supports working to maximum professional education and experience, focusing on the benefits of interdependence. This article is an iterative approach to this integrative review which includes evaluation of quantitative and qualitative empirical studies in an effort to provide a comprehensive understanding of the phenomenon of interprofessional collaboration in the clinical setting.

Key Point

- Interprofessional collaboration has an opportunity to transform healthcare practice and health outcomes

THE STATUS OF THE UNITED STATE HEALTHCARE SYSTEM is not acceptable to most Americans. Issues of cost, safety, and access present barriers to optimal health outcomes. The need to strengthen programs and services was made obvious in the Institute of Medicine Report, *To Err is Human*¹. This startling report had a prominent recommendation to focus on collaboration. A slow but steady movement toward interdisciplinary teamwork and communication has occurred since that time supported by professional, regulatory and accrediting entities. The National Quality Forum's Nursing-Sensitive Care Performance Measures from The Joint Commission specifically address collaborative environments. In their report *Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care: A Roadmap for Hospitals*, the Joint Commission speaks to the need for clear communication across the workplace to support patient and professional satisfaction.²

Similarly, the National Committee on Quality Assurance, which accredits Patient-Centered Medical Homes, measures interprofessional collaboration as a requirement including elements of communication, role definition and shared care planning across team members.³ On a more comprehensive basis, goal five of the Affordable Care Act aims at strengthening human service infrastructure specifically calling out innovative collaborative initiatives. Healthcare reform legislation specifies team-based clinical practice sites of health homes and nurse-managed clinics where nurses can fill key intercollaborative roles.⁴ The overall trend is an effort to change the culture of care delivery by incorporating collaborative requirements with economic bearing on healthcare organizations.⁵ Interprofessional collaboration is not only an orga-

nizational or economic issue, but also has a professional impact.

The Institute of Medicine Report, *The Future of Nursing*, promotes interprofessional collaboration giving nursing a call to action to "expand opportunities for nurses to lead and diffuse collaborative improvement efforts."⁶ The Affordable Care Act requires a decrease in cost while balancing an increase to access when specifically for primary care, a deficit in professionals delivering preventive services already exists.⁷ Nurses can be a solution to that deficit. A foundational element to that change is interprofessional collaboration due to its ability to impact quality and financial outcomes.⁸ Leaders across the United States are seeking solutions for care models and educational approaches to arm professionals with the skills to perform with upmost quality and efficiency. The Interprofessional Education Collaborative Expert Panel as documented in the Core Competencies for Interprofessional Collaborative Practice has addressed the need for professionals to develop opportunities for deliberate collaborative practice working toward a common goal of patient-centered care within delivery models such as medical homes.⁹ To implement transformational operational changes, culture must also change.

Healthcare reform and professionalism has fueled the need for interprofessional collaboration (IPC), but so has the drive for individual role satisfaction. IPC relates to nursing as it supports working to maximum professional education and experience, focusing on the benefits of interdependence.¹⁰ Orchard discusses the bearing of transparency in care team role and scope to bring satisfaction and professionalism to practice.¹¹ There is a need for satisfaction among nursing professionals to maintain and attract individuals in the workforce as well as a need to build on the significance of

Exhibit 1: Literature Search Process

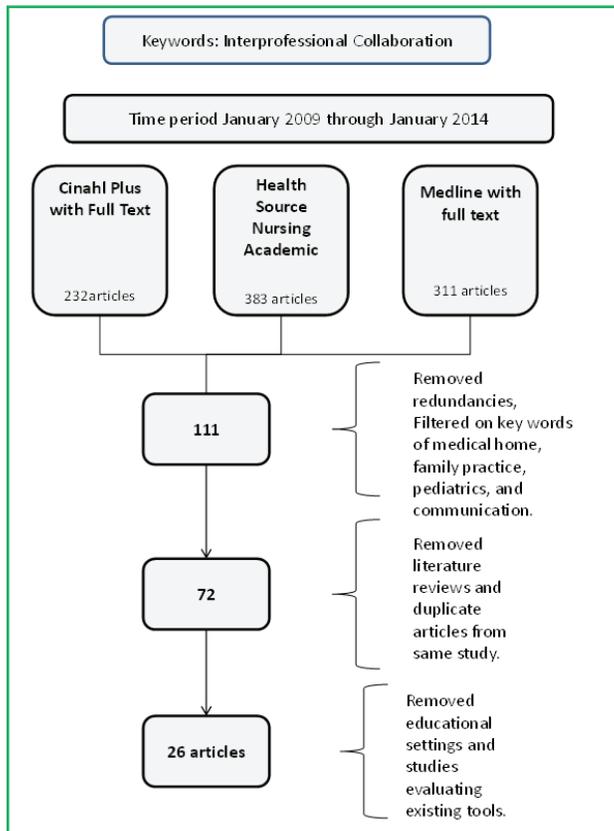
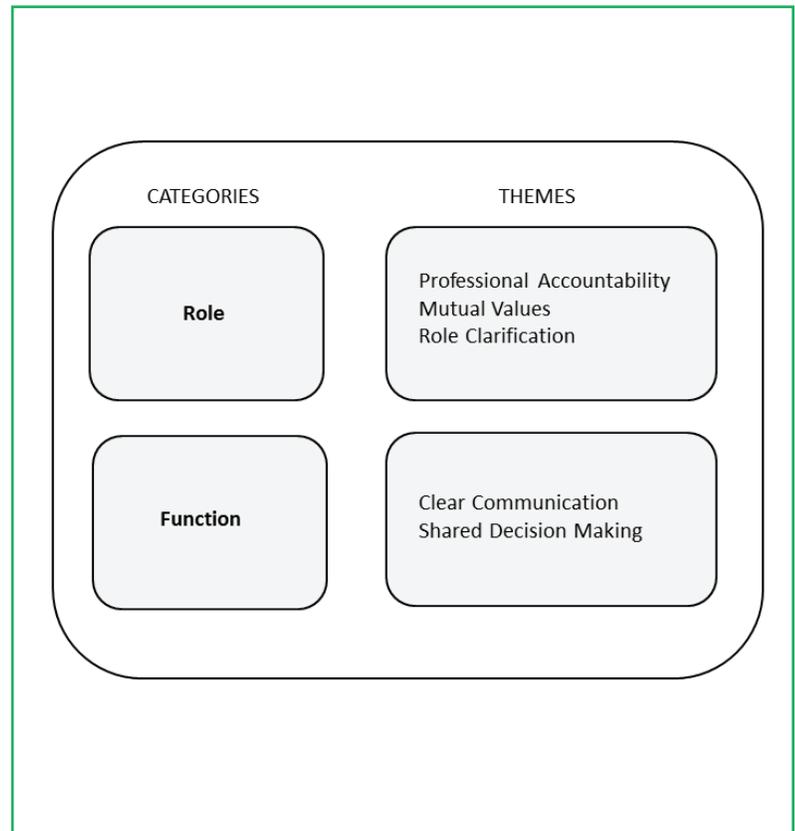


Exhibit 2: Correlation of Themes to Categories in Watson’s Theory



the role of nursing in leadership of innovative models of care supported by nursing science.⁶

Dr. Jean Watson has put forth a theory of Caring Science inclusive of professional relationship-centered care. In her theory, Dr. Watson posits how the actions of the team impact healing of patients and therefore the need for disparate professions to honor what each profession brings to the collective process of health care delivery.¹² The Caring Science approach includes team affirmation of shared values, a respect for others’ talents, open communication, and congruence in action.¹³ Dr. Watson collaborated on the build of a matrix of the categories of role and function to illustrate practitioner-practitioner relationships in the areas of knowledge, skills, and values. This practitioner framework includes awareness of self in relation to others, knowledge and diversity from others’ work, building a caring team, communicating teams and supporting work dynamics of shared responsibility.¹³

The aim of this integrative literature review is to present the state of the science and synthesize existing research focusing on the role and function of interprofessional collaboration within a clinical setting and the bearing of those factors on professional satisfaction.

