

Primary care in the New Health Economy: Time for a makeover

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At a glance

Rather than playing its historical role as gatekeeper to a splintered array of specialties, primary care has to become the nexus, providing simplicity, value and better health outcomes.



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The heart of the matter

The primary care market is poised for a makeover. Faced with new payment models and an aging population with chronic conditions, the health sector looks to a reimagined primary care ecosystem to help deliver on the promise of value.

Executive summary

An impersonal, splintered healthcare system confounds consumers and costs more and more each year. Overall, the nation spends \$3.2 trillion¹ on medical care with mixed results. By 2020, 81 million Americans are expected to suffer from multiple chronic health conditions,² further taxing the system. Revving up the role of primary care—with digital technology, a focus on prevention and expanded roles for non-physicians—offers a cost-effective remedy.

After decades of being undervalued in a fee-for-service system that emphasizes transactional medicine at times of distress, primary care is poised for an extreme makeover. The time is right for its true worth to be revealed—and rewarded.

“We need to flip the system on its head,” said Nancy Gagliano, MD, senior vice president at CVS Health and chief medical officer of CVS/minuteclinic.

Rather than playing its historic role as gatekeeper to a scattered array of specialties, primary care has to become the nexus, providing simplicity, value and better health outcomes. That will mean taking risks and challenging old assumptions.

An in-depth analysis by PwC’s Health Research Institute (HRI) suggests forecasts of looming physician shortages—perhaps 90,000 by 2025³—are based on outdated care delivery models. In the New Health Economy, with the emphasis on giving purchasers greater value for their healthcare dollar, do-it-yourself consumers and integrated care teams armed with a black bag of virtual tools are poised to reinvent primary care and close the gap.

Primary care must synch up with the pulse of the American people and assuage the twin pressures of cost and competition in the health sector. Incumbent players with a desire to succeed over the long term will look to new entrants to help them adapt in a vastly changed market.

Key findings

HRI interviewed 25 executives from industry, trade associations and academia and surveyed 1,500 clinicians and 1,000 consumers on the future of primary care and found that:

- **Purchasers are banking on primary care to save money.** The US government is pumping billions of dollars into primary care improvement and innovation.⁴ Employers are igniting change by adding lower cost, more convenient primary care options: 48% of employers will make telehealth services available to employees in 2015.⁵

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- **Consumers are selecting primary care that fits their lifestyles.** As busy individuals take on greater responsibility for their health bill, many by-pass the family doctor. Yet about eight in 10 consumer survey respondents said they would be open to non-traditional ways of receiving basic medical attention.
- **New entrants are disrupting the health industry with innovative primary care models.** Newcomers offer convenience and value to consumers and purchasers through five modern options: convenient care, house calls, at-your-service care, digital health, and nurse-led care.
- **Some traditionalists are adapting to stay relevant:** About one-third of physicians told HRI they have changed their business model to adapt to changing models of care. Some have started providing entirely new services to compete with new entrants on virtual care and one-stop-shopping conveniences such as co-locating care team offices with lab, imaging, physical therapy and other complementary services.
- **Seven core consumer markets are emerging.** Companies must cater distinctly to seven major consumer markets identified by HRI by delivering a la carte care to: the frail elderly, consumers with complex chronic disease, consumers with chronic disease, consumers with mental illness, healthy families, healthy adult enthusiasts and healthy adult skeptics (See Figure 5, page 14).

Recommendations

As the health sector undergoes rapid transformation, health systems must reimagine primary care to stay ahead in the New Health Economy. This HRI report recommends four strategies for competing:

- **Know what you're good at and whom to serve:** Traditional healthcare organizations need to inventory strengths and identify consumer targets. Consumers want multi-dimensional health interactions with a broad team of experts. Since there is money to be made in all consumer markets, look beyond health status and consider location, income, age and individuals' health and wellness priorities when deciding how to staff up and build clientele.
- **Explore new roles:** Nurses, pharmacists, behavioral health specialists and other non-physicians have big roles to play in progressive primary care models such as patient-centered medical homes, accountable care organizations and at-your-service care practices. Primary care teams that explore new roles are expected to surpass others.
- **Partner where it makes the most sense:** One-third of physician practices are partnering, or planning to partner, with industry newcomers such as retailers, telecommunications companies and data companies that use tried-and-true approaches to expand their market footprint. New entrants are also teaming up. Partnerships with community organizations such as schools, churches and community centers should also pay off.

- **Pull it all together:** The future of care will be based on a triage system that rearranges the traditional patient office visit to the most-appropriate, least-expensive clinicians and sites of care. Successful companies will offer a combination of services through a primary care ecosystem that embraces the health needs of the whole person, rather than isolating one acute problem for attention.

An in-depth discussion

New approaches to primary care for the old, young, sick and well may reshape the health sector by giving consumers and purchasers the choice, service and quality they want—at more competitive prices. Industry newcomers—many of whom never attended medical school—are shaking things up, offering care anytime anywhere. Even some traditional primary care practices realize that, to survive, they must rethink their approach.

“We need to flip the system on its head.”

Nancy Gagliano, MD, CVS Health

At the same time, the US government, employers and health plans—with the objective of reclaiming value for their health dollars—are nudging the industry toward new payment models that reward smarter, more cost-effective approaches to clinical care and overall health.

The result is primary care with a modern twist predicated on technology-enabled care teams, new care sites, data-driven decisions and superior customer service. Such sophisticated personalized attention can detect health problems early, monitor chronic conditions and prevent costly and invasive treatments later. Instead of merely bending the cost curve, new entrants are trying to shift healthcare costs along a different curve: building new care

models from scratch and then swiftly expanding their footprint and services. (See page 5: CVS Health: Onward and upward in the New Health Economy).

A recent HRI survey of 1,500 clinicians suggests that some pioneering practices acknowledge that competing with industry newcomers requires a new set of tools. Nearly one-third of physicians said they have changed their business model to respond to non-traditionalists in the market and about one-fifth said they have started providing new services such as virtual visits and one-stop-shopping to compete with them.

And people want these new easy and affordable services. An HRI survey of 1,000 consumers found that 81% of respondents would be open to non-traditional ways of getting medical attention. Those options would include retail health clinics, virtual visits, clinician house calls, do-it-yourself home diagnostics and remote monitoring through a medical device or smartphone app.

Why primary care needs a makeover: Consumers and other purchasers want better convenience, quality and cost

Americans often postpone critical early care. When chronic disease goes unmanaged, the results are devastating. Each year chronic disease causes 70% of deaths in the US⁶ and accounts for 86% of the nation’s \$3.2 trillion in healthcare spending.⁷ About

half of Americans have at least one chronic disease and 52% are at risk for developing one.⁸ The United States tops the list of most obese countries.⁹

Why the reluctance to visit the doctor?

Today’s consumer wants on-demand service, whether purchasing a sweater or playing a song. But try calling the doctor’s office and hours can pass before a human connection is made. By then, many have gone to the emergency department for a quick fix at a higher cost.

Even when an appointment can be made, the travel-and-wait time generally far exceeds the five or 10 minutes spent with an overextended physician. Wait times to see a family practitioner average 19.5 days, surpassing wait times of other specialists including cardiologists (16.8 days) and orthopedists (9.9 days).¹⁰

81%

Consumers open to non-traditional care delivery

Even best-in-the-field care is not worth the wait, according to two-thirds of consumers responding to the recent HRI survey. Consumers are fighting back, demanding convenient care that provides value for their dollar. Fifty-four percent said they would not travel farther for the best care and 81% said they would not pay more.

CVS Health: Onward and upward in the New Health Economy

CVS Health made its primary care debut in 2006 when it opened its first retail clinic. Almost a decade later, the company now owns and operates nearly 1,000 clinics and partners with more than 60 health systems in 25 states to deliver primary care. Half of the country now lives within 10 miles of a CVS/minuteclinic.ⁱ

Yet CVS Health is not necessarily looking to take the place of the traditional primary care provider. Through its health system affiliations the company aims to become part of a community-based care model that “maximizes the impact of primary care physicians, allowing them to coordinate a patient’s care across various sites,” said Nancy Gagliano, MD, senior vice president of CVS Health and chief medical officer of CVS/minuteclinics.

