**Advisory
Board**

How to scale team-based primary care based on financial risk

Five in-depth case studies on making team-based care investments

RECOMMENDED FOR

Care management, primary care, and population health leaders

READING TIME

45 min.

Executive summary

About This Report

As payment reform pressures provider organizations to manage total cost of care for their patients across the continuum, leaders rely more than ever on primary care to provide upstream services that prevent more costly downstream utilization. To deliver effective, patient-centered care, organizations are transforming their primary care practices to deliver new-in-kind services that address the full range of needs contributing to patient health. This requires organizations to expand their care teams to help manage patients' behavioral health, non-clinical, and complex care needs across an often-confusing system. Team-based primary care not only improves patient and population health, but also lowers health system costs overall.

But team-based care is expensive and the traditional payment system is not set up to support investment in non-reimbursable services. As fee-for-service billing still makes up a majority of most organizations' revenues, organizations struggle to make primary care investment plans that include extended care team members (e.g., social workers, pharmacists, care managers, etc.). To finance these roles, organizations rely largely on grants and risk-based payment contracts. However, even under risk-based contracts, organizations often fail to hire and deploy staff in a way that's cost effective.
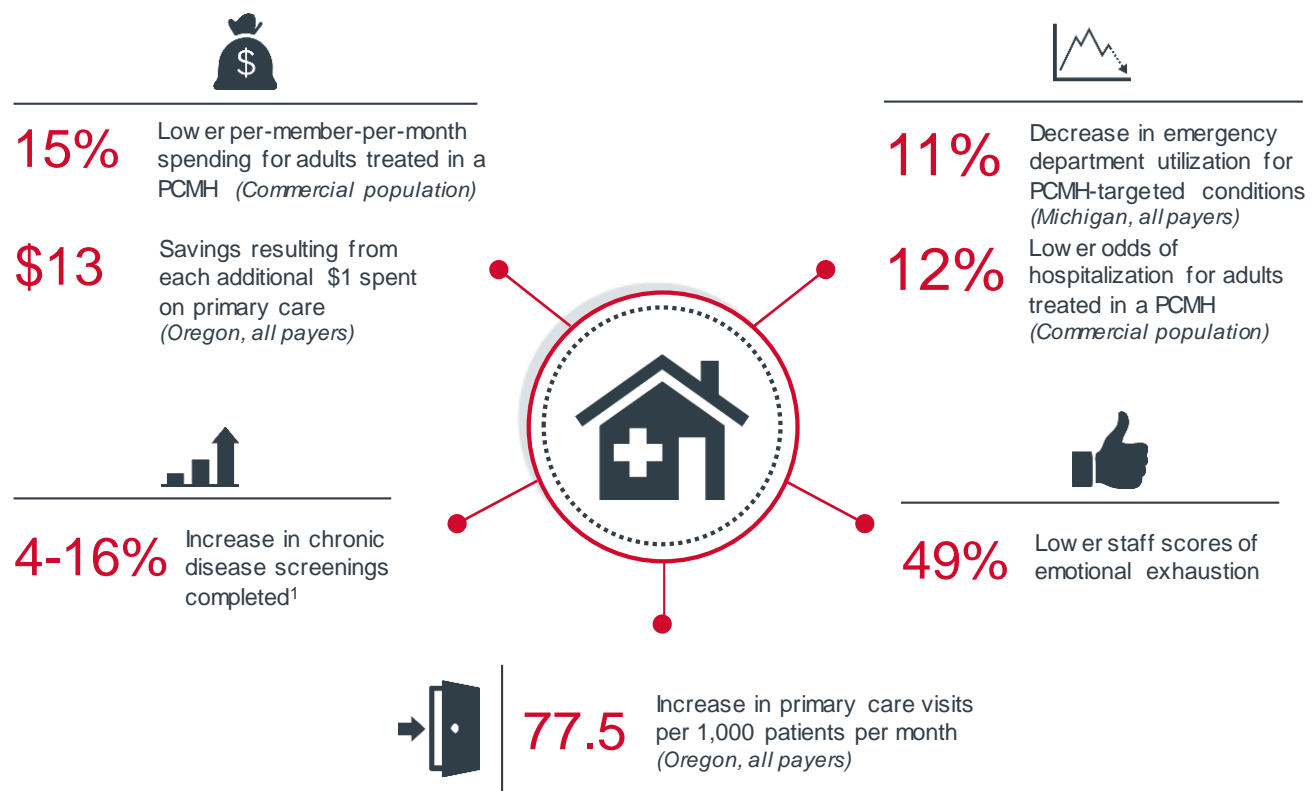
Therefore, to scale team-based primary care sustainably, organizations need to align their investments in team-based care with the amount of financial risk they've taken on. This report makes the case for investing in team-based care and outlines how organizations with varying degrees of revenue tied to risk-based contracts have successfully implemented team-based care models across their systems.

The jury is in: patient-centered medical home yields ROI

Many organizations invested in the patient-centered medical home (PCMH) model as a first step toward care transformation. Studies measuring the effectiveness of the PCMH in earlier years produced mixed results. However, more recent data show that the model promotes each of the tenets of the quadruple aim: improving high-quality health care at a lower cost while promoting patient and staff satisfaction. In fact, data show that cost savings increase the longer a PCMH is in operation.

Impacts of team-based care models on cost, utilization, quality, access, and satisfaction

15% Lower per-member-per-month spending for adults treated in a PCMH *(Commercial population)*

$13 Savings resulting from each additional $1 spent on primary care *(Oregon, all payers)*

4-16% Increase in chronic disease screenings completed[1]

11% Decrease in emergency department utilization for PCMH-targeted conditions *(Michigan, all payers)*

12% Lower odds of hospitalization for adults treated in a PCMH *(Commercial population)*

49% Lower staff scores of emotional exhaustion

77.5 Increase in primary care visits per 1,000 patients per month *(Oregon, all payers)*

Source: Friedberg MW et al., "Association Between Participation in a Multipayer Medical Home Intervention and Changes in Quality, Utilization, and Costs of Care," *JAMA*, 2014, 311(8): 815-825; Cotton P, "Patient-Centered Medical Home Evidence Increases With Time," *Health Affairs*, 2018; DeVries A, et al., "Impact of Medical Homes on Quality, Healthcare Utilization, and Costs," *American Journal of Managed Care*, 2012, 18(9): 534-544; Gelmon S, et al., "Implementation of Oregon's PCPCH Program," 2016; Population Health Advisor interviews and analysis.

