

# Integrating Psychosocial Risk Factors into Ongoing Care

How to identify patient needs and tailor care planning to optimize outcomes

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RESEARCH REPORT

## Look inside for:

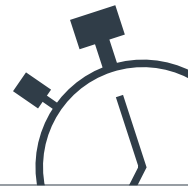
- Methods for identifying psychosocial needs to enable needed care plan customization
- Best practices to optimize treatment adherence by tailoring care to health literacy, engagement, and risk level
- Ways to address critical psychosocial needs to improve health outcomes

TOPIC

# Psychosocial risk factors

READING TIME

**45** min.



BEST FOR

Care  
transformation  
leaders

## LEARN HOW TO

- Tailor extent of psychosocial needs assessments to patient risk
- Optimize care plan adherence by customizing care based on health literacy, engagement, and risk
- Develop targeted interventions for critical psychosocial risk factors

# Integrating **Psychosocial Risk Factors** into Ongoing Care

How to identify patient needs and tailor care planning to optimize outcomes

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RESEARCH REPORT

# Population Health Advisor

## Project Directors

Petra Esseling  
EsselinP@advisory.com  
Abby Burns  
BurnsA@advisory.com

## Contributing Consultants

Rebecca Tyrrell  
Tracy Walsh, MPH  
Darby Sullivan

## Program Leadership

Tomi Ogundimu, MPH  
Shay Pratt

## Design Consultant

Matt Starchak

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# Advisors to Our Work

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*Gainesville, FL*

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**University of Pennsylvania  
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**Vanguard Medical Group**

*Verona, NJ*

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*San Francisco, CA*

# Executive Summary



## About This Report

Provider organizations, payers, and policymakers recognize that health care delivery is incomplete without addressing patients' psychosocial needs, such as mental health, housing, and transportation challenges. Left unaddressed, psychosocial needs can drive avoidable ED utilization, readmissions, and excess health care spending.

### Psychosocial Needs Associated with Increased Utilization and Cost

2-3x

Higher medical costs for treating patients with comorbid chronic and **behavioral health** conditions

24-67%

Higher likelihood of readmission for patients **dually-enrolled** in Medicare and Medicaid

80%

Of ED visits by patients experiencing **homelessness** could be prevented with primary care treatments

\$155B

Annual health-related costs directly attributed to **food insecurity** in the U.S.

Even providers who understand the impact of psychosocial risk factors struggle to incorporate solutions into ongoing patient management. They lack access to the type of information they need to drive patient interventions. Consequently, care plans often focus on clinical next steps without addressing the underlying risk factors that can drive non-adherence.

To optimize outcomes and succeed under value-based reimbursement models, providers need to identify patients' psychosocial risks and tailor care plan interventions accordingly. Leading population health managers integrate evidence-based assessments into primary care workflows to surface underlying psychosocial risk factors and deploy non-physician staff to direct interventions.

This research report makes the case for incorporating psychosocial needs into ongoing care management, offers a blueprint for staff deployment across different interventions, and provides 18 case studies of providers that have successfully tailored interventions based on psychosocial needs.

Source: Artiga, S and Hinton, E, "[Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity](#)," Kaiser Family Foundation, May, 2018; Cook, J., et al., "[Estimating the Health-Related Costs of Food Insecurity and Hunger](#)," Bread for the World Institute, November, 2016; Melek SP, et al., "[Economic Impact of Integrated Medical-Behavioral Healthcare](#)," Milliman, Inc., (2014); Muhlestein D, "[Growth and Dispersion of Accountable Care Organizations in 2015](#)," *Health Affairs*, (2015); Schroeder SA, "We Can Do Better – Improving the Health of the American People," *NEJM*, 357, (2007): 1221-8; [Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs](#)," United States Department of Health and Human Services Report to Congress (2016); Population Health Advisor interviews and analysis.

# More Policies Support Psychosocial Care, Barriers Remain

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Psychosocial factors often drive readmissions risk, avoidable ED utilization, and ultimately, excess health care spending. In fact, one study suggests that 80% to 90% of an individual's health is determined by non-medical factors, including psychosocial risk factors. The transition to value-based care requires that clinicians address these psychosocial determinants of health.

Several policy changes have created new incentives for providers to address psychosocial needs. For many markets, Medicaid coverage expansion caused large utilization increases for elderly and non-elderly adults with high psychosocial needs. In 2017, 19 states required Medicaid managed care plans to screen for and/or provide referrals for social needs.

Public-private partnerships increasingly look to hold providers accountable for embedding psychosocial interventions into primary care workflows. For example, CMS's Comprehensive Primary Care Plus (CPC+) aims to strengthen primary care through regionally-based, multi-payer payment reform and care delivery transformation. CPC+ requires participating organizations to surface and address common psychosocial needs for high-risk patients (at a minimum) through community partnerships.

Although public, private, and internal funding is increasingly available to address psychosocial needs, many provider organizations still rely on volunteers and community partnerships to support these patient needs outside of the health system. While partnerships can help scale efforts to meet patient needs, they often do not connect to ongoing clinical care.

## Three Provider Barriers to Addressing Patients' Psychosocial Needs



Information about psychosocial needs not readily available



At-risk patients have overwhelming number of intertwined needs



Standardized care plans don't consider staffing for psychosocial needs

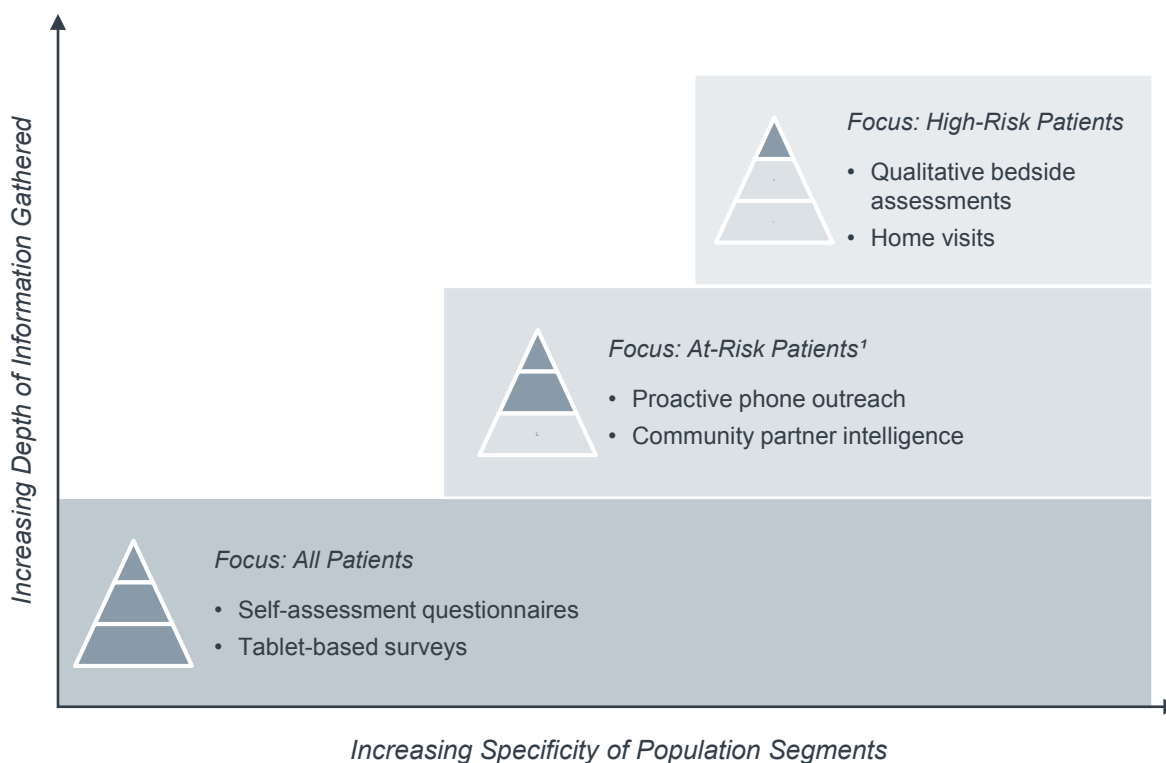


# Develop Scaled Approach to Needs Assessments

Because data on psychosocial risk factors aren't readily available, providers hoping to address psychosocial needs must devise scalable methods for assessing patients and populations. Advanced providers manage this by changing the intensity of assessment activities based on acuity, reserving the most in-depth assessments for high-risk patients.

For all patients, providers capitalize on routine interactions using validated, electronic self-assessment tools. For at-risk patients, they supplement baseline information with psychosocial intelligence gathered from community partners and proactive telephonic outreach. For high-risk patients, they conduct intensive bedside and home assessments for an in-depth understanding of psychosocial needs.

## Psychosocial Assessments Tailored to Patient Acuity



1) Rising- and high-risk patients.

# Prioritize Data-Driven Interventions

There are 29 widely accepted social determinants of health. Because these needs are highly intertwined, providers cannot support the overwhelming number of at risk patient needs. Leading organizations use a targeted approach to identify patient-specific needs and prioritize key interventions. Rather than assess the wide range of possible psychosocial risk factors for every patient, they prioritize needs they can easily identify, and that predict future health care utilization and poor outcomes.

## Critical Risk Factors to Prioritize in Program Implementation

Risk Factor	Data Accessibility	Strength of Evidence
Patient Activation		
Health Literacy		
Language		
Behavioral Health		
Housing Status		
Financial Hardship		
Insurance Status		
Food Insecurity		
Transportation		
Social Isolation		

### Key

**Data accessibility** determined based on ease of collecting data, including willingness to ask and disclose information and access to the information.

**Strength of evidence** determined based on impact of risk factor on patient cost, utilization, quality outcomes, access to care, and patient satisfaction.



# Define Staff Workflows for Psychosocial Support

Very few frontline staff roles focus on psychosocial care, so care plans often exclude these needs. However, providers can deploy a range of staff to provide psychosocial support. Throughout this report, we highlight best practices on how leading population health managers deploy staff to assess psychosocial needs and target interventions accordingly. The table below provides an overview.

## Tasks and Accountability for Addressing Psychosocial Needs

Task Performed	Physician	NP/PA <sup>2</sup>	RN Care Manager	Social Worker	Medical Assistant	Community Health Worker	Trained Volunteer
Set patients up to self-administer psychosocial needs assessment while waiting for routine care appointment					✓		✓
Proactively reach out to at-risk patients electronically and conduct biopsychosocial assessment			✓		✓	✓	
Collaborate with community partners to bolster understanding of at-risk patients' needs			✓	✓		✓	
Conduct comprehensive qualitative psychosocial bedside assessment for high-risk patients admitted to hospital			✓	✓		✓	
Visit high-risk patients at home post-discharge to assess biopsychosocial needs and understand living situation			✓	✓		✓	
Screen and review psychosocial needs at every routine care appointment	✓	✓	✓	✓		✓	
Assess and incorporate health literacy and patient engagement level in care plan development and ongoing management					✓	✓	
Educate low-risk patients about available community support services to meet psychosocial needs					✓		✓
Triage patients with newly identified high-acuity needs to appropriate care team specialists/allied professionals <sup>3</sup>			✓		✓	✓	✓
Ensure warm handoff to needed community resources for rising-risk patients		✓	✓	✓	✓	✓	✓
Actively navigate psychosocial care for high-risk patients			✓			✓	

1) Nurse practitioner.