In fact, CVS Health and a group of eight family medicine associations – including the American Academy of Family Physicians – announced in November that they will collaborate to improve care coordination between traditional primary care practices and pharmacy-based retail clinics.ⁱⁱ

CVS Health believes convenient, community-based care is important to extending the traditional primary care practice’s reach. “Diabetic patients are inside of a CVS pharmacy six to eight times per month,” she said. “But they typically only see their primary care provider once a quarter.”

CVS Health also fills data gaps between retail care settings and its partner health systems. If a patient from one of its partners seeks care at a CVS/minuteclinic anywhere in the country, the patient may have his record sent to his primary caregiver.ⁱⁱⁱ

But retail clinics are just the beginning for CVS Health. While most health systems still worry about losing primary care office visits to more convenient walk-in retail clinics and debate how to compete with them and whether to partner, the company has leaped ahead into offering an expanded array of care services.

With its purchase of Coram last year, the retailer turned health company began

offering infusion services to patients with chronic diseases such as rheumatoid arthritis, multiple sclerosis and cancer in their own homes and in more than 85 locations nationwide, including 65 outpatient centers.^{iv}

Earlier this year CVS Health announced a partnership with direct-to-consumer telehealth giants American Well, Doctor-on-Demand and Teladoc to offer consumers and its health system partners even more options for primary care.^v As a reflection of its broader commitment to care delivery, CVS Caremark changed its name to CVS Health in 2014, casting a message to the industry that the company is in it for the long haul – and a force beyond the prescription business.

*Half of the country
now lives within
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CVS/minuteclinic.*

CVS Health strengthens its foothold in the primary care market



2006

- Opens its first retail clinic



2009

- Establishes first CVS/minuteclinic health system affiliations



2014

- Purchases company Coram, expands into infusion centers and home infusion
- Changes name to CVS Health to solidify the company’s broader emphasis on care



2015

- Announces plans to buy and rebrand Target’s pharmacies and clinics
- Partners with Teladoc, American Well and Doctor-on-Demand

i. Data shared with HRI by Nancy Gagliano on November 10, 2015.

ii. CVS Health Announcements: Ehley B “Political Pulse: Examining the latest in health care policy every weekday morning” November 13, 2015 <http://www.politico.com/tipsheets/politico-pulse>

iii. PwC Health Research Institute. Healthcare delivery of the future: How digital technology can bridge time and distance gaps between clinicians and consumers, 2014.

iv. <https://www.cvshealth.com/about/history>

v. “CVS Health to Partner with Direct-to-Consumer Telehealth Providers to Increase Access to Physician Care” CVS Health, August 26, 2015, <https://www.cvshealth.com/content/cvs-health-partner-direct-consumer-telehealth-providers-increase-access-physician-care>

In fact, more than one-third (36%) of consumers with a primary care physician told HRI that they have also gone to a retail clinic such as Walgreens or Target for treatment of ear aches, sore throats, cuts and broken bones, and even some monitoring of chronic disease. An overwhelming majority (95%) have been satisfied with the care.

Allegiance to one primary caregiver is waning in today's healthcare maze. Only about half of consumers said that it was very important that they have one clinician to coordinate all their medical needs and the needs of their family.

The other half—including the 81 million Americans that will be living with multiple chronic conditions by 2020¹¹—require a care hub to manage a wide variety of health issues. When 5% of the population consumes 50% of the healthcare dollars,¹² something has to change. Primary care providers could be the change agents, but not using the traditional model. Each patient requires more attention than physicians alone can cost-effectively provide.

Primary care physicians are not being effectively deployed. According to the HRI survey, they spend more than one-third of their time doing something other than providing medical care. Tasks include discussing social barriers to care and behavioral health issues with patients and performing administrative work.

Only 23% said they are highly satisfied with how frequently they are able to work at the top of their training and 40% said they refer patients to specialists somewhat regularly because of staffing and time constraints rather than a health issue.

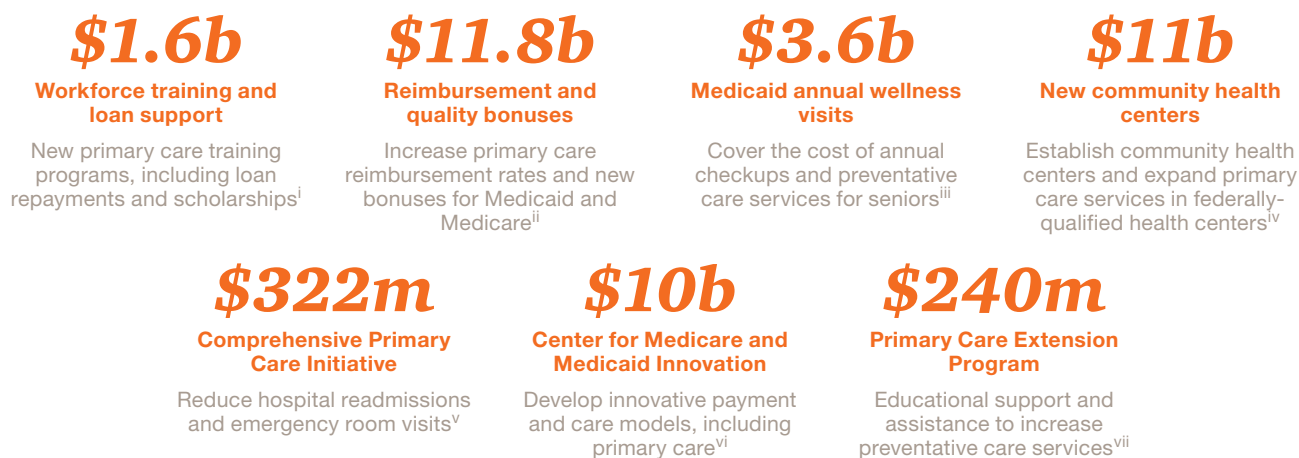
In fact, family practitioners, general internists, pediatricians and obstetricians and gynecologists—traditionally referred to as primary care providers—deliver a fraction of overall primary care services today. Higher cost medical specialists such as cardiologists and pulmonologists provide up to 40% of primary care services in the US to treat the growing number of Americans with conditions such as diabetes, congestive heart failure and chronic obstructive pulmonary disease.¹³

Without a strong primary care backbone in the health system, the emergency department—the highest cost setting for outpatient care¹⁴—continues to be overused. On average, 37% of these visits are for non-urgent services.¹⁵ One study projected that \$4.4 billion could be saved annually if these visits took place in retail clinics or urgent care centers.¹⁶

After years of primary care erosion, the US government and other purchasers are recognizing the value that has been lost. Rather than bolstering the old model, however, the push is toward using technology and consumer preferences to find new approaches. The US government is pumping billions of dollars into primary care improvement and innovation (See Figure 1).¹⁷

New payment models such as the National Council on Quality Assurance's (NCQA) patient-centered medical home model and Medicare accountable care organizations also focus on revving up the role of primary care.¹⁸ Models such as these might get a lift from recent legislation that persuades physicians to practice in an

Figure 1: The US government is pumping billions of dollars into primary care improvement and innovation



i.,ii.,iii.,vii. Abrams, M, Nuzam, R, Mika, S, and Lawlor, G "Realizing Health Reform's Potential" The Commonwealth Fund (January 2011)

iv. US Department of Health and Human Services "Health Centers and the Affordable Care Act" <http://bphc.hrsa.gov/about/healthcentersaca/index.html> and "HHS awards nearly \$500 million in Affordable Care Act funding to health centers to expand primary care services" September 15, 2015 <http://www.hhs.gov/news/press/2015pres/09/20150915a.html>

v. Hancock, J "Mixed Results for Obamacare Tests in Primary-Care innovation" Kaiser Family Foundation. January 30, 2015; <http://khn.org/news/mixed-results-for-obamacare-tests-in-primary-care-innovation/>

vi. Centers for Medicare & Medicaid Services "The CMS Innovation Center" Accessed October 23, 2015 online at <https://innovation.cms.gov/initiatives/#views=models>

alternative payment model to achieve higher reimbursement.¹⁹

Employers are igniting change too. Some large employers are now adding lower cost, more convenient primary care options—such as virtual care—to employee benefit packages. Forty-eight percent of employers will make telehealth services available to employees in 2015.²⁰

The case for change in primary care is evident. This report explains how a segmented market of traditional healthcare organizations and new entrants is responding by bringing innovation to the market and competing for customers.

