ROI for primary care: Building the dream team

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No longer viewed as a cost center, well-designed and smartly deployed primary care teams can yield a true return on investment in the evolving New Health Economy.

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Heart of the matter

The US health industry is becoming more consumer-centered and value-based, driving healthcare providers to rethink their business models. Primary care is a key component of success in this New Health Economy, and can even generate a return. But to do that, healthcare providers should dramatically broaden their primary care teams, rely less on primary care physicians and design their programs to truly serve consumer desires and needs.

The US health industry has long viewed primary care as a cost center. That's changing as payers and consumers demand more value from healthcare providers, and primary care becomes a critical part of making value-based payment models work. But healthcare providers should reconsider–and broaden–the makeup of their primary care teams and develop a deep understanding of the consumers they serve. With these shifts, primary care can generate a return on investment and serve as a sound foundation for a value-based strategy.

An analysis by PwC's Health Research Institute (HRI) found that a primary care dream team designed around the needs of complex chronic consumers, for example, could potentially result in $1.2 million in savings for every 10,000 patients served. Designed with consumer needs and preferences in mind, the primary care dream team can bring together wellness, prevention and healthcare to address the whole person.

This report is based on a survey conducted in 2015 of 1,500 American primary care physicians, specialists, nurse practitioners, physician assistants and pharmacists as well as a survey of 1,750 American consumers conducted in the summer of 2016. The report is also based upon insights from interviews with healthcare executives from throughout the US health industry.

HRI found that:

- Most primary care teams are not designed to optimize care or meet consumer demands for convenience and value.
- Clinicians and consumers are ready to embrace broader care teams.
- Healthcare organizations should build their primary care dream team based on the interplay of consumers' medical, social and behavioral health needs and preferences.
- Healthcare organizations should assess the impact of a primary care dream team on their business model and understand how knowing their consumers, market dynamics and capabilities can help them achieve target ROI.

Healthcare organizations with primary care dream teams will better meet payer and consumer demands for value in the New Health Economy, and will also will find they provide a solid footing for value-based strategies.

An analysis by PwC's Health Research Institute found that a primary care dream team designed around the needs of complex chronic consumers, for example, could potentially result in $1.2 million in savings for every 10,000 patients served.

Today's primary care won't work tomorrow

Healthcare workforce estimates are physician-centric and fall short in considering advancements in care delivery models.[1] Historically, industry experts based the need for physicians on a broad-brush "per 10,000 US population" calculation.

While today's demand models consider other factors such as geographic distribution and availability of specialists, they also often overstate the demand for primary care physicians. The Association of American Medical Colleges estimates that the country needs nine primary care physicians for every 10,000 Americans. Advanced primary care models, such as patient-centered medical home models designed around the unique medical needs of distinct patient populations, average 6.1.[2]

But the calculus is evolving as the health industry transforms. "Demand [for physicians] is getting harder to estimate with the rise of different models of care," said Travis Singleton, senior vice president at Merritt Hawkins, a Dallas-based physician search firm. "It makes staffing more complex."

Today's primary care doctors are not being deployed effectively. HRI's 2015 clinician survey found that they spend more than one third of their time on administrative work, discussing behavioral health issues with patients, and addressing patients' social barriers to care such as poor transportation, lack of child care and food insecurity.[3]

"Most physicians choose their career because they want to help patients," said Marc Boom, M.D., president and CEO of Houston Methodist. "All too often, however, we are asked to solve issues unrelated to actual patient care, taking away valuable time we could spend improving our patients' health. Practicing at the top of the license is something we all say, but we have way too many physicians practicing at the bottom."

The fee-for-service approach to primary care tends to overemphasize treatment of acute problems rather than managing and preventing disease. This means most primary care teams are not designed to optimize care or meet consumer needs. "Access goes beyond just getting into a clinic," said Gay Johnson, chief executive officer of the National Association of Nurse Practitioners in Women's Health (NPWH). "It's about matching the right clinician to the right patient and circumstance."

A lot must change for consumers to find their match.

Physicians generally have been hesitant to share their workload with non-physicians. This is partly because the fee-for-service system historically has not reimbursed care by non-physicians. Some physicians also are unclear about what non-physicians are trained to do. But that's changing. "We are moving toward a system where everyone is encouraged to practice at the top of their training," said said David Farmer, director of interprofessional education at the University of North Texas. "It gives them the ability to recognize and value the contributions that each team member can make in patient care."