2) Physician assistant.

3) Examples: Behavioral health specialist, pharmacist.

# Integrating Psychosocial Needs into Ongoing Care

This report provides ten tactics for assessing patients' psychosocial needs and tailoring appropriate interventions. Since providers do not have sufficient time or resources to advance comprehensive psychosocial care for every patient, many tier assessment and support activities based on patient risk level.

For all patients, providers review psychosocial needs across routine interactions and educate patients about appropriate community resources. For at-risk patients, they collect information from community partners and patient surveys, and provide warm handoffs to community-based providers for psychosocial care. For high-risk patients, they conduct in-depth assessments and actively navigate patients across psychosocial next steps.

## 10 Tactics for Integrating Psychosocial Risk Factors into Ongoing Care

	Assessing Psychosocial Needs	Tailoring Psychosocial Support
All Patients	1. Capitalize on routine interactions to gather information about psychosocial needs	6. Provide primary care team with overview of psychosocial needs during care visits 7. Educate patients about community resources to meet psychosocial needs
At-Risk Patients	2. Collaborate with community partners to fill knowledge gaps 3. Proactively collect data for patients disconnected from the system	8. Tailor care to patient health literacy and activation levels 9. Ensure warm handoff to community partners capable of supporting needs
High-Risk Patients	4. Perform in-depth psychosocial bedside assessments for admitted patients 5. Extend staff for home-based assessments to uncover holistic view	10. Actively navigate psychosocial care



### Special Report: Evidence-Based Intervention Case Study Compendium

Language barriers

Housing instability

Lack of insurance

Lack of transit

Behavioral health

Financial hardship

Food insecurity

Social isolation

## ▶ Assessing Psychosocial Needs

Identify Patients' Psychosocial Needs Based on Risk Level

# Leverage Office Wait Time for Psychosocial Screenings

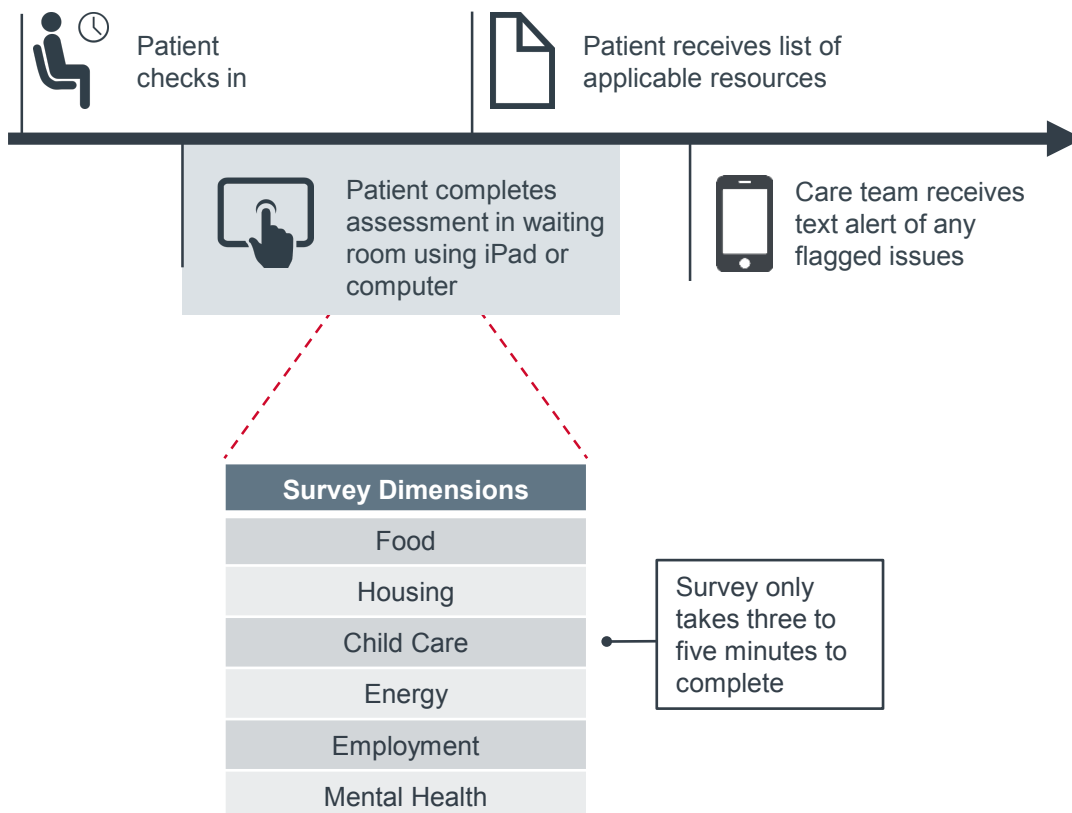
## Healthify's Self-Administered Assessment Maximizes Primary Care Efficiency

The physician office waiting room offers an opportunity to collect psychosocial patient data without consuming face time between physicians and patients. All patients can complete psychosocial screening assessments made available electronically or in hard copy while waiting to be seen.

Healthify is a New York-based digital health start-up that works with health care providers, health plans, and local governments across 30 states to enable providers to assess psychosocial needs. After checking in, patients spend three to five minutes completing Healthify's psychosocial risk survey on an iPad or computer in the waiting room. The digital self-assessment ensures discretion, facilitates data capture, and encourages disclosure of often stigmatized needs.

The care team is notified via text message if their patient reports any unmet psychosocial needs. The physician can then use this information in patient discussions and introduce case managers or social workers. Case managers often use the Healthify platform to find convenient community resources for patients.

### Patient-Directed Screenings Identify Psychosocial Risks



# Use Trusted Community Partners to Optimize Disclosure

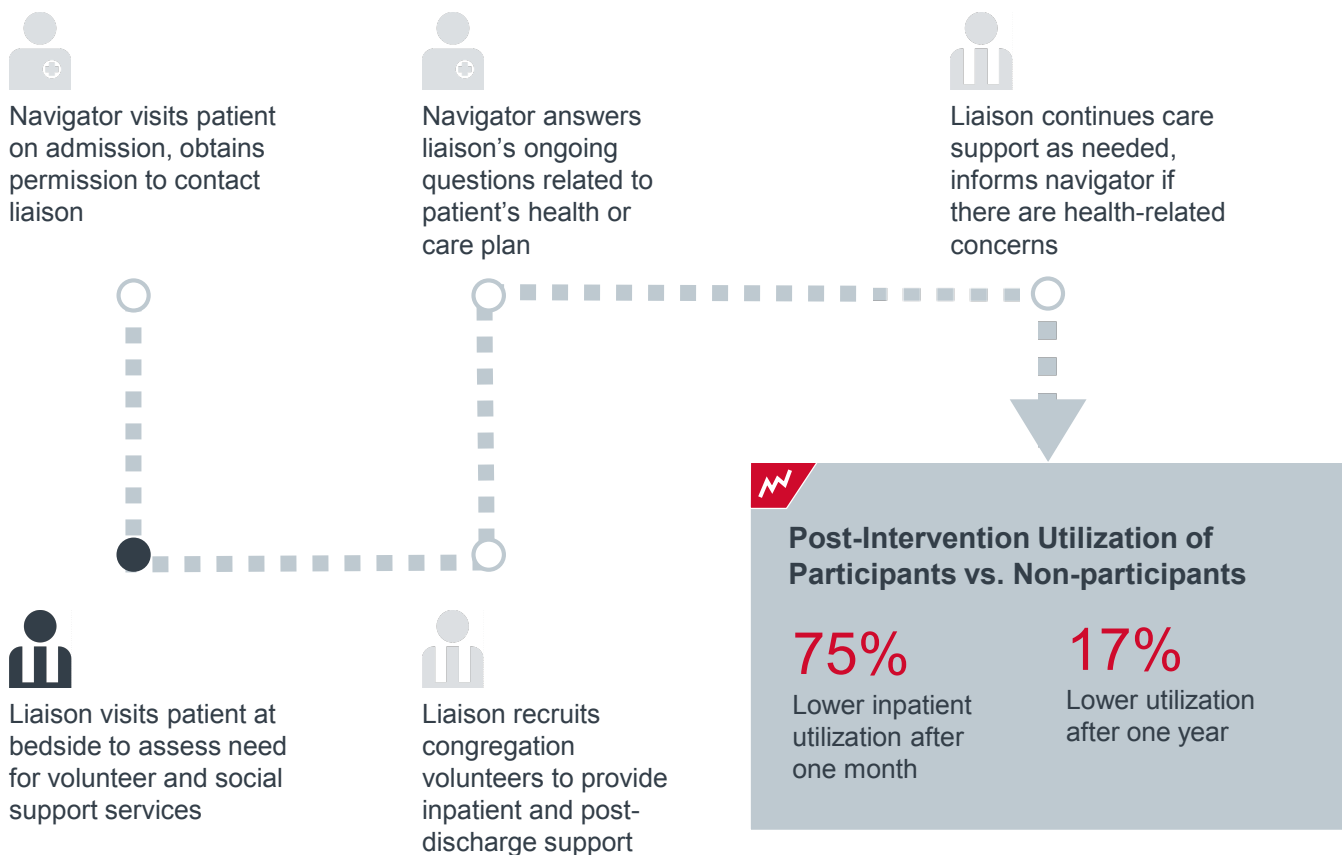
## MFHN<sup>1</sup> Congregants Surface Needs to Facilitate Post-Discharge Recovery

By definition, patients recently discharged from the hospital are automatically considered “at-risk.” Patients not receiving post-acute care or post-discharge hospital support should be a high-priority population for psychosocial outreach. Some providers capitalize on partnerships with trusted community organizations to perform this outreach.

The Maryland Faith Health Network (MFHN) is a philanthropy-funded network of hospitals and faith organizations dedicated to helping their shared population recover and stay healthy following hospital visits. When a member of a congregation is admitted to a participating hospital, the hospital gives them the option to receive congregational support. Patients who opt in receive a visit from a member of their congregation who has been trained as a health care liaison.

Liaisons meet with participating patients to uncover psychosocial barriers to recovery. Because of their shared faith and community, liaisons are able to quickly gain patients’ trust and facilitate the types of sensitive conversations that bring psychosocial issues to light. Once a patient’s needs are identified, the liaison coordinates relevant social services. They also work with a counterpart at the hospital to support the patient during early recovery at home.

### Hospital-Employed Navigator and Community Liaison Workflow



1) Maryland Faith Health Network.

Source: [Evaluation Final Report](#), Maryland Faith Health Network, 2017; Population Health Advisor interviews and analysis.

# Use Proactive Outreach to Assess Disconnected Patients

## OSF Non-clinical Staff Call Patients Deemed “At-Risk”

A significant proportion of patients at risk of health care escalation are disconnected from the health care system. Providers often do not have access to information on these patients’ care needs. To prevent escalation, population health managers are proactively reaching out to disconnected patients to surface clinical and psychosocial care gaps.

