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HEALTH CARE MANAGEMENT
ALUMNI ASSOCIATION

THE WHARTON HEALTHCARE QUARTERLY

SPRING 2020, VOLUME 9, NUMBER 2

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EDITOR'S LETTER

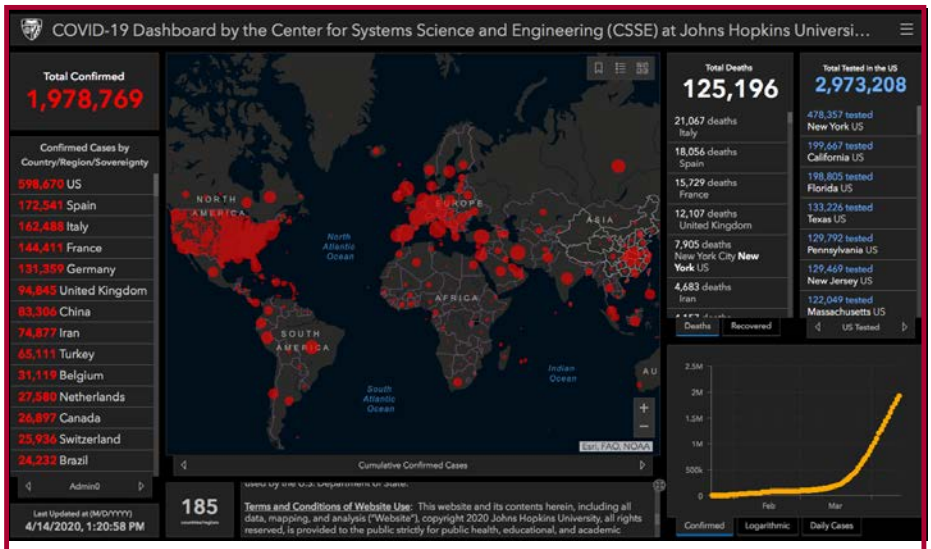
Z. Colette Edwards, WG'84, MD'85
Managing Editor

To learn more about Colette, click here.

"In a time of crisis we all have the potential to morph up to a new level and do things we never thought possible." ~ Stuart Wilde

By the time you receive this newsletter, the tracking map below will likely have changed dramatically.

COVID-19 has impacted our lives, and the pandemic will be one of those "Where were you when it happened?" moments. The repercussions will be great, and some will be long-lasting due to the ripple effect of a shock to the system on a global scale.



Source: Johns Hopkins COVID-19 Database - GISAID

Once a year on March 30th, we celebrate National Doctors' Day. As deaths from COVID-19 in the U.S. now far surpass the number suffered on 9/11, the impact of the novel coronavirus becomes more and more real. And for physicians and other healthcare professionals as well as first responders and all the other individuals who have been designated as essential workers, each day can bring exposure, emotional and physical exhaustion, grief, and sometimes conditions likened to a war zone.

Just as firefighters ran up the stairs of the World Trade Center towers as everyone else was evacuating the building, so too do today's heroes in the fight against COVID-19.

COVID-19 is a great equalizer. Being wealthy, powerful, or famous is not enough to protect you. We are all only as strong and safe as the selfless commitment and discipline to take the preventive actions necessary each of us chooses to implement. COVID-19 means we have to value the lives of others as much as our own. Seize this unique opportunity to have the power to literally save a life, and never take a single day for granted.

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

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THE PRESIDENT'S DESK

Maria Whitman, WG'05

To learn more about Maria, click here.

Fellow Alumni,

I have written previously about the deep thread that connects our community - a passionate commitment to the advancement of global health. As the new coronavirus pandemic unfolds, we have both an opportunity and a responsibility to live our mission as vigorously and creatively as possible.

The estimates are changing daily as we know, but as of my writing this in mid-March, the WHO shared global death rates at 3.4%. As of March 16th, the CDC estimated somewhere between 200,000 and 1.7 million deaths in the U.S. alone. But the challenge and pressure to our systems set in when we really started to look at the hospitalization rates the numbers portend vs. the beds and capacity for critically ill individuals. In recent days, non-critical medical procedures are being postponed. Long-term care facilities are being put on lock-down. Critical medical supplies such as hospital masks are running low. And I won't address the development and distribution of testing in the U.S., though many are banding together to make progress in this area now.

Beyond the impact on patient care and ability to meet demand, businesses that serve our global health system and beyond will be deeply challenged during this time. In fact, Bloomberg recently published an estimate of the global economic loss across all sectors as high as $2.7 trillion.

But with extreme challenge comes action, innovation, and change. Science and technology have certainly equipped us to better handle this latest pandemic. When SARS first erupted in 2002, sequencing the genome of the virus took over a year, but it took less than a month for Covid-19. Countries like South Korea have created stand out responses, including their "drive through" testing protocols, that have led the way globally. Through this and other efforts, on March 12th South Korea reported more recoveries than new infections for the first time!

Many micro innovations are emerging and positive stories are surfacing from in the industry and out. One of my favorites good news stories (besides the citizens of an Italian quarantined city standing on their balconies and singing together) is a high school aged boy from Seattle named Avi Shiffmann who created a website that tracks the data around the world, including recovery numbers. According to his numbers today, 41% of the global population with the new coronavirus have recovered. These numbers will continue to move, but at these times, these moments of positive change are important for us to reflect on.

Across the world there is much work to be done to move us forward, and we need to continue to take the call. Many Wharton Alumni are doing so globally, like the Wharton Club of Bejing who have been hosting online chats with prominent Wharton graduates to discuss market impact and ideas.

No matter what sector of healthcare you are in, whether you are leveraging or advancing

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THE PRESIDENT'S DESK

technology to support the challenge, working with your companies to support the public good, generating thought leadership on the issue, or simply helping a neighbor in this time, thank you. The WHCMAA board is focused on doing what we can, including continuing to support June, the program, and students. In fact, if you are a mentor, check in with your students. Welcome Weekend has officially been canceled, and their last semester together has moved to a virtual experience. Let's show our support. If you are not a mentor, but looking for opportunities to help, let us know.

We are also working hard to listen and support our alumni and our global community at this time. For example, on our Knowledge Exchange, we are capturing needs from local healthcare providers for PPEs, reagents, etc. and connect them with potential resources. We are helping alumni connect and will be sharing proactively in the coming months efforts alumni are spearheading at this time to further connections and success.

There is so much our community can accomplish individually and together.

We encourage you to actively share your innovations, thought leadership, and ideas to address the novel coronavirus with the community in one of our social groups so we can bring together the power of our Alumni community:

- Linked In: Wharton Health Care Management Alumni Association
- Twitter: @WhartonHCMAA
- Facebook: Wharton Health Care Management Alumni Association
- Wharton Knowledge Network: whartonhealthcareopen@googlegroups.com

Lastly, please know that I am thinking of you all during this time. I hope your families stay healthy and thrive at this time in spite of this uncertainty (even if that means you have to remember math lessons for home schooling!).

And for those of you who are facing coronavirus in your families, our thoughts are with you, and if there is anything we can do, please let us know.

Kind regards,

Maria Whitman, WG'05
President, Wharton Healthcare Management Alumni Association

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ALUMNI NEWS

Mitchell Goldman, JD, WG'75
Mid-Atlantic Dental Partners Acquires DentalOne Partners

Transaction makes Mid-Atlantic Dental Partners one of the largest DSOs in the U.S.