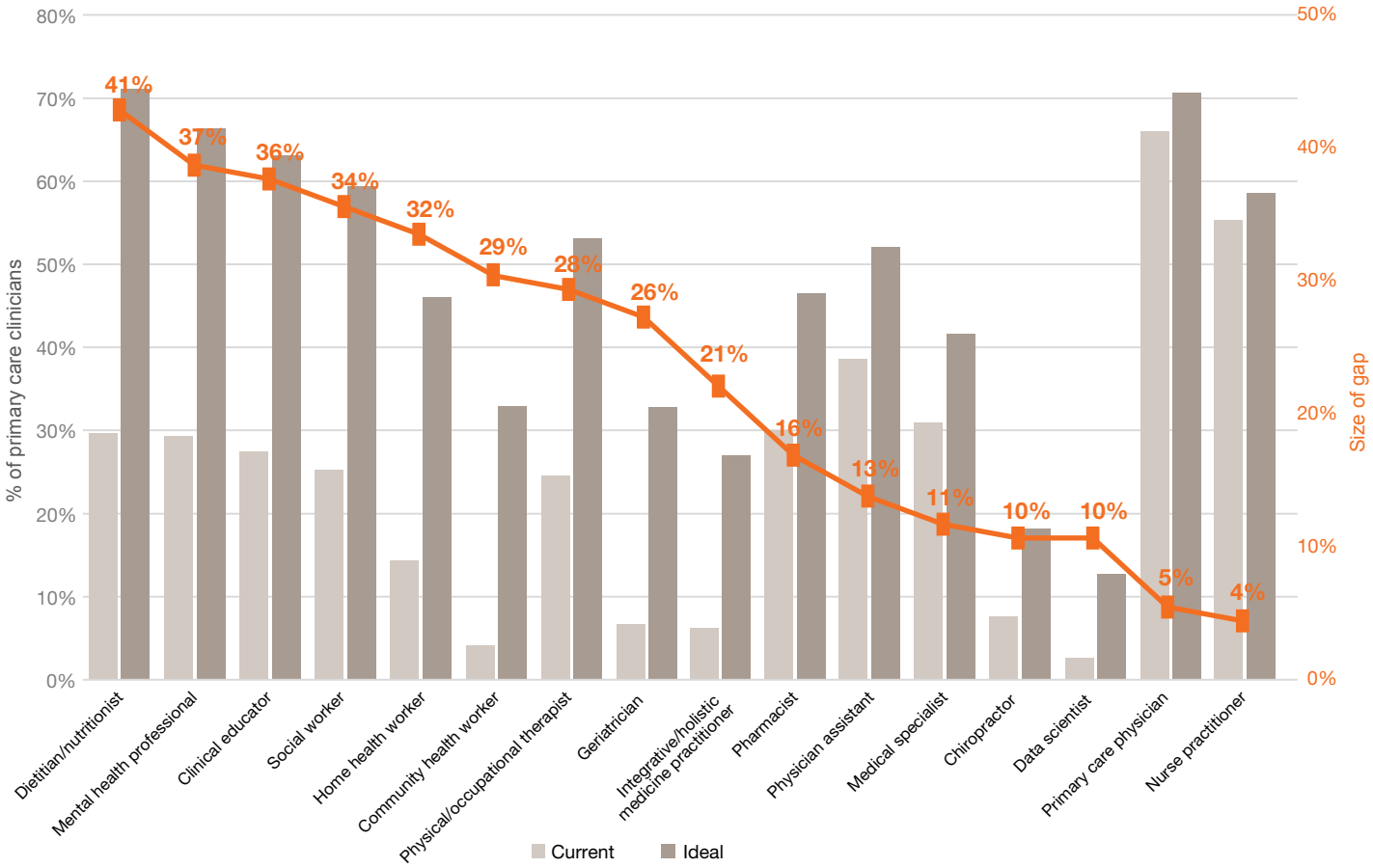
New medical schools at The University of Texas (including Rio Grande Valley School of Medicine and Austin Dell Medical School), Florida International University, Rowan University and others are focusing on training students for team-based care.[4] These schools' curricula often focus on community settings, showing students how to effectively use other clinicians and technology to care for different populations of patients.

Primary care physicians do see value in bringing non-physicians on board, according to HRI's survey of clinicians. Although few practices employ them today, dietitians, mental health professionals, clinical educators, social workers and physical and occupational therapists top clinicians' list of the non-physicians to include on the "ideal" primary care team if cost were no issue (see Figure 1).

> ***"'Practicing at the top of the license' is something we all say, but we have way too many physicians practicing at the bottom."***
>
> *Marc Boom, CEO, Houston Methodist Hospital*

Figure 1: Clinicians want broader care teams – and dietitians, clinical educators and mental health professionals top the list

Affordability aside, which of the following professionals are on your primary care team today/would be on your ideal primary care team? Please select all that apply.



Sources: HRI 2015 Clinician Survey.

Advanced care delivery models, such as patient-centered medical homes and accountable care organizations, have been pioneers in team-based care; they have broadened their teams of clinicians to include pharmacists, behavioral health specialists and social workers to meet consumers' needs and improve adherence to treatment plans. But even these models are limited in getting the most out of primary care: They have garnered praise for reducing costly hospital admissions and emergency room visits, for example, but have not always yielded net savings.[5]

> ***"Access goes beyond just getting into a clinic. It's about matching the right clinician to the right patient and circumstance."***
>
> *Gay Johnson, chief executive officer of the National Association of Nurse Practitioners in Women's Health (NPWH)*

What do American health consumers want and need?

According to HRI's survey, consumers enjoyed seeing health professionals besides their primary care doctors. In general, they found pharmacists and speech, occupational and physical therapists particularly helpful toward reaching their health goals.[6]

These other professionals addressed their social, behavioral and consumer preferences – parts of their lives that matter to them but are rarely addressed by the primary care system today. "We have complicated [healthcare] so much because we've focused on the physical," said Patricia Driscoll, professor of health systems management at Texas Women's University.

Consumers can be grouped into seven primary care markets, from frail elderly consumers to members of healthy families. These consumers each have distinct needs, many of them not medical (see Figure 2). Primary care teams must focus on what is important to each group of consumers, including how and where they want to receive care, and how to manage competing demands that could interfere with carrying through with treatment plans. "We need to help consumers identify alternatives without overburdening them with medical interventions," Driscoll said.

Figure 2: Comparing primary care consumer groups: Medical, social, behavioral and consumer preference characteristics

		Frail elderly Over the age of 75, living at home, facing health issues related to falls or dementia and suffering generally poor health	Complex chronic Have one or more chronic diseases affecting multiple body systems and often requiring complicated disease management (e.g. CHF, COPD, DM with end-stage renal disease)	Chronic disease Have problems affecting a single body system such as hypertension and require uncomplicated disease management	Mental Health Mental illness is primary health issue versus comorbid condition. Face depression and mood disorders, post-traumatic stress disorder, addictions and suicidal ideations	Healthy families Households with healthy dependent children under the age of 18	Healthy adult enthusiasts Value a regular physical, wellness/coaching services, and get recommended screenings	Healthy adult skeptics Generally avoid interacting with the health system and are less likely to have health insurance than other consumer groups
Weighted number of people No. of visits per capita Spending per capita		5.9mn 15 $14,919	24.8mn 13.3 $12,308	175.1mn 7.7 $4,914	9.4mn 5.6 $3,012	65.4mn 1.7 $1,254	22.6mn 1.6 $1,245	12.5mn 1.1 $705
Medical	Have at least one condition highly impacted by diet	●	◑	◔	○	○	○	○
	Report wanting help to manage their weight	◔	◔	◔	◔	◔	○	◔
Social	Decided not to seek medical care due to cost at least once in the past year	◑	◔	◔	◑	◑	◔	◑
	Report wanting a care navigator	◔	○	○	○	◔	○	○
Mental health	Report wanting help with a mental health issue	◔	◔	○	◑	○	○	○
Preferences	Interested in DIY diagnostics, if it reduces cost of care	◕	◕	◕	◑	◕	◑	◑
	Interested in telemedicine, if it reduces cost of care	◑	◑	◑	◑	◑	◔	◑
	Interested in home health if it reduced insurance cost	◑	◑	◑	◔	◑	◑	◔
Medication	Report wanting help with understanding how to take their medications	◔	○	○	◔	◔	○	○
	Decided not to fill a prescription due to cost at least once in the past year	◑	◔	○	◔	◑	○	◔
	Number of perscriptions per person	36	32	12	6	1	1	1

Key: ○ < 20% ◔ 21-40% ◑ 41-60% ◕ 61-80% ● 81-100%

Source: HRI analysis of the 2013 Medical Expenditure Panel Survey; 2016 HRI Consumer Survey. For more detail, see table in Appendix on page 11.

