EXPLORING HOW THE RHODE ISLAND SIM PROGRAM IMPACTED THE QUADRUPLE AIM

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Executive Summary

Project Overview

The focus of the Rhode Island (RI) State Innovation Model Test Grant (SIM) was to address the Triple Aim of healthcare transformation. The Triple Aim of healthcare transformation, as defined by RI SIM, is healthier people, better care, and smarter spending. Some nationwide healthcare improvement organizations add a fourth aim of improving clinician experience or having more satisfied providers to their healthcare transformation initiatives. Therefore, to identify if and how the RI SIM-funded initiatives may have influenced the fourth aim, URI evaluators examined participants' perspectives on provider burnout and satisfaction as related to their participation in a RI SIM-funded initiative. We also examined provider perceptions of the value-add of the RI SIM-funded initiatives to them and their organizations.

Methods

In May-June 2019, we conducted phone interviews with a purposive sample of participants from 14 RI SIM-funded initiatives. We recorded the interviews, had them professionally transcribed, and conducted qualitative analysis.

Findings

- For value-add across the 14 RI SIM-funded initiatives, we identified four overarching themes: 1) Enhanced Personal Growth and Professional Development, 2) Improved Organizational Processes and Systems, 3) Improved Patient Care, and 4) Minimal Impact or Future Potential for Value-Add.

- Nearly all interviewees found improvements in job satisfaction as related to their participation in a RI SIM-funded initiative. We identified four main themes related to what contributed to increased job satisfaction: 1) Better Patient Care, 2) Feelings of Excitement and Hopefulness 3) Finding Teaching and Mentoring to be Valuable, and 4) Organizational Improvements.
- Participants found that some aspects of the initiatives reduced burnout, and some that increased burnout. Related to reasons for reduced burden, the main themes were: 1) Less Administrative Work, 2) Organizational Improvement, 3) Patient Care Improvements, and 4) Time and Priority Management. Related to reasons for increases in burnout, the main themes were: 1) Added Responsibility, 2) Increased Administrative Time, 3) Initial Increase but Improved Over time, 4) Sustainability Concerns.

Recommendations

We recommend that future initiatives carefully consider the "depth" and "dose" of the intervention, ensure organizational-readiness as well as person-readiness for interventions, consider the administrative burden involved and decide whether the extra time involved is worth the intervention, and continue to empower primary care practices to operate using team-based care.

Acronyms and Definitions

ACOs - Accountable Care Organizations

ADHD – Attention-Deficit Hyperactivity Disorder

Advance Care Planning – End of life project focused on an advance care planning training for consumers and providers

Care Management Dashboards – Project that delivers real-time, encrypted data to providers when patients under their care visit a hospital emergency department or have an inpatient.

CHTs - Community Health Teams, Project that works with primary care providers to assess high-risk patient's health needs and coordinate community-based support services.

CTC-RI - The Care Transformation Collaborative Rhode Island

CMS - Centers for Medicare and Medicaid Services

COPD - Chronic Obstructive Pulmonary Disease

Complex Care Conversations – End of life project that provides a training for providers on how to have effective goals of care conversations and establish advance care plans

Conscious Discipline Program – Project that works with school personnel, special education teams, parents, and students to address children's social and emotional needs through Conscious Discipline® (CD), an evidence-based, classroom program

Consumer Engagement Platform – End of life project, also known as 'KnowMyHealthRI,' that is building a web-based consumer engagement platform that allows providers' question and answer sets to be asked and gathered centrally and accommodates storage and sharing of advance directives and other health documents

CTC-RI - Care Transformation Collaborative - Rhode Island

EHRs - Electronic Health Records

EMR- Electronic Medical Records

IBH - Integrated Behavioral Health

IBH Pilot - Integrated Behavioral Health Pilot Initiative, Project that provides primary care practices with a behavioral health staff person to lead interdisciplinary care coordination and other services to help with behavioral health needs

Interprofessional Community Preceptor Institute – Project that trains health professional students in community settings by training and supporting community-based health and social service agencies to provide students with hands-on learning opportunities while working in interprofessional teams

LCSW - Licensed Clinical Social Worker

Measurement Alignment Project – Project that convenes a work group composed of stakeholders representing insurers, providers, and consumers to create Aligned Measure Sets for use in primary care, ACO, and hospital contracts

Mental Health First Aid -Project that involved training to teach the skills to respond to the signs of mental illness and substance abuse

PediPRN – A Child Psychiatry Access Project that provides a psychiatrist for telephonic consultation with physicians or practitioners in response to diagnostic or therapeutic questions

PCMH-Kids - Primary Care Mental Health-Kids, Project that enabled 9 primary care practices to develop high quality, family and patient-centered medical homes for children and youth

RI - Rhode Island

SBIRT - Screening, Brief Intervention and Referral to Treatment, Project that provides SBIRT screenings throughout the state in primary care, hospital emergency departments, in the community, and in the Department of Corrections to aid in the treatment of people with substance abuse disorders and those at risk of developing substance abuse disorders

SBIRT Training and Resource Center - Screening, Brief Intervention and Referral to Treatment, Project that provides centralized, statewide training and professional development for SBIRT in Rhode Island to CHT/SBIRT staff and any other interested providers

SIM - State Innovation Model Test Grant

Triad Workforce Transformation Project – Behavioral health workforce training project that designs and implements training programs to build the skills and effectiveness of behavioral health licensed provider organizations and their staff in the delivery of evidence-based practices and core competencies

URI - University of Rhode Island

Workforce Planning Summit – Project that implemented a planning process to assess Rhode Island's current and projected healthcare workforce needs and educational capacity

Background

In 2015, Rhode Island (RI) was awarded a $20 million State Innovation Model (SIM) Test Grant from the Federal Centers for Medicare and Medicaid Services (CMS). The purpose of the funding was to transform the ways in which healthcare was delivered and paid for in Rhode Island. A core team composed of staff from several state departments led the efforts. The departments leading the effort were: Executive Office of Health and Human Services, Office of the Health Insurance Commissioner, HealthSource RI, and the Departments of Health and of Behavioral Health, Developmental Disabilities, and Hospitals. RI SIM was governed by a Steering Committee made up of a diverse range of stakeholders, including providers, insurers, patient advocates, and community organizations. Additional stakeholders and interested individuals were also encouraged to participate in the various working groups that RI SIM convened on specific topics related to healthcare transformation.

Study of the Fourth Aim

The focus of the RI SIM was to address the triple aim of healthcare transformation: 1) improving the quality of care and patient satisfaction, 2) enhancing the overall health of Rhode Island's population, and 3) spending healthcare dollars more wisely. To do this, the RI SIM was designed to address three components of the healthcare system, including investment in Rhode Island's healthcare workforce through physical and behavioral health practice transformation, patient engagement, and data capability and expertise. However, nationwide healthcare improvement organizations add a fourth aim of improving clinician experience or having more satisfied providers to their healthcare transformation initiatives. Therefore, while the RI SIM focused on the triple aim in developing and implementing initiatives, the evaluation study included in this report conducted interviews to identify if and how the RI SIM-funded initiatives may have influenced the fourth aim. We included 14 of the RI SIM-funded initiatives in this study from the four RI SIM Investment Categories (i.e., Integrated Behavioral Health, Workforce Development, Patient Engagement, Increasing Data Capability & Expertise) based on conversations about what projects would be appropriate for analyzing the quadruple aim.

- **Data Capability & Expertise**
    1. Measurement Alignment Project
    2. Care Management Dashboards
- **Integrated Behavioral Health**
    3. Integrated Behavioral Health (IBH) Pilot
    4. Screening, Brief Intervention, and Referral to Treatment/Community Health Teams (SBIRT/CHTs)
    5. PediPRN / Mental Health First Aid
    6. Patient Centered Medical Homes for Kids (PCMH-Kids)

- **Patient Engagement**
    7. Advance Care Planning
    8. Conscious Discipline Program
    9. Consumer Engagement Platform
- **Workforce Development**
    10. Screening, Brief Intervention, and Referral to Treatment (SBIRT) Training and Resource Center
    11. Triad Workforce Transformation Project
    12. Interprofessional Community Preceptor Institute
    13. Complex Care Conversations
    14. Workforce Planning Summit

Over the four years of federal funding, RI SIM enlisted a team of evaluators from the University of Rhode Island (URI) to assess the impact on the various SIM-funded projects. To do this particular study, URI evaluators examined participants' perspectives on provider burnout and satisfaction as related to their participation in a RI SIM-funded initiative. We also examined participants' perceptions of the value-add of the RI SIM-funded initiatives to them and their organizations. The following evaluation questions were addressed:

1. How do those who participated in the RI SIM-funded initiatives describe the value-add of the SIM initiative to their practices and/or respective organizations?
2. How have the RI SIM-funded initiatives contributed to: 1) provider satisfaction and 2) provider burnout?

