

**Chapter 1 : China's Digital Health-Care Revolution**

*The employer-led health care revolution. Harvard Business Review. Jul-Aug This article describes Intel's use of Lean improvement methods to manage the quality and cost of its health care suppliers.*

Spring Health is the NYC startup that offers digital mental health services to employers giving employees free access. Users are matched to a professional and personalized treatment plan via AI and mental healthcare experts. April candidly discusses the funding process and what it is like to build a startup in NYC Who were your investors and how much did you raise? Warren Foundation also contributed to the round. Tell us about what service Spring Health provides. At Spring Health, we offer digital mental health services to employers, which gives employees access to free mental health care. Users are matched to a professional and personalized treatment plan, using proprietary clinically-validated artificial intelligence and personal care navigators. Plans range from personalized wellness recommendations, including specific treatment options, to suggested exercise regimens and self-help resources. Our goal is to get treatment right from the very beginning and match people with a compatible, highly-qualified provider via video or in-person. What inspired you to start Spring Health? I watched my best friend cycle through seven different antidepressants and multiple providers to find care that worked for her. At Yale, I sought out Dr. Adam Chekroud, a global expert on AI applications in psychiatry, and together with my good friend Abhishek Chandra, we built the first prototype to Spring Health in a few days and showed it to everyone. When enough people thought we were onto something, we jumped in, raised our pre-seed, and moved to New York. How is Spring Health different than other personal health services? Clinical validation and evidence. We have over a dozen published papers in top medical journals describing the accuracy of our machine-learning models. Unlike any other option on the market, we have clinical evidence demonstrating that our solution can work even better than conventional care. We have been committed to clinical evidence from day one because we strongly believe that patients deserve no less. I am sometimes astonished by the number of programs that purport to solve mental health issues without any clinical evidence to back up those claims. All of our research is focused on how to get people back to emotional well-being as quickly as possible, so they can thrive socially and professionally. What market are you targeting and how big is it? One in four employees struggle with mental health issues, and employees, especially the younger generation, are becoming much more outspoken about the critical need for better mental health resources in the workplace. More and more, we see employers making better mental health support for employees a priority in benefits packages. The market is growing, and the best part is that we service companies in all industries. We offer B2B solutions to employers. The pricing model follows the standard structure of benefits pricing: Why is AI well suited for application in the mental health which tends to be very personal? People might associate AI with dehumanization and coldness. I think the opposite – our algorithms help our practitioners focus their conversations with patients, spend their visits more productively, and focus on what they do best. Keep in mind, we are personalized by AI, and made personal by humans: What was the funding process like? No other mental health benefit uses clinically validated machine-learning to match patients to the right care. There are lots of newfangled wellness apps and solutions that are still unproven. We, on the other hand, use clinically validated, predictive algorithms that empower providers to treat the individual in the most effective way. What are the biggest challenges that you faced while raising capital? Finding investors that I felt chemistry with. I started fundraising when MeToo was just dying down and AllRaise was in full gear. What factors about your business led your investors to write the check? I think it boils down to an excellent team with a clear unfair advantage in computational psychiatry. My genius cofounder Dr. Adam Chekroud has several degrees from Oxford and a PhD from Yale in computational methods to improve the practice of psychiatry and is arguably a global expert on the subject. Another big factor was the strength of our IP. We have some of the most sophisticated precision medicine algorithms in the space and are continually producing papers describing our research in the space. What are the milestones you plan to achieve in the next six months? Our top priority is to expand our reach and impact employees all over the nation, with a specific focus on enterprise customers. What advice can you offer companies in New York

that do not have a fresh injection of capital in the bank? Pick one and focus only on that until you have the money you need. Also, go out for beers with your cofounders more. Where do you see the company going now over the near term? Becoming the leading mental wellness benefit for mid-large companies.