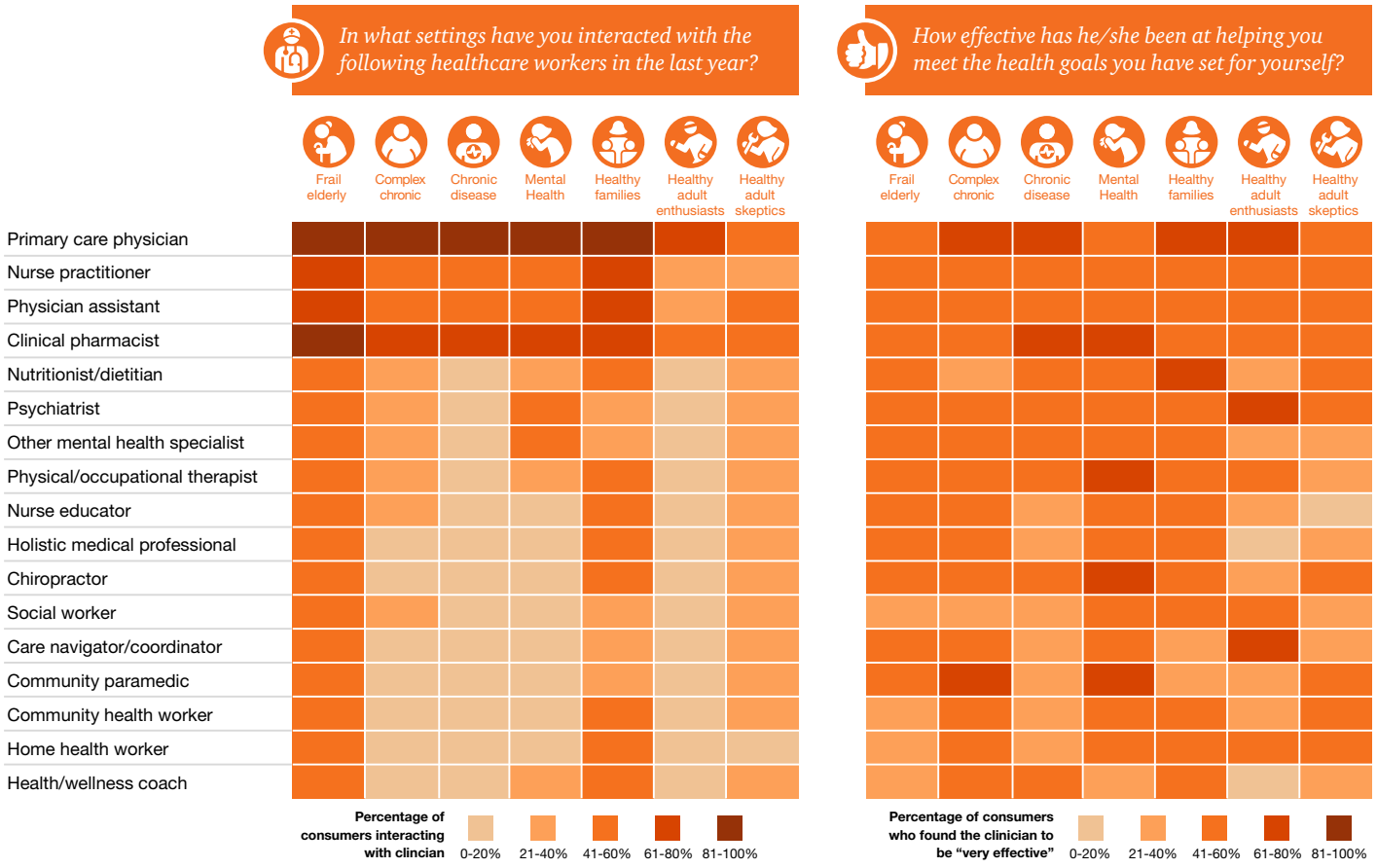
Many consumers are comfortable with non-physicians delivering direct care. Seventy-five percent of consumers surveyed by HRI previously said they would be comfortable seeing a nurse practitioner or physician assistant instead of a physician for certain services. Fifty percent said they would see a pharmacist.[7]

While the majority of consumers interacted mostly with the familiar cast of physicians, specialists, nurse practitioners and physician assistants, those who did see a broader spectrum of professionals thought they were at least moderately effective at helping them achieve their health goals (see Figure 3).

For example, most consumers with a primary diagnosis of mental illness said they saw their primary care physicians and pharmacists during the previous year, but those who also interacted with physical therapists and community paramedics found them at least as effective as their doctors. Some felt they were more helpful than their doctors. Healthy adult skeptics, who generally try to avoid the healthcare system, saw few clinicians in the past year, but declared themselves most impressed with dietitians.[8]

Consumers did not rate all of their health professionals as effective. Healthy adult skeptics who had seen mental health specialists said these professionals were only mildly effective at helping them meet their health goals. Frail elderly consumers were similarly dissatisfied with community health workers and social workers when they saw them.[9] These examples signal opportunities to improve such interactions to meet consumers' needs.

Figure 3: Consumers indicate which clinicians they saw for care during the last year, and how effective they perceived them to be



Source: PwC 2016 Consumer Survey

Primary care teams designed for consumers—and value

To be cost-effective, a primary care dream team that takes into account consumer preferences and their complex health needs should be heavy on non-physicians. This team should have three parts – a core team, an extended care team and a community connector team.

Different consumer markets will require different team rosters based on their whole health needs. Consumers' interactions, or touchpoints, with the teams will be distributed more broadly for sicker populations and less broadly for healthier populations.

For example, frail elderly consumers would likely interact most often with geriatricians, care navigators that coordinate services on their behalf, and community paramedics trained to provide home-based medical care to prevent unnecessary trips to the ER. These consumers would interact somewhat often with clinical pharmacists, dietitians and mental health specialists, and rarely with nurse practitioners, nurses and medical assistants.