Value-Add

For this report, value-add is defined as a new program, service, resource, or policy change that was initiated by the RI SIM project to impact the provider or employee's workplace success. Value-add is becoming a more popular phenomenon in healthcare administration but is well-studied in business, agriculture and economic fields. Recent research has used process improvement principles that are popular in supply chain management to help streamline healthcare operations in clinic and hospital assessments (Rutman, Stone, Reid, Woodward, & Migita, 2015; Shawhan et al., 2015). Strategies that add-value, such as re-organizing work space and creating a management system to align providers to patients, have helped to improve patient flow and turn-around time and decrease administrative duties (Rutman, Stone, Reid, Woodward, & Migita, 2015). Simplifying and streamlining processes to allow for value-added time (or time with the patient) and less non-value-added time (time patient spends in waiting room), can also improve provider satisfaction (Shawhan et al., 2015). Evidence also supports that integrating new services, such as mental health services, into primary care settings can add value because this increases access to resources for providers and patients (Hedrick et al., 2003; Pomerantz, Cole, Watts, & Weeks, 2008). However, the greatest obstacle for introducing

programs, technologies, or policies that may streamline processes and add-value for patients, providers, or the healthcare facility, is resistance from healthcare providers who are comfortable with the status quo and view change as challenging and disruptive (Langabeer, DelliFraine, Heineke, & Abbass, 2009). As a result, feedback and design input from healthcare providers is essential when adding something new to a healthcare organization (Rutman, Stone, Reid, Woodward, Migita, 2015).

Provider Satisfaction

Provider satisfaction, used interchangeably with job satisfaction in this report, is the fulfillment that comes from work or a positive emotional state related to how providers feel about their work (Asegid, Belachew, & Yiman, 2014; Locke, 1976). Extrinsic factors, factors not related to the work, such as job prestige, salary, and relationships with colleagues, can impact job satisfaction (Bagheri, Kousha, Janati, & Asghari-Jafarabadi, 2012). Intrinsic factors, factors related to the work itself, can also influence job satisfaction and includes specific duties, task variety, delegation, feedback, promotional opportunities and skill development, support from managers, and sense of independence, control, and success (Bagheri, Kousha, Janati, & Asghari-Jafarabadi, 2012). In healthcare, job satisfaction can promote staff retention, enhance the quality of care provided, and contribute to patient satisfaction (Castle, Engberg, Anderson, & Men, 2007; Gilles, Burnard, & Peytremann-Bridevaux, 2014). Integrated practices, or those that include other healthcare professions within one practice, may also help promote job satisfaction. As such, research found long-term sustainable results through establishing open access comprehensive mental health services in primary care offices. In these settings, waiting time for new appointments with mental health providers reduced from 33 days to 19 minutes. The integration also increased clinician productivity and more than doubled the number of new referrals, and in turn these positive outcomes have the potential to improve provider satisfaction (Pomerantz, Cole, Watts, & Weeks, 2008).

Another study found that physicians described higher job satisfaction when their work matched their skillset and reported dissatisfaction when they were required to perform work that could be better performed by other personnel, such as allied health professionals (Friedberg et al., 2014). Teaching and precepting students may improve or decrease job satisfaction. For instance, physicians teaching residents and medical students may have improved job satisfaction due to the intellectual stimulation, professional growth, and personal satisfaction that can come from mentoring future physicians. However, teaching can also adversely impact job satisfaction through decreasing productivity, extending work hours, and interfering with patient flow (Gerrity et al., 1997; Latessa, Colvin, Beaty, Steiner, & Pathman, 2011). Meanwhile, job dissatisfaction is associated with longer wait times for patients, poorer patient-provider satisfaction, and higher occurrence of provider burnout (Bodenheimer & Sinsky, 2014; Castle, Engberg, Anderson, & Men, 2007).

Provider Burnout

Burnout is a psychological syndrome that can occur in response to chronic stress in the workplace. Burnout is characterized by feelings of exhaustion, cynicism, ineffectiveness, and job detachment (American Academy of Family Physicians, 2019). Estimates show that burnout impacts nearly half of United States doctors and nurses (Aiken et al., 2001; Shanafelt et al., 2012). Besides heavy workload, other major factors contributing to stress include intensity of work, unpleasant physical environments, and poor communication skills among superiors (Edwards et al, 2000). Insufficient resources for patients and at the healthcare organization also contribute to stress (Hayashi, Selia, & McDonnell, 2009).

The high volume of administrative duties placed on providers is another major source of stress (Bodenheimer & Sinsky, 2014). In a national survey, 87% of physicians identified paperwork and administration work as their leading cause of stress and burnout (Physician Stress and Burnout Survey, 2011) and reported 30% of their day was spent completing administrative tasks (The Second Annual Practice Profitability Index, 2014). Advancements in telecommunication and electronic health records (EHRs) also contribute to increases administrative time to complete data entry and interferes with patient care (Hill, Sears, & Melanson, 2013). These high levels of stress can lead to burnout, which is not only detrimental to employee health, but also impacts patient care provided and the healthcare organization's operations due to decreases in productivity and high employee turnover rates (Hayashi, Selia, & McDonald, 2009). Emerging research suggests that some technological advancements in healthcare may be an adherence to value-add in healthcare. The majority of physicians reported that EHRs increase the time it takes to plan, order, and document care (Jamoon, Patel, King & Furukawa, 2013). One study found that emergency room physicians have 4000 EHR clicks per day, allowing for only 28% of daily time for seeing patients (Hills, Sears, Melanson, 2013). The high volume of alerts and texts that come from inbox style communication mediums in hospitals can overshadow important information and adversely affect patient care, thus resulting in non-value-added policies and procedures, which can promote burnout (Murphy, Reis, Sittig, & Singh, 2012a; Murphy et al., 2012b).

Factors that facilitate health professionals to thrive in their work environment and reduce the risk of burnout include autonomy, decision making power, feeling valued and supported by coworkers and supervisors, receiving feedback, and feeling a sense of learning (Sim, Zanardelli, Loughran, Mannarino, & Hill, 2016). Research examining team-based care in a patient-centered medical home model found the following factors to help lower provider burnout rates: appropriately staffing facilities, promoting participatory decision making among providers, and increasing the proportion of time team members spend working to the top of their credential (Helfrich et al., 2014).

Participant Terminology

In this report, we refer to interview study participants as "interviewees" most often in order to recognize the diverse nature of the sample regarding professional titles and fields of practice. We refer to some of the interviewees as "providers" occasionally to help with

providing context to some of the responses. When using “provider,” we are referring to healthcare clinicians (e.g., doctors, nurses, behavioral health clinicians) who have direct contact with patients. At certain times, we will also refer to interviewees in the study as “participants,” and when doing so, we are referring to their participation in a RI SIM-funded initiative. We will work to be clear about which RI SIM-funded initiative they participated in when referring to them as “participants.” Finally, we attempt to use gender-neutral pronouns throughout the report (i.e., they, their, them) to be gender-inclusive and also to help with ensuring confidentiality of interviewees.

Methods

Sample

For this study, we (URI evaluators) obtained a purposive sample of participants from RI SIM-funded initiatives who were considered engaged in the project. We specifically targeted those considered engaged (meaning would easily recognize the project and be responsive to requests, but not necessarily the most involved individuals) in the various projects by project coordinators in order to gather information from those who would be able to best speak about how the program has impacted their work life. In order to identify the purposive sample, members of the RI SIM Core Team connected us with project coordinators via email. Coordinators for each project were asked, via email, to suggest a list of 10-20 names of potential participants. Once we received the lists of names, we randomly selected (using https://www.randomizer.org/#randomize) those from the list to contact until we identified at least one participant per project. For certain projects, we narrowed the lists to ensure representation from certain professions and then randomized. For example, for the IBH-Pilot project we narrowed the list to ensure we interviewed doctors or practice managers rather than mental health clinicians because adding a mental health clinician to the practice was part of the RI SIM-funded initiative, so it made more sense to speak with practice staff who remembered what it was like prior to the initiative. We also included additional participants from projects based on participation type within the project, the number of names we received, availability of the potential interviewees, and the number of participants involved in the overall project.

In total, we contacted 48 potential participants via email or phone, and obtained a 50% response rate, which is acceptable particularly considering the number of initiatives, number of potential contacts, and the amount of time available for conducting the interviews (1 month). We included 26 individuals[1] in the study, including eight physicians, seven behavioral health specialists, five administrators, four nurses, and two other healthcare professionals. Many of these individuals had administrative responsibilities in addition to their patient care responsibilities. From each of the 14 RI SIM-funded initiatives included in the study, we interviewed 1-3 people.

Phone Interviews

All interviews were conducted by a URI evaluator who specializes in qualitative research methods. The interview guide (see Appendix A) included ten open-ended questions with probing questions. The interview guide included questions about the reasons for project participation, the benefits of project participation, what value the project provided to the

[1] Two participants from the Care Management Dashboards project were included in this study but not included in the response rate calculation because the data was collected by another URI evaluation group.

person and their organization, and how the project contributed to job satisfaction and burnout. This was developed after reviewing the literature for qualitative studies of provider burnout and satisfaction and reflecting on the various project experiences, and in partnership with the RI SIM Core Team members. The interview guide was piloted with one participant prior to being fully implemented. The ordering of questions was changed, and some questions were moved from being probe questions to main questions following the pilot interview. Since the content did not change, the participant was retained in the study. The interviews lasted between 8 minutes and 28 minutes, with the average time being 17 minutes.

