

### **NORTH AMERICA**





# The Expanding Role of Digital Care in the Delivery of U.S. Healthcare

Consumer Healthcare stakeholders have developed expertise in digital marketing and digital commerce. The next frontier for CHC – taking shape in real-time – is Digital Care.

### The Digital Care Link to Consumer Healthcare

Digital Care opens new market spaces for Consumer Healthcare. The first is next generation nonprescription products that are drug plus digital. FDA is in the process of finalizing the rule for Additional Conditions for Nonprescription Use (ACNU). This rule will enable the approval of nonprescription drug therapies that have a digital care backbone. The successful ACNU products will not be digital islands, but rather will be connected and interoperable with data and other resources across digital health networks. As our contributors lay out in their comments, Consumer Healthcare can accelerate new product programs and meet FDA requirements by leveraging the comprehensive, mature, and quality-controlled digital care ecosystem.

The second market space is Integrated Self-Care. With the same capabilities that power ACNU products, CHC stakeholders can connect brand consumers with personalized support services, devices, and other brand innovations in their individual self-care journeys. The opportunity for Integrated Self-Care is to move from transactional to longitudinal consumer relationships and enable connectivity to healthcare services and support to improve outcomes. The consumer health brands that engage consumers in this way will build value as a concierge for what our contributors refer to as "Life Care".

Digital Care invites new market players into Consumer Healthcare. Gone are some of the moats that used to define this segment of healthcare. Today's expansionary policies and ubiquitous technologies remove barriers to entry for parties that may not have been active in the nonprescription space.

As Digital Care evolves and the intervention processes and data flows become part of Value Based Care models, Consumer Healthcare companies will find themselves in need of a business model that delivers "value beyond the pill". In this feature, our contributors share insights on the power and the potential of the U.S. digital care ecosystem, and how it enables growth in Consumer Healthcare.

### Federal Policy and Incentives Built a Digital Care Ecosystem

Digital connectivity is part of life. We interact with digital systems, products, and services in almost every aspect of daily living. Yet, in healthcare, some suggest the evolution to digital seems has lagged. Certainly, the pandemic accelerated telehealth and remote patient monitoring, but have we seen the full potential of Digital Care?

"Healthcare gets a bad rap when it comes to digital transformation. It is easier to talk about digital marketing and digital commerce than it is to talk about digital care. The nomenclature is just so different." So says Ahmed Albaiti, Principal, at ZS Associates. Behind the scenes, he explains, healthcare has been very active in the digital realm. The building of capabilities and networks has been deliberate and controlled because, in healthcare, we operate under rigorous policy and protocol standards.

In its Global Strategy on Digital Health 2020-2025, the World Health Organization (WHO) puts the start of digital healthcare in 2005, when the World Health Assembly, through its resolution WHA58.28 on eHealth, urged Member States "to consider drawing up a long-term strategic plan for developing and implementing eHealth services … to develop the

infrastructure for information and communication technologies for health ... to promote equitable, affordable and universal access to their benefits." <sup>1</sup>

According to the WHO, digital transformation comes with a big promise:

Digital transformation of health care can be disruptive; however, technologies such as the Internet of Things, virtual care, remote monitoring, artificial intelligence, big data analytics, blockchain, smart wearables, platforms, tools enabling data exchange and storage, and tools enabling remote data capture and the exchange of data and sharing of relevant information across the health ecosystem creating a continuum of care have proven potential to enhance health outcomes by improving medical diagnosis, data-based treatment decisions, digital therapeutics, clinical trials, self-management of care and person-centered care as well as creating more evidence-based knowledge, skills and competence for professionals to support health care.

Today, the WHO's global strategy is to "improve health for everyone, everywhere by accelerating the development and adoption of appropriate, accessible, affordable, scalable and sustainable person-centric digital health solutions to prevent, detect and respond to epidemics and pandemics, developing infrastructure and applications that enable countries to use health data to promote health and well-being, and to achieve other health-related goals."

Dr. Donald Rucker, a medical doctor, computer scientist, and former National Coordinator for Health Information Technology, had a first-hand view of how digital care introduces an "extraordinary opportunity to rethink how we allocate direct care." According to Dr. Rucker, the systems, standards, and data produced in digital transactions can enable personalized care that can be individually optimized to endpoints.

