hippo™ WHITE PAPER

Why Health Systems Need to "Own the Home" Before Retailers and Payers Do

Home-based care requires a new delivery model.
Health systems can provide it.

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INTRODUCTION

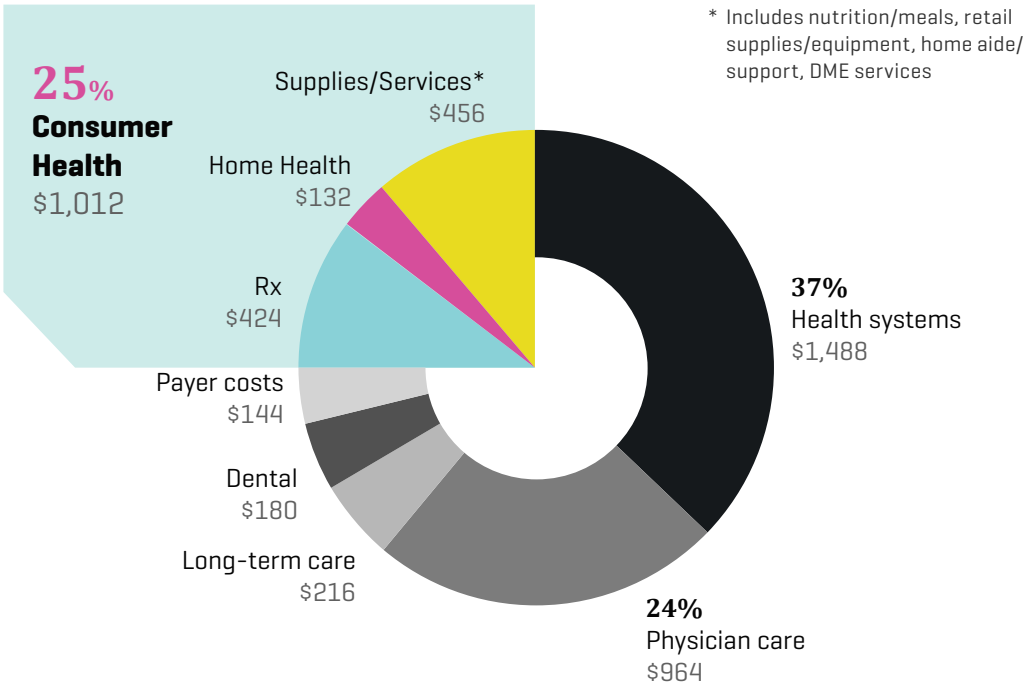
Driven by changing consumer expectations and new technologies, the healthcare industry is quickly developing a new home-based care delivery model. Major retailers and payers are rapidly capturing this profitable market segment (with 32% margins) via a consumer-based business model. Health systems can counter with a more patient-focused home delivery model that addresses consumer wants while ensuring that they meet patient quality outcome needs. This new home-based approach ensures the organizational mission to deliver quality outcomes and compassionate care, while transforming the care delivery model to compete in the new consumer-based market.

Health systems need to quickly develop this high-growth, high-margin opportunity before national competitors squeeze them out of their own markets.

FIGURE 1.1

US Healthcare Market

$4,000B Revenue



- US Healthcare is a $4T market, dominated by Hospitals & Physicians ($2.5T, 62% of the market).
- Traditional health system services (Inpatient, Outpatient) have minimal profit margins (1-2%).
- The healthcare profit margin is split by physicians (50%) and consumer health (40%), each with 30%+ margins.

- While most consumer health is delivered near or in the home, current health system home-based pilot results are limited by scope, technology and organization.
- A small set of high-risk patients (16 million) drives 50% of revenue and 32% of profits.
- Due to disabilities (mobility, self-care assistance), high-risk patients need care delivered at home.
- A new Health@Home care delivery model is disrupting the industry, racing to control home-based care, while new home-based technologies and models of care are making Health@Home profitable.
- The Health@Home winners will provide an integrated end-to-end cycle of care, including home services, supplies and 24/7 support.
- While national health retailers and payers are moving quickly to capture the home patient care market, local health systems can respond with immediate programs to protect their markets and grow, with 30%+ profitability as well.
- Health Systems can pilot a simple home-based Readmissions Reduction Health@Home program, while generating immediate quality, service, and financial performance improvements.

