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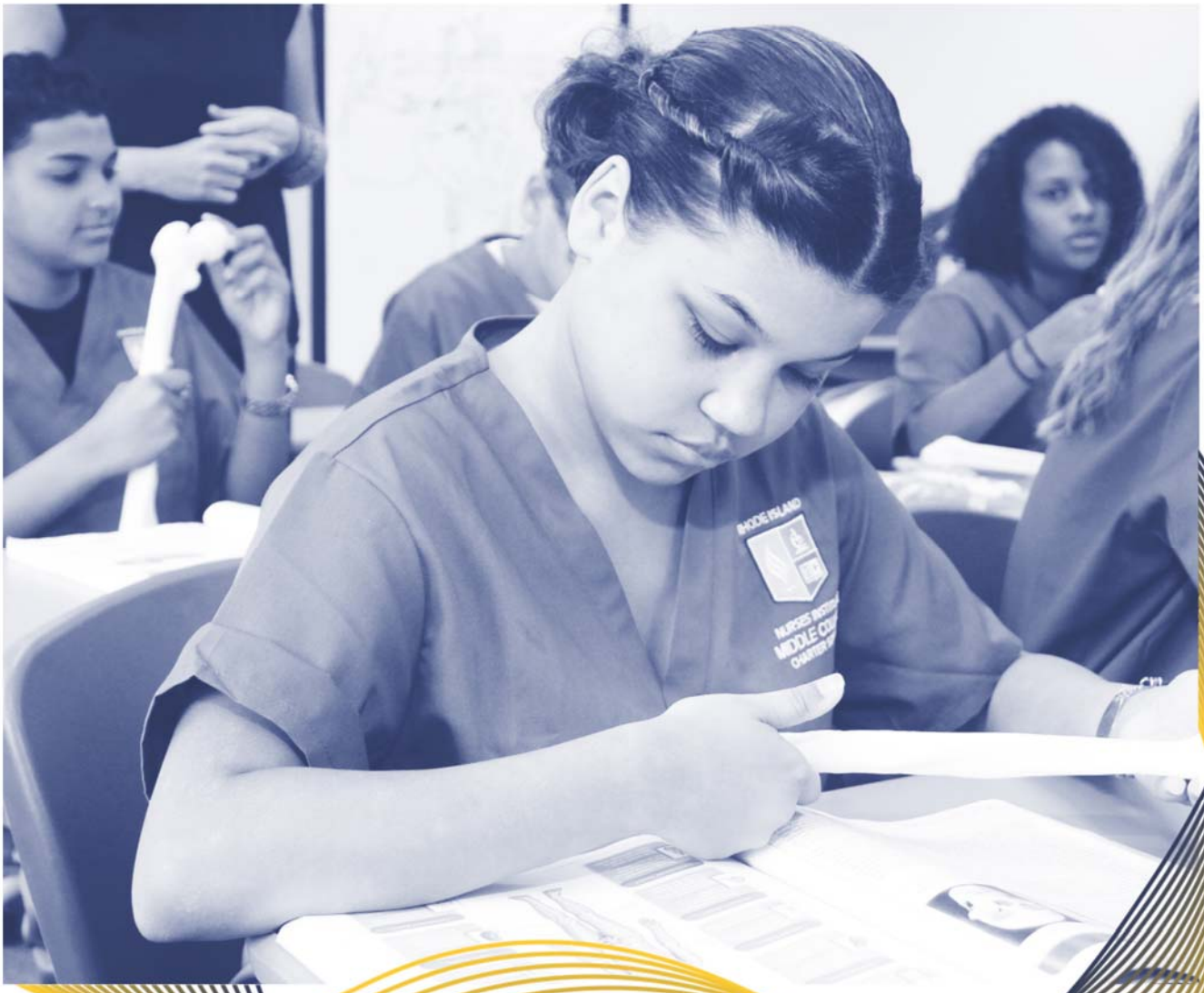

HEALTHCARE WORKFORCE TRANSFORMATION

Preparing the workforce for a healthy Rhode Island

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Rhode Island Executive Office of Health & Human Services (EOHHS) and Jobs for the Future (JFF)
in partnership with the Rhode Island State Innovation Model Test Grant.

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ABOUT THIS REPORT

In November 2016, Governor Gina Raimondo announced that the Centers for Medicare and Medicaid Services (CMS) approved up to $129.6 million over a five-year period to support Rhode Island's *Health System Transformation Program (HSTP)*.

HSTP will support partnerships among healthcare providers, payers, community organizations, and others to develop Accountable Entities and other healthcare delivery reforms. It will also support partnerships between providers and educators to prepare the healthcare workforce with the knowledge and skills needed to help Rhode Island achieve its Triple Aim of better care, smarter spending, and healthier people.

In support of this work, the Executive Office of Health and Human Services (EOHHS) initiated a *Healthcare Workforce Transformation* planning process last year. This process actively engaged over 250 healthcare partners to share their insights into the types of occupations, roles, and training that will be needed in our rapidly evolving health system and workforce. The following *Healthcare Workforce Transformation Report* incorporates many valuable contributions from our healthcare colleagues, as well as an analysis of data, research, and best practices, and identifies key priorities and strategies to educate, deploy and support a talented and diverse healthcare workforce.

By continuing the collaboration that is embodied in this report, we can achieve our goals of preparing Rhode Islanders for good jobs and careers in healthcare, while also meeting the workforce needs of Rhode Island healthcare providers, and, most importantly, improving the health of Rhode Islanders.

We would like to acknowledge the outstanding efforts of those involved in the State Innovation Model (SIM) Test Grant Project, the Healthcare Workforce Transformation Advisory Committee, Jobs for the Future, and our many healthcare colleagues who gave of their time and expertise to help chart a course for Rhode Island's healthcare workforce and system transformation.

Anya Rader Wallack
Acting Secretary
Rhode Island Executive Office of Health & Human Services

Patrick Tigue
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Rhode Island Executive Office of Health & Human Services.

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RELATED DOCUMENTS:

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EXECUTIVE SUMMARY

Rhode Island is changing the way it delivers and pays for healthcare. In Rhode Island, healthcare doesn't stop at the doctor's office or the hospital bed—It extends to where people live, work, play, and learn. It rewards quality outcomes rather than quantity—the number of patient visits. It is a "team sport" rather than a solo endeavor, bridging physical and behavioral health and clinical and non-clinical providers. This approach to care is data-driven and evidence-based—tracking patient populations to identify risks and measure results. Its point of departure is not limited to the episode of care for an individual; rather, it manages care for populations and seeks out "upstream" causes of health problems, such as housing, income, access to healthy food, and transportation.

Rhode Island's overarching goals for transforming the health system mirror the "Triple Aim" of the Affordable Care Act: better care, smarter spending, and healthier people. "Better care" is patient-centered, accessible, culturally competent care, delivered by practitioners working at the top of their license or job description, and focused on keeping people well. "Smarter spending" is more efficient use of health resources to lower the per capita cost of care—through paying for value rather than volume of services, encouraging prevention, and rebalancing care from costly hospital or nursing home stays to home and community-based care. "Healthier people" means enhancing the overall health of the population—including physical, oral, and behavioral health—while coordinating the care of specific populations with chronic disease or multiple conditions, and addressing social determinants of health. To achieve the Triple Aim goals, Rhode Island has mounted a number of initiatives to change healthcare payment policies and service delivery—working through both the state Medicaid program and commercial insurers.

None of these changes in healthcare are possible without a transformed workforce—with the right workers, with the right skills and tools, in the right place at the right time. To determine what this workforce looks like and how to prepare for it, the Rhode Island Executive Office of Health and Human Services, in partnership with the State Innovation Model Test Grant, convened a cross-section of stakeholders from the state's healthcare providers, education and training organizations, and policymakers in health and workforce. This group—the Rhode Island Healthcare Workforce Transformation Committee—gathered to establish workforce priorities and weigh potential strategies, assembling as a full group in October 2016, and then breaking into seven topical subcommittees for more intensive discussion in November. Topics analyzed included primary care, behavioral health practice and integration, social determinants of health, health information technology, oral health, chronic disease, and home and community-based

care. In December 2016, the full group reconvened to consider cross-cutting strategies and their feasibility, and in February 2017, the group discussed the prioritization of these strategies.

This report, prepared by Jobs for the Future (JFF), provides background research to support Rhode Island's development of a healthcare workforce transformation strategy. It analyzes workforce and educational needs required to achieve the Triple Aim of better care, smarter spending, and healthier people. To determine workforce needs in a changing healthcare environment, this study asks not just how many new workers are needed in particular occupations, but how to renew the skills of the existing workforce to assume new and evolving healthcare roles in new settings.

To define these needs and how to address them, JFF interviewed a cross-section of the state's healthcare employers, educators, and policymakers about changes in healthcare payment and delivery and their impact on the workforce; the adoption of new roles and occupations critical to delivering better care; changes in skill and performance requirements; and the capacity of the state's education and training entities to meet new health workforce needs. Data from Healthcare Workforce Transformation Committee meetings, interviews, and literature on health workforce transformation helped build a portrait of Rhode Island's current health workforce landscape and potential strategies for the state to consider in achieving its transformation goals.

In order to translate our findings from interviews, literature, and meetings into actionable strategies and recommendations, we used the lens of "drivers of health system transformation"—or principles and concepts that can aid in achieving better care, smarter spending, and healthier people. The drivers of change include social determinants of health, value-based payments that reward quality outcomes; population health; data analytics; rebalancing delivery systems from high-cost institutional settings to home and community-based care; and access to high-quality primary care.

This research was complemented by analysis of labor market information on present and projected employment trends in key healthcare professional and support occupations, as well as vacancies and skills sought by employers. The analysis (presented in appendices and an occupational compendium) focuses in depth on occupations considered strategic to transforming Rhode Island's health system, such as nurses, community health workers, and behavioral health professionals. The report also provides data (in appendices) on the number of graduates from the state's public higher education health professional programs, and the employment of these graduates in the state and in the healthcare industry.

Based on our research and analysis and on the discussions of the Healthcare Workforce Transformation Committee, we have identified three key priorities and a number of accompanying strategies:

1. Build Healthcare Career Pathways to Develop Skills That Matter for Jobs That Pay

Prepare Rhode Islanders from culturally and linguistically diverse backgrounds for existing and emerging good jobs and careers in healthcare through expanded career awareness, job training and education, and advancement opportunities.

Strategies:

- **Support the Entry-Level Workforce:** Improve recruitment, retention, and career advancement
- **Increase Diversity and Cultural Competence:** Increase the cultural, ethnic, and linguistic diversity of licensed health professionals
- **Develop Youth Initiatives to Expand the Talent Pipeline**: Increase healthcare career awareness, experiential learning opportunities, and readiness for health professional education
- **Address Provider Shortages:** Remediate shortages among certain health professions.

2. Expand Home and Community-Based Care

Increase the capacity of community-based providers to offer culturally competent care and services in the home and community, and reduce unnecessary utilization of high-cost institutional or specialty care.

Strategies:

- **Expand Community-Based Health Professional Education:** Educate and train health professional students to work in home and community-based settings
- **Prepare Healthcare Support Occupations for New and Emerging Roles:** Prepare healthcare support occupations to work in home and community-based settings.

3. Teach Core Concepts of Health System and Practice Transformation

Increase the capacity of the current and future workforce to understand and apply core concepts of health system and practice transformation.

Strategies:

- **Prepare Current and Future Health Professionals to Practice Integrated, Team-Based Care:** Increase the capacity of health professionals to integrate physical, behavioral, and oral health, and long-term care
- **Teach Health System Transformation Core Concepts:** Educate the healthcare workforce about the significance of value-based payments, care management, social determinants of health, health equity, population health, and data analytics

STRATEGY GRID
For EOHHS Healthcare Workforce Transformation

PRIORITY 1: Build Healthcare Career Pathways to Develop Skills That Matter for Jobs That Pay

Prepare Rhode Islanders from culturally and linguistically diverse backgrounds for good jobs and careers in healthcare through expanded career awareness, job training and education, and advancement opportunities

SUPPORT THE ENTRY-LEVEL WORKFORCE: Improve recruitment, retention, and career advancement of entry-level workers

- Address issues of compensation, work load, and/or job satisfaction to improve recruitment and retention of entry-level workers
- Establish core competencies for all unlicensed, entry-level occupations
- Develop advanced certifications in specialties such as behavioral health, gerontology, and chronic diseases to increase the knowledge, skills, compensation, and career advancement opportunities of entry-level occupations
- Reduce financial and logistical barriers associated with pre-employment requirements (e.g., criminal background checks, physical exams, and vaccinations)
- Revise Certified Nursing Assistant regulations to update scope of practice, training, and testing requirements to reflect varied and emerging roles
- Consider licensure or certification for unlicensed occupations such as Community Health Workers, medical assistants, case managers, peer recovery specialists, and dental assistants
- Align publicly funded job training programs with health system transformation priorities

INCREASE DIVERSITY AND CULTURAL COMPETENCE: Increase the cultural, ethnic, and linguistic diversity of licensed health professionals

- Create more diverse talent pipelines by providing healthcare career awareness, academic advising, mentoring, financial assistance, and supportive services for youth and adults in targeted populations
- Build career ladders for individuals now working in entry-level health support occupations, such as nursing assistants or medical assistants
- Develop pre-apprenticeships to address gaps in foundational and employability skills to diversify the ranks of apprentices, increasing access for racial, ethnic, and linguistic minorities
- Offer training and testing for CNAs and other entry-level occupations in languages other than English
- Utilize the Rhode Island Department of Health licensure process to analyze the ethnic and linguistic diversity of health professionals

DEVELOP YOUTH INITIATIVES: Increase healthcare career awareness, experiential learning opportunities, and readiness for health professional education

- Build broader, more diverse talent pipelines by developing healthcare career awareness programs and training in middle and high schools
- Identify resources and healthcare employer partners to increase paid internships and work experiences for youth
- Develop career and technical education programs that prepare students for emerging, in-demand healthcare jobs and careers

ADDRESS PROVIDER SHORTAGES: Remediate shortages among selected health professions