OSF Medical Group, a 650-member multispecialty group based in Illinois, uses Milliman risk scores to trigger proactive telephonic patient outreach. Non-clinical staff members call individuals with risk scores greater than three and perform a 10-question telephonic assessment. The assessment confirms the patient’s eligibility for care management services and identifies their specific needs. OSF Medical Group has connected 30% of formerly-disengaged patients to needed care management and psychosocial interventions.

### Proactive Telephonic Outreach for Disconnected At-Risk Patients

#### Patient Identification



Claims data identifies individuals for telephonic outreach based on Milliman score



#### Patient Outreach



Non-clinical care coordinator performs telephonic outreach to flagged patients to identify needs, screen for eligibility for care management



#### Patient Outreach Questionnaire<sup>1</sup>

1. Do you struggle with pain? Is it well-managed with medication?
2. Do you have any questions about your medication(s)? Does anyone help you with your medication(s)? If so, who is helping you with them?
3. Do you have any problems affording or obtaining medications?
4. Have you had any falls recently?
5. Have you had any problems with your memory that concern you? Have you been more forgetful than usual?
6. Do you have any problems with depression or anxiety? Or a history of mental illness in the family?
7. Any problems getting to appointments?
8. Do you use any equipment or supplies? Are there any equipment or supplies that you feel you could benefit from that you do not currently have?
9. Do you have any supports or outside services in place?
10. Do you have any more questions, comments, or concerns?

#### myHealth Enrollment

I see that you are not enrolled in myHealth. Can I get you enrolled? It will only take a few minutes and there is no charge.

Disposition of Call \_\_\_\_\_



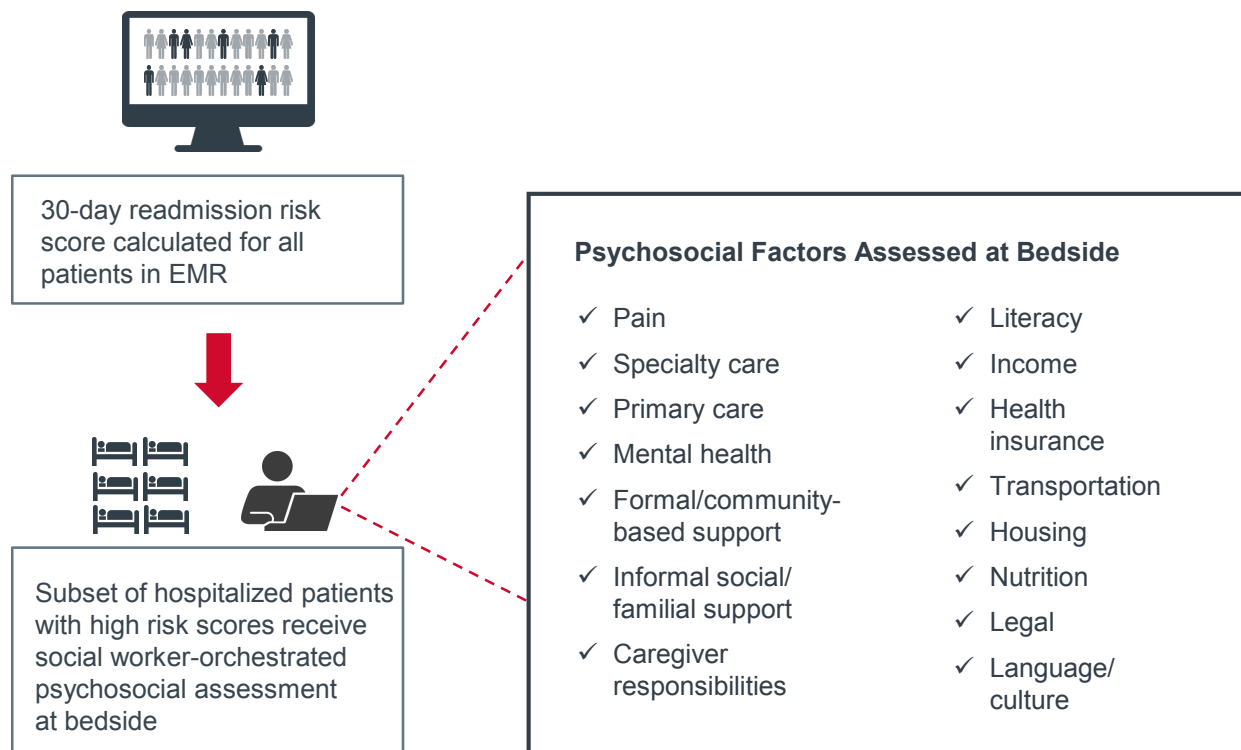
# Target Inpatient Settings for Intensive Assessments

## Mount Sinai Prioritizes In-Depth Psychosocial Assessments for PACT<sup>1</sup> Participants

For patients with high inpatient utilization, providers deploy staff to conduct psychosocial assessments at the bedside to inform post-discharge interventions and ongoing care management. Social workers at Mount Sinai Medical Center in East Harlem, New York, complete 60- to 75-minute qualitative bedside assessments for patients identified as “high-risk” at admission. These assessments inform participation in the Preventable Admissions Care Team (PACT) program.

PACT is a five-week post-discharge intervention aimed at reducing readmissions. Staff gather information across 15 risk areas to develop care plans for enrolled patients. Mount Sinai has found that participating patients use ED and inpatient services less frequently, reducing overall Medicare spending.

### PACT Psychosocial Assessment Sets Up Personalized Post-Discharge Support



**Outcomes for Patients Enrolled in PACT<sup>1</sup>**

<b>43%</b>	Reduction in hospitalizations	<b>54%</b>	Reduction in ED visits	<b>\$1.6M</b>	Reduction in Medicare spending
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1) Preventable Admissions Care Team.

Source: Basso Lipani M, et al, "The Preventable Admissions Care Team (PACT)," Soc Work Health Care, 54, no. 11 (2015); Population Health Advisor interviews and analysis.

# Achieve 360-Degree Patient View with In-Home Assessment

## UCSF<sup>1</sup> Visits High-Risk Patients to Guide Care Planning Post-Discharge

Home assessments allow providers to identify barriers that may not be visible outside of the patient home. For example, providers can determine whether someone with COPD lives in an apartment complex that houses many smokers—a key risk factor that can trigger re-hospitalization.

University of California - San Francisco Health System (UCSF), an integrated health system serving northern California, uses in-home psychosocial assessments to inform personalized care plans for their high-utilizer patients (i.e., those with  $\geq 3$  ED visits or  $\geq 2$  hospitalizations in previous six months). Eligible patients are enrolled in the Care Support program.

After six months of enrollment, Care Support patients increased self-rated positive health by 33% and decreased emergency visits and hospitalizations from a median of 5.5 visits to 0 (compared to the previous six months).

### UCSF Patient Management Relies on Comprehensive Home-Based Assessment

#### 1 Eligibility and enrollment



#### Care Support targets patients with high utilization, after PCP approval

- Based on utilization history, the Care Support team identifies patients eligible for participation and obtains approval from the patients' PCPs.
- The NP-SW<sup>2</sup> dyad reaches out to prospective patients to enroll them in the program, calling up to three times. Once patients are enrolled, they receive a letter<sup>3</sup> and a "face card" with a photo of the Care Support team.

#### 2 Home visit and evaluation



#### In-home assessment informs evidence-based care protocols

- The NP-SW dyad visits patients at home to perform comprehensive evaluations of the patients' medical and psychosocial needs, observe their social surroundings, and work with patients to identify their personal goals.
- The medical and psychosocial assessment includes fall risk, housing status, depressive symptoms, and dependency for activities of daily living.

#### 3 Care plan development and ongoing management



- Self-management
- Care coordination
- Advance care planning

#### Dyad holds weekly case conferences with interdisciplinary team

- The dyad leads weekly, two-hour case conferences in the primary care setting to develop patient care plans based on specialist<sup>4</sup> input and standardized protocols. Whenever a patient is discussed during a case conference, a summary note is routed to the PCP through the EHR.
- Most commonly used protocols include self-management, social service coordination, and advance care planning.

1) University of California - San Francisco Health System.

2) Nurse practitioner-social worker.

3) To appear more friendly, envelope is hand-stamped (rather than using bulk mailing stamps) and the enclosed letter is signed by a member of the Care Support team.

4) Specialists include those in geriatrics, psychiatry, pharmacy, and palliative care.

Source: Ritchie C, et al., "Implementation of an Interdisciplinary, Team-Based Complex Care Support Health Care Model at an Academic Medical Center," *PLoS One*, 11, no. 2 (2016); Population Health Advisor interviews and analysis.

## ► Tailoring Psychosocial Care

Determine Psychosocial Support Based on Patients' Health Literacy, Engagement, and Risk Levels

# Provide Physicians with Easy Access to Key Information

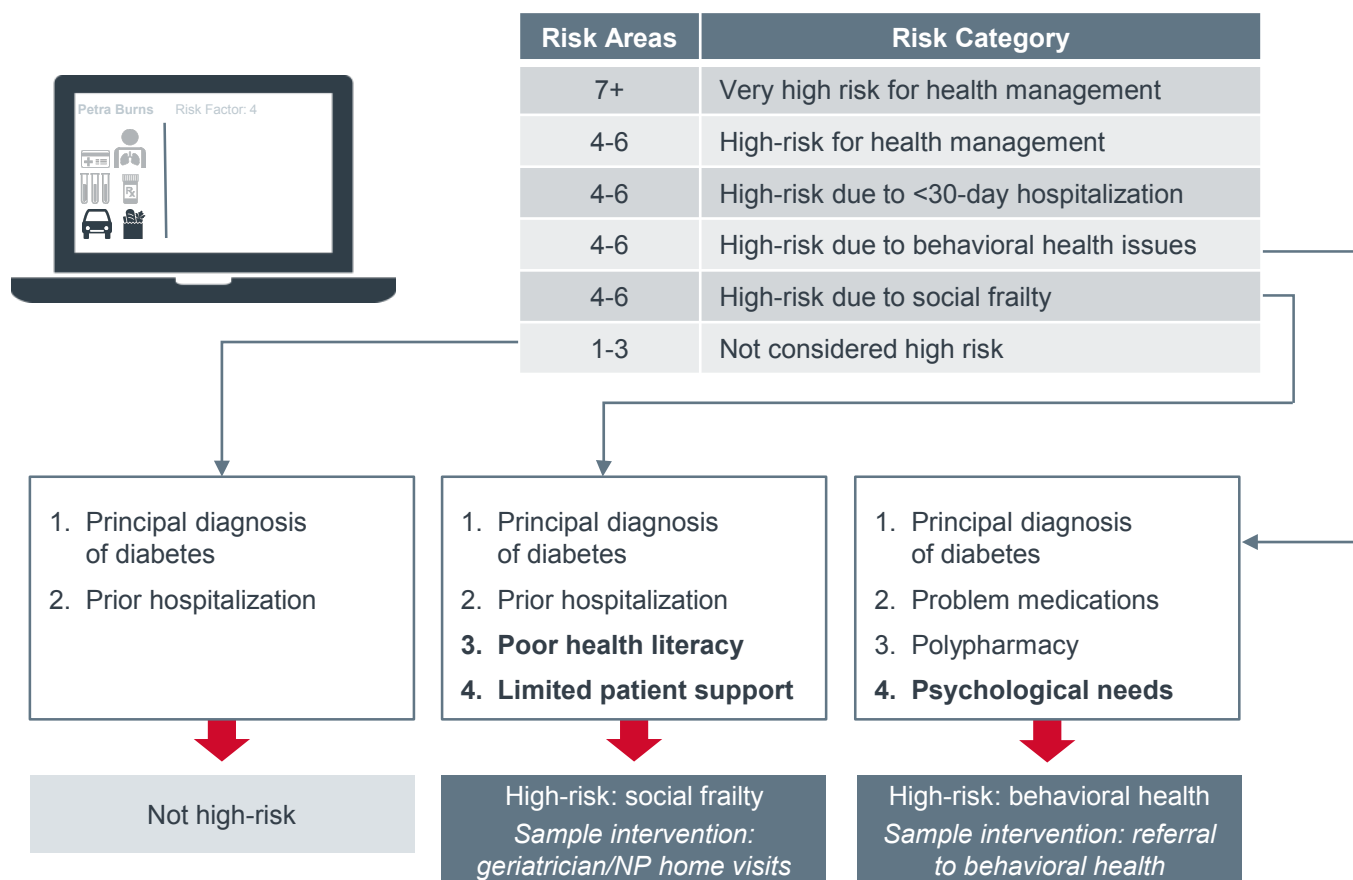
## Vanguard's Multidimensional Assessment Informs Referral Orders