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Achieving financial impact takes time

Data from the most recent studies on medical home effectiveness show that costsavings increase the longer a PCMH is in operation as patients are connected with effective upstreamcare. The infrastructure investments core to medical home models (e.g., into new care team roles, workflows, and technology) take time to optimize. As the medical home matures, so does the financial impact.
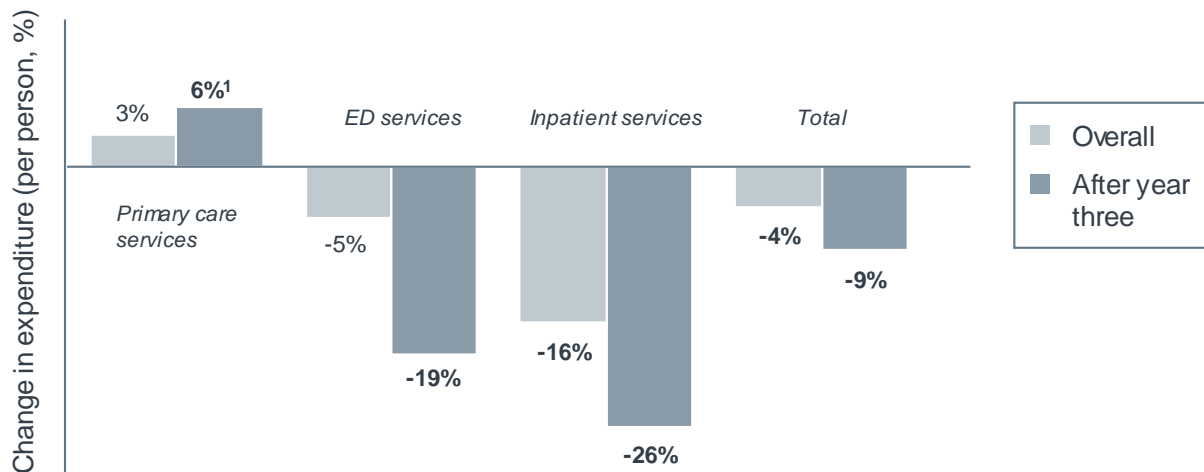
For example, Oregon's state-run PCMH model (the Patient-Centered Primary Care Home) only saw a 3.5% cost savings after its first year of operation. However, in year 3 total cost savings were up to 8.6%, yielding overall program savings of 4.2%, or $13.50 per person per month after threeyears. These savings were mostly as a result of reduced inpatient and emergency costs, and came despite a 4% increase in primary care use and 5% increase in emergency care use. Increased primary care service usage helped lower patient acuity level and downstream cost and utilization.

CASE EXAMPLE | **Oregon's Patient Centered Primary Care Home**
Oregon Health Authority care transformation initiative • Oregon

Change in expenditure per person overall and after third year of medical home designation by site of care, 2012-2014

1) Bolded numbers indicate statistical significance at p < .05.

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Team-based care underpins success of the PCMH model

The success of medical home model is predicated on taking a holistic approach to patient care. The medical home emphasizes team-based care (i.e., integrating support functions into primary care), which was historically provided separate from practice workflow, if at all.

Traditional primary care offices revolve around the physician. Asking physicians to perform the myriad of tasks required to successfully integrate services is both unsustainable and unrealistic. With a projected shortage of between 14,800-49,300 PCPs by the year 2030,[1] and 47% of family medicine physicians reporting burnout, adding more to physicians' workload is not a viable strategy. What's more, physicians often don't have the right training to perform these tasks, most of which fall far below top-of-license.

Team-based primary care addresses these challenges. Relieving physicians of responsibilities that have been increasingly forced upon them allows them to focus patient visits on complex medical problems and frees up visit slots to see new patients, expanding practice capacity.

Extended team best-equipped to address specialized needs

Non-traditional tasks to be completed in primary care

- ❑ Care coordination
- ❑ Chronic disease education
- ❑ Depression screening
- ❑ Counseling (e.g., addiction)
- ❑ Social needs screening
- ❑ Connection to community resources
- ❑ Medication reconciliation
- ❑ Medication therapy management

✖

Barriers that hinder adoption, affecting care quality and cost

- Insufficient training
- Competing responsibilities
- Unfavorable reimbursement
- Brevity of primary care visit

➡

Benefits to leveraging an extended care team:

- ✔ Staff are appropriately trained
- ✔ All needs are specifically addressed
- ✔ Care team works at top-of-license
- ✔ Physician visit is more efficient
- ✔ Physician has more capacity

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1) "The shortfall range reflects different assumptions about projected rapid growth in the supply of APRNs and PAs and their role in care delivery, trends in supply and demand for primary care physicians, and an estimate by the Health Resources and Services Administration that nearly 13,800 primary care physicians are needed to remove the primary care shortage designation from all currently designated shortage areas."

Source: Dall T, et al., "The Complexities of Physician Supply and Demand: Projections from 20 to 2030," Association of American Medical Colleges, 2018; "2018 Burnout Might Really Be Depression: How Do Doctors Cope? 2018 National Physician Burnout & Depression Report," Medscape, 2018; Population Health Advisor interviews and analysis.