Plymouth Meeting, PA and Plano, TX – Mid-Atlantic Topco LLC, operating as Mid-Atlantic Dental Partners, a dental support organization ("DSO") dedicated to improving the delivery of dental services for dentists and their patients and a portfolio company of S.C. Goldman & Company, LLC ("S.C. Goldman"), has acquired DentalOne Partners ("DentalOne") from Dental Investments, LLC.

Under the terms of the agreement, Mid-Atlantic Dental Partners acquired the equity of DentalOne's operating subsidiaries in an all-cash deal.

Founded in 1981 and headquartered in Plano, Texas, DentalOne is one of the first and largest DSOs nationally with approximately 150 affiliated offices across 13 states and 27 markets. DentalOne's mission to change the dental space by supporting smart, technologically advanced practices, where doctors are free to focus on patient care without the burdens of running the administrative aspects of their practice, melds perfectly with the approach that has defined the business philosophy of Mid-Atlantic Dental Partners.

Founded in 2016, Mid-Atlantic Dental Partners offers dentists a DSO model that supports dental professionals by providing marketing, financial, practice information and other business services so dentists and other dental professionals can focus on delivering the highest quality care to their patients. In addition, Mid-Atlantic Dental Partners' supported practices offer associate dentists an opportunity to participate in the financial success of the practices. Over the last three years, Mid-Atlantic Dental Partners has built an exceptional management team with deep dental, operational, and entrepreneurial experience.

The acquisition increases Mid-Atlantic Dental Partners affiliated offices to more than 240 operating in 18 states.

"This acquisition allows us to further transform Mid-Atlantic Dental Partners into a nationally recognized DSO. We're proud of the positive impact we've made in the dental industry in just three years and look forward to continuing that success with DentalOne Partners," said Mitchell Goldman, Chief Executive Officer of Mid-Atlantic Dental Partners. "Dentists, hygienists, dental assistants and office staff are the true assets of our supported practices, and we will strive to raise the importance of all dental professionals in improving the overall healthcare of patients and populations."

"This marks an exciting milestone in the ongoing journey of DentalOne. Being part of a larger organization will give us the opportunity to access new resources and accelerate and improve practice support and initiatives," David Marks, DentalOne's CEO, said. "Our goal has and will always be to add value to the practices, and to the clinical teams that provide outstanding patient care every day."

Houlihan Lokey served as the exclusive financial advisor to DentalOne. Morgan, Lewis & Bockius LLP advised DentalOne in the transaction. Duane Morris LLP and Waller Lansden Dortch & Davis served as legal advisors to Mid-Atlantic Dental Partners. In addition, Pricewaterhouse Coopers, LLP, KPMG LLP and The Berkley Group, LLC served as advisors to Mid-Atlantic Dental Partners on the transaction. Debt financing for the transaction was provided by CRG, L.P.

Contact Mitch at:
http://www.mid-atlanticdental.com/contact/

Learn more.

Kevin McNally, WG'76
I was selected by the New Jersey Public Health Association (NJPHA) to receive its highest honor, the Dennis J. Sullivan Award. This award is presented annually to an individual in recognition of a distinguished career of dedicated and outstanding public service and contributions to the cause of public health in New Jersey. NJPHA, founded in 1875, is one of the oldest public health associations in the US, and is an affiliate of the American Public Health Association. The award was presented at NJPHA's Annual Conference on October 4, 2019.

I have been a member of the NJPHA since 1978. I served as its President in 2016-17 and was recently appointed Chair of its Executive Board.

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Jeff Voigt, WG'85
Coauthored the following article with UPENN School of Nursing: Demiris G, Corey KL, Parker Oliver D, Washington KT, Chadwick C, Voigt JD, Brotherton S, Naylor MD. Spoken Words as a Biomarker: Using Machine Learning to Gain Insight Into Communication as a Predictor

ALUMNI NEWS

of Anxiety. *Journal of the American Medical Informatics Association* 2020 (in Press).

Contact Jeff at: meddevconsultant@aol.com

David Walton, WG'97
David recently took over as CEO of T1D Exchange, a population health organization in Boston focused on improving outcomes in people with Type 1 diabetes. T1D Exchange works with leading diabetes clinics to collect and analyze their data in comparison to others and help them implement changes that will improve care. It also collects information directly from patients via an online registry, conducting different types of research, usually with research partners such as diabetes centers, life sciences companies, advocacy groups, etc. Fellow HCM alum Jay Mohr '90 is also a Board member of the organization. David still resides in Newtown, PA with his wife, fellow HCM classmate Jill Walton, and their two children.

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Laurie Myers, WG'99
I just celebrated 20 years at Merck! I have led our company's global health literacy efforts for nearly a decade, working to make information about medicine and disease easier for people to understand, particularly in clinical trials. I have had a lot of fun traveling around the world, occasionally helping to shape regulatory policies to promote patient understanding. I couldn't love my work more! Personally, Alyssa is 20 and a junior at Ursinus College, majoring in Economics and playing softball. Kristen is 16 and a junior in high school. She plans to major in econ/finance and is going through the recruiting process now for softball. Dave and I will celebrate our 25th anniversary this year!

Contact Laurie at: laurie_myers@merck.com
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Learn more.

Shayan Manzar, WG'11
I have launched (with my co-founder Matt) a retail healthcare startup in the Tampa Bay Area focused on providing medication infusion for patients with autoimmune disorders. This is an alternate site of care providing a high-quality infusion experience to patients with increased clinical oversight through nurse practitioners. Compared to hospital-based outpatient infusion centers, this location provides a 30 – 40% cost advantage to commercial and government health insurance companies.

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Learn more.

Alcira Rodriguez Anton, WG'14
Alcira joined Alexion Pharmaceuticals on December 2019 as Chief of Staff to the Human Experience Officer, based in Boston, MA. In this capacity, she supports key strategic initiatives and special projects across Human Resources, Information Technology, and Patient Advocacy.

Alexion (NASDAQ: ALXN) is a global biopharmaceutical company focused on serving patients and families affected by rare diseases through the discovery, development, and commercialization of life-changing therapies.

We're hiring, so reach out if you are interested in both U.S.-based and international opportunities.

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Learn more.

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THIS MONTH'S PHILOSPHER:
ROMAN RUBIO

To learn more about Roman, click here.

THE PHILOSOPHER'S CORNER

LIFE LESSONS

If I knew then what I know now, ***I would have...***

- spent more time outdoors with nature and traveled to other countries earlier to gain alternate and equally valid perspectives from people and cultures around the world.

If I knew then what I know now,
I would NOT have...

- been so conservative with the timing of my career choices.

FAVORITE QUOTES

1. "Change will not come if we wait for some other person or some other time. We are the ones we've been waiting for. We are the change that we seek." ~Barack Obama
2. To laugh often and much;
   To win the respect of intelligent people and affection of children;
   To earn the appreciation of honest critics
   And endure the betrayal of false friends;
   To appreciate beauty;
   To find the best in others;
   To leave the world a bit better,
   Whether by a healthy child, a garden patch or a redeemed social condition;
   to know even one life has breathed easier because you have lived.
   That is to have succeeded.
   ~ Ralph Waldo Emerson

   This is the poem given to us as we graduated from Wharton and which I have carried with me and hung in each of my offices throughout my career.
3. "Whatever you do or dream you can do, begin it. Boldness has genius, power and magic in it."
   ~ German playwright and thinker Johann Wolfgang von Goethe

RECOMMENDED READING

1. *21 Lessons for the 21st Century* by Noah Harari
2. *Underground Railroad* by Colson Whitehead. National Book Award and Pulitzer Prize Winner
3. *Barking up the Wrong Tree: The Surprising Science Behind Why Everything You Know About Success Is (Mostly) Wrong* by Eric Barker

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THIS MONTH'S PHILOSPHER:
Roman Rubio

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AFFIDAVIT: HEALTHCARE AND THE LAW - AN EXAMINATION OF FEDERAL LEGISLATIVE APPROACHES ON PAYMENT OF SURPRISE BILLS

Surprise bills have become increasingly problematic for privately insured patients over recent years, as reflected in the never-ending stream of headlines describing patients who have incurred tens of thousands of dollars in surprise bills. For purposes of this article, a "surprise bill" occurs when a patient receives healthcare services at a facility that is a participating provider with the patient's health plan, and, at the same time, also receives services from a healthcare provider who has not entered into a contract with the patient's health plan. The provider rendering care without a contract with the patient's health plan is commonly referred to as an out-of-network (OON) provider.

