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Healthcare Management
 Alumni Association
 The Wharton School
 University of Pennsylvania
 204 Colonial Penn Center
 3641 Locust Walk
 Philadelphia, PA 19104
 215.898.6861 phone
 215.573.2157 fax
www.whartonhealthcare.org

**HEALTH CARE MANAGEMENT
 ALUMNI ASSOCIATION**

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Duane Morris LLP
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EDITOR'S LETTER

The April issue is chock full! From news about the 2016 WHCMAA strategic plan and a June Kinney scholarship winner to articles about the human factor, systems, and technology, there is something for everyone.

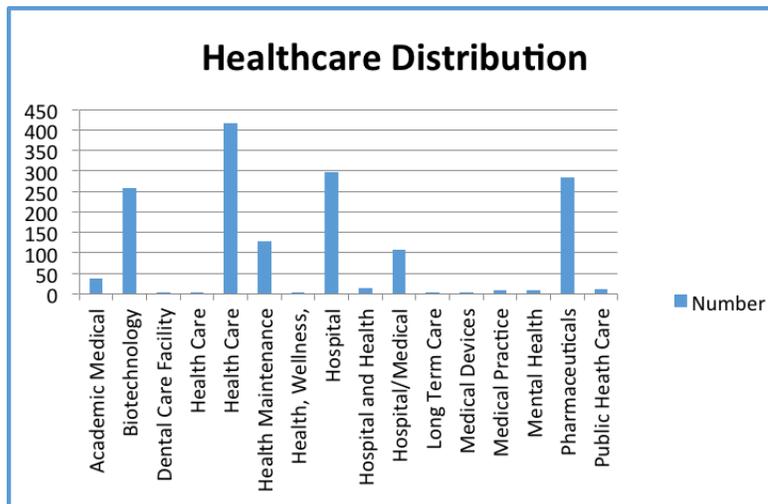
For those who were not able to attend this year's 22nd annual Wharton Healthcare Business Conference, "[The Innovation Game: The Race Between Entrants + Incumbents](#)," held in Philadelphia February 18 - 19, 2016. [Check out](#) this consistently excellent event.

Great news! We are running a discount to place an ad in the *Wharton Healthcare Quarterly*:

- ¼ page ad in the July and October issues OR a full page ad in the October issue for \$375 (a 25% discount). (The October issue includes an ad in the print version of the WHQ which will be handed out during the annual Alumni Healthcare Conference)

The deadline for submitting your ad materials is June 5.

Our open and click-throughs for the web version are above digital benchmarks, and it is currently distributed to more than 4000 readers, including the following distribution for the close to 1600 WHCM program alumni in the healthcare sector:



If you have questions or would like to place an ad, please contact us at customerservice@whartonhealthcare.org

Z. Colette Edwards, WG'84, MD'85
Managing Editor



Z. Colette Edwards, WG'84, MD'85
Managing Editor

To learn more about Colette, [click here](#).

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THE PRESIDENT'S DESK

Dear Friends,

The Wharton Health Care Alumni Association **is the leading network for the business of healthcare**. The alumni association achieves this status in two ways:

- supporting the leading MBA program for the business of healthcare – the Wharton Health Care Management Program
- connecting all Wharton alumni in the business of healthcare with each other and with students

Supporting the Healthcare Management Program is an awesome responsibility for the Alumni Association. It is also an outstanding opportunity. Every alumnus or alumna can have a profound impact on the lives of others. In fact, having a strong and vibrant alumni network is, itself, the best way we can make the program stronger and help attract outstanding students who appreciate the alumni network. And we help students learn, find jobs, launch ventures, and succeed.

We also recognize that some alumni connect to healthcare after graduation, and we welcome all Wharton and Penn health professional alumni who are in the business of healthcare to join our alumni association.

The Alumni Association recently completed a strategic plan to set a clear direction for how we will support alumni to connect with each other and support current students. You can find a copy of the strategic plan under “About” on our website whartonhealthcare.org. Here are some highlights:

Our vision is: The Wharton Health Care Management Alumni Association is the leading network for the business of health; providing meaningful engagement, lifelong learning, and career guidance; connecting leaders with students, faculty, and fellow Wharton alumni in the business of health.

Key initiatives include:

Interest Groups: We are setting up Interest Groups to provide the most relevant information and opportunity to each alumna/us. In the coming months, we will be asking you to choose an Interest Group so we can connect you with the right colleagues via social media and at conferences. The first Interest Groups we will launch include:

- Provider/Payer
- Life Sciences
- Digital Health/IT

Career Development: We are redesigning our Career Development program to enhance and build upon the incredible personal support we have each received over the years from June Kinney.

Communication Platform: We will be selecting social media and other communication tools that will support effective interaction within the Interest Groups, for Career Development, and more broadly.

Connecting/Reconnecting: We will be reaching out to all eligible WHCMAA members, including alumni of Wharton and WEMBA as well as Health Care Management program alumni who have lost contact with this amazing network of alumni.



John Harris, WG'88
To learn more about John,
[click here.](#)

THE PRESIDENT'S DESK

continued

There are so many opportunities for us to strengthen our community. If you want to be part of any of this, please contact me so you can get plugged in.

Warm regards,
John Harris
President
Wharton Health Care Management Alumni Association

To contact John:
JHarris@Veralon.com
877.676.3600

CHOOSE ONE

A:

Decide that you don't want to be on the bleeding edge with such a big, strategic decision

B:

Realize that using a private health exchange has become the leading edge, adopted by forward-thinking companies

It's estimated that total enrollment in private health insurance exchanges by active employees will reach about 40 million by 2018. The private exchange solution presents an opportunity to offer employees an attractive health benefit package while responsibly managing or even capping company costs—even in the face of legislative uncertainties.

Of the private exchanges, only one offers the experience you want with the highly adaptable solution you need: OneExchange. We've done it for nearly a decade, supporting full- and part-time employees as well as early and Medicare-eligible retirees. The best time to future-proof your benefits program? Before the future gets here. Visit us at chooseoneexchange.com and see what we can do for you.



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THE PHILOSOPHER'S CORNER

Life Lessons:

If I knew then what I know now, I would have:

spent more time researching the financial position and ownership of potential employers rather than just being attracted by the glamour of the role and upside potential. I have those analytic skills, so not sure why I didn't use them more on myself.

If I knew then what I know now, I would not have:

tried so hard to hide an important part of who I am -- that I am gay -- in the interest of fitting in. I am much more effective as an authentic, whole person.

Favorite Quotes:

1. "Be the change you want to see in the world." ~ Mahatma Gandhi
2. "No man ever steps in the same river twice, for it's not the same river and he's not the same man." ~ Heraclitus
3. "Two roads diverged in a wood, and I -- I took the one less traveled by, and that has made all the difference." ~ Robert Frost
4. "Parents can only give good advice and put them on the right paths, but the final forming of a person's character lies in their own hands." ~ Anne Frank
5. "Art is how we decorate space. Music is how we decorate time." ~ Unknown

Recommended Reading:

- *The Joy of Strategy: A Business Plan for Life* by Allison Rimm
- *Flawless Consulting: A Guide to Getting Your Expertise Used* by Peter Block
- *The Blue Zones: 9 Lessons for Living Longer from the People Who've Lived the Longest* by Dan Buettner
- *Chaos and Organization in Healthcare* by Drs. Thomas Lee and James Mongan
- *Great by Choice: Uncertainty, Chaos, and Luck -- Why Some Thrive Despite Them All* by Jim Collins and Morten Hansen

Contact Todd at: todd.herrmann.mba@gmail.com



This month's philosopher:
Todd Hermann, WG'85
To learn more about Todd,
[click here.](#)

Column Editor:
Z. Colette Edwards, WG'84, MD'85
To learn more about Colette,
[click here.](#)

ALUMNI NEWS

Katherine (Katie) Ellias, WG'06

Paris, France based Sofinnova Partners (www.sofinnova.fr) raised a new €300 million healthcare fund, above the initial fund target of €250 million. Sofinnova Capital VIII will invest in the healthcare industry and more specifically in the biopharmaceutical and medical device sectors. Sofinnova Partners will seek to invest as a founding and lead investor in start-ups and corporate spin-offs and focus on therapeutic “paradigm shifting” technologies and products alongside visionary entrepreneurs. Sofinnova Capital VIII will invest about two thirds of its funds in European companies and one third outside of Europe, primarily in North America. Two Wharton MBA alumni, Managing Partner, Antoine Papiernik (WG'92) and Senior Associate Katie Ellias (WHCM'06) are among the 12 experienced investment professionals in the new fund.

Contact Katherine at:

www.sofinnova.fr

kellias@sofinnova.fr

@katieellias

@sofinnovaparis

Info@sofinnova.fr

[Learn more.](#)

Sandeep Puri, WG'99

After several years leading and building healthcare revenue-cycle management businesses, I co-founded a company called Patientriciti to make patient-provider communication more effective and efficient. Patientriciti is a multi-modal, multi-lingual, patient engagement and remote care management platform that helps providers reach and engage with different segments of the population in a personalized way to effect sustained behavior change.

