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Integration of Medical and Social Care: Challenges, Opportunities and Next Steps for Rhode Island

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Health care reform, guided by the Affordable Care Act (ACA), is driving not just federal policy change, but also significant state innovation in health care delivery and payment. Focus on achieving the "quadruple aim" – reducing costs while also improving quality, provider satisfaction and population health outcomes – has coincided with mounting evidence pointing to the social determinants of health (SDOH) – "the conditions in the environments in which people are born, live, learn, work, play, worship and age" as critical to health outcomes, risks and costs.[1] Indeed, the U.S. stands out in its failure to invest in upstream health promoting social services, while dramatically outspending its peers in downstream medical care. (**See Figure 1**.)

Figure 1. Health and Social Care Spending as a Percentage of GDP
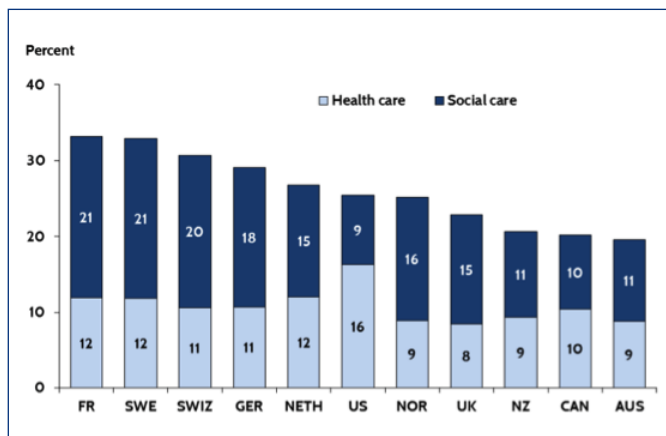
Source: Health and Social Care Spending as a Percentage of GDP (Brookings Institution, Washington, DC, 2017)

Failure to invest in social supports has fostered persistent racial, ethnic, socioeconomic and gender-based health disparities and a rise in chronic disease. As states struggle to contain health care costs, improve population health and reduce disparities, they are increasingly turning to strategies that integrate medical and social care. Typically, this approach incorporates screening for health-related social needs (HRSN) into the clinical workflow, partnerships with social service providers, and a protocol for referring patients to those providers based on the patient's identified needs. Rhode Island has been at the forefront of state innovation in this effort. As the articles in this volume describe, the

integration of medical and social care is happening through state-driven policy as well as innovative partnerships in the community.

As **MAREA TUMBER**, et al. discuss, Rhode Island's State Innovation Model test grant (a $20 million federal grant awarded to promote health system reform) and its Medicaid Accountable Entity program (which supports the development of accountable care organizations to shift RI's Medicaid program from fee-for-service to value-based payment) have embraced medical and social care integration as essential to health care delivery reform.

Medical and social care integration has significant implications for clinical care delivery and for physicians, especially primary care providers, who are often on the front lines of detecting patients' unmet social needs. Lessons from providers adopting an integrated approach tell us that interprofessional collaboration and partnerships are key to success. **DR. PANO YERACARIS**, et al. explain the evolution of an approach in Rhode Island known as "comprehensive primary care," supported by the Care Transformation Collaborative (CTC) (a non-profit committed to the proliferation of the patient-centered medical home model in Rhode Island), which involves systematic screening, care management and care coordination to address behavioral, health and social needs of patients.

Patient populations have different types and levels of vulnerability, presenting unique challenges and opportunities for an integrated approach to care. As the population ages, better coordination and integration of medical and social care for older adults is even more vital. **JOAN KWIATKOWSKI** and **DR. TSEWANG GYURMEY** describe Rhode Island's PACE program, one of the oldest in the country, which has been a leader in holistic care for elders that supports aging in the community. The PACE program demonstrates how an integrated approach – "the right support at the right time by way of an interdisciplinary team" – can reduce unnecessary emergency room visits and hospitalizations, while preserving autonomy and quality of life for older adults.

Among the most vulnerable of patient populations are homeless individuals whose access barriers to both health care and social services are profound. **MEGAN SMITH**, et al. describe the Rhode Island Patient Navigator Partnership, a unique interdisciplinary student organization housed at the Warren Alpert Medical School of Brown University that seeks

to bridge the gaps in the health and social service landscape for homeless individuals in Rhode Island, while sensitizing students – future providers – to homelessness and health-related social needs with an eye toward systems change.

The articles in this volume point to the innovative inter-disciplinary approaches being implemented in Rhode Island to integrate medical and social care. But they also raise important questions that state and community leaders and health and social service providers will continue to grapple with: As clinicians are increasingly asked to integrate screening for and address social needs as part of care delivery, what protocols and team members are necessary to be effective? What skills and knowledge do clinicians need to practice in this new environment? Should screening and referral proto-cols be standardized across providers or should they remain flexible, based on the patient populations served and/or the local context? Finally, and perhaps most critically, as we take this journey toward integration of medical and social care, do we risk medicalizing social needs? Are we simply filling the gaps in flawed and under-resourced social service systems without addressing the underlying structural issues that lead to the plethora of unmet social needs of patients?

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Addressing the Social Determinants of Health: The Rhode Island State Innovation Model (RI SIM) Experience

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ABSTRACT

Addressing social determinants of health (SDOH) is important for improving health and reducing longstanding disparities in health and health care. There is growing interest in standardizing SDOH measures and assessment tools for clinicians to help improve health outcomes. In 2015, Rhode Island received a $20 million State Innovation Model Test Grant (RI SIM) from the Centers for Medicare and Medicaid Services (CMS) to carry out health system transformation and to improve population health. As a part of RI SIM's work, state and community partners began the development of an integrated, coordinated, statewide social services directory infrastructure for addressing SDOH. The goal is to transition this project from resource directory development to a broader eReferral system over the next few years. Tracking referral outcomes will improve coordination of care and will also provide data on capacity of services and help to direct policy and funding allocation decisions at the state level.

INTRODUCTION

The social determinants of health (SDOH) are the conditions in which people are born, grow, live, work, and age and can affect a wide range of health risks and outcomes.[1,2] Differences in health are striking in communities with poor SDOH, such as unstable housing, low incomes, unsafe neighborhoods, or substandard education.[3] It has been estimated that SDOH can account for up to 40% of individual health outcomes, particularly among low-income populations.[4] Compared with other industrialized nations, the United States spends much more on health care and much less on social services.[5] Clinical care is only one factor influencing health outcomes and may be responsible for 10–15% of preventable mortality in the United States.[6] Yet, according to 2016 data, health care spending made up 17.9% of the U.S. gross domestic product (GDP), at $3.3 trillion.[7] Payers and providers recognize the importance of these determinants not just to clinical outcomes but also to cost and use of services. Toward that end, both clinical and financial cases have been made for an expanded focus on SDOH for all patients.[8,9]

An Institute of Medicine (IOM) committee identified social and behavioral domains that most strongly determine health that could be used in Electronic Health Records (EHRs).[10] While there are variations among different measurement tools, the following is a list of common SDOH domains:[11]

1. Housing instability including homelessness, poor housing quality, or inability to pay a mortgage or rent;
2. Food insecurity;
3. Transportation needs, both medical and non-medical in nature;
4. Utility needs, specifically screening for difficulty paying utility bills; and
5. Interpersonal safety related to intimate partner violence, elder abuse, and child abuse.