The "surprise" in the term surprise bill arises by virtue of the fact the patient did not expect to receive a bill from the OON provider, believing all of the care received to be covered by his/her insurance. As one can imagine, providers and payors disagree as to which party is the impetus for the surprise bill; the payor, for failing to cover the underlying services received, or the provider, for separately billing the patient. Regardless, one commonly shared belief is that patients should not be put in the middle of this provider/payor payment dispute. This article looks at federal legislative approaches on payment of surprise bills.

AFFORDABLE CARE ACT

At this time, the Patient Protection and Affordable Care Act (ACA) is the only enacted federal legislation that provides patient protections against surprise bills, but provides little meaningful guidance to either providers or payors. Under the ACA, all non-grandfathered self-funded and fully-insured health plans are required to cover OON emergency services and apply the in-network level of cost-sharing. The ACA does not address surprise bills in non-ED settings and does not prohibit OON providers from balance billing.

To address this latter concern, the Departments of Labor, Health and Human Services, and the Treasury require health plans to pay a reasonable amount before the patient becomes responsible for a balance billing amount. Under federal regulations, a health plan satisfies the "reasonable amount" standard if it pays the greatest of (1) the median in-network rate, (2) the usual, customary, and reasonable amount, or (3) the Medicare rate. In states that prohibit balance billing, health plans are not required to satisfy the payment minimum established by the "greatest of three" rule. The problem with these three criteria, from the provider's perspective, is that each of them is flawed; with the first two being payor controlled (and not subject to independent provider confirmation), and the latter being a non-negotiated rate set by the government. Moreover, as there is no straightforward, independent cause of action under the ACA, the rules establish mere guidelines that can either be followed or ignored at the payor's discretion.

FEDERAL SURPRISE BILL PROPOSALS

There has been a push for additional federal legislation because the ACA is limited in scope, and state-level protections against surprise bills vary widely and are largely not applicable to patients enrolled in self-funded health plans (several states have, however, allowed self-funded plans to "opt into" the state law – creating even greater confusion). Over the course of 2019 and 2020, the United States Congress has introduced several bills to address surprise bills, at least four of which offer comprehensive patient protections. Specifically, they (1) address surprise bills in both ED and non-ED settings, (2) offer protections to self-funded and fully-insured health plans, (3) limit patient cost-sharing to the in-network cost share amount and prohibit providers from balance billing, and (4) adopt a minimum payment standard or a dispute resolution process to resolve payment disputes between providers and insurers.

With respect to approaches on payment of surprise bills, the legislative proposals fit into two distinct categories: benchmark or arbitration. Generally, payors favor benchmarking, whereby the government would set a reimbursement rate for providers when they treat OON patients. For example, America's Health Insurance Plans (AHIP) advocates an amount equal to the median in-network rate, or, if such rate is not ascertainable, an amount based on Medicare, which would avoid tying payment to billed charges. However, physician groups find median in-network rates problematic because insurers do not rely on a known independent, transparent, and verifiable database. The fear is that use of median in-network rates will cause in-network rates to decrease over time because this benchmark will affect contracting dynamics between insurers and providers. Indeed, as Moody's Investors Service reported on UnitedHealthcare's termination of Team Health's high-reimbursement network agreements in 18 states, UnitedHealth would effectively lower median in-network rates in certain geographic areas. To address and allay these fears, physician groups advocate a timely upfront, commercially reasonable payment, based on actual local charges as determined through an independent claims database, using baseball-style, binding arbitration.

S 1895, reported by the Health Education Labor and Pension (HELP) Committee, and HR 2328, reported by the House Emergency and Commerce (EC) Committee, base payment for surprise bills on the median in-network rate, as of the time the services were rendered, or, in effect for 2019, adjusted for inflation, respectively. Additionally, HR 2328 would allow either side to bring the dispute to baseball-style arbitration, if the payor or the provider is dissatisfied with the amount paid under the payment standard, and the median in-network rate exceeds $1,250.

HR 3502, sponsored by Representatives Ruiz and Roe, outlines a different approach. It does not specify a payment standard for surprise bills. Instead, insurers and providers would first engage in negotiations over the payment of the surprise bill, and, if no agreement is reached, take the dispute to baseball-style arbitration that would take into account both the median in-network rate and the 80th percentile of actual billed charges.

In December 2019, the Senate HELP and House EC Committees announced a compromise that tracks closely with HR 2328 and includes (1) a median in-network rate for 2019, indexed for inflation, (2) a backup baseball-style arbitration process to address insurer-provider disagreements, and (3) lowers the threshold for arbitration from $1,250 to $750. The changes did not gain the support of hospital and physician groups because the compromise continues to rely on the median in-network rate and the $750 threshold for arbitration is still too high. Additionally, the House EC and WM Committees remain at odds over the best approach for payment of surprise bills.

In February 2020, the WM Committee released legislation that does not use the median in-network rate as a starting point, but favors voluntary negotiations between insurers and providers, backed by an independent dispute resolution process to set the payment rate. On the day the WM Committee unveiled its proposal, the House Education and Labor Committee introduced a proposal that resembles the bicameral compromise, but also takes steps against protecting air ambulance patients against surprise bills. While Congress seems eager to pass surprise bill legislation, it remains to be seen if they can find middle ground.

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NOT A FREUDIAN SLIP: CBD AND MENTAL HEALTH - THERAPEUTIC MAGIC OR MYTH? PART 1

After several weeks of feeling overwhelmed and stressed about an upcoming move and job change, I could feel those life changes taking a toll on my mood and sleep. What's worse, the stress was triggering my skin issues to intensify, making me even more uncomfortable. I was ready to try (almost) anything for relief. A friend gave me a few CBD gummies and recommended that I eat one just before bed. Over the next several nights I slept like a baby, I seemed to be able to work through challenges without overreacting, and my inflamed skin began to improve. Armed with my anecdotal evidence, I wanted to uncover the facts about how these gummies could help alleviate the symptoms I was feeling as I moved through some tough life transitions.

