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EDITOR'S LETTER

The articles in this edition highlight some of the challenges, heart-ache, and exciting opportunities which exist in healthcare in 2014. The quote below reminds us of why we have much work to do and will never be bored doing it. The contributors in this month's issue remind us that ultimately our problems, difficult though they may be, are solvable.

"Three reasons problems are inevitable: first, we live in a world of growing complexity and diversity; second, we interact with people; and third, we cannot control all the situations we face."

~ [John C. Maxwell](#) ([American Entrepreneur](#), [Author](#) and [Motivational Speaker](#))

As always, we welcome your feedback, ideas, and contributions!

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

We have a busy next few months for the WHCMAA. Our Alumni scholarship in honor of June has exceeded its goal of \$500,000 in commitments. We have blown past this number and, frankly, we should have. The more money that is in this scholarship, the more we can likely provide in scholarship \$\$\$ to a first-year healthcare MBA. Therefore if you are hesitant to give because the goal has been reached – don't be. Our mission is to give back to the school and what a great way to do so; knowing your contribution helps in attracting the best and the brightest to a program that is unique and impactful.

Working on the scholarship initiative with all those involved in planning and executing it has been a tremendous experience and is indicative of the people who have graduated from the program. These people include: Tracy Johnson, WG'86 (Co-Chair Steering Committee); Jody Schuhart, WG'84 (Co-Chair Implementation Committee); Bryan Bushick, WG'89 (Co-Chair Implementation Committee); Elayne Howard, WG'75 (Steering Committee); Amanda Hopkins Tirrell, WG'86 (Steering Committee) and Jay Mohr, WG'91 (Steering Committee). Additionally, there are a significant number of class captains (too many to mention) who have spent their time and effort with this initiative. All we can say is thank you so much! It is great to see the alumni coalesce around a common goal and cause.

We are working on revising our by-laws in order to ensure they are up to date. You will be receiving communications in the near future in order to vote on them.

We are looking carefully at our mission to ensure we are doing the right things for you, the Wharton Healthcare Program, and the Wharton School. This will likely take some time and discussion at the Board level. We have been operating on the following tenets: giving back to the WHCM program; providing meaningful learning and career development programs; opportunities for us to network; and recognizing those who have done much for our organization. If we are missing anything from this discussion, please let us know.

We have begun to extend our geographical reach and have recently identified regional captains for Washington DC, the Midwest, and San Francisco. These captains are Fran Kelleher, PhD, WG'84; Bob McDonald, WG'92; and Robert Mangel, Wharton PhD respectively. If you are in these regions, you will likely hear from them in the future. Fran is working with Wharton's Public Policy Initiative in DC, focusing on healthcare policy at the Federal level. This likely will entail her working with Wharton Professor Mark Duggan, PhD, on healthcare issues of interest to Wharton/LDI. The result will be a better understanding of how we as healthcare practitioners can mold and operate in a very rapidly changing environment. Stay tuned. Bob McDonald has been working in the Midwest on holding their second event in the Chicago area in conjunction with the Wharton Club of Chicago. He is working on developing content and ways to interact with the broader community of Wharton graduates in the Chicago area. Rob Mangel is working with the Wharton SF community and the Wharton SF campus to develop healthcare content from an entrepreneurial perspective. In case you want to help, their e-mails are:

Fran Kelleher: frankelleher@earthlink.net

Bob McDonald: bmcDonald@aledoconsulting.com

Rob Mangel: robertmangel@gmail.com

Other opportunities for us to spread the word include SIRIUS XM radio segments with Wharton faculty. Several are scheduled for this year, and we will let you know when they will occur. The preliminary topics include: mobile health; the business case for addressing health disparities and health inequity, mid-market capitalizations; and payer/provider consolidations and their impact on consumers of healthcare.



Column Editor: Jeff Voigt WG'85,
To learn more about Jeff, [click here](#).

THE PRESIDENT'S DESK

continued

As always, we encourage you to get involved. We have a strong presence in Boston (Molly Harper, WG'04 and Alexis Bernstein WG'10 as regional captains); NYC (Peter Fishman, WG'07 regional captain); New Jersey (Jeff Voigt, WG'85 regional captain); Philadelphia (Vik Bakhru, WG'09 regional captain). If you are interested in being a regional captain for an underserved area, let us know! Additionally, if you have ideas for programs in these areas, let the captains know.

Captains:

Molly Harper, WG'04 (Boston): molly.harper@gmail.com

Alexis Bernstein, WG'10 (Boston)

Peter Fishman, WG'07 (NYC): peterfishman@gmail.com

Vik Bakhru, WG'09 (Philadelphia): vik.bakhru@gmail.com

Thank you for your interest in the WHCMAA, and let us know how we can help!

Sincerely,

Jeff Voigt, WG'85

President WHCMAA

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OPEN WIDE: THE WAR BETWEEN THE STATES

No, I'm not much of a Civil War buff, so I'm not referring to the "War of Attempted Secession" [as Walt Whitman termed it] here, although there is some revealing dental history tied to the Civil War. In the mid-19th century, the dental health of the general population was poor, most people seeing a dentist only to have a troublesome tooth extracted. Surprisingly, with the outbreak of the war in 1861, some measure of sound dental health was a requirement for recruits on both sides – for the Union, it was to have six opposing upper and lower front teeth, for the Confederacy it was only four. The requirement had nothing to do with the ability to eat army chow in the field; instead, the rule was instituted because a man had to have enough opposing incisors (the front teeth) so he could tear open the cardboard cartridge to pour powder down the barrel of his rifle. As the war ground on and casualties mounted, draftees took to removing their front teeth themselves to avoid enlistment, a problem that became so severe that obvious signs of recent extractions were eventually disallowed as reasons not to serve in the army. (Interestingly enough, given all trauma from bullets, bayonets, shells, and shrapnel during the Civil War, the most common surgical procedure was tooth extractions.) Indeed, the familiar expression "4F" originated with the Civil War, as a recruit who did not have the requisite number and type of teeth was deemed "4F," not suitable for service, and over time the term expanded to not meeting minimum standards more broadly.