- Determine the nature of shortages (e.g., statewide, regional, by payer) and causes of shortages (e.g., compensation, workload, job satisfaction)
- Enhance loan forgiveness, tax credits, and/or other financial incentives to improve recruitment and retention of providers
- Maximize federal assistance for federally designated provider shortage and/or underserved areas
- Expand appropriate use of telemedicine (e.g., monitoring, diagnosis, treatment, consults, and referrals)
- Cross-train clinical psychologists as psychiatric advanced practice RNs in order to increase patient access to prescribers
- Consider establishing a licensure category, educational program, and payment structure for advanced dental hygienist practitioners to augment the dentist workforce and expand access to underserved Rhode Islanders
- Utilize the licensure process to collect the Nursing Workforce Minimum Data Set needed to more accurately assess the supply of RNs

PRIORITY 2: Expand Home and Community-Based Care

Increase the capacity of community-based providers to offer culturally competent care and services in the home and community, and reduce unnecessary utilization of high-cost institutional or specialty care

EXPAND COMMUNITY-BASED HEALTH PROFESSIONAL EDUCATION: Educate and train health professional students to work in home and community-based settings

- Expand partnerships between health professional education programs and community-based healthcare and service providers, such as primary care providers, behavioral health providers, community health teams, and Health Equity Zones, to increase clinical placement opportunities for students
- Expand interprofessional classroom instruction to increase student understandings of home and community-based approaches to improve population health
- Expand home and community-based residency programs to enable newly-licensed graduates to obtain specialized training

PREPARE HEALTHCARE SUPPORT OCCUPATIONS FOR NEW AND EMERGING ROLES: Prepare healthcare support occupations to work in home and community-based settings

- Strengthen the ability of home health aides and personal care aides to work in home settings by providing training keyed to special needs of the home environment and preparation to respond to behavioral health needs
- Retrain or upskill current occupations such as medical assistants, patient access representatives, home-based workers, and mental health caseworkers in core CHW skills: patient engagement and navigation of community supports
- Research the potential business case for financing and sustaining CHWs through evaluation of patient impacts and development of an evidence base
- Explore emerging home and community-based workforce options (e.g., EMTs, LPNs, peer recovery specialists, medication aides, navigators, telemedicine)
- Support the emerging role of public health dental hygienists by finalizing licensure regulations, developing training capacity, and determining deployment and funding plans

PRIORITY 3: Teach Core Concepts of Health System and Practice Transformation

Increase the capacity of the current and future healthcare workforce to understand and apply core concepts of health system and practice transformation

INTEGRATED TEAM-BASED CARE: Increase the capacity of current and future health professionals to integrate physical, behavioral, and oral health, and long-term care through interdisciplinary, team-based practice

- Incorporate understandings of integrated physical, behavioral, and oral health into all health professional education programs
- Expand interprofessional health education activities among higher education programs (e.g., nursing, social work, pharmacy, medicine)
- Expand continuing education, supervisor training, and leadership development to support integrated, team-based care
- Provide continuing education to behavioral health professionals on assessment, diagnosis, treatment, and/or referral of physical and oral healthcare issues
- Provide continuing education to primary care providers on assessment, diagnosis, treatment, and/or referral of behavioral and oral health issues

HEALTH SYSTEM TRANSFORMATION CONCEPTS: Educate the current and future health care workforce about the significance of value-based payments, care management, social determinants of health, health equity, population health, and data analytics

- Engage and support higher education partners and others to develop a “clearinghouse” of content-specific training modules (for-credit, not-for-credit, or continuing education) that can be delivered in the classroom, workplace, and/or online.

Rhode Island's healthcare system is changing. Through a range of government, industry, and educational efforts, the state is transforming the way healthcare is delivered and paid for. Driving all of these efforts is the "Triple Aim" of better care, smarter spending, and healthier people.[1] Achieving this aim means rewarding providers for improving health, rather than seeing specific numbers of patients. It means defining health in terms of the whole person: integrating physical, behavioral, and oral health. It means addressing community factors that affect a person's behavior or health—housing, transportation, education, and food access—and addressing health disparities. And it means shifting the focus of care from hospitals and institutions to the home and community.

> *None of these changes in healthcare are possible without a transformed workforce—with the right workers, with the right skills and tools, in the right place at the right time.*

These changes in the healthcare system are only possible with a transformed healthcare workforce—with the right workers, with the right skills, tools and specializations, in the right place at the right time. To support workforce transformation, Rhode Island's Executive Office of Health and Human Services (EOHHS) commissioned this report to clarify healthcare workforce needs and challenges and identify strategies to address them. Its findings and recommendations will help guide workforce investments and support further analysis and action by health policymakers and providers, educators, and workforce development entities. And given the rapid pace of health systems transformation, this report is not the final statement: It will be updated as workforce strategies are implemented, evaluated, and revised in real time.

[1] The Triple Aim is a national goal initiated by healthcare reformers; it became a keystone of the Patient Protection and Affordable Care Act. For an early statement of the triple aim, see Berwick, Donald, Thomas W. Nolan, & John Whittington. 2008. "The Triple Aim: Care, Health, And Cost." Health Affairs. Vol. 27, No. 3.

Healthcare workforce transformation is not the same as workforce development. Rather than starting from our present healthcare arrangements and calculating the number of nurses or physicians needed now and in 10 years, this report takes a different approach. It does not assume that tomorrow's health system or healthcare workforce will look like today's. It spotlights those healthcare occupations and roles—some of them still taking shape—that are strategic to achieving better, more efficient, and more satisfying care. It asks not only what skills are needed by new workers in these roles, but how to renew the skills of experienced workers to deliver better care.

The report presents the background for these recommendations: the overarching goals of systems transformation and the "drivers" to achieve them, including team-based care, access to high-quality primary care, and rebalanced care from high-cost, institutional settings to home and community-based care. It highlights the state's recent initiatives to transform the health system, including new models for payment and accountability, and new practices for better coordinating and delivering care. It concludes with detailed strategic recommendations, organized by key priorities for workforce transformation.

This report draws on and supports the work of the Healthcare Workforce Transformation Committee, convened in 2016 by EOHHS, in partnership with State Innovation Model Test Grant (SIM), to inform policymakers and build consensus for change. The committee includes stakeholders from Rhode Island's health employers and industry associations, education and training providers, and policymakers engaged in health and workforce issues. After the initial convening of committee members in October 2016, a series of subcommittee meetings were held with content experts and committee members to gather insights and deliberate on possible strategies. Subcommittee meetings were convened on primary care; data quality, reporting, and health information technology; chronic disease; social determinants of health/cultural competency and diversity; behavioral health practice and integration; home and community-based care; and oral health. In December 2016 and February 2017, the full group was reconvened to discuss cross-cutting themes and strategies. Jobs for the Future (JFF) participated in the majority of these meetings and presented preliminary findings to the full group in December.

The researchers employed both qualitative and quantitative methods to produce this report. In addition to observing and participating in the Healthcare Workforce Transformation Committee process, JFF conducted approximately 30 interviews with stakeholders representing industry, education, and government. Those interviewed were asked about changes in healthcare delivery and their impact on the workforce, the adoption of new roles and occupations to deliver care, changes in skill and performance requirements, and the capacity of the state's education and training entities to meet new health workforce needs. Data from committee meetings, interviews, and a literature search on healthcare workforce transformation contributed to our understanding of Rhode Island's current health workforce landscape and the formulation of potential strategies for the state to consider in achieving its transformation goals.

JFF also analyzed quantitative data on Rhode Island's health workforce, employing both government data on present and projected employment trends and information from job postings to illuminate the occupations, roles, and skills sought by employers (See Appendices 1 and 2), as well as the education and licensure requirements of selected occupations (See Appendix 4). The analysis focuses in depth on occupations considered strategic to transforming Rhode Island's health system, such as nurses, community health workers, and behavioral health professionals. (See standalone Compendium of Occupations Critical to Rhode Island Healthcare Workforce Transformation.) The report also incorporates data on the number of graduates from the state's health professional programs and the employment of these graduates in the state and in the healthcare industry (see Appendix 3). Rhode Island's programs of health professional education and training are listed by occupation in Appendix 5.

Rhode Island is changing the way healthcare is delivered and paid for. This effort to improve healthcare and the health of Ocean State residents is guided by the "Triple Aim" of achieving better care, smarter spending, and healthier people. These objectives are closely related.

Better Care

Better care refers to improving the quality of care and patient satisfaction. It means empowering health consumers to engage in positive health behaviors and advocate for their own care—providing them with the skills, knowledge, and motivation needed to live healthy lives.[2] Better care requires patients who can navigate the healthcare system effectively and have access to primary care, dental care, behavioral health services, and long-term supports and services, as well as long-term, continuous relationships with their providers. Such care is patient-centered: It is tailored to the individual's needs, extending across the full continuum of care, with responsibility for patient experience resting with every healthcare employee, from frontline caregivers and clinicians to the chief executive.[3] Patient satisfaction has assumed greater prominence under the Affordable Care Act, with results from patient surveys about their care having a direct effect on reimbursement levels to hospitals and other providers. It places heightened demands on providers to be responsive to patients and engage them as partners in their care.

Better care is high-quality, culturally competent care, delivered by practitioners working at the top of their license or job description. It includes meeting and caring for people *outside* of

[2] *Rhode Island State Innovation Model (SIM) Test Grant Operational Plan.* Version 2. 2016. Rhode Island Executive Office of Health and Human Services.
[3] Wolf, Jason A., Victoria Niederhauser, Dianne Marshburn, and Sherri L. LaVela. 2014. "Defining Patient Experience." *Patient Experience Journal.* Vol. 1, Issue 1. Accessed from http://pxjournal.org/cgi/viewcontent.cgi?article=1004&context=journal

healthcare settings—where they work, live, play, learn, socialize, or worship. Better care treats physical and behavioral health together. It involves keeping people well.

Smarter Spending

Smarter spending—reducing the rate of growth in healthcare expenditures or lowering the per capita cost of care—means making the delivery and use of healthcare resources more efficient. It is a national priority because the U.S. spends more on healthcare per capita than any industrialized nation but achieves less in a variety of outcomes measures, including life expectancy and infant mortality.[4] In 2015, total healthcare expenditures topped $3 trillion, or more than $9,000 per person.[5] Nearly 18 percent of GDP is devoted to it. While the rate of growth in health expenditures has slowed in recent years, our system remains the world's most expensive. Moreover, our high rate of spending co-exists with unequal outcomes across multiple categories, including race, gender, income, and geography.[6]

Rhode Island wrestles with the same issues, if on a smaller scale. Per capita spending on healthcare exceeds the national rate—it is the seventh most expensive state in the U.S.—though there are indications that spending in the state has begun to decline.[7] Members of the state's lower income and minority communities, including African-Americans, Asians, Latinos/Hispanics, and Native Americans, experience poorer health outcomes and higher rates of chronic disease and behavioral risk factors than do white, non-Hispanic residents.[8]

Smarter spending is encouraged through new models of paying for healthcare services—by rewarding providers for "value," based on measurement of outcomes, rather than the volume of services provided. It also requires changes in the way healthcare is delivered: emphasizing primary or home-based care over more costly hospitalization or nursing facilities; encouraging prevention of disease or better management of chronic disease through coaching in healthy diet

[4] Berwick, Nolan, and Whittington. 2008. In 2013, the U.S. ranked 30th out of the 46 OECD nations in life expectancy, and below the OECD average. OECD Health Statistics 2015, http://dx.doi.org/10.1787/health-data-en.
[5] National Health Expenditure 2015 Highlights. Centers for Medicare and Medicaid Services. U.S. Department of Health and Human Services. Accessed from https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/downloads/highlights.pdf.
[6] Singh, Prabhot et al. 2016. Closing the Gap: Applying Global Lessons Toward Sustainable Community Health Models in the U.S.. Icahn School of Medicine at Mount Sinai. Arnhold Institute for Public Health. December 2016.
[7] Wessling, Steve, Julia Lerche, and Mary Hegemann. 2015. Rhode Island Total Cost of Care Study: Drivers of Medical Cost from 2011-2013. Wakely Consulting Group. Prepared for the Rhode Island Office of the Health Insurance Commissioner (OHIC) and to support the work of the Healthcare Planning and Accountability Advisory Council (HCPAAC). November 15, 2015. According to Rhode Island's Executive Office of Health and Human Services, spending by Medicaid enrollees declined by 27% per member per month between July 2014 and September 2016. Moreover, EOHHS projects that the state is "on track to spend $100 million less" on healthcare through Fiscal Year 2018, even though enrollment in commercial insurance and Medicaid has increased by 55% since January 2014. "EOHHS All Staff Meeting." Slide presentation. February 17, 2017.
[8] Among other health disparities, Rhode Island's African-American residents have nearly double the rate of infant mortality of white residents; African-American children experience disproportionately higher rates of hospitalization for asthma than other groups. Report, 2015. Minority Health Facts 2015: Major Health Indicators in the Racial and Ethnic Minority Populations of Rhode Island. Rhode Island Department of Health; Rhode Island Commission for Health Equity and Advocacy: Legislative Report 2015.

and behaviors such as exercise and avoiding tobacco; reducing avoidable use of emergency rooms; and coordinating care among patients, primary care physicians, specialists, and other providers.

Healthier People

Healthier people means enhancing the overall health of the population. Improving population health encompasses physical health (including oral health) and behavioral health (including mental health and substance use). Doing so requires careful attention to the needs and health risks of population segments—as defined by health conditions, as well as demographic, geographic, and other categories. For those needing more intensive levels of care and support, such as persons with multiple health conditions or frequent users of emergency departments, it means engaging populations and managing and coordinating their care among providers of medical and community services. And it requires a focus on physical and behavioral health outcomes, including life expectancy and health-related quality of life, and on reducing disparities across these outcomes. Making people healthier also means addressing the social determinants of health, or the social, economic, and environmental factors that influence health outcomes—including employment, income, housing, safety, and support systems.[9]

DRIVERS OF HEALTH SYSTEM TRANSFORMATION

The American health system—how we get care, and how we pay for it—is a labyrinth. Moreover, it is clear from the work of researchers and policy experts, as well as the experience of practitioners and patients, that the causes of complexity—and the path through it—go beyond healthcare providers or insurers alone.