Questions guiding the review process were:

- 1) What are conditional factors for IPC in clinical settings?
- 2) Is there a difference in role satisfaction of nurses where the environment is engaged in IPC as compared to environments not using IPC components in practice?

Literature Search Strategies

An iterative approach to this integrative review included evaluation of quantitative and qualitative empirical studies in an effort

to provide a comprehensive understanding of the phenomenon of interprofessional collaboration in the clinical setting. Search was made of the databases of Medline, Health Source Nursing Academic, and the Cumulative Index of Nursing and Allied Health Literature (CINAHL) using keywords “interprofessional collaboration” with parameter years of 2009-2012. Keyword combinations adding the term “clinic,” “communication,” “medical home,” “pediatric,” “family practice,” narrowed the article volume to support the aim of this review. Filtering articles to address clinical and operational relevance to the aim, an integrative review method of data reduction was applied. Hand searching of select journals and the use of an ancestry approach from reference lists of selected articles identified two studies included in the review. An initial review of abstracts from the searches revealed country of origin and study setting. Articles relative to the aim focusing on aspects of role and function were included if conducted in a clinical setting. All selected articles appeared in peer-reviewed journals. Exclusion criteria included studies not published in English, studies outside the designated time period, theoretical studies, dissertations, studies conducted using students, and literature reviews (Exhibit 1). Resulting articles from the focused elimination resulted in twenty-six relevant studies.

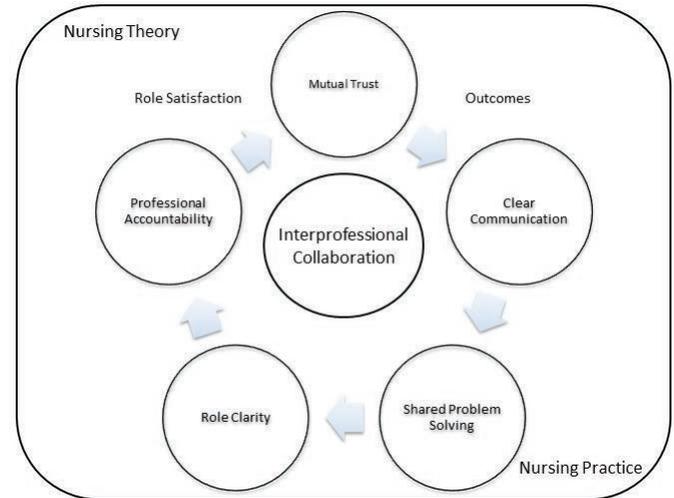
Data Synthesis

The product of the reduction phase contained primary source studies utilizing a variety of research methods including: case study, experimental, phenomenology, grounded theory, ethnography, instrument-development, and mixed-model design. Studies were reviewed for weakness as well as contribution although no study was excluded due to reason of poor study design. Descrip-

Figure 3: Study Settings Selected for Integrative Review

Table 1 Study Settings Across Studies Selected for Integrative Review			
Hospitals	Primary Care	Outpatient	Behavioral Health
Burzotta & Noble, 2011	Curran et al., 2007	Clancy et al., 2013	Chong et al., 2013
Carney et al., 2010	Goldman et al. 2010	McDonald et al., 2010	Fothergill et al., 2011
Johnson & Kring, 2012	Mills et al., 2010	Murray-Davis et al., 2013	Mellin et al., 2018
Kenaszchuket et al., 2010	Russell et al., 2009	Richer et al., 2009	
Laird et al., 2009		Rubio-Valero et al., 2012	
Piquette et al., 2009		Wright et al., 2007	
Reiger & Lane, 2009			
Rice et al., 2010			
Robinson et al., 2010			
Sinclair et al., 2009			
Stein & Liaschenko, 2007			
Upenieks et al., 2010			
Weller et al., 2011			

Exhibit 4: Nursing Theory



tive qualitative designs were the predominant research method seen. Four of the twenty-six selected articles used a combined qualitative and quantitative design.^{14, 15, 16, 17} Quantitative designs were selected for use in five included studies due to relevance to the review aim of identifying conditional factors for IPC in a clinical setting.^{17, 18, 19, 20, 26} Case studies fitting the review criteria included Burzotta and Noble’s singular case analysis and Richer, Richie and Marchionno’s multi-case approach.^{21, 22} Four studies using ethnographic methodology met the inclusion requirements.^{23, 24, 25, 15}

Twelve articles utilized the predominant approach of thematic analysis. Studies meeting the inclusion criteria using the design of phenomenology included articles by Burzotta and Noble as well as Upenieks, et al.^{21, 16} Quantitative approaches evidenced in the studies included a pretest posttest design used by Curran et al. and Laird et al. and cross-sectional factor validation for instrumentation development used by Upenieks et al.^{14, 17, 16} Experimental correlational design was the chosen methodology for Kenaszchuk et al. while a quasi-experimental design was used in the selected study by Johnson and Kring with a non-experimental correlational design chosen by Carney et al.^{20, 26, 18} Descriptive designs were used by Rubio et al. and Chong, Aslani.^{27, 28} Grounded theory was used in research studies conducted by Russell, et al., Murray-Davis, Marchall, Wright et al., and Gordon, and Weller, Barrow, and Gasquoine.^{15, 29, 30, 31}

Categories extracted included, year of study, place of study, aim, methodology, setting, sample size, findings and limitations. The geographic location of research was included due to relevance on healthcare system structure and cultural influences on healthcare models and use. As the iterative review of study abstraction proceeded, creation of a data display matrix provided visual correlations. Sample size for the qualitative studies ranged between 1 and 436 participants.^{20, 29} Fourteen of the fifteen qualitative studies had less than 103 participants. Quantitative studies reported samples sizes ranging from 28 to 3,725 participants.^{19, 14} Five of the six studies had greater than 362 participants. Included empirical studies had convenience samples used.

Reported findings were predominately completed in Canada^{14, 34, 33, 23, 22, 15, 35, 30} The United States was the site of six studies including those authored by Carney et al.; Laird et al.; Mellin et

al.; Robinson, Gorman, Slimmer, and Yudkowsky; Johnson and Kring; and Upenieks, et al.^{18, 17, 36, 5, 26, 16} Four studies from England sites met the inclusion criteria.^{21, 37, 20, 29} New Zealand and Australia, had combined representation of six articles.^{28, 25, 32, 24, 31} An additional article came from research conducted in Spain, and another in Norway.^{27, 19} Settings for the studies included hospitals, primary care, behavioral health, and outpatient centers (Exhibit 3). Within hospital settings, there was representation from intensive care, general medical-surgical, maternity, and oncology units. Multiple professions were included in the studies with the predominant professions being nurses and physicians.

