Abstract
Continuing to deliver traditional clinical services “because that’s the way we’ve always done it” will be a death knell for home health organizations that don’t radically change their procedures. Although all patient care services are provided under physician orders, how these orders are implemented often varies based on professional practices and organizational policies, procedures and protocols.

When care decisions are based on a three-part process called evidence-based practice, high-quality patient outcomes occur. Additionally, integrating evidence-based practices throughout clinical operations can control rising costs, reduce inefficiency and position the business to be a successful player in the post-acute care value continuum.

The goal of this paper is to help home health agency executives better understand the basics of evidence-based clinical practice and the critical importance these practices will play in emerging care models. It describes the rationale driving health providers to integrate evidenced-based clinical practices into their organizations and explores how investing in evidence-based practice (EBP) positively impacts the entire business. A primer of terms, models and how the model “fits” into the organization clarifies the concept. An overview of anticipated barriers with suggested approaches is presented to help the executive build the foundation for a successful evidence-based practice transition plan.

Why evidence-based practice now?
The U.S. has the most sophisticated teaching hospitals and medical research centers in the world, replete with the most advanced medical equipment on the planet, yet it ranks 33rd in the global rankings for longevity (tied with Cuba)\(^1\). America’s healthcare costs per capita are among the highest in the world, but various studies conclude that a significant portion of the healthcare provided is redundant or ineffective.\(^2\)
Healthcare outcomes based on typical practice

• An estimated 30% of healthcare spending goes toward ineffective or redundant care. In real terms, this means as much as $750 billion of America’s $2.5 trillion annual healthcare spending may not be well spent.3

• Only 15% of clinical practices are based on clinical trials; consequently, many treatments are assumed to work when there is, in fact, no evidence that they do work. In addition, failure to provide treatments that have been proven effective is endemic. In one study, only 54% of acute care and 56% of chronic care conformed to the medical literature.4

• Patients have only a 50% chance of receiving the most advisable care, with “dangerous gaps” occurring between known best practices and the care that Americans actually receive.5

• It’s estimated that 98,000 people die each year from preventable medical errors. In the Medicare program alone, preventable adverse events have been estimated to cost hundreds of millions of dollars annually.6

• More care does not necessarily mean better care. Medicare enrollees in higher-spending regions of the U.S. receive more care than those in lower-spending regions, but they do not have better health outcomes or greater satisfaction with their care.7

Evidence-based practice as part of the solution

• Research indicates that patient outcomes are 28% better when clinical care is based on rigorously designed research studies than when care is steeped in tradition.8

• Historically it takes an average of 17 years to translate research findings into clinical practice. To address this problem, major professional and healthcare organizations, as well as federal agencies and policy-making bodies, are replacing a major emphasis on accelerating dissemination of evidence-based practice.9

• The Institute of Medicine identified 10 Rules for the 21st Century Health Care System, with number 5 being evidence-based decision making.10

• The five core competencies for healthcare education deemed necessary for all providers by the Institute of Medicine’s Health Professional Education Summit includes evidence-based practice.11

How using clinical evidence-based practice can help your homecare business stay competitive

The emphasis in homecare has moved from the goal of being able to create and manage “clean” billing claims to one that is planning to align clinical outcomes with payment. Clinical care and documentation must focus on quality, accuracy and consistency to accomplish the new goal.

At the core of this change is respect for clinicians’ professional knowledge and expertise, and providing a system that supports their work with the most current and best evidenced-based practice. Through technology advances, best practices are rapidly released — making it difficult for clinicians and providers to integrate this new information in their current practice. Yet, expectations from patients, families, referral sources and payers continue to focus on using outcomes based on evidence as basis for payment.

The following benefits of implementing evidence-based practices can position homecare organizations to be competitive and successful in preparing for future changes.

Homecare patients are the focus of emerging care models

The target diseases, populations and cost variations listed below are the drivers of healthcare reform, organizational change, reimbursement and new delivery strategies. These factors are also the central focus of the services homecare organizations currently provide.

Delivery models such as the medical home and accountable care organizations are rapidly creating “new” ways to provide these same services with or without homecare partners. It is essential that homecare organizations analyze current clinical operations, using clinical evidence-based practices as an essential component to reaching care goals.
• A few diseases comprise the bulk of healthcare expenditures: CHF (congestive heart failure), COPD (chronic obstructive pulmonary disease), Diabetes (diabetes mellitus), general cardiac diseases (hypertension, myocardial infarctions, etc.) and mobility problems such as arthritis and hip fractures.12

• Five percent of the population account for almost half of every healthcare dollar spent annually (and two-thirds of these expenditures are by those over 50 years old).13

• Significant variations in spending also can be mapped by regional, race and socio-economic status.14

Agencies can be positioned for new reimbursement opportunities

Homecare organizations must be viewed as a high value partner for the emerging models being researched and created through provisions of the Affordable Care Act (ACA). Providing care in the home is a key component of accomplishing the “Triple Aim” goals of health reform (see figure 1). Using evidence-based practice as the foundation of clinical care is essential to reaching the six dimensions for better patient care specified in the first goal.