SIM BACKGROUND AND INITIAL SDOH PLANNING

The Rhode Island State Innovation Model Test Grant (RI SIM) is a $20 million grant that Rhode Island received from the Centers for Medicare and Medicaid Services (CMS) to carry out health system transformation – moving from volume-based care to value-based care – and to improve Rhode Island's population health. RI SIM is a public/private partnership, with a broad, representative Steering Committee of providers, payers, community organizations, and state agencies; an Interagency Team of state agency leadership; and an embedded staff model, with RI SIM staff in five participating state agencies. The five agencies are the Executive Office of Health and Human Services (EOHHS), the Office of the Health Insurance Commissioner (OHIC), HealthSource RI and the Departments of Health (RIDOH) and of Behavioral Health, Developmental Disabilities, and Hospitals (BHDDH).

People often face a fragmented system of health and human services that can be challenging to navigate, and providers often operate in disconnected environments and have no meaningful way of coordinating services for their patients. As part of its work, RI SIM engaged in a public process to identify actionable steps to improve coordination between state agencies and community partners to better understand the drivers of risk and to ultimately facilitate improved care management. OHIC had convened a working group to explore best practices in high-risk patient identification, and during this process it became evident that the incorporation of SDOH into risk algorithms and subsequent care management was a critical way to improve outcomes for patients. This

topic was well suited for collaborative effort, as local payers and providers had very limited experience in measuring or addressing these factors.

In the spring of 2017, SIM convened its own work group to discuss SDOH screening and two important takeaways came out of those discussions. First, some provider entities had begun employing SDOH screening tools within their practices, either by their own volition or as a requirement of a larger demonstration. While these providers were using different screening tools, the group identified an opportunity to use common data elements to track the results of the screening to enable systematic data collection and monitoring of SDOH. For example, one tool might ask patients about housing instability and another might ask about risk of homelessness, but the answers could be tracked together under the meta-label Housing. The work group proposed further research and analysis of the potential for statewide use of insurance billing codes, known as Z-codes, to document these meta-identified SDOH needs. Second, some providers were reticent to screen for SDOH because they felt ill-equipped to respond to any social needs that became apparent. Some providers had developed their own resource directories to facilitate referrals, but largely, providers had a fragmented and variable awareness of available social services.

SDOH SCREENING—EARLY IMPLEMENTATION

With the support of federal funds from CMS, EOHHS launched its signature health system reform initiative in July 2018, the Accountable Entity (AE) program, which provides infrastructure funding for the establishment of AEs, or Medicaid ACOs. These provider organizations must meet a set of structural requirements to be able to deliver high quality whole-person care and enter into value-based payment arrangements that create incentives to improve health outcomes and reduce costs for a population of attributed patients. A key strategic goal of this program is to improve quality by driving whole-person care, such that behavioral health and SDOH are fully integrated into primary care delivery. One of the requirements of AEs is that they must screen their patients for SDOH, and EOHHS is currently in the process of developing a clinical quality measures to drive performance improvement in that regard. EOHHS has also encouraged AEs to utilize Z-codes to document responses to SDOH screening – although it is unclear the extent to which AE's have done so – and requires participating providers to engage in arrangements with community-based organizations by which processes for referral and data sharing are made clear.

RI SIM decided to pursue the need identified by providers for better access to information about the range of resources and services that would help them address specific SDOH. The RI SIM Interagency and Staff Teams determined that if providers would only screen if they could access a tangible resource in response to a positive screen, SIM could help by making that information more readily available to providers. A small state work group began to research the problem and determined that multiple organizations throughout Rhode Island had online resource directories and others had printed, paper-based versions – all of which need to be kept up to date, validating their always-changing information.

THE UNIFIED SOCIAL SERVICE DIRECTORY (USSD)

In response to this problem, RI SIM decided to begin the development of an integrated, coordinated, statewide infrastructure for addressing SDOH. The first step for this common infrastructure begins with the maintenance of a single statewide database of community-based organizations, services, and public benefits. The USSD will also serve as a centralized location and process for data validation and will connect with existing referral and case management systems.

United Way's 2-1-1 social service directory is the largest in Rhode Island with over 6,000 resources in its database, so it was the most practical foundation upon which to build a statewide system. The project began with an investment in improving 2-1-1's data, and the SIM contract included funding to clean and validate the records contained in the database. This ensures that the data is as up to date as possible, and as of this writing, over 90% of the data has been validated.

The primary focus of the USSD project is to connect the resource data from 2-1-1 to the various practices and organizations that need it in a way that can support existing workflows. This is challenging because information technology platforms vary across agencies and providers. Providers have indicated a strong preference for compatibility with existing information systems and established practice workflows to help minimize the administrative burden of performing SDOH screening and tracking. Some practices and community agencies have electronic referral systems that allow them to create and track referrals – and building a data feed with 2-1-1 to pull updated and validated resource data into existing systems supports providers in addressing SDOH.

The first test of the SIM and United Way project will be to pilot a data transfer from 2-1-1 to RIDOH's early childhood resource and electronic referral system. As a first step, 2-1-1 was updated to include early childhood health and social services that were not already in the database. SIM dollars are currently funding a technical build of the data feed. While this initial data feed is in process, SIM and United Way are planning how to move the project out into the wider community. Staff from SIM and United Way continue to meet with state and community partners to assess their resource needs, to develop plans for building connections with existing health information technology (HIT) platforms, and to establish protocols for data standardization and maintenance.

Because SIM funding will end on June 30, 2019, United Way is also working to secure sustainable funding by

applying for grants and developing partnerships with state agencies and community stakeholders to optimize funding streams and reduce duplication of resources. The alignment of community and state dollars will be instrumental to the sustainability of the USSD. The goal is to transition this project from resource directory development to a broader eReferral system over the next few years. Planning for the next phase of this eReferral project will be part of EOHHS's upcoming HIT strategic planning process which will begin this coming summer. One of the key components of the project is planning for the system's future integration into EHRs, as well as "close-the-loop" technology, which enables providers to learn what has happened with their referrals.

LESSONS LEARNED

- SDOH Screening processes need to be universal. To avoid stigmatizing anyone – and to avoid dangerous assumptions about patients – it is important to screen all patients, not just those thought to be "high risk."

- Information technology needs to be an integral part of the planning process. Social services and clinical settings often have different systems (or none at all) so addressing the quality and cost of the data connections they need is a crucial step.

- To screen for SDOH, we need:
  – High-quality referral resources;
  – Prompt access to those resources (knowing who/what/ where they are and the ability to see if the resource (i.e. bed, appointment, etc.) is available before the connection is made);
  – The ability to track the referral process and close the loop between the referring provider, the service provider, and the patient.

- If possible, screening tools should be the same within a health system, but if they cannot be identical, they should be similar enough using common domains – to help align quality measures, reporting, and search terms in common directories.