The principles and concepts below—or "drivers"—of health system transformation can help cut through the complexity and guide the way to better care, smarter spending, and healthier people. They are the major components of Rhode Island's system change initiatives and point to key priorities for healthcare workforce transformation.

Social Determinants of Health

Many factors affecting health outcomes and the cost of care occur "upstream" from providers' interventions. These include housing, income, employment status, social support networks, access to healthy food and transportation, and environmental quality.[10] According to the U.S.

[9] *National Center for HIV/AIDs, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) Social Determinants of Health*: *Frequently Asked Questions*. U.S. Centers for Disease Control and Prevention. Accessed from https://www.cdc.gov/nchhstp/socialdeterminants/faq.html#c.
[10] Heiman, Harry and Samantha Artiga. 2015. Beyond Healthcare: The Role of Social Determinants in Promoting Health and Health Equity. Issue Brief. The Kaiser Commission on Medicaid and the Uninsured. November 2015. Accessed from:

Centers for Disease Control, clinical care contributes only 10 percent of the influence on population health, while genetics, health behaviors, and social and environmental factors contribute the remaining 90 percent.[11] Despite the impact of these factors on health, the U.S. spends just 55 cents on social aspects of health for every dollar spent on healthcare, in contrast to other developed nations—where for every dollar expended on healthcare, two dollars are invested in social services.[12]

Value-Based Payments

Controlling the cost of care and spending health dollars more efficiently is vital to health system transformation. Traditional fee-for-service models of paying for healthcare are based on the volume of services provided. The result has been high costs, wasteful spending, and poor health outcomes. To change the incentives in healthcare, bring down costs, and improve care delivery, policymakers and payers have designed alternative methods (value-based payments) that reward providers for quality outcomes and hold them accountable for achieving those outcomes for specified ("attributed") populations.

An organizational entity, the Accountable Care Organization (ACO), links providers who agree to be responsible for the quality and cost of their patients' care. They can then share savings generated through value-based payments, as well as share losses. ACOs give member providers financial incentives "to maintain and/or improve quality, access and/or patient experience."[13] They are also designed to reduce waste and better coordinate care.

Population Health

Population health is the totality of health outcomes of a group of individuals sharing the same characteristics, such as care setting, health status—including chronic disease or risk for disease—or geography, as well as the distribution of these outcomes within and across population groups.[14] It encompasses physical, behavioral, and oral health, as well as health outcomes, social determinants of health, and the policies and interventions that seek to change

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http://kff.org/disparities-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/

[11] Centers for Disease Control and Prevention. NCHHSTP Social Determinants of Health, accessed from: https://www.cdc.gov/nchhstp/socialdeterminants/faq.html

[12] The universe for the spending comparison is the 35 nations of the Organization for Economic Cooperation and Development (OECD). Klein, Ezra. 2013. "The Two Most Important Numbers in American Healthcare." The Washington Post, Wonkblog. September 19, 2013. Accessed from https://www.washingtonpost.com/news/wonk/wp/2013/09/19/the-two-most-important-numbers-in-american-health-care/?utm_term=.9745a4cfbd08.

[13] Recommendations Regarding State Action to Promote and Regulate Accountable Care Organizations (ACOs). A Legislative Report Required by Section 6(n) of the Rhode Island Healthcare Reform Act of 2013, RIGL-42-14.5-3. 2014. Rhode Island Office of the Health Commissioner. July 28, 2014. Accessed from http://www.ohic.ri.gov/documents/Recommendations-Regarding-State-Action-to-Promote-and-Regulate-Accountable-Care-Organizations-general-July-2014.pdf; "Accountable Entites." No date. Rhode Island Office of the Health Commissioner. Accessed from www.eohhs.ri.gov/Initiatives/AccountableEntities.aspx

[14] SIM Model Test Plan; 4 Kindig, D. A. (2007). "Understanding Population Health Terminology." Milbank Quarterly, 85(1), 139-61. doi: 10.1111/j.1468-0009.2007.00479.x.

social determinants in order to improve health outcomes.[15] A population health approach represents a shift from responding to the acute care needs of individual patients to a system that "anticipates and shapes patterns of care for populations, and addresses the environmental and social determinants of health."[16] This shift is central to health system transformation efforts. For primary care, it means a focus on health across patient populations to better identify patterns of chronic disease and manage them. It also means tracking patient panels more closely and using data to identify social determinants of health outcomes. New value-based payment methods reward providers for achieving better population health outcomes and reducing costs.

Data Analytics

Collecting, sharing, and analyzing data are central to transforming healthcare delivery and spending. Providers and ACOs use patient records and clinical outcome data to assess health risks and stratify populations into higher- and lower-risk categories. Such analyses help define quality measures and support care management decisions. Data collection and analysis is of special importance for "safety net" ACOs, which draw upon multiple data sources—including social indicators such as homelessness rates, food stamp use, educational levels, and poverty—to direct healthcare spending to populations and locations that could most benefit from targeted care strategies.[17] Data analytics are also employed to examine and redesign the workflow in primary-care practices and other settings, and to improve the delivery of care and support practice transformation.[18]

Rebalanced Delivery System from High-Cost Institutional Settings to Home and Community-Based Settings

A key driver for achieving smarter spending is the shift in care from costly institutional settings, such as hospitals or long-term care facilities, to treatment in the home or community. "Rebalancing" aims to deliver better, more satisfying care—on the assumption that people would prefer to remain at home if possible. The shift also emphasizes the use of specific work roles and occupations—such as home health aides and community paramedics—to help elders or persons with disabilities remain at home and avoid hospitalization or transition to institutional care. And it stresses community-based approaches for all consumers, given the importance of

[15] Kindig, David, and Greg Stoddard. 2003. "What is Population Health?" American Journal of Public Health. Vol. 93, No. 3, 380-383. March 2003. Accessed from: http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.93.3.380
[16] Shalijan, Michelle, and Marci Nielsen. 2013. Managing Populations, Maximizing Technology: Population Health Management in the Medical Neighborhood. Patient Centered Primary Care Collaborative. October 2013.
[17] *Medicaid Accountable Entities Roadmap. 2016.* Rhode Island Executive Office of Health and Human Services. December 27, 2016. Accessed from http://www.eohhs.ri.gov/Initiatives/AccountableEntities.aspx; Lavizzo-Mourey, Risa. 2015. "No Longer a Unicorn: Improving Health Through Accountable Care Organizations." AJMC.com Managed Market Network. July 15, 2015. Accessed from http://www.ajmc.com/journals/issue/2015/2015-vol21-n7/no-longer-a-unicorn-improving-health-through-accountable-care-organizations.
[18] *Rhode Island SIM Test -Grant*. 2016. EOHHS.

social determinants of health and resources such as community health workers to address them.

Integrated Physical, Behavioral, Oral Health, and Long-Term Care

Integrated care means engaging people in a full range of needed services to support better health.[19] The goal is for all practitioners to be prepared to screen, diagnose, treat, support, and/or refer patients with physical, behavioral, oral health, and long-term care needs. Integrated care starts from the notion that a "whole person" approach that encompasses all aspects of life is essential to improving population health. Evidence shows that integrated care for persons with multiple health conditions results in the best outcomes.[20] Integrated care requires multidisciplinary teams (e.g., physical and behavioral health specialists), and shared knowledge about a patient's treatment plans and comprehensive needs and the range of providers and community services available for referral. According to behavioral health experts, integrated care demands more than co-location of services or giving patients a referral. Integrated care requires "blending of provider disciplines' expertise to treat a shared population through a collaborative treatment plan with defined outcomes."[21]

Team-Based Care

Healthcare delivery is shifting from clinicians working in isolation to a multidisciplinary, interprofessional model of care. To provide better integrated, coordinated care, a variety of practitioners—including physicians, nurses, pharmacists, medical assistants, nutritionists, community health workers, and social workers—collaborate in teams, in primary-care practices, in the

[19] *The Colorado Blueprint for Promoting Integrated Care Sustainability.* 2012. The Colorado Health Foundation.
[20] Chaple, Michael, Marjean Searcy, Beth Rutkowski, and Miguel Cruz. 2016. Building Capacity for Behavioral Health Services Within Primary Care and Medical Settings. ATTC Workforce Development Workgroup. May 2016. According to research cited by Skillman et al., "patients receiving behavioral healthcare in primary care settings are more likely to receive individualized care plans; experience reduced service duplication and error; show modest improvements in depression and anxiety; and report greater satisfaction." Skillman, Susan M., Cyndi R. Snyder, Bianca K. Frogner, and Davis G. Patterson. 2016. The Behavioral Health Workforce Needed for Integration with Primary Care: Information for Health Workforce Planning. Center for Health Workforce Studies, University of Washington.
[21] Substance Abuse and Mental Health Services Administration. No date. "Team Members." Accessed from http://www.integration.samhsa.gov/workforce/team-members; Sammer, Joanne. "Warm Handoffs serve as the first step toward accountable care." Behavioral Health Executive. 5/12/15. At http://www.behavioral.net/article/warm-handoffs-serve-first-step-toward-accountable-care.

community, and across settings. Such teams may also incorporate those in established occupations who assume new or emerging roles, such as health coach, patient navigator, and care manager. Interprofessional teams are designed to engage patients, improve overall patient health, coordinate patient care and education, identify and treat health conditions, and promote patient self-care.[22] Team-based care is also employed to address gaps in the capacity of clinicians. Delegating care to qualified team members—clinicians and non-clinicians—can extend the capacity of primary-care practices to meet patients' chronic, acute, and preventive care needs.[23] Similarly, team-based care also increases the capacity of primary-care practices to address non-medical determinants of health, providing added value to patients and their families.

Access to High-Quality Primary Care

Primary care is central to transforming healthcare delivery. It was assigned a pivotal role in the Affordable Care Act's measures to improve healthcare, and in countless local experiments in improving care and spending more efficiently. But a persistent segment of Americans has infrequent or no engagement with primary care due to cost, practitioner shortage, geographic isolation, age, or other factors. The National Association of Community Health Centers estimated that 62 million people, including many who have health insurance, have no or inadequate access to primary care.[24] Lack of primary-care access results in costly over-utilization of emergency rooms, avoidable hospitalizations, and neglect of screenings that could detect controllable conditions such as high cholesterol and prevent disease.[25] Models such as the patient-centered medical home—the extension of primary care into communities through teams and the use of new settings, and delegation of some healthcare and medication services to non-physicians—aim to expand primary-care access and improve health outcomes while achieving greater efficiencies.

RECENT HEALTH SYSTEM TRANSFORMATION EFFORTS IN RHODE ISLAND

Rhode Island has actively worked to make progress on the Triple Aim goals of better care, smarter spending, and healthier people. In recent years, it has mounted a range of policy initiatives and programs to transform healthcare spending and delivery. These, in turn, build on a foundation of systems change efforts pre-dating the Patient Protection and Affordable Care

[22] Nester, Jane. 2016. "The Importance of Interprofessional Practice and Education in the Age of Accountable Care." North Carolina Medical Journal. Vol. 77, No. 2, pp. 128-132.
[23] Bodenheimer, Thomas, and Mark D. Smith. 2013."Primary Care: Proposed Solutions to the Physician Shortage Without Training More Physicians." Health Affairs. Vol. 32, No. 11, pp. 1881-1886. November 2013.
[24] "Access to Primary Care Remains a Challenge for 62 million Americans." 2014. *Medical Economics.* March 20, 2014. Accessed from http://medicaleconomics.modernmedicine.com/medical-economics/content/tags/affordable-care-act/access-primary-care-remains-challenge-62-million-
[25] "Primary Care: Our First Line of Defense." No date. *The Commonwealth Fund*. Accessed from http://www.commonwealthfund.org/publications/health-reform-and-you/primary-care-our-first-line-of-defense

Act of 2010. The state has long been an innovator: extending Medicaid to children in the 1990s, and, starting in 2008, transforming primary-care practice, through establishing patient-centered medical homes through the Care Transformation Collaborative. The latter initiative has grown to serve one-third of Rhode Island's residents, through 72 practice sites.[26]

In recent years, Rhode Island has undertaken research and convened stakeholders and advisors to identify healthcare needs and gaps. One result of these efforts was the *State Healthcare Innovation Plan: Better Health, Better Care, Lower Cost* (SHIP). The SHIP document helped set a statewide agenda for health system transformation and noted continuing roadblocks to better population health, including high levels of residents with preventable chronic diseases, opioid addiction, and growing incidence of children with behavioral health challenges.

Key recent transformation initiatives include the State Innovation Model Test Grant Operational Plan and Integrated Population Health Plan, which established the Statewide Population Health Goals; Reinventing Medicaid; the Accountable Entities Roadmap; and the Affordability Standards of the Office of the Health Insurance Commissioner (OHIC). While oriented to different payers and populations, these initiatives share similar goals and overlapping strategies, including shifting payments to reward value, not volume of care; incentivizing providers to work in teams to coordinate care; improving population health by addressing social determinants of health; and placing a priority on data-driven decision-making and evidence-based care.