Today's segmented primary care market: Newcomers and innovative approaches displacing traditional practices

Modern players in primary care

A growing ecosystem of companies that have primary care capabilities is disrupting the market with business models that bank success on convenience, good service and evidence-based protocols. The menu keeps growing across physical and virtual realms, offering a broader team of clinicians and community-based collaborations that are tailored toward consumer preferences.

“Just as the health food aisle once had 100 items and now has 1,000, primary care is now being segmented down to more and more options,” said Chris Stenzel, senior vice president for business development and innovation at Kaiser Permanente, who is responsible for the health system’s retail health strategy.

HRI examined five emerging models in today’s primary care market: Convenient care, in-home care, at-your-service care, and nurse-led care.

Convenient care is well ingrained through retail health clinics and urgent care centers that many consumers rely on in lieu of an appointment with their regular doctor. Visits to these clinics tripled from 2010 to 2014, and the six largest retail chains have put over 1,600 such storefronts on the streets.²¹ An overwhelming number of consumers (95%) are satisfied with the care, and the steady flow is reducing unnecessary visits to emergency departments. Physicians in traditional practice that HRI surveyed concede that these sites have increased access and patient satisfaction.

Cleveland Clinic, Texas Health Resources, and Kaiser Permanente are partnering with retail health clinics to extend their reach into the community. “Now the hospitals and health systems are knocking on their doors to partner versus the other way around,” said Tine Hansen-Turton, executive director of the Philadelphia-based Convenient Care Association.

These health systems use retail clinics to triage patients with lower acuity health issues away from more expensive mothership locations. Some are also developing joint programs to manage patients needing chronic disease management.

House calls are coming back in modern forms, including an Uber-like model of providing on-demand service through a downloaded app. In a 50-year stretch, from the 1930s to the 1980s, house

calls diminished from 40% of all doctor visits to 1%.²² Rather than becoming extinct, however, new companies are finding that there is value in repurposing old-fashioned care for the contemporary patient-consumer.

Although many HRI-surveyed physicians expressed reluctance at home visits, consumers are ready for it. According to the HRI survey, nearly two-thirds of consumers would be interested in having a clinician treat them at home. And new companies are forming to meet this market.

Home care offers fresh alternatives that may prove increasingly competitive, especially among the elderly. A successful government model is paving the way for private businesses to bring healthcare back into the home. The Centers for Medicare and Medicaid (CMS) found that participants saved over \$25 million in the first year of its Independence at Home Demonstration—an average of \$3,070 for each of the 8,400 Medicare beneficiaries that participated. CMS also noted fewer hospital readmissions, more follow-up contact, and less use of inpatient and emergency department services for chronic conditions.²³

“Just as the health food aisle once had 100 items and now has 1,000, primary care is now being segmented down to more and more options.”

Chris Stenzel, Kaiser Permanente

Using slightly different models, many health industry startups are providing in-person visits with the ease and swiftness of on-demand smartphone apps. One company in New York City, Pager, uses Uber to dispatch doctors and practitioners for \$200. The startup recently announced a partnership with Walgreens to expand the retailer's virtual care services in New York City and San Francisco.²⁴ An app called Heal can be downloaded to bring a doctor to the house for a range of nonemergency services such as treating strep throat and stitching lacerations.

Partnerships are already forming. Centura Health, Colorado's largest hospital chain, is teaming up with True North Health Navigation, which offers on-scene care to 911 callers in lieu of a costly ambulance ride to the emergency room.²⁵

The training of fast-responding paramedics to care for people on the scene rather than rushing them to the hospital is a growing trend. Known as community paramedicine, trained paramedics are dispatched in chronic disease management, medication compliance and home safety. They can take vital signs and administer IV medications and work with doctors and others on a team to coordinate future care.

Geisinger Health System's Mobile Paramedic Program in central Pennsylvania is one example. While in the patient's home, the paramedic

enters notes into the electronic health record. If additional clinical support is needed, the paramedics have real-time audiovisual teleconnectivity with Geisinger emergency physicians.²⁶

The program has reduced the rate of admissions and ER visits for heart failure patients by 50%, lowered the 30-day hospital readmission rate for heart failure by 15%, and prevented an estimated \$2.1 million in charges that Medicare would not have reimbursed. Geisinger reported 100% patient satisfaction with the program. A similar program exists in Canada through a partnership between Atlantic Canada and insurance giant Medavie Blue Cross.

Subscription-based, **at-your-service care** focuses on personalized, boutique-like care without the exorbitant fees long associated with traditional medicine. Competing most directly with traditional practices, these lower-cost concierge companies offer consumers shorter wait times and more personal attention. This team-based model treats the "whole" person in one location with short waiting times, savvy technology systems and access to nutritionists, diabetes specialists, and much more.

One Medical offers tech-enabled primary care practices that are focused on improving quality and affordability. The company accepts most forms of insurance and charges a \$150 to \$200 annual fee to support

care that insurers typically do not cover, including wellness coaching and integrative services such as acupuncture and naturopathy to complement medical care. It often partners with employers or insurance firms in half a dozen major cities. The company's founder, Dr. Tom X. Lee, both a physician and an MBA, has created a model that cuts in half the average number of patients seen each day by primary care physicians from 25–30 to 15–16.

Lee claims that One Medical does this at one-third the cost of a traditional practice by reducing overhead through new technology, more efficient processes and a patient-centric design.²⁷

Another newcomer, Iora Health—which targets specific patient populations through relationships with employers, unions and health plans—boasts that it is "restoring humanity to healthcare." Physician CEO Rushika Fernandopulle fears that primary care has turned into a series of transactions. "We want to get rid of the transactions and build the relationships," he said. One of the most important relationships is with a health coach. (See page 9—*Iora Health: Putting value back into primary care one relationship at a time*).

Venture capitalists have given both One Medical and Iora Health a real boost in recent years and 71% of physicians HRI surveyed believe that this model will become more dominant over the next decade.

Digital health has seeded booming businesses in virtual care, remote monitoring, and do-it-yourself home diagnostics. Burgeoning wireless

60% of consumers say they would be open to a virtual doctor's visit

HRI Consumer Survey 2015

Iora Health: Putting value back into primary care one relationship at a time

The ability to build and maintain meaningful doctor-patient relationships is nearing extinction among primary care practices. But in the New Health Economy, Massachusetts-based startup Iora Health—with more than \$48 million in investor backing¹—is breathing life into the way consumers can connect to their care team.

“We want to get rid of the transactions and build the relationships,” Iora CEO Rushika Fernandopulle told HRI.

Co-founded by Fernandopulle – a Harvard-trained physician – in 2014, Iora Health focuses on highly personalized primary care as the key to better health outcomes and happy, empowered patients. Rather than relying on fee-for-service, the company partners with insurers, unions and employers in value-based payment schemes that focus on achieving improved health outcomes for targeted patient populations.

Iora’s model is team-based; meaning that clinicians such as nurses, social workers, nutritionists and diabetes specialists are as important as physicians when caring for patients. At the center is a health coach who, Fernandopulle explained, is responsible for 80% of the patient interactions and ensures continuity of care. The health coach connects patients with specialists and helps them identify activities to achieve their health goals.

Iora practices start the morning with a 30-minute morning staff huddle to discuss patients, group visits, patient-accessible electronic health records and virtual care. Fewer patients allow for longer appointments – which often run a full hour – and patients can view their records on a screen in the exam room, which makes them feel more involved in their care and results in a better dialogue with caregivers.

The different Iora practices closely mirror the needs, characteristics and preferences of the populations they serve (See Figure 2 below). Depending on the complexity of health needs in each Iora group, Fernandopulle said that patient loads range from 600 for the sickest practices to 1,500 for the healthiest, both presenting stark contrasts to the average patient load of 2,300² for a traditional primary care practice.