- The existence of multiple databases in an organization or health system, which all need to be updated, is burdensome to users. Aligning to a single database, and combining resources to update it, is a much more efficient use of time and money.

- As always, it is useful to share and learn from best practices, such as the examples from San Diego and North Carolina.

SDOH INITIATIVES IN OTHER STATES

California—2-1-1 San Diego: Connecting Partners through the Community Information Exchange (CIE)12

The CIE is a cloud-based platform developed by San Diego 2-1-1 designed to allow multiple health and social service providers to see a patient's interaction across systems, agencies, and community services. 2-1-1 San Diego developed the CIE to enable participating providers to better understand a client's interactions with health and community services and to improve care coordination for vulnerable patients. The CIE includes a social risk assessment tool, provides alerts, and facilitates connections across multiple agencies and providers. Health and social service providers may otherwise not know, for example, that their patients have had multiple emergency department (ED) visits, lack a medical home, or face unstable housing and food insecurity. In addition, a housing provider can use information such as the number of ED visits to prioritize case management services for those with high-risk and improper health care use. Recent CIE data show that among clients with a history of frequent EMS transports to EDs who were enrolled in the CIE, there was a 26% reduction in calls to EMS. In addition, CIE clients who were connected to housing were more likely to remain housed compared to those who were not enrolled.

North Carolina—NCCARE360[13]

North Carolina's NCCARE360 is the first statewide coordinated care network to electronically connect those with identified needs to community resources and allows for a feedback loop on the outcome of that connection. Community partners will have access to a robust statewide resource directory that will include a call center with dedicated navigators; a data team verifying resources; and a shared technology platform that enables health care and human service providers to send and receive secure electronic referrals in real-time, securely share client information, and track outcomes. This solution ensures accountability around services delivered, provides a "no wrong door" approach, and closes the loop on every referral made. Rollout of NCCARE360 began in January 2019, with full statewide implementation in every county in North Carolina by the end of 2020.

CONCLUSION

As Rhode Island seeks to recognize the importance of SDOH on health outcomes, we need to create systems that support their integration into care delivery. The use of common domains by providers, community-based organizations, and payers will help to ensure that SDOH assessment and interventions efforts are standardized and trackable. By aligning our approach to SDOH across providers and health care systems, we can facilitate the collection and aggregation of data that will ultimately inform payment reform and support healthier communities. Closing the referral loop is important for coordination of care and quality measurement and will become even more valuable to providers and payers as they carry out more significant health system transformation, including the assumption of downside risk. Tracking referral outcomes will also provide data on capacity of services and help to direct policy and funding allocation decisions at the state level.

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Care Transformation Collaborative of Rhode Island: Building a Strong Foundation for Comprehensive, High-Quality Affordable Care

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ABSTRACT

As the Patient Centered Medical Home (PCMH) model has evolved nationally and in Rhode Island, there has been increased recognition that PCMH has not been sufficient to achieve desired cost and quality goals. In this article, we describe the evolving concept of "comprehensive primary care" in Rhode Island, which includes addressing the behavioral health and social determinants of health (SDOH) needs of patients. These needs are identified through systematic screening and dedicated care management and care coordination for patients who present with complex needs.

BACKGROUND

Rhode Island is one of the first States in the country to focus on investing in primary care transformation to the Patient Centered Medical Home (PCMH) model as a strategy to improve quality and affordability and provider satisfaction.[1] The Care Transformation Collaborative of RI (CTC), co-convened by the Office of the Health Commissioner (OHIC) and Rhode Island Executive Office of Health and Human Services (EOHHS), is a Statewide multi-payer, multi-stakeholder, public-private partnership focused on primary care and health system transformation. The original focus was to assist primary care practices to become a PCMH.

As the model has evolved nationally, there has been increased recognition that PCMH is necessary but not sufficient to achieve desired cost and quality goals. In this article, we describe the evolving concept of "comprehensive primary care" taking place in Rhode Island, which includes addressing the behavioral health and social determinants of health (SDOH) needs of patients. These needs are identified through systematic screening and dedicated care management and care coordination for patients who present with complex needs.[2-11] CTC has worked to support ongoing innovation including the integration of behavioral health into primary care, the establishment of a statewide network of Community Health Teams to address SDOH in high-risk patients, as well as advancing the quality and financial case to support long term investment and sustainability. CTC plans to expand the statewide network from adults to serve children and families as well.

INTRODUCTION

Established in 2008, the Care Transformation Collaborative of Rhode Island (CTC) was formed as part of the RI "Affordability Standards"[12] that recognizes strong primary care as a critical foundation to reducing health care costs and improving quality. The effort is built around the "quadruple aim" of better patient-centered care, improved health of populations, lower costs, and improved provider and care team well-being.[13, 14]

In 2015, CTC extended practice transformation to practices serving children through its PCMH Kids initiative, a patient-family-community approach to comprehensive primary care. PCMH Kids is comprised of 37 practices, providing care to over 110,000 children and young adults ages 0–18, including more than 80% of the state's pediatric Medicaid population.

Acting on the strategic direction from its diverse board of directors, CTC has deepened its efforts to promote innovation and strengthening of comprehensive primary care, additionally working with specialists, systems of care, and other key stakeholders in the RI health care delivery system. The work of advancing and strengthening the primary care foundation through sustainable funding and continuous multi-stakeholder efforts has led to the national recognition of Rhode Island as one of the leaders in health system transformation.

PROGRAMS AND OUTCOMES

Patient-Centered Medical Home (PCMH)

Since 2008 CTC has worked with 126 practices including all Federally Qualified Health Centers, representing over 750 adult and pediatric primary care providers, serving over 650,000 Rhode Islanders, or nearly two-thirds of the state's population. Key features of the program include a common contract with payers for supplemental payments to support care management/care coordination resources, quality reporting, and PCMH transformation. Additionally CTC provides onsite practice facilitation and regular learning collaboratives for best-practice sharing. In 2014, Rhode Island led the country in having the lowest percent of residents without a personal physician at 12.2% compared with a national average of 22.5% and was in the top ten states for fewest residents without a usual place of care, 10.1% compared with a national average of 17.3%.[16]

This transformation to PCMH is also associated with lower costs. As shown in **Figure 1**, according to HealthFacts RI (The RI All Payer Claims Database) in CY 2016, CTC adult practices outperformed the comparison group in total cost of care (with exclusions) by $122 Per Member Per Month (PMPM, a common way to describe insurance-related costs). This represents lower cost of care of $217 million for adult CTC practices in 2016. Exclusions from total cost of care include maternity and Behavioral Health hospitalizations.