Simply collecting psychosocial data is only the first step to addressing patients' needs. To inform care planning, the information needs to be readily available to providers during patient interactions. Vanguard Medical Group (VMG), a 43-provider primary care group with nine sites in Northern New Jersey, develops care plans based on patient risk factors. VMG's proprietary algorithm risk stratifies patients based on a range of clinical and psychosocial factors.<sup>1</sup>

During each office visit, patients are screened for psychosocial needs using HealthLeads' Social Needs Screening Tool. The resulting risk information is presented alongside medical history and medications on the computer screen during each office visit. Risk information is also embedded in provider and care coordinator notes for post-visit reference.

VMG leaders understand that patients with the same clinical diagnoses may require substantially different interventions. A physician may order geriatrician home visits for an elderly patient with limited home support, poor health literacy, and lack of transportation. For a patient with the same disease profile but outstanding psychological issues, a physician might refer the patient for behavioral health support.

### Vanguard Medical Group Patient Care Planning Process



See appendix, page 36, for a sample of the Risk Assessment

1) Factors include problem medications, psychological, principal diagnosis, polypharmacy, poor health literacy, patient support, prior hospitalization, and palliative care.

Source: Vanguard Medical Group; Population Health Advisor interviews and analysis.

# Map Navigation Approach to Risk Level

Once needs are identified, provider organizations often intervene by referring patients to existing community resources, rather than providing interventions in-house. Under this approach, population health leaders risk patient drop-off between the health care and community settings, especially for at-risk patients. Given the drop-off risk, only low-risk patients are good targets for passive resource navigation. This population can follow through on referrals to psychosocial support without the direct supervision of health system personnel.

In contrast, at-risk patients require active support to prevent psychosocial care gaps. Advanced population health leaders deploy volunteers or staff to actively navigate at-risk patients across psychosocial next steps. Next steps can range from providing warm handoffs to forming multi-month relationships.

## Psychosocial Support Activities by Patient Risk



1) Common examples include congregants, students, and peer support specialists.

Source: Population Health Advisor interviews and analysis.

# Tailor Education and Services to Level of Understanding




## Grady Memorial Hospital Focuses on Readability, Visuals, and Clear Timelines

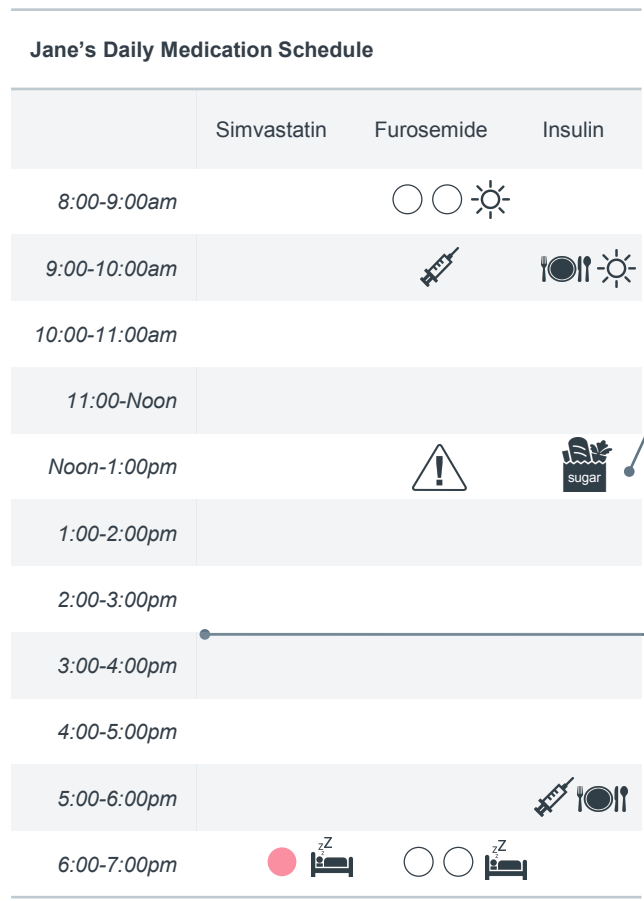
Providers should accommodate patients' health literacy levels when communicating care plans. Poor health literacy is associated with higher acute care use, lower preventive care adherence, and worse overall health. At least one in five patients will likely struggle to fully comprehend written or even spoken health care-related instructions. Messaging in care plan instructions should be written at a fourth- to sixth-grade reading level and use images when possible.

Emory University's Grady Memorial Hospital (GMH), a large Atlanta-based public hospital, uses health literacy principles when providing medication instructions. In partnership with Rollins School of Public Health, GMH created easy-to-read resources for polypharmacy patients with low health literacy.

The Pharmacy Intervention for Limited Literacy (PILL) program uses visual cues to communicate medication regimens. Medication placards and printed timelines provide the color, size, and shape of each pill, along with simplified directions for taking the medication. Of patients receiving a placard, 92% found it very easy to understand and 94% found that it helped them to remember information like the purpose of their medications or what time of day to take them.

### PILL's Medication Timeline Placard for Patients with Low Literacy

MEDS	SIMPLIFIED INFORMATION
Simvastatin 20mg 	<ul style="list-style-type: none"> <li>• Take 1 pill at night</li> <li>• For cholesterol</li> </ul>
Furosemide 20mg 	<ul style="list-style-type: none"> <li>• Take 2 pills in the morning and 2 at night</li> <li>• For fluid</li> </ul>
Insulin 	<ul style="list-style-type: none"> <li>• Inject 24 units before breakfast</li> <li>• Inject 12 units before dinner</li> <li>• For diabetes (sugar)</li> </ul>



Schedule may include warning signs for when dietary guidelines influence outcomes

Times listed down the rows of the table is more readable when multiple medications are needed

# Use Activation Level to Direct Care Plan Steps

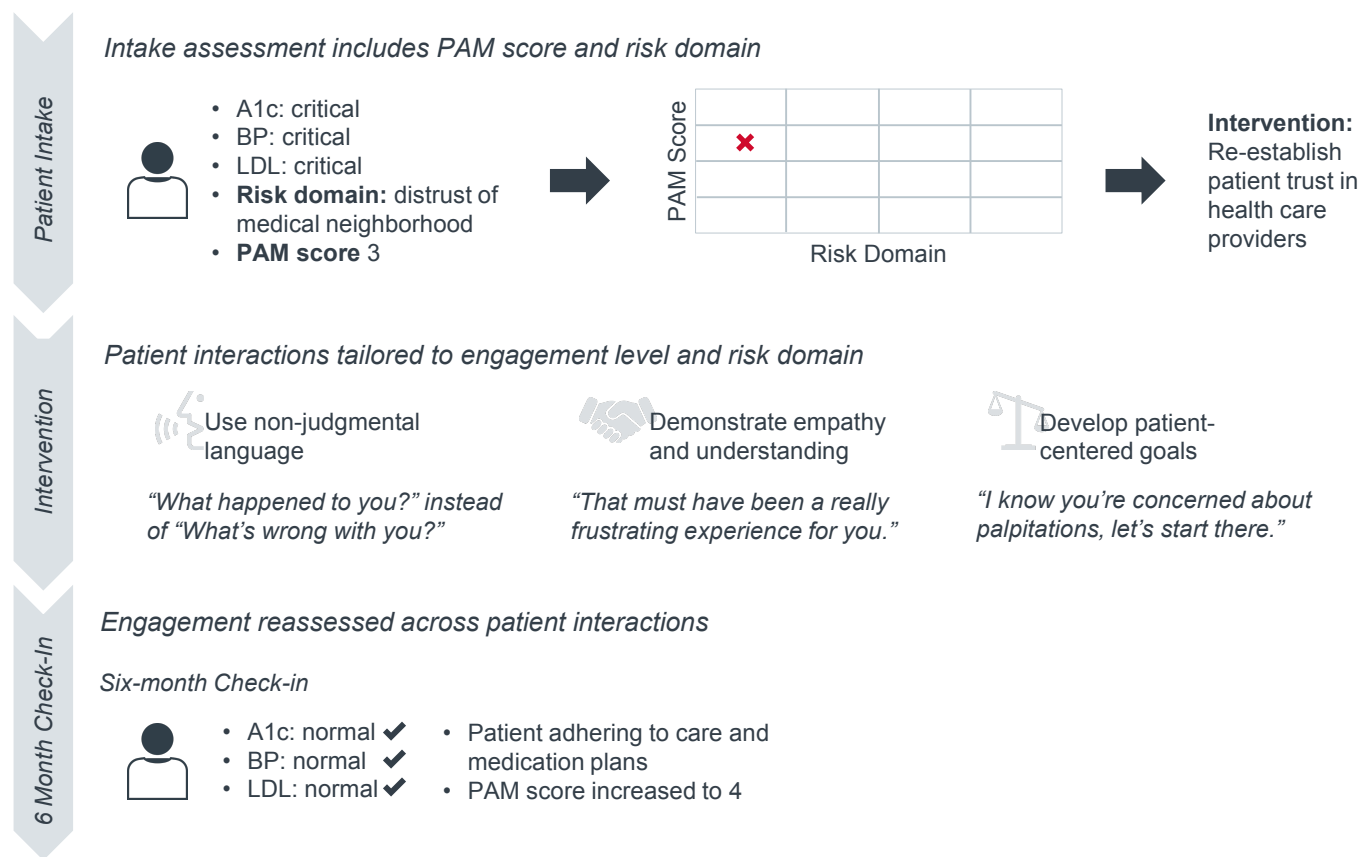
## Stanford Primary Care Clinic Customizes Interventions Based on Engagement

Patient engagement is associated with care plan adherence. Stanford Coordinated Care (SCC), a primary care practice that is part of Stanford’s employee ACO, incorporates the Patient Activation Measure (PAM) score into care plan development to optimize treatment outcomes.