Services are tailored to each practice. For example, what is simply referred to as yoga class at Iora’s Collective Primary Care practice in New York City is “Hammer Time” to the New England carpenters’ union members at another Iora clinic. Hammer Time is yoga using carpentry tools to remove the potential stigma of such exercise for macho men who suffer from back pain and other musculoskeletal issues. In Nevada, where Iora serves the culinary workers of the Las Vegas strip, the

company has designed specific programs to manage severe or chronic illnesses such as diabetes and congestive heart failure.

Fresh thinking even permeates Iora’s billing practices. Employers and insurers receive a one-line email each month that includes the cost of all the patients’ services instead of separate bills for physician care, lab tests and specialty services.

One health insurance giant has been attracted to the company’s innovative business model: Humana now partners with Iora to deliver care to its Medicare Advantage members at eight locations in Denver, Seattle, Phoenix and Tucson. The insurer already reports seeing positive results.³

Iora’s unique approach is starting to pay off. The number of Iora’s patients with controlled hypertension improved by 25% last year alone.⁴ At one Iora practice, hospitalizations were 37% lower when compared to a traditional practice and two other practices reported a 30% reduction in emergency room visits.⁵ Eighty-five percent of Iora patients say they would recommend the company to a friend.⁶

Iora offers the industry a sneak preview of what outcomes-focused, convenient, and customer friendly should mean for primary care in the future.

Figure 2: The many faces of partnership and population health at Iora Health

Practices	Partners	Location	Patient population
Culinary Extra Clinic	Culinary Health Fund	Las Vegas	Hotel and restaurant casino workers with severe and chronic illness
Dartmouth Health Connect	Dartmouth College, King Arthur Flour, NE Carpenters Fund	New Hampshire	Adults with diverse health needs
Grameen VidaSana	Grameen America	Queens	Hard-working, low-income women in immigrant communities
Hartford HealthCare Health Center	Hartford HealthCare	Connecticut	Hartford HealthCare employees and families
Iora Primary Care (2)	Tufts Health Plan	Massachusetts	Seniors with Medicare Advantage or Senior Care Options plans
Iora Primary Care (multiple)	Humana	Denver, Seattle, Tucson, Phoenix	Seniors with Medicare Advantage Plans, Adults over 55
Iora Primary Care	NE Carpenters Benefits Funds	Dorchester	Members of the New England Carpenters union
Turntable Health	Downtown Project	Las Vegas	Las Vegas residents
Collective Primary Care (2)	The Freelancers Union	New York City	Members of the Freelancers Union health plan

equipment gives all primary care players the tools to compete efficiently. Even so, new companies offering solely virtual care, remote monitoring and telemedicine have become well situated in a short period of time.

Analysts expect the global telehealth market to exceed \$30 billion by 2020.²⁸ Gone are the days when consumers required face time with their doctors; now, 60% of consumers say they would be open to a virtual doctor's visit. Companies such as PushCare, Teladoc, and Doctor-on-Demand bring a doctor to the house through a simple app download.

Government payers and major private insurers are starting to make the shift from physical to virtual. In January, Medicare began reimbursing clinicians \$40 per patient per month for offering patients 24/7 virtual access to care.²⁹ UnitedHealthcare—which provides insurance coverage for more than 45 million people, will start offering telemedicine doctor visits this year in 47 states and the District of Columbia. The American Telemedicine Association estimates that 12 million Americans received such services in 2014, and that number is expected to double in 2015.^{30, 31}

Many of Kaiser Permanente's health systems are already performing more than half of patient visits through mobile, secure messaging or video³² and virtual care accounts for 50–60% of Iora Health's interactions with patients.³³

Telehealth is also connecting care teams to fill knowledge gaps. Leading health systems in both rural and urban areas are using video consultations among physicians, nurses, and other

caregivers—connecting generalists with specialists. For example, Carolinas Healthcare has implemented behavioral health in many of its primary care practices to connect primary care teams with specialists for on-demand advice. Patients can also visit virtually with social workers, psychologists, and behavioral health nurses without having to leave the primary caregiver's office. The health system plans to expand the program to each of its 200 primary care practices.

HRI research shows that consumers and clinicians are placing more faith in DIY at home diagnostic tests for simple ailments such as strep throat, ear infection and urinary tract infection. HRI estimates these tools threaten more than \$64 billion in traditional provider revenues.³⁴

Remote patient monitoring is expected to save the system \$36 billion globally by 2018³⁵ through alerts to clinicians well before a patient's health status turns into an emergency. Companies specializing in remote monitoring promote care delivery models that are built less on the volume of interactions with a patient and more on the volume of patient data that is shared among caregivers.

One-third of the consumers HRI surveyed said that they were interested in a wearable device that could monitor their vital signs and 85% of physicians said that the primary care physician of the future will spend more time using mobile applications and health wearables to monitor patients. Just 10% of physicians surveyed said they rely on remote monitoring devices now.

Nurse-led care has the potential to make a sharp ascent in the primary care market if states continue to relax the restrictions they have on nurse practitioners' ability to practice without physician oversight. By the end of 2014, more than half of states were weighing expanding the clinical duties of nurses.

The master's-trained nursing workforce is blossoming with help from government programs such as the Medicare Graduate Nurse Education Demonstration, which has doubled the number of graduates across five sites since 2012—and the introduction of the doctor of nursing practice degree in 2006. The supply of primary care nurse practitioners is expected to increase by 30% from 2010 to 2020³⁶ and, unlike studies that project major physician shortages, workforce studies for nurse practitioners foretell a surplus.³⁷

“There is a cadre of patients who want to see the primary care physician every time, but that group is shrinking.”

Richard Kalish, MD Lahey Health

A growing number of consumers (75%) say they would be comfortable seeing a nurse practitioner or physician's assistant.³⁸ “There is a cadre of patients that wants to see the primary care physician every time but

that group is shrinking,” said Richard Kalish, MD, of the division of primary care at Lahey Health. Kalish is leading the charge at Lahey to embed elements of the NCQA patient-centered medical home model and extend Lahey’s primary care reach care beyond the traditional office visit.

Two states lead the way in nurse-led primary care: Vermont—where Appletree Bay Primary Care opened its doors in 2014 with seven primary caregivers, all of whom are faculty members of the University of Vermont College of Nursing and Health Sciences—and Indiana where Purdue Family Health Clinics opened

the same year to care for medically underserved regions. Forty percent of primary care physicians in Vermont’s Champlain Valley were not accepting new patients in 2012,³⁹ meaning nurse-led practice in the state has a great deal of room to grow.