Integrated Behavioral Health

Figure 1. Average Total Cost of Care for CTC and comparison group practices, 2016
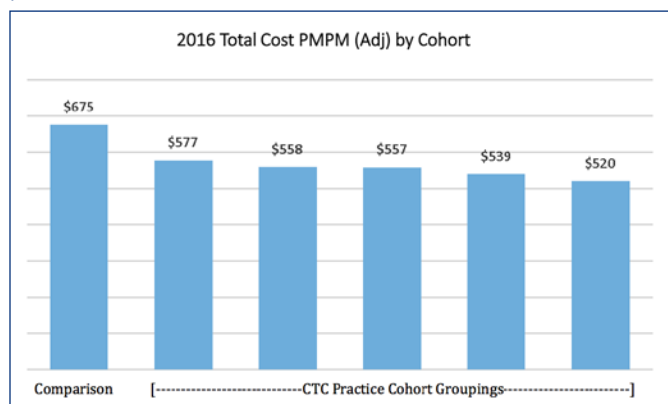
Source: Rhode Island All-Payers Claims Database 2016

In 2015, CTC received funding from the Rhode Island Foundation, Tufts Health Plan and a State Innovation Model grant to conduct a three-year pilot program to integrate behavioral health services in primary care. Ten adult primary care practices representing a mix of six federally qualified health centers and private practices participated in the project in two separate waves – Cohort 1 (began January 2015) and Cohort 2 (began November 2016). Both cohorts were comprised of two private primary care practices and three community health center practices.

Both cohorts were required to: 1) implement universal screening for depression, anxiety and substance use disorders; 2) hire a behavioral health clinician to work as a member of the PCMH care team; 3) meet monthly with an onsite behavioral health practice facilitator; 4) conduct quality improvement projects to reduce ED visits associated with unmet behavioral health needs; and 5) identify and treat patients with co-morbid medical and behavioral conditions, and coordinate care for patients referred to behavioral health services; and 6) participate in quarterly learning network meetings with the other primary care practices participating in the pilot to report out on "lessons learned."

In 2017, CTC contracted with external evaluators to conduct a qualitative evaluation of the IBH program. Universally, primary care practices communicated the positive impact IBH has had for providers and patients. *"I would not*

want to practice without it" effectively summarized provider response to IBH. The evaluation offered recommendations to strengthen IBH implementation, including using a systematic approach to IBH program development and implementation. Barriers to IBH included billing challenges, with different codes being covered by different insurers, two same day copays when the patient meets with an IBH counselor and their primary care provider, and higher specialty copays for patients with commercial insurance. Supported by this evaluation, in 2018, the RI legislature passed a bill which was signed into law on July 2, 2018 requiring that behavioral health visit copays be equal to primary care copays. This is a step forward, although double copays still continue for services that occur on the same day.[17]

CTC has conducted its own set of analyses and also contracted with Brown University to analyze cost results using a matched control group.

Figure 2 shows Cohort 1 and Cohort 2 practices were able to successfully implement universal screening to target thresholds over the 3-year study period. Both Cohorts had previously implemented universal depression screening, but not universal anxiety or substance use screening. Figure 2 shows both Cohorts continued to screen between 80–85% of their patients for depression across the study period. Cohort 1 improved anxiety screening rates from 6% to 84% and substance abuse screening from 22% to 81%. Cohort 2 improved anxiety screening rates from 22% to 75% and improved substance use screening rates from 20% to 75%.

Figure 2. Universal screening rates for depression, anxiety and substance use disorder, Cohorts 1 & 2, 2015–2018
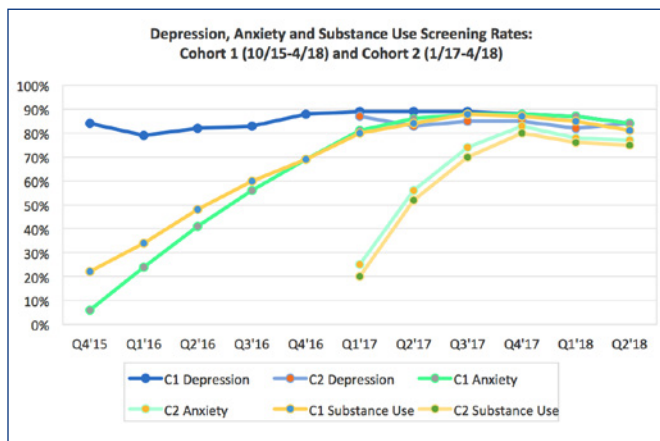
Figure 3 shows that CTC adult practices performed much better financially than the non-IBH CTC practices as well as the non-PCMH comparison group in risk-adjusted total cost of care. Using HealthFacts RI data comparing the change in PMPM costs from Jan–Dec, 2016 to the change in PMPM costs for April 2017–March 2018 we see a greater reduction over the 27-month period in total cost of care for the CTC IBH practices by $41–$43 PMPM compared to the non IBH

Figure 3. Total Medical & Pharmacy Costs (with Exclusions) Risk Adjusted (Cost per Member-Month). Cohort 1 and Cohort 2 IBH Pilot Program Comparison to CTC Non-IBH Comparison Group and Non-CTC Adult Comparison Group.
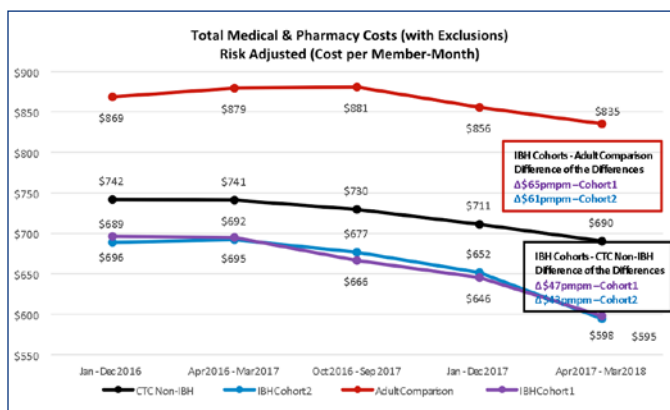
Source: Rhode Island All Payers Claims Database

Figure 4. Emergency Department visits – comparison of CTC IBH cohorts with non-CTC cohort, 2016-2018.
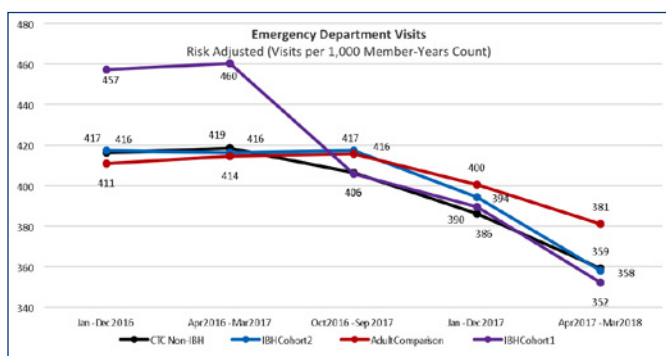
Source: Rhode Island All Payers Claims Database

CTC practices and over $65 PMPM compared to non PCMH practices ("Difference of Differences" methodology).

Figure 4 shows decreased ED visits for both the IBH pilot programs and the comparison group with the pilot programs show a slightly greater reduction. Not surprisingly, the IBH pilots showed a greater reduction in emergency department and inpatient utilization as well.