01

Thinking Outside The Box: Removing The Roadblocks To Revenue

The US healthcare industry ($4T) is dominated by hospitals and doctors providing inpatient and outpatient services worth over $2.5T in revenue within traditional healthcare "boxes" (hospitals and medical office buildings) and utilizing a facility-based acute-care/ambulatory delivery model.

Due to tight reimbursement regulation, growth inside the box can increase revenue with only negligible margin gains.

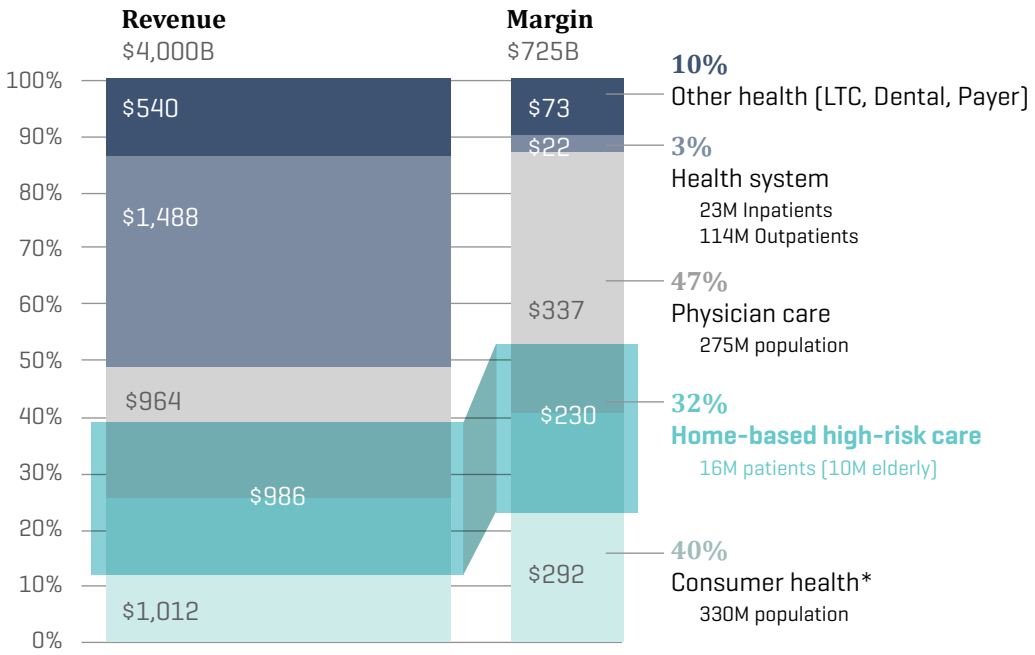
For profitable growth, health systems need to grow by providing "outside-the-box" consumer-based services near and in the home.

The consumer health market ($1T) is 25% of the health industry that generates 30%+ margins and provides patient support to manage their health and chronic conditions in the home. Although retail pharmacies act as the hub of consumer health, there is a large range of home health, medical supply, durable medical equipment, and home aide services companies that also provide home-based care.

As the US population ages and technology allows more people to age at home, the consumer health industry will grow exponentially.

FIGURE 1.2

US Healthcare Margin Opportunity



* Includes Prescriptions, Retail supplies, DME, Home health, Nutrition/meals, Home aides

McKinsey's Consumer Health Insights surveys[1] have uncovered six major shifts in consumer preferences with important implications for health insurers, providers, and other industry stakeholders.