Twelve included studies had theoretical frameworks identified in the background description. Burzotta and Noble used Jasper, Curran et al. related Kirkpatrick, Laird et al. discussed the Biopsychosocial model, and McDonald et al. associated to the Competing Values Framework.^{21, 14, 17, 25} Mellin et al. chose to relate their study to Bronstein, Piquette et al. to Robson, and Rice’s study aligned to Straus.^{34, 33, 23} Richer et al. supported their study with the work of Ackerman, Robinson et al. to Bascher, Stein and Liaschenko to Fisher and Upenieks to Vincent’s safety model.^{22, 24, 16} Chong, Aslani and Chen used the framework of Legare in their research.²⁸ Inconsistent carryover to the discussion section occurred across articles. Sixteen studies reported ethical approvals or considerations. Articles not including reference to Institutional Review Board evaluation included Burzotta et al, Carney et al., Mills et al, Reiger and Lane and Robinson et al.^{21, 18, 32, 38, 5} Eighteen of the studies described limitations of sample size, response rate or site that might have bearing on validity or results for application in other settings. Only the studies of Burzotta and Noble, Carney et al., and Reiger and Lane did not mention study limitations.^{21, 18, 38}

The articles were representative of the state of the science of interprofessional collaboration and relevant for the aims of the review to examine role, function and satisfaction of IPC in clinical settings. Studies addressed stated objectives of professional perception of the experience of IPC or components of the process. Burzotta and Noble explored the knowledge gain from other professionals occurring during provision of seamless care.²¹ Carney et al. found an increasing confidence among professionals subsequent to interprofessional working while Murray-Davis found educational preparation important to shared partnership.^{18, 29} Team-

work differences in IPC, discussed by Piquette et al., surveyed the differing needs among professions for communication and Reiger et al. recognized tensions in teams associated with role boundaries.^{33, 38} The effects of IPC training for practice improvements and defining measurable benefits of IPC were included as aims of three selected studies.^{20, 17, 32} These researchers agreed that understanding of roles and clarity of communication were important for elevating practice, delivering effective care and retaining the health care professional workforce as did the research of Chong, Aslani, and Chen, and Rubio-Valera et al.^{31, 27}

Five themes of role and function surfaced across the twenty-six studies which correlated to Watson's practitioner-practitioner relationship categories of role and function (Exhibit 2). Mutual trust, professional accountability and role clarity were themes correlating to role and shared problem solving and clear communication were identified functional themes. There were twenty instances where findings solidified around issues of cultural accountability to the team and self for cohesion and collaboration. The sole exception came from a study by McDonald et al. where focus was at the higher level of organizational interaction.²⁵ The importance of role understanding across professions was stressed by Curran et al., Rice, et al., Chong, Aslani, and Chen, and Weller et al., agreeing on the need to recognize differences in priorities across professions so commonalities of practice goals can be fulfilled.^{14, 23, 28, 31}

The function of communication was the most prevalent of identified themes. Laird et al. noted that experience and divisive training contrary to IPC would need communication for resolution.¹⁷ Clancy, Gressnes, and Svensson saw an association in communication in relation to the size of communities in which professionals practices.¹⁹ Robinson et al. explored the attributes of effective communication in enhancing IPC and Sinclair et al. examined communication structures that facilitated IPC communication.^{5, 28} Shared decision making was put forth as important by Mellin et al., and Chong, Aslani, and Chen as an important way to take advantage of the skills and knowledge of each profession bringing an enhanced result through joint decision-making.^{36, 28} Shared mental models in were discussed by Carney et al., and Weller et al. achieved from activities of co-rounding and briefings.^{18, 31} Shared problem solving as an interactive process resulting in shared insight provides a framework for IPC.^{5, 25} Mutual values of trust and respect were reported as significant in IPC by Curran, et al., Fothergill, et al., Piquette et al., as well as Reiger and Lane.^{14, 37, 33, 38} McDonald et al. discovered health professionals believe trust and respect are necessary for care continuity and Stein and Lisachenko recognized that knowledge application without valuing each other and behaving in a moral way during interactions does not provide optimal collaboration.^{25, 24}

The impact IPC has on role satisfaction grouped into categories of recognition and perception. From a positive perspective, Burzotta and Nobel described a positive experience in a clinical situation where IPC was fully engaged leading to a sense of group identity.²¹ Two articles revealed success in IPC after a collaborative education intervention explaining the concept and supporting professionals in exploration. Awareness of IPC increased an appreciation for collaborative benefits per Fothergill as well as improved attitudes of practitioners toward each other following the integrated education according to Curran et al.^{37, 14} Subsequent to

training nurses and residents on a medical ward in IPC technique, nurse self-efficacy improved after reversing a previous culture of non-inclusion.¹⁷ The need for contribution and shared communication was also a finding in a study by Goldman et al. stressing the force of practitioner-practitioner relationship and role clarity.³⁴

Kenaszchuk et al. described the asymmetrical nature of nurse and physician perceptions of collaboration.²⁰ Carney et al. reported similar findings in a study conducted across Veteran's Administration facilities specific to operating rooms.¹⁸ Findings indicated that nurses scored team climate items lower than did physicians, indicating perceptual differences in areas of support, input, and respect. A study conducted by Mills et al. supported the issue of nurses feeling "undervalued" when their role was not acknowledged or understood by physicians, however there was also a report of positive working relationships that led to role satisfaction from Goldman et al. and Richer et al.^{32, 34, 22} Piquette et al. supported those findings in the research based in an ICU setting where satisfaction was present most of the times but the burden of post-crisis communication and inclusion was not met and led to potential nursing 'burn-out'.²³ The culminating theme is a necessity to disclose issues of communication needs and role definition across professionals on a team to foster respect and enhance communication for improved patient-centered care. The issue of unmatched expectations or understanding of roles and communication needs sets up barriers and creating potential safety issues for care.

Gaps in Nursing Science

Usefulness of this integrative review to guide practice, inform policy and build on nursing science as recommended by Whittemore and Knafl, is applicable to the approach of medical home delivering patient-centered care.³⁹ Congruence with Dr. Watson's transdisciplinary Caring Science of collaboration across practitioners builds on nursing science.

Of the articles site based in the United States, none came from a perspective of primary care delivery. Aims of the four primary care studies included in this review were disparate, ranging from reaction to IPC training and impact of IPC on chronic care outcomes to understanding roles in and perceptions of IPC.^{14, 34, 32, 15} Missing in the literature review was an evaluation of role satisfaction and economic impact of IPC use in medical homes or primary care. Since the transformational model in health reform is medical homes, a need exists to investigate IPC in the United States primary care delivery system. Of interest, however, was documentation of clinical outcomes improvements in IPC primary care settings that utilized an advanced practice nurse.¹⁵ Inclusion of nursing as the differentiator in IPC model success gives strength to the need for nursing research to validate influence of nurses on the IPC model. Four of the five articles from United States studies presented a theoretical basis for their research. All of those theories, Vincent, Basche, Bronstein, and the Bio-psychosocial model, came from a social interaction background and not from the discipline of nursing.^{16, 5, 36, 17} An identified gap, therefore, is a need to support IPC research with nursing theory. The National Institute of Nursing Research (NINR) has a priority of investing in nurse scientists' development of nurses conducting investigation.⁴⁰ The NINR has placed a call to action for nurses to become engaged and supportive of nursing research. Future study initiated on investigation of clinical and fi-

financial outcomes as well as role satisfaction from use of IPC in a medical home setting would add to the body of nursing knowledge and increase the visibility of nursing research through inclusion of nurse participants and published findings.

The review reveals five conditional factors supporting IPC as a practice model validating the themes of role and function described by Jean Watson in the Caring Science Theory. Self, in relation to others, knowledge and understanding the diversity in others' work contributes to building a caring team as seen across articles.^{17, 37, 27, 20, 19} Issues of collaboration identified as driven by trust, respect, understanding and mutual values across professionals.^{28, 31, 34, 27, 35} Barriers to team communication due to perceptual differences across professions gave an importance to need for a reflective, clear communication style noted to promote IPC.^{21, 24} The final component mentioned by Watson of supporting working dynamics of shared responsibility, was described in the articles as a mutual mental model using shared development and decision-making. Use of Watson's Caring Science theory is a solid base for future research on IPC across disciplines.

A model depicting conditions of Interprofessional Collaboration in clinical settings demonstrates the inter-related nature of the conditions with the operationalized process. The role of nursing theory is foundational, as depicted in the model, with outcome elements of role satisfaction and outcomes illustrated as having importance for further investigation to support closing the gap in nursing science on the topic of IPC (Exhibit 4).