Community Health Teams

Community Health Teams (CHTs) provide community-based care coordination services to assist high-risk, high-cost patients with their complex social and behavioral health needs. In 2015, CTC piloted two regionally based CHTs. Teams include community health workers and a behavioral health clinician and are seen as an extension of primary care. An external, mixed-methods evaluation conducted in 2016 showed high patient and provider satisfaction with the CHTs. Both patients and providers reported CHTs helped link patients to needed services, provided opportunities for increased access to behavioral health services, diverted emergency department use and improved patient treatment compliance. Lessons learned from the evaluation included the need for a standardized approach to program management, patient screening and assessment, care planning, and data collection. [18]

Subsequently, in 2017 CTC received funding from the RI State Innovation Model grant and from the RI Department of Behavioral Health, Developmental Disabilities, and Hospitals (BHDDH) to expand the statewide CHT network to eight regionally based CHTs aligned with Health Equity Zones.

Working with the RI Department of Health (RIDOH) and the Medical Legal Partnership (of Boston – MLPB) CTC was able to add pharmacy, nutrition services, and legal consultation services. CTC designed the program so that CHTs work with practices to identify and triage rising risk, high risk, or high cost patients; use standardized screens to assess the patient's physical, behavioral and social needs; develop and coordinate care plans; provide or coordinate behavioral health and/or substance use treatment referrals; link patients to services; and support continued patient engagement with their PCP. Patients are identified as rising or high risk when they have multiple chronic conditions; special healthcare needs; impacts of social determinants of health; significant behavioral health diagnoses; do not access primary care on a regular basis; and/or have numerous inpatient or emergency department visits.

A 2018 analysis of CHT performance conducted by Rajotte and colleagues shows CHTs are achieving intended results. Rajotte's analysis found CHTs worked with providers to identify, assess, and then engage with patients identified as having complex needs. Using different patient samples, these patients averaged 17.0 poor functioning days out of the past 30 days and at least 90% had at least one social determinant of health need. Outcome data on a sample of CHT patients show clinically and statistically significant reductions (29–43%) in health risk, depression, anxiety and substance use from CHT intake to discharge, with a duration in care from 7–10 months.[19]

Additionally, a formal, patient-matched evaluation is underway, through the Brown School of Public Health, with an initial cohort of patients followed at the South County CHT. Very preliminary data shows an apparent, not statistically significant, reduced cost of $1,800 per member per quarter in the first two quarters after treatment. Additional data is expected in May and a final analysis including 2018 data from HealthFacts RI is expected at the end of 2019.

DISCUSSION

Nationally and in Rhode Island, the PCMH model has continued to evolve. The evidence increasingly shows coordinated primary care that addresses the patient's behavioral health and health-related social needs improves patient care, patient outcomes, and reduces healthcare cost. Hence the

conceptual shift to "comprehensive primary care" to systematically address the social and behavioral health needs of patients. CTC and its many partners and collaborators have worked to imbed universal screening into the practice of comprehensive primary care. At the point of identification, the practice (and system of care) is responsible to "provide or arrange" for the appropriate care. CTC is also committed to conducting ongoing evaluations of these programs and to incorporate findings as we move forward in further development and expansion. Innovations are piloted through sets of learning collaboratives that often include practice facilitation, content expert involvement, clear deliverables, and measurement of quality and cost. CTC plans to continue that approach in helping to build a lower cost, higher quality, more organized and integrated primary care-based health delivery system in Rhode Island.

While primary care practices, health plans, systems of care, and state agencies have done much to innovate and expand the comprehensive primary care model, there is more work to be done. Additional efforts are currently underway to expand IBH to practices that serve pediatric patients, and to expand CHTs to serve children and families (including a special focus on pregnant mothers involved with, or effected by, substance use disorders). This requires collaborative work with the multiple programs offered through the RIDOH, the Division of Youth and Family Services, BHDDH, and other partners. CTC also recognizes the need to strengthen engagement with specialists, hospitals, and many other community partners in these, and other efforts. CTC continues to work closely with all payers, including Medicaid, and other state agencies, to develop payment strategies to support Community Health Teams as a public utility and to support the financial sustainability of Integrated Behavioral Health.

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Program of All-Inclusive Care for the Elderly (PACE): Integrating Health and Social Care Since 1973

JOAN KWIATKOWSKI, MSW; TSEWANG GYURMEY, MBBS, MD, CMD

ABSTRACT

According to the Centers for Medicare & Medicaid Services (CMS), the future of older adult care in the United States has arrived in a provider-sponsored health plan model that integrates medical, behavioral, and social care for frail elders. This approach gives the provider complete control over patient outcomes and total cost of care and enables participants to live safely in the community – rather than a nursing home – for an extra four years, on average. This article reviews the Program of All-inclusive Care for the Elderly (PACE) model, whose roots go back to the 1970s in California, and offers case studies on two PACE-RI participants with chronic healthcare needs. In both examples, the patients reduced hospitalizations and increased mental and physical health, all while alleviating caregiver stress. With the older population slated to double by 2060, the time has come to expand PACE to more people.

A few years ago, the acting administrator of the Centers for Medicare & Medicaid Services (CMS) said he was "glimpsing into our future" when he visited a provider-sponsored health plan that integrated medical, behavioral, and social care for frail elders, allowing them to remain in the community rather than live in a nursing home.[1]

This approach to aging services successfully braided Medicare and Medicaid funding and gave the provider complete control over patient outcomes and total cost of care over a significant period – the key elements to delivering "value-based care."

What is noteworthy is that this program of the "future" has been in Rhode Island since 2005 and in other parts of the country since 1973! It helps its medically complex participants live at home for an extra four years on average and retain a much higher quality of life, all while controlling associated costs for the government through capitated payment arrangements.[5]

The program is called PACE – short for Program of All-inclusive Care for the Elderly – and it is a comprehensive and community-based model of care that coordinates medical, behavioral, and social services for individuals ages fifty-five and older who have high care needs but can remain safely in the community. PACE is currently offered in 31 states.[2] The model is backed by the National PACE Association and serves 50,000 seniors in 126 sponsoring organizations at 260 PACE centers across the country. While PACE has already had some success at scaling its integrated services, emerging demographics and heightened outreach poise the program for significant growth.

THE GAP

In the United States, people 65 and older account for more than 20 million hospital visits yearly.[1] Many visits are to the Emergency Room (ER). The rate of ER visits per 100,000 population for those ages 65 and up, rose from 53,833 in 2014 to 56,803 in 2015.[2] This number is so high in comparison to Emergency Room (ER) visits of other age cohorts that emergency medicine has shifted to accommodate the spike in older patients. In fact, the American College of Emergency Physicians (ACEP) has released its own geriatric emergency department guidelines.[3] The frequent hospital visits not only affect the quality of life for older adults, but they can also worsen an older person's health. According to a study in the Annals of Emergency Medicine, six months after visiting the ER, seniors were 14 percent more likely to have acquired a disability than adults of the same age who had a similar illness and had not been to the ER.[3] Not only is this phenomenon detrimental for the health of the elderly, but it also costs the government billions per year.[2]

One cause of the increase in hospital visits for American older adults are gaps in the coordination of care for our aging population. Many seniors do not have family or friends who are local and willing to assist. For those who do, caregiver stress is extreme. Further, because most older adults opt for a fee-for-service insurance program, they are not optimizing the payment and coordination of their treatment.