FOUR HEALTH SYSTEM TRANSFORMATION INITIATIVES

State Innovation Model Test Grant

In 2015, Rhode Island was the beneficiary of a $20 million Centers for Medicare & Medicaid (CMS) State Innovation Model (SIM) grant to test the state's model for reforming healthcare payments and service delivery.[27] CMS designed the initiative to test the capacity of state governments to use policy and regulatory tools to promote health system transformation in pursuit of better quality care, lower costs, and improved health of state populations.[28] The resulting SIM Test Grant Operational Plan was produced through a multi-agency, multi-sector process; its Steering Committee continues to meet to help align the state's multiple systems change efforts. The SIM Operational Plan was followed by the SIM Integrated Population Health Plan, which presents frameworks, strategies, and goals for population

[26] Care Transformation Collaborative-Rhode Island. No date. Accessed from: https://www.ctc-ri.org.
[27] *Rhode Island State Innovation Model (SIM) Test Grant: Operational Plan*. 2016. Rhode Island Executive Office of Health and Human Services. Accessed from: http://www.eohhs.ri.gov/Portals/0/Uploads/Documents/State%20Innovation%20Model/RISIMOperationalPlanVersion1April282016.pdf
[28] *State Innovation Models: General Information.* No date. CMS.gov. Centers for Medicare and Medicaid Services. Accessed from https://innovation.cms.gov/initiatives/state-innovations/

health improvement, and shows how the state's health system transformation efforts are integrated with population health planning.[29]

The overall goal of the SIM plan is to improve population health and achieve the Triple Aim by assisting providers and consumers to adapt to value-based payments, and promoting reforms in service delivery. The plan stresses using data to drive transformation, integrating physical and behavioral health, addressing social determinants of health, and reducing health disparities. Key strategies include community health teams—comprising certified community health workers and community-based, licensed health professionals—to help high-risk individuals access primary care and other needed services and enable healthcare staff to reach these patients in home and community-based settings. The SIM plan also extends children's access to psychiatric care, supports patients' engagement in their health, and invests in transforming practices to support team-based models of care.[30]

Reinventing Medicaid

Medicaid, a key pillar of Rhode Island's publicly financed, safety net health system, serves one in four of the state's residents and closer to 40 percent over a three-year period.[31]

Statewide Population Health Strategies Related to Healthcare Workforce Transformation

PROMOTE HEALTHY LIVING THROUGH ALL STAGES OF LIFE

Goals:

- Reduce chronic illnesses, such as diabetes, heart disease, asthma, and cancer
- Promote behavioral health and wellness among all Rhode Islanders
- Support Rhode Islanders in ongoing recovery and rehabilitation for all aspects of health

PROMOTE A COMPREHENSIVE HEALTH SYSTEM THAT A PERSON CAN NAVIGATE, ACCESS, AND AFFORD

Goals:

- Improve access to care including physical health, oral health, and behavioral health systems
- Improve healthcare licensing and investigations of complaints
- Expand models of care delivery and healthcare payment focused on improved outcomes
- Build a well-trained, culturally competent, and diverse health system workforce to meet Rhode Island's needs
- Increase patients' and caregivers' engagement within care systems

ANALYZE AND COMMUNICATE DATA TO IMPROVE THE PUBLIC'S HEALTH

Goal:

- Encourage health information technology adoption among Rhode Island healthcare providers as a means for data collection and quality improvement

[29] *SIM Workgroup and Partner Agency Reports.* 2017.
[30] Rhode Island SIM Test Grant Operational Plan. 2016. EOHHS.
[31] Medicaid Program Accountable Entity Roadmap Document. 2016. Rhode Island Executive Office of Health and Human Services. December 27, 2016. Hereafter, AE Roadmap.

The Reinventing Medicaid Act of 2015 builds on prior reforms to create savings and address deficits in Medicaid, rebalance care from nursing facilities to home and community-based settings, and reward hospitals and nursing homes for quality outcomes. The legislation is based on the report and recommendations of the Working Group to Reinvent Medicaid. The report sets goals for transitioning Medicaid payments from a fee-for-service basis to one based on meeting benchmarks for quality and value. This is to be done through alternative payment methods that reward provider organizations (termed "Accountable Entities"), which are held accountable for meeting health and cost outcomes for a defined patient population. It calls for engaging the state's highest-cost users—individuals with multiple chronic conditions, frequent emergency room use and, often, substance use disorders. It recommends setting common targets for utilization, quality of care and population health outcomes, and using them to monitor progress on Reinventing Medicaid goals. The report also recommends better coordination of physical, behavioral, and long-term care; better access to primary care; and rebalancing services and payments from high-cost settings (institutional and specialty care) to community-based settings.[32]

Accountable Entities Roadmap

Following on the Reinventing Medicaid reports and legislation, the state began piloting Accountable Entities (AE) in 2016 with six provider organizations. In line with Reinventing Medicaid principles, the AEs work with Medicaid managed care plans to analyze care costs and patient data, and build capacity to better serve high-risk populations. To be certified as Accountable Entities, the providers must manage the full continuum of care, including physical, behavioral, and social services, and fully integrate physical and behavioral health. The Accountable Entities, to be effective, must target the highest-risk patients—those with complex care needs—for support and care management.[33]

In November 2016, CMS awarded Rhode Island $130 million through the Designated State Health Program to further support the work of Rhode Island's Health System Transformation Program and the development of Accountable Entities, as well as to strengthen the state's healthcare workforce pipeline.[34]

OHIC Affordability Standards

The Affordability Standards are a set of regulations promulgated by the Office of the Health Insurance Commissioner aimed at decreasing the cost of care through payment reform and care transformation. The Affordability Standards include long-term targets for commercial

[32] Report of the Working Group to Reinvent Medicaid: Recommendations For A Plan For A Multi-Year Transformation Of The Medicaid Program And All State Publicly Financed Healthcare In Rhode Island. July 8, 2015.
[33] AE Roadmap, EOHHS, 2017.
[34] *Better Care, Healthier People, Smarter Spending."* 2016. Press Release. Rhode Island Office of the Governor. November 28, 2016. Accessed from http://www.ri.gov/press/view/29072.

health plans, and establish public working groups to issue annual plans that set shorter term targets and identify strategies for achieving them. The 2017-18 Alternative Payment Methodology Plan, adopted in January 2017, aligns commercial health coverage with the shift to value-based payment methods in the state's publicly financed insurance system. It requires commercial insurers to direct 40 percent of medical payments through models based on quality and efficiency rather than volume in 2017, increasing to 50 percent in 2018. OHIC will hold insurers accountable for meeting the new standards during its annual rate review process.[35]

In a parallel process, OHIC adopted its 2017-2018 Care Transformation Plan in January 2017 to require insurers to invest in Patient Centered Medical Homes (PCMHs)—primary practices that adopt strategies to manage their costs and coordinate care more effectively.

Required strategies include tracking high-risk patients, using data to implement care management, focusing on high-risk patients and reduction of avoidable emergency room use, and improving access to (and coordination with) behavioral health services. Insurers covered by OHIC's affordability standards must have 80 percent of their contracted clinicians functioning as PCMHs by 2019.[36]

Workforce transformation requires both new roles for those practicing in existing occupations—such as nurses or emergency medical technicians—and new or emerging occupations, such as community health workers.

[35] "OHIC Adopts New Standards Focused on Paying for Value." 2016. Press Release. Office of the Health Insurance Commissioner, State of Rhode Island. February 11, 2016. Accessed from http://www.ohic.ri.gov/documents/PressRelease-Affordability-Standards-2016-2017-New-Plans-FINAL.pdf

[36] *Patient Centered Medical Home Definitions and Requirements.* No date. Office of the Health Insurance Commissioner. Accessed from http://www.ohic.ri.gov/ohic-reformandpolicy-pcmhinfo.php

Transforming Rhode Island's Healthcare Workforce: Three Priorities

Addressing the drivers of healthcare transformation to achieve the Triple Aim will require transforming Rhode Island's healthcare workforce. The Rhode Island Healthcare Workforce Transformation Committee has identified three key priorities of healthcare workforce transformation:

1. ***Build Healthcare Career Pathways to Develop Skills That Matter for Jobs That Pay***
   Prepare Rhode Islanders for good jobs and careers in healthcare through expanded career awareness, job training and education, and advancement opportunities
2. ***Expand Home and Community-Based Care***
   Increase the capacity of healthcare providers to offer culturally-competent care and services in the home and community and reduce unnecessary utilization of high-cost institutional or specialty care
3. ***Teach Core Concepts of Health System and Practice Transformation***
   Increase the capacity of the current and future healthcare workforce to understand and apply core concepts of health system transformation

To achieve these priorities, we present strategies and recommendations that focus on the skills and supply of key healthcare occupations. Because our focus is on system transformation, rather than all of the functions critical to serving health consumers, we emphasize occupations that will have the greatest impact on changing healthcare to achieve smarter spending, better care, and healthier people. This approach, in the words of University of North Carolina health workforce analyst Dr. Erin Fraher, represents a "shift from planning for a health workforce to a workforce for health."[37] In her view, this also demands a shift in emphasis from potential shortages in health professionals to more effective and efficient use of today's workforce—including reallocating clinical responsibilities to address needed capacities. It is also a shift from a provider-centered focus—how many professionals of different types will be needed—to a patient-centered focus, keyed to patients' needs for care and to finding the right mix of skills to meet them in specific care settings and communities.[38]

Workforce transformation requires both new roles for those practicing in existing occupations—such as nurses or emergency medical technicians—and new or emerging occupations, such as

[37] Fraher, Erin, Rachel Machta, and Jacqueline Halladay. 2015. *The Workforce Transformations Needed to Staff Value-based Models of Care.* Research Brief. University of North Carolina. The Cecil G. Sheps Center for Health Service Research. November 2015.
[38] Fraher et al. 2015; G.M. Holmes, M. Morrison, D.E. Pathman, E. Fraher. 2013. "The Contribution of 'Plasticity' to Modeling How a Community's Need for Healthcare Services Can Be Met by Different Configurations of Physicians." Academic Medicine, 88(12), 1877–1882.

community health workers. This can involve shifting of existing tasks and activities among healthcare professionals, or carrying out new tasks and activities. Changes are also occurring in the places where health workers practice, and how they work together.

A full description of new skill demands and challenges, changing roles, projected demand, and licensure information on each of the strategic occupations can be found in the Occupational Compendium accompanying this report.

The remainder of this report outlines the strategies needed to transform Rhode Island's healthcare workforce, with recommendations for achieving them. They are organized by key priorities. For each strategy, we present examples of current initiatives, both in Rhode Island and in other states, to provide a foundation of promising practices for the state to build upon.

Rhode Island can offer pathways to better jobs, while ensuring that paraprofessionals obtain specialized skills and knowledge required to perform effectively and execute new roles required for transforming healthcare.

Build Healthcare Career Pathways to Develop Skills That Matter for Jobs That Pay

The following strategies respond to the need to educate, recruit, and retain skilled practitioners at every level of the healthcare workforce, from entry-level roles at the bedside, home, or community health clinic, to clinicians and behavioral health professionals. They offer ways to prepare Rhode Islanders from culturally and linguistically diverse backgrounds for good jobs and careers in healthcare through expanded career awareness, job training, education, and advancement opportunities. They also pose solutions to provider shortages in strategic occupations.

STRATEGY: SUPPORT THE ENTRY-LEVEL WORKFORCE

Entry-level, paraprofessional or “frontline” workers are essential to the delivery of care, even as they are often overshadowed by medical professionals such as physicians or nurses. Their ranks include direct-care workers employed in homes, hospitals, nursing facilities, community residences, psychiatric units, and other settings where patients and consumers require assistance and care. They also include assistive staff in primary and oral care settings, such as medical and dental assistants,as well as community health workers and peer recovery specialists.

Care transformation begins on the frontlines of healthcare. And frontline workers are facing high expectations about their roles and their performance. For example, community health workers and peer recovery specialists serve as trusted connectors of patients to services and supports. Medical assistants with enhanced patient coaching skills are helping make the patient-centered

CURRENT RHODE ISLAND INITIATIVE

Certification for Community Health Workers

Rhode Island Department of Health (RIDOH) has been a pacesetter in establishing certification of the emerging occupation of community health workers (CHW). Working through the Rhode Island Certification Board and Rhode Island CHW subject matter experts, RIDOH developed a certification process requiring completion of nine training modules in competency areas such as promotion of health and well-being, individual and community assessment, and culturally and linguistically appropriate services. Candidates must also have completed six months or 1,000 hours of paid or voluntary work experience in the past five years and 50 hours of supervised work. They are required to be recertified every two years and complete 20 hours of continuing education.[39] RIDOH is now looking to improve the certification standards and assessment to align more closely with providers' needs, and it is considering portfolio evaluation to certify new candidates. Through partnerships with Rhode Island College and the Rhode Island Community Health Worker Association, Rhode Island is building a robust training and infrastructure platform necessary to advance the CHW profession.

medical home model effective.[40] Direct caregivers in long-term care deliver 80 percent of the assistance received by nursing home residents.[41] The shift from hospital and nursing facilities to less costly home and community-based care makes skilled and committed in-home care workers (home health aides, personal care aides) essential. A rapidly growing aging population also demands a stable and well-trained direct care workforce: Rhode Island leads the nation in the proportion of its residents 85 years or older.[42] And its direct care workforce is also aging: almost half of the state's CNAs and home health aides (45 percent) are over the age of 45, while over one-third of medical assistants are in this age bracket.[43]

Despite their strategic importance, entry-level healthcare workers are "disenfranchised, undertrained, and underpaid," according to one of Rhode Island's educational leaders in preparing paraprofessionals—resulting in high turnover. Median wages for many direct caregivers, especially in home care, fall below the minimum level necessary to support a family in

[39] "RIDOH, Community Partners Celebrate New Community Health Worker Certification Program." 2016. Press Release. Rhode Island Department of Public Health. August 5, 2016. Accessed from http://www.ri.gov/press/view/28246. See also *Certified Community Health Worker: Job Analysis and Standards*. 2016. Rhode Island Certification Board. Accessed from http://www.health.ri.gov/materialbyothers/CommunityHealthWorkerJobAnalysisAndStandards.pdf

[40] Pavel, Kavita, Jeffrey Nadel, and Mallory West. 2014. *Redesigning the Care Team: The Critical Role of Frontline Workers and Models for Success.* Engelbert Center for Healthcare Reform, The Brookings Institution. March 2014. Accessed from https://www.brookings.edu/research/redesigning-the-care-team-the-critical-role-of-frontline-workers-and-models-for-success/

[41] *U.S. Nursing Assistants Employed in Nursing Homes: Key Facts*. 2016. Paraprofessional HealthCare Institute. Accessed from http://phinational.org/sites/phinational.org/files/phi-nursing-assistants-key-facts.pdf.

[42] Dugan E, Porell F, Silverstein NM. 2016. *Highlights from the Rhode Island 2016 Healthy Aging Data Report.* Accessed from http://healthyagingdatareports.org/wp-content/uploads/2016/09/Rhode_Island_2016_Healthy_Aging_Data_Report.pdf.