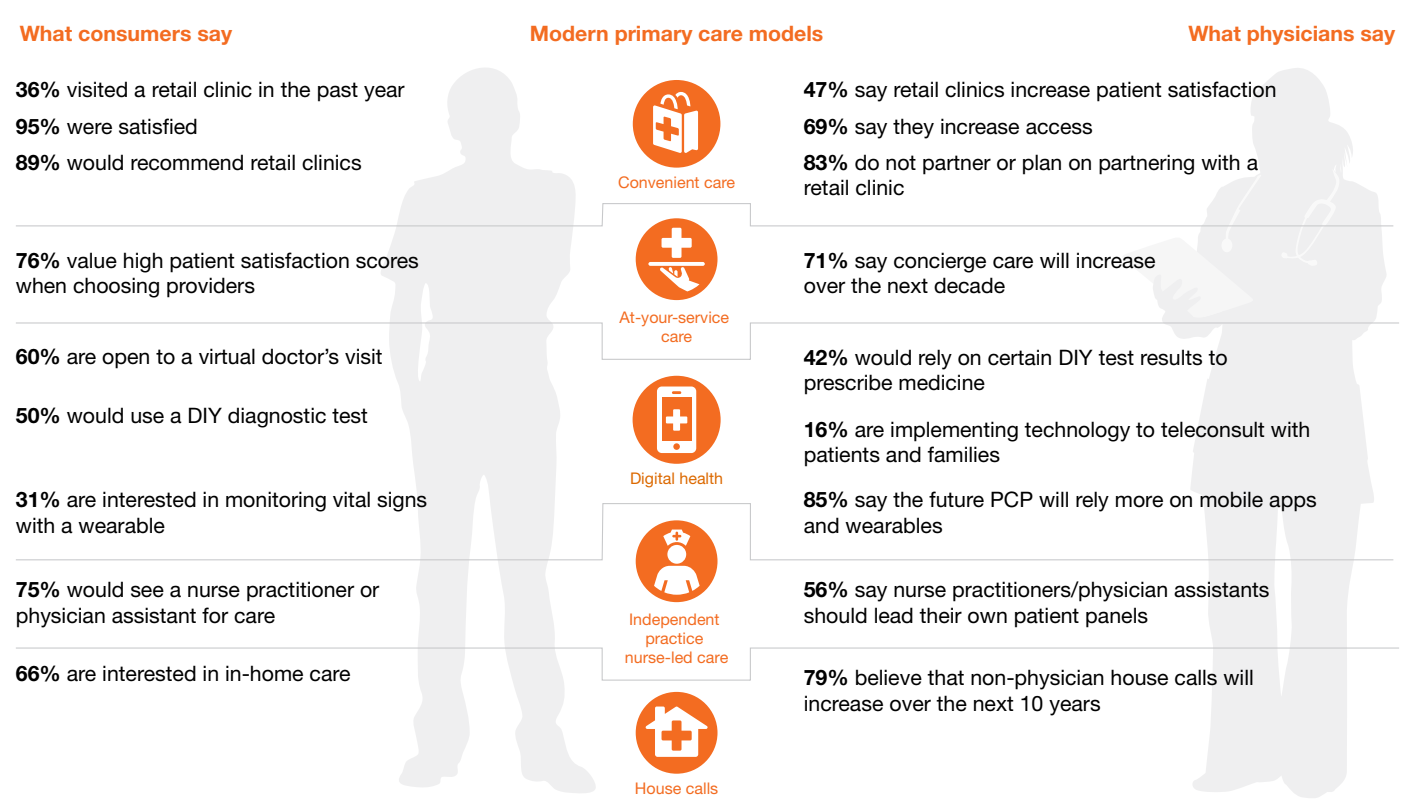
Using nurse practitioners or physician assistants instead of more costly doctors has been estimated to save Massachusetts over \$8 billion in the next decade⁴⁰ and managed primary care delivered by nurse practitioners cost 23% less compared to the average costs of other primary care physicians in Tennessee.⁴¹

Figure 3 below compares how clinicians and consumers feel about HRI’s five emerging models in primary care.

How traditional practices are responding to threats in the primary care market

The NCQA patient-centered medical home and Medicare accountable care organization models—which emphasize efficiency and care coordination through team-based care—have been the most widely publicized attempts by traditional primary care practices to simplify healthcare for consumers, reduce emergency room visits and

Figure 3: Modern primary care models—what clinicians and consumer say



Sources: HRI Consumer Insight Surveys 2013, 2014, and 2015, and HRI Clinician Surveys 2014 and 2015

admissions, and lower overall costs. Medicare recently reported \$400 million in savings from its Pioneer ACOs over two years.⁴² Despite the generally positive results, adoption has been slow.

While most primary care practices cling to antiquated operating models, a minority is starting to realize that new entrants to the health industry herald change and, to survive, older practices must compete with or partner with the newer or risk losing patients. For example, 69% of physicians that HRI surveyed believe non-traditional care models have increased access to care and almost half believe that they have had a positive effect on patient satisfaction.

About one-third of physicians said they have changed their business model to adapt to changing models of care and about one-fifth said they have started providing entirely new services to compete with non-traditionalists (See Figure 4 below).

These practices are investing primarily in virtual care, technology to simplify the administrative nuances of healthcare such as scheduling and billing, and one-stop-shopping conveniences such as co-locating care team offices with lab, imaging, physical therapy and other complementary services.

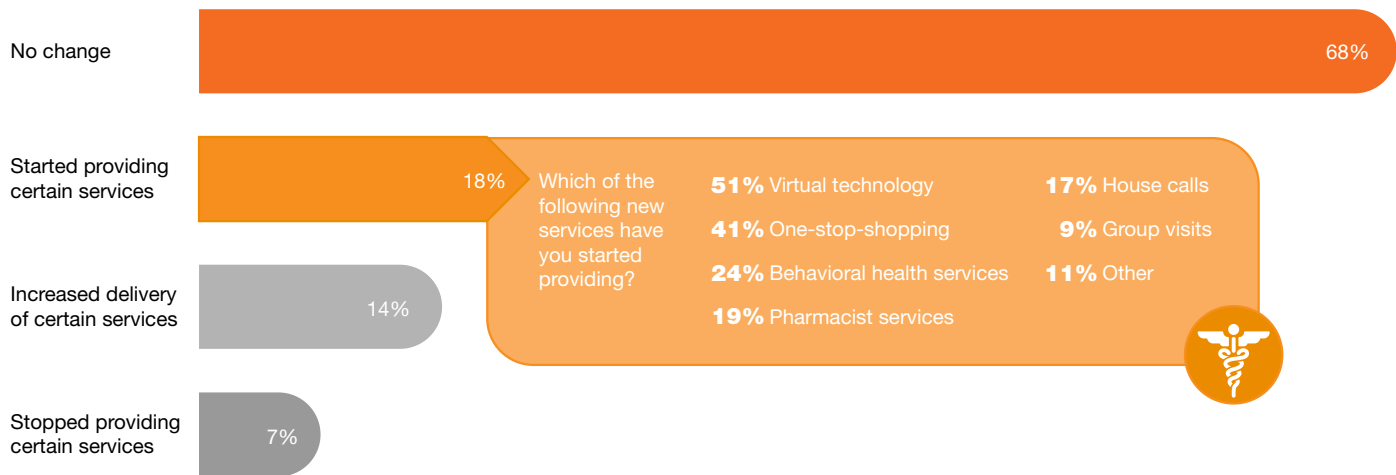
Physicians were more likely to test new services if they were using alternative

payment systems that rewarded clinical outcomes and efficiency rather than traditional fee-for-service payments based on volume. These practices are being incentivized to find more effective ways to deliver primary care.

With the Department of Health and Human Services' goal of shifting more than 50% of fee-for-service payments into value-based reimbursement models by 2018,^{43,44} the health industry might expect to see an increase in the number of primary care practices introducing new services.

Figure 4: How traditional practices are responding to threats in the primary care market

How is your practice changing its business model in response to growth in retail health clinics, concierge medicine services, on-demand telehealth services, and other non-traditional ways to access healthcare? (Select all that apply)



Source: HRI Clinician Survey, 2015

A la carte primary care

In the New Health Economy, consumers, spending more of their own money, are choosing how and where to receive primary care. Instead of one-dimensional, in-person *visits* with a primary care physician, consumers will have multi-dimensional *interactions* with a broader team of caregivers among an array of convenient care sites.

Consumers may log in virtually for care or decide to be examined in the clinician's office or in the home. How these interactions occur will depend not only on the consumer's health

status but on their location, income, age and what they value in care. While the traditional model forces the sick and the healthy into the same location, the growing trend is toward segregating complex care from minor or maintenance care.

To be competitive, both traditional and new players must cater distinctly to seven major consumer markets (shown below). Each market is defined by consumers' primary health issue.

For more information about their demographic profiles, care utilization and spending patterns see Figure 5 on page 14.

Health status should be the main driver of where consumers go for primary care services. The sites they choose will be different for scheduled—or planned—care versus unscheduled, urgent care (See Figure 6 on page 17). Health systems must guide them for both cost and health reasons.

For more insights about how age, geography, income and care preferences impact where consumers will go for primary care in the future, visit HRI's online interactive model at pwc.com/us/futureofprimarycare



Frail elderly

Frail elderly consumers are over the age of 75, living at home and facing health issues related to falls or dementia and suffer generally poor health. At \$92 billion in healthcare spending annually, these retirees are not the health system's most expensive but they are the heaviest utilizers of care services and prescription drugs—with an average of 16 visits and 34 prescriptions fills—and have the highest per capita spending. About 5.8 million consumers, or 1.8% of the American population, meet the definition of frail elderly. Frail elderly patients need intense care management and coordination and are ideal candidates for 24/7 remote monitoring, clinician house calls, and either patient centered medical homes or geriatrician/internist practices with team-based care.