Stanford categorizes patients by PAM score and the “risk domain” driving engagement level. To determine risk domain, SCC providers assess a patient’s lack of trust in the medical neighborhood, social isolation, medical complexity, failed self-management, and poor mental health.

Stanford modifies care interventions according to patients’ confidence in self-management. A patient who is medically complex but highly engaged does not require intensive coaching. Instead, the patient may be directed to use an online patient portal as a communication tool for low-acuity questions. A disengaged patient with the same medical problems likely requires more intensive support. In that case, SCC providers can make warm handoffs to community partners that support treatment adherence. Stanford Coordinated Care saw ED visits decrease by 59%, hospitalizations by 29%, and total cost of care by 13% six months post-enrollment.

### Care Plan Tailored to Patient Engagement Level and Cause



Source: “New Models of Primary Care Workforce and Financing,” Agency for Healthcare Research and Quality (2016); Population Health Advisor interviews and analysis.

# Ensure Warm Handoffs to Partners to Prevent Care Gaps

## Volunteers at ZSFG<sup>1</sup> Connect Patients to Community Resources

To prevent psychosocial referrals from going unfilled, Zuckerberg San Francisco General, a large public hospital in California, uses volunteers to actively connect patients with community services. In partnership with researchers from the University of California in San Francisco, ZSFG found that active resource navigation reduces the number of parent-reported social needs and improves parent-reported child health.

ZSFG partners with UCSF to ensure active resource navigation in a financially sustainable way. Local pre-health professional students work as volunteer resource navigators for social services in pediatric primary care clinics. Using a volunteer model to assist with low-acuity psychosocial needs frees up social workers to operate at top-of-license with higher-acuity psychosocial patients. Volunteers are located at clinic help desks and connect patients with resources available to help them with short- and long term self-management. The San Francisco Department of Health funds three part-time supervisory roles to manage the program. Beyond those costs, the model operates on fundraising efforts and volunteers.

### ZSFG Resource Navigation Help Desk Operations

#### Volunteer Action

#### Key to Success

- 1 Once a patient is roomed, volunteer conducts a laptop-based screening questionnaire to surface social needs
- 2 Volunteer and patient collaboratively determine what type of support services would be helpful and what the concrete next steps are to receiving that support
- 3 Volunteer alerts the clinic's behavioral assistant or social worker of any patient needs that require their expertise
- 4 Volunteer documents identified needs and action steps on secure platform, and administrative supervisor inputs into EMR

Volunteer uses language that ensures patients don't feel targeted and are comfortable disclosing information, e.g.,: *"We ask these questions to all patients"*

Volunteers are local pre-health students who are familiar with the area and reflect the patient population in terms of languages spoken to make it easy to relate to patients

Clinics with volunteers often have social workers or behavioral assistants to support higher-level patient needs concurrently

With HIPAA<sup>2</sup> constraining volunteer access to EMR, secure platform allows for information to be documented accurately and accessible while waiting to be entered

1) Zuckerberg San Francisco General.  
2) Health Insurance Portability and Accountability Act.

Source: Zuckerberg San Francisco General; University of California – San Francisco; Population Health Advisor interviews and analysis.



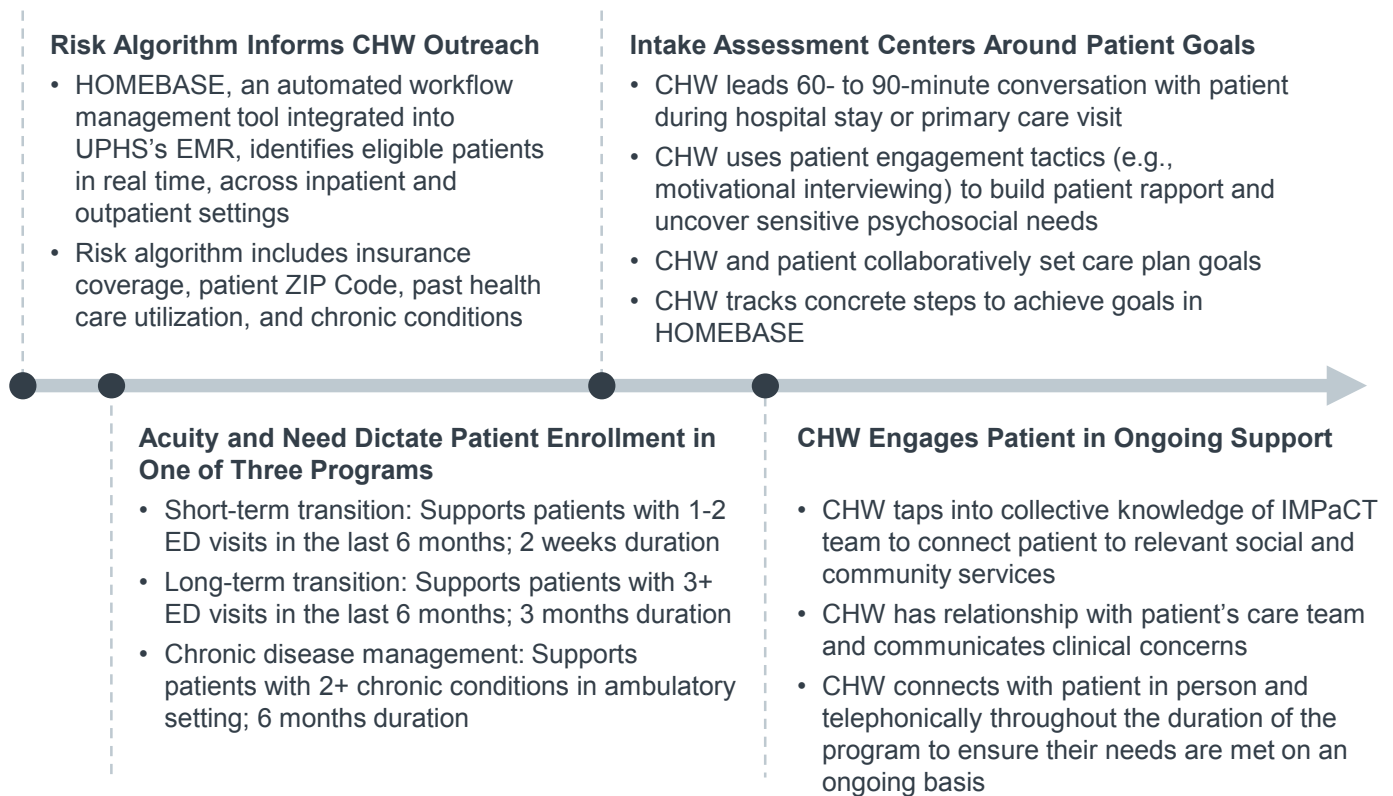
# Deploy Community Specialists for Risky Groups

## Penn Uses Community Health Workers to Provide Ongoing Support

For patients who need the most hands-on support, provider organizations are increasingly turning to community health workers (CHWs) to help navigate clinical and psychosocial care. CHWs aren't clinically trained, but are hired because of their engaging, empathetic personalities and personal experiences in the community. These traits allow them to gain patients' trust and drive care engagement.

The University of Pennsylvania Health System (UPHS), a six-hospital health system in Philadelphia, developed an effective CHW model called IMPaCT. Each year, IMPaCT's 30 community health workers collectively support over 2,000 patients at risk of readmission or exacerbation due to chronic conditions. While initially started through grant funding, the program is now funded as part of routine care at Penn Medicine due to its success.

### A Community Health Worker's Journey with At-Risk Patients



**Impact of Effective Community Health Worker Care**

<b>2:1</b>	<b>30%</b>	<b>30%</b>	<b>12%</b>	<b>13%</b>
ROI of Penn's CHW program	Decrease in hospitalizations	Decrease in multiple readmissions	Increase in primary care access	Increase in HCAHPS communication scores

Source: University of Pennsylvania Health System, Kangovi S, et al., "Community Health Worker Support for Disadvantaged Patients with Multiple Chronic Diseases: A Randomized Clinical Trial," *American Journal of Public Health*, 107, no. 10 (2017):1660-1667; Kangovi S, et al., "Patient-Centered Community Health Worker Intervention to Improve Post-Hospital Outcomes: A Randomized Clinical Trial," *JAMA Internal Medicine*, 174, no. 4 (2014): 535-543; Kangovi S, et al., "The Use of Participatory Action Research to Design a Patient-Centered Community Health Worker Care Transitions Intervention," *Healthcare*, 2, no. 2 (2014): 136-144; Population Health Advisor interviews and analysis.



## ▶ Special Report

### Evidence-Based Intervention Case Study Compendium

- Language barriers
- Behavioral health
- Housing instability
- Financial hardship
- Lack of insurance
- Food insecurity
- Lack of transportation
- Social isolation

# Focus Psychosocial Support on Critical Needs

## Pick Interventions Based on Desired Impact

This compendium of case studies details interventions that leading providers have implemented to address critical risk factors. Psychosocial factors are highly interconnected, but most provider organizations don't have the time or resources to address all of them. When investing in infrastructure to support individual patients by alleviating their psychosocial barriers to health, providers often prioritize the seven factors outlined below.

### Documented Population Health Impact of Addressing Specified Patient Need

Need	Reduces Cost	Rightsizes Utilization	Improves Quality	Improves Access	Improves Satisfaction <sup>1</sup>
 Language barriers (page 27)	✓	✓	✓	✓	✓
 Behavioral health (page 28)	✓	✓	✓		✓
 Housing instability (page 29)	✓	✓	✓		✓
 Socioeconomic status <sup>2</sup> (page 30,31)	✓	✓	✓	✓	
 Food insecurity (page 32)	✓	✓	✓		
 Lack of transportation (page 33)	✓		✓	✓	
 Social isolation (page 34)		✓	✓		✓

Sources: Bachrach D, et al., "Addressing Patients' Social Needs: An Emerging Business Case for Provider Investment," *The Commonwealth Fund*; "Teaching Uninsured Patients to Self-Administer IV Antibiotics at Home," *NEJM Catalyst*, (2016); "Goods for Guns," UMass Memorial Medical Center; Samuel L.J, et al., "Does the Supplemental Nutrition Assistance Program Affect Hospital Utilization Among Older Adults? The Case of Maryland," *Population Health Management*, (2017); Sommers B, et al., "Health Insurance Coverage and Health — What the Recent Evidence Tells Us," *NEJM*, 377, (2017): 586-593; Njeru J, et al., "Emergency Department and Inpatient Health Care Utilization Among Patients Who Require Interpreter Services," *BMC Health Services Research*, 15, no. 214 (2015); Foden-Vencil K, "In The Hospital, a Bad Translation Can Destroy a Life," NPR; "Speaking Together: National Language Services Network," Robert Wood Johnson Foundation; Jacobs A, "The Impact of an Enhanced Interpreter Service Intervention on Hospital Costs and Patient Satisfaction," *Journal of General Internal Medicine*, 22, (2007): 306-311; Dickens A, et al., "Interventions Targeting Social Isolation in Older People: A Systematic Review," *BMC Public Health*, 11, no. 647 (2011); Gerst-Emerson K, et al., "Loneliness as a Public Health Issue: The Impact of Loneliness on Health Care Utilization Among Older Adults," *American Journal of Public Health*, 105, no. 5 (2015): 1013-1019; "Threat to Health," Campaign to End Loneliness; "Provider-Led Strategies for Addressing Food Insecurity," Population Health Advisor, Advisory Board; Care Delivery Innovation Reference Guide, Population Health Advisor, Advisory Board; Population Health Advisor interviews and analysis.