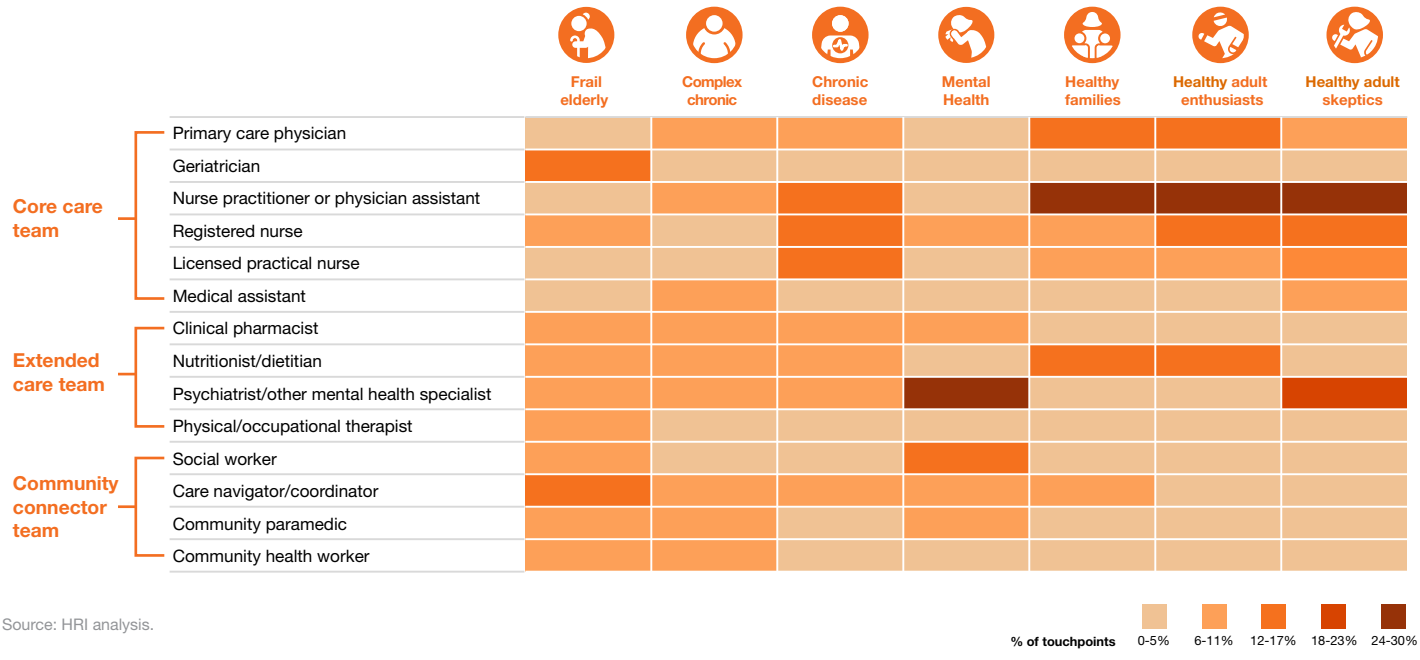
A consumer who is part of a healthy family, by contrast, would interact most frequently with nurse practitioners and physician assistants, somewhat frequently with physicians, nurses and dietitians, and rarely – if at all – with community health workers or clinical pharmacists (see Figure 4).

In this model, primary care physicians would spend less time directly interacting with patients as non-physicians increasingly are involved. Clinicians surveyed by HRI said that they expect that primary care doctors will play elevated roles over the next 10 years. Sixty-four percent of clinicians believe primary care doctors will spend more time triaging consumers to other caregivers, according to HRI's survey. Seventy percent say they will spend more time as consultants to teams caring for consumers, and half believe they will spend less time providing in-person care.[10]

Primary care doctors will likely offload administrative activities, address the social determinants of care, and refer patients to expert non-physicians for guidance on issues such as diet and nutrition, prescription drugs and mental health (see Appendix A: A guide to non-physicians on the primary care dream team). This will allow them to spend more time designing care plans and addressing patients' complex medical issues. Primary care doctors with healthier panels will be able to see more of them, while those with sicker panels will see fewer but spend more time with each person.

Figure 4: How consumers' primary care touchpoints will be distributed across the dream team

Distribution of patient touchpoints with the primary care dream team



Source: HRI analysis.

What this means for your business: True ROI for primary care

In a value-based environment, primary care can generate a return. HRI estimates that a primary care dream team serving 10,000 patients, including 800 patients with complex chronic conditions, has the potential to save $1.2 million a year. Most of these savings come from prevented admissions and visits to the emergency room (see Figure 5).

Some pioneering healthcare organizations – Group Health Cooperative in Seattle, Geisinger Health System in rural Pennsylvania, Partners HealthCare in Boston, Vermont Blueprint for Health and the US Department of Veterans Affairs – have found ways to make investing in primary care teams pay off.[11]

In all cases, these organizations developed clinician payment incentives to support expanded care teams for specific groups of patients. Some own a health plan. Others entered into risk-based contracts with government and commercial insurers. Still others partnered with employers or unions in shared savings arrangements.

These organizations succeeded in reducing inpatient admissions by 6 percent to 21 percent. They reduced emergency department visits by 20 percent to 31 percent. HRI's model pulls from these organizations' experiences, and finds true returns for broad primary care teams.

Figure 5: A primary care dream team for complex chronic disease consumers could result in up to $1.2 million in savings per 10,000 population (illustration)

Opportunity generated by a primary care dream team for complex chronic disease consumers

10,000	Total patients served
800	Total complex chronic patients
240	Total complex chronic admissions
$44,000	Spending per admission among complex chronic top spenders (20% of complex chronic patients account for 70% of spending)
24	Assume 10% reduction in admissions is achieveable (based on leading models)
$1,100,000	**Decrease in spending due to reduction in inpatient admissions**
400	Total complex chronic ED visits
$1,400	ED spending per visit
80	Assume 20% reduction in ED visits is achieveable (based on leading models)
$110,000	**Decrease in ED spending, assuming 20% reduction**
$1,210,000	**Total savings opportunity**

Incremental costs

$121,000	Network management, additional overhead (10%)
$605,000	*Incremental care team labor (50%)*
$484,000	**Reinvest (e.g., profit, technology, etc.) (40%)**

Possible configuration of incremental staff to form a primary care dream team for complex chronic disease consumers (based on staffing ratios of leading programs)

Role	Labor cost	FTEs
Nutritionists	$62,000	0.8
RN care managers/navigators	$290,000	3.2
Social workers	$57,000	0.8
Pharmacists	$31,000	0.2
Behavioral health specialists	$42,000	0.8
Community health workers	$123,000	2.9
Total	**$605,000**	**8.7**

Source: HRI analysis of the 2013 Medical Expenditure Survey data and staffing and outcomes ratios of leading care models.