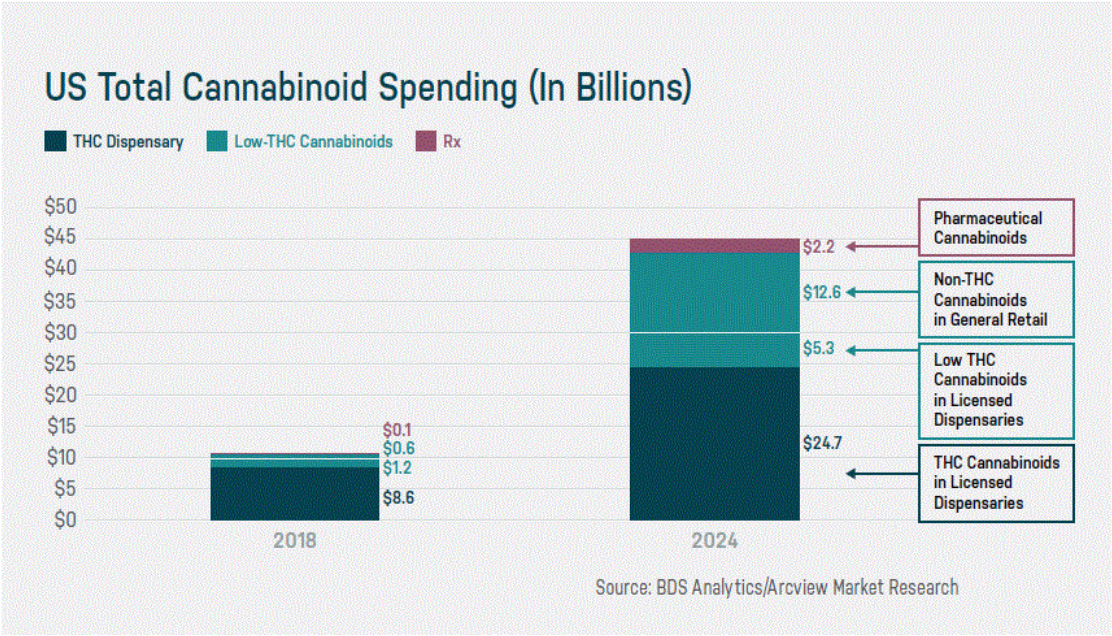
Is it possible for a single plant-derived compound to have such broad clinical impact and alleviate symptoms of so many conditions? Could a daily dose of CBD oil (cannabidiol) improve a person's depression, anxiety, and stress symptoms and help reverse the negative trend of increasing mental illness? This article series will touch on the history and legal journey of cannabis, highlight market growth, explore the evidence surrounding the potential health impacts, and propose a way to adequately harness its therapeutic value to support mental health improvement.

For starters, understanding the term cannabis and the difference between hemp, marijuana, THC, and CBD is necessary. Cannabis is a plant that has different varieties and produces over 400 different chemicals.[1] Hemp and marijuana are cannabis plant varieties which have different chemical compounds with similar structures that produce varying levels of cannabidiol (CBD) and tetrahydrocannabinol (THC) chemicals. These chemicals affect receptors throughout the body in different ways. Hemp and marijuana plants are farmed and cultivated in different ways and harvested for different purposes. However, they look quite similar, making it hard to distinguish between the two. [2]

Hemp is the non-intoxicating cannabis variety that contains 0.3% or less THC and is harvested for industrial (rope, clothing, paper, housing material), food (cooking oil, hemp flour, etc), and medicinal products. The cannabis variety, marijuana, contains more THC which binds to different receptors in the body producing the euphoric effects that makes users feel high. Due to the difference between their THC levels, hemp and marijuana have different legal regulations. Marijuana-derived CBD is federally illegal regardless of its percentage of THC. However, CBD derived from hemp containing 0.3% THC or less is not regulated as a controlled substance.

HYPE

Even with confusion around the plant varieties and their legal restrictions, the CBD market has grown rapidly over the last several years and is projected to rise even faster, with sales expected to exceed $20 billion in the U.S. by 2024, according to BDS Analytics.[3] CBD is increasingly integrated into mainstream society and infused into a diverse array of beverages, foods and snacks, cosmetics, health products, and even pet products. Retailers like grocery stores (Kroger), major pharmacy chains (CVS, Walgreens, and Rite Aide), gas station convenience stores, and nutrition stores are banking on its continued growth. Increasing public interest triggered the launch of National CBD Day (8/8) as an opportunity to raise awareness of CBD. However, many remain skeptical of its benefits and are unsure about how to obtain safe and legal products.



HISTORY

Understanding why CBD shifted from medicinally appropriate to illegal may help remove the misguided stigma. Cannabis has been used for hundreds of years and has a long history of providing relief around the world. However, in 1930 Harry Aslinger, in an effort to secure his position with the Federal Narcotics Bureau, leveraged his influential network of politicians and Washington leaders to begin his quest to criminalize cannabis use. **Motivated by racial hate and eagerness to enforce political power over non-whites**, Aslinger fabricated a drug threat, using a calculated campaign to generate fear by labeling cannabis as a toxic substance that made people crazy and violent.[4]

Under Aslinger's influence and ignoring physician endorsement, the medical use of cannabis was removed from the U.S. Pharmacopoeia and National Formulary in 1941 and classified by the Drug Enforcement Administration (DEA) in 1970 as a schedule 1 controlled substance (alongside heroin, LSD, and ecstasy). This new classification not only eliminated cannabis as a therapeutic option for physicians to prescribe, but also discontinued funding for medical research and regulatory provisions on product quality and standardization.[5] Those actions resulted in little focus on scientific research to further validate the positive effects and pushing cannabis to the underground market.

HEALTH IMPACT

As I witnessed first-hand how my body and mind responded to the CBD supplement, I became more interested in learning how the natural healing properties of CBD **can be beneficial to so many illnesses**. I was surprised to uncover all of the scientific literature on the positive impacts of CBD, especially related to mental health conditions. Cannabis has been used to reduce anxiety for centuries, is linked to a reduction in depression, and many experience significant improvements in PTSD symptoms.[6-11] The condition chart lists mental/cognitive conditions that have positive evidence of the impact CBD can have, albeit limited research has been conducted on this controversial topic. This chart is not comprehensive by any means, and there's further research to suggest CBD has possible additional applications and benefits that remain undiscovered.[12]

To date, funding for research has been limited because of the controversial drug classification. In September 2019, the National Center for Complementary and Integrative Health (NCCIH), part of the National Institutes of Health (NIH), awarded $3 million in research funds to investigate cannabis and its role in pain management, as the urgent need for opioid alternatives that are less addictive, more effective, and safer is great. With continued funding we can begin to properly educate clinicians and inform

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Condition	Evidence of Positive Impact
Addictive Disorders	Substance related use/abuse
Anxiety Disorders	General Anxiety Disorder (GAD) Panic Disorder Phobias (Agoraphobia) Separation Anxiety Disorder Social Anxiety/Phobia
Eating Disorders	Anorexia Binge eating Bulimia Pica Restrictive food intake
Mood [Affective] Disorders	Bipolar Disorder (Manic Depression) Cyclothynic Disorder Dysthymia Major Depressive Disorder (MDD) Persistent Depressive Disorder (PDD) Postpartum Seasonal Affective Disorder (SAD)
Neurocognitive Disorders [NCD] Neurodegenerative Diseases	Alzheimer's Huntington's Parkinson's Traumatic brain injury (TBI) Dementia Delirium
Neurodevelopmental Disorders	ADHD Asperger's Disorder Autistic Disorders (ASD) Learning Disorders Tourettes Syndrome Conduct Disorders
Personality Disorders	Antisocial Personality Disorder Avoidant Personality Disorder Borderline Personality Disorder Dependent Personality Disorder Impulse Control Multiphasic Narcissistic Personality Disorder Obsessive Compulsive Disorder (OCD) Paranoid Personality Disorder
Psychotic Disorders	Schizophrenia Delusional Disorder
Self Harm / Injury	Suicide Cutting
Sexual Dysfunction	Sexual & gender identity disorders Premature ejaculation
Sleep Disorders	Insomnia Narcolepsy Restless Leg Syndrome (RLS)
Trauma and Stress Disorders	Acute Stress Adjustment Disorder Post-traumatic Stress Disorder (PTSD)

consumers on ways to adequately harness the therapeutic value of CBD to support physical and mental health improvement.