Chronic disease

Consumers with chronic disease have problems affecting a single body system such as hypertension and require uncomplicated disease management. Because of their sheer numbers, these consumers rank first in total spending at \$847 billion each year, however their per capita spending of \$4,800 is much less than that of consumers in the complex chronic disease market. They average seven care visits each year and fill 12 prescriptions. 177 million Americans, or 56%, fit this description and are the wealthiest of the consumer markets. Consumers with chronic disease may benefit from population-based care teams, specialized nurse clinics and retail clinics that offer disease management.



Healthy families

Healthy families are households with healthy dependent children under the age of 18. There are 62 million people living in healthy families in the US and they spend \$70 billion on healthcare each year. They interact with the health system slightly more than Healthy Adult Enthusiasts (described below)—mainly for vaccinations and the occasional cold or sinus infection—but have lower spending per capita at \$1,100. Healthy families will likely gravitate toward digital options and convenient care clinics and value the preventive, wellness and integrative services at-your-service care practices offer.

For more information about HRI's methodology for defining the consumer markets, see page 22.



Complex chronic disease

Consumers with complex chronic disease live with one or more chronic diseases affecting multiple body systems and requiring complicated disease management. These individuals account for \$281 billion in total spending each year, with \$11,000 in per capita spending, the second highest among the seven consumer groups. On average they interact with the health system 12 times and have 30 prescriptions filled. About 25 million Americans, or 8%, are dealing with complex chronic disease." People with complex chronic disease need intense care management and coordination and are ideal candidates for 24/7 remote monitoring, clinician house calls, patient centered medical homes, and nurse-managed clinics.



Mental illness

Consumers with mental illness face depression and mood disorders, post-traumatic stress disorder, addictions and suicidal ideations. These patients spend \$23 billion on care each year and have an average of \$2,500 in per capita spending, have six touchpoints with the system and fills seven prescriptions. About 9.4 million, or 3%, of Americans have a mental illness as their primary health issue. The mentally ill may find a match in medical homes with integrated behavioral health services and may use on-demand telehealth for unscheduled care.



Healthy adult enthusiasts





Healthy adult promoters value a regular physical, wellness/coaching services, and get recommended screenings. These consumers spend approximately \$30 billion on healthcare services annually, average \$1,300 in per capita spending and interact with the health system one or two times throughout the year. About 23 million Americans form this group. Healthy adult enthusiasts will likely gravitate toward digital options and convenient care clinics and value the preventive, wellness and integrative services at-your-service care practices offer.



Healthy adult skeptics

Healthy adult skeptics generally avoid interacting with the health system and are less likely to have health insurance than other consumer groups. This market is approximately 12 million strong with \$7 billion total and \$600 per capita spending. Individuals in this market make visits to the emergency room and are admitted to the hospital at nearly the same rates as Healthy Adult Enthusiasts, but they go to the doctor less often. Healthy adult skeptics are likely to gravitate toward digital health options such as DIY diagnostics and DTC telehealth companies as well as retail clinics and clinician house calls that keep them out of traditional care settings.

Figure 5: The consumer markets for primary care

								Total
	Frail elderly	Complex chronic disease	Chronic disease	Mental illness	Healthy families	Healthy adult skeptics	Healthy adult enthusiasts	
Demographics								
Number of people	5.8m	24.9m	176.3m	9.4m	62m	12.1m	23.1m	313.5 m
Average age	82	49	40	29	22	39	39	---
Average family income	\$44,973	\$58,623	\$73,490	\$70,916	\$67,828	\$63,663	\$69,806	---
Total spending¹	\$92,391.6m	\$280,819.7m	\$846,732.4m	\$23,306.3m	\$70,338.1m	\$7,286.2m	\$29,846.7m	\$1,350,720.9m
Per Capita								
Spending	\$16,010	\$11,284	\$4,803	\$2,490	\$1,135	\$603	\$1,291	\$4,309
Out-of-pocket spending	\$2,050	\$1,197	\$709	\$526	\$167	\$222	\$281	\$610
Spending on care								
Inpatient	\$4,974	\$3,248	\$1,453	\$345	\$493	\$86	\$374	\$1,305
Ancillary ²	\$417	\$722	\$461	\$208	\$74	\$35	\$170	\$359
ED	\$375	\$344	\$210	\$96	\$64	\$86	\$98	\$178
Office	\$2,869	\$2,119	\$1,219	\$804	\$249	\$160	\$267	\$1,006
Other medical services	\$7,375	\$4,851	\$1,461	\$1,036	\$255	\$235	\$382	\$1,461
Care utilization								
Total	15.7	11.9	6.9	5.7	1.6	0.9	1.4	5.7
Discharges	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.1
Ancillary visits	0.8	1.1	0.4	0.2	0.1	0.0	0.1	0.4
ED visits	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0.2
Office visits	13.9	10.2	6.2	5.3	1.4	0.7	1.2	5.1
Prescription drugs (out-of-pocket)								
Retail drug spending ³	\$14,761.5m	\$96,912.3m	\$167,606.7m	\$6,664.6m	\$3,315.3m	\$659.3m	\$3,037.4m	\$292,957.1m
Retail drug spending per capita	\$2,558	\$3,894	\$951	\$712	\$53	\$55	\$131	\$935
Prescriptions per capita ⁴	34.4	30.3	12.0	6.9	0.7	0.7	1.4	10.3

Source: Medical Expenditure Panel Survey, 2012

1. Total spending represents the Medical Expenditure Panel Survey (MEPS) reported total health expenditures for inpatient, outpatient, ED, office-based, provider, prescription drugs, home health, and other medical services.
2. Ancillary includes outpatient medical services.
3. Retail drug spending represents MEPS retail prescription drugs expenditures.
4. The total prescriptions per capita represents MEPS-reported prescription drugs per person, including all refills. For example, if a person has 2 prescription and refilled them each twice in a year, the total prescriptions per capita is listed as 6.

Hispanics: Primary care's consumer mavericks

Hispanics are helping to rewrite the definition of primary care. This fastest-growing US demographic - expected to double in size by 2050¹—presents enormous possibilities for the market with their estimated \$1.5 trillion in purchasing power² and a willingness to go outside of the traditional parameters of the primary care system to find better value. This exodus from the traditional system offers lucrative possibilities for health industry veterans and new entrants looking to test innovative approaches.³

Hispanics will be primary care's consumer mavericks in the New Health Economy, according to HRI's latest consumer survey. Across all income levels and insurance status, the group is poised to outshine other populations. Here is why:



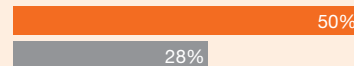
Hispanics pay closer attention to costs.

Price is the most important aspect of care to Hispanics,⁴ and they are willing to act on this preference. The 2015 HRI survey found that 95% of Hispanics believe it is important to obtain an accurate price for health services - compared with 82% of non-Hispanics - and will often ask about cost before going to the doctor or having a procedure done. Hispanics are also more likely than non-Hispanics to rank cost above quality when selecting a medical provider.⁵

Percentage of customers who...

■ Hispanic
■ Non-Hispanic

...ask about the price of a visit before a clinician raises the issue



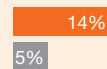
...believe that it is important to receive an accurate cost estimate before getting care



Hispanics are pioneers in mobile health.

Hispanics have adopted mobile health at a faster rate than non-Hispanics, as many other patients are still slow to e-mail their physician or refill a prescription by text message. Additionally, Hispanics are nearly three times more likely than non-Hispanics to use a mobile device for health-related reasons such as scheduling an appointment or purchasing care, and are more willing to use technology to monitor health by checking vital signs or glucose levels.

...use mobile technology to monitor or diagnose a health problem



...use mobile technology to make a medical appointment



...use mobile technology to order a refill of a prescription



Hispanics access a wider door to primary care.