1) Includes staff and patient satisfaction.  
2) Includes insurance status and financial status.

# Ensure Cultural Sensitivity Across Patient Interactions

## Cambridge Health Alliance Increases Access to Language Support

Language barriers prevent meaningful communication between providers and patients, which compromises care quality and patients' trust in the health care system. Cambridge Health Alliance (CHA) is a Massachusetts-based community health system serving a diverse patient population. Over half of CHA patients report speaking a language other than English at home and 42% of CHA's primary care patients have limited English proficiency. According to a study conducted by CHA, diabetic patients with limited English proficiency supported by a language-concordant provider show significantly better clinical outcomes compared to patients who aren't.

To meet the needs of patients with limited English proficiency (LEP), CHA developed robust language services across health care settings. On the system's website, patients can search for a doctor that speaks their preferred language. When patients check in for an office visit, CHA registration staff screen patients for language preferences. Patients identified as having LEP are supported by language-concordant providers, in-person or telephonic interpretation, or language line interpretation services, based on availability.

### Training and Standardized Screening Critical to Program Success

#### *Components of Registration, Provider Staff Training*

- ✓ How to deliver linguistically and culturally sensitive services
- ✓ Importance of understanding language preferences
- ✓ How to access interpretation services for patients
- ✓ Annual testing on CHA language policies and how to implement them

#### *Standardized Questions Assessed at Check in*

- What is your primary language?
- In what language do you prefer to communicate with your provider?
- Would you like to use interpreter services for your visit?

### In-Visit Interpretation Offerings



Language-concordant provider



In-person interpretation



Telephonic interpretation



Language line interpretation service



#### Language-concordant providers for diabetes management led to:

**39%**

Lower likelihood of hospitalization or ED utilization related to diabetes compared to those receiving no language services

# Promote Self-Management Through Easy Touchpoints

## Montefiore Delivers Behavioral Health Management Via Virtual Connection

As providers look for scalable methods to engage patients in care management support, mobile apps have emerged as potential options. This is especially true for behavioral patients who often struggle to adhere to care plans and appointments. One study found that 53% of patients with one or more behavioral health conditions don't adhere to behavioral health care plans.

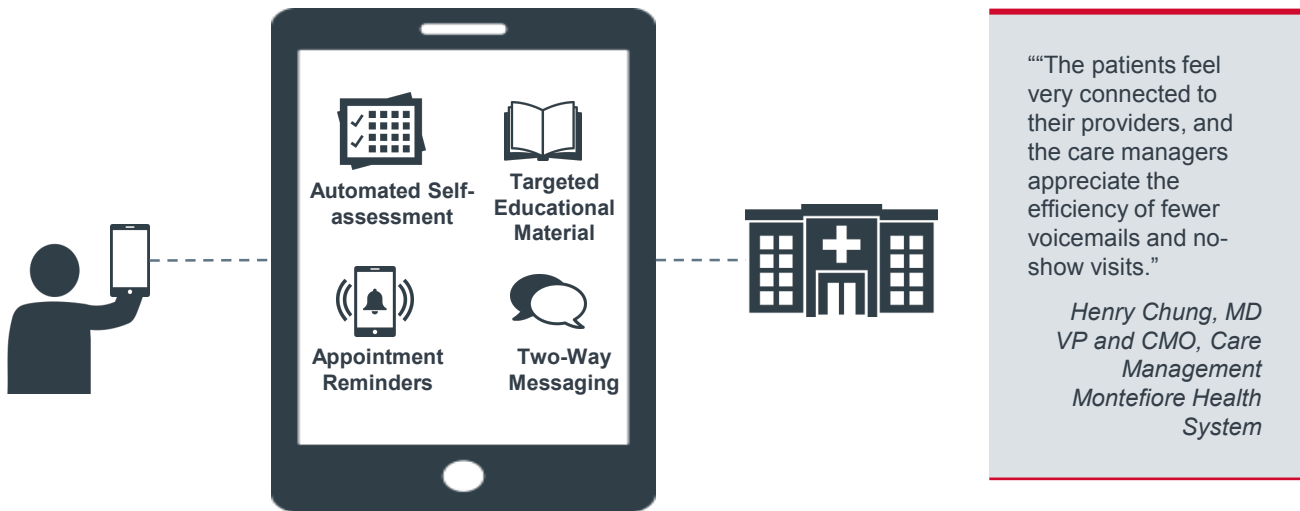
Montefiore Health System, a 2,500+ bed integrated care system with eight hospital campuses and a large ambulatory network in New York, has partnered with Valera Health to virtually support behavioral health patients. As part of a grant from the Center for Medicare & Medicaid Innovation to integrate behavioral health into primary care, Montefiore provides patients with a mobile app. The app allows patients to self-monitor behavioral health symptoms, stay in touch with care managers and providers, and access educational resources.

Montefiore provides the app to patients who attend any of five Montefiore integrated primary care sites participating in the collaborative care model. Among other capabilities, care managers are alerted to changes in patient's conditions that may require a clinical intervention.

Using a mobile app to stay connected is convenient for patients and care management staff alike:

- Simple questions or care updates don't require unnecessary appointments;
- Care managers don't face endless strings of voicemail messages; and,
- Patients get in the habit of actively and daily monitoring their health needs.

### Valera Health Mobile App Keeps Behavioral Health Patients Engaged



**First-year results:**

<b>54%</b>	Of patients report improved depression and anxiety symptoms	<b>27%</b>	Of patients reported remission from depression or anxiety	<b>3x</b>	More frequent contact between patients and care managers
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Source: Mack H, "Montefiore Health System sees improvement in anxiety, depression of patients using Valera Health's app," mobihealthnews, (2017); Population Health Advisor interviews and analysis.

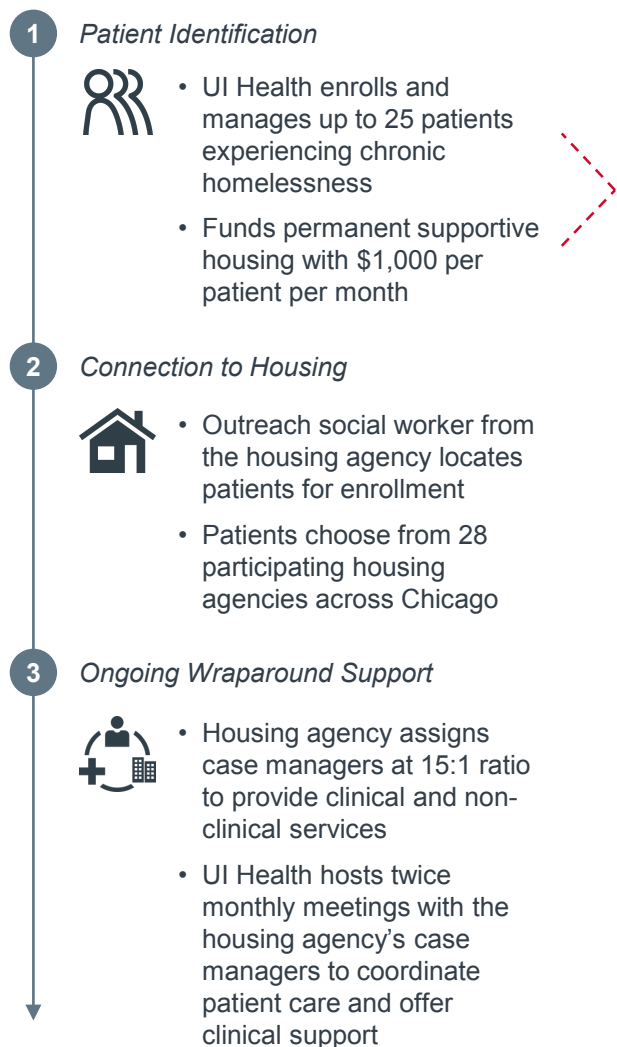
# Start with Housing to Improve Care for Homeless

## UI Health Collaborates with Community Partners to Provide Housing Support

Without access to long-term, stable housing, patients are incapable of focusing on improving their health status. The University of Illinois Hospital and Health Sciences System (UI Health) recognized the need to address patients' housing needs after realizing that patients experiencing homelessness cost nearly five times more on average.

UI Health partnered with an expert community housing agency, the Center for Housing & Health, to create the Better Health Through Housing program. UI Health and partners identify chronically homeless individuals, connect them with housing, and provide wraparound clinical and psychosocial care. UI Health decreased the average cost per month of enrolled patients by 67%<sup>1</sup> and the number of monthly hospital visits by 34%.

### UI Health Partners with Center for Housing & Health Across Every Step of the Patient Interaction



**Essential Elements of the Identification Process**

**Regularly review cases in a multidisciplinary panel**  
Staff present four to five cases to a multidisciplinary panel at monthly meetings; panel includes ED physician, ED and psychiatry social workers, psychiatrist, and Director of Care Coordination

**Gather input from key partners**  
Panel includes representative from the Center for Housing & Health to ensure patients fit the Department of Housing and Urban Development's definition of chronically homeless

**Assess eligibility using a standardized tool**  
The Modified Vulnerability Index prioritizes participants by assessing "tri-morbidity" (i.e., psychiatric illness, substance abuse, and complex medical history), as well as their ability to live independently, health care utilization, and more

<sup>1</sup> One participant was excluded from the results due to circumstances around end-of-life care. If participant included, average cost per month for patients enrolled decreased 27%.

Source: University of Illinois Hospital and Health Sciences System; Population Health Advisor interviews and analysis.

# Link Low-Income Patients to Available Entitlements

## BMC<sup>1</sup> Helps Patients Fight Financial Hardship Through Entitlements

Financial hardship negatively impacts a patient’s ability to maintain treatment recommendations. Low-income patients are up to 44% more likely to experience 30-day readmissions compared to higher-income individuals.