Notes: This is an illustrative example. Results will vary based on market dynamics, technology capabilities, and risk tolerance. Excludes potential incremental primary care or specialty care revenue. Excludes potential impact of remote patient monitoring technology or the use of community paramedics, which could result in additional savings. Assumes that hospitals can replace lost inpatient volume by redirecting pent up demand and continue to operate at high capacity and improve their returns on fixed costs.

To succeed in this new model for primary care, healthcare organizations should take the following steps:

1. ***Understand consumers:*** Organizations should segment their populations into the seven consumer markets and design primary care dream teams around them. Then, they should create customer experiences that influence consumers to use the primary dream team as intended – to keep them healthy, out of the emergency room or inpatient bed, and to keep costs down. They should create enduring customer experiences, shifting from episodic to continuous engagement. Healthcare organizations should focus as much on improving the factors around the caregiver-patient interaction as on the interaction itself.
2. ***Understand the impact and consequence:*** Healthcare organizations should create business cases for primary care by understanding how such a dream team strategy could impact their business model. Optimizing primary care will likely create excess capacity in hospitals, such as in emergency departments. Organizations also should prepare for a "new normal" in integrated delivery systems that could result in lower margins and lower revenue.[12] Unnecessary admissions increasingly will become unwanted burdens on the delivery system. Organizations should actively replace lost volume by increasing share in the markets they are best positioned to serve.
3. ***Market dynamics should be part of the calculation.*** Healthcare organizations should ask what returns they need from the primary care dream team and what combination of volume and upside risk will allow them to achieve it. In markets that are dominated by payers pressuring providers to achieve lower costs of care, providers will be better positioned to adopt the new primary care model because the network management infrastructure already exists. In markets that are dominated by healthcare providers, providers should pursue risk-based arrangements with payers or potentially build their own health plans.[13] In markets with no clear dominant player, most providers will likely be pushed to consider cooperating with competitors to achieve economies of scale.
4. ***Use data and analytics to design, deploy and deliver:*** Healthcare organizations should deploy technology to stratify consumers and discover where cost-saving opportunities lie. They should determine the mix of services and staffing approaches to optimize care, and then deliver care efficiently.

Partners HealthCare uses a proprietary algorithm to identify high-cost utilizers.[14] Cedar Gate Technologies uses actuarial methodologies and predictive analytics to find care and network management approaches that are expected to have the greatest impacts on the greatest number of patients within set profitability targets.[15]

Organizations also will need technology to complement caregivers and make them more efficient, such as virtual technology to interact with consumers and monitor them remotely, connect caregivers and supervise remote staff.[16]

Conclusion

Primary care has long been treated as healthcare's underdog, a reality that is changing as the industry slowly evolves into a value-based ecosystem. Primary care teams, comprised of diverse professionals and caregivers, can offer solutions and strategies that address the whole person. These teams can address consumer needs and preferences at affordable costs while reining in overall health spending. No longer viewed as a cost center, well-designed and smartly deployed primary care teams can yield a true return on investment in the evolving New Health Economy.

Appendix A: A guide to non-physicians on the primary care dream team

Numerous studies herald the positive impacts that advanced practice professionals such as nurse practitioners and physician assistants have on expanding access to primary care. These care providers have been shown to save money and are in ample supply.[17] Expect to see more of them in the future. Registered nurses – especially those with a bachelor's or master's degree – likely will have increasing opportunities to assume roles in clinical education, team and workflow management and care navigation.

The prospect of having an even wider spectrum of clinicians and non-clinicians to support primary care is on the horizon, according to HRI's survey. Here are profiles of the less familiar non-physicians on the primary care dream team.

Community health workers

Best match for: *Chronic, complex chronic, frail elderly consumer markets*

About 20 percent of consumers in the frail elderly and complex chronic markets reported having at least one social or access barrier to receiving care, according to HRI's consumer survey. CMS has recognized that these barriers often undermine treatment. In January, the agency announced it will pay $157 million to 44 organizations in the new Accountable Health Communities model, a five-year program to test approaches for addressing the social determinants of health, such as housing stability, access to food and transportation.[18]

Community health workers often collaborate with social workers and have overlapping responsibilities in care coordination, but they do not have the same licensing or educational credentials. These individuals can create close relationships with communities and inform care teams about needed services and how to deliver them in culturally appropriate ways. They share information about patients' living conditions and lifestyles that often are left out of electronic health records, such as access to public transit, religious beliefs, pets living in the home, air quality and housing stability.

Only 4 percent of clinicians reported having community health workers on their teams, and only 10 percent of consumers in the complex chronic market interacted with a community health worker in the last year.[19] Yet, leading organizations see value in making these workers part of the team. For example, in addition to nurse care managers, Partners HealthCare is piloting social workers and community health workers that manage their own panel of high-risk patients who are afflicted by more psychosocial issues.[20] UnitedHealthcare uses these workers in high-cost, high-utilization "hotspots."[21]

Case examples	What they did	The results
Arkansas Medicaid Community Connector Program	"Connected" Medicaid-eligible adults with agencies that can provide assistance with a wide array of health and social needs	Saved nearly $3 for every dollar invested[22]
PennMedicine Center for Community Health Workers (Philadelphia, PA)	30 community health workers serve 2,000 low-income consumers with high medical and psycho-social needs and are living in five west and southwest Philadelphia zip codes[23]	ROI of $2 for every $1 invested Recurring readmissions decreased from 40.0% to 15.2%[24]
Baylor Scott & White (Dallas, TX)	Community health workers focused on improving diabetes care and outcomes in community clinics[25]	Reduced inpatient encounters and saved $137 per patient[26]

Community paramedics

Best match for: *Frail elderly, complex chronic consumer markets*

Each year, half of consumers in the frail elderly and complex chronic disease markets make at least one trip to the emergency department. These individuals spend an average of $434 per capita, or an estimated $13 billion in total per year.[27] Many of these consumers are "frequent flyers" who lack transportation and view 911 as a way to access care. Non-urgent services account for 37 percent of emergency department visits annually.[28]

While traditional paramedics primarily respond to emergencies and provide transportation to the hospital, community paramedics act at the nexus of community involvement and clinical ability. They take their skills to the homes of people who need medical—but not emergency—care and provide guidance on the appropriate use of emergency services.