Patientriciti's programs educate patients on disease management, track and assess patient health status through a series of questions, analyze responses to identify care gaps, and reduce the burden of routine care management work by helping the care team focus on the patients that need help. I would love to hear from fellow Wharton alumni who may be interested in learning more about our capabilities.

Contact Sandeep at:

Sandeep.puri.wg99@wharton.upenn.edu

[Learn more.](#)

ALUMNI NEWS

continued

Howard Botwinick, WG '90

Here's my update since 1990. UCSD M.D. 1994, Emergency Medicine Residency at UCLA 1998, Practiced Emergency Medicine for 7 years. Then Medical Director and Senior Medical Director for Palo Alto Medical Foundation for 8 years. Then decided to enjoy my life outside of work more, so now...

Medical Director at Brown & Toland Medical Group - 60% time focusing upon quality, chronic disease management including tele-management, risk adjustment optimization leading to revenue optimization, and physician contracting/compensation.

With the rest of my time, I'm living the dream...

- I'm a performing musician/singer-songwriter; my stage name is Dr. Notorious.
- I'm also involved with the Human Growth Movement particularly the Human Awareness Institute (HAI).
- I even became a "Certified Tantra Educator." Really.

Contact Howard at:
oakman999@gmail.com
415.375.0369

[Learn more.](#)

Z. Colette Edwards, WG'84, MD'85

I'm happy to announce the launch of a new resource I developed with my professional colleagues in mind: **Be Less Stressed**. This portfolio includes an entire year's worth of motivation, solutions, and activities with one goal in mind: to provide you (and perhaps your clients!) with the tools to **BE LESS STRESSED**.

As a physician, healthcare executive in the Fortune 50, and integrative health practitioner, I know first-hand the negative impact that stress has on the body, mind, and spirit. With consequences ranging from negative health and well-being impacts, lowered productivity, higher presenteeism, absenteeism, and medical costs due to stress-related symptoms and conditions, the time for a new approach to mitigating stress is NOW.

Visit www.BeLessStressedGuide.com today to learn more. Please join us on Facebook <https://www.facebook.com/BeLessStressed/> for additional information, inspiration, and connection with others on a **Be Less Stressed** journey!

Contact Colette at:
ZCEdwards@zcoletteedwards.com

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AFFIDAVIT: HEALTHCARE AND THE LAW - TELEMEDICINE AND ANTITRUST/THE TEXAS CASE

Telemedicine provides enormous business opportunities, but regulatory due diligence is a must. While there is no question that telemedicine is here to stay, the legal landscape is fluid. Even though many payers are reimbursing for telemedicine services, a physician cannot practice telemedicine if governing State law prohibits it. As States grapple with how to regulate telemedicine, all eyes are on Texas, where an interesting battle is in play between a telemedicine company, [Teladoc](#), and the State Board of Medicine involving practice of medicine requirements, unlawful agency action, and even antitrust law. Teladoc's antitrust claim has certainly raised the ante as the telemedicine market defines itself.



A preliminary issue is the definition of telemedicine. According to the [American Telemedicine Association](#), “telemedicine is the remote delivery of healthcare services and clinical information using telecommunications technology. This includes a wide array of clinical services using internet, wireless, satellite and telephone media.” Telemedicine is sometimes called “telehealth” (by Medicare) and the term is closely related to “digital health,” “e-health,” health information technology (“HIT”), and mobile health (“mHealth”) among other terms.

The focus of the telemedicine debate is whether the “practice of medicine” should include the provision of health services when the healthcare provider has an established relationship with the patient and/or is not in the same room with the patient. Twenty-two States have laws, regulations, or guidance that permits some form of remote consultations, often with some restrictions. For instance, in Pennsylvania the State Medicaid program pays for limited telemedicine services between a patient and a specialist as long as the services are provided at an authorized site. Some private Pennsylvania payers and employers cover telemedicine services for common conditions (colds, ear infections, etc.) and for special conditions (dermatology and behavioral health). To date, the Pennsylvania Board of Medicine has not formally weighed in on the extent to which telemedicine is permitted under the State’s practice of medicine laws, or when conditions apply. Thus, Pennsylvania is more fertile ground for telemedicine.

Not so in Texas. Since 2011, the Texas Board of Medicine has shone its spotlight on the practice of telemedicine and specifically Teladoc’s services. Teladoc is one of the nation’s largest telemedicine companies, boasting a network of over 700,000 physicians and 11 million patients. Under its model, it offers immediate physician access via telephone or video for a monthly subscription fee as well as a small visit fee, both of which are typically paid by the consumer. It has contracts with payers, employers, government agencies, and others (including the Texas Medicaid agency) to offer its services to their members and employees. Teladoc physicians are licensed, independent contractors and, in accordance with Teladoc requirements, may diagnose many common conditions and prescribe medications. The doctors are paid a fee for their services.

Five years ago, the Texas Board issued a letter to Teladoc stating that the provision of remote treatment by physicians without an established physician-patient relationship did not comply with practice of medicine requirements. Teladoc argued that there was no specific regulation supporting the Board’s position. Teladoc sued the Board, and the State court ruled in Teladoc’s favor. The Texas Board then tried to pass a regulation to implement the physician-patient relationship requirement. Teladoc again sued, and once again the court ruled in its favor. Yet the Texas Board would not back down.

Contributor:
Lisa W. Clark, JD’89
To learn more about
Lisa, [click here](#).

AFFIDAVIT: HEALTHCARE AND THE LAW - TELEMEDICINE AND ANTITRUST/THE TEXAS CASE *continued*

In April 2015, Teladoc sued the Board under antitrust laws alleging that the regulation would restrain trade and have anti-competitive effects by shifting the provision of physician services towards the office setting, and thereby raising prices and reducing the output of physician services. It claimed the Board's activities were not motivated by quality of care concerns, but rather by the interests of traditional physicians, i.e., those who do not practice telemedicine. Teladoc also noted that 12 of the 14 members of the Board are physicians, all of whom voted in favor of the regulation. Once again Teladoc prevailed, and the Federal court enjoined the Texas Board from implementing the regulation under an antitrust analysis.

The application of antitrust laws to boards of medicine and the other healing arts is not limited to the Teladoc case. As new models of healthcare and bodily treatment emerge, these boards have been under fire for taking positions that undermine competition. Several years ago, the Federal Trade Commission brought an action against the North Carolina Board of Dentistry based on the board's decision to prohibit professionals who were not dentists from providing teeth whitening services. The Board claimed state immunity. Last year, the United States Supreme Court ruled the Board did not have immunity because the Board was composed predominately of dentists and the State did not actively supervise the Board. Healthcare professionals do not have unilateral discretion to police the profession.

Nevertheless, the Texas Board is pressing on and is appealing to the Federal Appeals Court the District Court's decision to enjoin the regulation claiming its situation is different from the North Carolina Board of Dentistry's so that state immunity applies. The Board maintains its decision to require a physician-patient relationship is required to assure quality of care and that it is not violating antitrust laws by manipulating the market. So the battle rages on.

The extent to which the Texas Board will remain resolute in its apparent determination to closely regulate telemedicine is unclear. Over the years it has made a few concessions. Several years ago, it tried to prevent all video-based telemedicine. That restriction was abandoned when it sought to implement the physician-patient relationship requirement discussed above. More recently, it created a license for the out-of-state practice of telemedicine limited to the interpretation of diagnostic testing and reporting and following up with patients where the majority of care was rendered in Texas or another State. Still it is one of the most active boards of medicine on the subject of telemedicine.

While to many the Board's activities appear to be obstructionist, others believe it is giving careful thought to the questions of "What is telemedicine?" and "How should it be regulated?" In light of this shifting environment, investors and developers should carefully measure the impact of Federal and State laws and developments when evaluating a telemedicine opportunity.

Contact Lisa at: LWClark@duanemorris.com

Disclaimer: This article is prepared and published for informational purposes only and should not be construed as legal advice. The views expressed in this article are those of the author and do not necessarily reflect the views of the author's law firm or its individual partners.

STRONGER THAN THE SUM OF OUR PARTS: TRAINING DIFFERENT DISCIPLINES TOGETHER – PART 4

*In 2014, CFAR produced a report with the Robert Wood Johnson Foundation (RWJF) called *Lessons from the Field: Promising Interprofessional Collaboration Practices*, which identifies ways to increase collaboration among healthcare professionals, in service of improved healthcare delivery. This is the final article in a series of four about actionable practices for effective interprofessional collaboration (IPC). Here, we explore a practice to accelerate this collaboration.*



In looking across the seven healthcare organizations participating in the project, one of the key practices we identified is training different disciplines together. We will explore the significance of this practice here, how it plays out, and ideas for implementation.