For example, the ACA includes information technology (IT) provisions that focus on developing innovative new methods to reimburse expenses and reward providers for demonstrating the delivery of quality care. Basing practice and care on evidence is the focus of the following four sections of the law15:

<table>
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<th>The Triple Aim*</th>
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<td>• Better care for individuals, described by the six dimensions of health care performance: safety, effectiveness, patient-centeredness, timeliness, efficiency and equity.</td>
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<td>• Better health for populations, through attacking “the upstream causes of so much of our ill health,” such as poor nutrition, physical inactivity and substance abuse.</td>
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<td>• Reducing per-capita costs</td>
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Increased reimbursement will be developed for providers who implement, among many things, best clinical practices, evidence-based medicine, and health IT to improve patient safety and reduce medical errors.

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Creates a “shared savings program” that encourages the investment in infrastructure and redesigned care processes for high quality and efficient service delivery. Healthcare providers may manage and coordinate care for Medicare beneficiaries through an accountable care organization (ACO), which can be eligible to receive payments for shared savings.

An ACO is required to, among many things, promote evidence-based medicine and coordinate care through the use of telehealth and other enabling technologies.

Organizational leaders need to be seen as leaders and innovators

As Dr. Donald Berwick, former Administrator of the Centers for Medicare & Medicaid Services (CMS) stated in his seminal article on using innovations in healthcare, “Healthcare is rich in evidence-based innovations, yet even when such innovations are implemented successfully in one location, they often disseminate slowly, if at all.” He also states that “although integrating evidence-based practice should be a priority for all providers, organizations and leaders are slow to make major changes.”

Berwick identified five types of leaders based on their ability to innovate with 50% falling into three categories.
“Innovators” (the first to change) – 25%; “Early Adopters” (quickly see the need and change) – 13.5% and “The Early Majority” (more risk averse) – 34.5%. Administratively supporting evidenced-based practice, by supporting changes and providing resources throughout the organization, shows forward thinking business planning and leadership.16

Agency can be identified by physicians as collaborators
Hospitals and physicians are deeply involved in practice changes, both organizationally and clinically. It is imperative that homecare providers be seen as collaborators in that effort. For example, to position themselves as change makers rather than responders, in April of this year, nine prominent physician groups released lists of 45 common tests and treatments they say are often unnecessary and may even harm patients.

This move represented a high-profile effort to help reduce the extraordinary amount of unnecessary treatment, said to account for as much as a third of the $2.6 trillion Americans spend on healthcare each year. This and future proactive efforts by professional care givers can result in increasing discussion about what is best for the patient, based on evidence, and support more nurse-physician collaboration to attain mutual goals.17

Organizational ability to improve internal and external data
When evidence-based practice is used as a component of clinical decision-making and organizational culture, organizational improvements can occur:

- Variability can be diminished across different clinicians and offices.
- Accuracy of patient outcomes can improve because there is a clear link to cause and effect.
- Adverse events likely will decrease as policies are based on proven evidence.
- Benchmarking becomes increasingly valid and reliable, providing support to administration.
- Accreditation, licensure and regulatory standards can be transparent because care is based on sound rationale.

Evidence-based practice
Evidence-based practice movement started in 1972 when a British epidemiologist criticized the medical profession for not compiling and analyzing the results of numerous studies that supported the effectiveness of administering corticosteroids to high-risk pregnant women in preterm labor. When the review was finally completed, it indicated that using the therapy reduced the odds of premature infant death from 50% to 30%.

The diffusion and adoption of ideas associated with evidence-based healthcare during the 1990s are still powerful and relevant to the current problems and challenges healthcare faces today. In the past 10 years, numerous academic centers, professional schools and professional organizations have tested and refined models and integrated clinical observations by expert practitioners with scientific research in developing evidence-based practice guidelines and protocols to support providers and organizations in adopting best practices.18

Evidence — A proof supporting a claim or belief. For health interventions, evidence refers to the effectiveness of an intervention in achieving an outcome that will create lasting changes in the health of the population. This evidence is usually published in scientific literature such as in professional journals, books or government reports.

Levels of evidence — The strength of evidence is determined based on both the quantity and quality of the studies. For example, systematic reviews are of higher quality since they are the most time-intensive scientific articles to write and are therefore rarer with a lower quantity than other types of studies.