Analysis

All interviews were recorded after asking for the interviewees' permission. Interviewees were assured that their participation in this study would be kept confidential and that any quotes used in the final report would be de-identified to ensure individual anonymity. The interviewer typed notes after each interview, and the audio files were professionally transcribed. To analyze the data, we initially read through the notes to identify key themes. These themes were then used to analyze the full transcripts. One person systematically coded the transcripts using the key themes and adding new codes when they were identified. Some comments were coded into multiple themes depending on the nature of the response. A second researcher then reviewed the codes to verify the coding structure and add additional codes when needed. The two researchers met to discuss the final list of codes and the themes presented in the report.

Findings

Value-Add of the RI SIM-Funded Initiatives

As a reminder, value-add in this report is defined as a new program, service, resource, or policy change that was initiated by the RI SIM project to impact the provider or employee's workplace success. We specifically asked two questions to encourage interviewees to discuss the value-add of the RI SIM-funded initiative they participated in: 1) How specifically did you benefit from this funded initiative? 2) Without the SIM-funded initiative you participated in or if it were to go away, how would that change your work life? We made sure to emphasize how the initiatives benefitted the interviewee during the interviews. Additional comments related to value-add were also made throughout the interview. We organized the value-add comments into four overarching themes: 1) Enhanced Personal Growth and Professional Development, 2) Improved Organizational Processes and Systems, 3) Improved Patient Care, and 4) Minimal Impact or Future Potential for Value-add. Table 1 includes the number of comments for each value-add theme by the RI SIM Investment Categories.

Table 1: Value-Add Themes by RI SIM Investment Category

Value-Add Themes	**RI SIM Investment Category**				
	Data Capability & Expertise	Integrated Behavioral Health	Patient Engagement	Workforce Development	Total
1 : Enhanced Personal Growth and Professional Development	1	5	11	25	42
2 : Improved Organizational Processes and Systems	20	12	5	13	50
3 : Improved Patient Care	6	32	1	11	50
4 : Minimal Impact or Future Potential for Value-add	0	3	7	3	13
Total	27	52	24	52	

Data Capability & Expertise

Within the *Data Capability & Expertise* RI SIM Investment Category, most comments were related to the theme, "Improved Organizational Processes and Systems." These comments often had to do with ways in which the RI SIM-funded initiative assisted with administrative work. For example, a Measurement Alignment participant stated:

> *"I think I had a better and an earlier understanding of what was coming in our quality measure portions of contracts and contracting discussions, and it became much easier to guide the quality department and the data analytics department in terms of expectations for reporting and data input and data extraction."*

This participant also added that without the Measurement Alignment project:

> *"It could return us to the days of the Wild West, which I would say would be more undisciplined, because many times the payers, and this was evident in the discussions, would pressure the selection of measures based on what they were equipped to provide--what their data analytics capabilities were, what their data analytics platforms were."*

Care Management Dashboards participants found that the project enabled them and their organizations to better track healthcare usage among their clients. For example, one interviewee stated:

> *"Every morning... I open up the dashboard, and I first of all go to the [hospital] discharges because some of our clients get discharged late the day before, and so we find the discharges first. Then I whittle that dashboard down to just what we need for information, and I print out a copy of the most recent currently hospitalized folks."*

The Care Management Dashboard participants also felt that this increased data capability enabled providers to provide better care to patients because they could be more proactive and address issues to help avoid re-hospitalization.

Integrated Behavioral Health

The comments in the *Integrated Behavioral Health* RI SIM Investment Category mostly had to do with the theme, "Improved Patient Care," with many comments coming from participants of the CHTs, IBH Pilot, PCMH Kids, and SBIRT initiatives. One comment from a CHTs participant discussed the impact on addressing patients' needs:

> *"Oh my gosh, I think the benefits are amazing. We've seen people that have not gone to the hospital, just because they had more support. They were able to get rides to doctors' appointments where they couldn't before. They were financially better off because things that they didn't know that they could afford, such as nutritious food, food pantries, or even food and clothing."*

A PCMH-Kids participant discussed the importance of having a social worker in the office to help with addressing patients' social issues:

> *"The biggest transformation was having the social worker in the office, our care coordinator. That person really changed the way that we all practice as pediatricians. We don't just shrug our shoulders anymore when social issues come up-- whether it's the need for counseling, not being able to make it to appointments, not being able to afford medication, having conflict in the house, [or] adult medical issues. Any of those things that come up that are in that theme, we can just do a warm hand-off to somebody who we know and who they know who can help them address whatever problems they have. That's really been unbelievable."*

This provider also discussed the value of other RI SIM-funded initiatives they participated in, including substance abuse training, Attention-Deficit Hyperactivity Disorder (ADHD) best practices, and maternal depression screening. The IBH Pilot participants all greatly appreciated the behavioral clinician now on staff at their respective organizations, finding that many participants would not seek suggested mental healthcare in the past. As one interviewee put it:

> *"I think it's been a great advantage having a psychologist on site. We found that many patients that needed assistance prior to the psychologist being in the office, they weren't interested in going. Once the psychologist was here in our practice with people they trust, they were willing to do that. If that was to go away, the patients are really losing out."*

An SBIRT participant also found something similar:

> *"A lot of times when behavior health or mental health is involved, there is a wait list, there's a lot of different barriers to care. Having the SBIRT [worker] in the building allows us to get someone hands on right away so that patients aren't falling through the cracks. They're not waiting, they're getting some type of plan going forward right from that second."*

All projects within the *Integrated Behavioral Health* RI SIM Investment Category also had a few comments about the theme, "Improved Organizational Processes and Systems." The IBH Pilot, for example, discussed how simple the referral and follow-up process is with having the behavioral health clinician on staff, how helpful it is to have someone available for screening, and how effective it is to be able to hold group visits and other identified projects of value to patients.

From the "Enhanced Personal Growth and Professional Development" theme, participants from PediPRN and Mental Health First Aid found value from the initiatives. Providers from PediPRN found value in being able to run cases by clinicians on the phone for gaining confidence in their professional knowledge and skill. As such, one provider found that PediPRN helped them gain awareness of the various medications and screenings that should go together when working with children with behavioral health needs.

Any comments categorized as having "Minimal Impact or Future Potential for Value-add" were related one of the required screenings being too time-consuming or the training not being geared to physicians.

Patient Engagement

Within the *Patient Engagement* RI SIM Investment Category, participants from the Conscious Discipline initiative found value-add related to the theme, "Enhanced Personal Growth and Professional Development." These participants gained professional skills for working with adults and with children. One interviewee reflected on how Conscious Discipline has built their professional skills, but they also commented that it has helped teachers who participate:

> *"There's a rubric that we do with the teachers and that looks at their skill level and assesses the skill level before, mid, and after because the learning [of] Conscious Discipline and implementing it is more of a lifelong skill. It's more of a journey of always sharpening your skills and [being] reflective."*

Related to the "Improved Organizational Processes and Systems" theme, an Advance Care Planning training participant did think the project contributed to additional conversations with patients, knowing the resources would be available:

> *"In my visits with the patients, I probably brought it [advance care planning] up more frequently knowing that there was a session coming up or meeting coming up. I'd be talking those up a bit more and trying to get patients to come to the meetings and such."*

Another participant from Conscious Discipline found the training provided them with new strategies for addressing behaviors, and that without the training, they would not have the skills they learned and would be back to the old, time-consuming process for handling behavioral difficulties or other challenges by reviewing research and talking amongst colleagues in order to decide next steps.

One participant did not find a lot of personal value-add from the project due to limited exposure with the project. Another participant discussed how the project is currently being implemented, but does see potential for the project being a value-add for their organization if the advance directives platform is fully rolled out and sustained.

Workforce Development

Participants from the Interprofessional Community Preceptor Institute, Complex Care Conversations, the Triad Workforce Transformation Project, SBIRT Training and Resource Center, and the Workforce Planning Summit all discussed multiple ways in which RI SIM-funded initiatives contributed to the theme, "Enhanced Personal Growth and Professional

Development." One participant from the Interprofessional Community Preceptor Institute found:

> *"There [were] a couple trainings. We all got together a couple of times for some trainings around the four core competencies for precepting and for interdisciplinary work. I found that information to be valuable."*

In discussing the value of Complex Care Conversations for those who are trainers for the project, one participant stated:

> *"It's been really exciting for our trainers...they love it, because they take a break from sort of their busy, pick up the next chart, see the next patient have the next tough conversation, to really showing other providers, what palliative care is."*

In further reflecting on one of the providers who attended the training, they recalled a situation where they thought one of the physicians was not appreciating the training, but found:

> *[At] one of the breaks, one of the doctors I look over, and she's got her head on her arm. She's slumped over the table, and I thought, 'Oh no, she's hating this and that.' I thought the worst and I said, 'Hey, are you okay?' She like, 'I just don't understand why somebody didn't tell me these things earlier in my training. This would have made my job so much easier.'"*

This trainer found that the enhanced communication skills that providers and other healthcare staff gained from this training helped them in all areas of their practice, including end-of-life conversations and beyond.