"It didn't make sense to keep paying for merely transport services when we had these highly trained clinicians already out there to treat patients at home," said Dan Swayze, vice president and chief operating officer at The Center for Emergency Medicine in Western Pennsylvania.

Case examples	What they did	The results
The Center for Emergency Medicine of Western Pennsylvania	Partners with local health systems to arrange transportation to appointments, offer medication counseling, make periodic check-ins	200-patient sample over one-year period, saved $1.2 million ($6,000 per patient)[29]
MedStar Mobile Healthcare (Fort Worth, TX)	Launched community paramedicine program in 2009; now provides consulting services to agencies that are setting up similar programs	Avoided 3,321 ED visits, 553 admissions, 4,593 ambulance transports. Reduced healthcare expenditures by $10.8 million[30]
Geisinger's Mobile Health Paramedic Program (Danville, PA)	Dispatches paramedics to patients' home for in-home care, and uses audio-visual technology and mobile equipment to allow off-site doctors to address complex populations	Avoided 42 hospitalizations, 33 emergency department visits, and approximately 168 patient days over 15 months[31]

Dietitians

Best match for: *All consumer markets*

Seventy-six million consumers have at least one diet-related medical condition, yet nearly three out of four people said they had no interaction with a nutritionist or dietician during the last year.

Only eight percent of the country's 67,000 practicing dietitians work in outpatient settings,[32] yet the clinicians HRI surveyed said dietitians are what they need most on their primary care teams. According to HRI's survey, 30 percent of clinicians reported having dietitians on their team, yet 70 percent wish they had them.[33] Health systems should consider redeploying hospital-based dietitians.

Dietitians can provide medical nutrition therapy for patients, create nutritional programs based upon health needs and counsel patients on how to improve their health through nutrition. They also may provide disease-specific care for conditions such as kidney failure or diabetes.

Even healthy consumers desire these services. Sixty percent of consumers in the healthy families market, 46 percent of consumers classified as healthy skeptics and 33 percent of healthy enthusiasts reported wanting help managing their weight or their diet.[34] Dietitians also can help healthy consumers avoid developing diet-related chronic diseases. This is especially true of consumers at risk of developing these conditions due to family history or lifestyle.

Case examples	What they did	The results
Improving Control with Activity and Nutrition (ICAN) (Charlottesville, VA)	Lifestyle intervention and coaching by a registered dietitian for 147 individuals with diabetes and obesity	Saved $3,911 in per person health plan costs per year[35] Reduced lost work days by 64.3% and disability days by 87.2%[36]
Various studies of the Higgins Nutritional Intervention Program including screening (Montreal, Canada)	Risk assessment to identify high-risk women who would benefit from prenatal nutrition program and subsequent intervention	Improve children's long-term health with ROI of $8 for each $1[37]

Mental health professionals

Best match for: *Mental illness, frail elderly, complex chronic, chronic consumer markets*

More than half of individuals with clinically diagnosed mental health conditions want more help managing their mental health issues, according to HRI's consumer survey. So do 28 percent of frail elderly consumers and 17 percent of consumers in the complex chronic market. Forty-eight million Americans with diagnosed health conditions also have a mental illness.[38]

Clinician attitudes echo consumer sentiments. Fewer than one in three clinicians reported having mental health professionals on their care team, yet two in three want them. Mental health professionals can address psychological issues that also impact the effectiveness of treatments for other conditions.

Mental health has the regulatory backing - including a new focus on mental health parity - and public awareness to become part of employers' health benefit plans.[39] By moving the provision of mental health services from a fringe, referral-based specialty model to a core function of the primary care team, healthcare providers will be able to better address the needs of consumers in the future.[40]

Virtual mental health services have proven to be an effective substitute for physical interaction that has helped increase access in light of a national shortage of mental health professionals.

Case examples	What they did	The results
Intermountain Healthcare (Utah)	10-year study of integrated mental health services in 27 team-based primary care practices	3.3% savings in payments to providers; covered investment costs[41]
CMS Care of Mental, Physical and Substance-Use Syndromes (COMPASS) program (Various states)	Primary care mental health services for 4,000 patients in seven states[42]	Of patients with uncontrolled blood pressure, more than half improved control after at least four months Nearly 40% of depression patients experienced remission after treatment[43]
Mayo Model of Community Care (Rochester, MN)	Incorporates a consulting psychiatrist and care coordinator into the primary care team to serve 750 patients	Reduced A1C and LDL levels; estimated savings of $1,000 per patient[44]
Carolinas HealthCare System (Charlotte, NC)	A cross-functional team that included mental health professionals treated 5,000 patients in 50 primary care practices, virtually and in person	Preliminary 6-month data shows costly inpatient utilization is down[45]

Pharmacists

Best match for: *Frail elderly, complex chronic, chronic consumer markets*

Pharmacists have been relegated to a mainly dispensary role through the rise of retail mega chains. But board certification in ambulatory care became an option for pharmacists in 2012; and their impact in the clinical setting could be enormous.

Medication nonadherence is associated with nearly $290 billion in healthcare costs annually, and it is estimated that half of chronic disease medications are not taken as prescribed.[46] Polypharmacy – the simultaneous use of multiple medications, which is common among frail elderly and complex chronic consumers – also increases the risk of adverse events and drug interactions. Adverse drug events cost the system at least $1.6 billion annually.[47]

Executives interviewed by HRI agreed that pharmacists should be requesting and altering prescription orders, monitoring patient responses to medications and tracking adherence. Pharmacists also can perform medication reconciliations to identify more cost-effective and clinically efficient medication regimens, and modify and substitute prescriptions.