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Financial and operational barriers persist

While there are many benefits, it's hard to implement care management-like roles and tasks in primary care. Fee-for-service reimbursement doesn't fully cover services provided by extended care team members like care managers, social workers, pharmacists, and dieticians. Organizations may turn to grant funding or Medicare fee-for-value codes to finance extended care team members, but these methods are usually insufficient to sustain those investments.

Even organizations reimbursed through risk-based payment models struggle to finance extended care team members. One challenge these organizations confront is determining the right staffing levels—should staff be accessible to all patients or only those under risk-based contracts? Without a principled strategy to determine which roles to add to the care team and how, team-based care can result in inefficient and overextended resources.

Inadequate funding hinders extent and reach of team-based care

Lack of financial investment
Primary care alone doesn't take in sufficient revenue to invest in poorly-reimbursed care team services
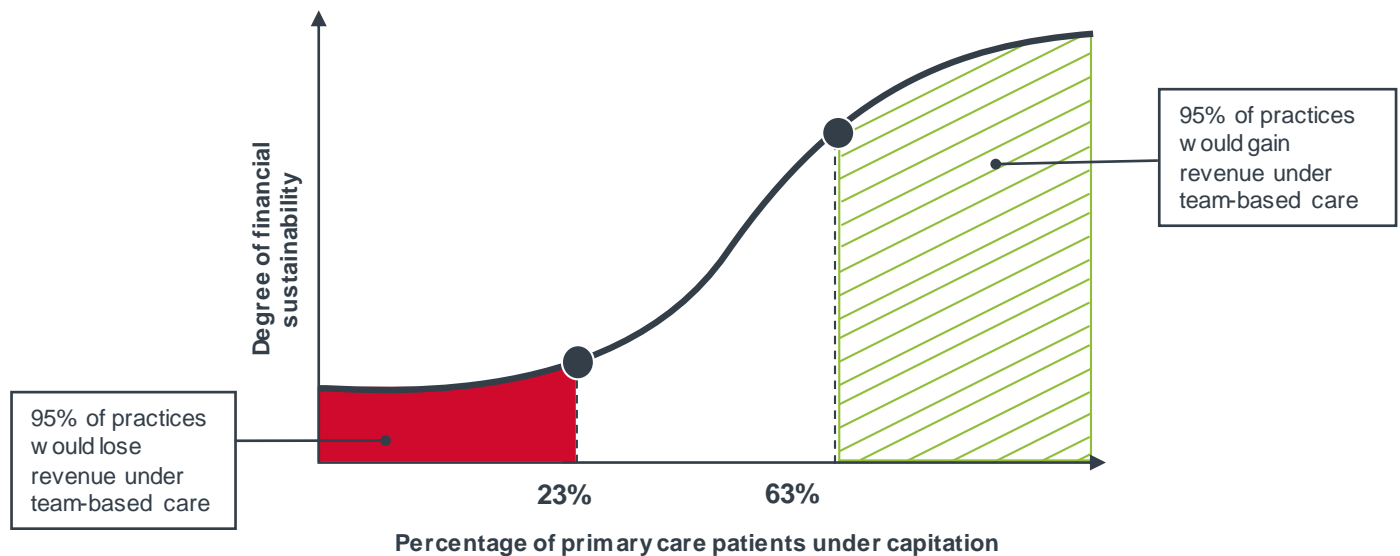
Difficulty scaling support
Lack of resources to meet range of diverse and interconnected needs forces strategic deployment

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Traditional payment limits financial viability

The lump sum payments organizations receive as part of risk-based payment contracts provide a sustainable funding stream to invest in team-based care compared to fee-for-service. However, the level of investment an organization is able to support depends on the size of the population under risk as well as the type of risk.

A 2017 *Health Affairs* simulation study suggests that in order to make team-based care financially viable, organizations need to engage in capitation. It also presents clear cut-off points for number of lives under capitation, below which team-based care results in net revenue loss and above which it results in net revenue gain. The study found that shifting the primary care delivery model to include alternative visits, such as in-person or virtual visits with non-physician practitioners, increased physician panel size by 20%. For organizations with less than 23% of lives under capitation, the revenue gained from the increased visit volume did not offset the costs of providing team-based care. For organizations with more than 63%, the increase in per-member per-month lump sum payments led to a net financial gain.