Seniors often struggle to access much-needed resources such as transportation to and from medical appointments, daily meals, and social interaction. Coordination of medical appointments, public resources, and day center attendance should be done by a professional, and regular access to a trained social worker is critical.

THE SOLUTION

PACE is both the insurer and the medical team. When enrolled, participants receive cost-effective, comprehensive,

preventive care. The program delivers primary, acute, and long-term care services tailored specifically to the needs of the individual.[5] The tailored care plan begins being formulated, with collaboration from the caregiver, upon the first interaction with the enrollment team. The robust enrollment process includes a medical evaluation with the PACE doctor and a home assessment so the interdisciplinary team can readily address any underlying concerns. Once enrolled, PACE takes care of all the older adult's health needs using a holistic approach, including primary & acute services, pharmacy, rehabilitation services, homecare, transportation, adult day services, and more.

The PACE model is designed to provide the right support at the right time by way of the interdisciplinary team dedicated to the improvement of the health and overall quality of life of their participant. The team is comprised of doctors, nurses, social workers, CNAs, day center and health center directors, transportation providers, and life enrichment activities personnel. They meet every morning to review patient panel needs, rooted in the belief that, if physically able, living in the community is where people are happiest, most comfortable, and most likely able to maintain good health. Having a supportive care team allows the health of PACE participants to be closely supervised, helping them to avoid ER visits and hospitalizations. As their insurer, should they need to enter a hospital or skilled nursing facility, PACE covers the cost.

Staying in one's community provides easier access to resources needed to thrive, such as transportation to and from medical appointments and daily meals. PACE coordinates their own buses to provide reliable transportation, and PACE programs across the U.S. serve up 13,666 meals a day.[6]

ELIGIBILITY

To qualify for PACE, a person must be age 55 or over, live in a designated service area, and be certified by the state to need nursing home-level care. There is no income eligibility requirement for participating in PACE. Programs often attract those with high level of care needs, as nursing homes do. The difference is, however, more than 90% of PACE participants live in the community and only 7% live in skilled nursing facilities.

POPULATION

An average participant is 77 years old, female and has about eight medical conditions. Common chronic medical conditions of participants are diabetes, dementia, coronary artery disease and cerebrovascular disease. Common behavioral health conditions of participants include major depressive, bipolar, and paranoid disorders. Additionally, nearly 47% of PACE enrollees have some form of dementia.[6] Thirty-five percent of participants need help with 3–5 "activities of daily living," which include dressing, bathing, transferring, toileting, eating and walking.[7] Fifty-four percent of PACE-RI participants speak a primary language other than English.[7]

PAYMENT

PACE programs are financed by combined Medicare and Medicaid prospective capitation payments, though some participants opt for private pay.[5] This payment is a set monthly amount provided to each local PACE organization to provide all of their required care.[5] PACE programs assume full financial risk for all the health care services provided.[5] Private pay participants often find the PACE monthly fee is less expensive than the out of pocket expenses (co-pays, over the counter, etc.) they otherwise would incur.

Combining dollars from different funding streams allows PACE organizations to provide fully-integrated, comprehensive care that is customized to the participants' need. This customization is proven to minimize hospitalization and nursing home admissions. PACE pools Medicare and Medicaid funding, allowing the program to eliminate cost shifting, which can result from conflicting incentives of multiple payers.[5]

HISTORY

The PACE Model of Care was founded as a solution for caring for the Asian-American population in San Francisco. Placing elders in nursing homes was not culturally acceptable in that community, as they preferred to keep their aging family members at home while they received care. In 1973, to meet this community and cultural need, On Lok Senior Services ("On Lok" is Cantonese for "peaceful, happy abode") was opened. The program was an innovative way to offer what PACE currently does - comprehensive medical supervision, physical and occupational therapies, nutrition, transportation, respite care, socialization and other needed services using home care and adult day settings.[7]

Thirteen years later, in 1986, the Robert Wood Johnson Foundation provided funding for six sites, in addition to On Lok, to develop PACE demonstration programs. In 1997, with the passage of the federal Balanced Budget Act, PACE was granted provider status under Medicare, and state Medicaid agencies were given the option to include PACE as a benefit.

On December 1, 2005, the PACE Organization of Rhode Island opened its doors in Providence with a mission of preserving and sustaining the independence of older adults in the state. The organization has since grown to three locations and over 300 participants. In 2013, PACE-RI acquired the Adult Day Center of Westerly, allowing two options of care: traditional adult day or, as care needs progress, enrollment in PACE. In 2016, PACE-RI opened its Woonsocket day center, the first building fully designed by the organization. With these three centers, the organization services the aging population across the entire state.

WHO DOES PACE HELP?

The two case studies below showcase the population that PACE serves and how we provide comprehensive wrap-around services to assist them.

Joseph

Joseph is a 68-year-old gentleman who lives alone in senior housing. He is estranged from his family and has multiple, complex medical co-morbidities. They include diabetes with complications, major depression, high blood pressure, high cholesterol, heart disease, spinal stenosis, end-stage kidney failure requiring hemodialysis 3 times a week, and he is legally blind. He ambulates with a walker.

Before enrollment, he was in and out of emergency rooms and hospitals. Most of these visits were attributed to his inability to keep follow-up appointments with his doctors. His medications were not refilled on time due to lack of adequate home care and transportation to the pharmacy. He had been referred to the Division of Elderly Affairs by the apartment manager for self-neglect, but he was adamant about not wanting to go to a nursing home.

With PACE, he is provided with a certified nursing assistant (CNA) and home health care aide in the morning, noon and evening to help with grocery shopping, preparing meals, medication cuing, monitoring for unusual symptoms, and to help with transportation to get him to appointments with PACE doctors. He is transported by the PACE buses. He also receives home visits by the community registered nurse, social worker and primary care team. Medications are delivered to his home every two weeks by our vendor pharmacy.

He continues to live at home with stable medical conditions and he rarely has had ER visits or hospitalizations.

AltaGracia

AltaGracia is a 90-yar-old old Hispanic woman with Alzheimer's dementia and severe end-stage COPD, requiring continuous oxygen. She lives with her daughter who works full-time. She had multiple falls and behavioral symptoms of dementia with aggression and frequent night-time awakenings. Like most of our participants, she was at the brink of a nursing home placement. Her daughter was exhausted from stress and worry.

With PACE, she attends the day center six days a week, participating in our memory care program and purposeful activities, as well as receiving CNA supports at home both in the morning and at night. She receives geri-psych follow up at the PACE center, which has led to a decrease in dementia-related behavioral symptoms. Her daughter gets respite care services so she can go on occasional vacations and get some personal time while keeping her mother at home and minimizing strain.

RESULTS

Below is a sampling of PACE-RI successes:

- Average enrollment (living at home rather than in a nursing home) = 4.3 years
- PACE-RI participants having no hospitalizations since enrollment = 31 %
- ER visits per 100 than RI Medicare FFS = 11 % fewer
- Influenza immunization rate = 93 %
- Participants would recommend PACE-RI to family or friends = 90 %

CONCLUSION

The PACE model of creating a personalized care plan with the individual and their loved ones and coordinating every aspect of their health care has proven to give participants what they want: to live safely at home, to stay out of the hospital and emergency room, and to reduce strain for their caregivers. PACE participants have seen an improvement in their behavioral health, mental health, and quality of life as well.