[43] Glasmeier, Amy K. and Massachusetts Institute of Technology. 2017. Living Wage Calculation for Rhode Island. Accessed from: http://livingwage.mit.edu/states/44.

Rhode Island.[44] They lack clear pathways to jobs and careers offering increased wages and responsibility. While some paraprofessionals—especially those in hospital settings—enjoy access to employer-provided training and educational benefits, many lack these options.

These conditions create recruitment and retention challenges for direct care providers. As the economy has improved in recent years, home care employers report increasing difficulty finding or holding onto caregivers—especially when higher wages are offered by employers in service positions outside of healthcare, such as retail salespersons or maids and housekeepers.[45] Staffing shortages and rapid turnover, in turn, burden patients and consumers, while imposing excessive workloads and hours on the caregivers who remain. It also limits time available for training and staff development.

Transformation of healthcare demands that all work "at the top of their license" or job description, but there are multiple barriers to achieving high performance and quality care. Some occupations, such as medical assistants and dental assistants, lack formal licensing or certification. As a senior executive at a large community health clinic explains, the lack of certification and standardized competencies for medical assistants "means we don't know what they know." The state's largest health support occupation, certified nursing assistant (CNA), is licensed, with formal training and examination requirements that are required of aides working in home healthcare as well as long-term care facilities. Yet there are concerns that programs for CNA training do not prepare candidates with the competencies needed to work in the many and varied settings and roles effectively, including consumers' homes. Ensuring that training and certification cover needed competencies, while professionalizing assistive roles now lacking certification, will help obtain consistent performance, while stabilizing these vital occupations.

Rhode Island can offer pathways to better jobs, while ensuring that paraprofessionals obtain specialized skills and knowledge required to perform effectively and execute new roles required for transforming healthcare. Creating advanced certifications for frontline occupations, and supporting these steps with formal wage and job ladders, will allow workers to see their roles as entryways to a career for those seeking to advance. For example, CNAs could attain advanced certifications in acute care or behavioral health. Peer recovery specialists could acquire certification as Licensed Chemical Dependency Specialists. Community health workers could be recognized and rewarded for specialized knowledge of maternal/child health or various chronic diseases, such as HIV/AIDs, asthma, or diabetes. Ideally, attainment of additional certifications enable workers to "stack" or accumulate academic or industry-recognized certificates toward a degree or credential, allowing them to advance professionally and perform at higher levels of

[44] "Living Wage Calculation for Rhode Island." No date. Living Wage Calculator. Accessed from http://livingwage.mit.edu/states/44.
[45] Rhode Island Healthcare Workforce Transformation Committee. Subcommittee on Home and Community-Based Care. November 17, 2016. Retail salespersons in Rhode Island earn on average over $2 more per hour than home health aides, while the average hourly wage for maids and housekeepers exceeds that of the state's personal care aides by $1.50. Labor Costs for Direct Care Workers. No date. U.S. Bureau of Labor Statistics.

CURRENT RHODE ISLAND INITIATIVE

Increasing Practitioners' Cultural Competence

The Providence Center (TPC), Rhode Island's largest community behavioral health provider, with more than 800 employees, has aggressively stepped up its efforts to strengthen staff cultural competency and diversity. In the past six years, it has gone from approximately 18 cultural competency trainings per year to over 200, especially for clinical staff. TPC also uses wage bonuses to recruit and promote Spanish-speaking staff.

TPC extends culturally competent services into the community, with a Latino Services Team that conducts outreach with community-based organizations to serve the Spanish-speaking population. Nationally, Latinos are the least likely of all ethnic groups to seek behavioral health services; just one in 11 of those with mental illness seek treatment. In 2016, TPC developed the Latino Intensive Outpatient Program (IOP), which conducts groups and one-on-one mental health and substance abuse treatment sessions entirely in Spanish. According to the program's creator, "a huge advantage of this IOP is that we recognize where these clients are coming from and design treatment in culturally sensitive ways."[46]

Other TPC programs that offer predominately bilingual services include the Pawtucket Health Home Team, which treats 50 percent Spanish-speaking clients, and TPC's offices at Prairie Avenue in Providence, which treat about 80 percent Spanish-speaking clients. Both programs have a majority of bilingual staff members.

skill. For credentialing to be effective, providers, and the professionals they employ, need to embrace and utilize the advanced skills of frontline staff.

Recommendations to improve recruitment, retention, and career advancement of entry-level workers

> Address issues of compensation, work load, and/or job satisfaction to improve recruitment and retention of entry-level workers

> Establish core competencies for all unlicensed, entry-level occupations

> Develop advanced certifications in specialties such as behavioral health, gerontology, and chronic diseases to increase the knowledge, skills, compensation, and career advancement opportunities of entry-level occupations

> Reduce financial and logistical barriers associated with pre-employment requirements, such as criminal background checks, physical examinations, and vaccinations

> Revise Certified Nursing Assistant regulations to update scope of practice, training, and testing requirements to reflect varied and emerging roles

[46] "The Providence Center's IOP Reduces Barriers to Behavioral Healthcare." 2016. The Providence Center. Accessed from https://providencecenter.org/news/post/the-providence-centers-latino-iop-reduces-barriers-to-behavioral-health.

- Consider licensure or certification for unlicensed occupations such as Community Health Workers, medical assistants, case managers, peer recovery specialists, and dental assistants[47]
- Align publicly funded job training programs with health system transformation priorities

NATIONAL INITIATIVES

Certification and Apprenticeship Programs

- Iowa's Department of Public Health, and the state's Direct Care Worker Advisory Council, created core and advanced certifications for direct care workers and accompanying curriculum ("**Prepare to Care**"). The curriculum is cross-disciplinary, with the core foundational course required for the entry-level role (certified direct care associate), and five modules to prepare current associates for advanced certifications in Community Living, Personal Support, and Health Support. A pilot study found that employers implementing Prepare to Care training experienced a 59 percent reduction in turnover among aides.[48]
- The labor-management training partnership of Service Employees International Union (SEIU) 775 NW, in Washington state, developed an **Advanced Home Care Aide Registered Apprenticeship**. The training program, initiated in 2012, is the nation's first competency-based apprenticeship for personal care aides (known as home care aides in Washington). The addition of 70 hours of classroom time to the initial 70 hours required for state certification meets federal apprenticeship requirements for didactic training, and nets students a modest wage increase. As the program is based on mastery of specific home care competencies during time on the job, apprentices are not required to meet the 2,000-hour training period of conventional registered apprenticeships. SEIU formed a collaborative with home care employers, payers, and consumers to support scaling of this model. It is also revising curriculum to expand competencies beyond standard long-term care tasks and encompass skills keyed to supporting consumers' health and reducing emergency room use and re-hospitalization. Evaluators are studying the new model to determine if it brings costs down. If positive, the evidence can help persuade payers and employers to invest more deeply in home care services and home care aides' skills and training.[49]

Serving the healthcare needs of a diverse population requires a professional workforce that speaks the language and has the trust of multiple communities.

[47] Currently, community health workers and peer recovery specialists are certified, but not licensed, by the Rhode Island Certification Board. For Certified Community Health Workers, see https://www.ricertboard.org/sites/default/files/applications/RICB_CCHWGrandparentingApplication.pdf. For Certified Peer Recovery Specialists, see https://www.ricertboard.org/sites/default/files/applications/RICBCPRSApplication.pdf.
[48] "Prepare to Care: Iowa's Direct Care and Support Curriculum." No date. Iowa Department of Public Health. Accessed from http://www.iowapreparetocare.com; "Direct Care Training and Career Pathways." No date. Iowa Department of Public Health. Accessed from http://idph.iowa.gov/directcare/pathways.
[49] Choitz, Vickie and Matt Helmer, with Maureen Conway. 2015. *Improving Skills to Improve Jobs. The SEIU Healthcare NW Training Partnership.* Washington, DC: The Aspen Institute. Accessed from http://www.aspenwsi.org/wordpress/wp-content/uploads/SEIU-CaseStudy.pdf

STRATEGY: INCREASE DIVERSITY AND CULTURAL COMPETENCE OF THE HEALTHCARE WORKFORCE

Building a diverse and culturally competent healthcare workforce is key to improving health quality, access, and outcomes. Serving the healthcare needs of a diverse population requires a professional workforce that speaks the language and has the trust of multiple communities. Health professionals from ethnically and socioeconomically diverse backgrounds are more prone to practice in underserved communities, and patients report higher satisfaction when treated by members of their racial or ethnic group.[50]

As in much of the United States, Rhode Island's population has grown more diverse culturally, ethnically, and linguistically. Persons of racial and ethnic minority background make up approximately 27 percent of the population.[51] About one in seven Ocean State residents (13 percent) are foreign born, and over one in five (21 percent) speaks a language other than English at home. Among New England states, only Massachusetts has more immigrants, and Rhode Island is among the 15 states with the largest newcomer population, with a rising number of arrivals from Latin America, Africa, and Asia.[52]

The shift to community-based care, the heightened focus on population health, and the need to reduce health disparities strengthen the case for diversity and cultural competency among healthcare providers. Achieving health equity in the state will require both better access to medical and community resources, and access to culturally competent practitioners—who can establish good working relationships with patients from diverse backgrounds and work effectively within the cultural context of an individual, a family, or community.[53] This includes the ability to identify cultural issues or behaviors that could facilitate or constrain care delivery or adherence to treatment plans.[54] A representative of a community-based organization serving Southeast Asians in Rhode Island noted that the native language of many immigrants may lack words or concepts used in the healthcare system—making health literacy and communication a struggle.[55]

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[50] "The Changing Face of Nursing: Creating a Workforce for an Increasingly Diverse Nation." *Charting Nursing's Future.* January 2016, Issue no. 27. Robert Wood Johnson Foundation. Accessed from: http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2016/rwjf425988

[51] Emsi Analyst. 2017.2 Proprietary data extracted by Lois Joy, April, 2017.

[52] Cloutier, Kathleen. 2016. "Welcoming Immigrants and Refugees to Rhode Island." *Communities and Banking*. Summer 2016.

[53] Cooper, Lisa A. and Debra L. Roter. 2003. "Patient-Provider Communication: The Effects of Race and Ethnicity on Process and Outcomes of Healthcare" in Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare, Smedley et al., eds, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Healthcare. 2003. National Academies Press.

[54] Offodile, Regina Stokes. "Cultural Competency Matters." 2013. Culture of Health Blog. Robert Wood Johnson Foundation. Access from http://www.rwjf.org/en/culture-of-health/2013/05/cultural_competency.html.

[55] Rhode Island Healthcare Workforce Transformation Committee. Subcommittee on Social Determinants of Health. November 10, 2016.

Non-white and Hispanic or Latino residents are under-represented in Rhode Island's health professions. A senior executive of one of the state's major health systems acknowledged that "we don't look like the patients we serve." While these groups are prominent in healthcare support and assistive roles, such as nursing assistants, psychiatric aides, and home health aides, they are far less represented in professional roles, such as physicians, nurses, and psychiatrists. Just 2 percent of the state's physicians and surgeons are African-American, while 5 percent are Latino or Hispanic; these groups are 5 percent and 11 percent of the state's population, respectively. Five percent of the state's registered nurses are African-American, but only 4 percent are Latino. African-Americans and Latinos comprise just 3 percent and 5 percent, respectively, of Rhode Island's psychiatrists. This imbalance poses challenges for physical and behavioral health employers in Providence, especially in community health settings. A human resources officer for a mental health and substance treatment provider spoke of the difficulty of finding candidates of diverse backgrounds—particularly African-American professionals and bilingual practitioners. She also stressed the need for stronger cultural competencies for behavioral health staff.

Diversity in healthcare is also a matter of gender and sexual orientation. Cultural competence is necessary to provide quality healthcare and services to members of the LGBTQ community of various racial, ethnic, age, and socioeconomic groups.

Less is known about the cultural and linguistic diversity of the state's patient population and the need for appropriately targeted services. According to the 2015 Statewide Health Inventory, there is substantially limited data across practices and facilities regarding race, ethnicity, and primary languages of patients, as well as the availability of interpreter services. The Rhode

Island Department of Health recommends uniform data collection of race, ethnicity, and languages of patients.[56]

Recommendations to increase the cultural, ethnic, and linguistic diversity and competence of the licensed health professional workforce

- Create more diverse talent pipelines by providing healthcare career awareness, academic advising, mentoring, financial assistance, and supportive services for youth and adults in targeted populations
- Build career ladders for individuals now working in entry-level health support occupations, such as nursing assistants or medical assistants
- Develop pre-apprenticeships to address gaps in foundational and employability skills to diversify the ranks of apprentices, increasing access for racial, ethnic, and linguistic minorities
- Offer training and testing for CNAs and other entry-level occupations in languages other than English
- Utilize the Rhode Island Department of Health licensure process to analyze the racial, ethnic, and linguistic diversity of health professionals

NATIONAL INITIATIVE

Bringing Diverse Frontline Workers into Nursing

A recent two-year project of the Robert Wood Johnson Foundation's New Jersey Health Initiatives, "New Paths to Professional Nursing," addressed the lack of racial, ethnic, and socioeconomic diversity in nursing by enabling working frontline hospital and long-term care staff to complete the coursework necessary to enter Bachelor's of Science in Nursing (BSN) programs. The program built partnerships between healthcare employers and New Jersey nursing schools or their feeder (two-year) colleges. The students were predominantly nonwhite or Hispanic, including a number of immigrants from African and Caribbean nations. Each student received generous financial support, and intensive academic and wraparound supports, including coaching and mentorship from both their schools and from colleagues at their workplace. The latter one-to-one relationships proved crucial in helping students navigate the academic rigors of pre-nursing science and mathematics courses, as well as personal and financial challenges. Several of the hospital partners have invested operational funds to sustain the program since the grant's conclusion.[57]

[56] *Statewide Health Inventory Utilization and Capacity Study*. 2015. Rhode Island Department of Health.
[57] Wilson, Randall. 2017. *Growing Tomorrow's Nursing Workforce: New Paths to Professional Nursing.* Boston: Jobs for the Future.