Interprofessional Community Preceptor Institute, Complex Care Conversations, Triad Workforce Transformation Project, and Workforce Planning Summit participants also found the initiatives provided value related to the theme, "Improved Organizational Processes and Systems." Many participants made new contacts that made collaborations easier and the identification of resources more possible. Others used new skills learned in the training on a daily basis. One participant from the Complex Care Conversations initiative discussed how their palliative care organization is now more standardized in having conversations with patients and in how they document them in medical charts:

> *"What a great thing that all of us are consistently asking those questions and recording those questions in the medical chart for teams. That has been really exciting because this training provides you essentially a road map for having a conversation."*

One participant from the Triad Workforce Transformation Project found that supervisors who participated in the supervisor academy gained skills that led to improvements in the supervision structure and enhanced communication across the organization.

> *"[With the supervision academy] I have definitely seen an actual improvement and better structuring of our supervision structure, which improved my ability to do my job immensely."*

Finally, the Complex Care Conversations initiative led to enhanced skills in having end-of-life conversations that the providers now use to provide "Improved Patient Care."

> *"I do think it made me feel more comfortable to be able to do this. I think when you approach these delicate situations with patients, the anxiety can increase, your level of discomfort can increase. Again, having been able to learn from people who are really good at doing this and be able to role play with them, I feel very comfortable. I really do feel like it carried over into my clinical work."*

Provider Satisfaction

Related to job satisfaction, interviewees were asked if and how the RI SIM-funded initiative contributed to their job satisfaction, and some comments related to satisfaction with their job came up during other parts of the interview. Each comment was categorized as either contributing to a decrease in satisfaction, an improvement in satisfaction, neutral, or not yet but with potential to improve satisfaction once fully implemented or if sustainable. Table 2 includes the number of comments for the type of change in satisfaction by the RI SIM Investment Categories.

Table 2: Satisfaction Change by RI SIM Investment Category

Satisfaction Change	**RI SIM Investment Category**				
	Data Capability & Expertise	Integrated Behavioral Health	Patient Engagement	Workforce Development	Total
1 : Decreased	0	1	0	1	2
2 : Improved	3	17	6	11	37
3 : Neutral	0	1	0	0	1
4 : Not yet, but has potential to Improve	0	0	1	2	3
Total	3	19	7	14	

As shown, nearly all comments were related to improvements in satisfaction (further detailed in the section below). Those who did mention a decrease in satisfaction discussed added stress with the levels of administrative work required. For example, one interviewee from a *Workforce Development* initiative mentioned being surprised with the amount of work required following participation and with how quickly it needed to be completed. With the amount of day-to-day activity already required, this added stress contributed to a slight decrease in satisfaction. This interviewee also did not seem overly enthusiastic about the initiative due to previous involvement in similar projects. Another interviewee from one of the

Integrated Behavioral Health initiatives mentioned that an easier screening test would help improve satisfaction, but they were hopeful that with some evaluation work, improvements to the screening tool might be made to make it more manageable.

The interviewee with a neutral response stated the RI SIM-funded initiative had no impact on their satisfaction because for example, their interaction with the project was brief. This individual and their organization also did not seem to have an adequate understanding of what the project was working to do and therefore lacked buy-in. Two interviewees discussed anticipating an improvement in job satisfaction once the projects' intents were to come to full fruition or be fully implemented. Interestingly, a few participants had experiences with multiple RI SIM-funded initiatives and stated mixed reactions regarding satisfaction. For example, participants either found more satisfaction from participating in one initiative compared to another initiative or found one aspect of the initiative to be more beneficial than another aspect.

Improvement in Satisfaction

Participants from all of the RI SIM Investment Categories commented on ways in which the project they participated in contributed to an improvement in job satisfaction for them. In analyzing the comments, we identified four main themes: 1) Better Patient Care, 2) Feelings of Excitement and Hopefulness Organizational Improvements, 3) Finding Teaching and Mentoring to be Valuable, and 4) Organizational Improvements. Table 3 includes the number of comments for the improvement in satisfaction themes by the RI SIM Investment Categories.

Table 3: Improvements in Satisfaction Themes by RI SIM Investment Category

Improvement in Satisfaction Themes	**RI SIM Investment Category**				
	Data Capability & Expertise	Integrated Behavioral Health	Patient Engagement	Workforce Development	Total
1 : Better Patient Care	0	11	2	5	18
2 : Feelings of Excitement & Hopefulness	1	1	3	3	8
4 : Finding the Teaching & Mentoring Valuable	0	0	2	3	5
3 : Organizational Improvements	2	5	1	1	9
Total	3	17	8	12	

Data Capability & Expertise

Within the *Data Capability & Expertise* RI SIM Investment Category, participants from the Measurement Alignment project found their participation contributed at least somewhat to their job satisfaction because of the new, more consistent measurement process. The participants acknowledged that some providers find quality measures to contribute to decreased job satisfaction simply because they feel like they are being watched, but one of the

participants added that the focus on quality measures contributes to job satisfaction for them because measurement and data tracking can help with focusing in on areas in practice where a provider can improve. One of the Measurement Alignment participants also appreciated being involved in the decision-making regarding the initiative:

> *"Yes, it's been professionally satisfying because you need to be a part of the decision-making so that you're not subjected to the whims of particular interests…Yes, it's improved my professional satisfaction."*

Integrated Behavioral Health

For the *Integrated Behavioral Health* RI SIM Investment Category, many interviewees discussed how the initiative contributed to better patient care and thus improved satisfaction. Most of these individuals and organizations were excited about the initiative and ready to implement the required changes. Participants from the IBH Pilot, PCMH-Kids, PediPRN, and CHTs all discussed the value of the added behavioral health resource (i.e., on-site clinician, phone consultation, community health workers, and team approach) for ensuring patients receive needed care. A provider from the IBH Pilot found:

> *"It's satisfying to know that there's another provider, another resource that we can offer a patient to improve their condition. Satisfaction comes from seeing patients doing better."*

A PCMH-Kids participant found many dramatic improvements for kids in their practice due to having an on-site behavioral health clinician, and they described a story in which one patient was referred to the on-site behavioral health clinician, which helped with preventing suicide. Therefore, when asked about job satisfaction, the interviewee said:

> *"Of course, saving somebody's life and feeling you're contributing to the fact that we saved somebody's life -- for the care coordinator, that was huge [for] job satisfaction. Of course, just that one person's life saved was enough to make the whole thing worthwhile."*

A CHT participant stated:

> *"It has contributed to my job satisfaction in that I am more satisfied... I can call them [community health workers] on their cell phone if something's last minute, they'll go out and check on somebody for me. Satisfaction's better because I feel like the patients are getting better care."*

A participant from PediPRN found value in being able to talk through challenging cases with psychiatric experts:

> *"I think it takes away some anxiety around some cases. Sometimes you just need to hear yourself talk through something. I think having somebody to give you some confidence of what you're doing is correct and not crazy, that you're not missing something or misjudging a situation. I think it probably decreases some anxiety around clinical decision-making. It's probably the biggest thing. Makes us better able to manage things in the office without having to just send them on."*

Some interviewees also discussed "Organizational Improvements" that can be attributed to RI SIM-funded initiatives that led to improved satisfaction. As one IBH Pilot participant put it:

> *"It has been remarkably beneficial. It's shockingly and wonderfully beneficial not knowing what was going to come out of it. It's really in many ways transformed the practice experience here for the providers in a positive way. It served to transform the clinic culture. It's empowered staff members of various levels. It's really already become something that we can't really imagine living without at this point."*

Another participant from CHTs discussed how, without the RI SIM-funded initiative, they would have to put much more effort in finding appropriate referrals for patients and completing paperwork. Last, an IBH Pilot participant discussed how the integrated behavioral health model was something new and something they believed in, finding the extra work to be welcomed and satisfying.

Patient Engagement

Within the *Patient Engagement* RI SIM Investment Category, Conscious Discipline participants found the new model to be exciting and to contribute to a sense of hopefulness, stating that the project provided them new strategies and new ideas for transforming their work with children and fellow education staff. One person said:

> *"Being able to find those moments [connections with the students that lead to success or help avoid a behavioral difficulty] within this program has been extremely helpful for me and helping me continue to find my path and my way and my profession… I think having those moments is what I really need for me to have that job satisfaction and to be fully integrated into my daily day to day work."*

In addition, participants from the Advance Care Planning initiative and the Conscious Discipline found the programs led to better patient care/student experience, and Conscious Discipline participants also appreciated the program for helping them guide fellow education personnel.