Column Editor: Harris Contos,
DMD, WG'80, Asclepius Consulting
To learn more about Harris,
[click here.](#)

One hundred and fifty or so years later, there is another "War Between the States" where dental health is still a topic, only now the proper nomenclature should probably be "The War With the States." What do I mean by that? To answer that question please indulge me a little more background. For those of us fortunate enough to have had Bill Kissick as one of our teachers at Wharton, his very encompassing yet succinct characterizations of "the American health enterprise" could crystallize our thinking and put so much into perspective for us, or at least for me. One of those, among his many splendid aphorisms (and to be sure, "Kissick's Health Care Laws – with apologies to Lord Keynes and Sir Isaac Newton"), was this: healthcare in America was a mix of "entrepreneurial, eleemosynary (I actually knew what that meant before Wharton), and ecclesiastical" elements. There's a subtlety to be appreciated here, on the nature of American society, on the difficulties in making sense of healthcare in America.

Now the latter two elements I generally had a handle on, the charitable and religious-based organizations, no doubt we all grew up near a St. This-or-That Hospital, as an example. The former took me a while to grasp, but eventually I came to the conclusion that "entrepreneurial" as it applied to healthcare meant just about anything from a physician or dentist establishing his or her own private practice, to the development of new medical devices and the discovery of new pharmaceuticals, and more importantly, to my way of thinking at least, to the appearance of new players in the healthcare workforce (e.g., nurse practitioners, midwives), and new forms of delivery of care (e.g., at one time HMOs, now retail clinics and ACOs).

Fundamentally, entrepreneurialism means a dynamism that's seen in the economy at large, seeking better ways to address existing "markets" (I still have some trouble applying that in the healthcare context, but nonetheless...) or to create new ones. Of course, to have such dynamism, there have to be "free markets," the conditions under which knowledgeable consumers and willing suppliers engage in level-playing-field exchange under competitive conditions free from various market distortions, e.g., restraint of trade practices, so that society winds up having optimal allocation of its scarce resources. Or so the theory goes.

OPEN WIDE: THE WAR BETWEEN THE STATES

continued

And this is where I see “the war with the states” as the battleground as far as seeing any “entrepreneurialism” or “dynamism” in the “dental market” is concerned. Just as Federal health policy is placing emphasis on loosening competitive forces to control costs, improve quality of care, and lead to better outcomes – largely through the power of the purse of (sizeable) Federal healthcare dollars in Medicare and Medicaid – those very same forces are restrained by state dental practice laws that distort “the market” and the entrepreneur’s desire to address the existing market with new forms of care delivery, to reach unmet need, or to create new markets.

The dynamism, innovation, flexibility, and adaptability so characteristic of the American economy elsewhere is not given free rein in the “dental industry,” perhaps more accurately considered a “guild,” bound by tradition and its terms and conditions for the delivery of care codified and legally protected at the state level. It should also be added *controlled* at the state level – for certain through political lobbying by the various state dental societies, but also through control of the bureaucracy, where state dental boards, often responsible for developing and enforcing regulations, are dominated by dentist representation, with minority and token representation from hygienists and the general public.

As the saying goes, “Don’t take my word for it.” Note what Jeffrey Parker of Sarrell Dental in Alabama (the largest single Medicaid provider in the state, which brings care to 300,000 children annually through its fifteen clinics) had to say in a recent interview at DrBiscupid.com (yeah, I know, not the most engaging or imaginative of names to choose), an online information source on the dental industry:

- **DrBiscupid.com:** Sarrell Dental has gained tremendous national attention in the last few years. Why is that?
- **Jeffrey Parker:** Ever since the PBS “Frontline” documentary “Dollars and Dentists” aired in June 2012, Sarrell has been in the national spotlight regarding our model of care. The “Frontline” piece was soon followed by positive reports on our model from the Robert Wood Johnson Foundation and by *Forbes.com*.
- **DB:** What would keep your model from expanding?
- **JP:** Regressive state dental practice acts.
- **DB:** What do you mean?
- **JP:** I find it absurd that a non-profit dental practice cannot be run by a non-dentist if they employ licensed dentists to perform the clinical work. However, more than 40 states currently restrict a non-profit dental practice, run by a business person, from cleaning teeth or filling cavities. I think any American would find a huge disconnect in the logic of most states’ dental practice acts. In fact, it happens already in the hundreds of FQHCs [federally qualified health centers] across the country. The CEOs of Cedars-Sinai Hospital, Children’s Hospital of Atlanta, and Children’s Hospital of Birmingham are businesspeople, not physicians, and no one questions their hospitals’ ability to perform neurosurgery, heart transplants, or operate trauma units. These hospitals trust their CMO [Chief Medical Officer] to manage physicians’ work, as our model similarly employs a CDO [Chief Dental Officer] to manage dentists’ work.

This means that a graduate of the Wharton program, for example, whether with a professional degree or not, fully schooled, fluent, and conversant in finance, management, information systems, organizational design and behavior, strategic business planning, market analysis, and so much more – and all being basic requirements of the modern healthcare executive, yet scarcely found in the predominantly private, solo practice organization of dental care in this country – would find the dental field quite unwelcoming and arid. Or to look at things from a different angle, society is being deprived of a lot of management talent, with consequent “suboptimal allocation” of scarce resources, and a lot of unnecessary suffering and debilitation.

OPEN WIDE: THE WAR BETWEEN THE STATES

continued

Contrast this state of affairs with what's going on in healthcare more broadly. In a recent piece in *Medpagetoday.com* (incidentally, co-developed by MedPage LLC and Penn Medical), David Pittman reported "Physicians continue to lead the charge in developing accountable care organizations," with 57 of 117 ACOs created in the fourth quarter of 2013 being physician-led. The reason: doctors stand to gain under the shared-savings arrangements of an ACO. In other words, entrepreneurialism. And to get back to Jeffrey Parker's point as well as to revisit an observation I had made in a previous article, a cutting-edge ACO in Massachusetts, which currently owns or is affiliated with eleven community hospitals and several physician practices all in one network, is owned by a private equity firm. (Ownership is one aspect of state practice acts. Liberalization of the workforce is another, which I have alluded to previously regarding "mid-level providers" such as dental therapists. Here again the status of analogous providers such as nurse practitioners and physician assistants is far more advanced, and hence far better utilized, than their dental counterparts.)

So the policy initiative of encouraging competition and entrepreneurialism in healthcare is blunted when it comes to dental care. Quite simply, the tools needed to bring that about are legally forbidden, all the while being economically, managerially, organizationally outdated, and nonsensical. I do not look for any enlightenment among state legislators to modernize their dental practice laws. Instead I look for the dynamics of health reform to lead the way, quite possibly with a retail clinic offering care provided by a dental therapist in one of the handful of states now legalizing this tier of providers. No doubt deciding the issue could well entail a court case that would then impact dental health for populations with unmet needs. The hypothetical case could well be precedent setting, with more impact and import than whatever may come out of the laboratory. But then again we shouldn't be too surprised at that, as Bill Kissick also said to us, "Healthcare transcends the biomedical sciences."