Why is this practice important?

The Institute of Medicine (IOM) reports teamwork and communication failures as a cause of medical errors. It also states that healthcare training should incorporate “proven methods of teamwork training, like simulation.” Training provides an opportunity to break down the professional silos that exist in healthcare. Interprofessional collaboration must be learned — which is no easy feat, given the current structure of training and education across the numerous professions we expect to come together in the service of integrating care for patients.

What does this practice look like in action?

The healthcare industry continues to develop rapidly due to diverse factors from scientific discovery to alternative payment models that necessitate new ways of working together. The industry’s growth presents greater needs for training and education. Tremendous opportunity for increasing collaboration exists in training different professions together. Teams perform better when each person knows their own role AND the roles of the other team members, which is not always the case for care teams. One way to make this possible is by developing interdisciplinary quality improvement (QI) or performance improvement (PI) programs. Each discipline learns this new skill together, and individuals develop knowledge of their own role and also others’ roles. This learning diminishes the impact of professional silos and has a positive effect on the team’s capabilities, as: “students trained using an interprofessional education approach are more likely to become collaborative interprofessional team members who show respect and positive attitudes toward each other and work towards improving patient outcomes.”¹

Case Examples:

*Cincinnati Children’s Hospital Medical Center
Center for Simulation and Research*

The Center for Simulation and Research at Cincinnati Children’s Hospital Medical Center provides simulation education to interdisciplinary teams. Healthcare providers are given the ability to practice non-technical skills, such as teamwork and communication, in a safe environment. As Tom Lemaster, RN, MSN, Med, REMT-P, EMSI, the former program director, said, “It is important to train as people work. Instead of nurses practicing with nurses and doctors practicing with doctors, training should be as multidisciplinary teams... This is what we do.”

LeMaster and Kristin Boggs, JD, MHI, RN, Acting Vice President and Chief Patient Services Informatics Officer, described how interdisciplinary teams are placed in real-life patient care settings — often planned in advance at the Center and sometimes put into

Contributors:
Carey Huntington Gallagher and
Jennifer Tomasik
To learn more about
Carey and Jennifer, [click here](#).

STRONGER THAN THE SUM OF OUR PARTS: TRAINING DIFFERENT DISCIPLINES TOGETHER – PART 4 *continued*

action on the units in surprise training scenarios. The simulation itself is critical, but the debriefing and reflection is even more important. Skilled facilitators observe and film the situation as it unfolds. They watch for positive behavior and flag opportunities for discussion and improvement.

We observed a Pediatric Advanced Life Support (PALS) simulation, where a beloved physician and other team members applied their knowledge of PALS guidelines to the simulation. The physician purposefully administered the wrong ratio of breaths to chest compressions. A few nurses mumbled quietly to colleagues. During the debrief, the facilitator asked what people had been whispering about. One brave soul finally said the doctor wasn't implementing the guidelines appropriately. Others started to nod their heads in agreement. The physician asked emphatically, "Why wouldn't you tell me?" They replied, "But you're Dr. X." His "planned mistake" was done to teach participants the importance of speaking up. The physician took the opportunity to be clear that he wants feedback, and the team learned they should trust their judgment.

The debrief enables all individuals to better understand and adapt their behavior, but more importantly, to make connections between their individual skills, expertise, and actions and those of their teammates.

Intermountain Healthcare Palliative Care Team

At Intermountain Healthcare, we met with the interprofessional palliative care team called Rainbow Kids. The team includes a physician, NPs, a nurse, chaplain, and social worker.

Rainbow Kids is an inpatient consultative service available to patients and families by referral. The palliative care team holds a meeting, asking the family to tell their story. This gives the team the opportunity to develop a meaningful relationship with the family in a safe environment with no interruptions. They discuss goal-setting, medical decision-making, relationships, and support. Following the family meeting, the team puts together one summary note. The entire team provides input, and there is a formal consult to the child's primary pediatrician and subspecialists. There is also input from music therapy, child life, and community resources in developing the plan.

For eight years, the palliative care team has been attending group therapy sessions twice a month. This fosters open communication, trust, and the ability to build strong relationships. The team believes in mutual respect, with Sheetz telling us that "no one is above anyone else. We have different roles and functions, but we are first a team."

Interprofessional collaboration increases engagement and effectiveness by developing a platform for leveraging skills of different disciplines to achieve the IHI's Triple Aim. This series has explored the case for IPC in healthcare and three proven practices for cultivating it, including demonstrating leadership commitment, creating a level playing field, and training the team together.

For more information on this topic or related materials, contact CFAR at info@cfar.com or 215.320.3200 or visit our website at <http://www.cfar.com>.

References

1. Bridges Diane R. et al. 2011. "Interprofessional Collaboration: Three Best Practice Models of Interprofessional Education." *Medical Education Online* 16: 6035, accessed October 16, 2014, doi: 10.3402/meo.v16i0.6035.

EMPOWERING HEROES: UNDERSTANDING WHAT WE MEAN BY “HOME HEALTHCARE” – PART 2

In [Part 1](#) of this three-part series, we described our belief that empowering people is the key success factor in home healthcare. In this article we hope to better describe the current home health sector, before moving onto a third and final article that will explore innovations in home healthcare.



BAYADA Heroes

For many people, there is confusion as to what we exactly mean by “home healthcare.” We define home healthcare as services where the primary value for the patient comes from *people helping other people in their homes*. While there are other services that reach into the home like durable medical equipment, home infusion, telehealth or home-based health risk assessments, we see these as being different, because the primary value is not based on direct, physical, interpersonal relationships.

Home healthcare services are delivered by a variety of disciplines and under several types of models, but are broadly categorized as being either “medical” or “non-medical.” Medical home health requires a higher level of clinical oversight, clinical training, and regulatory compliance required by most third party regulatory bodies and reimbursement sources. These organizations are usually “Medicare certified” by Federal and state regulations. Non-medical home care services usually require a lower threshold of clinical oversight and training and are regulated only at the state level.

The types of services performed by medical and non-medical home health can be generalized as:ⁱ

Types of home health care services (2013 U.S. market size)		
	Medical	Non-Medical
Home Health	✓ (\$18 BN)	
Home Hospice	✓ (\$15 BN)	
Home Care	✓ (\$28 BN)	✓ (\$15-23 BN)

Home Health

Patients and families often first learn about home healthcare services after discharge from a hospital or skilled nursing facility. About 20% of Medicare beneficiaries are discharged home with home health.ⁱⁱ Medicare home health was historically seen as a post-acute benefit, but about two-thirds of home health episodes are no longer preceded by hospitalization within 60 days of the episode.

Contributors:

Adam Groff, MD '06, WG '06 and
David Baiada, WG '06

To learn more about Adam and David, [click here](#).

EMPOWERING HEROES: UNDERSTANDING WHAT WE MEAN BY “HOME HEALTHCARE” – PART 2 *continued*

At facility discharge or through a primary care physician, a referral is made to a Medicare-certified home health agency, where a patient who is homebound with a part-time, intermittent, and skilled need can receive, based on their needs, a combination of nursing, social work, and physical/occupational/speech therapy services. Typically, patients receive about 3 visits per week from this interdisciplinary team for wound care, patient education, monitoring of serious illness, or physical rehabilitation.

Episodes last 60 days, and about 20% are recertified for a subsequent episode, with Medicare paying approximately \$2,700 per episode on average. Medicare Advantage plans pay for a similar service, but frequently pay on a per-visit rather than episodic basis. Total Medicare home health spending was \$18 billion in 2012.

Home Hospice

Most people at the end-of-life would prefer to die at home, in comfort, surrounded by their loved ones. Increasingly, home hospice is utilized at the end of life to achieve this goal, with about 45% of Medicare decedents using hospice, up from 20% in 2000.ⁱⁱⁱ

Hospice eligible patients have a terminal diagnosis with a life expectancy of 6 months or less, as certified by their physician. The hospice care model is interdisciplinary, with case managing nurses, social workers, physician medical directors, spiritual counselors, bereavement counselors, volunteers, and home health aides being part of the team. Patients enrolled in hospice focus on care that improves symptoms and quality of life, and hospice pays for medical equipment and medications related to the terminal diagnosis.

Hospice is paid primarily by traditional Medicare on a geographically adjusted per diem basis of about \$150 to \$200 per day for routine care. Starting this year, hospice payment will further be adjusted by a “service intensity add-on” payment during the last 7 days of life, which will mitigate the higher costs of short length of stay patients. In 2013, 1.5 to 1.6 million patients received hospice care, with about \$15 billion in expenditures.^{iv}

Medical Home Care (often called “private duty nursing”)

For people with complex, chronic conditions, long-term home care keeps people in the community and out of nursing home facilities. Patients with complex needs include children and adults with significant medical issues. Caring for these patients requires specialized training and up to 24 hours a day of home care from nurses and home health aides.