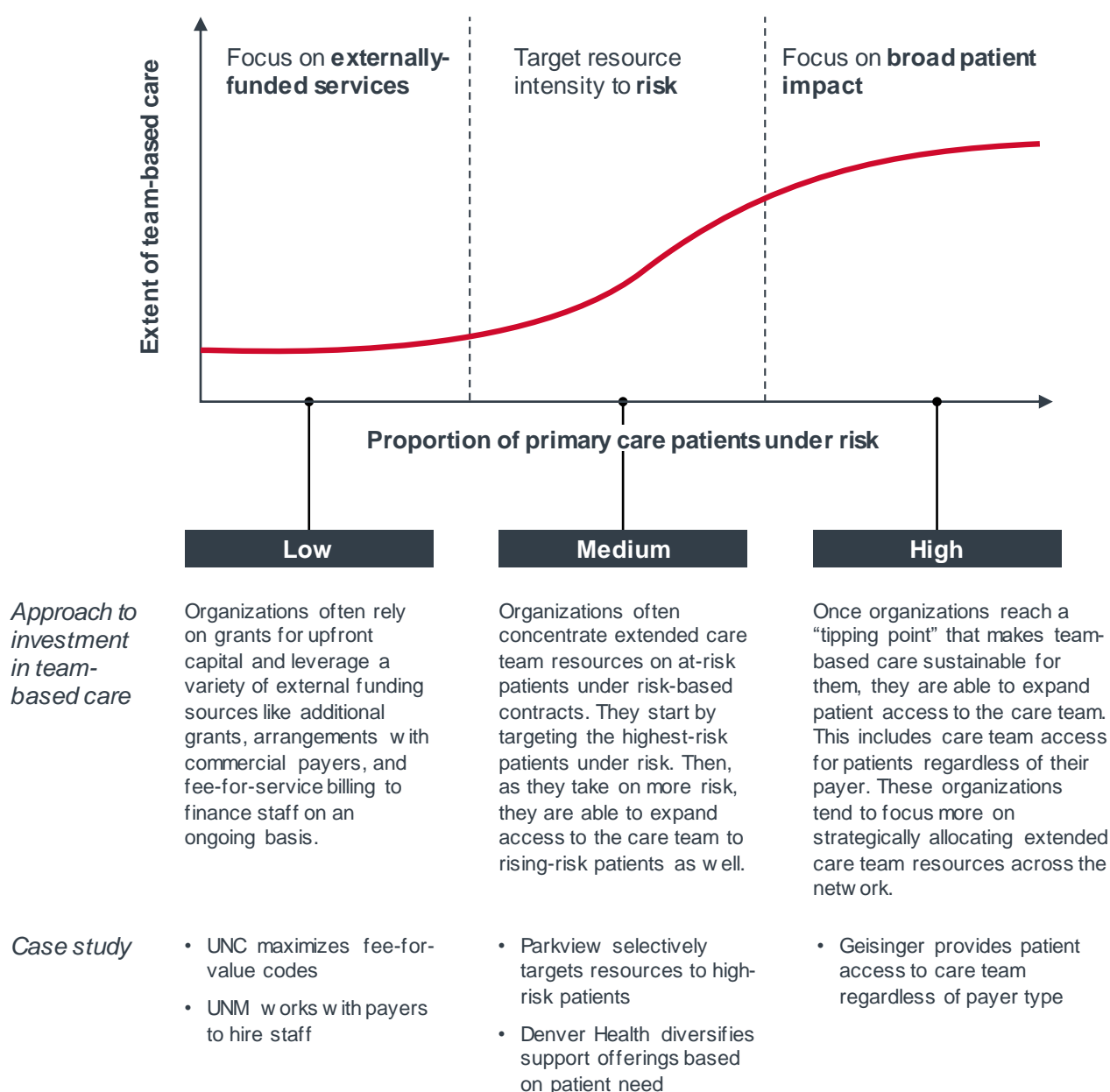**Financial viability of team-based care based on proportion of attributed lives under capitation**

95% of practices would lose revenue under team-based care

95% of practices would gain revenue under team-based care

Degree of financial sustainability

23%   63%

Percentage of primary care patients under capitation

1) Fee-for-service.

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Match level of investment to risk profile

Allocate resources and expand support based on patients under downside risk

To sustainably fund team-based primary care, organizations should adjust their investments in extended care team members according to the amount of downside risk they've taken on. Based on where they fall on the graph below, there are different strategies organizations should pursue to implement team-based care across their primary care networks.

"Sustainable" approach to team-based care differs based on downside risk profile

	Low	**Medium**	**High**
Approach to investment in team-based care	Organizations often rely on grants for upfront capital and leverage a variety of external funding sources like additional grants, arrangements with commercial payers, and fee-for-service billing to finance staff on an ongoing basis.	Organizations often concentrate extended care team resources on at-risk patients under risk-based contracts. They start by targeting the highest-risk patients under risk. Then, as they take on more risk, they are able to expand access to the care team to rising-risk patients as well.	Once organizations reach a "tipping point" that makes team-based care sustainable for them, they are able to expand patient access to the care team. This includes care team access for patients regardless of their payer. These organizations tend to focus more on strategically allocating extended care team resources across the network.
Case study	• UNC maximizes fee-for-value codes • UNM works with payers to hire staff	• Parkview selectively targets resources to high-risk patients • Denver Health diversifies support offerings based on patient need	• Geisinger provides patient access to care team regardless of payer type

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▶ Extend the reach of team-based care according to risk profile

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Prioritize ancillary staff that can provide billable services

UNC offsets 90% of cost of team-based care through reimbursements
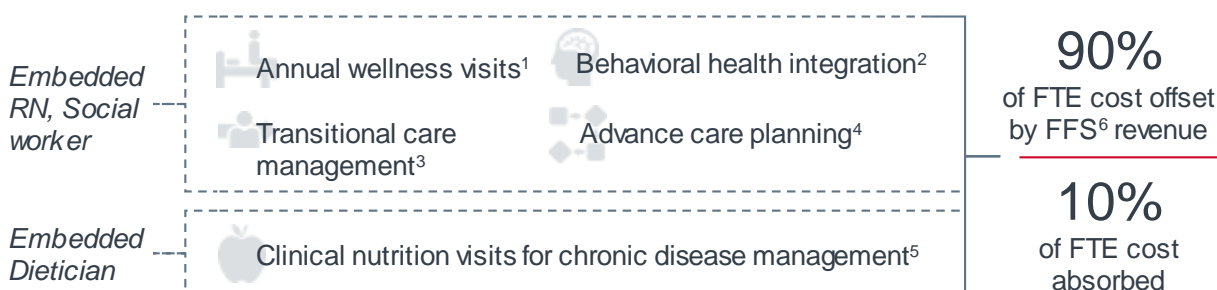
CASE EXAMPLE | **UNC Health Care**
14-hospital integrated health system; 31% of attributed lives covered by upside/downside risk, with 51% overall involved in pay-for-performance • Chapel Hill, NC

Organizations with minimal downside risk lack the immediate financial incentive to invest heavily in team-based care. However, UNC Health Care strategically staffs primary care for a future reimbursement environment. As part of its mission to move toward value-based care, the health system converted the majority of its primary care practices to the PCMH model, despite the fact that the majority of its revenue still comes from fee-for-service business. System-level leadership charged primary care leaders with making the model financially viable in their current environment. In response, primary care leaders built up the care team using exclusively staff that can render billable services: RNs, social workers, and dieticians.