Contact Harris at: hcontos@alumni.upenn.edu

THE PHILOSOPHER'S CORNER

Life Lessons:

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

Knowing what I know now after almost three decades of work experiences, I can honestly say I have no regrets about the decisions I have made over the years in my professional career. I do not subscribe to a, “would have, could have, should have,” way of thinking, as this can lead to unproductive, negative, energy-draining feelings and self-doubt. Life is a gift – it is an adventure filled with wonderful and not so wonderful experiences – and there are no guarantees. However, if we believe in ourselves, have faith in the good of people and inherent promise of our world, and always strive to be better, to improve, and to give of ourselves, we will prosper in more ways than we can imagine.

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

Although from a professional perspective I have no regrets, there is one thing I would change - I would not have stopped swimming or doing anything I could to be physically active and fit. After a twenty-plus year hiatus from regular physical activity, I did dive back into the pool and now swim regularly. I would recommend to all of my Wharton colleagues, if you are not already involved in some kind of regular, rigorous exercise, get moving! There are no excuses (e.g., work/home/family is too demanding; I don't have enough time, etc.). It's never too late, and the physical and mental health benefits, not to mention increased concentration and productivity, are well worth the effort!

Favorite Quotes:

1. “The first step toward change is awareness. The second step is acceptance.” – Nathaniel Branden
2. “If you want something said, ask a man; if you want something done, ask a woman.”
– Margaret Thatcher
3. “Efforts and courage are not enough without purpose and direction.” – John F. Kennedy
4. “In the end, it's not the years in your life that count. It's the life in your years.” – Abraham Lincoln

Recommended Reading:

- *Strengths Based Leadership* by Tom Rath and Barrie Conchie
- *The Start-Up of YOU* by Reid Hoffman and Ben Casnocha
- *Endurance - Shackleton's Incredible Voyage* by Alfred Lansing
- *The Volume to Value Revolution – Rebuilding the DNA of Health from the Patient In* by Tom Pain and Adrian Slywotzky
- *Team of Rivals* by Doris Kearns Goodwin

Contact Amanda at amanda.tirrell@gmail.com or at [LinkedIn](#) or phone 413-427-4714.



Amanda Hopkins Tirrell,
WG'86, FACHE

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

Column Editor:

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

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

ALUMNI NEWS

Vikram Bakhru, MD, WG'09

Vikram recently moved to San Francisco to serve as the Chief Operating Officer of First Opinion, a telemedicine start-up that allows patients to text doctors with their questions using an iPhone application. He is looking forward to exploring the Bay Area and would love to get in touch with any alumni in the area.

For more information go to: <http://firstopinionapp.com/>

Contact Vikram at: vik.bakhru@gmail.com

Rohit Mahajan, Wharton Fellow '08

The newest healthcare venture by Rohit Mahajan is iHealthConnect, the complete patient portal software. As providers continue the journey to becoming ACOs, having robust disease management systems will be critical for their clinical and financial success. Chronic diseases account for more than 80% of the total US healthcare costs, and more effective disease management can reduce this cost burden.

iHealthConnect enables providers to create their branded online platform to engage with their patients in the outpatient setting. Peer-to-peer coaching and support represent an untapped resource in the chronic disease management framework. Patients can collaborate and help each other in ways that providers are not equipped to do. iHealthConnect is a unique patient portal software that enables these patient-to-patient interactions by creating vibrant interactive online communities.

For more information go to: www.i-health-connect.com

Contact Rohit at: rohit.mahajan.wf08@wharton.upenn.edu

Sandip Agarwala, SEAS '01, HCM WG '07

Sandip recently joined Longitude Capital as a Principal focused on royalty and structured investments in pharmaceuticals, biotechnology, and medical devices. Longitude is a life science focused investment firm with over \$700 million under management. Sandip is located in Greenwich, CT.

For more information go to: <http://www.longitudecapital.com>

Contact Sandip at: sagarwala@longitudecapital.com

Debra Siegel Gold, WG'89

Debra retired in 2013 as a Senior Partner from Mercer and started her own consulting firm, Deb Gold & Associates, LLC. Her firm focuses on early and mid-stage healthcare service companies selling to self-insured employers. After spending 25+ years working with employers and evaluating these types of service providers, she realized entrepreneurs with great healthcare cost savings ideas really don't understand the large self-insured employers and the broker/consultant channel partners. Her firm helps these early and mid-stage companies build and position their product and services to meet the market needs and the channel partner evaluation process.

Contact Debra at: debgold57@gmail.com

ALUMNI NEWS

Efren David Olivares, WG'88

Efren was named Partner and Executive Vice President of the Pharma Division at TapTrak, LLC on February 4, 2014. He is responsible for expanding current TapTrak efforts by presenting TapTrak MED to pharmaceutical companies and customizing it for pharmaceutical applications.

TapTrak MED was launched in 2013 with the goal of bringing micro-journaling into the medical industry. The cloud-based enterprise systems includes an app for patients and a web-based dashboard for physicians. TapTrak MED aims to encourage patient compliance and promote positive health outcomes via an easy and simple patient app sending data back to clinicians for review. TapTrak MED is HIPPA-compliant and EMR compatible. TapTrak MED is currently being piloted in hospital centers in New York and New Jersey.

Efren has over 22 years of global experience in the pharmaceutical and medical device industries. He worked at Pfizer, Lilly, Baxter, and Dura Pharmaceuticals.. During his 17 years at Pfizer he launched and grew a wide array of pharmaceutical brands in completely new categories and in over 50 markets worldwide. For example, he was a Director on the global launch team that turned Viagra into an iconic brand. He also led teams both in the US and abroad for specialty medicines in areas like HIV and serious mental illness. Most recently he lived in Madrid, where he served as Pfizer's Head of Customer Intelligence, Europe.

For more information go to: <http://mobihealthnews.com/29606/tracking-app-eyes-pharma-with-clinical-trial-play/>

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Hal Broderon, MD, WG'87

The acquirer (Galderma) of a company I founded 10 years ago, SansRosa, Inc., just received FDA approval for SansRosa's drug, Mirvaso®. Mirvaso® was developed bench to bedside and is a first in kind treatment for the redness of rosacea. The product can be seen at www.rediswrong.com.