Evidence-based practice — Evidence-based practice is a problem-solving approach to clinical care that incorporates the conscientious use of current best evidence from well-designed studies, a clinician’s expertise, and patient values and preferences. All three of these key components must be present for evidence-based practice to be effective.

Aspects of the evidence-based practice process are interrelated and all have the opportunity to affect clinical decisions. In addition, when evidence-based practice is provided within the context of caring, it leads to the best clinical decision-making, as well as the
Levels of evidence for determining meaning and significance*

* Evidence Based Nursing: http://ebp.lib.uic.edu/nursing/node/12

Comprehensive evidence-based practice model†

Evidence-based practice in homecare

Currently there are no professional organizations that review and develop clinical evidence specific to homecare. However, since professional services are delivered to patients experiencing a variety of diagnoses and conditions, evidence-based protocols and guidelines from the scientific literature, governmental agencies, and professional and diagnosis-related organizations can be successfully adopted to homecare patients.

Additionally, a significant body of work on evidence-based practice for homecare has been done by the Centers for Medicare & Medicaid Services (CMS) and its contractors, and Quality Improvement Organizations (QIOs). The Home Health Quality Improvement (HHQI) National Campaign created resources to improve patient care processes.

Strategies for transitioning to evidence-based practice

The first steps in developing a process plan for transitioning an agency into using evidence-based practice is to conduct an organizational assessment with a focus on identifying anticipated problem issues and potential approaches that administration can implement to support the change. Although each homecare organization is unique, common potential barriers exist that all homecare providers may experience when transitioning to evidence-based practice.

The following section identifies those potential problems and suggests possible approaches. This discussion is not all-inclusive and is presented to help administrators begin developing their own organization assessments, stimulate discussion and develop successful transition plans.

**Anticipated barrier: “We have to follow what’s in the regulations”**

The primary obstacle to changing homecare practice patterns is a perceived conflict between evidence-based practice and Medicare regulations. Medicare continues to be the major payer for homecare services, with the majority of other payers using Medicare regulations as their reimbursement guide. Homecare clinicians, unique from their colleagues in other settings, must constantly integrate Medicare coverage criteria, guidelines, regulations and other non-clinical requirements into their patient care and documentation. Additionally, since the organization is unable to submit payment requests until specific documentation is completed, clinicians are very focused on delivering care under Medicare parameters.

With this focus on assuring payment criteria is met, clinicians and organizations easily can lose sight of the equally important responsibility of assuring that clinical staff and organizational policies include current and best clinical practices. Additionally, administrators and managers need to be aware of the reimbursement changes that will replace the number and type of service units provided to payment based on patient outcomes that are based on evidence.

**Suggested approach**

Although regulatory and accrediting organizations provide rules for compliance, they were never intended to provide the clinical guidelines that tell nurses and therapists how to practice. To be compliant, agencies must show why they adhere to the rules, but there are no directions on how to reach compliance. Using evidence-based clinical practices does not conflict with being compliant and licensed If it is perceived as doing so, everyone in the agency should be involved in clarifying the issue to determine how to make evidence-based practice work.

**Anticipated barrier: “We work under physician orders”**

It is true that regulations and laws require that homecare clinicians work under specific orders from the patient’s physician or primary care provider. These orders are considered medical orders. Skilled professional clinicians are required to develop the plan of care based on both these orders and the nursing/therapy orders that they create.

The nursing/therapy orders are based on their professional expertise and the organization’s policies and procedures. Reflecting on the statistics presented earlier, physician orders may not always follow evidence-based guidelines and may have a negative effect not only on the patient, but also on the organizations’ care outcomes and reimbursement.

For example, an evidence-based clinical guideline states that all patients with a certain cardiac diagnosis should receive a prescription for X medication to be taken once a day. The evidence-based rationale is that the research has proven – at a high level of confidence (99.5%) – that if these patients do not receive this medication, they will be readmitted to the hospital within 7 to 10 days of hospital discharge. If a home health agency receives physician orders to see a patient with this diagnosis and no order for this medication is on the referral, two scenarios can occur:

- If the agency and clinician base care on best practices, they are aware of this omission and contact the physician to review the order for a possible omission or a reason why the drug was not ordered. Hopefully, there is a positive outcome and the physician adds the medication to patient’s orders,
or supports the omission. With the patient willing to adhere to the physician’s order, the patient then receives homecare services that include the clinical evidence, the clinician’s expertise and the personal preferences, then is discharged with his care goals met.