Appreciating convenience over traditional “institutional” medicine, Hispanics willingly gravitate toward lower-cost retail health settings and alternative care providers in the community. According to the 2015 HRI survey, 54% of Hispanic consumers - regardless of income or insurance status- have used a retail clinic at least once in the past year, compared with 33% of non-Hispanics. They are also more likely to rely on non-physicians, such as pharmacists, for care and advice. In the 2014 HRI survey, 66% of Hispanics reported going to the doctor for non-emergency conditions, compared to 76% of non-Hispanics.⁶

...visited a retail health clinic more than once last year



...primarily go to a doctor for non-emergency care*



...would be willing to use videoconferencing to meet with a clinician



Source: *HRI Consumer Insight Survey, 2015 and *HRI Consumer Insight Survey, 2014

Hispanics, with their tech savvy, cost consciousness and willingness to seek care outside of the traditional doctor's office, have sprinted ahead of non-Hispanics in the New Health Economy. And the rapidly growing population—106 million Hispanics in the US by 2050⁷—provide a hefty opportunity for the increasingly segmented primary care market to offer convenience and value.⁸ To compete, companies need to consider low-cost primary care options that rely on a broader team of mobile-friendly health professionals. To learn more about the preferences, values and habits of this diverse consumer group, read HRI's [Hispanics: A growing force in the New Health Economy](#).

What this means for your business

As primary care changes rapidly to offer convenience, higher quality and lower costs, business decisions should be made based on what it takes to stay relevant in the New Health Economy.

Following are four strategies for competing in the new primary care ecosystem:

Know what you're good at and whom to serve: Whichever approach to primary care is taken, traditional healthcare organizations need to inventory their strengths and decide which consumer groups to target. New entrants know how to do this. “We don't see restaurants trying to serve all types of food to all people,” said Iora Health's Fernandopulle, offering an analogy to the highly segmented restaurant industry.

Technology investments can help practices generate deeper consumer insights and develop targeted communications and services. For example, in East Baltimore, Johns Hopkins HealthCare is using customer relationship management software developed for the retail industry to improve population health.⁴⁵

Based on the characteristics of the consumer markets presented above, HRI identified the industry players that are best-positioned to provide these markets with efficient, convenient and value-based care (See Figure 6).

Age, socioeconomic status, geography, preference for care, and health status

shape which care locations are more appropriate for each consumer group. *To evaluate how these factors impact each consumer group, check out the interactive primary care market tool at pwc.com/hri/futureofprimarycare*

Explore new roles: Some industry traditionalists have found expanded roles in the new primary care ecosystem. Community paramedicine is one example. Alii Healthcare's crowdsourced virtual network of emergency room doctors is another.

Founded in 2014 by Sylvan Waller, an ER physician himself, Georgia-based Alii offers a new take on virtual care by tapping into the physician network off hours and connecting them with consumers on-demand through its Bond app for \$100 per visit.⁴⁶

“It's not new, but we're doing it in a new way,” said Waller, referring to the fact that emergency room doctors have always delivered primary care services but that they have done so in one of the costliest, most stressful care settings. Waller says the ability for these doctors to “moonlight in telehealth” helps with burnout.

New roles for nurses, pharmacists, behavioral health specialists and other clinicians are also emerging in progressive primary care models such

as patient-centered medical homes, accountable care organizations and at-your-service care medicine practices.

Primary care teams that successfully use all caregivers at the top of their training and in the most appropriate care settings will likely surpass others with regard to access, affordability, quality and consumer satisfaction.

Primary care physicians should become quarterbacks, efficiently coordinating all aspects of care with keen awareness that the patient's time and energy—not the caregivers'—are the scarce resource.

Alii Healthcare's crowdsourced virtual care network allows ER doctors to “moonlight in telehealth.”

Sylvan Waller, Founder and CEO

Figure 6: Opportunities for industry players to serve HRI's seven primary care consumer markets

Finding the right match in the new primary care ecosystem: Market opportunities for industry players

Consumer market	Type of interaction	Physician practice with team-based care*	Population-based care		Independent practice nurse-led care*	House calls		Virtual Care			Convenient care		At-your-service care	Other
			Patient-centered medical homes	Nurse-managed clinics*		Community paramedicine	Physician/NP house calls	DIY technology	DTC telehealth companies	Remote monitoring companies	Retail clinic	Urgent care clinic		
Frail elderly	Scheduled	Geriatrician Internist												
	Unscheduled													With primary caregiver consult
Complex chronic disease	Scheduled	Internist												
	Unscheduled										With health system partnership			With primary caregiver consult
Chronic disease	Scheduled	Family practitioner, Internist												
	Unscheduled										With health system partnership			
Mental illness	Scheduled	Psychiatrist	With behavioral health services		With behavioral health services									
	Unscheduled													With primary caregiver consult
Healthy families	Scheduled	Pediatrician, Family practitioner												
	Unscheduled													
Healthy adult enthusiasts	Scheduled	Family practitioner												
	Unscheduled													
Healthy adult skeptics	Scheduled													
	Unscheduled													

Source: Medical Expenditure Panel Survey Datasource, 2014

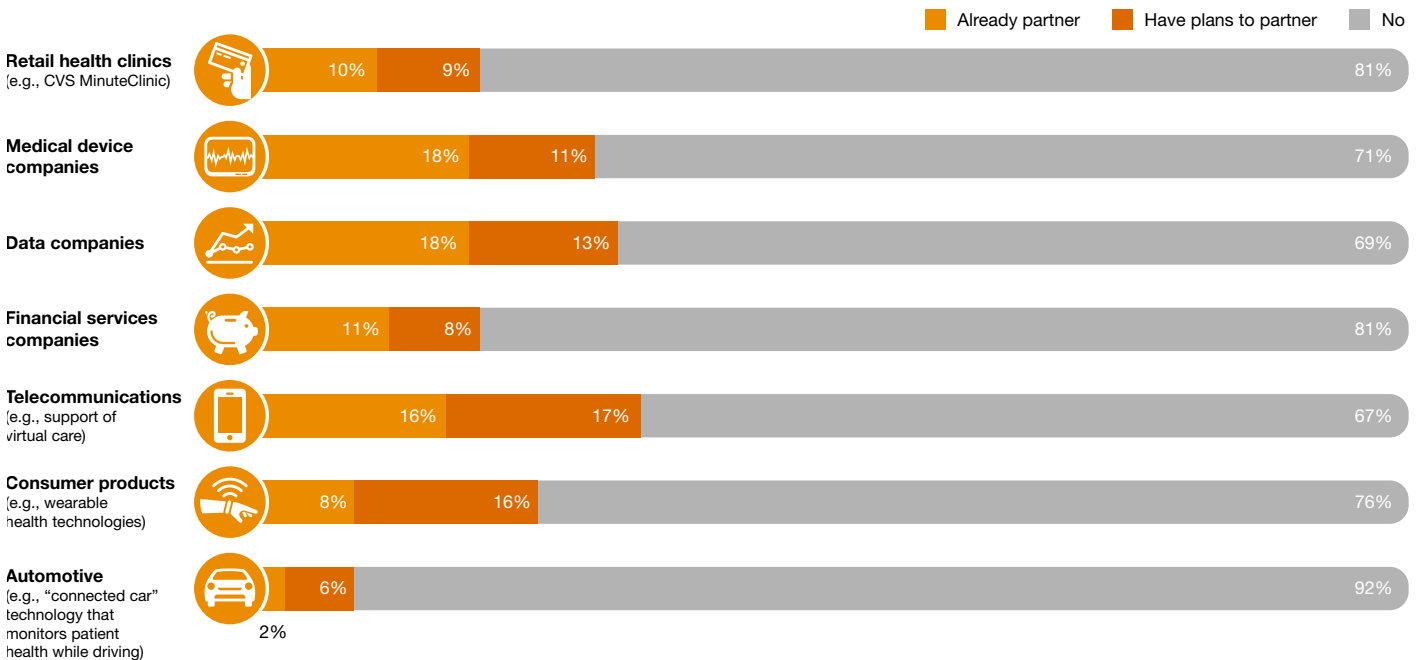
***Physician practice with team-based care:** Traditional primary care practices are expected to look quite different in the future, relying on a broader team of caregivers, technology and consumer insights to deliver more personalized care while managing population health. With a team-based model, practices can elevate the primary care physician's role to that of air traffic controller, triaging and coordinating a patient's care across various sites.