Conclusion

This integrative literature of twenty-six research publications explores the science related to conditional factors of interprofessional collaboration in the clinical setting. This review has purpose in guiding future practice, research and policy. Conclusions of this integrative review validate existing literature noting consistent requirements necessary for collaborative practice across disciplines. Included articles reflect the state of the science of interprofessional collaboration in the clinical setting from a global view. The term interprofessional collaboration, based upon these integrative review findings, is interaction occurring when two or more disciplines focus on achieving improvements in patient-centered care sharing goals of optimal clinical and financial outcomes through a practice model of mutual trust, professional accountability, clear communication, role clarity, and shared problem solving.

It is important to conduct further research in the United States due the healthcare reform focus on medical homes emphasizing the importance of contribution across disciplines and roles. Health care reform will continue to place more pressure on the need for effectiveness and efficiencies in practice, facilitated through interprofessional collaboration. The transformational delivery model change of IPC addresses the issue that a singular profession does not have the capacity to address all needs of patients.⁴¹ Policy development and research will need the input of nursing on the potential impact of IPC models. This review has limitations including the date range of article review and novice abilities of the reviewer. Inquiry, through wider time period search, may produce additional insight.

Interprofessional collaboration has an opportunity to transform healthcare practice and health outcomes.⁴² The role satisfaction

gained by individual nurses working in IPC teams has the ability to improve workforce retention through reflective interaction with others.⁴³ It is important that nursing be participant in clarifying the concept of interprofessional collaboration and lead research to improve nursing knowledge and our role in the future of healthcare. Findings on efficiency and effectiveness of interprofessional collaboration will drive increased opportunities for nursing leadership and practice. Core to this premise is knowledge that faulty collaboration jeopardizes quality and safety of patients through poor communication leading to errors, service duplication, or conflicts limiting essential information exchange.²⁶

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Chronic Migraine: Overview of the Disease State and Management

Peter J. McAllister, MD

Summary

There are many forms of headaches with chronic migraine, the most common chronic headache. Because chronic migraine is so disabling, the condition is costly both from an economic and social viewpoint. Appropriate diagnosis and management can lead to improved outcomes such as reduced disability, reduced resource utilization, and reduced costs.

Key Points

- Chronic migraine is a disabling, underdiagnosed, and undertreated disorder
- Chronic migraine results in far greater suffering, disability, and health care costs than episodic migraine.
- It is important to try limit progression of migraines from episodic to chronic
- Medication overuse is the major trigger for transformation from episodic to chronic

HEADACHES ARE AN EXTREMELY COMMON PROBLEM for many people. They can be either primary or secondary disorders (Exhibit 1). Secondary headache disorders have an identifiable cause such as brain tumor, subdural hematoma, and meningitis. Primary headache disorders can be classified into episodic or chronic categories based on the number of days per month that they occur. Chronic headaches can be further subdivided into short and long duration chronic headache. Short duration chronic headache includes cluster headaches; these occur episodically with each episode lasting less than four hours. Primary chronic daily headache of long duration is a syndrome characterized by headaches not attributable to a secondary disorder that last more than 4 hours a day and occur 15 or more days per month.^{1,2}

Chronic daily headache of long duration (CDH) affects three to five percent of the general population worldwide and approximately 40 percent of patients seen in headache clinics.³⁻⁵ CDH encompasses 4 main diagnoses - chronic migraine, chronic tension-type headache, new daily persistent headache, and hemicrania continua (Exhibit 2). Chronic migraine accounts for about 95 percent of all chronic daily headaches.

Migraines, either episodic or chronic, occur in about 12 percent of Americans with women more commonly affected.⁶ The major distinguishing factor between chronic and episodic migraine is the number of headache days per month. Someone is said to have episodic migraines if they have a headache on less than 15 days per month. Chronic migraine is defined as migraine with or without aura on 15 days or more per month for at least 3 months, and has unilateral or bilateral pain and a pulsating quality.⁷ Chronic

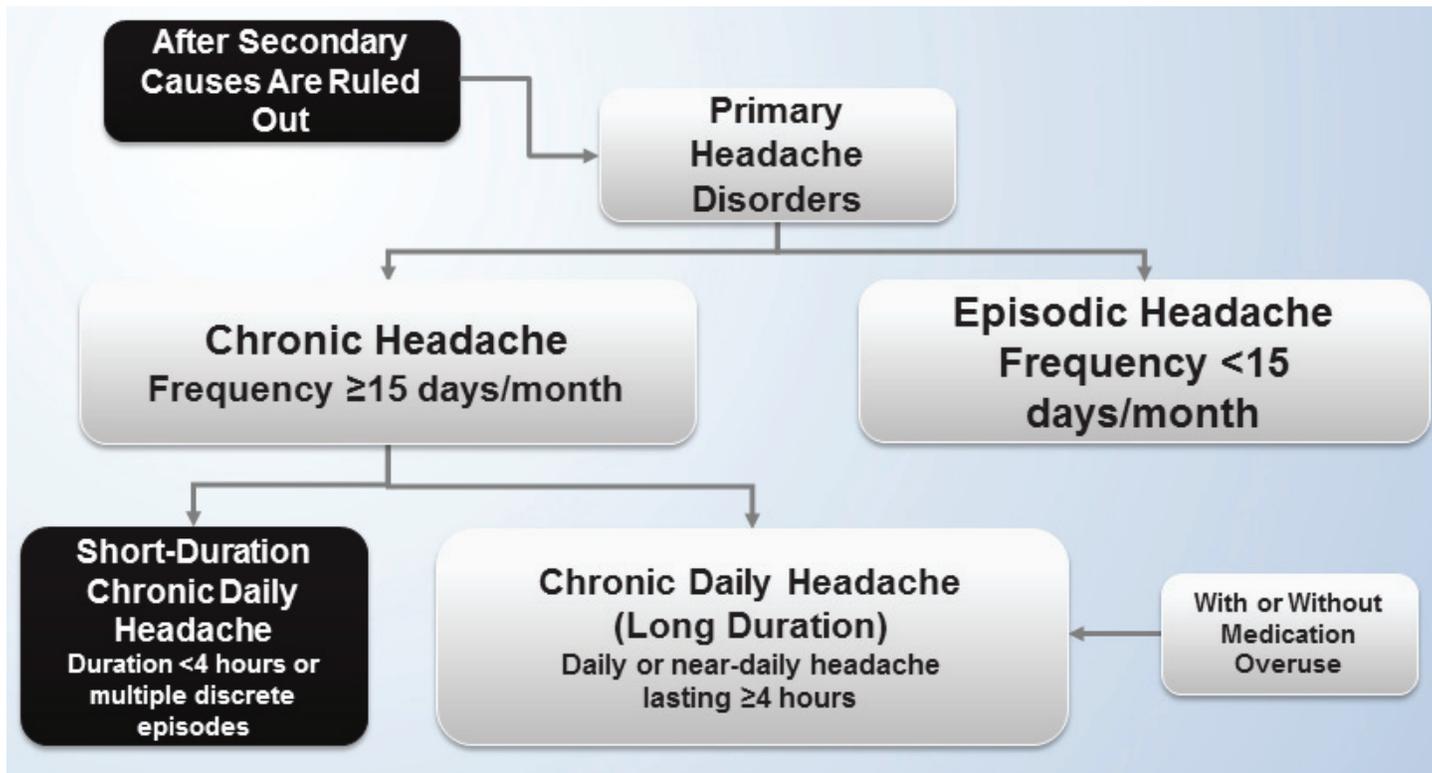
migraine is a clinical diagnosis; there are no tests to identify migraines. Between 8 and 10 percent of those with migraine will have chronic migraines at some point in their lives.