Contact Hal at: hal@rockhillventures.com

Jeff Voigt, WG'85

Jeff has published the following peer-reviewed articles:

- Voigt J, John S, Taylor A, Krucoff M, Reynolds M, Gibson M. (2014). A reevaluation of the costs of heart failure and its implications for allocation of health resources in the United States. *Clinical Cardiology*; DOI:10.1002/clc.2260
- Voigt J, Torchia M. (2014). Laser interstitial thermal therapy with and without MRI guidance for treatment of brain neoplasms – A systematic review of the literature. *Photonics and Lasers in Medicine*; DOI 10.1515/plm-2013-0055.

Contact Jeff at: meddevconsultant@aol.com

ALUMNI NEWS

Chad Henderson, FACHA, WG'74

Chad wants to share he had a great career, and retirement is wonderful! He has many great remembrances of his time at Penn and Wharton. Chad was honored to have both Tom Robertson and Skip Rosoff as professors as well as knowing Bob Eilers, Bill Kissick, and Sam Martin, among others. He completed his career, as a Captain in the U.S. Navy, including two command tours, overseeing the conversion and initial outfitting of the hospital ship COMFORT, and serving as the Deputy Comptroller, Bureau of Medicine and Surgery in 1997. He undertook a second career (17 years) as the Director of Health Services at the University of Rhode Island. Chad was privileged to serve the American College Health Association on its Board of Directors and its President. They saw fit to designate him as a Fellow, and he will be receiving their 2014 Lifetime Achievement Award at the annual meeting in San Antonio this June. Chad retired for good in June 2013 and is actively remodeling a retirement home in New Oxford, PA. Chad says, "Life is good!"

Contact Chad at: chadjibodo@gmail.com

ACA OFFERS PROMISE OF BETTER CARE, LOWER COSTS THROUGH VALUE-BASED PURCHASING

The Patient Protection and Affordable Care Act of 2010 (ACA) is still in its early stages in many ways, but among its many rules, regulations, and guidelines, a new paradigm has emerged. A close examination of one of the ACA's central tenets, value-based purchasing (VBP), reveals good news for doctors, patients, and the people who pay America's healthcare bills.

Already in wide use in the Medicare Advantage program, VBP represents a dramatic change in the way health coverage companies and the government engage providers, and in the way providers approach patient care. VBP serves as a replacement for the model known as fee-for-service (FFS), in which health coverage companies (or in the case of Medicare, the federal government) pay providers on a per-patient, per-procedure basis. FFS gives the doctor a financial incentive to order more procedures, including many that research indicates aren't necessary and contribute to rising health care costs. In FFS, the patient's ultimate health outcome, the ostensible purpose of the entire system, is not a factor in determining compensation.

In both economic and human terms, FFS is flawed and inefficient. VBP turns the healthcare system around, rewarding doctors, hospitals, and other providers according to assessments of how well patients do in their care. The Centers for Medicare and Medicaid Services (CMS) has embraced VBP. That's because the agency wants to reduce health care costs and improve patient care by transforming itself from a company that reimburses claims to an active and informed purchaser of health care services.

There are multiple components to the VBP system. For health coverage companies, VBP means that CMS is now evaluating and rewarding individual health plans according to their ratings in the Medicare Stars rating system of which HEDIS is a subset of the quality measurements. HEDIS stands for Health Care Effectiveness Data & Information Set and refers to the reams of data that providers and health plans collect on patient care. CMS grades plans according to a five-star system, with five stars being the highest and most coveted rating. CMS bases its rating on measurements of how well the plan and providers within the plan's network satisfy the following criteria for members:

- access to care
- quality of care
- responsiveness of the providers
- satisfaction of the members

CMS lists the star ratings of individual plans on its website as a tool for consumers. Plans receiving four or five stars on these measures are eligible to receive higher payments from CMS. Low star ratings may hinder a plan's growth, meaning the health and well-being of the plan is now directly tied to the health and well-being of individual patients.



Contributor:
Roy Beveridge, MD
To learn more about Roy,
[click here.](#)

ACA OFFERS PROMISE OF BETTER CARE, LOWER COSTS THROUGH VALUE-BASED PURCHASING

continued

On the provider side, there are carrots and sticks as well. A November 2013 story from National Public Radio examined VBP's impact on hospitals:

Medicare has raised payment rates to 1,231 hospitals based on two-dozen quality measurements, including surveys of patient satisfaction and — for the first time — death rates. Another 1,451 hospitals are being paid less for each Medicare patient they treat for the year that began Oct. 1.

The *New England Journal of Medicine* also took a close look at VBP in 2012 and concluded that the approach could enhance patient care and control costs.

For example, between 2006 and 2010, hospital performance improved on 91% of the measures included in CMS's inpatient pay-for-reporting program....Moreover, the improvements on process measures achieved by a British-based VBP program that linked up to 25% of a primary care physician's compensation to performance improved such intermediate outcomes as control of blood pressure, glycated hemoglobin levels, and cholesterol levels, as well as seizure control.

Of course, not everyone is thrilled with VBP. Some have raised concerns that it could take us back to the days when the financial risk associated with patient care was borne almost entirely by doctors and hospitals. Others say the rewards system favors hospitals with greater resources or that serve healthier populations. There's also the concern that, just as FFS can lead to overtreatment, VBP could potentially lead to undertreatment. That's unlikely, however, because under the ACA, everyone is doing health risk assessments and measuring the quality and efficacy of care in ways that haven't been done before on such a large scale. (The Medicare Advantage program alone has about 15 million beneficiaries enrolled.)

Certainly, the system will evolve over time, but I will say that I spent 22 years as a practicing oncologist, and I think the VBP would have been better for me and my patients. While care comes first, physicians have to simultaneously manage their patients' medical needs and negotiate a complex payment system involving health coverage companies, and, in many cases, the government. Under FFS, that process was needlessly complicated because the financial incentives were weighted towards volume rather than value. I never made a decision about a patient's care based on the compensation formula, but the counter-intuitive nature of the system made everything harder, because what was good for the practice wasn't necessarily best for the patient.