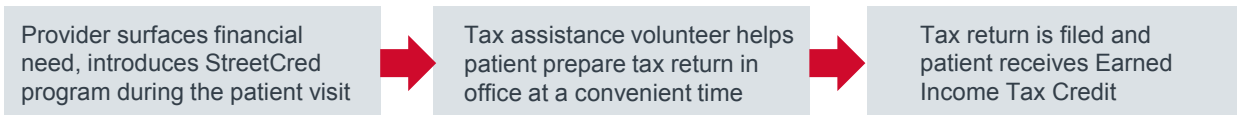
As the largest safety net hospital in New England, 487-bed Boston Medical Center (BMC) cares for a large, low-income population. Approximately 59% of their patient population is considered underserved. When pediatricians at BMC realized that their patients’ parents weren’t filing for tax credits despite financial needs or were losing hundreds of dollars paying for tax preparation despite the availability of free tax assistance programs across the city, they brought tax assistance into the doctor’s office.

BMC embeds the StreetCred program in primary care clinics and staffs it with volunteers and program supervisors. Volunteers meet with patients directly after their medical appointment or at another scheduled time to help them file their taxes and enroll in other wealth-building services.

While supervisors’ salaries are clinic-funded, both supervisors and volunteers receive free training online or from a local tax coalition. Volunteers come from a Volunteer Income Tax Assistance (VITA) coalition, from the health system itself, or from medical and other graduate schools. BMC covers the program’s central costs, such as marketing materials and staff time, through traditional fundraising and grants.

Of the families StreetCred has helped since 2016, 20% had not filed taxes the previous year, 23% reported not knowing whether they had ever received the Earned Income Tax Credit (EITC), and 63% did not know what the Earned Income Tax credit was. Since FY2016, BMC has helped 1,700 families to recover \$3 million.

### StreetCred Operations Pervade Clinic Space to Provide On-Site Financial Assistance



#### Further Physician Relationship

- A nonjudgmental question from a trusted source opens up the conversation about financial need
- Patients report feeling greater trust in and stronger connection to their provider as a result of StreetCred



#### Requires Minimal Investment

- Tax assistance volunteers, who receive free training online or through a tax assistance program, provide the bulk of the workforce
- One funded supervisory position is required per IRS regulations
- Volunteers meet with patients in available clinic spaces

Source: Barnett MJ, et al., "Contribution of Patient Characteristics to Differences in Readmission Rates," *JAMA Intern Med*, 175 no. 11 (2015): 1803-1812; Population Health Advisor interviews and analysis.

1) Boston Medical Center.



# Teach Uninsured Patients to Self-Manage

## Parkland Empowers Patients to Self-Manage, Preventing Uncompensated Care

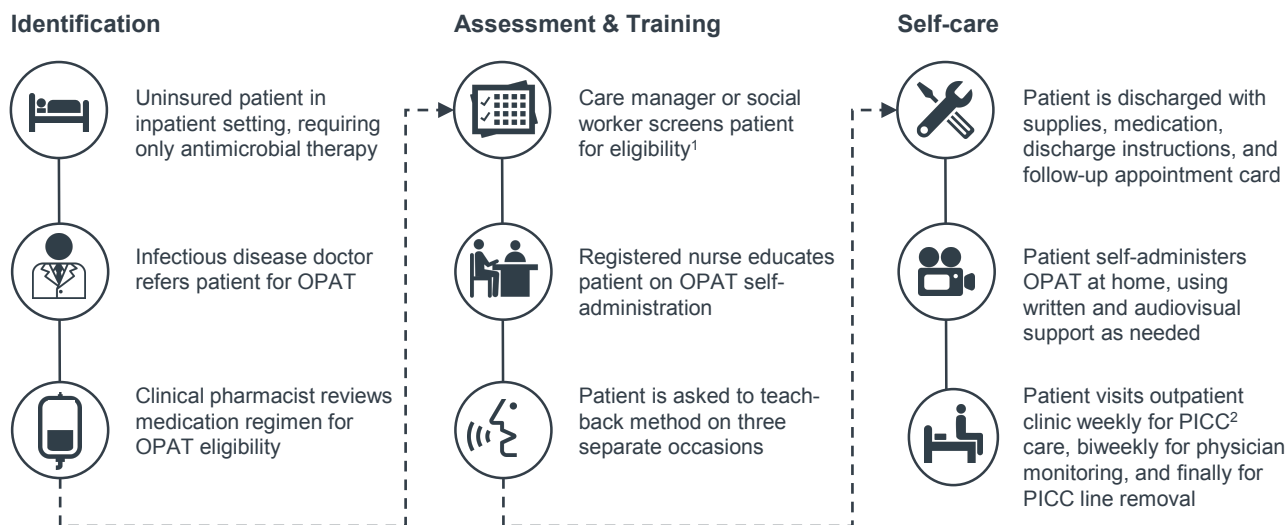
People who lack insurance are far more likely to postpone or forgo health care. This can lead to costly and avoidable health care utilization, particularly among those with chronic conditions. Like many public hospitals across the country, a substantial proportion of the patients at Parkland Memorial Hospital in Dallas, Texas are uninsured.

To reduce costs and length of stay among uninsured patients requiring four- to six-week courses of antibiotics for complicated infections, doctors at Parkland developed a program to teach patients how to self-administer outpatient parenteral antibiotic therapy (S-OPAT). Previously, these patients were unable to access standard outpatient care and remained in the hospital for the duration of their treatment.

Transitional care RNs visit eligible patients at bedside to provide comprehensive, verified education on how to safely administer IV medication, equip patients with necessary materials, and discharge them to home. Once discharged, patients have weekly follow-ups at an outpatient clinic. This gives patients autonomy and the chance to get back to daily routines. Parkland estimates that S-OPAT saves them \$10 million per year because of decreased utilization. The program's dedicated nurse staff is funded through a Medicaid 1115 waiver.

### Self-Administered OPAT Program Operations

*From Patient Identification Through Regimen's End*



1) Eligibility criteria include being medically stable, hospitalized only for IV antimicrobial infusion, no history of IV drug use; not homeless, eligible prescription including drug that is stable for at least seven days, patient or caregiver capable of administering care, patient has working refrigerator and telephone, patient can travel for weekly appointments.  
2) Peripherally inserted central catheter, a type of IV.

Source: Bhavan KP, "Teaching Uninsured Patients to Self-Administer IV Antibiotics at Home," NEJM Catalyst (2016); Ganguly A, et al, "Patient-Centered Outcomes from a Self-Administered Outpatient Parenteral Antimicrobial Therapy Clinic in a Safety-Net Hospital," Open Forum Infectious Diseases (2016); Population Health Advisor interviews and analysis.

# Screen for Food Insecurity in All Settings

## ProMedica Provides Immediate and Long-Term Food Insecurity Support

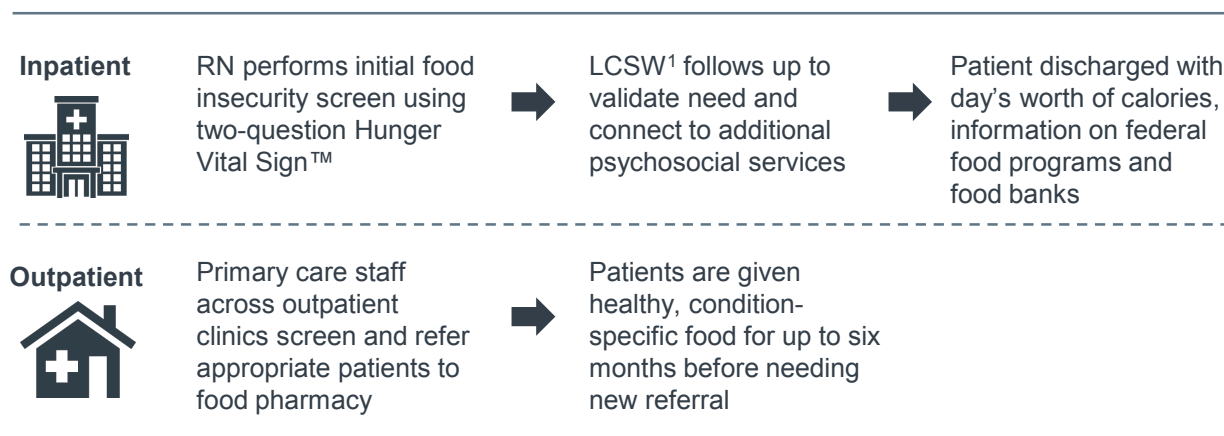
Many providers investing in addressing psychosocial needs start with food insecurity. Poor nutrition exacerbates chronic disease and is associated with direct health care costs of \$3,212 per person or \$155 billion annually across the country.

ProMedica, a 13-hospital, not-for-profit health system serving 27 counties across Ohio and Michigan, implemented system-wide food insecurity screenings due to high prevalence of food insecurity and obesity in the community. ProMedica screens patients in the inpatient and outpatient settings/ Patients receive differing levels of support based on need and site of care. Since April 2015, ProMedica has screened more than 30,000 patients in the inpatient setting and the system’s two “food pharmacies” have served over 3,000 households.

When a patient is admitted to the hospital, a registered nurse screens the patient for food insecurity using the two-item Hunger Vital Signs™ questionnaire. To ensure that needs are assessed accurately, one day after an inpatient admission, a social worker validates the responses to the food insecurity questionnaire with the patient and asks about any other social needs. Patients positive for food insecurity leave the hospital with a day’s worth of calories and information on federal programs and local food banks.

Food insecurity screening is also performed at each of ProMedica’s 16 different ambulatory care clinics. Food-insecure patients receive a referral to the system’s food pharmacy. The food pharmacy provides them with healthy, condition-specific food for up to six months before needing a new referral. ProMedica is able to actively monitor any changes in patients’ food security status because of patients’ regular visits with their PCPs.

### Overview of Food Insecurity Screening Process



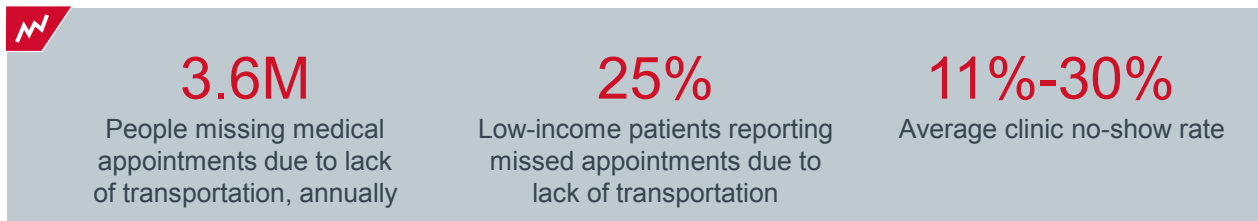
1) Licensed clinical social worker.

Source: Cook, J. et al., “[Estimating the Health-Related Costs of Food Insecurity and Hunger](#),” Bread for the World Institute; Population Health Advisor interviews and analysis.