## Chapter 2 : Spring Health Raises \$6M to Lead the Digital Mental Health Care Revolution

*Technology is Leading a Healthcare Revolution Learn more about how technology is leveraging a healthcare revolution. Americans spend trillions of dollars on healthcare and companies are looking for innovative ways to tap into that market.*

Choose your location to get a site experience tailored for you. This is just the beginning. Health care in China will be transformed. Every step will be affected: The size and nature of the changes and opportunities will vary for stakeholders along the health care value chain, however. Some stakeholders will have the opportunity to digitize existing processes for improved efficiency. Some will encounter not opportunity but risk—they could find themselves cut out of the value chain altogether. But for others, technology advances will provide the opportunity to build entirely new businesses. Regardless of the dynamics within any particular segment, all players must develop new mind-sets and new business models: Digital players newly entering the health care field must strike partnerships with hospitals, physicians, and other parties to capture first-mover advantages in e-commerce and certain services by leveraging their mobile payment, social-media, and search engine tools. They will need to enter into partnerships with e-commerce providers as consumers increasingly purchase products online. Those purchases, which currently include over-the-counter drugs, health food and supplements, and consumable medtech devices, are likely to encompass prescription drugs in the future. Drug distributors and retailers must move quickly to avoid being displaced. They must either build e-commerce capabilities of their own or partner with emerging e-commerce players. Payers have the opportunity to develop new businesses including digital services, such as remote physician consultation, that will help attract new customers in the near term. They can also use big-data analytics to lower costs and improve patient outcomes over the longer term. Companies in all four categories have the opportunity to shape the digital transformation of the health care market in China. The first is the widespread adoption of new technologies such as mobile devices, cloud computing, and big-data analytics. In , for example, almost 40 percent of people in China had a smartphone and used the device for three hours a day on average. Combine that with the increasing availability of high-speed Internet access and big data, and companies will have the ability to offer digital solutions—everything from remote patient monitoring to drug purchasing using smartphones—to large swaths of the population in China. The second is the continuing effort by the Chinese government to address long-standing inefficiencies and unmet needs within the health care system—an effort that digital health care will help to advance. Remote physician consultation and online appointment booking, for example, can help mitigate the overutilization of large hospitals—and the underutilization of smaller facilities—in China; many patients still flock to large facilities for basic needs like renewing a prescription. And new solutions that allow continual communication between physicians and patients will deliver much-needed improvements in patient care over the long term. The third trend is an increasingly favorable regulatory environment. For example, the government reduced barriers in e-commerce, making it easier to register online pharmacies, and is expected to allow certain prescription drugs to be sold online sometime in . In addition, the government has allowed hospitals in some provinces to run pilots involving remote diagnosis and medication prescription. The Landscape Today—and in the Future. As trends encouraging digital health care gather momentum, new business models are emerging, within both the health-care service and e-commerce spaces. New digital entrants, including large, established companies as well as new venture players, are driving much of this effort as they stake out territory in health care and move to shape the digital health-care market. For example, the search engine company Baidu is leveraging its core search business to offer health information to consumers and link consumers to online appointment booking and remote consultations. Baidu also now sells smart wearable devices through its Dulife brand. In partnership with the Beijing government, Baidu is using the devices to track and analyze health information; the aim is to improve health service delivery in the city. The company is also building a new service platform that will enable physicians to remotely diagnose and treat patients. Social-media player Tencent is extending the reach of its Wechat social and payment platform into health care. The company rolled out Intelligent Health, an IT platform to provide hospitals with services such as online and mobile appointment booking and payments, in . Tencent is also investing in companies to create