Staffing these cases is challenging but helps to relieve family caregivers and provides additional safety in the home. Most of these services are paid on hourly rates ranging from \$13 to \$40 per hour depending upon the required discipline. Most hours are paid at the lowest rate which covers home health aide services that usually provide people with assistive care services for activities of daily living, but sometimes also with skilled needs.

Adults with complex medical needs are often poor, so Medicaid is a primary payer. Children with high-risk needs such as tracheostomy or vent care, but whose parents don’t qualify for Medicaid, often fall under a Children’s Health Insurance Program (CHIP) payment. In 2013, total expenditures for medical home care was about \$28 billion.

EMPOWERING HEROES: UNDERSTANDING WHAT WE MEAN BY “HOME HEALTHCARE” – PART 2 *continued*

Non-Medical Home Care

A final category of home healthcare services is non-medical home care to assist seniors who want to age at home. These services usually supplement activities of daily living. Most frequently, home health aides will provide services like light housework, meal preparation, laundry, dressing, bathing, and medication management. The majority of payment is out-of-pocket, with some coverage from long-term care insurance.

This is a very competitive segment because of low barriers to entry. Typical pay rates range from \$18-25 per hour, with 60-70% of revenue paid to the staffed caregiver. Technology-enabled startups like HomeTeam, Honor, and HomeHero have entered this category. Non-medical home care is a \$15-23 billion market and is probably the fastest growing due to demographic needs.

Summary

Home-based care is a growing and increasingly important segment of healthcare that serves people in many ways. At BAYADA, we are unique as a national organization in that we provide the entire spectrum of home healthcare services. Our service model adapts as new opportunities and needs arise. In the last of this three-part series we will describe how we plan to combine our strategic focus on people with the payment and services innovations emerging in home healthcare.

References

- i. BAYADA analysis
- ii. <http://www.medpac.gov/documents/data-book/june-2015-databook-health-care-spending-and-the-medicare-program.pdf>
- iii. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/Hospice/Downloads/March-2014-NHPCO_Slides.pdf
- iv. http://www.nhpc.org/sites/default/files/public/Statistics_Research/2014_Facts_Figures.pdf

THE PROMISE OF GENE THERAPY IS BECOMING A REALITY FOR PATIENTS

Few fields of science have sparked more hope and promise than gene therapy. A powerfully simple concept, gene therapy targets the genetic source of disease. Using a vector such as a virus (including AAV, adenovirus, and lentivirus) as a vehicle to transport a normal gene into the body, we're able to replace missing or defective genes that are causing disease. Gene therapy is particularly well-suited for treating genetic diseases and disorders with unmet medical needs, such as Leber congenital amaurosis, a rare form of blindness; lipoprotein lipase deficiency, a rare inherited disorder that can cause severe pancreatitis; and recessive dystrophic epidermolysis bullosa, or RDEB, a congenital orphan skin disease that often leads to death.



While there are not yet any FDA-approved genetic therapies available in the U.S., researchers and clinicians have experienced success with gene therapy. In fact, the University of Pennsylvania has made significant contributions to the evolution of gene therapy, including conducting many of the seminal studies.

Addressing Challenges

Not unlike other evolving technologies, gene therapy has its issues — both historical and current. One of its most difficult challenges has been and continues to be determining the appropriate viral vector to deliver a normal gene to cells without compromising the patient's immune system. Unfortunately, there have been harmful consequences. Patient deaths were reported in separate clinical trials in the late 1990's and early 2000's which led a number of gene therapy companies to fold and made financing new gene therapy companies almost impossible.

More recently, researchers have improved and optimized viral vector technologies — specifically, designing less immunogenic vectors that potentially will not trigger harmful immune responses. In addition, several other positive factors have contributed to gene therapy's progress, including greater involvement of government regulators for pharmaceuticals (e.g., U.S. Food and Drug Administration), ongoing academic research, and greater collaboration between academic institutions and industry.

Advancing the Technology

Overall, the impact of gene therapy has been remarkable. Eyesight has been restored with a gene therapy for patients with Leber congenital amaurosis, a rare form of blindness. The first gene therapy trial in patients with this eye disease was conducted by the University of Pennsylvania and Children's Hospital of Philadelphia and was published in 2008.¹

Another major milestone occurred in 2012 when the EU approved the first gene therapy for commercial use in the Western world. This medication — trade named Glybera — was designed to treat a rare disorder called lipoprotein lipase deficiency in which patients have extremely high blood-fat levels and suffer from recurring bouts of painful pancreatitis. In further developments, gene therapy studies have shown unprecedented results in patients suffering from blood cancers. In therapeutics for cancer, one gene therapy has an expanded indication to activate the immune system against a disease, in addition to its initial gene therapy indication to correct a defective gene.

Contributor:

Keith A. Goldan, WG'02

To learn more about Keith,
[click here.](#)

THE PROMISE OF GENE THERAPY IS BECOMING A REALITY FOR PATIENTS *continued*

Moreover, within the past 18 months, gene therapy has surged in the U.S. due to an advanced clinical development pipeline, and an increase in the number of emerging biotech companies focused on gene therapy. Important, too, are that investments in the field have totaled nearly \$6 billion in this same timeframe.²

Offering Hope for Patients with a Devastating Rare Skin Disease

Gene therapy has the extraordinary potential to positively impact the biotechnology industry and offer hope to patients living with rare genetic diseases who have few, if any, treatment options. Fibrocell Science, an autologous cell and gene therapy company based in Exton, PA, is focusing its drug development efforts on rare skin and connective tissue diseases with high unmet medical needs. The company's lead gene therapy program is devoted to an orphan skin disease known as recessive dystrophic epidermolysis bullosa, or RDEB—a congenital, progressive, devastatingly painful and debilitating genetic disease that appears at birth and often leads to death before a patient's 30th birthday.³ RDEB is caused by a mutation of the *COL7A1* gene resulting in the absence or deficiency of a vital protein known as type VII collagen (COL7). COL7 forms anchoring fibrils that hold together the layers of skin. Without these fibrils, skin layers easily separate causing severe blistering, open wounds and scarring in response to any kind of friction, including normal daily activities like rubbing or scratching. Children who inherit the condition are often called “butterfly children” because their skin is as fragile as a butterfly's wings. There are approximately 1,100 – 2,500 RDEB patients in the U.S.,⁴ and today they are limited to symptomatic treatments, including daily bandaging, hydrogel dressings, antibiotics, feeding tubes, and surgeries.

FCX-007, Fibrocell's orphan gene therapy product candidate for the treatment RDEB, is an autologous fibroblast transduced with a lentiviral vector that encodes COL7 and is being developed in collaboration with Intrexon. By genetically modifying autologous fibroblasts, *ex vivo*, to produce COL7, culturing them and then treating blisters and wounds locally via injection, FCX-007 offers the potential to address the underlying cause of RDEB by providing high levels of COL7 (the missing/deficient protein) directly to the affected areas to keep the wounds closed. Fibrocell chose the lentiviral vector because it can integrate its DNA into the fibroblast so that the genetic modification — in this case, the production of COL7 — is passed on to the progeny cells. With this approach, Fibrocell's hope is to begin treating RDEB children at a very early age to reduce their pain and suffering and dramatically improve the quality of their lives and that of their families.

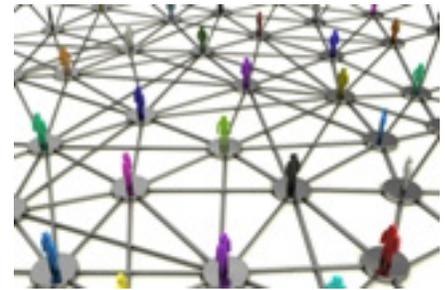
Contact Keith at: kgoldan@fibrocellscience.com

References

1. Hauswirth WW, Aleman TS, Kaushal S, et al. Treatment of Leber congenital amaurosis due to RPE65 mutations by ocular subretinal injection of adeno-associated virus gene vector: short-term results of a phase I trial. *Hum Gene Ther* 2008;19:979-90.
2. Martz, L. Gene Therapy's Coming of Age. *BioCentury*. 23 July 2015. Available (with subscription) at: <http://www.biocentury.com/innovations/coverstory/2015-07-23/why-gene-therapy-is-hot-after-more-than-20-years-of-research-s01>. Accessed October 2, 2015.
3. Fine JD, Bauer E, McGuire J, and Moshell, A. *Epidermolysis Bullosa: Clinical, Epidemiologic, and Laboratory Advances and the Findings of the National Epidermolysis Bullosa Registry*. © The Johns Hopkins University Press, Baltimore and London, 1999.
4. Petrof G., et al. Fibroblast cell therapy enhances initial healing in recessive dystrophic epidermolysis bullosa wounds: results of a randomized, vehicle-controlled trial. *Brit J Dermatol*. 2013 Nov;169(5):1025-33.