"We know that the medication therapy for almost every American is not optimized to endpoints," says Dr. Rucker. "Many patients are treating with multiple medications, and we don't have a uniform and comprehensive way of dealing with polypharmacy." According to Dr. Rucker, "we can learn a lot from data on populations, which we have today. We can study

### Meet the contributors

The authors of this feature article for *INA* sat down with four subject matter experts to discuss the expansive topic of Digital Care in the U.S. Healthcare system.

### Dr. Donald Rucker

Dr. Don Rucker is Chief Strategy Officer at 1upHealth, which provides scalable serverless FHIR data pipelines that enable the modern data world. He recently



served as the National Coordinator at the Office of the National Coordinator for Health Information Technology (ONC), where he led the writing of the ONC 21st Century Cures Act Interoperability Rule, giving patients control of their medical records using apps of their choosing. Dr. Rucker pioneered the policy building the HL7 Bulk FHIR standard, enabling effective use of EHR data for "big data" analytic and operational tools. He codeveloped the world's first Windows-based EMR and continued with transformative work in computerized physician order entry and policy for health information exchange. Dr. Rucker was instrumental in reforming physician CPT4 documentation that eliminated "cut & paste" activities impacting 500 million U.S. physician notes annually. Dr. Rucker has practiced emergency medicine for 30 years and is currently on the adjunct faculty at the Ohio State University Dept of Emergency Medicine. He is a graduate of Harvard College and the University of Pennsylvania School of Medicine and is board certified in emergency medicine, internal medicine, and clinical informatics. He has an MBA and an M.S. in medical computer science from Stanford.



	1	Promote Health and Wellness  Enhance the Delivery and Experience of Care	
	3	Build a Secure, Data-Driven Ecosystem to Accelerate Research and Innovation	
	4	Connect Healthcare with Health Data	

Connecting the delivery of care to health data is a primary goal of the 2020-2025 Federal Health I.T. Strategic Plan.<sup>2</sup>

the data to understand the incremental value of medicines at different doses and calibrate for side effects. With dynamic computation of the population data, we could be far more aggressive in managing the treatment of high blood pressure, or high cholesterol, or even diabetes."

These chronic conditions are also an area of concern for Dr. Marc Watkins, Chief Medical Officer at Kroger Health. Kroger is a retail leader working to improve the health of the communities it serves. Dr. Watkins agrees the initial focus of digital health is "Ground Zero, which is enabling providers with data."

In its offerings to Kroger Health, the company is leveraging digital capabilities and multiple data sets to understand patients fully and personalize their experiences. This data gives providers "real-time information to make better-informed decisions about how they approach the care of their patients." With data, clinicians at Kroger Health can be more effective in delivering personalized and optimal care.

Shannon Huneke, Manager within Accenture's Consumer Healthcare Strategy and Consulting business, believes that digital health is the connector that enables the vertical integration for continuity of care and much more curated and directional consumer experiences. "The achievement of our shared health ambitions will be dependent upon full participation by a growing ecosystem", she says. In the view of Accenture, the future is one of a healthier, more sustainable population served by a modern, connected healthcare ecosystem comprised of payers, providers, retailers, and community stakeholders — delivering improved access and experience by putting the human at the center of the heart of all touchpoints.

### Meet the contributors

### Dr. Marc Watkins

Marc Watkins, M.D., M.Sc.P.H., FACOEM, is the Chief Medical Officer of Kroger Health, the health care division of The Kroger



Company, which comprises more than 2,200 pharmacies in 35 states and Washington, D.C., and more than 220 locations of The Little Clinic in nine states, as well as 11 specialty pharmacies across the country.

Dr. Watkins joined Kroger in 2015 as vice president and medical director of The Little Clinic. In August 2018, he was promoted to be Kroger Health's chief medical officer. Before joining Kroger, he spent six years with Concentra Health Services in various physician leadership roles.

Dr. Watkins is a fellow of the American College of Occupational and Environmental Medicine. He served five years of active duty in the Navy as a senior medical officer and twice received the Navy Commendation Medal. Dr. Watkins graduated with a Bachelor of Arts in philosophy from the College of the Holy Cross and received his Doctor of Medicine and Master of Science in Public Health from Meharry Medical College, a historically Black medical school.