Patients tend to start with episodic migraines which progress in frequency to become chronic. The frequency can increase to an every day headache. Risk factors for developing chronic migraines include female gender, inactive lifestyle, obesity, and medication overuse.

Medication overuse is the major factor for converting from episodic to chronic. The most common medications that result in transformation are moderate narcotics such as Percocet® and Vicodin®, barbiturate containing products such as Fiorinal®, Fioricet®, and Excedrin® Migraine. Opioids' association with migraine progression is dose-dependent (critical dose of exposure: 8 days/month) and more pronounced in men.⁸ Barbiturates also induce migraine progression with a dose-dependent effect (5 days/month or more) but more often in women.⁸ Triptans induce migraine progression only in those with high migraine frequency at baseline (>14 days/month), but not overall.⁸ Caffeine containing over-the-counter products such as Excedrin® Migraine increase risk of progression. Non-steroidal anti-inflammatories (NSAIDs) protect against migraine progression unless individuals treat 10 or more headache days monthly; then they become inducers, rather than protective. The headaches that result from medication overuse are essentially caused by medication withdrawal. Eliminating medication overuse can revert headaches back to an episodic pattern.⁹

Chronic migraine is an underdiagnosed and undertreated disorder.¹⁰ The American Migraine Prevalence and Prevention (AMPP)

Exhibit 1: Primary Headache Disorders: Frequency Classification



study found that only 20 percent of patients who met the criteria for chronic migraine were actually diagnosed, despite approximately 80 percent having seen a healthcare professional for their headaches.¹¹ An accurate diagnosis will decrease the number of specialists the patient seeks out in order to find a diagnosis. An early accurate diagnosis may also prevent episodic patients from progressing to chronic migraine. Population surveys demonstrate that only 13 percent of those with reported chronic migraine are treated with preventive therapy.¹¹

In addition to being underdiagnosed and undertreated, migraines cause significant disability. Migraines cause moderate to severe pain and the severity of pain drives disability. Chronic migraine results in a greater severity and duration of pain than episodic migraine.¹²

Severe migraine is ranked in the highest disability class by the World Health Organization.¹³

Chronic migraine patients are more disabled and have worse health-related quality of life than episodic migraine patients.¹² Importantly from an economic perspective, migraines result in work absenteeism and presenteeism. Chronic migraine patients are also less likely to be employed full-time.

The clinical course of migraine can be conceptualized as progression (movement from one category to a higher frequency category), remission (movement from one category to a lower frequency category), or no change in headache frequency. Over a two year study period, persistent chronic migraine sufferers experienced an increase in headache-related disability, while those with remitted migraine experienced a substantial decrease in headache-related disability.¹⁴ Thus, chronic migraine that is untreated progresses over time, which has patient quality of life and health care cost

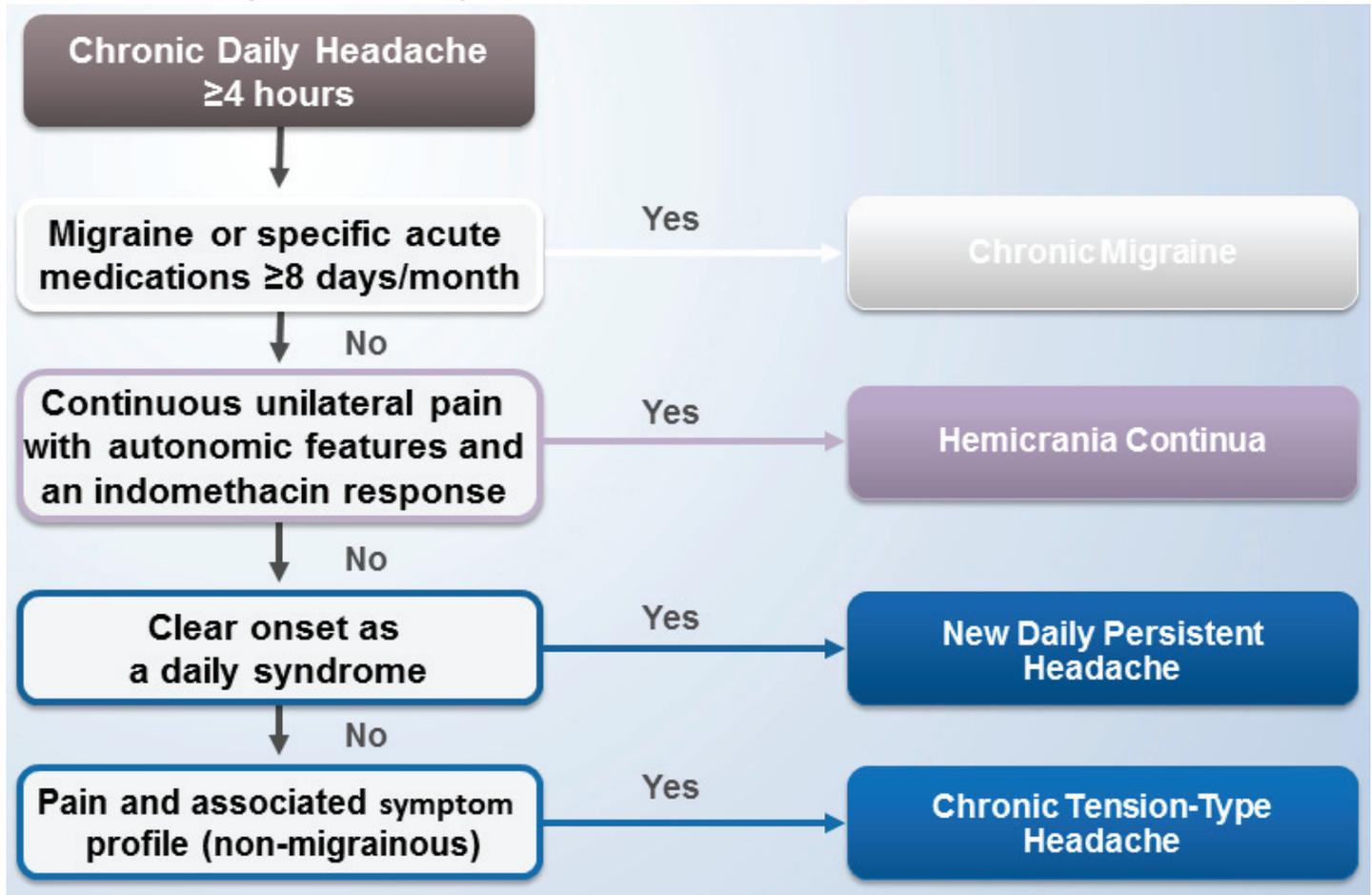
implications. Appropriate management can lead to remission and reduced disability.

Chronic migraine also results in significant direct and indirect costs. The AMPP study estimated the total direct and indirect costs associated with chronic migraine.¹⁵ The average per person annual total costs were 4.4-fold greater for chronic migraineurs than for episodic migraineurs (Exhibit 3).¹⁵ Chronic migraineurs have 2.8-fold higher acute prescription medication costs than episodic migraineurs. Chronic migraineurs are significantly more likely to visit the emergency room, their primary care physician, a neurologist, or a headache specialist. Migraine is the third or fourth most common discharge diagnosis from the emergency room.

Because chronic migraine patients utilize significant health care resources, methods for providing cost effective care in these patients has been investigated. One option is the use of an office based, drop-in headache center. These centers utilize intravenous non-narcotic infusions to halt migraines, which results in significant pain improvement within 45 minutes. These centers have been shown to reduce emergency room use by chronic migraine patients and to improve their care.¹⁶ Avoiding the emergency room also avoids the use of commonly ordered expensive tests such as an MRI or spinal tap used to evaluate severe headaches.