With the percentage of the population 85 years and older projected to increase nearly 10 percent from 2016 to 2025, and more than double by 2060, we can anticipate an increased need for programs like PACE.[8] The model was built to sustain a growing aging population and our goal to spread the word about its impact so even more people can benefit and change what it means to age successfully.

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Up from the Streets: The RI Medical Navigator Partnership as a Model of Structurally-Informed Service, Education, and Advocacy

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ABSTRACT

The Rhode Island Medical Navigator Partnership (RIMNP) is an interdisciplinary student organization homed at the Warren Alpert Medical School of Brown University with the tripartite mission of (1) improving access to care for patients experiencing homelessness, (2) sensitizing students to issues of homelessness through experiential learning, and (3) providing educational opportunities for providers. Centered on the lived experiences of people who are homeless, the RIMNP aims to combat structural violence and foster providers' structural competence through integrated direct service and advocacy. This article describes the RIMNP's efforts to bridge gaps in the health and social services landscape in Rhode Island, and ultimately concludes with a discussion of how similar models may be implemented at other academic institutions.

INTRODUCTION: A VIEW OF HEALTHCARE FROM THE STREET

The emergency department paperwork she showed the outreach worker was still soggy from yesterday's rain. Luckily the ink hadn't run, and the bold font was easy enough to read. It said, "Abnormal result. Please follow up with your OB/GYN as soon as possible." The date on it was from five months previous.

"Have you gone?" the outreach worker asked.

"No," she said. "I've been out here. And I don't have an OB/GYN. Besides, I know it's gonna be bad news, like I said they're gonna say I have cancer. And whatever they're gonna want to do to me they won't be able to anyway cuz I'm out here."

Her statement, matched with a dismissive wave, belied her evident worry. She'd kept this paper for five months, and she'd willingly shown it to the outreach worker after shouting from across the street that she had cancer.

A month later, standing in an OB/GYN's office with the outreach worker and a first-year medical student working with the Rhode Island Medical Navigator Partnership (RIMNP), she learned that she did in fact have metastatic ovarian cancer. She was accompanied through further testing, surgery, and chemotherapy – and several transitions between housing and homelessness – by that same student, now in her third year, and by other students of medicine and

social work who subsequently joined her RIMNP team.

While the last three years have seen her become connected with other supports, none have been as enduring as her RIMNP team. Some, like her oncologist, have featured more or less prominently as her health has fluctuated. Others, like her outreach worker, changed roles as she transitioned from homelessness to housing. Her RIMNP team is the group that knows her medical and social history most intricately, and this longitudinal connection has been both supportive for her and inspiring and educative for the students.

Although the RIMNP is limited in scope, its unique structure – which aligns an agile model of social support for individuals experiencing homelessness with an interdisciplinary educational opportunity for students – fills a gap in Rhode Island's healthcare and social service systems. In what follows, we describe the structural context of the RIMNP, the program itself, and how its core components can inform initiatives to train structurally competency providers at other academic institutions.

Central to the RIMNP is the organizational belief that the health of our partnered participants is shaped by structures, defined broadly as the economic, political, and societal conditions that produce inequalities in health and otherwise. In identifying health and social inequities at the structural level, we recognize that partnered participants' experiences often involve structural violence, or the damage inflicted upon them by societally-constructed systems. This can manifest in the organization of institutions, policies, neighborhoods, and cities, extending beyond specific communities or individuals. Viewing our work through this structural lens, the RIMNP works to build structural competency amongst students and providers, thereby developing member capacity to both appreciate the texture of structural violence and help partnered participants navigate oppressive structures that influence their lives.[1] The RIMNP believes that we must understand partnered participants' experiences as the products of societal structures – and meet them on their terms – if we are to meaningfully help partnered participants inside or outside of the clinic.

THE STRUCTURAL CONTEXT OF THE RIMNP

Over half a million people experienced homelessness in the United States during 2018, including approximately 4,500

in Rhode Island. Oppressed minorities, particularly African Americans and Latinos, are overrepresented.[2,3] Homelessness is also fundamentally about economics: low-wage employment and SSI benefits are simply inadequate to make rent. In Rhode Island, a person would have to work almost 120 hours per week at minimum wage in order to afford an apartment.[4]

Homelessness is linked to dramatically worse health outcomes. People experiencing homelessness disproportionately experience accidental and violent injuries, chronic health conditions, and mental and behavioral health challenges.[5,6] All of this contributes to premature mortality: the average age of death of a person who is homeless in the United States today is between 42 and 52 years, some 25 years less than the national average.[7]

Homelessness is a reflection of both structural oppression and structural failings, as well as a lack of support for people with personal risk factors – including inadequate and sometimes harmful interactions with our fragmented healthcare and social service systems.[8-10] Established community resources – such as health and mental health centers, housing authorities, and community action programs – often cannot go wide enough or deep enough. Health care and social service providers are often forced to choose between attempting to offer services outside their scope, competence, or logistical capacity, and making an external referral that may or may not be actualized

The RIMNP exists alongside other innovations combatting the fragmentation and inadequacy of this service landscape, including initiatives that incorporate community health workers and resource hubs into primary care settings and that integrate interprofessional students into free clinic sites. Unlike many more formalized (and billed-for) supports, the RIMNP has the capacity to remain connected with individuals as they transition from homelessness to housing (and sometimes back to homelessness again), as insurance and immigration status changes, and as they are admitted as an inpatient and referred to out-of-network specialists. In walking with individuals through these settings of care – and co-navigating the chasms between them – students become powerful advocates for the public education and structural changes needed to create a system that renders such hands-on navigation unnecessary.

THE RIMNP MODEL

Founded in 2014, the RIMNP is a collaboration between the House of Hope Community Development Corporation, Warren Alpert Medical School of Brown University, the Rhode Island College School of Social Work, the College of Nursing at the University of Rhode Island, Roger Williams Law School, and Brown University. The RIMNP offers additional support to persons experiencing homelessness or housing insecurity who have complex medical needs and/

or face barriers to navigating the healthcare system (termed "partnered participants"). The program connects interdisciplinary teams – comprised of students from the institutions listed above – with a partnered participant and their providers in the community, including a case manager and an anchoring medical provider. As navigators, students on RIMNP teams help partnered participants connect with the healthcare system by attending medical appointments, assisting the scheduling of follow-up care, and engaging in collaborative patient advocacy and education. (See **Figure 1**.)