## Stakeholders Have Capabilities to Deliver Integrated Care

From a social science definition, integrated care results from multi-pronged efforts to promote connectivity, alignment, and collaboration within and between multiple services, providers, and settings for the benefit of people.<sup>3</sup>

Across the U.S. healthcare system, digital backend capabilities are stepping stones toward the goal of integrated care. Ahmed talks about these capabilities in "layers": the EHR layer, the interoperability layer, the virtual care layer, and the connected device layer. These initial capabilities enable efficiency and greater access to care for providers and patients.

All the experts agree that care can be improved with pervasive digital connectivity and data interoperability. The goal of a more holistic, integrated approach to patient care becomes achievable when the ecosystem interacts fluidly, when providers have data in real-time, and when patients can control, direct, and act on their data. FDA suggests much of this can be accelerated with nonprescription access to drug products with an Additional Condition for Use.

Dr. Rucker has spent much of his career thinking about and directing efforts to emancipate healthcare data. "We actually have vast amounts of data that we could use more productively," he says. Dr. Rucker sees the pathway to value-based care as a "computational opportunity." And, he says, we have the tools to do those computations for optimal care at the individual level. "We have clinical data, thanks to the conversion from paper to electronic medical records with the policy and incentives under the American Recovery and Reinvestment Act of 2009 (ARRA). We have data in computable form, with common data fields across repositories. We have data standards for secure interoperability with RESTful API, FHIR, and HL7. And we have the capability for distributed computing in the cloud."

Digitally-enabled integrated care will address the whole person and their overall outcome. Providers will no longer treat one disease at a time and prescribe one treatment at a time. And solutions will not be digital islands that don't connect. Ahmed calls these "point solutions" and says he begs his clients not to build anything new before considering how they can connect

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### **Ahmed Albaiti**

Ahmed has over 20 years of experience in the digital health and health I.T. industry, with a career-long commitment to personalized



healthcare and enabling a bio-digital future.

Today, he is a Principal at ZS Associates, focusing on the intersection of digital technology, medicine, and advancing the human condition. Ahmed brings a global perspective to his work through his experience launching de novo digital programs and "rescuing" digital programs in Europe, Africa, and LATAM.

He led large-scale engineering programs at Sapient and later led digital innovation for the Massachusetts General Brigham Young health system. He founded Medullan and worked with some of the largest payers, providers, and life sciences companies before the company's acquisition by ZS Associates. Ahmed holds a Bachelor's degree in Computer Science and Information systems from Worcester Polytechnic Institute.



to and leverage existing capabilities to deliver effective and integrated care models. He suggests clients look at "who is already doing some of this, and how can we connect?" The goal, says Ahmed, is to "avoid False Failure because it slows us down and because, in healthcare, it takes a long time to recover from failure."

Kroger Health is actively working to leverage digital capabilities that can deliver measurable outcomes now.
Dr. Watkins tells



the story of "Mrs. Jones," a person with diabetes. Mrs. Jones shops at Kroger for groceries. She also gets prescriptions filled at the Kroger pharmacy. And she visits The Little Clinic from time to time. Kroger can support Mrs. Jones at every touchpoint in her digital journey through digital interventions, like the Opt-Up program and informed clinician interactions.

In addition to pharmacists, retail clinicians on-site and online, and a call center, Kroger Health operates a 50-state telenutrition service. Kroger intends to meet consumers/patients where they are, and to provide frictionless access to an integrated care experience.

Recently, the University of Cincinnati, UC Health, Cincinnati Children's Hospital Medical Center and Kroger Health collaborated to study how to make health care more accessible to consumers in a first-of-its-kind clinical trial designed to improve health outcomes through retail-based dietary interventions.

As published in *Nature Medicine*, the study's primary endpoint was a change in dietary approaches to



stop hypertension (DASH). The study met the primary endpoint with DASH score increases by 4.7 more for the study group

### Meet the contributors

### Shannon Huneke

Shannon Huneke has over 25 years of extensive experience both within the retail and health care industry



with a primary focus on developing strategic partnerships on behalf of executive leaders and C-Suite for the purposes of value differentiation and organizational growth.

Shannon provides extensive thought-leadership within Accenture's Consumer Healthcare Strategy and Consulting business on the advancement of healthcare through the formation of various health ecosystem providers, payers, retailers and CPG's namely aimed at creating more access and affordability through a more consumer-centric and patient-centered focus and the use of Social Determinants of Health data analytics and consumer insights.