1. **Affordability.** The affordability of healthcare continues to be one of the most pressing consumer concerns and needs.
2. **Continuity.** Many consumers lack continuity across their healthcare ecosystem (e.g., in care delivery, services/supplies, and health insurance).
3. **Digital.** An increasing number of consumers use digital health tools, with COVID spurring even more interest in greater digital engagement.
4. **Engagement.** Consumers are willing to employ solutions to reduce healthcare costs and want more support managing their care.
5. **Personalization.** The consumer experience should be tailored more closely to the needs of individuals.
6. **Access.** The continuum of care needs to provide consumers access when and where they need it.

Together, the findings deliver a clear message: Patients want more consumer-based self-care solutions to manage their own care, goals, services/supplies, and money. This seismic shift from institutional to individual control is driving real change in healthcare.

Retailers and payviders (e.g., Amazon, Walmart, CVS/Aetna, United/Optum, Humana) have heard the call and are bundling community-based physicians, pharmacy, home services, and supplies/logistics to capture the home-based patients in this profitable market segment.

As a result, there is a real risk that traditional health systems will increasingly be left as low-margin, highly regulated utilities, required to compete for "carve out" specialty services from those who control consumers and home-based care.

02

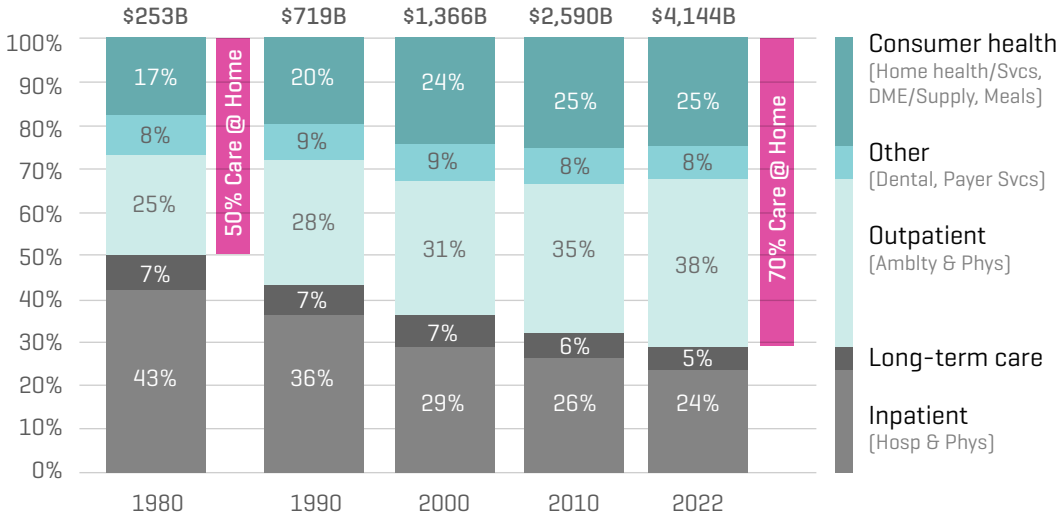
Focus On A Narrow But Growing Niche

Consumer health is a profitable and fast-growing market. A small customer niche of 16 million home-based, high-risk patients drives nearly $2 trillion in revenues and 32% of the industry margin. Whoever captures the Health@Home market for this high-risk patient niche will dominate the industry.

FIGURE 1.3

Transition to Consumer Health

50% to 70% Care at Home



The national 16 million high-risk patient population is comprised of 6 million chronic care patients under the age of 65 and 10 million elderly patients (65+) who have multiple chronic conditions and disabilities that make healthcare delivery at or near the home a necessity. While the 10 million high-risk elderly patients make up only 3% of any given local population, they drive 32% of the total health industry margin. Their chronic conditions make medication adherence and ongoing home health a priority. They also likely have mobility and self-care issues, as well as three or more chronic conditions.

For example, a typical 65+ high-risk patient may have mobility and self-care issues (44%), hypertension (32%), arthritis (31%), chronic pain (29%), diabetes (14%) and depression (10%). Daily, they take 6+ medications and need home health and home services (cleaning, shopping, meals, activities of daily living). They make 2+ physician visits per month and 2+ acute care episodes (ER, Inpatient) annually. They require periodic diagnostic testing (e.g., lab, radiology, ECG) and should monitor daily vital signs (temp, BP, weight, etc.) Their daily routine includes managing their diet, exercise and limiting unhealthy habits (e.g., smoking, alcohol, sedentary behavior, snacking).