Using scientific rigor to replace misguided stigma with validated evidence, true medical value and undiscovered uses can be identified and leveraged to strengthen safety and quality control, as adequate provisions and quality standards are absent in the unregulated CBD industry. Further, with so many product variations and options, selecting the safest, most appropriate product can be challenging. Providing insight into what to look for when purchasing CBD products will aid in responsible use.

In the next article in the series, we will dive deeper to look at the potential adverse effects and risks and discuss how to identify reputable sources when purchasing CBD products.

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DOWNLOADING SUCCESS: WHY AREN'T MORE WOMEN AT THE TOP?

TWENTY-ONE PERCENT. Executive teams that are gender diverse are 21 percent more likely to outperform their peers, according to McKinsey. That's a significant figure. If we needed another reason to advance women's leadership in the C-suite, this is it.

Still, for the latest cover story of *Healthcare Executive* magazine, I found myself in a familiar situation of being asked about whether women have made enough progress towards greater representation in leadership. I paused, giving it thought. Yes, women in healthcare and other industries have made strides. We know that more women are ascending to the CEO role. And for the first time all S&P 500 companies have at least one woman board member.

However, I told the magazine, it is still not good enough. More real structural, organizational change needs to happen. "What are the real practices we can put in place?" I asked rhetorically. "It's good to talk about gender diversity and say we have a commitment to it, but how do we ensure the pool of candidates is diverse?"

MID- AND LATE-CAREER CHALLENGES

Some experts believe we need to solve a "pipeline problem," even in industries like healthcare that traditionally have more female workers than male. The *Wall Street Journal* recently asked, given so many women in healthcare, why aren't more at the top? They attribute the dearth to early-career issues—fewer women than men are getting hired to initial managerial roles.

Still, as an executive search consultant, I know that women face mid- and late-career challenges as well, and that the executive recruitment process can itself be inequitable. For instance, my colleagues Jeffrey Schroetlin and Joyce De Leo in our Academic Medicine and Health Sciences Practice, recently conducted informal research on how men and women responded to job inquiries for dean of medicine positions. If contacted by a search consultant, they learned, a

man is twice as likely to express interest in a position than a woman; however, *if a woman is nominated by a colleague*, that difference disappears.

In addition to nurturing job nominations for women, ideas for supporting women leaders, courtesy of Schroetlin and De Leo, include:

- Ensuring broad and equal representation on search committees
- Taking steps to minimize unconscious bias during interviews
- Getting more creative and casting a wider net in networking and in sourcing candidates

Building momentum towards ever-increasing numbers of women in leadership roles requires creative and systemic change and means supporting women at all phases of their careers. Why aren't more women at the top? Let's keep asking this question and looking for answers.

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TO YOUR HEALTH: THE 'EYE OF THE TIGER' AND THE COST OF COMPETITION IN CREATING LASTING EXERCISE HABITS?

Superbowl week means the great sports quotes come calling back. "You play to win the game. Win at all cost. Just win baby. To be the best you must beat the best. Show me a good loser, and I will show you a loser." According to Canyon Ranch psychologist Dr. Jeff Rossman, the USA is one of the most competitive nations in the world. He claims we try to win at everything. So what does that have to do with you and your exercise?

You just finished your barre class, tennis match, 5k, or weight workout. What are you most likely to say to yourself? "Wow, that was great. I think I am getting better!" Or "Yikes, I have really fallen off from last year. Bummer, I still have that roll in my middle." In the work that Canyon Ranch does, lifestyle habits are constantly being discussed and evaluated. Activity and exercise is where I spend my time. Oddly, it is common to listen to a guest qualify their answers about their exercise with a hint of self-doubt and a lack of confidence. "I run, but slowly." "Yes, I go to the gym, but I do the same thing every time." "Sure, I get steps, but I am so out of shape." So what gives? What is with the negative self-talk and the loser mentality? For answers I interviewed Dr. Rossman, who has been a pillar of the Health and Healing Department at Canyon Ranch for over 25 years.

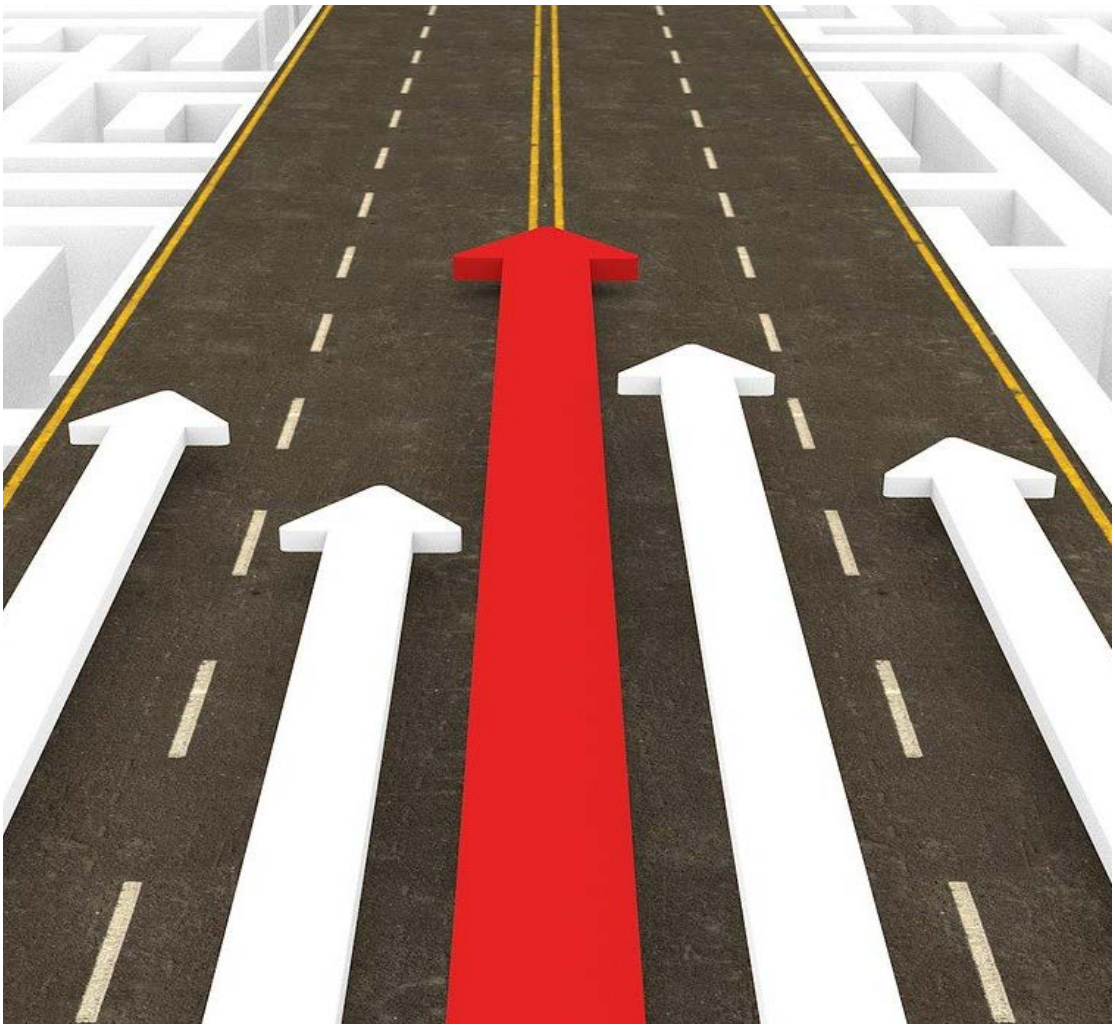
RB: Why do people cast a negative view on their activity? What is the psychology of the negative self-talk?