THE PROMISE OF PARTNERSHIPS TO IMPROVE HEALTH: AN UPDATE ON PROJECT SAN ANTONIO

With America facing an epidemic of chronic diseases — with about half of all adults living with more than one chronic condition as of 2012 [according to the CDC](#) — research has shown the health of individuals relies in large part on the health of the communities in which they live.



[Last year](#), we told you about the community of San Antonio, and the groups there who are bringing down barriers to health at the local level. Humana is trying to act as a facilitator in this community, connecting groups so they can do more together. It's still early, but we'd like to update you on the progress they have made.

Where we began and how far we've come

The collaboration in San Antonio began in summer 2014 with a Clinical Town Hall. More than 100 participants attended from community groups and Humana. The Clinical Town Hall produced the San Antonio Health Advisory Board (SAHAB), made up of approximately 45 community members who influence health in San Antonio. They gather quarterly to co-create solutions that address the community's biggest health barriers — such as nutrition, healthy behaviors, and health literacy — and figure out which solutions Humana can help support. As of [our last article](#), SAHAB was setting up workgroups. These workgroups are now up and running, meeting biweekly or monthly.

One SAHAB workgroup is supporting the San Antonio Parks and Recreation Department to expand its [Fit Pass program](#), a city-wide effort that gives people “passports” where they earn stamps when they complete physical activities. The SAHAB workgroup has helped build an iOS app to help people track their Fit Pass progress, which has already been downloaded more than 700 times, and they're helping expand the program to give people incentives for getting regular health checks. Their collaboration has already produced results, with 12,208 passports distributed in 2015, compared with 8,812 in 2014. The return rate of completed passports was 45.7% in 2015, compared with 27.1% in 2014.

Another important partner is the [Mayor's Fitness Council](#), and one workgroup is developing a health resource guide the mayor's office has pledged to put online. We're also working with the [San Antonio Food Bank](#) to ensure those who rely on it have access to proper nutrition, and with the [Bexar County Medical Society](#), which connects us to the clinical community in San Antonio. Another workgroup is helping the area's Emergency Medical Services departments reduce the number of unnecessary calls to 911 by offering outpatient solutions for people who are overusing the system.

Early in this process, community groups told us that rather than begin new projects, they would prefer to have Humana work with them on what they were already doing. We've acted on their advice. We've made strides in health simply by linking and lifting existing projects and connecting local groups.

Progress from partnerships

When we began our work in 2014, we did a survey using the [CDC's Healthy Days measurement](#) to establish a baseline for health. San Antonians reported, on average, 5.7 physically unhealthy days per month and 4.1 mentally unhealthy days. We conducted a second survey in 2015, and the results will soon be available. Based on the annual results, we plan to do regular surveys to measure our progress based on this Healthy Days measurement.

Other partnerships have advanced, too. Since our [last article](#), we've moved forward in a partnership with [H-E-B](#), the largest grocery chain in Texas. We began the partnership more than a year ago by focusing on our 1,700 employees in the San Antonio area. H-E-B

Contributors:

Dr. Sandra Delgado and
Pattie Dale Tye

To learn more about Sandra and
Pattie Dale, [click here](#).

THE PROMISE OF PARTNERSHIPS TO IMPROVE HEALTH: AN UPDATE ON PROJECT SAN ANTONIO *continued*

held events at which their nutrition experts gave employees tours of the healthy food in the store and did healthy cooking demonstrations. In a survey of participants, 100% of the 82 respondents said the store tour had changed their thinking about food, and 69% said they substituted the healthy meal for eating out. The program with our employees was a success; its next phase will be expanded to Humana members and patients of Humana's physician partners in the area. In one of our San Antonio Guidance Centers, we've begun H-E-B store tours, led by nutritionists who also teach members to shop using healthy recipes. Physician partners can also write "prescriptions" for nutritional counseling at H-E-B stores. We're currently experimenting with a new program that gives employees incentives to purchase healthy foods at H-E-B.

Next Steps

Despite this early progress, there's still more to be done. In the coming months, we want to address mental health in addition to physical health. In 2016, we'll build seven telepsychiatry centers in primary care physicians' offices. Patients will have direct access to psychiatric consults without having to leave their clinician's office.

We also continue to look for additional health-minded partners with whom to connect on the SAHAB. Its early successes have brought the SAHAB to the attention of even more community groups who are interested in collaborating.

Above all, over the next few years, we'll look to replicate the work we're doing in the San Antonio community in cities around the U.S. In fact, Humana took this concept to six other markets in 2015: Louisville, Ky.; Knoxville, Tenn.; New Orleans, La.; Baton Rouge, La.; Tampa, Fla., and Broward County, Fla. We're documenting everything we do in these cities, so we can share best practices and adapt them to the particular needs of each city. That includes our successes, as well as the questions we're still grappling with, such as, "How do we keep momentum for the long term?"

San Antonio is an incubator, where bold ideas are birthed and we learn from our successes and our failures. The work our partners are doing in San Antonio is already changing lives for the better, and we're capable of even more in the future.

Contact Dr. Sandra Delgado at: sdelgado2@humana.com

Contact Pattie Dale Tye at: ptye@humana.com

HEALTH LITERACY: COMMUNICATION AS A CRITICAL PART OF TREATMENT AND PREVENTION

Regardless of your role in healthcare today, health literacy matters. If you attended Wharton, you have already proven your ability to understand extremely complex information about health and healthcare. There is, however, a more important question: how well can you communicate health information in a simple way to those looking to you for advice? This matters whether you are a physician communicating directly with a newly diagnosed patient; a marketer talking about your medicine; or a son or daughter, caring for an elderly parent.

The most widely cited definition of health literacy focuses on a person's own ability to obtain, communicate, understand, and use basic health information and services to make appropriate health decisions. However, our healthcare system is very complex and difficult to navigate, even for those of us within the 12% of Americans with proficient health literacy. For instance, when my daughter was 8, she had surgery to remove a birthmark on her leg. The discharge nurse told me to limit her activity. My children are extremely active; so I interpreted this as "no travel sports for a few days." I walked her around the Crayola Children's Museum the next day, as a treat to make up for missing her Valentine's party at school. Her leg started to bleed, and she needed another surgery to repair the wound. "Limit activity" is a very simple phrase; my health literacy is proficient; and I messed up badly. I am certain that every person reading this article has a similar story.



Health literacy has a profound impact on health. Health literacy is a stronger predictor of a person's health status than age, income, employment status, and race. Low levels of health literacy may span all age, gender, education and/or income groups. Poor health literacy has a strong effect on both behavior and health outcomes, including:

- Preventive services - People with low health literacy tend to make less use of preventive care and screenings, such as mammograms and flu shots; and tend to enter the healthcare system later when their symptoms and/or disease is more advanced.
- Knowledge and Treatment – People with low health literacy tend to have less knowledge of their chronic conditions and of their optimal management; and are less likely to ask questions of their provider.
- Utilization – People with low health literacy generally have more hospital admissions that were potentially preventable, as well as more Emergency Department visits.
- Adherence – People with low health literacy often do not understand why they need to take medications; and do not often discuss difficulty affording medications during their interactions with physicians.

Why does this matter to you? Because of the complexity of the healthcare system, regardless of your role, you have the opportunity to help others understand. How can you do this? Use universal health literacy precautions: assume that everyone will benefit from simple and clear communication. Health literacy isn't just about literacy, or only using materials written at a 6th grade reading level. You also must prioritize and limit key information. Trying to tell a newly diagnosed patient everything they need to know is not only inefficient, it doesn't work. At most, people remember 3 key messages. When people are anxious, sick, or distraught, they may

Contributor:
Laurie Myers, WG'99

To learn more about
Laurie, [click here](#).

HEALTH LITERACY: COMMUNICATION AS A CRITICAL PART OF TREATMENT AND PREVENTION *continued*

hear and remember very little of what you say.

Meet a person where they are, and confirm understanding using teach-back. A person manages most of his or her health at home, not in a doctor's office or pharmacy. A person needs to understand what to do, or who to call when they have questions. Use of the teach-back technique is a great way to make sure that people are clear. The teach-back method shifts the emphasis to provider communication. For instance, a doctor can say, "I just want to make sure I was clear in telling you about your diabetes. What are you going to go home and tell your husband?" If a patient cannot repeat the key message or messages, the provider accepts responsibility. "Let's try it again a different way." Then again confirm understanding. This method also helps to overcome cultural norms that may inhibit a patient from asking questions.

This may sound easy – but often it is much harder to write and speak clearly than to use the language that we learned in school. Fortunately, the field of health literacy offers many free resources to help you.