The HRI clinician survey found that nearly 80 percent of primary care physicians are not working with ambulatory pharmacists to conduct outpatient visits nor do they have any plans to work with pharmacists this way. Yet, roughly three out of four primary care physicians responding to HRI's clinician survey said that having a pharmacist on the team would improve reviews of medication history, prescription and over-the-counter medication reconciliations, and medication adherence. Pharmacists themselves told HRI they could be doing more.[48]

Consumers are receptive. Nearly 90 percent of consumers HRI surveyed consider their pharmacist to be an effective clinician. They also said one of the top factors they consider when selecting a community pharmacy is how effectively the pharmacist communicates with their physicians. Many consumers, especially those classified as frail elderly and healthy families, said that having a better understanding of whether they are taking their medications correctly would help them manage their health.

Case examples	What they did	The results
CareSource (Ohio Medicaid)	Face-to-face medication therapy for 900,000 members	Increased medication adherence led to ROI of $4.40 to $1[49]
The Pennsylvania Project (Pittsburgh)	Practices working with community pharmacists to improve adherence to five chronic medication classes	Intervention lowered annual healthcare costs by $341, on average, per patient using oral diabetes medications and by $241, on average, per patient using statins[50]
Connecticut Medicaid	Part of a CMS demonstration project, pharmacists provided medication therapy management services to 88 Medicaid beneficiaries in a primary care setting	Annual per patient savings were estimated as $1,123 on medication claims and $472 on medical expenses[51]

Health stewards (e.g., care coordinators/navigators)

Best match for: *All consumer markets*

Health stewards – such as care coordinators and navigators – can help consumers navigate the healthcare system, motivate them and gain understanding about their goals, lifestyle limitations and other personal details. Wellness coaches can be helpful to the healthy consumer markets, focusing on exercise, nutrition and prevention, especially for those with a family history of disease. They also are likely a low-cost, high-return option for both consumers and providers.

Consumers experiencing illness will require more highly skilled assistance. For example, geriatric nurses or geriatric social workers could help frail elderly consumers with mobility issues arrange for transportation. An internal medicine health steward could ensure that consumers in the complex chronic conditions market are able to access services regularly. A nurse-specialist or certified nurse educator could keep consumers in the chronic conditions market, such as those with diabetes and heart disease, on track with their treatment plans. A behavioral health nurse could help consumers in the mental illness market through episodes requiring higher levels of care, while keeping tabs on them during periods with fewer needs and helping to minimize difficult periods.

Family caregivers

Best match for: *Frail elderly, healthy families, and other markets*

A patient's family is yet another extension of the primary care dream team. According to the National Alliance for Caregiving, family caregivers care for almost 40 million American adults. Nearly half of those that provide at least 21 hours of unpaid care per week report having high stress. Eighty-four percent of family caregivers report needing more information or caregiving guidance from clinicians.[52]

Given their influence over how a patient's care plan is followed at home, family caregivers can be beneficial or detrimental to care, depending on how healthcare organizations engage them.

In Ontario, Canada – where healthcare organizations cannot charge for primary care – Saint Elizabeth Health Care has found a new revenue source in its Elizz program, which markets coaching, group support, nurse advice and online counseling to family caregivers. Family caregivers pay for services out of pocket.[53]

Other roles gaining momentum

Entirely new roles are emerging in primary care. Industry newcomers are staffing differently in modern primary care models that treat patients as consumers and offer on-site services that they think their patients would like – even when they aren't healthcare related.

At the center of the primary care team at Iora Health – a Massachusetts-based startup with more than $48 million in investor backing that shuns fee-for-service medicine – is a health coach who is responsible for 80 percent of patient interactions and ensures continuity of care.[54] The health coach connects patients with specialists and helps them identify activities to achieve their health goals. Iora has a growing partnership with Humana to care for Medicare Advantage patients.[55]

Oak Street Health – a Chicago-based newcomer and Humana partner, serving Medicare patients in the Midwest– employs "ninjas" that make sure information is flowing to the right people and places in the practice in a timely manner. And they collect new data for future analysis.[56] The company also employs community coordinators to run – from within practices – community centers that offer consumer Internet classes, bingo events and walking groups.[57,58]

Acupuncturists, chiropractors, massage therapists, and yoga therapists/instructors are also gaining popularity among consumers. One Medical, a personalized primary care practice with locations in seven major US metropolitan areas, employs acupuncturists who work collaboratively with the rest of the care team.[59] The Casey Health Institute in Gaithersburg, Md., has a similar alternative medicine approach.[60]

Incentives to build the primary care dream team

Just as CMS shepherds the country toward value-based care, the agency also is offering incentives that emphasize primary care. For example, the average five-physician practice serving 10,000 patients might expect to collect an additional $570,000 each year as a part of CMS's chronic care management incentive program.[I] In exchange, CMS requires that practices give Medicare patients with two or more chronic conditions round-the-clock access to care.[II]

Under MACRA, CMS's new Medicare payment system, clinicians and physicians can choose from 90 options designed to reward improvements in clinical practice activities such as care coordination and patient engagement.[III]

As a follow-on to the 2012 Comprehensive Primary Care Initiative, CMS announced in April the five-year, multi-payer Comprehensive Primary Care Plus, in which payers will pay providers proactively, making it easier for practices to invest in care management infrastructure.[IV]

State governments and commercial payers also are also starting to compensate for less costly non-physician services. As the primary care market for non-physicians develops, commercial payers will likely follow CMS's lead. Some major payers already are reimbursing for pharmacists and care coordinators, viewing them as preventive measures that will reduce the costs of care in the long run. Or, consumers may choose to purchase value-added services – such as having a care coordinator – if it proves to be both a time- and cost-saver.