JR: For some individuals, they have a prevailing negative mindset that they are never doing enough or reaching their potential. For others, like athletes, they often compare their most recent achievements to their past when they were at their peak and hold themselves to a very high standard. But there is a 3rd reason. These people may be a product of the significant emphasis the fitness industry has on 'High Intensity Training' (H.I.T.). Many people look down on moderate levels of exercise because it is not at the H.I.T. level, and that leaves them with a sense they did not do enough.

RB: So, is the competitive culture that is ever-present in the U.S. a negative when people are attempting to maintain a healthy level of activity in their lives?

JR: Yes. Absolutely it is. This country so glorifies winning and creates a competition out of almost anything. Fishing, dancing, singing (all wonderful recreational activities that can be done for a lifetime). We have turned everything into a competition, and we have quantified everything imaginable. Even the activity monitors are being used as performance meters, and people are competing to see who reaches the most steps per day. People can become obsessed by it. The perfect can be the enemy of the good.

RB: How do you encourage individuals, as you say, to make peace with their choices relating to lifestyle habits, including activity?



JR: When it comes to exercise, do what you love. And if there is an exercise you need to do that you don't currently love, find a way to love it. Be creative, select something to listen to or watch, and then try and make it fun and enjoyable so you look forward to doing it. Consider including a social element like a group class or an activity with friends. Expose yourself to something beautiful, like nature, to enhance the experience.

One last point Dr. Rossman makes is that people have their own exercise personality, and that is ok. Do the broccoli lovers reign supreme over the spinach crowd? That is silly; the righteous attitudes surrounding dietary trends confuse the novice into thinking they should choose a side and hold firm. In kind, the Peloton lover will argue the powerwalking neighbor is not really exercising. There is no need for the exercise culture to create a caste system that only has room at the top for the 8% body fat Cross Fitting grandmother. That only leaves a majority of us mere mortals to stare up in awe of them, leaving some of us thinking 'Why do I even bother?'

Activity levels, even at the lowest doses, are critical to fending off the onslaught of non-communicable diseases here in North America. Body fat, blood sugars, and lipid scores are not dropping. Just as a great coach motivates players to get better, we need to encourage people to pursue their preferred activities and promote the American College of Sports Medicine philosophy of 'something is better than nothing.' Save your 'We are #1' chant for the game. Just move!

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PEER-REVIEWED JOURNALS: DISTINGUISHING PRESTIGIOUS FROM PREDATORY

I recently received an invitation that began "Dear Happe, LE." The email claimed a paper I had recently authored had garnered attention and interest from scholars, and I was invited to join the editorial board of their journal. The invitation even referenced the title of my article. If the strange greeting didn't raise my suspicion – the reference to my article did. You see, the title of my article was "Announcing a New Article Series." It was an announcement I had made in the journal that I edit, the *Journal of Managed Care and Specialty Pharmacy* (JMCP). I can assure you, this announcement did not garner attention from scholars.

I suspect many of you have received similar imitations to join editorial boards or submit papers. Both are professional distinctions and ways for experts to give something back to their respective professions.

But how can you know if a journal is prestigious, credible, or even legitimate?

REPUTABLE JOURNALS HAVE A PEER-REVIEW PROCESS.

Peer-review is the primary hallmark of academic publishing. Peer reviewers are experts in their respective fields who volunteer time to carefully review submitted manuscripts for suitability to publish. Although the mechanics may vary between journals, I'll describe JMCP's process for illustrative purposes.

First, journal staff does a preliminary review of each article to ensure the submission is complete and compliant with general article guidelines, such as word count. Next, articles are assigned to an assistant editor who conducts a preliminary review of the submission. At this stage, editors are scanning for relevancy to JMCP's readership and a suitable level of quality of research and writing. Articles that pass this review are then sent to peer reviewers.

The assistant editor uses the JMCP database to identify 6-8 potential peer-reviewers with areas of expertise matching the subject of the article. Potential reviewers are contacted via email and asked to accept or decline. Once the target number (three) of reviewers has accepted, no additional reviewers can accept the invitation. Sometimes it is difficult to identify even 3 reviewers, particularly for esoteric subjects or during busy times of the year.

Peer-reviewers are asked to provide comments and a publication recommendation (publish, revise and resubmit, or do not publish) to the assistant editor within 2 weeks. Once all three reviews are returned, the assistant editor considers the feedback and makes a publication recommendation to the editor-in-chief. The editor-in-chief reviews all publication recommendations and levies the final publication decision.

In contrast, predatory journals often do not follow a rigorous peer-reviewed process. For example, they may promise

unrealistically quick peer review in hopes of attracting authors, or they may not conduct peer-review at all.

REPUTABLE JOURNALS HAVE AN EDITORIAL BOARD.

As with most organizations, reputable journals assemble a board of experts in relevant areas to serve in an advisory capacity. For newer journals, board members are often responsible for conducting peer reviews and maybe even submitting papers. Board members for mature journals may focus more on scope, policies, and promotion of the journal within their spheres of influence. Other responsibilities may include solicitation of authors and peer reviewers, identification of topics for themed issues, and advising the editors. Board members are typically volunteers selected by the editor. Editors aim to construct a board that is diverse and matches the scope of the journal in terms of subject matter expertise and geography.

Many predatory journals have editorial boards; yet they may consist of members outside the scope of the journal, residing outside the country in which the journal is published, or unknown to experts in the field. Predatory journals are known for aggressively soliciting editorial board members, as in the example I provide above, and occasionally "appoint" authors to their board without the person's knowledge.

REPUTABLE JOURNALS FOLLOW RECOGNIZED PUBLISHING STANDARDS.

Just as there are clinical guidelines for the practice of medicine, there are publication guidelines for academic journals. These guidelines recommend best practices for topics ranging from determining authorship, to journal management, to handling allegations of misconduct. The two most widely used in the U.S. are the Committee on Publication Ethics and the International Committee of Medical Journal Editors. Reputable journals will use these, or similar sources, to guide their practices. Some predatory journals may claim to follow these guidelines, but instead intentionally misrepresent their own practices.

REPUTABLE JOURNALS ARE TRANSPARENT AND FAIR ABOUT LEVIED FEES.

Charging authors a processing fee is one way to generate revenue to cover journal expenses. This practice has become more common as a result of declining pharmaceutical advertising in print journals, the switch to web-based publishing, and a push for open access to reduce disparities in access to published research. Processing fees can be tricky business. Predatory journals may require a fee just to submit the article, which creates a conflict of interest.

An author should not assume that any journal that requires a fee is predatory, as many reputable journals do so today. However, authors should expect the journal is transparent about their fees and has no surprise charges. Further, fees should only be levied after the editorial decision has been made to avoid any real or perceived conflict of interest.

REPUTABLE JOURNALS ARE INDEXED.

Practitioners and researchers alike use databases such as PubMed and Web of Science to search the peer-reviewed literature. Journals indexed in these databases have passed a selection process just to be included – so users can generally trust them to be reputable. To be indexed in PubMed at the National Library of Medicine, a journal must meet extensive evaluation criteria, detailed here. Similarly, to be included in Web of Science, a team of editors reviews each journal against 28 criteria evaluating editorial rigor and best practices. In short, practitioners and researchers can continue to use these databases and be confident their searches will not yield articles published in predatory journals.