UNC embedded staff directly into the practices and scoped their roles to focus the majority of their time delivering services billable under "fee-for-value" codes. When they met some resistance from dissatisfied staff unaccustomed to the restraints that come with providing reimbursed care, UNC made a compromise. They set a benchmark that 60% of the extended care team's time had to be dedicated to providing fee-for-value services, and the remaining 40% could be spent on non-reimbursed care. Even with a nearly equal balance, the extended care team offsets 90% of their FTE costs through the fee-for-service revenue they bring in. UNC absorbs the remaining 10%, viewing it as an upstream investment that underscores their commitment to moving toward value-based care.

Extended members of the care team sustained through "fee-for-value" services

Embedded RN, Social worker	Annual wellness visits[1]	Behavioral health integration[2]	**90%** of FTE cost offset by FFS[6] revenue
	Transitional care management[3]	Advance care planning[4]	
Embedded Dietician	Clinical nutrition visits for chronic disease management[5]		**10%** of FTE cost absorbed

> "It's not the fee-for-service visit (AWV, ACP, MNT, etc.) that prevents higher cost utilization, it's the behavior change. **We're trying to find the FFS mechanism that will allow us to support that kind of change.**"
>
> Wilson Gabbard, Director of Operations, Population Health Services
> UNC HEALTH CARE SYSTEM

1) CPT GO439.
2) CPT 90834, 90837.
3) CPT 99495, 99496.
4) CPT 99497, 99498.
5) CPT 97802, 97803.
6) Fee-for-service.

Source: : UNC Health Care; Population Health Advisor interviews and analysis.

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Fund non-billable staff members with PMPM carve outs

Payers support development of UNM[1]'s community health worker program

	University of New Mexico Health System
CASE EXAMPLE	Three-hospital academic health system; approximately 45% of attributed lives under Medicaid managed care • Albuquerque, NM

University of New Mexico turned to an external partner to help fund staff investments given their relatively low proportion of patients under downside risk. UNM negotiated a risk-stratified per-member-per-month (PMPM) payment arrangement to help a local managed care organization (MCO) engage their high-risk members. They used the PMPM to hire community health workers (CHWs) who they embedded in primary care practices and in the community. Integrated CHWs screened patients for social needs and helped high- and rising-risk patients navigate the health care and social support systems.

CHWs were so effective at identifying and addressing patients' social needs that other MCOs in the region offered UNM similar PMPM arrangements in exchange for access to the CHWs for their own patients.

This secured a certain level of financial sustainability for the CHWs, but UNM went a step further. Because the CHW efforts directly resulted in significant downstream savings, largely from reduced hospital admissions, UNM leadership decided to incorporate them directly into the internal budget.

UNM uses external funding to show proof-of-concept of CHWs, ultimately funds the role

University of New Mexico secures MCO funding for community health workers (CHW)

Local MCOs[2] needed help identifying their high-risk members

→ MCOs provided tiered PMPM funding to UNM to hire, train, and deploy CHWs
- $321 for high-risk, $20 for medium-risk; $2 for low-risk

Integrated CHWs support at-risk patients to prevent escalation

Screening for social needs
- 46% of patients had at least one unmet need
- 63% of patients with one need had more than one

Addressing social needs
- Provide navigation and self-management and social support
- Simulation study projects 70% reduction in inpatient utilization, 13% overall cost savings for top 5% of utilizers

Program success leads to growth and long-term funding for integrated CHWs

Expanded to all MCOs

UNM budget

Source: Moffett M, et al., "Community Health Workers Bring Cost Savings to Patient-Centered Medical Homes," *J Comm Health*, 43(1); 2018:1-3; Nkouaga C, et al., "Diffusion of Community Health Workers Within Medicaid Managed Care," *Health Affairs Blog*, July 25, 2017; Page-Reeves J, et al., "Addressing Social Determinants of Health in a Clinic Setting," *J Am Board Fam Med*, 29(3); 2016: 414-8; Population Health Advisor interviews and analysis.

Focus limited resources on inflectable needs

Parkview Health deploys mobile team in primary care for high-risk patients

CASE **EXAMPLE** | **Parkview Health**
Eight-hospital health system; moderate proportion of attributed lives under risk• Fort Wayne, IN

Organizations with a moderate proportion of attributed lives under risk either focus services first or most intensively on their highest-risk patients. As they acquire more populations under downside risk arrangements, organizations can begin to extend care team resources to rising-risk patients.

In order to manage their high-risk patients with multiple chronic conditions, Parkview created a rotating mobile high-risk care team called the Comprehensive Care Clinic. The clinic is funded by PMPM payments from public and private payers and focuses on high-utilizer patients under risk-based contracts. The goal among ambulatory leadership is to reduce utilization, which ultimately contributes to the system-level goal of reducing total cost of care.

The clinic rotates across primary care sites to meet with assigned patients in the patients' home practices, enabling patients to maintain their relationships with their PCPs. As the clinic was developed, leadership adjusted staffing levels to ensure that the greatest drivers of inefficiency and provider frustration were addressed. After the first few months, they increased social work and pharmacist FTE time in response to the burden social and polypharmacy needs were placing on the PCP's visits with this patient population. Since the clinic began in Spring of 2018, utilization has stabilized or decreased for patients seen by the team.

Parkview partners mobile and primary care teams to focus resources on highest-risk

High-risk mobile team supports patients across the primary care network

Mobile clinic rotates across primary care sites to ensure highest-risk patients' clinical and non-clinical needs are met

Mobile Clinic Staff (FTE)	
Medication assistant (1)	RN care coordinator (1)
Pharmacist (1)	Social worker (1)

Primary care offices adjust operations to collaborate with mobile team

PCP retains ownership over patient, but offloads clinical and non-clinical care management tasks to mobile team

Highest-chronicity patients are strategically scheduled to ensure they see their PCP and the mobile team

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Tier support based on level of patient acuity

Denver Health focuses system investment on costliest patients

CASE EXAMPLE | **Denver Health**
One-hospital integrated health system; majority of attributed lives under risk • Denver, CO

Denver Health took a staged approach to rolling out team-based care to meet the needs of multiple high-priority subpopulations. Using primary care transformation grant funding, Denver opened the Intensive Outpatient Clinic (IOC) to care for the patients with the greatest opportunity to reduce avoidable utilization and associated costs that were either uninsured or covered by managed or fee-for-service Medicaid. These are the top 0.5% of patients (roughly 200 total) driving the highest cost for the system and requiring the most robust support, so Denver centralized resources into a bricks and mortar clinic.