- 1) If you are creating or using patient education materials, insist they follow health literacy principles. Dr. Ruth Parker and Kara Jacobson from Emory University have created a simple 2-page checklist, available at <http://centerforhealthguidance.org/health-literacy-principles-checklist.pdf>
- 2) The CDC has extensive health literacy resources available, including free online training, at <http://www.cdc.gov/healthliteracy/>
- 3) Merck has worked with Dr. Ruth Parker to create a video illustrating the use of the teach-back technique to help patients understand http://mediaus.epublishmerck.com/common/The_Teach_Back_Technique/index.html

Change takes time, but it is necessary to achieve patient empowerment. I have had the privilege of leading global health literacy strategy for Merck for the past 5 years. Our company has grown to understand that health literacy is not just relevant to written materials about disease, but also to developing clear patient labeling for new medicines; helping improve the participation of under-represented populations in clinical trials; and designing packaging to reduce medication errors. We are much further ahead in some areas than others; but understanding what is possible is the first step in progress.

Good luck in your own journey to clear communication!

Contact Laurie at: Laurie.Myers@Merck.com

STUDENT HEALTHCARE CONFERENCE A RESOUNDING SUCCESS!

The Wharton Healthcare Management MBA students held the 22nd Annual Wharton Healthcare Business Conference on Friday, February 19, 2016 at the Union League Club of Philadelphia. With over 580 attendees and 120 Wharton MBA/WEMBA healthcare alumni in attendance, the event was a resounding success. Notably, Tom Spann W'81, Founder and former CEO of Accolade, delivered welcoming remarks at the Thursday Alumni Welcome Reception, and Sally Poblete WG'00, Founder and CEO of Wellthie was honored with the inaugural 'Alumni Mentor of the Year Award.' This degree of participation speaks volumes to the quality of the Wharton Healthcare Management (HCM) Program and the effect its graduates are having in shaping our healthcare system.



Mainstage features included keynotes by John Lechleiter, PhD, CEO, Eli Lilly & Company, and Farzad Mostashari, MD, Founder and CEO, Aledade, and former National Coordinator for Health IT for the Department of Health and Human Services; a capstone debate/discussion between Mark McClellan, MD, PhD, Director of the Robert J. Margolis, MD, Center for Health Policy at Duke University and Cybele Bjorklund, Senior Fellow at Georgetown and former Democratic staff member for healthcare policy on the U.S. House Ways and Means Committee, moderated by Elisabeth Rosenthal MD, Senior Healthcare Correspondent for the *New York Times*, on what lies ahead for healthcare policy in 2016 and beyond.

This year's theme, "The Innovation Game: The Race Between Entrants + Incumbents" focused on the challenges faced by early-stage entrants and incumbents alike in the race to achieve innovation at scale. Questions addressed in detail included – Which organizations and business models will emerge as future market leaders? What are the bounds of competition and collaboration? And how will the policy context affect "The Race" going forward? This theme was explored through multiple panels featuring a wide array of industry leaders, and several Wharton HCM alumni, including Linda Bernier, WG '93, VP of Market Solutions at Welltok, Sally Poblete, WG'00, and Tom Spann, W'81.

Another new feature this year was the first-ever MBA healthcare "Shark Tank" competition, during which current full-time students pitched their ventures to a panel of sharks who were given the opportunity to make a potential investment. Among the sharks was Doug Present WG'90, who teaches the popular Healthcare Services class, a popular second year HCM elective. Organizations competing included one with a diagnostic device focused on simplifying colorectal cancer screening, one with a communications and education platform for physicians, one with a patented OB-GYN device, and, finally, one with a smart pill bottle capable of verifying whether the contents are counterfeit.

The clearest takeaways from the day were that over the five years post-ACA reform, new market contours are beginning to emerge. Organizations, both entrants and incumbents, are delivering within the incentive structure of this post-reform environment. Value-based business models are gaining traction and credibility; employers are becoming more discerning market participants and more willing to be disruptive forces; consumers are expecting

Contributors:
Robert C. McDonald, WG'92 and
Bernie Zipprich WG'16

To learn more about
Bob and Bernie, [click here](#).

STUDENT HEALTHCARE CONFERENCE A RESOUNDING SUCCESS!

continued

more for their healthcare dollar; and cutting edge advances in life sciences and computer science are making the long touted promise of ‘personalized medicine’ increasingly a reality. Taken together, this dynamic suggests the players who are poised to achieve the greatest impact at scale aren’t necessarily entrants or incumbents; rather, it’s those who are realizing and pursuing partnership approaches and ecosystem-enhancing strategies. Finally, the policy trajectory of healthcare over the past five years and up to the time of this Conference seems to be rather stable; however, with 2016 being an election year, it is difficult to discern whether the current trends will continue after a change of administration – though the consensus of participants was that the emphasis on value-based delivery and payment models will continue.

The student chairs who organized the conference were Kristin Chan, Christian Peña, Shani Scharfstein, Bret Tenenhaus, Shalina Wadhvani and Bernie Zippirich (all WG’16). Each deserves our congratulations for putting on a very informative and engaging conference. We look forward to all the second year healthcare MBA students joining the WHCMAA upon graduation and contributing to our organizational mission of lifelong learning!

Contact Bob at: bmcdonald@aledoconsulting.com

Contact Bernie at: bzipprich@gmail.com

CARE MANAGEMENT SYSTEMS - THE NEXT MAJOR HEALTHCARE PRODUCT - PART 1

Some time back, I came across an article¹ about Care Management Systems written by noted healthcare blogger John Lynn. The article indicated that after the Practice Management Systems (PMS) and the Electronic Health Record (EHR), the next major healthcare product is the Care Management System (CMS). While the PMS managed the Practice (i.e., billing), and the EHR stored the records electronically, the CMS was going to be centered on the patient and the care that the patient receives. In this Part 1 of a 2-part article, I elaborate on what a Care Management System is and the attributes of a robust Care Management System.



So, what is a care management system? In previous years, traditional care management focused on processes related to the period of time that patients received treatment at a hospital. These old-school care management systems typically (a) focused on documenting the care provided to the patient in the hospital only, i.e., did not extend across the care continuum; (b) did not facilitate collaboration between the extended care team and the patient; (c) did not allow patient-generated data to be incorporated into the system; and (d) did not enable registries and population health.

Given the emphasis on patient-centric and value-based healthcare models, the argument in the article made sense to me. By 2018, 50% of Medicare payments will be paid via alternative payment models such as ACOs or bundled payment arrangements, and 90% of traditional Medicare payments will be tied to quality- or value-based programs such as Hospital Value Based Purchasing and the Hospital Readmissions Reduction Program. Succeeding in these new delivery and reimbursement models will require better capabilities from providers (physicians and hospitals) for engaging patients and making them active participants in their care management. The new generation care management system will need to include patients in the management of care, enable the entire care team (PCP, specialists, hospital physicians and nurses, social worker, nutritionist, behavioral health counselor, discharge coordinator, etc.) to track patient health, collaborate, and engage patients outside the healthcare facility, not just inside.

Several CMS solutions are being developed by digital health start-ups to meet the above-mentioned objectives. Patientriciti is one of these companies. Here is our point-of-view on the attributes of a robust CMS system.

5 Attributes of a Robust CMS

1. Personalization: With the increasing “consumerism” of healthcare, patients – the consumers of healthcare – are expecting a personalized experience when they engage with their healthcare providers. These consumers have been trained by companies like Netflix and Amazon to expect that their healthcare provider knows about their preferences. Patients engage and respond much more positively to these personalized experiences, which encourages loyalty and better adherence to care plans. A robust care management solution will need to communicate with the patients in the mode (e.g., email, text, phone) they prefer, in the language they prefer, and at the time they prefer. A smart care management solution will even learn and adapt based on past patient behavior.

2. Behavior Change: Changing individual behavior is increasingly at the heart of healthcare. In a McKinsey analysis of US healthcare costs (which are now nearing \$3 trillion annually), 31 percent of those costs could be directly attributed to behaviorally-influenced chronic conditions. Fully 69 percent of total costs were heavily influenced by consumer behaviors. The burden consumer choices place on low- and middle-income patients is relatively more

Contributor:
Sandeep Puri, WG'99
To learn more about
Sandeep, [click here](#).

CARE MANAGEMENT SYSTEMS - THE NEXT MAJOR HEALTHCARE PRODUCT - PART 1

continued

staggering. A robust care management system will need to incorporate behavioral science strategies (e.g., rewards, gamification, social competition) to engage the patients and increase probability of changing behavior and sustaining behavior change.

3. Ease of Use for Providers: Providers are looking for care management solutions that are easy to deploy, use, and maintain, and that integrate seamlessly with their existing systems (EHR, PMS, patient portals). A robust care management solution will be a cloud-based solution requiring no hardware or software installation on premise. It will enable the provider to quickly create and administer customized care management programs, from anywhere, anytime, and using any internet-enabled device. It will allow the users to view real-time outcomes on a dashboard and allow ad-hoc reporting for program assessment and audit. It will integrate seamlessly with the providers' EHR system to obtain patient data for the care management programs and to feed relevant patient-generated data back into the EHR system to facilitate clinical workflow integration.