Workforce Development

For the *Workforce Development* RI SIM Investment Category, some interviewees found the project they participated in contributed to better patient care. Complex Care Conversations participants found the initiative helped them gain knowledge, skills, and confidence that helped improve their abilities to have difficult conversations with patients, which led to better work-life balance and improved professional satisfaction. An SBIRT Training and Resource Center participant also found the training to provide them with enhanced skills and confidence when working with patients. One Triad Workforce Transformation Project participant and one Workforce Planning Summit participant found their experiences with a RI SIM-funded initiative in which they were asked to provide their opinions and share ideas with others to lead to a sense of hopefulness and satisfaction. Participants from the Interprofessional Community Preceptor Institute, Complex Care Conversations, and the SBIRT Training and Resource Center all found value and even joy in helping to mentor and teach others. All of those involved played roles in mentoring students and/or training providers. The Interprofessional Community Preceptor Institute participant stated:

> *"I just think mentoring in general is really exciting. Having a couple students here and being able to mentor them and guide them in their future careers, it's certainly fulfilling."*

As the Complex Care Conversations trainer put it:

> *[Without the program] "I would lose probably the greatest source of joy in my professional life because just watching faces change, watching life transform as people get these skills is really rewarding."*

Finally, a participant from the Triad Workforce Transformation Project found a tremendous increase in job satisfaction from having their supervisors attend a RI SIM-funded training initiative.

Provider Burnout

Interviewees were asked if and how their participation in the RI SIM-funded initiatives contributed to provider burnout. They were also specifically asked about administrative burden. Comments related to provider burnout also came up throughout the interviews. This was a concept most interviewees were quite willing to talk about and appreciated that it was being increasingly talked about within healthcare. Though most did not acknowledge they personally were burned out, they did acknowledge it was an issue worth discussing and working to identify solutions. We categorized each comment related to burnout as related to either an increase in burnout, neutral for burnout, not yet contributing to burnout but with the potential to reduce, or a reduction in burnout. We then identified themes within each category. Table 4

includes the number of comments for the type change in burnout by the RI SIM Investment Categories.

Table 4. Burnout Change by RI SIM Investment Category

Burnout Change	RI SIM Investment Category				
	Data Capability & Expertise	Integrated Behavioral Health	Patient Engagement	Workforce Development	Total
1 : Increase	2	10	3	6	21
2 : Neutral	0	2	1	3	6
3 : Not yet but has potential to reduce	1	0	1	0	2
4 : Reduction	4	16	2	8	30
Total	7	28	7	17	

As shown, there were aspects of the initiatives that reduced burnout as well as aspects that increased burnout (detailed in the sections below). The neutral comments, meaning interviewees felt the project did not positively or negatively affect their work, came from participants of the CHTs, PediPRN, Advance Care Planning, and the Workforce Planning Summit, which mostly had to do with the intervention or strategy not being significant enough to either enhance or hinder their burden. This means that participants either found the intervention to not be impactful enough for them and/or that their involvement was not long enough in duration. One comment coded as having the potential to eventually reduce burnout came from a participant discussing engagement in the Consumer Engagement Platform initiative, which was still being organized and implemented at the time of the interview. The interviewee stated:

> *"Not at this point. It has the potential to do that. … I think the providers would be more satisfied knowing that this information is accessible to the people who need to access it."*

Reduction in Burnout

Participants in RI SIM-funded initiatives discussed multiple ways in which strategies from the initiative reduced provider burnout. Most of the responses had to do with personal burnout, but some of the interviewees discussed others' experiences with burnout. Those who mentioned reduced burnout were most often (at least relatively) excited and ready for the initiatives to be implemented. For those who said that RI SIM-funded initiatives reduced their burden, the main themes were: 1) Less Administrative Work, 2) Organizational Improvements, 3) Patient Care Improvements, and 4) Time and Priority Management. Table 5 includes the number of comments for the burnout reduction themes by the RI SIM Investment Categories.

Table 5. Burnout Reduction Themes by RI SIM Investment Category

Burnout Reduction Themes	**RI SIM Investment Category**				
	Data Capability & Expertise	Integrated Behavioral Health	Patient Engagement	Workforce Development	Total
1 : Less Administrative Work	3	5	1	1	10
2 : Organizational Improvements	0	3	0	3	6
3 : Patient Care Improvements	1	7	1	2	11
4 : Time and Priority Management	0	2	0	3	5
Total	4	17	2	9	

Data Capability & Expertise

An interview within the *Data Capability & Expertise* RI SIM Investment Category discussed how "Less Administrative Work" due to the initiative's work led to reduced burnout for them. A Case Management Dashboard participant also felt that the initiative led to a decrease in burnout due to improved potential for patient care.

Integrated Behavioral Health

As shown, most interviewees who found a reduction in burnout were from RI SIM-funded initiatives within the *Integrated Behavioral Health* RI SIM Investment Category. Most people found "Less Administrative Work" due to their affiliation with the initiative. For example, one interviewee mentioned that having someone available within the office for behavioral health helps with managing crisis situations, such as suicidal ideation, in which patients need to be carefully managed during the crisis and multiple documents properly filed following the occurrence.

> *"So the burden of documenting a suicidal ideation follow-up plan, which we are careful with and it takes a lot of time and thought of how to document it properly, is no longer ours. Behavioral health does that."*

For the theme "Patient Care Improvements," others also mentioned how behavioral health clinicians now also help with patient screenings, patient outreach, and student or intern management. Interviewees also talked about the importance of having a "warm hand-off" for assisting with behavioral health crises and ensuring patients receive appropriate care, and how that reduces burnout. One IBH Pilot participant stated:

> *"It's a warm handoff to take over when needed...So that was the first everybody noticed is that there was an outlet, [meaning] a skilled and effective outlet ... for a warm handoff for behavioral health crises. Otherwise that [without a behavioral health clinician on staff] really contributed to burnout big time."*

Related to the theme, "Organizational Improvements," an IBH Pilot interviewee discussed how having a behavioral health clinician on staff also helped with changing the culture in their practices where the clinician provides an excellent listening ear for providers and how:

> *"Yes, they're very good listeners, they're really good in kind of debriefing difficult cases, they participate [from a] behavioral perspective in our care management meetings. I think culturally having that listening perspective around the health center is important for reducing burnout."*

For reducing burnout, an interviewee from PediPRN discussed the value of being able to call a behavioral health expert as needed for having help with thinking through difficult patient cases and feeling more in control of their practice and patient care. This interviewee stated:

> *"I think it [burden] is probably reduced, in a sense, because I think some of these cases can be very, very frustrating, some of these behavioral health cases. Just having someone to dig and talk through cases with and help make your clinical decisions, I think is useful."*

Patient Engagement

From the *Patient Engagement* RI SIM Investment Category, a Conscious Discipline participant discussed improved workflows related to working with children and how the training has made interactions more efficient, and this same participant also felt the training provided them more tools for working with children to potentially improve student interactions.

Workforce Development

Within the *Workforce Development* RI SIM Investment Category, some interviewees discussed being able to better complete their work that helped with "Time and Priority Management." For example, one person discussed how the Interprofessional Community Preceptor Institute helped them reduce burnout since they better identified a process for interdisciplinary work in general and better streamlined how students come together for interdisciplinary experiences. Another participant from the Triad Workforce Transformation Project discussed how the self-assessment skills gained during one of the RI SIM-funded trainings helped them to better assess personal strengths and weaknesses, which contributed to reduced burnout.

Related to "Organizational Improvements," interviewees discussed how better supervisor support and less administrative work led to reduced burnout. One person mentioned that the Workforce Planning Summit did not lead to reduced burnout for them but that they had heard from others that identifying well-matched student trainees following this summit and related activities did help reduce burnout. Finally, one interviewee discussed that the Triad Workforce Transformation Project, related to a training for improving staff hiring and on-boarding processes, has not yet reduced burnout, but once fully implemented, had the potential to reduce burnout if the new employees are retained and thus staff turnover rates reduced.

Increase in Burnout

For those who found some increase in burnout related to their participation in a RI SIM-funded initiative, the main themes were: 1) Added Responsibility, 2) Increased Administrative Time, 3) Initial Increase but Improved Over Time, and 4) Sustainability Concerns. Comments related to an increase in burnout mostly had to do with increases in administrative time required for participation. Two interviewees discussed how the additional work, particularly at the beginning of the projects, contributed to burnout, but that their participation got less stressful over time, and knowing the end goal was worth it kept them going. Table 6 includes the number of comments for burnout increase themes by the RI SIM Investment Categories.

Table 6. Burnout Increase Themes by RI SIM Investment Category

Burnout Increase Themes	**RI SIM Investment Category**				
	Data Capability & Expertise	Integrated Behavioral Health	Patient Engagement	Workforce Development	Total
1 : Added Responsibility	0	1	1	2	4
2 : Increased Administrative Time	1	6	1	4	12
3 : Initial Increase but Improved Over Time	1	2	1	0	4
4 : Sustainability Concerns	0	1	0	0	1
Total	2	10	3	6	

Data Capability & Expertise

In answering the questions related to burnout, a participant within the *Data Capability & Expertise* RI SIM Investment Category discussed how the project led to significantly more administrative work for them. The interviewee discussed how initially there was a lot of extra work involved to attend meetings, but how over time administrative simplification related to participation in the Measurement Alignment project eventually improved over time:

> *"That's the whole purpose of this is to do administrative simplification...I had to take the time to participate in it but the end of the day, there was probably a net decrease [in burnout]."*

Integrated Behavioral Health

Within the *Integrated Behavioral Health* RI SIM Investment Category, most of the comments had to do with the theme, "Increased Administrative Time." Some interviewees discussed the many challenges related to having multiple meetings with insurance companies to help justify the added behavioral health clinician to their practice and how the *"credentialing process with the insurance companies was a nightmare."* One of these same individuals also discussed concerns worrying about the sustainability of having a behavioral health clinician within their practice and how this led to increased burnout because their practice had found such value in having the clinician on staff and did not want to return to life without the clinician on staff. One participant discussed how the extra screenings required of them for each patient and the expected goals they had to meet led to increased burnout. The person did find value in the screening but did think it was quite long and that some of the questions were not worded well for the population they serve, and she found it stressful to try to meet the screening goals laid out for them.