The potential for increased (or reduced) payments for plans and providers gives everyone in the system a tremendous incentive to monitor, coordinate, and improve patient care. Insurance carriers, once seen, perhaps, as the gatekeepers of healthcare, are now transforming themselves into the facilitators of healthcare. Smart health coverage companies are using member-specific data and working with providers to identify and address gaps in care that might previously have gone undetected. This collaboration among the various stakeholders in the medical system is particularly important among Medicare beneficiaries, many of whom live with multiple conditions and courses of treatment.

There's still a long way to go, of course, to transform American healthcare (and Americans' health). Still, it's important to recognize that progress is happening in healthcare. We should push for more. We should work together. We should embrace value.

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THE DICHOTOMY OF HEALTH INSURANCE – MANDATORY INSURANCE VS. VOLUNTARY HEALTH

As society begins to embrace the multi-faceted changes that are currently taking place in healthcare, one of the main areas of focus revolves around care delivery in the United States. The reform efforts address issues such as quality, outcomes, and price.

Quality

Many improvements in the quality arena are designed to enable care delivery in a more efficacious manner. Specifically, we are seeing movements that incorporate evidence-based guidelines in the treatment of patients. These guidelines, that will evolve and expand in number over time, begin to standardize the aspects of care that have been proven to be effective in the management and treatment of diagnosed conditions.

Outcomes

Improvements in outcomes tie closely with quality improvements as we seek to standardize care and reward providers for the efficiency in treating conditions. With the growth of ACOs and initiatives such as the patient-centered medical home model, the movement toward results-driven healthcare continues to expand in scope and depth.

Price

The price aspect of healthcare had long been the focal point of the national healthcare discussion. However, for different constituencies, the term price can have vastly different meanings. For consumers, price primarily reflects insurance premiums, deductibles, and out-of-pocket co-pays or coinsurance payments, while for carriers, price revolves around the cost of the services rendered by practitioners and hospitals. For the practitioners and hospitals, price reflects the rising costs of technology, medication, malpractice, etc., which in turn reflects a need for reimbursements to keep pace.

The Dichotomy

On the surface, the fundamental aspects of healthcare reform make sense; the right care, for the right price, a measurable outcome, and limited waste. Reform supporters call this view “triple aim.” However, a significant dichotomy exists in the triple aim model under the current specter of healthcare reform. Reform mandates the purchase of health insurance, yet consumers voluntarily elect to be healthy.

Proven protocols, methods to reduce waste, and the more efficient delivery of care cannot be accomplished optimally unless there is an alignment of interests across the entire system and stakeholders share a common vision. Incentives based on the principles of behavioral economics also play a role, by helping the movement towards improved health outcomes and a lower cost of care in a more rapid and sustainable fashion.

Data consistently references the large percentage of healthcare dollars spent in the United States that are driven by behavioral or lifestyle-related conditions. The Center for Disease Control and Prevention (CDC) estimates that more than 75 percent of all U.S. health care costs are tied to chronic conditions that are largely preventable with education, screening, and intervention programs.

Ultimately, the largest fundamental roadblock to cost control is that consumers spend money much differently when it is not their own. Ask yourself the following: when was the last time you washed a rental car?



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THE DICHOTOMY OF HEALTH INSURANCE – MANDATORY INSURANCE VS. VOLUNTARY HEALTH *continued*

When a consumer purchases a car, makes payments on the car, and insures the car, their behaviors are far different than when they rent a car. They may place a greater emphasis on driving safely. They invest in the maintenance of the car through oil changes, tire rotations, brake checks, etc. In healthcare, this would be considered “preventive services.”

As a car owner, if the consumer receives multiple moving violations, has multiple accidents, or engages in other high-risk behaviors, the cost of insurance will increase. If they ignore an engine warning, an oil light, or the radiator temperature, the risk of a high cost repair increases significantly. The pattern is quite clear.

Consumers value goods and services purchased with their hard earned money. The higher the cost, the greater the tendency to take better care of the product. When it comes to our health, however, we seem to take things for granted. It is not until a moment of inspiration or desperation that most people begin to change behaviors.

Perhaps the inspiration of having to provide for a new child or spouse or to develop a higher income or career drives us to action. Maybe it is the inspiration of seeing a friend or a relative suffer through a heart attack or stroke or other preventable condition that we choose to take better care of ourselves. Or perhaps it is the desperation of being diagnosed with an illness or condition that requires medical or medicinal support that forces us to change our behaviors and patterns.

Preventive care guidelines exist, and yet most of us pay such little attention to them. Many people do not know their blood pressure, HDL, LDL, triglycerides, etc, and do not have a primary care physician. Even fewer know where to seek information on the preventive services applicable to themselves based on their age, gender, and family history. Hardly any have a “dashboard” to rely on as they would in their car.

When one takes a deeper look, it becomes more and more apparent that the dysfunctions and failures within the system are exacerbated by a series of competing interests and a lack of accountability. For there to be any chance of true cost control, all of the interests need to be aligned, and each component of the system must understand its relationship to the others, while placing as much of an emphasis on prevention and avoidance as had previously been placed on diagnosis and treatment.

When consumers recognize their health as a currency, as valuable, or more, as the dollar bill, only then will there be a better chance at cost control and reducing total health care consumption. The value of health in society needs to mean something, like a good credit score, or an exemplary driving record. Education is a key contributor to this comprehensive solution, as is the holistic treatment of the consumer. Rather than treating patients per encounter, the system must emphasize prevention, correction for lifestyle-driven disease states, and place the proper decision support tools in the hands of both the consumer and their chosen provider. Primary care physicians are the patient’s advocates, but ultimately, it is up to the patient to be a self-advocate and make the final decisions regarding care. Only when all of the interested parties work in concert can we truly achieve lasting and meaningful healthcare reform.

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LIGHTING PATIENT ROOM 2020: A CONCEPTUAL DESIGN FOR THE HOSPITAL ROOM OF THE FUTURE

Healthcare providers confront a variety of environmental and societal challenges and advancements, including infection control, emerging risk factors, and smart technologies.

Patient Room 2020, a next-generation care environment, synthesizes design and technology to improve experience and optimize performance. It is a platform for design professionals to collaborate with industry partners, health care providers, and thought leaders to generate comprehensive health care design solutions.



The project was funded by the US Department of Defense Hospital of the Future initiative and sponsor [NXT Health](#), a non-profit organization promoting change in the health care industry through design, who partnered with Clemson University's Healthcare and Architecture Graduate Program to reimagine an innovative patient care room. Creating an environment to solve some of the industries greatest challenges required the collaboration of more than 35 specialists and suppliers. These providers donated products and services for the design and completion of Patient Room 2020.