Overall, this typical elderly high-risk patient will generate over $102,000 in annual healthcare payments, including $18,000 in consumer health and physician margin.

TABLE 1.1

Estimated Annual Elderly High-Risk Patient Health Margin

US Healthcare Market	Revenue	Margin	%Total
Health system/Hospital	$40,698	$610	3%
Physician care	$26,133	$9,146	50%
Long-term care	$6,752	$169	2%
Payer costs	$1,125	$360	2%
Dental services	$2,110	$527	3%
Consumer health	$26,104	$7,334	40%
Prescription drugs	$11,470	$2,294	13%
Home health	$3,095	$836	5%
Nutrition/meals	$4,751	$1,473	8%
Retail supplies/equip	$2,384	$1,120	6%
Home aide/services	$3,282	$1,162	6%
DME services	$1,122	$449	2%
	$102,922	**$18,146**	

An urban area of 1,000,000 residents has approximately 30,000 elderly high-risk patients. A homecare service for these high-risk patients could also provide care for the larger value-based population that is already nearly 40% of insured patients, 400,000 in a large urban area.

03

Creating A New Model For Delivering Health@Home

Consumer health is a profitable and fast-growing market. A small customer niche of 16 million home-based, high-risk patients drives nearly $2 trillion in revenues and 32% of the industry margin.

Consumer Health uses a delivery model that focuses on customer wants and needs, not provider-mandated process and place. With numerous retailers and payviders already competing, consumers will choose services that give them access, convenience, and value for money.

Retailers have operated consumer-based strategies for decades and are quickly learning how to position health products based on customer preferences. They already have convenient community locations (stores, clinics) with medical supplies and prescription drugs. By adding visiting clinicians and diagnostic testing, they can rapidly deliver local and home-based health services. Traditional healthcare providers need to quickly learn how to package and deliver customer-based services to compete in this new consumer-based market.

The Health@Home model includes the following five core components:

1. **Home Health Hub**
   This desktop medication dispenser with a built-in computer tablet provides a health app integration platform for 24/7 access to telemedicine, pharmacist/pharmacy services, health education, online videos (exercise, therapy), service scheduling, supply ordering, remote patient monitoring, patient dashboard, medical alerts (missed care activity, abnormal metrics), and hundreds of healthcare apps. This small device (10" square) — which can reside in the kitchen, bathroom, or living room — supports medication adherence, one of the key compliance obstacles to improving patient outcomes.

2. **Clinician Extender**
   This new basic health worker visits patients at home to assist remote clinicians, reinforce healthy behavior, and build strong relationships across a patient's collaborative care team, including specialty physicians, clinicians, therapists, patients, caregivers, and family. By wearing hands-free, voice-activated augmented reality (AR) headsets — like those from Hippo Technologies — a clinician extender can provide "you see what I see" access for remote clinicians to assist in patient assessment, treatment, and education.

3. **Community Health Hub**
   This local medical office provides physician care, diagnostic testing, drug infusion services, therapy, and medical supplies/DME. It acts as a convenient location for urgent care, more complex diagnosis/treatment, and a logistics center for services, equipment, and supplies.

4. **Virtual Clinician Panel**
   This regional pool of specialists provides virtual care for patients at home and in local community health hubs. Rather than patients coming to see doctors, virtual panel members can all see the same patient on the same day and generate a collaborative care plan.

5. **Virtual Support Center**
   This center provides immediate Health@Home customer service that can respond to urgent care, scheduling (appointments, services), ordering supplies, and overcoming barriers to care. Care coaches (nurses) also work from the center — similar to current chronic care managers — and act as patient advocates, providing clinical integration for the patient care team.