STRATEGY: DEVELOP YOUTH INITIATIVES TO EXPAND THE TALENT PIPELINE

Pipelines bringing youth into the health workforce are vital to increasing diversity. Recruiting candidates with strong ties to their neighborhoods and communities also increases the chances that, once graduated, they will choose to practice in Rhode Island.

A common challenge, echoed by Rhode Island Healthcare Workforce Transformation (HWT) Committee members, is the lack of awareness among young people of diverse healthcare occupations and pathways, beyond the traditional nurse and physician roles. Educators and employers stress the need to promote career awareness in middle school, or earlier. Career information should encompass a variety of options, both clinical and non-clinical. Of special note are overlooked allied health functions, such as pharmacy, occupational and physical therapy, and radiology, as well as emerging roles, including community health workers or patient navigators. Practitioners such as CHWs, for example, could be "embedded," as one HWT Committee member suggested, as resources and role models in the schools.[60] Area Health Education Centers (AHECs) can also potentially play a role in building career awareness for elementary and secondary school students. School-based experiential and didactic learning about health occupations can also help build awareness of concepts vital to health systems transformation—prevention, team and community-based care, and environmental and social determinants of health—and to changes in the delivery methods and

CURRENT RHODE ISLAND INITIATIVE
Nursing Pathways for Middle Schoolers

The Rhode Island Nurses Institute (RINI) Middle College Charter School was founded in 2011 to build a diverse pool of nursing candidates, beginning in high school. RINI's director, Pam McCue, believes that the lack of pre-college educational pipelines is "the biggest barrier to increasing diversity" in the health workforce.[58] Founding the charter school was initiated by the state's nursing association in collaboration with major hospital representatives—who had tired of hearing from schools of nursing that youth from diverse and low-income communities lacked the educational foundations to succeed in nursing programs. With support from state government and the City of Providence, RINI recruited student cohorts from lower-income communities in and around the capital. For McCue, the key to an early pipeline is college preparation. Students are admitted by lottery, without prerequisites, and receive close academic support in small classes, as well as internship opportunities with area health employers. They also enroll in first-year college courses, with credits applicable to nursing or other health professional credentials. Nursing and healthcare knowledge is integrated into all courses, and healthcare is viewed through a social determinants of health lens. To date, RINI has graduated 139 students in three classes; 85 percent of graduates are enrolled in nursing and other health programs in Rhode Island colleges and universities, with an 82 percent retention rate in higher education.[59]

[58] Interview, December 12, 2016.
[59] Interview, December 12, 2016.
[60] Rhode Island Healthcare Workforce Transformation Committee, Social Determinants of Health Subcommittee meeting. November 10, 2016.

settings of healthcare. And initiatives promoting health education and health literacy among youth could serve to boost awareness of health careers.

For many health professions, the academic demands, as well as the cost of attending school, can be steep barriers to youth from low-income backgrounds and poorly performing schools. Support to build academic fundamentals, personal empowerment, and assets to make a professional education feasible are all essential.

Recommendations to increase healthcare career awareness, experiential learning opportunities, and health literacy for youth:

- Build broader, more diverse talent pipelines by developing healthcare career awareness programs and training in middle and high schools
- Identify resources and healthcare employer partners to increase paid internships and work experiences for youth
- Develop career and technical education programs that prepare students for emerging, in-demand healthcare jobs and careers

NATIONAL INITIATIVE

Work-based Learning for Healthcare

FACES for the Future Coalition is a California-based initiative of the Public Health Institute. Its dual mission is to improve diversity in the health professions through pipeline programs for youth, while serving at-risk youth through education, career development, and health promotion. Its programs, which encompass both academic year and summer pathway academies, are built around four elements: health careers exploration, academic enrichment, wellness support, and development of youth leadership. FACES also provides technical assistance and capacity building to its six California sites and replication sites in Colorado, Michigan, and New Mexico. Student participants are supervised and mentored by health professionals in work-based internships. The program also addresses academic gaps through tutoring and college preparation, and supports students' psychosocial needs through support and service referrals. Its East Oakland-based program instructs eleventh graders in behavioral health concepts and places twelfth graders as interns in local behavioral health agencies. Students in FACES' Summer Health Academy gain exposure to careers in medicine, nursing, and allied health, as well as culturally responsive and patient-centered care.[61]

[61] FACES for the Future Coalition (website). Accessed from http://facesforthefuture.org.

STRATEGY: ADDRESS PROVIDER SHORTAGES

There are several dimensions to shortages in the healthcare labor market. One is clear scarcity in certain occupations. When a region, or population, is medically underserved by professions essential to care delivery, access to care—preventive services as well as treatment—can be threatened, today, or in the future. These shortages may demand attention over and above the choices made to transform care. Another dimension of shortages, which overlaps with the first, is an undersupply of practitioners in roles deemed critical to transforming healthcare today; this type of shortage is a barrier to realizing the Triple Aim and supporting changes in delivery and payment. And finally, there are roles or occupations in which shortages will emerge if system-changing practices and supporting arrangements depending on these positions and skill sets are implemented.

In this research, we did not fully explore current or potential needs and gaps in the physician workforce. But there are warning signs about need for physicians, both in public data and in concerns expressed by Health Workforce Transformation Committee members. According to the 2015 Rhode Island Statewide Health Inventory, the level (in full-time equivalents) of primary-care physicians is up to 40 percent lower than previous estimates, and it is up to 10 percent below national standards for delivering adequate care.[62] More than half of the state's physician workforce (56 percent) is age 45 or older.[63] And here, as nationally, lower pay relative to other care settings and specializations make recruitment of physicians to primary care challenging. Other challenges include implementation of Electronic Health Records; consolidation of health systems; the shrinking workforce; and, in particular, shifts in payment systems, such as those recently enacted for Medicare. As one HWT Committee discussion participant expressed it, "the system is becoming unmanageable" for doctors in primary care, leading to burnout and exit from the field.[64] And while the state has an outstanding institution at Brown University's Alpert Medical School, graduates generally do not remain in Rhode Island to practice.[65] Here, as in other states, there is potential to extend provider capacity—for routine procedures, at least—by utilizing nurse practitioners and/or physician assistants.

Practitioners and policymakers interviewed for this report also agreed that there are serious shortages of behavioral health professionals, including psychologists and mental health counselors, substance abuse specialists, and psychiatrists—notably those treating children and the elderly. Rebecca Boss, acting director of the Rhode Island Department of Behavioral Health, Developmental Disabilities and Hospitals, testified to the state senate that Rhode Island "is not

[62] Rhode Island Statewide Healthcare Inventory. 2015. There were 803 primary care physicians identified. On average, there was one primary care FTE for every 1718.1 Rhode Islanders (civilian non-institutionalized population).
[63] Emsi Analyst. 2017.2 Proprietary data extracted by Lois Joy, April, 2017.
[64] RI Healthcare Workforce Transformation Committee, Primary Care Subcommittee. November 1, 2016. A study of physician burnout by specialty found that practitioners of General Internal Medicine had the second highest burnout rate, topped only by Emergency Medicine. Family medicine ranked fourth. Shanafelt, Tait D., Sonja Boone, and Litjen Tan. 2012. "Burnout and Satisfaction with Work-Life Balance Among U.S. Physicians Relative to the General U.S. Population." Archives of Internal Medicine. Vol. 172, No. 18, pp. 1377-1385. Accessed from http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/1351351.
[65] Interview. November 29, 2016.

meeting all of the needs for behavioral healthcare in the state," citing a report from Mental Health America that ranked the state fiftieth in overall "prevalence"—indicating very high rates of mental illness and substance abuse among adults and youth. Given this situation, said Boss, "We have to admit that 30 licensed behavioral health professionals [employed by EOHHS] is not enough."[66] As with physicians, lower salaries and reimbursement rates constrain recruitment and retention, as do the demands of working with high-need patients and challenging settings.

In addition, a number of other professions critical to Rhode Island's healthcare transformation goals raise supply concerns:

- **Oral healthcare.** Participants in the Oral Care Subcommittee discussion warned of potential shortages due to the aging workforce.[67] Almost two in three dentists (62 percent) will reach or approach retirement age in the next 20 years. Compounding this, Rhode Island lacks a dental school, and recruiting providers is seen to be difficult. According to the American Dental Education Association, the average dental student graduates with upwards of $241,000 of student loan debt—an increase of more than 66 percent in the last decade. Over half of dental hygienists (53 percent) are 45 year or older, with the only Rhode Island program graduating about 25 hygienists per year.
- **Health Information/Data Analytic professionals.** Roles or skill areas lacking or in short supply include data analytics, especially for population health analysis and quality control specialists. Hospitals reported challenges in finding enough medical coders. Smaller primary practices are insufficiently supplied with workflow (practice) redesign specialists or data analysts.
- **Geriatrics specialists**. Already in short supply in numerous professions including nursing, behavioral health, and pharmacy, demand for geriatric specialists will grow as the population ages.
- **Nurses.** Federal workforce projections estimate that Rhode Island will experience a shortage of registered nurses by 2025.[68] While there was disagreement about potential nursing shortages among educators and employers contacted for this report, Rhode Island needs to ensure an adequate supply of registered nurses as well as nurse practitioners. In addition, licensed practical nurses, for whom demand has been in decline, are gaining increased attention as valuable team members in primary-care settings. The uncertainty about nursing supply and demand suggests the need for better data collection on the occupation. Over half of the states in the U.S. use the nursing licensure process to collect this information, using the survey questions of the Nursing Workforce Minimum Data Set.[69]

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[66] Rebecca Boss. 2016. *Senate Hearing: State-Based Mental Health Services.* October 13, 2016; "Ranking the States." Mental Health America. Accessed from http://www.mentalhealthamerica.net/issues/ranking-states.
[67] RI Health Workforce Transformation Committee. Subcommittee on Oral Health. December 1, 2016.
[68] Future of the Nursing Workforce: National and State-level Projections 2012-2025. 2014. Health Resources Service Administration. U.S. Department of Health and Human Services. Accessed from https://bhw.hrsa.gov/health-workforce-analysis/research/projections.
[69] According to the Health Resources and Service Administration (HRSA) "a Minimum Data Set provides basic, uniform, and consistent information on the health workforce. Minimum Data Sets facilitate the establishment of national databases with consistent core data elements covering demographic, educational, credentialing, and practice characteristics of health professionals." Health Workforce Data. No date. Health Resources and Service Administration. Accessed from

Mitigating shortages and facilitating the adoption of new or emerging roles and functions need not rely exclusively on minting new practitioners in the state's professional schools or recruiting experienced professionals. Shifting tasks among care team members, delegating from physicians or others to other practitioners, redesigning workflow, and redefining the tasks and activities in healthcare delivery should all be considered when planning responses to present or potential provider shortages. The development of new occupations or roles, such as master's-prepared dental therapists to perform routine oral health procedures such as filling cavities and extracting teeth, can also serve to extend the capacity of traditional practitioners—both to address shortages and to expand access to underserved populations.

Recommendations to remediate shortages among selected health professions:

- Determine the nature of shortages (e.g., statewide, regional, by payer) and causes of shortages (e.g., compensation, workload, job satisfaction)
- Enhance loan forgiveness, tax credits, and/or other financial incentives to improve recruitment and retention of providers
- Maximize federal assistance for federally designated provider shortage and/or underserved areas
- Expand appropriate use of telemedicine (e.g., monitoring, diagnosis, treatment, consults, and referrals)
- Cross-train clinical psychologists as psychiatric advanced practice RNs in order to increase patient access to prescribers
- Consider establishing a licensure category for advanced dental hygienist practitioners (aka dental therapists) and develop educational program and payment structure to augment the dentist workforce and expand access to underserved Rhode Islanders
- Utilize the licensure process to collect the Nursing Workforce Minimum Data Set to more accurately assess the supply of registered nurses

There is a growing consensus among the practitioners, policy experts, and educators contacted for this study that candidates for health professions are not fully prepared by their classroom training, residencies, or clinicals for community-based practice.

https://bhw.hrsa.gov/health-workforce-analysis/data. The Nursing Supply MDS survey asks nurses for such items as gender, race, type of nursing credential and license, level of education, location, active or inactive status, and other items. See https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/minimum-data-sets/nurses.pdf.

Expand Home and Community-Based Care

The following strategies respond to workforce needs to support the shift in care to home and community-based settings, both to achieve smarter spending and to better serve individuals and improve health outcomes. These strategies address gaps in the training of healthcare professionals, whose education did not always prepare them for practicing in community settings. They also offer ways to expand the capacity of the frontline workforce to transform care in the home and community. And they tap new or emerging roles for providing care “at the right time and the right place.” If adopted, they can help increase the capacity of community-based providers to offer culturally competent care and services in the home and community and reduce unnecessary utilization of high-cost institutional or specialty settings.

STRATEGY: EXPAND COMMUNITY-BASED HEALTH PROFESSIONAL EDUCATION

The advent of community-focused health strategies has thrown a spotlight on health professional education. There is a growing consensus among the practitioners, policy experts, and educators contacted for this study that candidates for health professions are not fully prepared by their classroom training, residencies, or clinicals for community-based practice. This in part reflects the in-patient focus of existing health professional education. It also points to the need for closer interprofessional collaboration, both among disciplines within colleges and universities, and, especially, between higher education and community health settings.