Patient Engagement

A participant from the *Patient Engagement* RI SIM Investment Category found that their participation in the project as a trainer does add a level of burden due to the expectation that they are the experts and are expected to have answers to all questions. Another participant found that their participation in the project thus far has contributed to a large amount of administrative work. A Conscious Discipline participant also discussed how, for most teachers who participate in the training, burden actually increases at first because it takes time to implement new strategies in the classroom and properly manage them, but stated:

> *"Teaching students those social-emotional skills [is a lot of work], but once that foundation is laid down, it becomes very easy because the classroom begins to function like a family functions. Then that burden is lifted off, but definitely in the first six weeks of the fall, the burden is there for sure."*

Workforce Development

Within *Workforce Development*, some participants found added administrative work due to their participation. This included interviewees who were daunted with the reporting and follow-up activities required and difficulties with managing interns. One of the interviewees also found it quite difficult to be gone from the clinic to take part in the day-long training, stating:

> *"Especially being supervisors, not only are we dealing with patients, but also we're trying to put out fires of what our staff encounters...That was really tough to take that much time away."*

Future Suggestions by Participants

While asking questions from the interview guide, many interviewees offered future suggestions to enhance the RI SIM-funded initiative in which they participated. Some suggestions were larger scale initiatives while others were logistical suggestions. Large scale suggestions included focusing more on pediatrics to promote long-term population health in Rhode Island and better aligning healthcare quality initiatives and measures across Rhode Island. Two participants suggested consolidated health information, such as consolidating EHR platforms to access patient information from one central location. Another person suggested additional professional development opportunities, such as creating a behavioral health certificate. A participant involved in a *Patient Engagement* project and a coordinator for one of the *Workforce Development* Projects believed the programs should be offered statewide to enhance healthcare outcomes. Finally, one participant involved in one of the *Workforce Development* initiatives felt individuals involved in the program should be informed as to how the information collected was used. This participant stated:

> *"If you attended a workgroup, it would be really nice if there was a follow-up of like, 'As a result of this, we did this, this and that.' We didn't just give the report to the governor…"*

Logistical suggestions included better explaining the project to the organization that implemented the program, as well as training the whole practice rather than just individuals within different practices. Other logistical suggestions revolved around better coordination for scheduling of students and modifying screening processes. To help with interdisciplinary training and precepting students, an interviewee noted that future programs needed to try to better align student schedules for interdisciplinary work.

Participants also offered suggestions on managing provider burnout. One person suggested having a unified EHR system. To assess and track burnout, one interviewee suggested administering burnout scales to all Rhode Island providers similar to what was being done in Massachusetts, which can help identify targeted initiatives to reduce burnout. Another interviewee suggested a formalized mentorship program for new providers to assist with the first couple of years on the job. Some organizations do this but others do not, so having a formalized system might help with burnout and resulting turnover rates, particularly in organizations that serve high-risk populations.

Three participants, participating in *Integrated Behavioral Health* initiatives, are planning to start or have started programs based off success with RI SIM-funded initiative models. One participant involved in IBH-Pilot, planned to start co-leading groups with the behavioral health director to address burnout within their organization. Another IBH-Pilot participant, described how their organization combined behavioral health with diabetes management, and stated:

> *"We put together a project where we [identify] diabetic patients with distress to see what their barriers [are with] a chronic illness, and then we put together... through our integrated behavioral health model, we put together group visits targeting those barriers."*

The successful program has not only helped those with diabetes better manage their blood sugar, but also inspired future group visits for those living with chronic obstructive pulmonary disease (COPD). The interviewee explained:

> *"We're planning on integrating the mental health aspect of anxiety associated with COPD-- better breathing techniques-- because that's another very difficult chronic illness."*

Another interviewee, inspired by success from one of the *Integrated Behavioral Health* RI SIM-funded initiatives, started a behavioral health program for pediatricians who meet once a month to discuss a topic and do case presentations around mental health.

Sustainability Concerns

When asking questions from the interview guide, concerns about program sustainability also emerged as a key theme. Interviewees involved in the *Integrated Behavioral Health* RI SIM Investment Category projects were concerned about reimbursement and billing for the program. One participant had specific concerns and stated:

> *"We talk about financial sustainability and the codes you can bill, but it's the next step... Does the insurance company actually pay for it? [It] is kind of hard to figure out how much they pay. Will they pay it in the same day as the medical claim? Will they pay it if the LCSW does it?"*

Other participants also worried about the future of the projects once RI SIM funding ended. An interviewee involved in one of the *Data Capability & Expertise* projects was concerned about who would take over the management of their project once RI SIM funding ends. Another interviewee involved with one of the *Patient Engagement* projects acknowledged the amount of effort their organization put into the pilot and stated they would be disappointed if the program was not sustained. The interviewee was hopeful the program would be rolled out throughout the state. A participant involved in one of the *Data Capability & Expertise* projects reflected concerns about financial support for the program and how their work would be impacted if the program were to discontinue:

> *"Getting these alerts helps us to know exactly where they are and show up if needed at the hospital to meet with a client and start coordinating care. So, it would definitely make things more difficult. We've been there and we don't want to go back but I understand there's a cost in maintaining all this and so, unfortunately, the funding too is not where it should be to be able to support some of these systems. I don't know if this was to go away, I don't know what we would do."*

Burnout Contributors

Burnout contributors also emerged as a theme from the interviews. When discussing with interviewees how their participation in the RI SIM-funded initiatives contributed to burnout, many participants mentioned burnout contributors for themselves or colleagues unrelated to the RI SIM-funded initiative in which they were involved. Many different interviewees cited EHRs as a major contributor to burnout. A participant noted EHRs caused frustration and reduced productivity, particularly for those who are not as savvy using the EHRs. An interviewee reflected:

> *"I would say yes. Provider burnout, it's there. They have [their] faces in the computer all the time. They don't have the connection or they don't feel they have the connection with patients that they did before electronic medical records came along. They're time conscious and all that kind of stuff. Provider burnout is an issue."*

Several interviewees acknowledged EHRs in combination with dealing with insurance companies and Accountable Care Organizations (ACOs) as an issue that leads to burnout, causing many providers to feel a loss of control. One participant involved in a *Patient Engagement* initiative stated:

> *"Probably the biggest one is less recording, less reporting back to the insurance companies. There's every little thing and it's not going to change. This is just getting worse and worse year by year. The bottom line is that every little checkbox needs to be made in the EMR in order to just get paid what we're worth. The reality is that those checkboxes don't change patient care at all."*

Negotiating with insurance companies and ACOs, such as receiving prior authorization and approvals, was another burnout contributor.

In addition to EHR fatigue and insurance regulations, staff turnover rates resulting in increased caseloads, was mentioned by those working with high risk populations. Working with high risk populations was also identified as a burnout contributor. One interviewee involved in a *Workforce Development* initiative reflected:

> *"We have soaring caseloads and...unfortunately the opioid crisis has made things more intense and we're getting more patients, but no more staff. It can be really stressful at times."*

Another participant described the emotional distress of high-risk populations with high caseloads:

> *"I think part of it is just high acuity, high volume, constantly on the go... just what you see sometimes is very jarring, and it's constant and in your face. I just think people feel burned out after a while if they haven't learned really how to take steps to care for themselves."*

This participant noted the importance of identifying self-care needs when dealing with high-acuity situations, such as the death of an ill patient.

Vignettes

To provide further context to these findings, we created six vignettes to show the diverse ways in which the various RI SIM-funded initiatives have provided value to individuals and organizations while also influencing burnout and satisfaction. We included vignettes from participants in the IBH Pilot, PediPRN/Mental Health First Aid, Triad Workforce Transformation Project, Consumer Engagement Platform, Complex Care Conversations, and Measurement Alignment. We chose these particular vignettes because they represented different RI SIM-funded initiatives across the four RI SIM Investment Categories, and each interviewee was able to speak at length about their participation and how it impacted their job and their organization.

Vignette #1: IBH Pilot

A provider participated in the IBH Pilot in hopes of improving mental health and substance use disorder screening in their clinic but was not sure what else to expect about having behavioral health specialist on staff.

Value-Add

The provider was pleasantly surprised by the implementation of IBH, and noted:

"It's shockingly and wonderfully beneficial not knowing what was going to come out of it. It's really in many ways transformed the practice experience here for providers in a positive way."