Additionally, Denver identified populations such as those with HIV+ or high-risk pediatric patients who require highly specialized support outside of traditional primary care, but don't reach the acuity level of the IOC. They take specialized approaches to meet the needs of these groups, such as using mobile teams for smaller populations (e.g., HIV+ or high-risk pediatrics) or designated clinics for larger populations (e.g., geriatrics).

Finally, Denver enhanced the primary care teams in traditional clinics to address similar problems as the IOC but for patients that don't require the level of intensity or meet eligibility requirements[1] of the IOC. The model initially focused exclusively high- or rising-risk patients, but evolved to treat all patients in response to positive care outcomes and staff resistance to limiting the reach of support services.

Enhanced primary care and specialty support remain funded through federal dollars. But the IOC achieved such strong financial and operational returns in its first few years that Denver Health incorporated the clinic directly into its internal budget.

Stratified and scalable team-based care approach

Intensive Outpatient Clinic	**Targeted support**	**Enhanced care**
Top 0.5% of utilizers	*At-risk subpopulations*	*All patients in need*

High resource intensity — *Low resource intensity*

Intensive Outpatient Clinic
- Budget-funded
- Ensures holistic management, higher-intensity touchpoints
- Improves efficiency of traditional primary care clinics
- Facilitates access to on-campus specialists support
- Staff: RN care managers, LCSWs, behavioral health specialists[2], patient navigators, and clerks

Targeted support
- Federally-funded
- Determine staffing approach according to target population
- Provides mobile care teams for HIV+ and high-risk pediatrics
  - Important for pediatric patients to keep relationship with PCP
  - Minimizes stigma for seeking HIV care
- Runs geriatric primary care clinic
- Staff: RNs, LCSWs, PCPs[3]

Enhanced care
- Federally-funded
- Allocate staff according to clinics' risk-adjusted empanelment
- Enables patient engagement, early detection and intervention of unmet needs
- Staff: RN care coordinators, LCSWs[4], clinical pharmacists, navigators

1) Patients with any of the following aren't clinically eligible for the IOC: emergency dialysis, active cancer, multi-trauma, post-operative complications, pure psychiatry admissions, or substance abuse without evidence of organ disease.
2) Psychologist and psychiatrist combine to create 0.7 FTE.
3) One HIV-specific MD is part of the HIV team; all PCPs are pediatricians for high-risk pediatrics team.
4) Licensed clinical social worker.

Source: Population Health Advisor interviews and analysis

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Provide access to ancillary staff regardless of payer

Geisinger strategically extends service lines to primary care
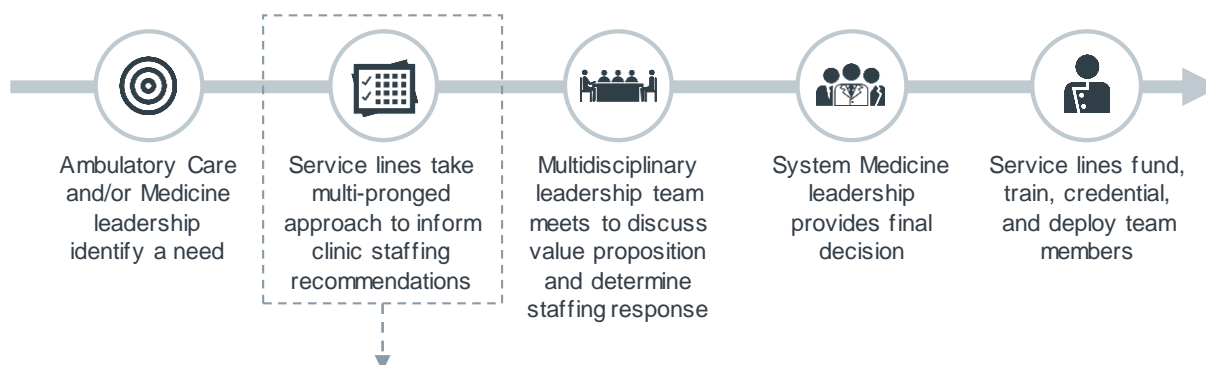
CASE EXAMPLE | **Geisinger**
13-hospital integrated health system; 37% of attributed lives under risk • Danville, PA

Organizations that have taken on enough risk to make team-based care sustainable without external funding are able to take more of a system-level view on staffing decisions. Geisinger approaches staffing from a payer-agnostic, service line-centric point of view. When staffing needs are identified in primary care, service line—not primary care—leaders are charged with filling the need. This includes coordinating across service lines to strike a balance of providing adequate support without overwhelming primary care practices.

Taking a cross-continuum approach promotes not only coordinated care, but resource efficiency. Service lines fund extended care team members the same way they fund hospital-based staff to optimize staffing across sites of care. Rather than dictate the level of investment according to the number of patients under risk, Geisinger is able to ensure that the right supports are in the right places according to both patient and system needs.