PATIENT ROOM 2020

Patient Room 2020, located in the DuPont Corian® Design Studio in New York, displays five key elements in 400 square feet. They include:

- Patient Ribbon: collects many of the disparate elements commonly found in healthcare environments into a single, streamlined, patient-centered design response unit. It encompasses a space which includes a headwall (a component set perpendicular to the room's rear wall providing storage for cleaning supplies, rubbish, containers for sharp objects, and hospital gases) and footwall located at the base of the room with a digital flat screen television for patient monitoring, video conferencing, and entertainment.
- Patient Companion: combines two ubiquitous elements, an over bed table and a touchscreen tablet, to form a single piece of mobile furniture that could be utilized in a wide range of healthcare settings.
- Open Bathroom: adaptable bathroom concept that features a sliding door system which can be reconfigured based on care needs.
- Caregiver Station: entry workstation featuring integrated hand washing indicator lights, concealed accessories, and an enclosure with RFID technology for instrument tracking.
- Caregiver Hub: deployable bedside work area with embedded technology, simulated UV light sanitization, and wireless device charging stations



A goal of Patient Room 2020 is to streamline operational processes and work patterns to improve efficiency, decrease ability to make mistakes, and increase direct patient care. However, as a prototype,

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LIGHTING PATIENT ROOM 2020: A CONCEPTUAL DESIGN FOR THE HOSPITAL ROOM OF THE FUTURE *continued*

specific training to utilize design and technology capabilities in support of the goal has not been implemented at this time.

LIGHTING FOR IMPROVED EXPERIENCE

Lighting takes on many characteristics in this space. It creates visual privacy when combined with the textured glass, it reminds staff to wash their hands at the sink, it guides and protects patients against slips and falls at night, and, by gazing into an illuminated halo, it allows patients to escape to another world.



When considering the color changing programming, efforts were taken to ensure colors were natural and soothing. Every effort was made to mimic natural patterns of light and shadow, as light through trees on a sunny day, sunrise, sunset, or aurora borealis.

The Patient Ribbon, a completely modular unit, collects disparate elements needed in a patient room into a single, streamlined element. The halo, the most important feature in the Ribbon, is customizable for different care settings and existing hospital environments.

The halo combines the natural, dynamic rhythm of daylight and the effects of pastel colored light in subtle patterns. It offers soothing shifts of color to create a comforting atmosphere for patients and visitors.

The variation of warm to cool light at high intensity brings the biological effect of light into the room to support the circadian rhythms and promote healthy sleep. This same treatment can be applied for patients suffering seasonal affective disorder, SAD.

The halo colors coordinate with lights on the Ribbon's white solid surface, enveloping the patient in a soft glow of their desired color. The patient can dial up their color from a bedside control or tablet.

LIGHTING FOR OPTIMIZED PERFORMANCE

The benefits of the halo extend to communication of the supporting staff. In an emergency, the halo is quickly converted to an exam light. The tone and brightness of white light can be controlled by staff depending on diagnosis, warmer white light to distinguish skin tone and tissue identification, and cooler white light to examine veins and blood flow. Neutral, white light can be used for general examinations.



In extreme cases, where extra support staff are needed in the room immediately, the doctor or nurse touch a red emergency control button to call up a red scene on the halo, a non-verbal signal to staff that help is needed. It can be programmed to any hospital's specific signals or needs; for example – bright blue for a CODE BLUE situation.

Ultraviolet emitting LED lighting is integrated with the Patient Ribbon and halo to sterilize the room. UV lights are located next to the HVAC diffusers on either side of the Patient Ribbon to create a system of clean air flow around the patient care area.

The same ultraviolet light feature is used throughout the room to minimize the spread of infection. For example, the Caregiver Hub, a deployable bedside work area with embedded technology, has UV light strips detailed into the sides of the cabinet for sanitization of the keyboards and wireless device

LIGHTING PATIENT ROOM 2020: A CONCEPTUAL DESIGN FOR THE HOSPITAL ROOM OF THE FUTURE *continued*

charging stations. Upon closing the cabinet for approximately 20 seconds, the UV lamps kill 99 percent of bacteria, viruses, and mold living on the counter and device surfaces.

The same discretely detailed UV light is located above all sinks in the room to sterilize many of the hard surfaces. This small detail decreases maintenance and turnover time between patients. The UV light is especially effective on non-porous surfaces. The cabinetry and sinks are designed to be seamless, preventing mold or bacteria from flourishing.

The UV lights are activated by light control keypads located near the entry door, bedside, and bathroom door and labeled “CLEAN” to be accessed quickly and easily.

Red light means stop in the ‘Caregiver Station.’ Red lights illuminating the sink counter signal staff to stop and wash their hands. By turning from red to green, the motion-activated faucet rinses hands for one minute before indicating that the staff may proceed into the room. This touch-free system promotes maximum hygiene.



In an effort to maintain a sanitized environment, lighting is detailed seamlessly into the architectural elements of the space; above the sink, in the mirror, and flush with the ceiling. This makes the space easy to wipe down and sterilize quickly.

The halo feature is of particular interest to facility management seeking “evidence-based design” principles.

THE FUTURE IS NOW

Patient Room 2020 demonstrates a safe, streamlined, restorative, and engaging environment for patients, families, visitors, and staff to improve experience and health outcomes. The room of the future engages lighting far beyond visual concerns to provide a number of healthcare solutions including, but not limited to: sterilization, patient comfort and environmental control, circadian rhythm regulation, and visual diagnosis.

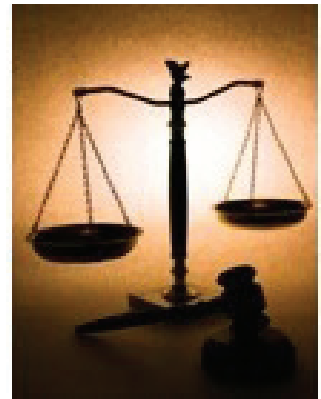
Learn more at: <http://www.christianraestudio.com/>



**View the video
Patient Room 2020**

WHEN GROWING UP WITHOUT A HOME MAKES YOU SICK - HEALTH DISPARITIES & THE NATION'S HOMELESS CHILDREN

Dana is a four year old girl, the youngest of three children. Dana lives with her mother and three siblings in one room at the Hotel Denny. Dana's dad lives in a shelter down the road because men are not allowed to live in the hotel. He comes to visit his family when he can, but because the visiting hours are from 9-6, he does not see them as often as he would like. He tries to look for work, but has only been able to find odd jobs and has become quite depressed.