Most of these virtual care capabilities already exist. Integrating them into a viable care delivery model that is consumer focused, productive, coordinated and profitable is the challenge. Healthcare providers bring the clinical expertise and retailers bring the consumer-based approach.

Tori Richie, senior director of the Sg2 Intelligence team, advises health systems to go holistic with a homecare strategy. "We highly encourage leaders who are taking a portfolio approach to care at home to make sure that they think through that full suite of services that a particular patient cohort is going to need," Ms. Richie said. "Instead of thinking about single-point solutions, we find that organizations are much more successful at scaling care at home initiatives when they do take that portfolio approach."[2]

04

Designing an End-to-End Care Transformation

Health@Home integrates provider-based care with consumer-based care to include an end-to-end workflow to meet all of a patient's needs. This requires care team coordination and continuity of care that is driven by a shared care plan covering comprehensive clinical, retail, service, support, and monitoring needs.

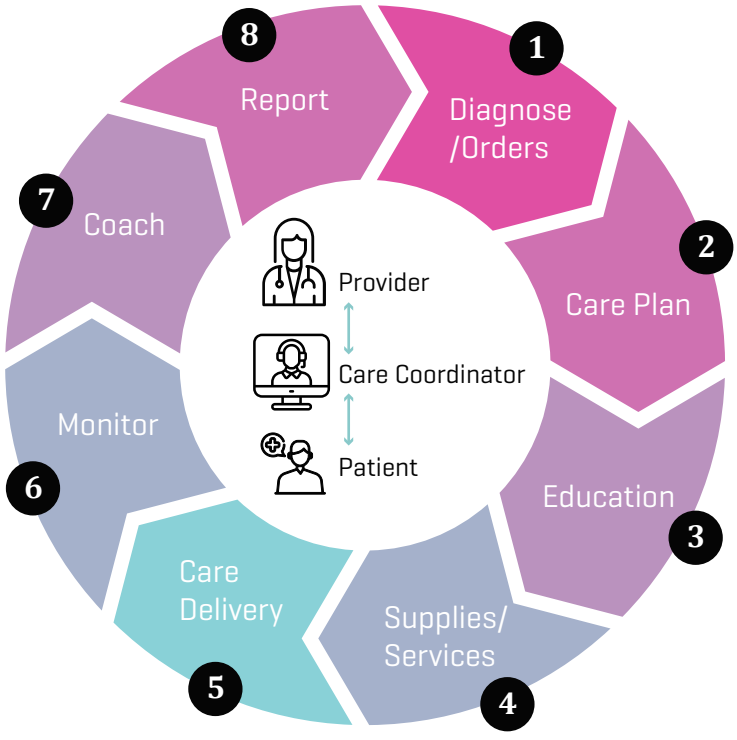
Home-based care focuses on changing patient behavior to improve results for chronic conditions and preventive health.

This new care delivery model requires new organization, roles, relationships, processes, systems, and technologies. It also requires a change in focus from provider-episodic care to patient self-care.

This requires a circle of care organized around each patient that provides continuity and collaboration to reinforce new patient behaviors and outcomes, echoing the care design recommendations made by the groundbreaking IOM "Crossing the Quality Chasm. A New Health System for the 21st Century" report[3].

FIGURE 1.4

Health@ Home Workflow Components



The new model must develop:

- **Care Plans** that include patient interests to align goals, accountability, coordination, and outcomes.
- **Circle of Care** team with shared responsibilities from all participants, including patients.
- **Knowledgeable Patients** and caregivers who are effective team members and must carry out much of the self-care.
- **Care Coordinators** (who may be medical assistants) who are responsible for regular patient contact, support, and coordination of care.
- **Coordination of Care** between physicians and caregivers to improve efficiency and delays.
- **Continuity of Care** by the care team to reduce fragmentation, duplication, delays, and wasted time.
- **Rapid, Virtual Contact** between patients and care teams to improve access, response, and knowledge.
- **Inclusive Care** that provides access to all medications, equipment, supplies, and services required for self-care.
- **Ongoing Patient Monitoring** and feedback to alert changes and reinforce good behavior and outcomes.