Figure 1. The RIMNP's partnered participant-centered model.[11]
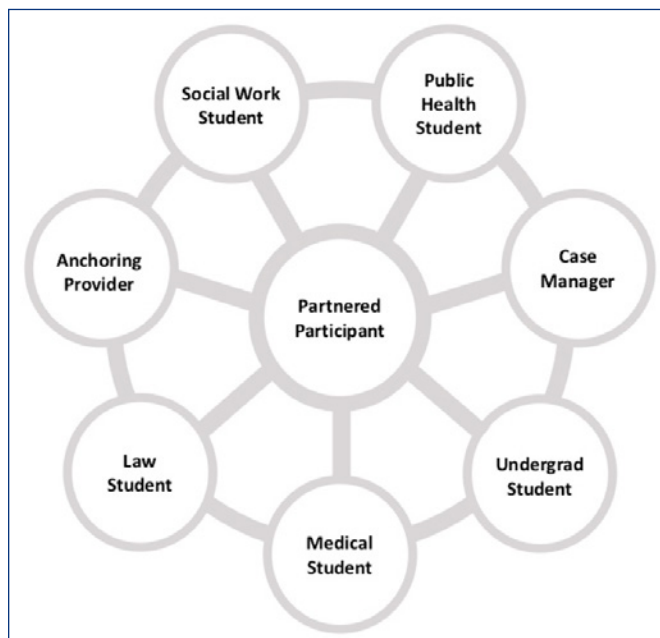
During the 2018–2019 academic year, the RIMNP supported 18 teams centered on 21 partnered participants (17 individuals and one family of 4). A total of 42 medical students, 8 social work students, 10 undergraduates, and 1 pharmacy student were involved. All students participate voluntarily. The RIMNP's operating budget, comprised of small grants from the Alpert Medical School, directly supports the specific needs of partnered participants and community members. Funded initiatives include a local health fair, the purchase of essential documents like municipal identification cards, a bi-monthly mobile foot health and hygiene clinic, a furniture drive, and a "Welcome Home" program that offers cleaning supplies and other necessities to newly housed individuals. Importantly, access to these funds is not limited by the eligibility requirements often associated with federal or insurance-based programs.

The organizational philosophy of the RIMNP is guided by the program's primary goals, which are to: (1) improve partnered participants' access to healthcare and their interactions with the healthcare system, (2) provide students with an

experiential learning opportunity to sensitize them to issues of care that impact the homeless community, and (3) create educational and immersion opportunities related to health care for homeless communities for residents, attendings, and other current and future providers across professions. RIMNP students are coached to consider their role as walking with partnered participants to support and advocate for their self-identified needs. This culture of partnership aims to give students a window into the unique lived experiences of partnered participants and to encourage inductive learning – namely, becoming familiar with broad, systems-level issues affecting people experiencing homelessness from the ground up – while moving towards the partnered participant's specific goals.[12] By meeting partnered participants on their terms, appreciating the context in which they live, and recognizing the power of being present, students organically develop skills in structural competency that will inform their practices as future providers.[13]

The RIMNP achieves its goal of promoting access to healthcare for individuals experiencing homelessness through several community-based, advocacy, and educational initiatives. In addition to the aforementioned patient navigation, the RIMNP engages with the broader homeless community through "street rounds," which are daily early morning and late evening walks that focus on outreach to individuals who are experiencing street homelessness. These nondirective contacts emphasize the engagement process and include meeting immediate needs and coordinating referral and follow-up.[14]

Emerging from contact with and exposure to systemic barriers to health for partnered participants, the RIMNP has engaged in advocacy efforts and developed educational initiatives targeted at both providers-in-training and current providers. Through RIMNP's advocacy at the local and state levels, students have supported proposed legislation to increase access to affordable housing and oppose legislation that criminalizes people experiencing homelessness. By centering legislative testimony on partnered participants' lived experiences, students can use the privilege and power afforded to them as members of the medical community to advocate for more responsive and just policies.

Complementing this community-based learning, the Health and Housing Pre-Clerkship Elective at Alpert Medical School introduces students to the unique resiliencies of and challenges faced by those experiencing homelessness. Led by RIMNP students and faculty, the elective creates space for critical discussion of homelessness-related issues, and connects students with street outreach teams for shadowing. As third and fourth years, students can participate in the Health Care for Homeless Communities Clinical Elective. In the three years that the clinical elective has been offered, nearly all of its participants had taken part in the RIMNP during their preclinical years. This continuity of involvement is rare given the segmented nature of medical education, and allows students to continue to build their structural competency across multiple years.

The RIMNP's second educational initiative focuses on medical providers who treat people experiencing homelessness. These training sessions educate practitioners about issues from documentation to discharge that intimately affect the lives of housing-insecure patients. Currently designed for physicians in several of Brown University's residency programs, this initiative outlines how physician documentation of medical encounters and illness affects patients' capacity to secure essential safety net benefits, including housing, bus passes, disability income, and follow-up care. Practitioners also develop strategies to support patients as they follow through on medical care and navigate the structural violence present in their lives.

RIMNP's organizational approach lends itself to a pedagogical model centered on structural competency and attunement to structural violence, expanding the frame beyond individual encounters to include the institutions and policies that influence health outcomes.[1] The experiential learning central to RIMNP patient navigation ensures students see the human impacts of policy. RIMNP values this exposure to the "ground truth" as a critical prerequisite and complement to didactic education. The process of observing, "being with," and understanding social inequity as lived becomes a thread that extends through conversations on outreach, classroom-based discussions and trainings, and natural reflection with one another. It provides space for questioning the status quo of our healthcare system and social safety net, and invites consideration of how to incorporate addressing such inequities into future medical or social practice. In doing so, RIMNP incubates and fosters the co-generation of knowledge by students and community partners.

CONCLUSION: WHERE FROM HERE? EXPANDING THE RIMNP MODEL OF STRUCTURAL EDUCATION

The organizational model pioneered by the RIMNP has demonstrated clear benefits for both partnered participants and students, making the prospect of developing it in both scope and scale promising. In addition to calling for other medical schools to adopt models that incorporate person-centered, longitudinal, experiential, and interdisciplinary elements, we also call for such institutions to pay greater attention to structural education and competence in the curriculum. We must ensure that all of tomorrow's providers enter their practice with grounded and operational knowledge about the systems-level forces that shape patients' health. Such education will prepare them to engage with structures of oppression both in the clinical context and through broader advocacy.

However, in considering scaling this work, the RIMNP

runs the risk of making invisible the very structural deficiencies it is seeking both to navigate and to correct. The potential harms are twofold. First, the RIMNP will never be large enough to completely fill the gaps that exist (and propagate) among various providers and systems. In some respects, therefore, it masks the issue's scale while not meeting the complete need. Second, by utilizing students to provide continuity of care, the RIMNP provides a temporary fix for what needs to be a radical overhaul of our tattered social safety net. By adding a measure of stability to a deeply inequitable system, the lessened sense of urgency to establish systemic change could ultimately work against the organization's mission.

While these critiques are valid and should be borne consistently in mind, the rejoinder cannot be to abdicate our collective responsibility to act. Rather, this tension demands that concurrent with our direct work, we join the effort to catalyze systemic change in Rhode Island and beyond. In leaning into rather than shying away from the ethical dilemmas and competing priorities implicated in this work, students start developing their own identities as structurally competent healthcare providers.

We must model within our systems of education those interventions we wish to implement within our broader systems of care, and the RIMNP – in centering a culture of partnership that embodies structurally-informed service, education, and advocacy – offers one such path forward.

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