The shortage of clinical experiences in the community, particularly for nursing education, is a national problem, as it is in the Ocean State. While professional candidates may still aspire to practice in acute care, “the majority of nurses will be working in the community,”

CURRENT RHODE ISLAND INITIATIVE
Community Health Teams

Rhode Island has created interprofessional Community Health Teams (CHTs) to address social and environmental factors, and link primary care with the community, targeting high-risk, high utilization patients. The CHTs comprise community-based, licensed health professionals—such as nurses, dieticians, and certified diabetes, asthma, or cardiovascular educators—and community health workers; they may also include peer recovery specialists. The objectives of community care teams such as these are to "develop and implement care models that integrate clinical and community health promotion and preventive services for patients," according to the Association of State and Territorial Health Officials.[70] The teams are central to the SIM operating plan; SIM community health teams by design bring together at least one community-based licensed health professional and a community health worker, as well as non-team-based community specialty consultants.[71] In addition to SIM support, they are also deployed and funded by managed care organizations, the Care Transformation Collaboration-Rhode Island (CTC-RI), and Medicaid managed care plans. The CTC-RI piloted community health teams for high-utilizing patients in the state's Blackstone Valley and South County. An early evaluation of this project found that CHTs had assisted in addressing "pressing needs that had become detrimental to patients' health, and that had contributed to their high risk and/or high cost utilization of healthcare services." Evaluators also recommended that additional staff, including behavioral health and nutrition specialists, be added to teams.[72]

according to a dean for one of the state's schools of nursing.[73] Without community placements, practitioners in training also miss the opportunity to attain cultural competency. This training gap presents challenges for building a home care nursing workforce as well. A leader in post-acute services expressed concern that nurses are unprepared for practice in the home setting, especially for responding to behavioral health issues.[74]

The expansion of care in Rhode Island's communities provides opportunities for practicing professionals to continue their education in community-based practice and learn team-based skills and interprofessional collaboration. Community health teams offer such opportunities. Rhode Island's ten Health Equity Zones also provide opportunities for hands-on education in comprehensive community-based care. These place-based interventions are designed to address chronic disease, improve birth outcomes, and improve social and environmental conditions in neighborhoods.[75]

[70] Rajotte, James, Deborah Garneau, and Nancy Sutton. "Community Health Teams: A Healthcare Provider's System Transformation Opportunity." Rhode Island Medical Journal. October 2016, pp. 57-60.
[71] Community Health Teams: the RIDOH Vision. 2016. SIM Interagency Team Meeting. June 1, 2016.
[72] Goldman, R., M.Coleman, MS, M.Sklar, PhD. 2016. CTC-RI CHT Final Evaluation Report, February 23, 2016. Accessed from: https://www.ctc-ri.org/portal/files/uploads/5-%20Goldman-Coleman-Sklar%20FINAL%20CTC-RI%20CHT%20Evaluation%20Report%202-23-2016.pdf.
[73] Interview, December 2, 2016.
[74] Interview, December 1, 2016.
[75] "Health Equity Zones." No date. Rhode Island Department of Health. Accessed from http://www.health.ri.gov/projects/healthequityzones/

Recommendations to educate and train health professional students to work in home and community settings:

- Expand partnerships between health professional education programs and community-based healthcare and service providers, such as primary-care providers, behavioral health providers, community health teams, and Health Equity Zones, to increase clinical placement opportunities for students
- Expand interprofessional classroom instruction to increase student understandings of home and community-based approaches to improve population health
- Expand home and community-based residency programs to enable newly-licensed graduates to obtain specialized training

CURRENT RHODE ISLAND INITIATIVE

Expanding Nurses' Homecare Competencies

The Visiting Nurse Association (VNA) of Care New England has implemented a new graduate nurse residency program designed to meet the needs of nurses who are both new to the profession and to home care. The one-year program is small in scale (admitting just six to its inaugural class), but has the potential to have a lasting impact on home health nursing in Rhode Island. Nurses with less than 12 months of nursing experience receive additional education and training while receiving individual mentoring and support for the duration of the program. Training includes wound care, integrated care management, end of life and palliative care, and chronic disease management. The focus is on critical thinking, clinical decision-making and patient-centered care. Upon completion of the program, the nurse residents will be fully functioning members of the VNA team, providing community-based patient care within the home.[76]

NATIONAL INITIATIVE

Interprofessional Collaboration Builds Community Health

The University of Washington Center for Health Science Interprofessional Education, housed in UW's School of Nursing, brings together health sciences faculty from multiple disciplines, along with students and community stakeholders. In addition to building a model for interprofessional collaboration in preparing health professionals, the center has spurred innovative partnerships for clinical practicum and service learning in the community with underserved populations. For example, students and faculty collaborate with Seattle's Salvation Army Adult Recovery Center (ARC) to foster health literacy and improve health outcomes of ARC residents. Evaluation of the practicum found that student participants were more likely to consider providing care in underserved communities and to consider practicing with interprofessional teams. Another initiative of the center, "Students in the Community," partnered with a homeless shelter to create a health promotion and wellness clinic. With the supervision of faculty from the schools of medicine, nursing, pharmacy, and social work, students can serve in the clinic as part of a practicum rotation, as well as volunteer or perform service learning.[77]

STRATEGY: PREPARE HEALTHCARE SUPPORT OCCUPATIONS FOR NEW AND EMERGING ROLES IN HOME AND COMMUNITY-BASED CARE

CURRENT RHODE ISLAND INITIATIVE

Building the Supply of Community Health Workers

Rhode Island College's (RIC) Institute for Education in Healthcare is currently training Community Health Workers in Central Falls, Rhode Island—the state's smallest city and one of its poorest. With the support of the state's Real Jobs Rhode Island grant, RIC is partnering with employers, including the Rhode Island Parent Information Network, to train unemployed and underemployed community residents as CHWs with a job guaranteed upon completion. The grant also provides the 18 participants with child care as well as a meal; courses are held in the evening at a community middle school.[78] RIC is piloting an upgraded version of its CHW curriculum, which covers the nine competency areas required for certification with the addition of skills such as behavioral health literacy—helping CHWs de-escalate situations and better understand their clients' needs. According to the Institute's director, the pilot is helping to create a product that "meets the needs of the workforce, the client, and the employers."[79] The Institute is currently working to make its CHW course credit-bearing.

See a photo from this program on the next page.

Creating a workforce prepared for the shift to home and community goes beyond changes in professional education. It also depends on tapping new roles for existing occupations such as emergency medical technicians (EMTs) and LPNs, as well as for new or emerging occupations.

Two existing occupations—home health aides and community health workers—can play a vital role in transforming care. Home health aides, who require CNA licensing in Rhode Island, and personal care aides, who attend solely to non-healthcare needs of consumers at home, support the objectives of supporting people in their homes and avoiding costly institutional or hospital-based care. Key challenges to building the home health workforce are recruiting and retaining candidates, and ensuring that these workers are prepared for the unique requirements of working in home settings.

Community health workers provide outreach, education, advocacy, and support to help bridge community residents with the healthcare system, coach them on healthy behaviors, and help them navigate non-medical resources. They are integral to the state's objectives of moving healthcare delivery from high-cost institutions to home and community-based settings.

[76] "New Graduate Nursing Residency Now Accepting Applications." Healthcare VNA of Care New England. Accessed from http://www.vnacarenewengland.org/jobs/nursing.cfm
[77] Mitchell, Pamela, Basia Belza, Douglas C. Schaad Lynn S. Robins, J. Gianola, Peggy Soule Odegard, Deborah Kartin, and Ruth A. Ballweg. 2006. "Working Across the Boundaries of Health Professions Disciplines in Education, Research, and Service: The University of Washington Experience." *Academic Medicine*, Vol 81, No. 10, pp. 891-896. October 2006.
[78] Rhode Island College. 2016. "RIC Pilots First Job Training at Central Falls' Parent College." Accessed from http://www.ric.edu/news/details.php?News_ID=3197. November 23, 2016.
[79] Interview. December 1, 2016.

Meeting these goals will require expanding the capacity of the state's training sites and higher education bodies, and reinvigorating professional membership organizations, such as the Community Health Worker Association of Rhode Island. It is important, however, to maintain close partnerships between educational providers and employers of CHWs, so that workforce development does not produce more workers than the market demands.

A key challenge to building CHW capacity is sustainability, given the dependence of the occupation on grant funding. There are opportunities to institutionalize CHWs as regulations and policies are finalized to implement new programs (accountable entities, patient-centered medical homes), ensure coverage of attributed patients, and hold providers accountable for quality outcomes. For example, payment to Accountable Entities or Accountable Care Organizations could be conditional based on the use of community health workers. The state could also look to examples such as North Carolina's Duke University Health System, where CHWs who were initially financed under publicly funded grants have been converted into salaried employees of the health system.[80] Minnesota has become a pioneer in obtaining Medicaid reimbursement for CHW services.[81]

Transformation of current occupations can support care in the home and community by changing practitioners' roles or scope of activities. For example, Rhode Island is preparing to adopt a program of mobile integrated health, using EMS practitioners in new capacities. In this model, advanced EMT-cardiacs and paramedics who have received advanced education serve as "community paramedics" to assist patients at home, in consultation with doctors, treating minor injuries or non-urgent health conditions, and assessing whether hospitalization is

[80] Lyn, Michelle J., Mina Silberberg, and J. Lloyd Michener. 2009. "Community-Engaged Models of Team Care." In The Healthcare Imperative: Lowering Costs and Improving Outcomes; Workshop Series Summary, edited by Pierre L. Yong, Robert S. Saunders, and LeighAnne Olsen (283–94). Washington, DC: National Academies Press. Accessed from: http://www.nap.edu/openbook.php?record_id=12750&page=283. See also Martinez, Jacqueline, Marguerite Ro, Normandy William Villa, Wayne Powell, and Knickman, James R. 2011. "Transforming the Delivery of Care in the Post–Health Reform Era: What Role Will Community Health Workers Play?" *American Journal of Public Health*. December 2011. Vol. 101, No. 12. Accessed from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3222444/.

[81] Promising Approaches to Integrating Community Health Workers Into Health Systems. 2014. Eyster, Lauren and Randall Bovjberg. Washington DC: The Urban Institute. Wilson, Will. No date. "Medicaid Payments for CHWs in Minnesota." Webinar. Minnesota Department of Health, Office of Rural Health and Primary Care.

required. Additional roles include chronic disease monitoring, follow-up discharge care, medication compliance, and safety assessments of the residence.

New occupations are emerging across the country to extend the reach of oral healthcare providers and expand home and community-based access to service. Examples include the Public Health Dental Hygienist and Advanced Dental Therapist (titles vary from state to state). The Public Health Dental Hygienist expands the scope of practice of hygienists beyond the traditional office, to schools, nursing homes, senior centers, hospitals, and other sites in the community. The Dental Therapist model, which has been used in 50 countries and in a few U.S. states, including Alaska, Minnesota, and Maine, allows limited restorative and surgical services. A further benefit of these new roles is making oral health services available to a wider population of Medicaid recipients. Due to reimbursement rates, these services are not economical for dentists, but they would be economical for dental therapists or advanced hygienists. Adoption of either of these roles would require the state to change scope of practice regulations.

Recommendations to prepare and support ancillary healthcare occupations to work in home and community:

- Strengthen the ability of home health aides and personal care aides to work in home settings by providing training keyed to special needs of the home environment and preparation to respond to behavioral health needs
- Retrain or upskill current occupations such as medical assistants, patient access representatives, home-based workers, and mental health caseworkers in core CHW skills: patient engagement and navigation of community supports[82]
- Research the potential business case for financing and sustaining CHWs through evaluation of patient impacts and development of an evidence base
- Explore emerging home and community-based workforce options (e.g., EMTs, LPNs, peer recovery specialists, medication aides, navigators, telemedicine)
- Support the emerging role of public health dental hygienists by finalizing licensure regulations, developing training capacity, and determining deployment and funding plans

An executive at a major behavioral health clinic observed that "we have many peers with experiences in substance abuse and mental health issues. We need people with skills in collaboration and partnership."

[82] RI Healthcare Workforce Transformation Committee, Subcommittee on Social Determinants of Health. November 3, 2016.

NATIONAL INITIATIVE

Transforming Emergency Medicine into Community Medicine

In 2014, California's Emergency Medical Services Authority initiated a 13-site initiative to pilot six community paramedicine concepts: 1) short-term follow-up after hospital discharge due to a chronic condition; 2) case management services for frequent 911 callers/emergency department users to link them to primary care, behavioral health, housing and social services; 3) directly observed therapy for tuberculosis, in cooperation with local public health departments; 4) in-home hospice care (in response to 911 calls) in place of transport to the emergency department; 5) transport to a mental health crisis center (compared with the emergency department) for those with behavioral health needs; and 6) assistance with urgent care for callers with low-acuity medical conditions. The evaluation of the pilot found, among other results, lowered hospital readmission rates within 30 days of discharge for those with chronic disease; reduced 911 calls, ambulance transport, and ED use for frequent EMS users; and, for the majority of post-discharge projects, cost-savings for payers (Medicare and Medi-Cal, the state's Medicaid program) due to reduction in readmissions.[83]

To realize the potential of health systems transformation, the healthcare workforce will require new knowledge as well as renewed skills. Chief among them are a deep understanding of the "drivers" of system and practice transformation, including integrated team-based care, population health, value-based payment, social determinants of health, health disparities, and health data analytics.

[83] Coffman, Janet, Cynthia Wides, Matthew Niedzwiecki, and Igor Geyn. 2017. *Evaluation of California's Community Paramedicine Pilot Project.* HealthFORCE Center at University of California, San Francisco. January 23, 2017. Accessed from https://healthforce.ucsf.edu/publications/evaluation-california-s-community-paramedicine-pilot-program

Teach Core Concepts of Health System and Practice Transformation

To realize the potential of health systems transformation, the healthcare workforce will require new knowledge as well as renewed skills. Chief among them are a deep understanding of the "drivers" of system and practice transformation, including integrated team-based care, population health, value-based payment, social determinants of health, health disparities, and health data analytics. These concepts need to be incorporated into both professional preparation for those entering the workforce and continuing education for active practitioners at all levels. Doing so requires both collaboration across disciplines of health and social services and renovation of curricula and pedagogy within health professional programs. For those already in the workforce, employers need to rethink organizational routines and schedules to accommodate continuous learning. Of special importance is education in practice transformation—teaching team members to work collaboratively, apply metrics to monitor outcomes, and improve workflow, among other skills, to improve the quality of care and patient satisfaction.