In addition to being undertreated, chronic migraine is frequently inappropriately treated based on out-dated understanding of the disorder. The old understanding of migraine was it was a blood vessel abnormality or vascular headache. Migraine is now best understood as a primary disorder of the brain. Two non-mutually exclusive hypotheses have been advanced to account for the initiation of migraine – one focusing on the hyperexcitability of the cortex, and the other on the dysmodulated brainstem. Both event

Exhibit 2: Differential Diagnosis of Chronic Daily Headache



mechanisms could contribute to the pathophysiology of migraine.

The first hypothesis proposes that the brain of migraineurs is hyperexcitable. According to this idea, common triggers may initiate a cortical spreading depression in the brain; this would then lead to the activation of the trigeminal system and development of the migraine attack.¹⁷ The cortical spreading depression is what causes the aura in migraineurs. Depending on where this spreads to within the brain, there will be different aura symptoms – visual changes, motor weakness, tingling, or confusion.

The second hypothesis proposes that the brain of migraineurs is dysmodulated as a result of dysfunctional sensory processing within the brainstem.¹⁸ The dysmodulation would lead to enhanced sensory sensitivity, which could account for the symptoms of migraine. Dysfunction within the brainstem during a migraine attack is supported by imaging studies.¹⁹ Both hypotheses point towards primary pathology within the neuronal tissue of the brain. This change in understanding of the pathophysiology of the disease has led to a better understanding of appropriate treatment.

The overall treatment goal with chronic migraine is to convert the patient back into an episodic pattern. If the chronic pattern is allowed to continue, patients will continue to worsen and the pattern may no longer be reversible. Reverting to an episodic pattern will decrease health care utilization and improve quality of life.

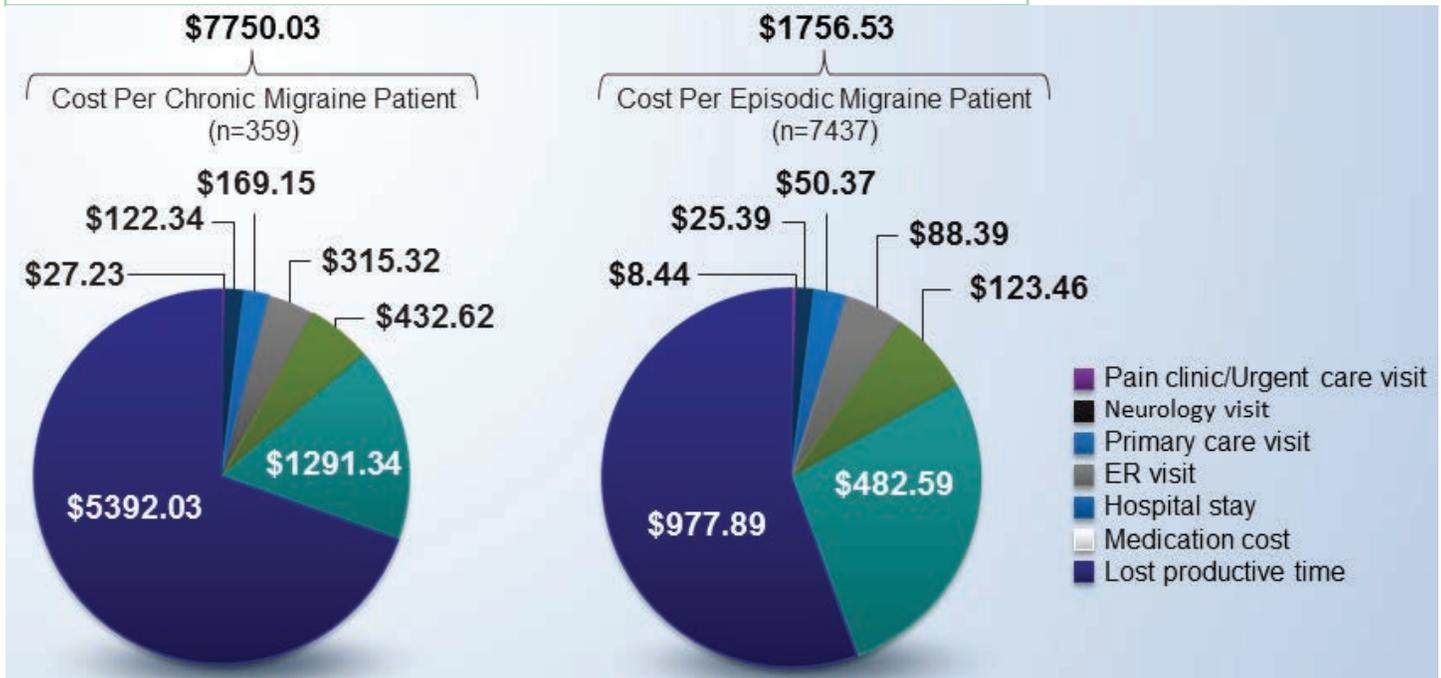
A holistic approach is needed to discover what is driving the headaches and what initiated them. Understanding the current

medical and emotional state of the patient is of paramount importance in designing effective therapies. The brain has to be “taught” how to have reduced pain and frequency of headaches.

Even before medication is prescribed, nonpharmacologic therapies should be implemented – exercise, good sleep hygiene, and elimination of potential triggers. Additionally, the patient needs to be educated about the disease, treatment, and goals of therapy. Clinicians need a thorough understanding of the patient’s current medication use to identify medication overuse. Patients will have to be tapered off chronic pain medications over time. An attempt should be made to limit use of acute medication to treatment of no more than 2 or 3 headaches per week and with no more than 2 doses per headache.

After nonpharmacologic therapy is initiated and medication overuse is eliminated, preventive medication is then used to stabilize the neuronal network that is over firing. The only approved medication for chronic migraine is botulinum toxin (Botox®) but many agents approved for episodic migraine are used in chronic disease. Effective preventive medications include valproic acid derivatives, topiramate, and beta blockers. The goal with preventive medication is to reduce the number of headache days per month to a manageable number (i.e., 3 or 4 days per month). The patient would then use their abortive medication on those days. An important point for patient education is that migraine is not cured; it is managed.

Exhibit 3: High Annual Indirect and Direct Cost of Headache per Patient in Chronic Migraine



Response to therapy should be monitored with patient completed headache diaries. Survey tools such as the Headache Impact Test (HIT-6) can also be useful.²⁰ It can also be valuable to assess and monitor the patient's level of headache-related disability.

Conclusion

Chronic migraine is a disabling, costly, underdiagnosed, and undertreated disorder. Studies of chronic migraine hypothesize a pathophysiological state in which the brain exhibits enduring and pervasive alterations. Important components of chronic migraine management include accurate diagnosis, patient education, management of overuse of acute medications, use of a headache diary, and use of preventive medications where appropriate.

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Physician Engagement is Critical to the Success of any Accountable Care Organization (ACO)

Anthony N. Akosa, MD, MBA

Summary

Physician engagement is critical to the success of any program where physicians are accountable for quality, cost and overall care of assigned population of patients like an ACO. It is well known that physicians control the majority of health care cost. However, as overall healthcare cost is a factor of unit cost and utilization rate of services, physicians could impact utilization of services but still not be able to control overall healthcare cost due to lack of control of cost of hospital based services and outpatient procedures.

Key Points

- Physicians make decisions that control 87 percent of health care costs
- Alignment of incentives will increase physician engagement.
- Overall cost is determined by both utilization of services and unit cost of services.