She is an active volunteer in her community and is very passionate about supporting organizations like Feeding America and World Central Kitchen focusing on the eradication of hunger and nutrition disparities within our communities. She is a long-time resident of Saint Paul, Minnesota raising her 3 three teenagers with her husband Andrew.

Shannon holds a Bachelor's degree in Business Administration/Social Justice from St. Mary's College, Notre Dame and a Master's in Business and Corporate Communications from the University of St. Thomas — Opus College of Business.



Dietary interventions could be studied across larger populations. Tele-nutrition visits could be added to in-person visits.

There are many possibilities. These interventions, individually or together, could be tailored to almost any chronic disease. 99

than for the control group (95% confidence interval (CI) (0.9, 8.5), P = 0.02). The trial also demonstrated the efficacy of data-guided, supermarket-based dietary interventions and modern online shopping tools in improving dietary quality in a free-living, community-based population.<sup>4</sup>

To further advance integrated care models, Kroger Health uses health care and consumer data that can spotlight a rising risk in a population. According to Dr. Watkins, "Measuring rising risk in a population is important because it offers an opportunity to change the course of care delivery which can help to improve clinical outcomes and bend the cost curve."

### The Past is Sick Care; the Future is Life Care

For Dr. Rucker, the implications of AI and tools like ChatGPT are very exciting. "I was a graduate student in Stanford's Medical Computing program in the 1980s after earning my M.D., and my Master's project advisor at Stanford was actually the inventor of rule-based expert systems which were often the basis for AI for that era." Today large language model neural nets such as ChatGPT that have been trained on vast amounts of printed and digital information provide rich predictive power. "We can do exactly the same thing with clinical information and achieve the same levels of accuracy. The more, the merrier. The richer, the merrier. With AI, instead of a simplistic, one-size-fits-all algorithm, we can perform a highly sensitive, fully personalized analysis".

The next frontier for advancement will be aligning incentives and payment models to enhance the quality of care and quality of life, consumer satisfaction, and system efficiency in a manner that cuts across multiple services, providers, and settings.

Ahmed thinks the business case is getting better. "If you look at Cigna's Integrated Care Models, you can see savings that it produces, reportable savings." He credits the improvement to data connectivity and continuity of information. Ahmed believes that "done right, we can move from a system of sick care, beyond a system of healthcare, to a strategy for Life Care."

Shannon thinks about how trends in technology and future evolution can make care management more accommodating to the different needs of communities and individuals. "Importantly, we need to look at the metaverse as a pivotal point for reinventing how health care data can empower individuals to navigate the complex system in a more simplified way," she says. From Shannon's perspective, "it is important to create a responsible metaverse that offers equal access to data that is free from restrictions and limitations. And, from a health equity perspective, the hope is to unleash the power of empathy among healthcare employees when it comes to providing a care experience to people with historically underserved needs and the aging."

Shannon is personally and professionally passionate when it comes to the reduction of health and social disparities. She believes that "the power of digital health may be our answer to solving many issues relating to health inequities.



We as a healthcare ecosystem, can single-handedly impact population health once and for all, through the distinct acknowledgment that every person deserves access to good quality healthcare that leads to a healthier and happier life".

Like almost every other aspect of our daily lives, digital capabilities are transforming how individuals receive care. If the possibilities described by these four visionaries are even partially realized, all of us can look forward to a very different and exciting healthcare future.

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### About the authors



Mary Alice Lawless is CEO of Biograph Inc. For more than two decades, she has worked with Life Sciences leaders across pharma, medical device, and consumer products to improve patient journeys and outcomes. She has extensive experience developing care strategies that intersect with payers, providers, and retail, and that leverage innovation in healthcare policy and technology to enable consumers.

Mary Alice leads a collaboration with Amwell, known as Biograph by Amwell, which is designed to bring digital care solutions to the Life Sciences industry. With a goal to help reverse undertreatment of many common and chronic conditions, specifically among the underserved, she leads ongoing interactions with FDA about how technology and data interoperability can enable consumers with safe nonprescription access in new classes and categories.

As a network partner to the Nicholas Hall Group of Companies, Mary Alice and her colleagues are regular contributors to its publications.

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