At one time the family lived in a house with three bedrooms and a backyard. They also owned a car. Dana's dad worked as an auto mechanic and her mother as a part-time librarian. In 2010 Dana's father lost his job of 15 years as well as his healthcare benefits. Although he collected unemployment insurance and received food stamps, and her mom continued to work part-time, it was not enough. The family fell behind on their mortgage payments and lost the house. They were now homeless.

During that time Dana developed asthma and had several ear infections. Although her mother had taken her to the emergency room and been given prescriptions to treat Dana's illnesses, she did not have any money and therefore never filled them. Dana has begun to lose her hearing, and her asthma is now chronic.

The last time Dana visited the pediatrician she was found to be overweight. Now that she lives in a shelter she does not play outside any longer because her mother is afraid she will have an asthma attack. Her mother also fears for her safety because the neighborhood is unsafe. Yesterday Dana saw a boy shot on the street corner. Sometimes Dana's mother gives her extra candy and chips because she wants her to be happy, the way she was when she had been an infant.

Like Dana's dad, her mother is depressed and feels guilty because she can no longer provide for her children. She cries all of the time, but sometimes feels better when Dana gives her a hug and strokes her head. Dana is very anxious when her mother leaves the room. She has started to wet her bed. The family is under a great deal of stress. Dana's parents have not seen or spoken to their old friends because they are embarrassed and ashamed. They feel alone. Dana and her family are now in that percentage of the population experiencing the greatest health disparities - the homeless.

The Current State of Homeless Children and Families in America

Dana's story is not unlike so many children and families living in America today. Although it is difficult to accurately measure the number of homeless families with children living in the United States, according to the 2013 Annual Homeless Assessment Report to Congress, nearly one-quarter of all homeless people were children under the age of 18, with 30 percent of people living in shelters being children.¹ According to the National Center on Family Homelessness,² in 2010 over 60% of homeless families were families of color, with the largest percentage being African-American (43%), Hispanics (15%) and Native Americans (3%).¹ In addition, 42% of the children living in homeless families were under 6 years of age, with their mothers tending to be less educated, many not having obtained a high school diploma.²

The Effects of Homelessness on the Health of Children

For many homeless children, their health problems began before they were born.³ According to the recent data reported by the Institute for Children, Poverty, and Homelessness, approximately one half of homeless women reported they had not received prenatal care during their first trimester, with approximately one-fifth also reporting the use of drugs or alcohol during their pregnancy.³ These conditions, in addition to the family being homeless, are all considered to be stressors which place both mothers and their children at risk for poor health and developmental outcomes prior to birth.

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WHEN GROWING UP WITHOUT A HOME MAKES YOU SICK - HEALTH DISPARITIES & THE NATION'S HOMELESS CHILDREN

continued

In addition to homeless children starting life out under less than optimal conditions, they are also at greater risk of being exposed to violence, with approximately 80% of homeless children having experienced at least one violent event by the age of twelve.² According to the CDC, exposure to violence in childhood often leads to negative behaviors and to poorer health outcomes across the lifespan.⁴ Homeless children are also at greater risk for having more physical health problems such as asthma, injuries and accidents, ear infections, and gastrointestinal problems.^{4,5} They are also at risk for greater mental health and behavioral problems, such as anxiety and depression, as well as aggression toward self and others.^{4,5} In addition, homeless children are at risk for experiencing food insecurity or becoming obese due to inconsistent and limited food choices. And finally, homeless children are at greater risk for experiencing developmental delays and performing poorly academically.^{4,5}

Challenges for Homeless Families in Receiving Adequate Healthcare

Because homeless families with children find themselves living under precarious conditions, many find it difficult to access adequate healthcare services for themselves or their children. For some, access to transportation poses a barrier, for others, language or limited education is a barrier to applying for health insurance, and for still others, limited access to community health services is a barrier, forcing many to use the emergency room as their primary provider.³ All of these challenges make it difficult for homeless children and families to become and remain healthy.

Working with Homeless Children and Families to Reduce Health Disparities

So what can be done? The obvious answer is to provide more affordable housing. However, while we wait for more housing to become available, we must address the health needs of homeless children and their families now, so as to reduce the health disparities faced by this very vulnerable population. To achieve that goal, it is suggested that: (1) healthcare providers ensure that homeless children and families are registered for Medicaid³; (2) families with young children register for Head Start and Early Head Start, which would help parents and children to obtain the necessary health services; (3) more funding be provided to Healthcare for the Homeless so families can receive comprehensive care in one place³; (4) where possible, shelters should work with healthcare providers to deliver services at the shelter⁵; and finally (5) where possible, healthcare providers work with community service workers who are trained to work with homeless families to ensure families receive culturally sensitive services. While these recommendations will not eliminate homelessness, they can go a long way in providing children and families with appropriate healthcare that will address their chronic health needs, thus paving the way for a healthier America.

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CAN LOWER-TIER CITIES FUEL MULTINATIONAL MED-TECH COMPANIES' TAKEOFF IN CHINA?

The Market

China's medical device market, estimated at more than \$350B, poses a lucrative opportunity for multinational companies (MNCs). For example, China accounted for 7% of GE Healthcare's total revenue in 2010, with over \$1 billion. But as first-tier cities such as Beijing and Shanghai become more competitive, many believe the next source for growth are the lower-tier cities and rural areas.



The Challenge

However, MNCs face many challenges trying to penetrate the lower-tier market. The first is that most local patients are very price sensitive. Geoff Martha, SVP of Strategy at Medtronic, a medical device manufacturer, estimates that products designed for the Western world are too expensive for all but a small percentage of people in China.

Another difficulty is that physicians in lower-tier cities are often less educated compared to their first-tier cities' peers. Moreover, some of the lower-tier hospital physicians and medical staff are not professionally trained at all. Mehul C. Mehta, Vice President, Partners Healthcare, estimates 12% of the medical staff in China is not professionally medically trained, and most are in the small and rural hospitals and clinics. These physicians have higher training needs and require frequent on-site support, especially on the medical device side. Alex Gu, CEO of Covidien China, believes Covidien's current model of having doctors fly to their main luxurious training center in Shanghai would not be economically viable for the lower-tier market, as most of these physicians do not have enough volume to justify the high cost of training.