Developing the new infrastructure and relationships is complex. Integrating the disparate services and resources will require a platform organization and technology structure, as well as a shared services approach to administration and support. The transformation will be made more difficult because staff will easily fall back into traditional roles, behaviors and practices that will undermine the success of the new care delivery model, both for the provider and retail players. Digital transformation will only be successful if it's accompanied by a cultural transformation, too.

By applying today's technology to assist with the established principles of best care practices, we can dramatically reduce the cost of care in the aging population — while also increasing quality of life.

05

Get Started Now

At first glance, Health@Home is an imposing undertaking. It requires integrating clinical practice, care delivery, education, consumer goods, remote services, new technology, call centers, and reimbursement to provide a new care delivery model. It appears that only Fortune 500 competitors are capable of making the investments and acquisitions necessary to build it.

There is a simpler, bottom-up approach that can generate a modular, effective solution that Health Systems can begin developing today by "thinking big, starting small, and moving fast" using an agile method and partnering with innovative suppliers.

Taking just one use case example that can achieve significant cost savings, one of the biggest health system problems is readmissions. As a majority of readmissions are from the home, this would be an ideal project to work on with patients who are transitioning from hospital care to homecare. And, since many of the readmissions are high-risk patients, the initial project could focus on this population. With only three to four of these select patients discharged daily, a pilot homecare project would focus on a rotating population of 90-120 patients who transition through a 30-day program. An internist supported by a care coordinator and a team of three visiting Clinician Extenders (using Hippo Virtual Care) could easily manage the pilot. Studies have shown that home visits by nurses within 48 hours of discharge can reduce readmissions by 30%+ ($3 million for an average suburban hospital), which can more than cover the pilot expense. Other high-impact pilots include wound care, rehab, and rural health. Pilots can act as agile testing grounds for a range of Health@Home practices, services, tools, and technologies.

Consumer-based care is evolving quickly to become the decisive healthcare strategy of the future. Early adopters will dominate the industry, whereas followers will be relegated as utilities and discount players. Major organizations are investing heavily and moving fast to capture this market. Local health systems need to develop initiatives now to learn the key success factors and competitive advantages. This requires new virtual care and home-based technologies, practices, roles, and management that are not based on traditional operating models, but on a consumer-based model. **Health systems currently own patient loyalty and trust and can leverage it to develop virtual care services to "own the home."** Health@Home is a strategic care delivery model that organizations need to develop today or risk losing customer loyalty to retail competitors.

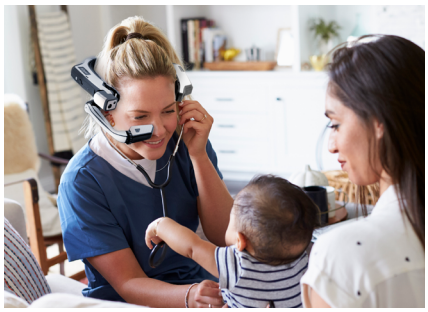
Hippo Virtual Care™

BRING THE HOSPITAL TO THE HOME AND
EXTEND THE REACH OF SPECIALTY CARE

Supercharge your caregivers with wearable voice-enabled computing

Hippo's hands-free, voice-activated, Augmented Reality platform delivers a "through the eyes of the caregiver" viewpoint allowing Specialty Physicians to diagnose and treat patients as if they were in the room.

- Easy to deploy and quick to scale
- Designed by clinicians, for clinicians for ease of use
- Team-based clinical workflow platform
- Increases clinician productivity, reduces costs
- Increases patient and provider satisfaction



Hippo enables seamless collaboration between specialists, nurses and remote caregivers

The Hippo Virtual Care headset delivers a "through the eyes of a caregiver" viewpoint to remote participants and observers.

The Hippo Virtual Care platform allows Specialty Physicians or medical staff to collaborate and conduct real-time patient examinations in the home.

SOURCES

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