ADVANTAGE HEALTH SOLUTIONS, INC. (AHS), A LOCAL health plan that insures many employer groups in Indiana, wanted to test the hypothesis that provider engagement with aligned incentives could improve outcomes on a specific population with a benefit structure typically not amenable to usual health plan interventions. One of the large employer groups insured by AHS with about 5,000 employees and dependents has a benefit plan that does not discourage over utilization of certain low-value but high cost medical services and is not amenable to the usual utilization management strategies. For example in 2011, the copayment for PCP office visits was \$25; copayment for emergency room visits was \$0; copayment for advanced imaging services like computed tomography (CT), magnetic resonance imaging (MRI) and positron emission tomography (PET) scans was \$0; and the cost differential between generic and brand name drugs was just \$5.

There was overutilization of emergency room services for non emergent problems which was neither cost effective nor safe for the members. Most of these non emergent conditions like upper respiratory illnesses (URI), urinary tract infections (UTI) and suture removals could have been easily handled by the members' primary care physicians.

Creating a medical home for every member would give them access to personalized, coordinated and comprehensive primary care when it is convenient for them. This would improve both the quality of care provided to the members and member satisfaction. AHS also felt that physician engagement would be the key to decreasing the overutilization of some of these low-value but high cost services as physicians serve as key advisors to patients and make decisions that control 87 percent of personal health spending.¹

Program Goals and Objectives

The goals of the program are similar to achieving the Institute for Healthcare Improvement (IHI) Triple Aim: improve the health of the population, enhance the patient experience of care (including quality, access, and reliability); and reduce, or at least control, the per capita cost of care.²

The program objectives are: avoidance of unnecessary utilization especially emergency room and advanced Imaging (CT, MRI and PET scans); utilization of services at the right place and right time for example encouraging the members to utilize urgent care centers after hours for non urgent problems like URI instead of going to the ER; partnering with providers to promote outreach, health prevention and patient engagement; improving generic utilization rate when appropriate by providing generic alternatives at point of care (provider practices); and improving member satisfaction of overall care provided.

There were three provider groups in one of the counties in Indiana to whom all the members were assigned and they were named Provider Group 1 (Group 1), Provider Group 2 (Group 2) and Provider Group 3 (Group 3). AHS met with Group 1 and Group 2 to explain the program, the provider incentive and the Provider Dashboard for each provider. The Group 3 was not engaged in the program and did not meet with AHS. Although Group 3 was not engaged, AHS still sent information about the program to the members assigned to them.

The program was called a Shared Savings Incentive Program and comprises:

- Member engagement activities
- Provider engagement activities
- Health Navigator activities

Member Engagement Activities

Marketing collateral to educate members about the program was completed in the first quarter of 2011. The educational campaign informed the members how the program would benefit them for example improved access to providers, \$0 copayment for specific generic drugs, decreased unnecessary emergency room (ER) and advanced imaging utilization to improve patient safety. It is known that unnecessary use of all forms of ionizing radiation especially CTs in children, could increase cancer risk. Frequent ER visits for non urgent conditions could increase the risk of nosocomial infection and uncoordinated care with poorer outcomes.

AHS developed a zero copayment drug list for 2011 and the plan paid 100% of the cost of any of the drugs on this list in 2011. If the provider felt the drugs on this list were not appropriate for the member or the member requested a brand name drug, then the member would be responsible for the appropriate copayment specified in the employer's Prescription Drug Coverage Benefit. AHS identified members who were on brand name drugs that were available generically. These members were sent a letter listing all their brand name drugs, generic alternatives and annual cost savings if their providers switched them to generic alternative.

To make it more convenient for the members to obtain their prescription medications, AHS partnered with a local pharmacy that offers concierge services to members like delivery of medications to home and place of work. The pharmacy also has branches at two provider practices. The pharmacy could dispense drugs prescribed by the providers at point of care, thereby increasing adherence and generic utilization. Members could still utilize other pharmacies of their choice and do not have to use the pharmacy AHS partnered with.

AHS also embedded a Health Navigator in one of the provider practices to work directly with the providers and members. Her role was to facilitate care management processes to promote awareness and compliance by identifying members with chronic conditions that AHS has Disease Management (DM) programs for whom the Disease Management Educators were unable to contact. The Health Navigator worked with providers' offices to find out when members who did not respond to AHS's DM campaign were scheduled to see their PCP and discussed DM participation and incentive/benefits with the PCP and/or member. The Health Navigator also referred members who qualified for case management and behavioral health management programs based on the health plan's identification process.

All the members received a provider survey at the beginning of the second quarter of 2011 utilizing the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) Clinician & Group Survey and a follow up survey with the same tool was sent out to the same members 12 months later.

Provider Engagement Activities

AHS tracked four categories of metric before and after the program by provider groups which included utilization, member satisfaction, quality and disease management participation.

The providers were incentivized based on their individual performance on the three utilization metrics compared to the bench-

mark which was AHS Commercial average rates. The utilization metrics were: utilization of generic prescription, utilization of ER and utilization of advanced imaging (CT, MRI and PET.) Two-thirds of the total incentive was allocated to improving generic prescription utilization because it was felt that that was the metric that would be easiest for the providers to impact and it was also the metric that had the highest variance from the AHS benchmark. The other two metrics combined accounted for a third of the incentive. Each provider received a quarterly report of his/her performance on these three metrics and also the incentive payout for that quarter. The providers also received a report comparing them to their peers - all the other providers in that particular group excluding their names. Group 3 providers did not get any incentive or quarterly report of their performance.

AHS met with Group 1 and 2 providers to explain the program and get buy in. The series of meetings with the providers were completed in April 2011. Group 1 providers met with AHS initially and their management team subsequently had multiple meetings with these providers to explain the program and quarterly results. Group 2 providers met with AHS only once and there were no subsequent meetings with the providers.

The Provider Dashboard reports were available to the providers monthly and displayed utilization, financial and quality metric by provider benchmarked against their peers. The Provider Dashboard had over forty metrics including the three that the providers were incentivized on. The providers were initially given a hard copy of their individual dashboards and were instructed to inform the Health Navigator to provide them with monthly updates from the health plan's web based reporting platform. The providers also had access to each of his/her patients' Member Dashboard reports through the Health Navigator and it displayed gaps in care, chronic conditions, medications and prospective risk score for each provider's patient panel. The prospective risk score is used to predict future healthcare cost based on the chronic disease burden of the particular member and it is normalized for that particular population. For example a member with a score of ten is expected to cost the plan ten times the average cost of that particular population in twelve months.

Health Navigator activities

AHS also "embedded" a health navigator in one of the provider offices but she travelled to the other practices to meet with the PCPs and their office staff. The embedded Health Navigator worked closely to engage the providers to coordinate the care of the assigned plan members, implement up-to-date coordinated care plan and communicate with the whole healthcare team on behalf of the assigned plan members. She acted as a resource and liaison with providers regarding the programs that make up AHS care management programs and other related health plan initiatives. The health navigator was also available for questions that the providers had about the program and a few of the providers took advantage of this.

She educated provider offices on the use of Provider Portal (especially for prior authorization requests) to improve efficiency and provider satisfaction. AHS piloted Automated Prior Authorization (Auto Auth) system utilizing Milliman Care Guidelines with all the providers to improve efficiency in their offices and reduce the

number of calls they have to make to the health plan to request prior authorization. The Auto Auth system allows the provider or office staff to enter an authorization request and if it meets the Milliman evidence-based clinical guidelines, the requester would immediately receive an approval notice thereby avoiding a phone call or fax to the health plan. The Health Navigator also informed providers of the partnership with the local pharmacy to provide easy access to generic drugs at point of care for patients.