4. HIPAA Compliant: Not much needs to be said here. A robust care management solution needs to be HIPAA compliant not just for compliance, reasons, but also for the solution to be effective. To reap the promise of digital health information to achieve better health outcomes and smarter spending, providers and patients alike must trust that an individual's health information is private and secure. If patients lack trust in the Care Management solution, feeling that the confidentiality and accuracy of their responses is at risk, they may not want to respond to the care management solution.

5. Scalability: A robust solution will be scalable and able to grow as client needs grow – from chronic disease management programs to wellness programs; from small to large facilities; and across systems and networks.

Surveys show increasing adoption of the new-generation care management solutions – by providers and consumers. There are several drivers for this – regulatory changes driving the shift to value-based reimbursement models; consumerism of healthcare driven by the rise in high-deductible, consumer-driven health plans (CDHPs); and technology adoption driving increasing penetration of smartphones, wearables, and EMRs.

In Part 2 of this article, I will share my point-of-view on the capabilities of a robust Care Management System. My firm, Patientriciti (www.patientriciti.com), has a multi-modal, multi-lingual, patient engagement and care management solution which helps providers and health systems reach and engage with different segments of the population in a personalized way to affect sustained behavior change.

Contact Sandeep at:
info@patientriciti.com

References

1. "The Next Major Healthcare Product – Care Management System" by John Lynn of Healthcarescene.com

THE HEALTHCARE PRICING DEBATE AND ITS IMPACT ON HEALTHCARE INVESTING

With all due respect to Warren Buffett and Yogi Berra, “When it comes to healthcarepricing is what you pay.... value is what you don’t get.”

One of the most important factors in investing in healthcare going forward is truly understanding and accurately forecasting the potential earnings power of new products and services. The ability of investors to accurately determine the future prices of new products and services is absolutely critical to accurately modeling the EBITDA, ROI, EPS, CAPEX and NPV of the companies they are targeting. The rewards of correctly calculating these factors over time can create outstanding investment returns. The cost of miscalculating these factors over time can be equally as devastating to your portfolio.



We at the BDO Center for Healthcare Excellence & Innovation expect the coming decade to produce more than \$10 trillion in wealth as investors are drawn to new, innovative healthcare products and services. Innovation in healthcare has blossomed, in particular, with the scientific revolution in genomics and information technology and the realization that many human illnesses, particularly cancer, are analogous to software defects. Precision medicine and other new forms of treatment based on discoveries in molecular biology and computer science promise to revolutionize the way we care for patients.

However, as rosy as this outlook appears, we also expect that more than \$4 trillion will be destroyed during the same time period. This will be the result of current medical products and services made obsolete by new disruptive discoveries at a pace never before seen. I believe we will look back in twenty years and realize that medical practice in 2015 was in the stone age relative to our future potential.

To state the obvious, in order to create Alpha,* investors will need to put their money on the winners and short or avoid the losers. A key determinant to generating investment outperformance will be the mastery of pricing and understanding how it translates into investment returns. In the United States, the process by which the pricing of new products and services in healthcare occurs is a function of the regulatory environment that controls the pace of innovation and competition -- both of which are a by-product of complex state and federal political processes that regulate the healthcare industry. In the past, predicting pricing on future products and services was relatively easy because there was no requirement to take into account the “clinical value” of the product or service produced. If the product was new or competition could be held to a minimum, forecasting pricing for investors could be rather straightforward with fairly predictable and steady results and cash flows.

Over the last year or so, an increasing number of critical headlines have appeared regarding the way drug prices are established in the United States. This is not really surprising, as many business models are dependent on some form of price and quality opacity for a significant portion of their profits. The only real surprise to this observer is that it’s taken so long for this issue to appear on the front burner.

Contributor:

David Friend, WG’84, MD

To learn more about David, [click here](#).

THE HEALTHCARE PRICING DEBATE AND ITS IMPACT ON HEALTHCARE INVESTING *continued*

As a healthcare investor, one cannot have failed to notice the almost daily stories regarding the pricing of innovative new medicines such as drugs to treat hepatitis C as well as stories about companies purchasing older medications and raising their prices dramatically. The former discussion really is about how society wants to reward the risks and cost of innovation going forward. The latter is about how much society wants to permit competition and the information transparency required to enable it.

Understanding the Future of Innovation and Competition...the Keys to Pricing and Investment Success

There is a disruptive revolution going on in the areas of innovation and competition. The disruption caused by innovation is being driven by the scientific discoveries we previously mentioned. The disruption occurring in competition is being caused by legislation, the unsustainable increase in healthcare spending as a percentage of GDP, and the revolution in technology that is empowering consumers.

As a result, it is critical for investors to have a point of view on both of these factors. The days when new drugs can simply be priced without limitation is coming to an end. Emerging discussions focused on pricing new innovations by simply using “cost accounting” to develop new drugs ignores the extraordinary risks that financial capital is required to endure to produce them. Current estimates are that nine out of ten drugs fail to reach the marketplace.

While it is often mentioned that it can cost more than \$1 billion to get a new drug to market, what investors often fail to realize is that the costs often refers to nine drugs that failed at \$100 million each as well as the one drug that succeeded for \$100 million. Simply pricing the new drug based on its \$100 million cost of development while ignoring the losses investors suffered will dramatically reduce the incentives for innovation. While I expect these cost-based discussions will receive a lot of attention and will need to be closely monitored to see if they get real traction, I don't believe they will be enacted. Having personally experienced the failure of wage and price controls in the early 1970s, I don't believe that our society will go in that direction.

If we are to motivate investors who are expected to endure nine total investment failures for every success, society will need to balance the enormous investments required to produce new drugs with their attendant risk of failure against the potential value that new inventions bring to society. The nascent move towards pricing new medications based on the value they bring to patients and society is one I believe every investor is going to need to come to grips with because slowly, but inevitably, I believe it will become the coin of the realm.

At the same time, the use of competition to help moderate and establish drug prices will increasingly come to fruition as a policy tool and as an outcome of the consumer revolution. As consumers become responsible for paying for a larger percentage of their drug costs out of their own wallets through a combination of increasing co-payments, deductibles, tiered pricing arrangements, and indication-specific pricing, we can expect consumers and those entities which negotiate for them, such as pharmacy benefit managers, health plans, and consumer-focused e-commerce websites, to continue to revolutionize the purchasing process in the same way that consumer empowerment has revolutionized the travel, retail, and transportation industries.

It should be no surprise that the healthcare industry will push back on competitive forces where it can, through mergers and acquisitions, advertising, and intense lobbying, to help move the political process in its favor. Just look at the way Airbnb and Uber have mobilized its customers to act in the political

THE HEALTHCARE PRICING DEBATE AND ITS IMPACT ON HEALTHCARE INVESTING *continued*

arena to defeat political actions designed to limit their business. I believe the healthcare industry will continue to raise prices on older products as it can, albeit more discreetly, both to boost cash flow for investors, as well as to fund development of new innovations. I also expect the government to apply more scrutiny to transactions that reduce competition. The Federal Trade Commission already appears to be taking a more active stance with respect to mergers in the healthcare provider space.

As these forces of innovation and competition continue to disrupt the healthcare system, it will be more important than ever to understand how these forces will impact the pricing of the new products or services being considered for capital allocation. This is because the major driver of future wealth creation will be both the creation of new products and services AND the ability to set a price for them that rewards investment.

While stories about order-of-magnitude price increases for older drugs may make for interesting headlines in the short run, the days of unbridled price increases for drugs and services that are unrelated to the clinical value being created are clearly coming to an end. Business models built on this strategy of “buy and raise” are no longer as attractive to investors as they once were.

In the future, investors will create Alpha through their focus on competition and innovation and understanding their impact on pricing. This focus will likely lead to three types of investment situations:

- 1. Products and services that are truly innovative and can produce superb clinical outcomes and have no meaningful clinical competition.** These companies will command well-deserved premium pricing that will result in outstanding returns for shareholders.
- 2. Products and services that are made obsolete by innovation.** These companies will rapidly lose pricing power with dismal returns for their shareholders.
- 3. Products and services that have traditionally relied on quality and information opacity or reduced competition.** Without a truly innovative competitor, these companies will slowly lose pricing power until they are either made obsolete by an eventual innovator or find a stable price point that provides reasonable value for the clinical outcomes obtained. Such a scenario, which will likely be the most common of the three, will yield slightly below market matching returns for their shareholders.

In order to create Alpha, your healthcare portfolio will need to find and invest in the winners that emerge from Category 1 while attempting to avoid or shorting the losers in Category 2.

The health investing game is clearly becoming more difficult, potentially more lucrative and a lot more risky. An understanding of the forces that shape pricing will be required for all who wish to play going forward.

Contact David at: dfriend@bdo.com

* Alpha:

1. a measure of [performance](#) on a risk-adjusted basis
2. the desirable/outsized return on investment derived from skill

ENGAGEMENT AND MOBILE HEALTH. ARE SOLUTIONS MEASURING UP?