# Provide Rides to Reduce No-Show Rate of At Risk Patients

## MedStar Partners with Uber to Improve Patient Access to Transportation

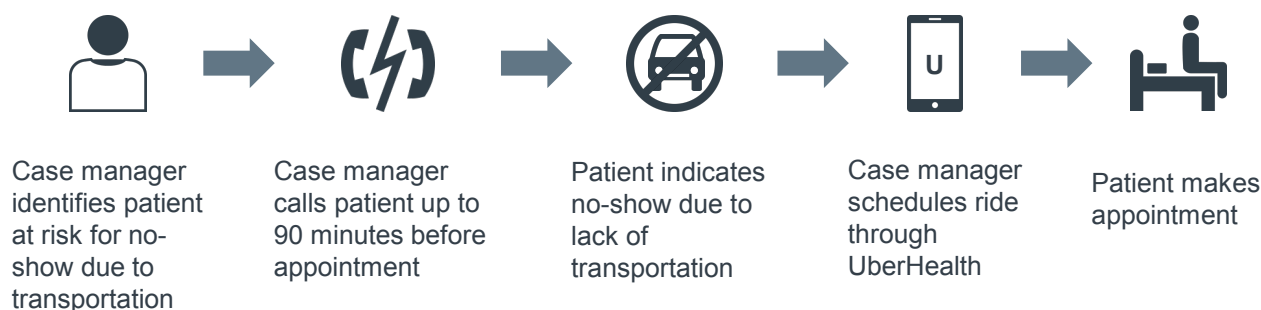
Lack of transportation prevents millions of patients, a disproportionate number of whom are low-income, from accessing primary care. Missed appointments compromise patient care, delay necessary care steps, and reduce provider efficiency and revenue.



In January 2016, MedStar Health, a Maryland-based health system serving the Washington, D.C.-metro area, became one of the first health systems to partner with Uber. Using Uber's health care platform, UberHealth, MedStar care coordinators schedule rides on behalf of eligible patients<sup>1</sup> at risk of missing their appointments up to 90 minutes prior to an appointment. Coordinators communicate directly with drivers to ensure patients' specific needs are accommodated during rides.

The rides are paid for out of the facility-level community benefit budget. MedStar finds Uber less expensive, easier to monitor, and more convenient for patients than taxi services they contracted with in the past. Additionally, having access to data through Uber's platform presents an opportunity to hotspot areas of need in the communities they serve. MedStar is looking to use this information to strategically locate new sites of care that can further reduce access barriers.

### Case Managers Use Uber to Help Patients Overcome Transportation Barrier



1) Patients who habitually cancel, re-schedule, or don't show up to appointments.

Source: Syed, ST, et al.. "Traveling Towards Disease: Transportation Barriers to Health Care Access," *Journal of Community Health* 38.5 (2013): 976-993; "Rides to Wellness Community Scan Project," *Health Outreach Partners*, (2017); Population Health Advisor interviews and analysis.

# Facilitate Social Connections for Isolated Patients

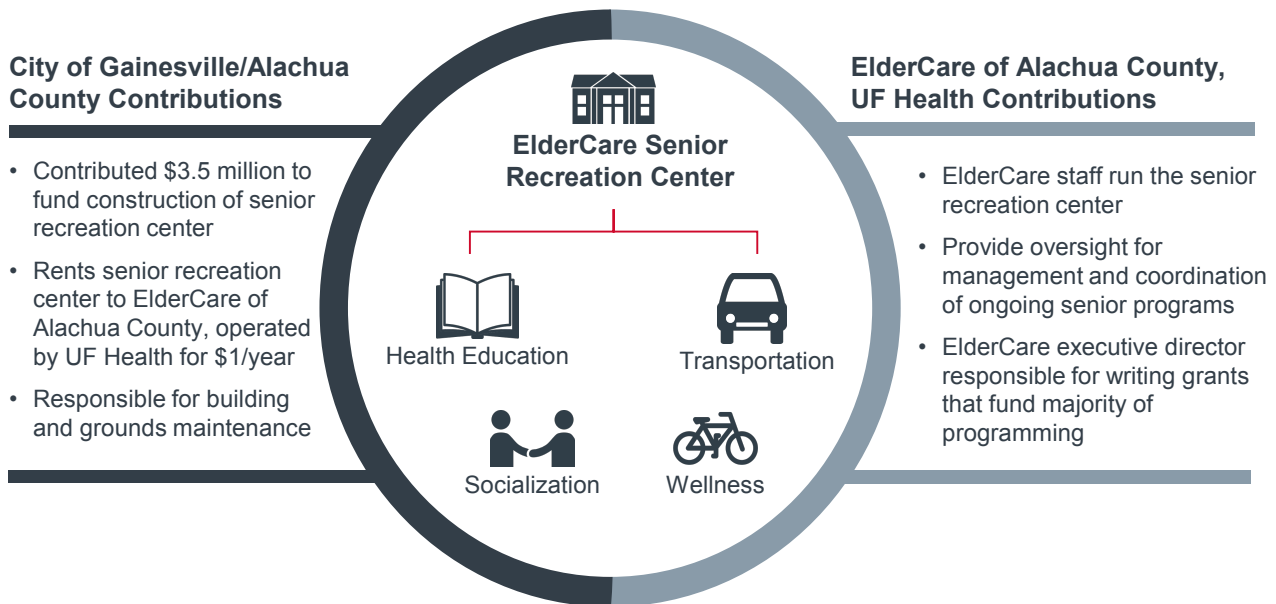
## Municipality and UF Health Partner to Educate and Activate the Elderly

Research has documented the negative influence of social isolation on chronic disease risk and performance of activities of daily living across age groups. Older adults are often at greater risk of social isolation and benefit from structured opportunities to develop social connections. To address this risk factor, ElderCare of Alachua County (a 501c3 entity owned by University of Florida Health) partnered with the City of Gainesville to open the ElderCare Senior Recreation Center.

The ElderCare Senior Recreation Center offers educational seminars, physical fitness classes, structured artistic and cultural activities, and social and volunteer events. These programs foster belonging among senior patients so that they feel a sense of social connection.

While ElderCare relies on grant funding to finance the recreation center’s ongoing operations, they turned to the City of Gainesville for start-up costs and partnership. The city paid for the construction of the facility and retains ownership, renting it to ElderCare at the preferred fixed rate of \$1 per year.

### City of Gainesville and UF Health Collaborate to Develop ElderCare Senior Recreation Center



Source: UF Health; Population Health Advisor interviews and analysis.



## ▶ Appendix

- Vanguard Medical Group Risk Assessment Tool

# Vanguard Medical Group Risk Assessment Tool

Risk Assessment (Check all that apply)	Risk-Specific Intervention
<b>Problem Medications</b> (anticoagulants, insulin, aspirin & clopidogrel dual therapy, digoxin, narcotics)	<ul style="list-style-type: none"> <li>Medication-specific education provided to patient and caregiver (e.g., warfarin/insulin/digoxin)</li> <li>Medication review completed with each care coordination outreach call and on any transition of care</li> <li>Updated medication list sent to patient</li> <li>Medication management resources offered (e.g., 28-compartment pill boxes and prescription packaging services)</li> </ul>
<b>Psychological</b> (positive depression screen, bipolar, malaise/fatigue dx, ED/IP BH, significant dementia)	<ul style="list-style-type: none"> <li>PHQ2 screening done at each office visit and documented in EHR</li> <li>Assessment of need for behavioral health support; referred to practice-based provider or other in-network provider</li> <li>Communication with local BH sites for acute IP and IOP referrals</li> <li>Referrals for patient/caregiver dementia support (VMG Home Visit Program, United Way Caregivers Coalition, others)</li> </ul>
<b>Principal diagnosis</b> (cancer, stroke, DM, COPD, CHF, ESRD/dialysis, cirrhosis, seizure, new Afib, PE, Smoker)	<ul style="list-style-type: none"> <li>Outreach in 2 business days for IP d/c; Q1-6 wks for VHR management; Q4-12 wks for HR management</li> <li>Follow up appointment w/ PCP for TOC within 7 days</li> <li>Action plans for disease specific education (e.g., diabetes, HTN, CHF, weight management, tobacco cessation); action plan reviewed with patient/caregivers regarding what to do in the event of worsening or new symptoms</li> <li>Discuss goals of care and chronic illness model with patient/caregiver</li> <li>Coordinate specialist visits, and have those evaluations and outside testing/procedure notes sent to office</li> </ul>
<b>Polypharmacy</b> (≥ 5 routine Rx meds)	<ul style="list-style-type: none"> <li>Elimination of unnecessary medications</li> <li>Simplification of medication scheduling to improve adherence</li> <li>Follow up care coordination outreach at regular intervals, including medication review</li> </ul>
<b>Poor health literacy</b> (inability to do teach back)	<ul style="list-style-type: none"> <li>Outreach to caregiver to collaborate on patient-specific plan of care</li> <li>Referral to VMG Home Visit Program</li> <li>Link to community resources for additional patient/caregiver support (e.g., geriatric care managers, social worker)</li> </ul>
<b>Patient support</b> (absence of a caregiver to assist w/discharge & care; VMG Home Visit Program)	<ul style="list-style-type: none"> <li>Collaborate w/ case manager in facility to create safe d/c plan</li> <li>Follow-up appointment w/ PCP for TOC within 7 days; Referral to VMG Home Visit Program</li> <li>Outreach in 2 business days for IP d/c; Q1-6 wks for VHR management; Q4-12 wks for HR management</li> <li>Confirm providers of home care services are activated with initial assessments scheduled within 3 days of IP d/c</li> <li>Link to community resources for additional patient support (e.g., geriatric care managers, social worker)</li> </ul>
<b>Hospitalization</b> (≥1x/non-elective in last 6 months; ICU in last year)	<ul style="list-style-type: none"> <li>Review reasons for hospitalization to identify preventable issues (e.g., poor medication adherence, lack of care support)</li> <li>Outreach in 2 business days for IP d/c; follow up appointment w/ PCP for TOC within 7 days</li> <li>Coordinate specialist visits and have those evaluations and outside testing/procedure notes sent to office</li> <li>Obtain hospital abstract for PCP</li> </ul>
<b>Palliative care</b> (Expectation that the patient will be terminal within the next year, or diagnosis with advanced or progressive serious illness)	<ul style="list-style-type: none"> <li>Assess needs for palliative care services; make referrals in collaboration w/ PCP</li> <li>Integrate Five Wishes and POLST documents into workflow</li> <li>Identify services or benefits available to patients based on advanced disease status</li> <li>Referral to VMG Home Visit Program</li> <li>Assess if BH services can be supportive</li> </ul>

## Want more on **psychosocial risk factors**?

This report is a publication of the Population Health Advisor, a division of Advisory Board. As a member of the Population Health Advisor, you have access to a wide variety of material, including webconferences, research reports, implementation resources, our blog, and more. Check out some of our other work on psychosocial risk factors.



### **Implementation resource: 10 Tools for Prioritizing Community Health Interventions**

Toolkit for prioritizing interventions across key clinical risk factors and social determinants of health.



### **Webconference: Advancing Health Equity**

Webconference on the importance of prioritizing health disparities as well as methods, stakeholders, and tools necessary for identifying pressing needs.



### **Research report: How to Close the Housing Gap Through Strategic Partnerships**

Blueprint for reducing housing insecurity and improving community health outcomes.

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