The Health Navigator was also responsible for coordinating the member satisfaction surveys, tracking the quality metrics and care coordination activities. Member satisfaction was measured with the CAHPS® Clinician & Group Survey results. Quality metrics include breast cancer screening rates, colorectal cancer screening rates, and comprehensive diabetic care eye exam rates. The disease management participation rate was the percentage of members with chronic diseases that were enrolled in these programs. The chronic diseases that were targeted include hypertension, diabetes mellitus, coronary artery disease, congestive heart disease, chronic obstructive pulmonary disease, asthma and migraine.

The Health Navigator worked with the local hospitals in the area to set up daily emergency room (ER) and inpatient notification process. This helped AHS contact members who were seen in the ER in a timely fashion rather than utilize our current process where we use claims data which takes three months or more. The inpatient census helped improve our discharge coordination outreach and complex case management components of our care management program.

Results and Discussion

The Group 1 providers were considered highly engaged; Group 2 providers were considered moderately engaged; Group 3 providers were considered unengaged. Group 3 was considered the control groups as these providers were not engaged in the program but their patients received the same intervention that members assigned to Group 1 and 2 did. AHS compared 2010 (baseline) versus 2011 provider performance despite the fact that the series of meetings with the providers was not completed till April 2011.

The per member per month (PMPM) cost for the population increased by 5 percent from 2010 to 2011. However, most of the affiliated hospitals increased their charge master from 2010 to 2011 as evidenced by the increased unit cost for most services by 9 percent. The PMPM cost is a factor of utilization and cost of services. The providers can control utilization of most services but have very little, if any, control over the cost of hospital based services. The providers did not have access to the unit cost of services and were required to refer patients within their network of providers unless the service was not available in their network.

When the 2011 PMPM was recalculated using 2010 cost of all services, the recalculated PMPM was down by 1.7 percent due to decreased overutilization of services. In comparison, the average annual growth rate for National Health Expenditure (NHE) from 2000-2010 was 5.6 percent.³ When adjusted for average annual inflation of 2-4%, the recalculated PMPM was still lower than the average NHE annual growth rate.⁴ We calculated the total cost

savings for the three components of the program (generic drug, advanced imaging and ER utilization) divided by the total payout to all the providers in 2011 and the return on investment (ROI) on the program was 8:1.

The three objectives of the program were met for the employer group – increased generic utilization, decreased emergency room and advanced imaging utilization. However, some of the providers groups did better than the others. The generic utilization from 2010 to 2011 increased by 5 percent, 3 percent and 3 percent for Groups 1, 2 and 3 respectively and all the increases were statistically significant. The overall generic utilization for all groups increased by 4% mainly due to provider incentive and member education. The group that was most engaged (Group 1) had the highest increase in generic drug utilization. The non engaged group (Group 3) still had an increased generic utilization most probably due to member education as the “Sample letter for generic mailing” was sent to all members regardless of whether their providers were engaged or not.

The emergency room utilization decreased by 8 percent and 5 percent for Group 1 and 2 respectively but increased by 2 percent for Group 3. Although the Group 3 increase was not statistically significant, it is worth noting that AHS relied on providers to decrease unnecessary emergency room utilization. AHS will not deny any unnecessary ER visit if the member was directed to the ER by his/her provider regardless of whether the visit meets prudent layperson definition of an emergency or not. Like most health plans, AHS uses an auto pay list for ER services so that certain diagnosis of ER services like fractures are automatically paid and not pended for medical review. We turned off the auto pay list for this employer on June 1st 2011 and manually reviewed all the ER visits. Before applying the prudent layperson rule as required by the state law, we contacted the member’s provider to ask the office staff if they referred the member to the ER. If they did not, AHS then applied the prudent layperson rule in determining whether the visit would be approved or not.

Advanced imaging utilization decreased for all three groups and all were statistically significant. AHS also implemented an automated precertification tool utilizing Milliman Care Guidelines in 2011 and Advanced Imaging was added to the prior authorization list. Although Group 3 had a higher decrease in Advanced Imaging than the other two groups, this was probably due to the precertification requirement rather than provider engagement.

The quality metrics that were tracked were breast cancer screening, colorectal cancer screening and diabetic eye examination. The breast cancer screening decreased in all three groups in 2011 while the colorectal cancer screening increased. Group 3 had the lowest breast cancer screening decrease and the highest colorectal cancer screening increase of all three groups. Only Group 1 had an increase in diabetic eye examination rate (6.3 percent) and Group 3 had a higher decrease than Group 2. The quality measure results were mixed probably because the providers were not incentivized on these measures and the program lasted for less than 12 months due to the longer than anticipated provider engagement process of four months.

The participation in care management (Care-ADVANTAGE program) also decreased from 42 percent in 2010 to 41 percent

in 2011. The Care-ADVANTAGE program includes these disease states: diabetes mellitus, congestive heart disease, chronic obstructive pulmonary disease, hypertension, migraine, asthma and coronary heart disease. This is an opt-out program where members are enrolled automatically but have the option to disenroll themselves. The average AHS Commercial line of business participation rate in 2011 was 38 percent. However, the complex case management (CCM) participation rate for the sickest members (top 0.5 -1 percentile of the population) increased by 53% from 2010 to 2011. This was mainly due to the ER and inpatient notification process managed by the Health Navigator. The CCM program is for members with complex medical needs regardless of diagnosis.

The Adult CAHPS® Clinician & Group Survey was administered to all the adult members and a follow up survey was also sent out 12 months later to only those who responded to the initial survey. The overall satisfaction rate before and after the program for all the groups was 88.42 percent and 88.25 percent indicating no statistically significant change. The baseline survey results were not shared with the providers and this could have contributed to the results.

Conclusion

Engaged primary care physicians can bend the cost curve by effectively managing overutilization of services especially for Medicare Shared Savings program (MSSP) and Pioneer ACOs where providers do not have to worry about unit cost variation especially for hospital based services and outpatient procedures for which they have very little control over. This is because Centers for Medicare and Medicaid Services (CMS) is the sole payer for the MSSP and Pioneer ACO programs.

However, this strategy might not be as effective for Commercial ACOs with multiple payers due to price variations but this could be mitigated by price transparency and empowering providers to utilize this information in their decision making process. This relatively short pilot program produced an ROI of 8:1.

The providers were incentivized on the three utilization metrics (generic prescription, ER and advanced imaging rates) only and the engaged providers generally had a better outcome. This study did not show an improved outcome on the “better care for individuals” and “better health for populations” of the triple aim probably because the providers were not incentivized on the related metrics.

Anthony N. Akosa, MD, MBA is the Chief Medical Officer at Health EC. At the time of the study, he was a VP of Medical Affairs and Informatics at ADVANTAGE Health Solutions, Inc. SM.

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2014 Spring Managed Care Forum

Lauren Skrobacz

The 2014 Spring Managed Care Forum was a huge success! It was good to see all that were able to attend. The Nurse Only Reception which was sponsored by Salix Pharmaceuticals was one of our best turn-outs yet! AAMCN's President, Jacquelyn Smith, introduced the Board Members that were present and the new Certified Managed Care Nurses (CMCN) that passed the exam at the conference.

The Exhibit hall was a great way for attendees to network and hear about products and services that will help grow their career or business. One of the most talked about exhibit booths was Natera, a genetic testing company, who gave out stress balls which left a fun reminder their company!



Overall the 2014 Spring Managed Care Forum was a great experience for all that attended. We look forward to seeing everyone at the 2014 Fall Managed Care Forum at the Bellagio in Las Vegas on November 12-14, 2014. There will be an AAMCN Nurses Pre-Conference Workshop and AAMCN Nurse Only Reception. Visit www.aamcn.org for more information and to register for the Fall Managed Care Forum!

For more information on the AAMCN or our programs, please contact Lauren Skrobacz at lskrobacz@aamcn.org.





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