The most rewarding part about IBH for this provider is that when a patient needs a mental health specialist, whether it is treatment for depression, grief, anxiety, or suicidal ideation, the IBH program has enabled a "warm hand off" between physicians and the mental health specialist. Incorporating IBH at this clinic also provides a support structure, which promotes collaborative care for patients to ensure patients are following up with behavioral health specialists. Within the model, physicians can walk down the hall to find a therapist, rather than referring to someone who the patient may not even contact, and physicians can also follow-up with that therapist easily to see how the patient is doing. This has become especially beneficial in debriefing difficult cases during care management meetings.

Provider Satisfaction

Related to provider satisfaction, the IBH Pilot initiative has transformed their clinic culture, which has in turn fostered a work environment that improves provider satisfaction. Having a therapist take over after an appointment was very freeing because it allowed physicians to spend more time addressing physical health concerns, as they are trained to do, rather than spending time on behavioral health concerns. The provider noted:

"It's really liberated our visit time to focus more on the elements that we're more skilled to address."

Being able to improve patient care, by not only having more time to focus on the medical visit, but also being able to ensure patients are getting the mental health care they need, has improved this participant's job satisfaction.

Provider Burnout

For this clinic, the biggest benefit of the IBH is how the program has transformed crisis management for patients at suicidal risk and in immediate need of behavioral health care. Prior to IBH it fell on the medical provider to complete the risk assessment, create a safe follow-up plan, and determine the level of care needed. The provider also noted that having therapists on staff has boosted staff wellness, in the sense that:

"they therapize the patients, but they kind of therapize us too."

The provider further noted:

"I think culturally having the listening perspective around the health center is important for reducing burnout."

Final Thoughts

For this provider the IBH Pilot initiative has added value to the clinic, reduced burn out, and increased provider satisfaction. For this clinic, the IBH program has become a part of the work culture that would be seemingly impossible to live without now that they have it.

Vignette #2: PediPRN/Mental Health First Aid

A healthcare provider working with the pediatric population took part in both the PediPRN and Mental Health First Aid RI SIM-funded initiatives. The provider found the PedIPRN program to enhance their practice, however felt the Mental Health First Aid had less impact on their work life.

Value-Add

In regards to value-add, the PediPRN program allowed this provider to enhance their understanding of behavioral health and medication management. They reflected:

"I've learned a ton just by running cases by people and getting feedback on what I've been doing for different cases. I think I've benefited from it because it gives me confidence in my decision making, especially around using pharmaceuticals for kids with behavioral health issues."

Specifically, they felt:

"...by awareness of the medicines and what the screening that needs to go along with the medicines, I think it helps us ... to understand even when the kids do go out to psychiatrist. Some of the more complicated ones, we know what they're doing. We can understand what their screenings need to be. Because kids, especially kids who have behavioral health issues, come in and out of care sometimes."

The provider felt Mental Health First Aid would be especially beneficial for those working with children who did not have a healthcare/medical background. However, they found it interesting to hear the program content and understand how it could work for others.

Provider Satisfaction

Taking part in PediPRN increased their provider satisfaction by helping to decrease anxiety around clinical decision making. The program provided an outlet to talk out cases with a behavioral health expert. The provider noted:

"Sometimes you just need to hear yourself talk through something. I think having somebody to give you some confidence of what you're doing is correct and not crazy, that you're not missing something or misjudging a situation. I think it probably decreases some anxiety around clinical decision making. It's probably the biggest thing."

As a result, the provider felt the practice was better able to manage patients with behavioral health needs in the office without having to refer out. If PediPRN were to no longer exist, their job satisfaction would likely decrease as they anticipated behavioral health cases will only continue to increase over time and that resources for this are necessary.

Provider Burnout

PediPRN's efficient process has helped slightly decrease administrative work for this provider and their organization because there was no extra administrative work required to take part in PediPRN. While a phone call is necessary to connect with a behavioral health specialist, there is no additional paperwork required.

Final Thoughts

PediPRN has served as a convenient resource for this provider that has helped promote behavioral health resources for the pediatric population.

Vignette #3: Triad Workforce Transformation Project

One provider participated in the Triad Workforce Transformation Project with the expectation that it would create care standards for behavioral health providers across the state. This provider saw the project's potential to help create best practices for better continuity of care with also some focus on workforce improvement.

Value-Add

The project offered this provider the opportunity to voice their opinion related to care standards for behavioral health providers and workforce improvement and satisfaction. The provider reflected:

"It was very reinforcing and very empowering to be given a forum in which I could make known what we actually do, what we're doing, how I think it could be better."

Taking part in two different forums enabled this provider to better understand the perspective of the corporate administrators and their expectations for employees. This experience allowed the provider to better evaluate work performance.

"That definitely helped me better my practice immensely…it gave me more of a gauge by which I should be measuring what I'm doing."

The project also added value to this provider's organization because supervisors attended a supervisor academy, which greatly improved communication across the organization.

Provider Satisfaction

Following the supervisor academy, this provider found the Triad Workforce Transformation Project to improve job satisfaction. Having supervisors complete the Triad training resulted in an enhancement in this supervision structure at their organization and improved the counselor's ability to do their job. The counselor also appreciated taking part in the care standards group. In this provider's words:

"I think it made me much more satisfied in terms of my managers...their training and changed the communication skills. I think that improved my job satisfaction immensely and then again, just the intrinsic knowledge that there is work being done to improve our job conditions and...standardize across the state and the way we do our jobs. I guess just that knowledge [helps me] like my job a little bit [more]. I feel more hopeful for the future."

Provider Burnout

Improved job satisfaction due to shifts in supervisors' increased communication, knowledge of competencies, and support for staff has also alleviated burnout for this provider. However, burnout still remains somewhat of an issue given the intensity and nature of the job. Much of burnout is due to the heavy workload, often related to high turnover in the organization.

"For instance, we lost a counselor, and the position was never replaced after she had left and our caseloads increased…"

Final Thoughts

For this provider, the project has added value and improved job satisfaction, though provider burnout is still somewhat of an issue due to working in a high stress environment.

Vignette #4: Complex Care Conversations

A healthcare professional participated in the Complex Care Conversations training. Their department was invited to participate, and the training seemed like a good fit to enhance job performance since their job involves a close working relationship with palliative care teams. This professional hoped to gain some skills and knowledge to better approach delicate conversations with patients.

Value-Add

The professional found the curriculum of Complex Care Conversations to be beneficial in developing skills applicable to their day-to-day work, stating:

"I think that if I hadn't gone through this training, I think that I would still be able to do my job, but I would do it with probably a lesser sense of confidence. When you're stressed out, when you've been able to hear from real-life practitioners on the different skills that they use to address these delicate situations and to be able to engage with them and learn from them, it just really makes you feel like you have a handle on how to address these situations."

The program participant appreciated the theory behind the curriculum, the various role plays included as part of the training, and the practical hands-on tools and informational handouts provided that could be referenced throughout their workday.

Provider Satisfaction

In regards to job satisfaction, the Complex Care Conversation training contributed to this professional's job satisfaction in that it increased confidence and comfort with having end-of-life conversations. They reflected:

"When people outside of your discipline affirm what you've been taught, but then also of course they're adding new skills and new knowledge and new information, you just feel better at your job. You feel more confident in your job, and so you definitely are more satisfied."

Provider Burnout

This increased confidence also decreased burnout for this professional who reflected:

"I do think it has reduced my feeling of burnout... When you feel more unsure, you feel more anxious when you're engaged in your work, you're just more exhausted emotionally, spiritually, physically. When you have more confidence in what you're doing and how you're doing it, you're just more likely to feel more satisfaction and less likely to feel burnout."

This provider discussed burnout for themselves and colleagues as related to the place they work and how people handle the trauma:

"I think part of it is just high acuity, high volume, constantly on the go, and it's just being a level 1 trauma center, just what you see sometimes is very jarring, and it's constant and in your face. I just think people feel burned out after a while if they haven't learned really how to take steps to care for themselves."

Final Thoughts

Overall, this professional found the Complex Care Conversations training to be extremely beneficial. They found the training to provide hands-on skills that could be used in day-to-day practice.

Vignette #5: Consumer Engagement Platform

A provider participated in the Consumer Engagement Platform (AKA KnowMyHealthRI) pilot. The provider's clinic applied to be a part of the program because it seemed like a great match, as the clinic was already working to improve the way in which advance directives were managed for patients. The platform was enticing to this clinic as it showed potential to help patients have immediate access to their advance directives or information regarding their Power of Attorney as needed, regardless of which healthcare setting they were receiving care.

Value-Add

If the platform becomes widely adopted, this provider felt there was potential for value-add related to improvements in patient care. The ultimate hope for this provider was that the platform becomes a statewide initiative. Getting the program implemented at the clinic has added more administrative work, but having a site able to readily access patient's advance directives was seen as a value-add, in that the advance directive will be easily accessible when needed without having to track it down through the current channels. The provider reflected:

"If it works and it really gets up and running, I think it would really be an awesome opportunity."

Provider Satisfaction

If the program is sustained, the provider believed the program will improve job satisfaction. The provider stated:

"I think [Know My Health] will [improve job satisfaction] if it ultimately flies, and it gets an exciting prospect. If it actually does come to fruition and become something that is statewide I think, yes, it would be amazing."