a full suite of services for patients and physicians across the value chain. At the same time, many venture-backed new players, among them Chunyu and Xingren Doctor, are developing offerings such as remote physician-consultation services. Traditional insurer Ping An Insurance, meanwhile, launched an app called Ping An Good Doctor, which, among other things, allows remote physician consultation. And some traditional pharmaceutical distributors and retailers, such as Shanghai Pharmaceuticals, are actively exploring e-commerce opportunities. With increasing numbers of new entrants and investment, the momentum in digital health care is undeniable. A good portion of this growth will come from the redirection of existing spending in the off-line world to digital services. But the increase also reflects the development of entirely new businesses and revenue streams. Growth will be spread across digital health-care service segments, with the largest absolute increases in revenues concentrated in the already booming disease-management and physician-patient-communication segments. Plenty of obstacles to the development of digital health care in China will be encountered along the way. For one thing, regulatory uncertainty continues regarding remote diagnosis and treatment, online prescription sales, and patient reimbursement—and that uncertainty will naturally slow the uptake of these services. In addition, the use of disparate EMR systems across hospitals will make linking the databases among those facilities challenging. And given the overall lack of experience in large-scale health-care data management within China, some missteps and a steep learning curve are inevitable. Despite such hurdles, the health care transformation will proceed, and it will produce rapid—and massive—change. In addition to the improved efficiency that digital tools can bring, IT and big-data analytics can create unprecedented transparency on real-world outcomes. This transparency, in turn, can lay the foundation for value-based health care in China, with the promise of increased efficiency, lower costs, and improved health outcomes. The impact will be powerful for everyone in the health care ecosystem, starting with patients themselves and including all the players that have a role in their care. New digital tools will allow patients to access high-quality health-care services anytime, anywhere. Patients will also find support to improve their lifestyle and to manage chronic diseases. Hospitals will be able to use digital technology to improve utilization rates, lower wait times, and reduce crowding. The adoption of EMRs will allow facilities to share records in real time, improving the efficiency of diagnosis and treatment. And physicians will have better access to professional information, training, and expert opinions while also being able to tap into new income streams for services such as online consultation. Similarly, companies within the digital health-care ecosystem will need to adapt. New digital players, for example, will have the opportunity not only to transform the entire spectrum of existing health-care processes—from making appointments to filling prescriptions—but also to create entirely new businesses that are possible only because of digital technology. For pharmaceutical and medtech companies, the major opportunity will be in using digital tools to improve the efficiency and effectiveness of processes in a number of areas including how sales and marketing function and how decisions are made about the composition of the product portfolio. Distributors and retailers, meanwhile, face a major risk of disintermediation if they fail to tap into the e-commerce channel, which is more cost-efficient and convenient. And payers will have an opportunity not only to improve their existing business through data analytics but also to create valuable new services. New Strategies for Players Across the Value Chain Companies across the value chain must move now to capitalize on the opportunities—and confront the threats—that the digital health-care revolution presents. All health-care players should develop a comprehensive digital strategy based on the role they envision for their organization in the future, strike partnerships in order to gain a first-mover advantage, and move quickly to pilot new ideas. And for companies that traditionally have not played in health care or have yet to enter the space, the emergence of digital health care creates abundant opportunity. Are they too late to the game? Given the potential size and nascent state of the digital health-care market in China, opportunities for companies that have yet to enter the fray abound. Real estate companies can partner with payers and providers to build communities that stand out for the health care services they offer. This could be quite attractive to senior citi-zens, who have a high demand for those services. Other opportunities may exist in bringing together pharma and medtech companies, hospitals, and payers to build centers of excellence for treating certain diseases. This could involve creating facilities where patients could come to live while they receive cutting-edge treatment. And still other opportunities could be