Engagement Is a Top Priority. Today, most people rely on mobile technology for day-to-day needs, including engaging with their health. mHealth tools provide an effective way to access quality health support, keeping people engaged with their own health outcomes. Are the mHealth programs you are recommending or using empowering people to thrive?



You don't need to see statistics to know that more and more people are using their mobile devices and online channels to search for and access health information and support. But the actual numbers may surprise you. In 2014, 247 million health-related smartphone apps were downloaded,¹ with an estimated 500 million people using mobile healthcare applications in 2015.²

Mobile health (mHealth) holds great promise for transforming healthcare delivery and improving outcomes. Currently, there are thousands of mHealth apps available for a variety of uses and conditions ranging from battling cancer, dealing with diabetes, or managing stress.³ Unfortunately, not all of these tools are designed with knowledge of the human-computer interface or health behavior change theories.

By taking the time to carefully consider these guidelines, you can be sure you're choosing an effective mHealth solution that sustains engagement and influences behavior change for users, while also delivering measurable business improvements. By exploring industry standard measures proven in literature, research, and available industry reports,⁴⁻⁸ and also reviewing the best practices, tactics, and techniques from apps outside of healthcare, our team combined that with primary research and user interviews to establish five key criteria that can help guide your evaluation process and outline meaningful differences.

1. WHAT [content]: Personally tailored information and resources

People expect mobile solutions and applications to be personalized to their specific needs. mHealth is no different. Content must be targeted and tailored to its audience in order to deliver an appropriate and engaging experience. More than that, information must be simple and understandable so individuals can immediately begin using the tool without becoming overwhelmed. If content isn't well written or the app is poorly organized, users will consider it a waste of time and move on.

As with any health solution, the quality of information is also critical to effectiveness. Resources should be comprehensive, concise, accurate, and credible. Check to make sure links take users to information that enhances the program and that information is updated in light of new evidence. Finally, verify the content quality to make sure the program is grounded in theory, built on evidence-based principles, and has been outcomes-tested with positive results.

2. HOW [engage]: Responsive, multi-media environment with intuitive interface

Today's consumers demand more than words on a screen. An effective app must include multi-media content that's cleanly integrated with relatable messages. Users should feel as if the app was built for them, speaking their language, and offering a variety of connectivity options.

The functionality and interface should be responsive and intuitive. If things aren't logically sequenced and a person can't pick it up and start using it quickly and easily, they won't stick with it. The program should be straightforward to navigate and provide shortcuts for ease of use. Performance should be polished and clean, free from any bugs or glitches. And gestural design — swipes, taps, pinches,

Contributor:
Connie Mester, MPH
To learn more about
Connie, [click here](#).

ENGAGEMENT AND MOBILE HEALTH. ARE SOLUTIONS MEASURING UP?

continued

etc. — should be consistent throughout the entire app allowing a user to confidentially perform actions.

3. WHO [focus]: Patient is active, engaged participant in health and wellness

Users expect digestible information delivered in aesthetically appealing ways. Visual charts, images, infographics, videos, and photography can help tell a story and provide meaning to shared information. Stylistic consistency, color use, size presentation, and layout should be clean and professional while conveying a personality that resonates with targeted individuals.

The look and feel draws users in, while a carefully crafted experience inspires action. The program should adapt to different learning styles and engage users with techniques, tips, measurable goals, and other elements that make them active participants in their own growth and success.

4. WHERE & WHEN [integrate]: Guided strategies readily available to incorporate into daily life

What happens beyond the app is just as important as what happens within. Users should be given tools and strategies that enable them to put what they've learned into practical application. These tools should be easy to find and simple to incorporate into personal routines.

Keys to continued use include making strategies stimulating and fun. The appropriate use of entertainment can grab interest, encourage use, and inspire repeat engagement. The more users can tailor strategies to their own lives, the better. Build an environment that fosters trust and enables a person to see their progress through direct and timely feedback. A variety of interactive channels also enhance mHealth solutions, giving users a number of ways to share their voice (forums and community), link support (peer connections), and personalize the experience (user options and customizable strategies).

5. WHY [outcomes]: Proactive, responsive, and prevention focused

Finally, it's critical to remember the intended impact of the solution and what users want or need to get out of the program. As users progress through the program, it should be responsive to their personal progress and growth, empowering them to guide their intended outcome if possible. This enables users to stay on track and achieve success on an individualized basis. When a program "feels right," it stimulates repeat use and deeper engagement.

Users can't feel like they're in a void. Service and support must be easily available and fit with the busy lifestyles and schedules of users. Help lines, FAQs, tips, and other support deliver a greater sense of encouragement and involvement. And don't forget about privacy, safety, and compliance. If an app hasn't taken these key details into account, it could mean a careless interface at best or future legal problems for you at the worst.

Use this tool [<http://thrive47.com/checklist>] grounded in research, best practices, and user feedback, to help you determine strengths and weaknesses of your programs, identify areas of opportunity, and support your planning efforts. With the right mHealth solutions in place, you can sustain engagement and influence behavior change for users while delivering measurable value and results.

Contact Connie at:

Connie.mester@gmail.com

919.448.7190

ENGAGEMENT AND MOBILE HEALTH. ARE SOLUTIONS MEASURING UP?

continued

References

1. Get Real Health. mHealth Tools are Transforming Healthcare. Get Real Health. 2014. Available at <http://www.getrealhealth.com/mhealth/>. Accessed Oct. 7, 2015.
2. Jahns RG. 500m people will be using healthcare mobile applications in 2015. research2guidance. 2010. Available at <http://research2guidance.com/500m-people-will-be-using-healthcare-mobile-applications-in-2015/>. Accessed Oct. 7, 2015.
3. Vollmer Dahlke D, Fair K, Hong YA, Beaudoin CE, Pulczynski J, and Ory MG. Apps Seeking Theories: Results of a Study on the Use of Health Behavior Change Theories in Cancer Survivorship Mobile Apps. *JMIR mHealth and uHealth*. 2015;3(1):e31.
4. Mendiola MF, Kalnicki M, and Lindenauer S. Valuable Features in Mobile Health Apps for Patients and Consumers: Content Analysis of Apps and User Ratings. *JMIR mHealth and uHealth*. 2015;3(2):e40.
5. O'Grady L, Witteman H, Bender JL, Urowitz S, Wiljer D, and Jadad AR. Measuring the Impact of a Moving Target: Towards a Dynamic Framework for Evaluating Collaborative Adaptive Interactive Technologies. *Journal of Medical Internet Research*. 2009;11(2):e20.
6. Pricewaterhouse Coopers PwC. Building mHealth business models that work. PwC. n. d. Available at <http://www.pwc.com/gx/en/industries/healthcare/mhealth/business-strategies.html>. Accessed Oct. 7, 2015.
7. Stoyanov SR, Hides L, Kavanagh DJ, Zelenko O, Tjondronegoro D, and Mani M. Mobile app rating scale: a new tool for assessing the quality of health mobile apps. *JMIR mHealth and uHealth*. 2015;3(1):e27.
8. Su W-C. A Preliminary Survey of Knowledge Discovery on Smartphone Applications (apps): Principles, Techniques and Research Directions for E-health. 2014 ICME International Conference on Complex Medical Engineering; June 26, 2014; Taipei, Taiwan.

JUNE KINNEY ALUMNI SCHOLARSHIP

The Wharton Health Care Management Alumni Association (WHCMAA) is pleased to announce that Geoff Gusoff was selected as a 2016 winner of the June Kinney Alumni Scholarship. Geoff was accepted in the first admissions round for the class of 2018. He will receive a \$10,000 scholarship. A second Kinney scholarship winner will be selected in round two.

The Kinney Scholarship Fund was launched by the WHCMAA two years ago to honor June Kinney. The campaign enjoyed widespread and enthusiastic participation, reflecting the program alumni's admiration for June and commitment to the Wharton HCM Program. According to the scholarship's founding statement, a Kinney scholar is a student who shows "a sense of social mission, as well as those leadership characteristics that will both build community within the class and contribute to the societal health care enterprise after graduation."



Geoff is deserving of the Kinney Scholarship. Geoff studied social ethics in college and while attending a graduate program at divinity school. His pursuit of social justice took him to Peru where he established a microcredit program for tuberculosis patients, to Boston where he assisted the homeless with Medicaid applications, and to El Salvador where he helped start a computer literacy program at a clinic at which he worked. Already a Penn Medicine student, Geoff is looking forward to using his MBA to help him drive sustainable solutions to society's toughest health and socioeconomic problems.

We congratulate Geoff on being selected for the Kinney Scholarship. He is an outstanding addition to the growing and influential Wharton alumni network. Be on the lookout for him as we welcome the class of 2018 this summer!

Contributor:

John Barkett WG'09

To learn more about John, [click here](#).