According to a joint statement from prominent medical writing societies, predatory journals pose a serious threat to the peer-reviewed medical literature. Authors and readers must learn how to distinguish these publications from trusted, reputable journals. Although peer-reviewed publishing must evolve to keep pace with the rapid growth of data and analytics in medicine, the field can never compromise on ethical and rigorous publishing practices. The public's health depends on it.

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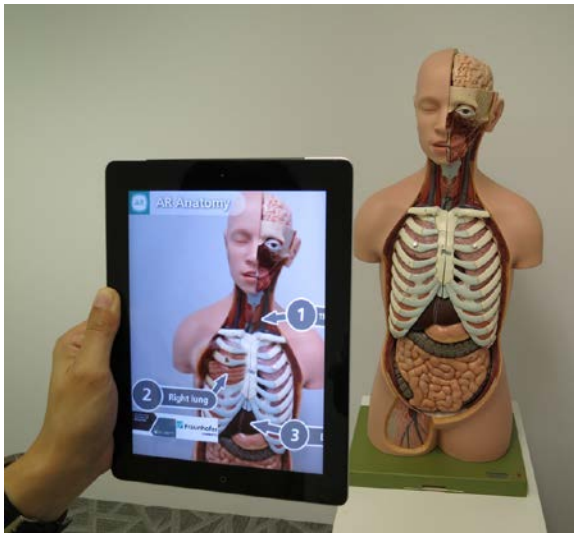
THE IMPACT OF AUGMENTED REALITY (AR) ON PROVIDING BETTER HOME HEALTHCARE

BACKGROUND

The CDC estimates that as many as 4.5 million people in the United States have used home health services since 2015, the majority of whom are aged 65 or older. As this population in the United States grows, the frequency, type, and volume of home healthcare services needed for both acute and, perhaps even more so, non-acute needs will also increase:



Acute home healthcare: Care provided by skilled and licensed medical personnel employed by healthcare agencies.

Non-acute home-based care: Care such as dressing, bathing, meal preparation assistance, toileting and moving about safely; most often provided by family, friends, or, as of 2019, some portion by non-skilled home healthcare as covered services added by Center for Medicare and Medicaid Services (CMMS) under Medicare Advantage (MA) plans. These services can also be provided by home health agencies as an out-of-pocket expense unless long term care insurance is in place.

As the need for home health services increases, several considerations and concerns appear related to its availability, affordability, and coverage. Specifically:

1. If a person does not have health insurance coverage or Medicaid, or, if their particular plan does not reimburse for the newly covered non-skilled home healthcare, how will they afford non-acute home-based care?
2. For home healthcare agencies, will they be able to staff roles with non-skilled home healthcare employees and provide them adequate training?
3. For those people who cannot afford healthcare coverage or are not eligible for Medicaid and rely on friends and family, or live where home healthcare and skilled provider services have limited availability, will these populations be underserved?

SOLUTION OPPORTUNITY

The accelerating growth rate in the U.S. population segment needing home healthcare service, lack of coverage for those populations requiring in-home health, staffing challenges, and increasing costs related to training healthcare workers has created a need for new supportive technologies and solutions to provide adequate in-home healthcare services.

Virtual and Augmented Reality technologies have been leveraged in the training of medical staff, as well as various forms of treatment. Augmented Reality, or 'AR' solutions, specifically, have demonstrated measurable impact in the efficiency and quality of healthcare provided in-home by both skilled and non-skilled workers.

APPLICATIONS OF VIRTUAL AND AUGMENTED REALITY IN TRAINING OF MEDICAL STAFF

Although Virtual Reality ('VR') is largely associated with gaming and entertainment, there are several applications in business and enterprise use cases. The VR industry is expected to grow to $45 billion by 2024, with healthcare seeing clear benefits in the simulation of surgery, training of medical staff, and driving compliance in procedures.

VR devices and their supporting applications have demonstrated utility in the medical training space in a variety of ways, from helping to train surgeons and allowing them to visualize a procedure prior to an operation to being excellent for enabling medical students to virtually explore the human anatomy.

Using Oculus Go "Immersive VR simulations help learners build new memories through realistic experiences that traditional methods cannot provide," says Rachel Umoren (MD, MS) of the University of Washington and Seattle Children's Hospital.

"Doctors and other healthcare providers can repeat a task over and over in the simulation with standardized feedback, honing and perfecting their skills."

Another device, used for mixed reality, Microsoft HoloLens has some great applications in the medical simulation and training space. Several universities and medical centers are enhancing their physician training and surgical procedures with the use of the HoloLens. This enables students and other staff to get detailed expertise in complicated procedures by practicing on virtual patients.

LEVERAGING AUGMENTED REALITY FOR HOME HEALTHCARE

The value of devices like Oculus Go or HoloLens in training and simulation is clear and growing. However, for medical staff like nurses and home healthcare workers, those large devices are impractical for all day wear and have limited application in their daily tasks.

Smaller devices like Glass Enterprise Edition from Google have an ergonomic, human fit form factor that is similar to wearing a pair of eyeglasses, which makes it comfortable for extended wear. It provides 2-way video for remote assistance, and a voice-controlled interface, with a line of sight display that enables use-cases like step-by-step instructions and helps ensure adherence with established procedures. Some key use cases include:

- *Medical records:* Enable medical staff to document electronic medical records, hands-free, thereby saving time that can be spent providing medical care instead of creating documentation.
- *Remote expert assistance:* In the event a caretaker or healthcare worker needs assistance from a medical expert, such as a physician, the caretaker or home health worker can stream their perspective to a remote expert and get guidance for the task at hand hands free to interact with the patient.
- *Step-by-step instructions:* Using step-by-step instructions with intermediate checkpoints greatly improves the overall compliance to established procedures while making increasing efficiency, and reducing errors.

As an example, imagine a skilled home healthcare worker is changing the wound dressing on the calf of a patient recovering from vein removal from a bypass. Even though they've performed this procedure many times, something looks a little off and they notice the depth and diameter of the wound is not progressing from week to week according to the chart. Wearing Google Glass they call for a consultation with an on-call doctor contracted with the home healthcare company.

The expert physician can see the perspective of the healthcare worker, take note of the wound, and instruct the home health worker to touch around the margins. Since the caregiver is connected hands-free, they are left with both hands free to work with the patient and follow the physician's instructions. The remotely located doctor can send annotated images to the caregiver to supplement any verbal instructions they may be providing. All of the audio and video images shared can be stored in any public cloud including the Google Cloud Platform.

Additionally, through two-way audio occurring simultaneously, it is possible to assess if there is the beginning of an infection, and, along with other vitals, the doctor can determine if a course of antibiotics is appropriate. Benefits of introducing AR Medical in this example include: no readmission, reduced stress for the patient, continuity of care with the home healthcare provider, lower cost, and a faster recovery time. An added benefit of leveraging Glass versus a tablet, smartphone, or other device is that because it is hands-free, it helps the caretaker stay focused on the task at hand and also conforms to standards related to patient-provider hygiene.

CONCLUSION

As more people require home healthcare, leveraging Virtual and Augmented Reality devices like Oculus Go and HoloLens will improve the training of healthcare workers. Similarly, devices like Glass Enterprise Edition will improve the overall efficiency and quality of in-home healthcare, as well as increase the availability of both acute and non-acute services as more care is delivered in the home setting and the population ages.