***Nurse-managed clinics:** The master's-trained nursing workforce is blossoming with help from government programs and graduating highly specialized nurses. In physician practices, these nurses can lead group visits for patients with similar health conditions and needs, ranging from diabetes and heart failure clinics to newborn and prenatal groups. Generally, nurses managing these population-based clinics perform their work with physician oversight.

***Independent practice nurse-led care:** This includes nurse practitioners with advanced training that have their own independent practice in an office setting with no physicians. These independent practices have the potential to make a sharp ascent in the primary care market if states continue to relax restrictions on nurse practitioners' ability to practice without physician oversight.

Figure 7: How traditional players are joining forces with new entrants to the health industry

Does the organization you work for partner with or have plans to partner with any of the following companies to deliver patient care or manage health?



Source: HRI Clinician Survey, 2015

Partner where it makes the most sense: Some physicians are partnering with industry newcomers with tried and true approaches to expand their market footprint. (See Figure 7). Physicians providing new services were more than twice as likely to be partnering with new entrants, especially from telecommunications, medical device and the data industry.

New entrants are also teaming up. Two retailers are moving beyond bricks and mortar by blending virtual and storefront. Earlier this year CVS Health announced a partnership with direct-to-consumer telehealth giants American Well, Doctor-on-Demand and Teladoc to offer consumers and health systems' partners even more options for primary care.⁴⁷ Through a

partnership with MDLIVE, Walgreens now offers 24/7 access to MDLIVE's network of primary care clinicians and has plans to make it available to users in 25 states by the end of 2015.

Finding partnerships with community organizations such as schools, churches and community centers will also be important for the primary care strategies of traditional health systems and newcomers alike.

Pull it all together: Nearly half (48%) of physicians that HRI surveyed believe that non-traditional care settings have had a negative impact on care coordination. But segmentation in the primary care market should not be synonymous with fragmentation. To achieve desired outcomes and manage

costs, healthcare organizations cannot be just a piece of the care puzzle; they must solve this puzzle for the patient. The primary care market should operate as an ecosystem, a diverse yet interconnected system of providers poised to deliver a comprehensive mix of remedies that address the health needs of the whole person. Fixing only one health problem in isolation might exacerbate other health issues.

"Integrated care delivery must be done holistically," said Jeffrey Selevan, MD, retired medical director of business management of the Southern California Permanente Medical Group. "If not you will realize you have just displaced care from one venue to another."

The future of care will be based on a triage system that rearranges the traditional patient office visit to the most appropriate, least expensive human resources and sites of care. Kaiser Permanente, which operates on a capitated payment rather than fee-for-service, does just that. As part of its

primary care strategy with retail giant Target, the health system has linked its scheduling systems with Target's.

"It's the missing link in retail care," said Kaiser's Stenzel. "No one wants to go and find out they should have gone somewhere else."

CVS Health is filling data gaps between retail care settings and its partner health systems. If a patient from one of its partners seeks care at a CVS/minuteclinic anywhere in the country, the patient may have his record sent to his primary caregiver.

Conclusion

In the New Health Economy, to both improve the nation's health and respond to purchaser pressures, primary care must resume its once-prominent role. With demand rising, some have made dire predictions about physician shortages.

But the old formula no longer applies. The industry needs a new calculus that makes greater use of technology, broader care teams, more convenient care settings and the power of consumer choice.

Even the best primary care providers are facing new challenges: battling on the grounds of cost, convenience and customer service. And while healthcare payment models shift financial risk onto providers as they face an older, sicker population, health systems are looking to primary care teams to intervene earlier and manage conditions more effectively.

The market for primary care is changing, and who survives will depend on several factors. Health systems will need to offer a la carte primary care according to consumer characteristics, needs and preferences—and do so in a coordinated fashion.

Companies that know their strengths and scope out which consumer markets they are best positioned to serve are likely to have the advantage. Those that know how to partner wisely and connect into a larger ecosystem to deliver comprehensive and coordinated care are expected to be at the forefront of improving health outcomes, driving down overall costs and delivering the value consumers and purchasers require.

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University of Pennsylvania

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Susan Edgman-Levitan, PA
The Stoeckle Center

Janet Engle, PharmD
University of Illinois at Chicago, College
of Pharmacy

Rushika Fernandopulle, MD
Iora Health

Nancy Gagliano, MD
CVS Health

Tine Hansen-Turton, JD
Convenient Care Association

Toby Hervey
Pager

Jeannette Ickovics, PhD
Yale University

Tom Lee, MD, MBA
One Medical

Sharon Phillips, MBA, RN
Parkland Hospital

Jim Puffer, MD
American Board of Family Medicine

Lee Shapiro, JD
7 Wire Ventures

**Chris Stenzel, MBA and
Jeffrey Selevan, MD (retired)**
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Ken Thorpe, PhD
Emory University, Rollins School of
Public Health

Sylvan Waller, MD
Alii Healthcare

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About this research

In the summer of 2015, PwC's Health Research Institute commissioned two surveys: one of 1,000 US adults representing a cross-section of the population in terms of age, gender, income, and geography, and a second of 1,500 US clinicians representing a cross-section of provider types, ages, gender, and geography. Through these survey, HRI assessed consumer and clinician preferences, beliefs, and attitudes related to the primary care delivery.

HRI used the 2012 Medical Expenditure Panel Survey reported by the Agency for Healthcare Research and Quality (an HHS agency) to define seven consumer markets for care. HRI defined the seven markets using MEPS condition codes. HRI identified MEPS survey respondents with a diagnosis of any condition code for each of the seven markets. Respondents were then formally mapped to the markets using a cascading methodology to ensure that each patient was only mapped to one of the seven markets.

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Health Research Institute

Kelly Barnes

Partner
Health Industries Leader
kelly.a.barnes@pwc.com
(214) 754 5172

Trine Tsouderos

Director
trine.k.tsouderos@pwc.com
(312) 298 3038

Ben Comer

Senior Manager
benjamin.comer@pwc.com
(919) 791 4139

Sarah Haflett

Senior Manager
sarah.e.haflett@pwc.com
(267) 330 1654

Adrienne Daniels

Research Analyst
adrienne.r.daniels@pwc.com

Miles Kopcke

Research Analyst
miles.a.kopcke@pwc.com

Darshan Patel

Research Analyst
darshan.r.patel@pwc.com

Georgia Stoyanov-Herold

Research Analyst
georgia.herold@pwc.com

Jack Rodgers, PhD

Managing Director, Health Policy
Economics
jack.rodgers@us.pwc.com
(202) 414 1646

Kristen Bernie

Manager, Health Policy Economics
kristen.s.bernie@pwc.com

HRI Regulatory Center

Benjamin Isgur

Director
benjamin.isgur@pwc.com
(214) 754 5091

Alexander Gaffney

Senior Manager
alexander.r.gaffney@pwc.com
(202) 414 4309

Laura McLaughlin

Senior Manager
laura.r.mclaughlin@pwc.com
(703) 918 6625

Matthew DoBias

Senior Manager
matthew.r.dobias@pwc.com
(202) 312 7946

HRI Advisory

William Falk, Partner

Kulleni Gebreyes, MD Principal
Lawrence Hanrahan, MD Principal
Vaughn Kauffman, Partner
Simon Samaha, MD Principal
Jon Souder, Director
Harlan Stock, MD Manager

Other contributors

Chris Van Pelt

Elise Gonzales
Elizabeth Kaczmarek, PharmD
Caroline Piselli, DNP
Subhadeep Sarker
Barb Page
Karen Montgomery
Nicole Norton
Ryan Lasko

**To have a deeper conversation
about how this subject may affect
your business, please contact:**

Kelly Barnes

Partner, Health Industries Leader
kelly.a.barnes@pwc.com
(214) 754 5172

Kulleni Gebreyes

Principal
kulleni.gebreyes@pwc.com
(703) 918 6676

Vaughn Kauffman

Principal
vaughn.a.kauffman@pwc.com
(440) 258 2729

Simon Samaha

Principal
simon.samaha@pwc.com
(646) 471 1614

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