STRATEGY: PREPARE CURRENT AND FUTURE HEALTH PROFESSIONALS TO PRACTICE INTEGRATED, TEAM-BASED CARE

Team-based care is not a new concept—it occurs whenever two or more health professionals provide comprehensive health services in collaboration "with patients, family caregivers, and community service providers on shared goals within and across settings to achieve care that is safe, effective, patient-centered, timely, efficient, and equitable."[84] It has grown in prominence with the pursuit of the Triple Aim, and the adoption of models, such as patient-centered medical homes, to deliver care that is comprehensive—responding to behavioral as well as physical

[84] Naylor MD, Coburn KD, Kurtzman ET, et al. Team-Based Primary Care for Chronically Ill Adults: State of the Science. Advancing Team-Based Care. Philadelphia, PA: American Board of Internal Medicine Foundation; 2010, cited in Hupke, Cindy, 2014. "Team-based Care: Optimizing Primary Care for Patients and Providers." Institute for Healthcare Improvement. Safety First Blog. May 16, 2014.

CURRENT RHODE ISLAND INITIATIVE

Interprofessional Collaboration to Support Integrated Care

Rhode Island's public colleges and universities have been actively building interprofessional collaborations to support integrated learning and practice in healthcare. The University of Rhode Island's Academic Health Collaborative unites the schools of nursing, pharmacy, and health sciences—with the mission of training professionals by bringing together varied disciplines that focus on health and wellness. Students and faculty from the three branches work in interdisciplinary teams to teach, research, and perform service. The Collaborative also houses the Institute for Integrated Health and Innovation, which is tasked with evaluating Rhode Island's State Innovation Model Test Grant.

Rhode Island College has created the Institute for Education in Healthcare to offer educational programs and training to healthcare providers and professionals, employers, and the community that provide improvements and innovations in health service delivery and better health outcomes. Programs are developed in partnership with healthcare organizations and through the collaboration of faculty in social work, healthcare administration, nursing, community health and wellness, health sciences, counseling, and others. Programs reflect shifting paradigms in healthcare, focusing on concepts such as population health, patient-centered care, and integrated delivery systems.

In 2016, Rhode Island College, Brown University, and Johnson and Wales University all developed Memoranda of Agreement to collaborate with Rhode Island Department of Health. Under the agreement, students in health fields will enter a practicum onsite at RIDOH under the supervision of a faculty mentor and a supervisor from RIDOH.[85]

health needs, coordinated across all elements of the health system, accessible to patients, and committed to quality and safety.[86] Collaborative, interprofessional models such as community health teams are being adopted in Rhode Island and across the nation to improve population health and address social determinants of health.

Collaborating across disciplines—including non-medical fields such as social work—is challenging, given the siloed character of both professional education and practice. Rhode Island educators and employers interviewed for this report stressed the need for a different model of professional and continuing education—to teach both the process of collaboration and the content knowledge of the varied fields necessary to promoting health and managing physical and mental illnesses. A medical officer at a major health provider noted that integrated team members, notably physicians, find it challenging to work as a team, given training and habits of thinking and practicing independently. An executive at a major behavioral health clinic observed that "we have many peers with experiences in substance abuse and mental health issues. We need people with skills in collaboration and partnership." She also called for curriculum for behavioral health and social work candidates that addresses acute care and community health; her

[85] "Initiative to Have Statewide Impact." 2016. The University of Rhode Island, Academic Health Collaborative. October 2016. Accessed from http://web.uri.edu/ahc/2017/01/24/initiatives-to-have-statewide-impact/.
[86] Why the Medical Home Works: A Framework. Patient Centered Primary Care Collaborative. March 2013. Accessed from https://pcpcc.org/resource/infographic-why-medical-home-works.

wish is that "social workers understand primary care just as much as they understand how to counsel people and connect people to services." And a survey of healthcare employers performed by one of Rhode Island's interprofessional education institutes revealed that providers' greatest need was for all healthcare practitioners to be trained in behavioral health.

Education for integrated team practice requires more than studying in multidisciplinary teams. It demands experiential learning and active collaboration. Speakers at an Institute of Medicine forum on interprofessional education for collaboration emphasized the need for purposeful integration and collaboration among the disciplines, whether in an educational or practice environment. As one participant noted, "Working in groups is not the same as learning in [collaborative] teams."[87] In 2011, a collaborative of six national associations of professional health schools agreed on core competencies for interprofessional collaboration to, in their words, "help prepare future health professionals for enhanced team-based care of patients and improved population health outcomes." The competencies, which were adopted to guide curriculum development across professional schools, were updated in 2016 to reflect pursuit of the Triple Aim and the implementation of the Affordable Care Act, and to strengthen the role of population health in the model.[88]

CURRENT RHODE ISLAND INITIATIVE

Practice Transformation: Integrated Behavioral Health

In January 2016, the Care Transformation Collaborative of Rhode Island (CTC) launched the Integrated Behavioral Health (IBH) Pilot Program and selected 12 adult primary-care practices that committed to improve patient screening for depression, anxiety, and substance use disorder (SUD), improve access to on-site behavioral healthcare, and improve care coordination for patients with high emergency department usage and for patients with severe mental illness. The IBH program, made possible through funding from the Rhode Island Foundation, Tufts Health Plan and SIM, includes a robust evaluation plan. The Rhode Island Health Plans and primary-care practices anticipate that results will assist with building a business case for a sustainable primary care integrated behavioral healthcare delivery system.

Practices participating in this pilot program are expected to hire, on-board and integrate a behavioral health clinician who is responsible for providing on-site treatment of patients seen in the primary-care setting. Most behavioral health clinicians are trained to provide care in a private office with one-hour treatment sessions. To support behavioral health clinicians and the practice team with providing care in this new model, CTC provides on-site IBH consultation and regularly occurring webinar trainings to assist them with implementing an IBH program geared toward providing holistic, patient-centered primary-care services.

[87] IOM (Institute of Medicine). 2013. Interprofessional Education for Collaboration: Learning How to Improve Health from Interprofessional Models Across the Continuum of Education to Practice: Workshop Summary. Washington, DC: National Academies Press.

[88] Core Competencies for Interprofessional Collaborative Practice: 2016 Update. 2016. Interprofessional Education Collaborative (IPEC). Washington, DC: IPEC. The Collaborative assembled an expert panel of representatives from dentistry, nursing, medicine, osteopathic medicine, pharmacy, and public health. Accessed from https://ipecollaborative.org/uploads/IPEC-2016-Updated-Core-Competencies-Report__final_release_.PDF.

CURRENT RHODE ISLAND INITIATIVE

Screening, Brief Intervention, and Referral to Treatment

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders. Primary-care centers, hospital emergency rooms, trauma centers, and other community settings provide opportunities for early intervention with at-risk substance users before more severe consequences occur. **Screening** quickly assesses the severity of substance use and identifies the appropriate level of treatment. **Brief intervention** focuses on increasing insight and awareness regarding substance use and motivation toward behavioral change. **Referral to treatment** provides those identified as needing more extensive treatment with access to specialty care.

RI-SBIRT has received federal funding to pre-screen 250,000 Rhode Islanders over a five-year period; approximately 30,000 in the first year, rising to 55,000 each in years 2-5. The screening will cover tobacco, alcohol, marijuana, and other drugs and be delivered to individuals in primary care and health centers, emergency departments, the Department of Corrections, and in the community by Community Health Teams. This initiative complements the state's efforts to integrate physical and behavioral healthcare.

RI-SBIRT will be incorporated into several state priorities. RI-SBIRT is partnering with the State Innovation Model (SIM) Test Grant to expand the capacity of Community Health Teams. RI-SBIRT is also collaborating with the state Department of Corrections to provide critical assessment and referral to treatment for individuals who are returning to the community from prison. Finally, RI-SBIRT will work with Health Equity Zones in several communities that have identified substance use disorder treatment as a critical need, in order to help provide connections to critical services. Each of these initiatives support the goals of practice transformation, care integration and coordination, and population health improvements throughout the state.

Recommendations to increase the capacity of the current and future health workforce to integrate physical, behavioral, oral health, and long-term care through interdisciplinary, team-based practice:

- Incorporate understandings of integrated physical, behavioral, and oral health into all health professional education programs
- Expand interprofessional health education activities among higher education programs (e.g., nursing, social work, pharmacy, medicine, etc.)
- Expand continuing education, supervisor training, and leadership development to support integrated, team-based care
- Provide continuing education to behavioral health professionals on assessment, diagnosis, treatment, and/or referral of physical and oral healthcare issues
- Provide continuing education to primary-care providers on assessment, diagnosis, treatment, and/or referral of behavioral and oral health issues

STRATEGY: TEACH HEALTH SYSTEM TRANSFORMATION CORE CONCEPTS

Current and future healthcare workers are increasingly expected to understand and apply core concepts of health system transformation, including value-based payments, care management, social determinants of health, health equity, population health, and data analytics.

If the health system is to be transformed, practitioners at all levels need "a broader understanding of how to 'think differently'" in the words of a nursing leader at one of the state's schools of nursing.[89] This means knowing the "drivers" of health system transformation (see above) or, as a participant in an Institute of Medicine forum put it, "the causes of causes" – as well as recognizing signs of progress toward better health outcomes. Just as learning the skills of integrated, team-based care is a departure from current health professional education, teaching core concepts of transforming health requires new curricula and new lenses for thinking critically and innovatively about health and healthcare. This means becoming conversant with new methods of paying for health and institutions that support accountable care; understanding care management and the types of services and roles necessary to achieve it; grasping the "upstream" or social determinants of health and associated methods for extending care beyond the walls of the doctor's office, such as community health teams; knowing the dimensions of health disparities and potential strategies to achieve health equity; understanding the concepts of population health; and facility with collecting and using data to understand populations and their conditions.

Rhode Island is rich with health practitioners and educators knowledgeable about these core concepts. What it lacks is a quick reference point to access this knowledge in a single place, with training resources suited to both health professional education and continuing learning. Such a reference point, or "clearinghouse," would provide concrete, actionable examples of

CURRENT RHODE ISLAND INITIATIVE

Rhode Island Quality Institute
Transforming Clinical Practice Initiative

The purpose of the Transforming Clinical Practice Initiative, a Center for Medicare & Medicaid Innovation model, is to help clinicians achieve large-scale healthcare transformation. Rhode Island Quality Institute (RIQI) has already enrolled 1,579 clinicians—80 percent of whom are specialists—and is working directly with them and their staff to provide them the skills they need to improve the quality and efficiency of patient care. RIQI employs two methods to develop the healthcare workforce. First, RIQI's practice facilitators provide on-site training and coaching. They teach practice managers and other front-line staff how to manage by metrics and improve workflows by developing effective plan-do-study-act cycles. They also help staff develop the ability to collect and analyze quality data to support their process improvement efforts. The capacity that RIQI is developing on the front line and with clinical leadership is mutually reinforcing in a "top-down, bottom-up" way. The skills that all members of the clinical practice learn will enable them to adapt to new and changing health system circumstances.

[89] Interview, November 21, 2016.

good practice in all concept areas in a modular format. Sources and models for a potential clearinghouse could include the Agency for Healthcare Research and Quality (AHRQ) "Innovations Exchange," which contains a database of innovation profiles, videos, articles, and other resources.[90] Another repository of promising models for healthcare payment and service delivery can be found at the Center for Medicare & Medicaid Innovation .[91] Yet another option could be the newly-established Rhode Island Department of Health Academic Center, created with the goal of strengthening the integration of scholarly activities with public health practice; chief among its areas of focus is "workforce career development."[92]

Recommendation to ensure that current and future health professionals understand and apply health system transformation core concepts:

> Engage and support higher education partners and others to develop a "clearinghouse" of content-specific training modules (for-credit, not-for-credit, or continuing education) that can be delivered in the classroom, workplace, and/or online.

If the health system is to be transformed, practitioners at all levels need "a broader understanding of how to 'think differently'" in the words of a nursing leader at one of the state's schools of nursing. This means knowing the "drivers" of health system transformation or, as a participant in an Institute of Medicine forum put it, "the causes of causes."

[90] AHRQ Healthcare Innovations Exchange. Accessed from https://innovations.ahrq.gov/learning-communities.
[91] The CMS Innovation Center. Accessed from https://innovation.cms.gov.
[92] *Community Health Teams: the RIDOH Vision.* 2016. SIM Interagency Team Meeting. June 1, 2016. For more information on the RIDOH Academic Health Center, see http://health.ri.gov/programs/detail.php?pgm_id=1026.

Planning for a transformed health system means planning for a transformed workforce. Rhode Island's residents will always require a corps of well-trained physicians, nurses, pharmacists, physical therapists, nutritionists, and nursing assistants—among many other practitioners in healthcare. But the work they do, where they perform it, and with whom, could look very different in the coming years as the health system evolves to provide value-based, integrated care that is patient-centered rather than provider-centered.

This report is not the last word on the process. It was written to inform a continuing conversation about what kind of workforce Rhode Island needs to realize its vision of a better health system. It was informed by, and complements, the work of the Healthcare Workforce Transformation Committee, and the state's policymakers, to discern needs, challenges, and opportunities. The process now turns from planning to implementation, as the findings and recommendations here are discussed and next steps are determined for selecting strategies by state agencies, educators, and employers. In the process, leaders and stakeholders will determine priorities, assess feasibility and barriers, and choose next steps to translate plans into programs and practices.

This report is also not the final word because our research focus was, by design, selective. We chose to focus on particular occupations and drivers of health system transformation that we saw as strategic to achieving the Triple Aim of better care, smarter spending, and healthier people. This in no way minimizes the importance of issues that did not receive attention here. Of particular importance are the roles, preparation, and supply of the human services workforce. Given the growing recognition of social determinants in shaping health, and the need to better integrate behavioral health with medicine, policymakers should pay close heed to this workforce and its importance in promoting health and preventing illness. Workers on the frontlines of human service—caring for children, persons with developmental disabilities, homeless persons, and others—face many of the challenges common to healthcare support roles, including low wages, high turnover, lack of career opportunities, and difficult working conditions, among others. Additional research and planning, along the lines of the Healthcare Workforce Transformation process, should be considered.

Additional areas not addressed in this report but meriting attention include faculty shortages in health professional programs, workforce development needs of the public health workforce, and planning for potential workforce dislocation over time as demands shift from acute care to outpatient and community-based care. We also did not address structural changes in the state's investment and management of workforce transformation—including the funding of healthcare workforce and education programs, and the ongoing coordination of health workforce policy. As the state takes further steps to address the issues in this report (as well as those it omits), it will be important to take up these governance issues as well.

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