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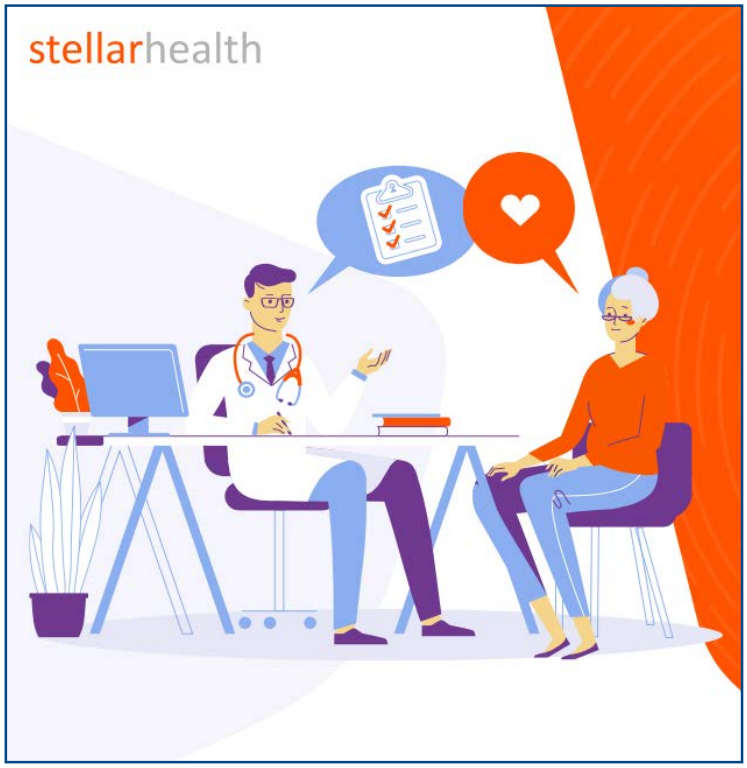
FROM PRIVATE EQUITY TO HEALTH TECH STARTUP, A WHARTON ALUM IS READY TO IMPROVE HEALTHCARE

Michael Meng is an alumnus of the Wharton Healthcare Management program, current CEO of Stellar Health and was a guest on The Pulse, Wharton's Digital Health podcast. The new podcast includes a moderated panel discussion with Stellar's board of advisors and goes deep on their predictions for healthcare in 2020, including M&A predictions for the year, value-based care delivery reform, healthcare interoperability and more. Read about Michael's journey from private equity to startup. And, as a bonus, listen to the podcast to gain insights from the Stellar Health team about healthcare trends as we begin a new decade.



LIFE BEFORE STELLAR HEALTH

Leaping into the unknown is never easy, but there is something exhilarating about the adventure. For startup founders, taking the plunge is difficult, but for me, as someone who was just starting a family, and already had a lucrative career in private equity, it felt like staring off the edge of a cliff with the next step purely one of faith. My faith lay in the belief the current U.S. healthcare system needed to adapt to value-based care in order to be sustainable and one of the best in the world.

I started my career in investment banking at Lazard Frères and then transitioned to private equity at Apax Partners, a large cap global private equity firm. At Apax, I focused on healthcare, investing across the industry from services/delivery to technology. The intellectual curiosity that arose from my early work on healthcare deals at Apax led me to pursue my MBA in the Healthcare Management Program at Wharton.

After graduation I continued my career at Apax where I continued to dive deeper into the nuances of the broken healthcare system. While my learning persisted and motivation remained high, I felt I was not doing what I could to positively impact the industry. Making investment returns off companies growing 5-9% on a large M&A deal is fiscally rewarding, but when you hit a certain point in your career or life, you start to think about the difference you're making in the lives of others. My guiding light and opportunity to make a difference was rooted in the promising idea of value-based care and led me to where I am today. With this idea in my mind, I took a risk to chase an entrepreneurial endeavor I was passionate about - co-founder Stellar Health alongside my Wharton classmate Ben Kraus, WG'12, McKinsey Alum Ari Brenner, and Octavian Costache, a tenured Google engineer.

WHAT IS STELLAR HEALTH?

Stellar Health started with an idea and transformed into a company with real results, changing provider behavior to drive success in a value-based care world. The goal of Stellar Health is to align the incentives between those receiving care, those providing care, and those paying for care at the most granular level. By rewarding the actual "end doers" of the work out in the field (practicing physicians and their staff), Stellar's model would enable providers to activate in value-based care and finally reach the "last mile" - getting medical practices transformed to this new approach.

WHERE IS STELLAR HEALTH TODAY?

The Stellar Health platform represents over 200,000 value-based actions to be prompted to providers to complete for their

patients. In 2019, we grew our employee base by five times, expanded across 12 states, and, most importantly, engaged provider users in providing the highest quality care. In a collaboration with a client in New York, providers using the Stellar Health platform improved primary care metrics such as the completion of breast cancer screenings which improved their quality performance by 60% in less than six months. As a result, over 200 breast cancer screenings were completed enabling Stellar Health provider users to catch early stage breast cancer.

FROM PRIVATE EQUITY TO STARTUP CEO

Beyond population level results and business growth, what motivates me is my hands-on experience in the startup environment, specifically, speaking to the "doers." These are the individuals who are working tirelessly to care for their patients. When visiting a downstate NY practice, I witnessed a medical assistant cry out of joy when my team brought the assistant her monthly incentive payment. It was the difference between making and not making a car payment for the month. Stellar Health is considered a tech company, but the ability to motivate people and make them feel valued to the point where they can make sure that extra colorectal cancer screening gets done, or the diabetic patient doesn't miss a medication refill, that's what our product is about.

It is obvious that private equity is very different from being a health tech startup CEO, but some of my learnings have been eye-opening:

- Leadership isn't about some inspiring speech every so often, but rather showing up every day, caring and serving all the people that work for you.
- Private equity, even at the larger firms, is about small focused groups executing at a high level. In my transition to the operating side I've quickly come to learn that what really determines your success is the ability to drive people from diverse backgrounds and functional areas to a common mission.
- Investing is a long-term game and not just working from deal to deal. This point has become more true in operating and leading a company. There are thousands of items to get done in a short amount of time, but you need to pace yourself and keep an eye on sustaining for the long run.
- Selling a real product or business service is quite different than getting a deal done or a project engagement. It is more about delivering the entire organization, all its diverse functions, to the customer. They're buying the trust in you and your entire organization.
- Lastly, you really need to care about your employees in an operating company. And this isn't just about performance, but rather their whole lives: how things are going at home, what else is going on in their life, and how we as a company can help. This translates into a high performing culture, which ultimately leads to increased success of the company.

YOU CAN'T TAKE THE PE THINKING OUT OF THE EXECUTIVE.

Many of the skills and thinking gained from private equity continue to serve me well. I believe I now have a unique perspective when thinking about Stellar's relationships with investors. I don't view it as a capital vehicle to grow the company, but rather a commitment of return on investment to a trusted partner. Another skill gained from my time in private equity is the importance of recruiting and retaining top talent. I do this now at all levels within Stellar Health, as opposed to on a broad level in private equity. I've found the same private equity mindset, from finding leverage points to driving scalability and effectiveness, applies to operating a successful business as well.

WHAT'S NEXT?

I have continued to focus on growing Stellar Health alongside my co-founders and the incredible team we have built. I understand that in order to create something great, you need to stick with it for a long time to realize the compounding effects. I also believe you need to be in the business for at least 10 years to really reap the rewards and returns possible. If Stellar Health executes on its vision, I know it will have truly transformed healthcare and made a significant impact in an industry that needs change.

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