found by using big data to dig into the etiology and pathophysiology of certain diseases, such as lung and gastrointestinal cancers, which are more prevalent in China than in many other parts of the world. Such analysis could prove valuable to pharma companies looking for new treatment targets. Other markets that are further down the digital health-care path such as the U. See the exhibit below. Studying the digital innovations in a market like the U. Such insights are likely to be one of many avenues that allow latecomers to catch up. For the big online and technology companies, the opportunity to provide valuable services across the health care value chain is vast. Such end-to-end offerings have the best shot at attracting a large user base and building the strongest loyalty. A key step in developing those offerings: At the same time, these companies must design a business model that captures some of the profits now generated by others in the industry or creates new sources of profit. E-commerce companies, for example, can capture some of the margin that previously flowed to traditional distributors and retailers. And these new players can also provide big-data analytics on health outcomes—new services that will be extremely valuable to pharmaceutical companies and payers, among others. Pharmaceutical and Medtech Companies. For pharma companies, the opportunity in digital health care is concentrated in four areas. One is improving sales and marketing efficiency, an area where many companies are already running pilots. Here, companies can move beyond the traditional sales model, which focuses on face-to-face interactions with physicians, to use digital technologies to reach more physicians at the same or lower cost. E-commerce is another area of opportunity. Online sales of over-the-counter drugs, health foods and supplements, and consumable medtech devices have been growing rapidly in recent years. And as the Chinese government begins to allow consumers to buy prescription drugs online, pharma companies need to follow. This will mean establishing partnerships with online pharmacies—whether new players or traditional distributors or retailers that have built e-commerce capabilities. This lower-cost channel will not only strengthen the connection that pharma companies have with consumers but also boost margins by eliminating layers in the supply chain. Pharma companies need to identify the winning e-commerce business platforms with which to link up, a decision that will depend in part on the specifics of their product portfolio. In the burgeoning area of patient management, pharma players can develop new services in partnership with companies that provide mobile diagnostics, physician-and-patient communication services, and continuous patient-monitoring options. These offerings can improve patient outcomes, in part by ensuring that more people adhere to their prescription drug regimens. The fourth area is a longer-term—but major—opportunity: Data on patient treatment and outcomes, for example, can help determine the value of individual prescription drugs. That information, in turn, can provide the basis for making decisions on pricing and on acquisitions and divestments within the product portfolio. Analyzing outcomes data, for example, can point the way toward new uses for a compound or help identify patients most likely to respond to a certain treatment. Medtech companies have opportunities in the same four areas as pharma players.

## Chapter 3 : Revo Healthcare - Revo Health

*The only event that combines every aspect of health: healthcare, self-funding, medical travel, wellness, benefits, and insurance. recognizing leading.*

By sharing their stories, their inspirations and lessons learned, we hope to inspire others to pursue their goals and aspirations, so together we can lead a health revolution that moves the world! With that very sound and logical advice, Teresa committed her studies to a business major. She had been an athlete all her life. She loved biology and enjoyed learning about how the human body worked. Teresa graduated with a Business Management degree, but still had no idea what she wanted to do. Only having knowledge about fitness jobs in the commercial club setting, the idea of a career in corporate health and fitness was fascinating to Teresa. She began personal training and applied to graduate school. While working towards her Masters in Exercise Science from George Mason University, Teresa started interviewing for corporate health and fitness positions. Grateful to have been given the chance to explore the profession while earning her Masters, Teresa has continued to grow and flourish in her career. We asked Teresa to share a few things about her successful career with Corporate Fitness Works. And this is what she had to say: Tell us about a time in your studies or in your career that helped you prepare for the challenges you face in your role as VP of Team Care. Despite earning a degree in Business Management and then working in corporate fitness, that degree has come in handy! Each of our sites must run like business to a certain degree, and my business background has been helpful for that. What is your 1 motivator? What are you most passionate about in the work that you do? This started with pure joy of helping members reach their personal health and fitness goals. Later, it evolved in to the excitement from retaining and continuing to wow our clients with impactful programs and services. Describe the key steps you took in the path to your career success that made the greatest impact? I worked at many different sites in the Washington, DC area. Each time I made a change, it was scary, but it was always worth it. I learned from every experience. Even after becoming a Senior Account Manager and overseeing multiple management clients and teams, I had the opportunity to become our Director of Training, work with our Wellness Team, and now work in Team Care. Every role has helped me grow and challenged me. I bring these past experiences and lessons learned to each new opportunity, and that helps me to make an even bigger impact. Team Care is the heart of CFW. It is much more than Human Resources. I believe our key role is to support the Team Leaders and continue to make their CFW experience better and better by highlighting and infusing our culture into everything we do; offering training and development opportunities, making Team Care processes easy and streamlined, and continuing to provide quality benefits. By meeting our goals as a business unit, Team Care ensures that all Team Leaders across the company receive the support, communications, training and recognition to be at their very best. Share a career highlight. Being presented with the Mary M. Drohan award and being the first ever recipient has been a significant career highlight. Our Leadership Team had gathered for an annual meeting in Florida last February. What I thought was just a team gathering as part of the meeting agenda, turned out to be my award reception. I was totally surprised when my name was called! Never underestimate the value of Team. Just about every picture we have of Teresa shows her surrounded by Team. Please share an interesting fact that you would want our Team and our clients to know about you? Other interesting facts, Teresa has participated in the Seattle Big Climb, climbing 69 exhaustive floors over 1, steps of one of the tallest buildings west of the Mississippi to benefit the Leukemia and Lymphoma Society. She also enjoys participating in 5-mile trail runs that take place in the beautiful parks of Northern Virginia, completing at least one race every spring and fall season. The third picture below shows Teresa, wearing a green hat, with her younger sister and brother-in-law after completing one of those trail runs. Leading a Health Revolution:

## Chapter 4 : Technology is Leading a Healthcare Revolution - Healthcare MBA GWU

*Leading the Health Care Revolution: A Reengineering Mandate (Management Series) [Gary D. Kissler] on blog.quintoapp.com \*FREE\* shipping on qualifying offers. Book by Kissler, Gary D.*

Gail Reed reports from Havana. These indicators “ which are close or equal to those in developed countries “ speak for themselves. For example, in , there were seven deaths for every children aged less than five years “ a decrease from 46 such deaths 40 years earlier, according to WHO. The centrepiece of this system is the community-based polyclinic, each of the nationwide serving a catchment area of between 30 and 60 people. The polyclinics act also as the organizational hub for 20 to 40 neighbourhood-based family doctor-and-nurse offices, and as accredited research and teaching centres for medical, nursing and allied health sciences students. Picture shows a Cuban youngster being weighed in People expect much more of us now than when we were introducing the Rural Medical Service. The government started by enlisting physicians and medical students for a period of their professional lives to work in the mountains and coastal communities. Today they are required to spend one internship year and two residency years training in family medicine after they receive their degrees. Today, Cuba has about 33 family physicians. Later, they can apply for a residency in a second specialty. As a result, the ranks in these second specialties are being swelled by physicians who started their careers in family medicine. Since , polyclinics have undergone extensive renovation, a process that continues today. The aim is to add services previously available only in hospitals. Now, the average polyclinic offers 22 services, including rehabilitation, X-ray, ultrasound, optometry, endoscopy, thrombolysis, emergency services, traumatology, clinical laboratory, family planning, emergency dentistry, maternal“child care, immunization, and diabetic and elderly care. Various other specialties “ including dermatology, psychiatry and cardiology “ are available too, in addition to family and internal medicine, paediatrics, and obstetrics and gynaecology. Each of the committee members pictured here had responsibility for a list of health activities. Another change has come with the abolition of a rather uniform type of polyclinic. So, if there are many smokers, we should have counselling a few nights a week, not just one. If we have many allergies in the area, then the polyclinic should have allergy testing services, and so on. Active screening allows us to take a particular condition, like hypertension, and look for the hidden prevalence. The new formula responds, in part, to the need to re-organize the system, with more than 20 Cuban physicians living abroad, mostly in Africa and Latin America. Training of new family physicians has also been put on the fast track: What is left to address?

## Chapter 5 : The Employer-Led Health Care Revolution

*Roughly every fifty years, healthcare experiences significant disruptive changes leading to a healthcare revolution in clinical care. In the s, the germ theory of disease, antiseptic techniques, and advances in anesthesia, made life-saving surgeries possible and drove significant and lasting.*

## Chapter 6 : WHO | Cuba’s primary health care revolution: 30 years on

*Cuba's primary health care revolution: 30 years on With the community-based polyclinic as its centrepiece, the country's primary health care system has produced enviable results as it continues to adapt to new challenges.*