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Appendix B: An in-depth comparison of health consumer markets

Medical, social, behavioral, lifestyle and consumer preference characteristics

	Frail elderly	Complex chronic disease	Chronic disease	Mental illness	Healthy families	Healthy adult enthusiasts	Healthy adult skeptics	Total
Weighted number of people	5.9m	24.8mn	175.1m	9.4m	65.4m	22.6m	12.5m	315.6 m
No. of visits per capita	15	13.3	7.7	5.6	1.7	1.6	1.1	
Spending per capita	$14,919	$12,308	$4,914	$3,012	$1,254	$1,254	$705	
Medical characteristics								
Number of unique conditions per person	9.7	8.2	4.5	2.6	1.6	1.6	1.5	
Have more than one chronic disease	86%	72%	59%	0%	0%	0%	0%	
Suffer from musculoskeletal/pain related condition	68%	62%	41%	0%	0%	0%	0%	
Dietary characteristics								
Have at least one condition highly impacted by diet	83%	54%	33%	2%	0%	1%	0%	
Report wanting help to manage their weight	34%	27%	31%	33%	32%	19%	21%	
Report wanting help with getting the nutrition they need	35%	16%	17%	31%	29%	14%	22%	
Medication characteristics								
Number of Rx per person	36	32	12	6	1	1	1	
Report wanting help with understanding how to take their medications	29%	18%	15%	21%	24%	8%	13%	
Social and access characteristics								
Decided not to seek medical care due to cost at least once in the past year	59%	34%	27%	52%	54%	26%	45%	
Did not fill Rx at least once in last year because of cost	48%	23%	19%	38%	40%	26%	12%	
Unable to get necessary care	2%	6%	3%	4%	1%	1%	1%	
Takes more than 30 minutes to get to a provider	13%	12%	7%	6%	5%	4%	3%	
Report wanting a care navigator	21%	11%	10%	16%	18%	7%	6%	
Report wanting help with transportation to appointments	21%	15%	9%	14%	14%	11%	10%	
Mental health characteristics								
Have a mental health diagnosis	25%	36%	22%	100%	0%	0%	0%	
Report wanting help with a mental health issue	27%	17%	11%	53%	13%	6%	9%	
Preferences to try new modes of delivery								
Interested in DIY diagnostics if it reduces cost of care	72%	63%	22%	100%	0%	0%	0%	
Interested in telemed if it reduces cost of care	58%	44%	42%	47%	58%	35%	39%	
Interested in home health if it reduced insurance cost	68%	51%	51%	40%	61%	43%	36%	

Source: HRI analysis of the 2013 Medical Expenditure Panel Survey; 2016 HRI Consumer Survey.

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Linda Aiken, PhD, RN
University of Pennsylvania

Suzanne Allen, MD, MPH
University of Washington School of Medicine

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Houston Methodist Hospital

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Lahey Hospital

Patricia Driscoll, RN
Texas Women's University

Sander Duncan
Pager, Inc.

Susan Edgman-Levitan, PA
The Stoeckle Center

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

Jeff Farber, MD
Mt. Sinai Health System

Rushika Fernandopulle, MD
Iora Health

David Farmer, PhD
University of North Texas Health Sciences Center

Brian Gallagher
Marshall University School of Pharmacy

Bruce Guyant
Life Point Health

Jeannette Ickovics, MD
Yale University

Gay Johnson, Sue Kendig and Susan Rawlins
National Association of Nurse Practitioner's in Women's Health (NPWH)

Paul Katz, MD
University of the Sciences

Brian Nickerson
Icahn School of Medicine at Mt. Sinai

Sharon Phillips
Parkland Health & Hospital System

Bill Pike and Neil Solomon, MD
MedZed

John Santopietro, MD
Carolinas Health System

Jim Puffer, MD
American Board of Family Medicine

Kenneth Shine, MD
University of Texas System (retired)

Travis Singleton
Merritt, Hawkins and Associates

Dan Swayze, DrPH
Center for Emergency Medicine of Western Pennsylvania

Ken Thorpe, PhD
Rollins School of Public Health, Emory University

Maryann Vienneau
Partners HealthCare

Sylvan Waller, MD
MDLIVE, Inc.

Daniel Wolfson
American Board of Internal Medicine Foundation

About this research and HRI

In the summer of 2015, PwC's Health Research Institute commissioned a survey of 1,500 US clinicians representing a cross-section of provider types, ages, gender and geography. In the summer of 2016, PwC commissioned a survey of 1,750 US adults representing a cross-section of the population in terms of age, gender, income, geography, and the seven consumer markets first identified in its report, Primary care in the New Health Economy: Time for a makeover (November 2015).

HRI used the 2013 Medical Expenditure Panel Survey reported by the Agency for Healthcare Research and Quality (an HHS agency) to assess spending and social characteristics of the seven consumer markets.

About Health Research Institute

PwC's Health Research Institute (HRI) provides new intelligence, perspectives and analysis on trends affecting all health related industries. The Health Research Institute helps executive decision makers navigate change through primary research and collaborative exchange. Our views are shaped by a network of professionals with executive and day-to-day experience in the health industry. HRI research is independent and not sponsored by businesses, government or other institutions.

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Health Research Institute

Kelly Barnes
Partner
US Health Industries and Global Health Industries Consulting Leader
kelly.a.barnes@pwc.com

Benjamin Isgur
Health Research Institute Leader
benjamin.isgur@pwc.com

Sarah Haflett
Director
sarah.e.haflett@pwc.com

Trine Tsouderos
Director
trine.k.tsouderos@pwc.com

Matthew DoBias
Senior Manager
matthew.r.dobias@pwc.com

Ben Comer
Senior Manager
benjamin.comer@pwc.com

Alexander Gaffney
Senior Manager
alexander.r.gaffney@pwc.com

Kevin Matuszak
Research Analyst
kevin.r.matuszak@pwc.com

Elise Hamilton
Research Analyst
elise.hamilton@pwc.com

Jack Rodgers, PhD
Managing Director, Health Policy Economics
jack.rodgers@pwc.com

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

HRI Advisory Team

Simon Samaha, MD
Principal, US Health Industries Advisory
simon.samaha@pwc.com

Kulleni Gebreyes, MD
Principal, US Health Industries Advisory
kulleni.gebreyes@pwc.com

Lawrence Hanrahan, MD
Principal, US Health Industries Advisory
lawrence.m.hanrahan@pwc.com

Caroline Piselli, RN, DNP
Managing Director, US Health Industries Advisory
caroline.r.piselli@pwc.com

Deedie Root, RN
Managing Director, US Health Industries Advisory
deedie.root@pwc.com

Harlan Stock, MD
Manager, US Health Industries Advisory
harlan.stock@pwc.com

Other contributors

Jeff Auker
Vaughn Kauffman
Ryan Lasko
Sunny Loeffler
Margaret Stover
Brian Williams
Terri Workman
Allan Zimmerman

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

Kelly Barnes
Partner, US Health Industries Leader and Global Health Industries Consulting Leader
kelly.a.barnes@pwc.com
214 754 5172

Simon Samaha
Principal
simon.samaha@pwc.com
646 471 1614

Benjamin Isgur
Health Research Institute Leader
benjamin.isgur@pwc.com
214 754 5091

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