Geisinger's staffing rationalization process

| Ambulatory Care and/or Medicine leadership identify a need | Service lines take multi-pronged approach to inform clinic staffing recommendations | Multidisciplinary leadership team meets to discuss value proposition and determine staffing response | System Medicine leadership provides final decision | Service lines fund, train, credential, and deploy team members |

Quantitative inputs:

- Patient volume
- Patient risk profile, based on:
  - A composite measure of disease control
  - Prevalence of comorbidities
  - Patient utilization trends
  - Quality score metrics

Qualitative inputs:

- Anecdotal knowledge of local prevalence of psychosocial needs
- Feedback from frontline staff
- Documented success of care team interventions in same or similar populations

Extended primary care team:

- RN health managers
- RN case managers
- Behavioral health case manager
- Clinical pharmacists
- Registered dietitians
- Community health assistants

For more detail on how each team member is allocated, see appendix

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Hardwire an integration process for system staff

Geisinger provides warm handoff, facilitates collaboration to optimize new roles

Organizations with sufficient lives under risk already have the financial incentive to invest in an expanded care team. But these incentives alone don't guarantee success. To see results, providers take a disciplined approach to allocating care team members across the network, target resources appropriately, and reinforce a culture of team-based care.

At Geisinger, the staffing rationalization process ensures that practices' needs are met and prevents bottlenecks from developing in primary care offices. For example, when ambulatory leadership at Geisinger identifies a pharmacy need in primary care, system pharmacy leadership takes over to develop the staffing solution. Pharmacy leaders analyze clinical dashboards and qualitative input to ensure the staffing solution maintains their preferred ratio of one pharmacist to 700 patients needing complex pharmacy support, payer blind, across the network.

Once service line leaders get signoff on their proposal, they allocate budget dollars to fund the role and visit the primary care clinic to provide a warm introduction to the care team. Even though team-based care is well-established at Geisinger, leaders prioritize this in-person visit to make sure the clinics are ready to work with the pharmacist and use them effectively. That means having protocols in place to facilitate referrals and prioritize which patients see the pharmacist. And the system is working: integrated pharmacy at Geisinger has led to a reduction in acute care utilization and lower total cost of care.

Integrated pharmacy reduces acute care utilization and cost

Implement program across system

1 Select clinics in which to embed clinical pharmacists

- Leaders analyze data to identify target patients and clinic sites with at least 700 eligible complex patients
- 85% of pharmacists are embedded in primary care, 15% in specialty

2 Drive PCP buy-in for a successful program launch

- Leaders visit clinics to engage partners early on, educate them on the role of embedded pharmacists, and show case program outcomes (e.g., improved clinical outcomes)

Execute MTDM[1] with high-risk patients

3 Use two-pronged referral process to identify and enroll holistic list of target patients

- Pharmacists use dashboards and an auto-referral platform to identify patients for outreach
- PCPs refer patients in-person to reduce care gaps with warm handoffs

4 Prioritize conditions to manage by determining intervention's potential impact on outcomes

- Pharmacist time is based on "value of the touch," or which disease states they can most impact with their expertise
- 60-minute initial appointment is scheduled within one week of the referral; follow-ups occur every 2-4 weeks based on acuity

| 18% Reduced ED visits[2] | 18% Reduced hospitalizations | 23% Lower annual total care costs |

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► Appendix

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Team-based care model: UNC Health

UNC Health

Focused on embedding team members that render billable services under fee-for-service

Risk profile	31% of lives in upside/down nside risk, 51% pay-for-performance contracts, 3% gainsharing contracts
Target population	High- or rising-risk patients with multiple chronic conditions (RN), comorbid medical and behavioral and/or social needs (SW), diabetes, hypertension, and/or obesity (dietician)
Program staffing	Staffing ratios:[1] • Case Manager: 1:7,500 primary care patients • LCSW: 1:25,000 primary care patients • RD/CDE[2]: 1:12,500 primary care patients Each care team member conducts 26 billable patient visits per week. Billable visits account for 60% of their FTE and the remainder is dedicated to non-billable care coordination and registry management-type tasks.
Funding mechanism	90% of FTE funding comes directly from staff-generated FFS revenue, 10% funded through budget as an investment in moving toward value-based care
Patient identification	Disease registries, patient panel information, and risk stratification tools.
Duration of patient-staff engagement	Not available
Measuring ROI	• Change in utilization, quality measures among patients who see extended staff members versus those who don't • Reduction in PMPM spend • Increased physician capacity
Outcomes	Offset 90% of staffing costs through fee-for-value billing

1) Exact ratios vary based on practice demographics.
2) Registered dietician/certified diabetes educator.

Source: UNC Health Care.

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Team-based care model: UNM Health System

University of New Mexico Health System

Worked with payer to fund community health workers before enveloping them into the budget

Risk profile	• Approximately 45% of attributed lives under Medicaid managed care	
Target population	• High- and rising-risk Medicaid patients managed by a managed care organization	
Program staffing	Staffing ratios • Embedded CHW: 2-3 per clinic • Community-based CHW: varies by site	Patient panel size • Embedded CHW: varies by clinic • Community-based CHW: 25-30 high-risk patients (active panel)
Funding mechanism	• Started off with PMPMs from Medicaid managed care organizations, enveloped into community health budget after demonstrating impact	
Patient identification	• Medical assistants use EHR-based WellRx tool to perform social needs screening prior to PCP visit, refer patients that screen positive for social needs to see CHW during same visit	
Duration of patient-staff engagement	• High-risk patients: 3-6 months (community-based or embedded CHW) • Rising-risk patients: varies, but at least one follow-up visit or phone call after initial resource navigation	
Measuring impact	• Reduction in hospital admissions • Reduction in ED utilization • Reduction in prescription drug costs	
Outcomes	• Currently collecting data to quantify impact of primary care-based CHWs	

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Team-based care model: Parkview Health

Parkview Health

Created a mobile high-risk clinic to treat high-risk patients covered by risk-based contracts