The third difficulty MNCs face in the lower-tier market is due to hospitals being fragmented across different geographic locations, requiring an efficient distribution system. Moreover, many hospitals still have tight budgets and are looking for products with a "good enough" quality but at a much lower price. The lower prices and volume in these hospitals create margin pressures on MNCs, who have been accustomed to serving high-volume and high-complexity medical centers in the first-tier market.

Market Strategy

MNCs utilize different methods to tackle the difficulties they face in the lower-tier market. These include (1) expanding local presence, (2) 'cream skimming' (i.e., selling premium products at premium prices in the lower-tier segments), (3) establishing local R&D activity to create products that are tailored to local needs, (4) creating joint ventures (JVs) with local companies, and (5) acquiring local companies through mergers and acquisitions (M&A). Naturally, these methods are not mutually exclusive: companies could keep selling their first-tier products (cream skimming) and at the same time sell lower-tier products with limited capabilities especially developed for this market segment (through local R&D).

Local Presence

Expanding local presence can be in the form of having local production, local training facilities, or collaborations with local hospitals or government agencies in these regions. Establishing more local presence has two main benefits: it allows MNCs to better understand local customer needs, and it creates better relations with the local and central governments, which have a big impact on doing business in these regions, both as a regulator and as a customer. Moreover, better contacts in those regions can help in getting better prices in the governmental tendering system, receiving CFDA (China's FDA) approval faster, and enhancing sales in general. GE Healthcare is a good example of a company that has extended its local presence by moving its X-ray business' global headquarters to China.

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CAN LOWER-TIER CITIES FUEL MULTINATIONAL MED-TECH COMPANIES' TAKEOFF IN CHINA?

continued

Cream Skimming

Cream skimming is achieved by selling the exact same product and at the same price tag as in the first-tier market. However, cream skimming has big disadvantages in the case of the lower-tier market, as most of the products might have such a small demand in the lower-tier market that they do not justify creating a distribution system to support this market only for premium products.

Still, some customers are willing to pay premium prices for superior quality goods, and thus this method should not be disregarded as a whole, especially not when combined with the other methods. Consequently, MNCs can build a multi-brand system, with foreign brands selling at a premium price, while local brands sell at a lower price point. In this way, MNCs can enjoy both worlds of high-margin products and higher volume customers.

Products Tailored to the Local Market

One company developing products tailored specifically to meet local needs is Covidien, with its new R&D center in Shanghai established specifically to meet needs of the emerging markets. Alex Gu, CEO of Covidien China, explains: "Local companies still have a lot of problems, foremost of which is quality. So [MNCs] can still enter to play in this arena. Still, [local] companies are getting better, so the window of opportunity won't be there forever." Some of the products being developed in these R&D centers focus on adapting existing products to the emerging markets, e.g., making them more affordable. Other products are being developed for medical needs that are more prevalent in the emerging markets. For example, liver cancer has a high prevalence in China, which justifies developing new products for China alone.

Local R&D does pose a certain risk, especially in China where intellectual property (IP) issues are more sensitive. The medical device manufacturer St. Jude encountered this problem first-hand when a Chinese employee was convicted of stealing trade secrets. A U.S. court awarded St. Jude \$2.3 billion for this case.

Joint Ventures

Embarking on joint ventures (JVs) has several advantages. Local companies bring a good understanding of the local market, as well as good relations with the local community. Moreover, many of these companies have been focusing mostly on the value segment, thus collaboration gives MNCs access to this market.

JVs also present several risks. First and foremost, the culture gap between a foreign company and a local company can result in significant challenges in many key issues, including perceptions about quality, ethics, and other key business issues. Intellectual property is naturally also a concern.

An interesting and rather successful JV was that of Medtronic and Weigao in the orthopedic realm, which was announced in 2007. Medtronic controlled this JV with 51% of shares, and acquired 15% equity in Weigao itself. In 2011, the two companies also opened a joint R&D.

However, outcomes of JVs have not always been successful. Medtronic-Weigao JV, for example, was not extended and thus dissolved at the end of 2012, despite claims of good financial returns for both companies.

Mergers and Acquisitions

Mergers and Acquisitions (M&A), although more expensive, allow MNCs to enjoy similar benefits to those of JVs, while keeping more control. However, as the majority of global M&A integration deals fail, one could just assume acquiring a Chinese company is even riskier.

The acquisition that received the most headlines was Medtronic's recent acquisition of Kanghui for \$816 million in cash. Kanghui is a manufacturer of orthopedic devices based in the eastern Chinese city of Changzhou. Medtronic states the main purpose of this deal is access to the lower-tier market.

CAN LOWER-TIER CITIES FUEL MULTINATIONAL MED-TECH COMPANIES' TAKEOFF IN CHINA? *continued*

Other than acquiring a whole company, another strategy is a deal in phases, in which the MNC acquires a non-controlling stake in the company, with a future option to acquire a controlling stake, or even the whole company. In return, the MNC provides consulting in key issues and distribution for the local company's products in other markets.

One example is Medtronic's deal with LifeTech Scientific, a Chinese company in the cardiovascular sphere. Under the terms, Medtronic purchased 19% of LifeTech's equity and received the right to distribute current and future LifeTech products, as well as the opportunity to acquire additional ownership.

Jorie Soskin, an investment manager at Medtronic who leads the LifeTech deal, explains that the most important consideration in choosing between a deal in stages and acquiring a whole company depends on market maturity. In Kanghui's situation, the market was already established and controlled by local companies. In Lifetech's situation, the company has IP to address a certain problem, but the market still needs to be developed, and thus this investment is considered more risky.

Recommendations

After reviewing the options MNCs have, one can think of several recommendations. First, companies should plan to have a hybrid model, using a mix of different methods, to optimize the companies' penetration in the lower-tier market, given the MNCs advantages and disadvantages.

Second, companies should ensure they have products that are tailored to the market needs and conditions, using the method that best fits the competitive landscape: local R&D, JVs, and M&A could all address this need.

Lastly, companies should always keep an eye on the impact of selling in the lower-tier market on their first-tier activities. Cannibalization and branding issues should always be kept in mind, and a possible solution to these issues might be a tiered, multi-brand system.

As China's medical device market progresses into the next phase, lower-tier markets are the next frontier. But when they enter these markets, MNCs should always ask themselves: "Are we ready to penetrate the most lucrative, but most challenging market we have ever operated in?"

In the spirit of full disclosure – one of the authors, Gil Kerbs, has joined Covidien after graduating from Wharton.

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