• If the agency is not basing care on best practices, the omission isn’t discovered and the plan of care is created exactly as the physician has ordered. Even though the patient receives care from an expert clinician and his personal preferences are respected, his care is lacking an important component — a best practice of taking the specific medication. The patient will most likely be readmitted to the hospital within a few days experiencing similar symptoms he experienced before the recent hospitalization. The homecare clinicians are likely surprised and dismayed and this event is added to the agency’s national Home Care Compare scores, increasing its percentage of Preventing Unplanned Hospital Care.

Suggested approaches
• Share the research you have from the scientific literature, your agency’s clinical and patient applicable data and any from other reliable sources with the physician, as a simple means of clarifying the orders.
• Provide staff access to reliable and current evidence to support assessments and decisions that clinicians must immediately make while in the field. The incredible amount of new disease and clinical information is often difficult to understand and remember, and much isn’t scientific or relevant. This is the area that can be supported by the agency’s computer system.
• Continue to stress that using evidence-based practice isn’t an issue of being wrong or right. Moving to an evidence-based clinical practice means providing care differently based on a scientifically proven, better way.

Anticipated barrier: “The agency’s IT system is more focused on back office than clinical practice”
Many homecare technology systems have clinical content that may not have been developed using evidence as the foundation. Current clinical content may be outdated, incorrect and different for each agency. Additionally, the vendor may not have clinical experts available for ongoing questions, updating content, or verification of the functionality and flexibility of what the organization needs to participate in new opportunities.

Suggested approaches
• Identify the sources and rationale that supports the clinical content from your current technology provider.
• Explore with your provider how it plans for your organization to move into a system that requires clinical practices based on evidence-based practice.
• Assure that your agency’s need for evidence-based clinical content matches or exceeds the time, money and research your provider spends on meeting your organization’s regulatory, technology and business needs.
• Establish with your vendor that the organization’s need for an evidence-based clinical care and documentation platform requires a new type of ongoing communication, problem identification and strategic approach.

Anticipated barrier: “No one really knows about evidence based practice”
There is a major knowledge deficit about evidence-based practice from everyone involved in healthcare at all provider levels. Nurse clinicians’ and managers’ familiarity with evidence-based practice varies from a low level to nonexistent:

Clinicians — A majority of nurses (75%) reported that they often or regularly needed information for their practice and that they feel more comfortable asking colleagues or peers than searching the Internet. When asked what scientific information sources they consult, 58% didn’t use any research reports to support practice, 82% never used a hospital library and 46% were unaware of the term evidence-based practice. The study’s findings have been reinforced in both practice and education.

Using evidence-based clinical practices does not conflict with being compliant and licensed, and if it does, everyone in the agency should know the procedure to move the issue forward.
The author summarizes by saying, “They don’t understand or value research and have received little or no training in the use of tools that would help them find evidence on which to base their practice.”  

Managers — Basing management decisions on theories and the newest literature has received little attention in business education and is not routinely practiced in the workplace. As Dr. Denise Rousseau states in her Presidential Address at Carnegie Mellon University, “For the most part, managers looking to cure their organizational ills rely on obsolete knowledge they picked up in school, long-standing but never proven traditions, patterns gleaned from experience, methods they happen to be skilled in applying and information from vendors.”

She goes on to explain that the label evidence-based practice can be used to characterize superficial practices (another company’s so-called best practice or the latest best practice tool consultants are selling). Highly developed in medicine, this technique is just beginning to be applied to business and public administration.

**Suggested approaches**

- Top-down organizational support that requires those at the highest levels have foundational knowledge, strong beliefs about the importance of basing care on evidence, and critical thinking skills that can assure the change is continuously reinforced.

- The development of an organizational culture that openly supports evidence-based practice by including the following actions:
  - Encourage an environment that supports clinical inquiry — where clinical questions can be asked, answers retrieved from reliable sources (instead of only colleagues), and then make decisions based upon evidence-based, relevant factors, clinician input and patient values.
  - Choose partners that have transitioned agencies to an evidence-based culture so they can inform and support your goals.
  - Provide resources for initial and continuing education opportunities for all departments, not just clinical staff.
  - Integrate evidence-based clinical competencies into performance appraisals.
  - Integrate awards and recognition for successful evidence-based practice implementation and outcome management products into current quality activities.

- Implementation of a plan to integrate evidence-based practice into your current information technology solution.

- Identification of specific electronic measures, beyond standard operational data, that support analysis of clinical and professional outcomes from evidence.

- Consistent organizational communication about changes, activities and results of using evidence-based practices should be widely shared with internal and external customers.

**Summary**

Evidence-based practice is critically important in emerging healthcare models. Homecare executives must take the lead in creating an organizational culture that supports evidence-based practice that will improve all areas of the business. Developing an effective and successful transition plan requires identifying anticipated barriers and strategies for success. Home health agencies that follow the plan will have an opportunity to move in sync with other provider innovators and leaders.
Endnotes