Risk profile	Moderate proportion of lives under Medicare Advantage, commercial, and Medicaid downside risk contracts
Target population	High-risk patients with CHF, COPD, and diabetes under risk-based contracts
Program staffing	• The team maintains a schedule of 20-minute appointments per patient and sees up to 24 patients in a day • The team focuses on one provider's patients at each clinic
Funding mechanism	Per-member-per-month payments
Patient identification and ongoing relationship	• Population health leadership flags patients through a combination of EHR-based disease registries, payer registries, and predictive analytics identifying patients at-risk for hospital admission or ED utilization in the next 6 months • Leadership collaborates with PCPs to determine which of the flagged patients on the PCP's panel are appropriate for the clinic
Duration of patient-staff engagement	• Patients are typically treated by the clinic for 6-9 months, but it is dependent on the length of time it takes to address their needs and for them to stabilize • The goal is to transition all patients back to working just with their PCPs
Measuring ROI	• Decrease in avoidable hospital admissions, readmissions, ED utilization • Decrease in PMPM spending
Outcomes	Utilization has decreased or remained stable for patients working with the clinic

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Team-based care model: Denver Health

Denver Health

Created different team-based care models to treat different patient populations

Risk profile	Majority of attributed lives under risk, including managed Medicaid, Medicare Advantage, and select commercial plans
Target population	• IOC: High-utilizer, high-cost managed Medicaid, uninsured, and FFS Medicare patients • Targeted support: HIV+ patients, high-risk pediatrics, geriatrics • Enhanced primary care: all patients requiring support
Staffing information • Staffing ratios are based on number of rising- or high-risk patients per 1 FTE	**IOC** • Behavioral health specialist: 1:200 • Clerk: 1:200 • Licensed clinical social worker: 1:200 • Patient navigator: 1:200 • RN care manager: 1:120 **Enhanced primary care[1]** • Clinical pharmacist: 1:6000 • Licensed clinical social worker: N/A • RN care coordinator: one care coordinator for non-IOC patients
Funding mechanism	• IOC started with grant funding and was enveloped into Denver Health budget (uses FQHC funding) • Enhanced primary care and targeted support funded through grants (e.g., HRSA 330, Title X)
Patient identification	• Daily census list from hospital flags patients with multiple admissions, nurse practitioner performs a clinical screening in-hospital and refers eligible patients to a patient navigator to perform further screening either during the inpatient stay or over the phone post-discharge • Patients with any of the following aren't clinically eligible for the IOC: emergency dialysis, active cancer, multi-trauma, post-operative complications, pure psychiatry admissions, or substance abuse without evidence of organ disease.

Duration of patient-staff engagement	• There aren't hard-stop time limits for how long patients work with either the IOC or extended members of the care team in primary care, but the following trends hold:
	  • Behavioral health counselors work with patients for up to six visits before the patient must be enrolled in long-term mental health care
	  • Pharmacists decrease frequency of patient contact once patients achieve their A1c goals

Measuring impact	• Reduced utilization • Improvement in quality outcomes • Increase in physician visit capacity in primary care • Staff satisfaction • Currently using PROMIS surveys to evaluate outcomes over time according to patient engagement
Outcomes	Currently being measured

1) These are ballpark ratios and are not concrete.

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Team-based care model: Geisinger

Geisinger

Extends service lines into primary care and provides patient access to team members regardless of payer type

Risk profile	37% of lives under risk, including upside/downside and pay-for-performance[1]
Target population	• All-payer patients • See next table for target population per team member

Program staffing	Staffing ratios per risk-adjusted panel size
	• Clinical pharmacist:
	  • 1:700 eligible patients
	  • Embedded: 1:4,000 at established clinics and 1:6,000 at new clinics
	  • Centralized: 1:10,000
	• Community health associate: Varies based on payer mix and patient population complexity
	• Licensed clinical social worker: Varies based on payer mix and patient population complexity
	• Registered dietitian: Varies based on wait times and slot utilization
	• RN case manager: 1:10,000, 1:15,000
	• RN health manager: Range of 1:5,000 to 1:20,000 based on payer mix and patient population complexity

Funding mechanism	Service lines (e.g., pharmacy, community health, medicine) fund team members out of their budget
Patient identification	• Internally-developed standardized workflows dictate in-office warm handoffs based on patient risk level and predominant need driving complexity (e.g., diabetics always meet with nutritionists) • Staff identify patient needs during morning huddles to predict what services and referrals patients will require that day
Duration of patient-staff engagement	• Varies by patient and by specialty • E.g., a pharmacist might spend three visits with a patient for diabetes control and then follow up monthly to ensure continued control
Measuring ROI	• Increase in physician visit capacity • Reduction in PMPM spend • Performance on quality measures (e.g., HEDIS, STARS)
Outcomes	• Quality initiatives: 5% increase in patients with HbA1c <9; 12% increase in diabetes retinopathy screening; 5% increase in breast cancer screening; 13% increase in colorectal cancer screening; 12% increase in chlamydia screening • Integrated pharmacy: 23% lower total cost of care, annually; 18% reduction in ED visits; 18% reduction in hospitalizations; reduced PCP visits by 2.33 per year for diabetics

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1) Geisinger has a provider-sponsored health plan, Geisinger Health Plan.

Source: Geisinger; Population Health Advisor interviews and analysis.

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Geisinger staffing considerations

Geisinger

Extends service lines into primary care and provides patient access to team members regardless of payer type

Care team member	Deployment model	Target population
Behavioral health case manager	Split time between two or more clinics based on demand	Patients with addiction and/or mood disorders
Clinical pharmacist	At least one pharmacist embedded in each clinic; some have more	Patients with metabolic disorders (e.g., rising- to high-risk diabetics) and patients taking anticoagulants (e.g., those with uncontrolled hypertension)
Coding educator	At least one coding educator per clinic	N/A
Community health assistant	Split time between two or more clinics based on demand	All patients with unaddressed social needs (regardless of risk level)
Registered Dietitian	Split time between two or more clinics based on demand	Patients with diabetes, congestive heart failure, and/or malnutrition
RN Case manager	At least one case manager embedded in each clinic; some have more	Patients with at least one chronic condition (CHF, COPD, diabetes, chronic kidney disease)
RN Health manager	Split time between two or more clinics based on demand	Low- to rising-risk patients with new chronic disease diagnoses

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