Having access to this platform will take the pressure off providers to make decisions about patient care that is present when advance directives are not available and providers have to determine what is in the best interest of the patient. Easy access to advance directives will allow providers to more easily honor and respect the patient's wishes.

Provider Burnout

This provider felt it was too soon to tell how the platform could impact provider burnout. However, this provider and their clinic are always looking for ways to reduce burnout, recognizing that provider burnout is a huge issue in healthcare. The provider attributes much of the burnout to electronic medical records, reflecting:

"They [providers] don't feel they have the connection with patients that they did before electronic medical records came along. They're time conscious and all that kind of stuff. Provider burnout is an issue."

Final Thoughts

The provider hopes that the Consumer Engagement Platform will evolve into a statewide initiative. However, whether the platform sustains or not, the provider noted:

"We're still going to continue to forge ahead to work more diligently to make sure we are talking to patients about Advance Directives and the importance of having those in place."

Vignette #6: Measurement Alignment

A provider involved with other quality measure initiatives in the state found participation in the Measurement Alignment initiative to be a natural fit. The provider reported high expectations for the project to meet its goals due to the high-quality team of experts participating in the group.

Value-Add

The provider found the value-add of the Measurement Alignment Group to be the creation of a uniform measurement system in Rhode Island for insurance companies and the federal government, and reflected:

"I think we [now] have a consistent definition of the measures across programs to the extent that's feasible."

The provider later elaborated:

"You have United, Blue Cross, federal government all doing essentially the same measure, but [in a] slightly differently way, [and] that makes it very hard to track and report. It [Measurement Alignment] really creates a uniform measurement system."

By attending the meetings, the provider felt that the project has led to administrative improvements related to quality measures and data evaluation.

Provider Satisfaction

The consistency the initiative promotes and its ability to obtain more accurate clinical quality measures has allowed this provider to focus more on treating patients, which improves job satisfaction

"You just treat the patients as the patients. Really don't worry about all of the United [focuses on] this and Blue Cross [focuses on] this. I personally find the quality measurement to be something that creates job satisfaction."

If the Measurement Alignment Program were to go away, this provider believes their job satisfaction, especially related administrative duties, would decrease.

Provider Burnout

The provider felt the program decreased personal burnout as related to patient care and administrative tasks. This was attributed to having an administrative perspective on the importance of the program. They did recognize that physicians who solely practice medicine may have different feelings about quality programs in general:

"I don't think most doctors know what this program did. They'll look at it as a quality program. They'll say it increases their burn out, because somebody's measuring them and hounding them on doing stuff."

Final Thoughts

Coming from a unique perspective, this provider hopes the Measurement Alignment group continues to meet with the current facilitation group, recognizing how unique the system is for Rhode Island:

" I think you've got a core set of people that really understand quality measurement in the state. I think they're of valuable resource and they all work together whether they're health plans or provider groups. I think it's exactly the ideal way to how things work. I hope it's fostered to continue. "

The provider recognized that without funding, this would be difficult and that it would be valuable for the Office of the Health Insurance Commissioner (OHIC) to take over the facilitation of the process. OHIC has indeed taken over the process, holding annual review of the aligned measures.

Limitations

There were some sampling limitations worth mentioning. We recognize that most people who participated mostly valued the RI SIM-funded initiative they took part in and were willing to talk with us due to their appreciation. Having said that, some of the interviewees were not overly involved with the project they were being interviewed about, so this limited the information gathered from certain initiatives. For example, one of the people willing to take part in the interview participated in the RI SIM-funded initiative as a student, but is not currently in practice, which naturally limited responses to questions about provider satisfaction and burnout. Further, we want to acknowledge that most of the interviewees in this interview study had some administrative responsibilities. For example, we may have talked to a medical doctor who sees patients once a week, but who also operates as the Chief Medical Officer for their organization. This limited our ability to fully understand impacts on healthcare provider satisfaction and burnout. Future studies could focus efforts on specifically examining healthcare providers solely or mostly in practice.

Recommendations

- **For interventions that work to impact provider satisfaction and burnout, we recommend that future initiatives carefully consider the "depth" and "dose" of the intervention.**
    - RI SIM-funded initiatives that involved in-depth practice change (i.e., behavioral health clinician now on staff) had the most impact on provider satisfaction and burnout. This was because the new clinician added a lot of value for improving patient care and enhancing organizational processes (depth) and the amount of assistance provided (dose) was extensive.
    - For interventions that involved a day-long training, the depth of the content seemed to influence how much the initiative impacted provider satisfaction and burnout. This means that for the intervention to significantly impact provider satisfaction and burnout, the content of the training needs to be quite transformative and innovative for changing how people interact with patients or for making an effective organizational change. In addition, the content should be specifically targeted to that person's profession and skillset.

- **Based on current data available from this project, we also recommend the completion of one-page documents that provide each RI SIM-funded initiative with feedback related to value-add, burnout, and satisfaction.** This could help initiatives with identifying the "right" depth and dose of the intervention.

- **We recommend that primary care practices continue to be empowered to operate using team-based care.** In this study, provider satisfaction for participants of *Integrated Behavioral Health* RI SIM-funded initiatives were clearly linked with better patient care, so as possible, additional primary care practices should be encouraged to move towards this model to help with provider satisfaction and in the long-term promote job retention of employees. Team-based care has been shown to empower primary care practices to address each patients' needs, more effectively deliver services, and create an environment where all staff are encouraged to engage in work matched to their skills and abilities (Schottenfeld et al., 2016). Future initiatives could consider incorporating other allied-health professionals within primary care practices as well, such as Certified Diabetes Educators or dieticians.

- **We recommend that future initiatives ensure organizational-readiness as well as person-readiness for interventions in order to positively impact provider satisfaction and burnout.** When organizations were extensively involved in various aspects of the RI SIM-funded initiative or had multiple staff take part, this seemed to enhance satisfaction or decrease burnout. In addition, when the individual was excited about learning the training content or truly bought into the intervention or training ideals, this also helped. For organizations or individuals not necessarily ready for the training or initiative, information from previous attendees or previous participants could be shared to help encourage attendance and buy-in.

- **When considering provider satisfaction and burnout, we recommend that initiatives think through the administrative burden involved and decide whether the extra time involved in completing tasks, scheduling, filling out forms, checking boxes, and making phone calls is worth the new service or resource.** Some interventions that involved little or no extra administrative work were highly valued for their simplicity regarding administrative work and their focus on helping providers gain assistance with patient care. Other interventions that did involve more administrative work (e.g., forms to fill out, insurance companies to negotiate with, meetings to attend, students to mentor) were valued in the long term as long as the intervention had a meaningful change to the provider or the provider's organization. This recommendation corresponds with the ideas about ensuring organization- or person-readiness for the intervention, particularly if participation does involve administrative work, or ensuring the depth of the intervention is enough to warrant the extensive administrative work.

- **We recommend continuing to focus on sustainability of RI SIM-funded initiatives and work with federal government or foundation funders and the state to help fund some of these important initiatives.** Addressing policy and insurance reimbursement issues as part of these efforts is also encouraged. As has been found in other evaluations (e.g., Meucci, 2018), sustainability was a concern for many participants of RI SIM-funded initiatives, particularly for the *Integrated Behavioral Health* initiatives that have positively transformed many practices across Rhode Island. Though this has been a focus of the RI SIM grant since inception, particularly with its emphasis on collaboration among healthcare entities, there remains significant concerns from SIM participants about the sustainability of the initiatives.

- **Based on the interviewees' perspectives related to provider burnout in Rhode Island, we recommend that future evaluation research using a mixed methods approach should be done related to provider burnout, specifically in relation to burnout as**

related to EHRs. This mixed methods approach should include an anonymous survey from a representative sample of Rhode Island healthcare providers and a qualitative study with a sub-sample of providers that includes a broader set of open-ended questions than were used in this study. Focus groups or key informant interviews should also be done to identify best practices and ideas for how EHRs can be improved. This recommendation corresponds with a study done in 2017 by a group from Brown University and Healthcentric Advisors, in conjunction with the Department of Health, that gathered survey data from nearly 4,200 physicians in Rhode Island. This study assessed associations between health information technology-related stress (i.e., use of EHRs) and burnout, finding that stress with technology-related stress is predictive of burnout symptoms and that certain specialties, such as internal medicine, family medicine, and pediatrics, are especially prone to burnout related to EHRs (Gardner et al., 2019). The Care Transformation Collaborative Rhode Island (CTC-RI) also completed a survey on burnout in 2019 finding that over 50% of respondents felt they were spending excessive or moderately high amounts of time using EHRs (Yeracaris, 2019). Though interviewees from this study acknowledged that some work was being done related to burnout by physician groups, their respective organizations, and other healthcare organizations, most felt that additional collaborative work was needed. One interviewee suggested that Rhode Island should gather longitudinal survey data from a representative sample of all Rhode Island providers to document the prevalence of burnout, similar to work being done in Massachusetts (Jha et al., 2018). Doing this could help with facilitating comparisons across specialties, gender, and stage of career and tracking burnout trends over time. This survey and subsequent qualitative work could help with identifying factors related to burnout and help with identifying realistic solutions for addressing burnout specific to Rhode Island providers.

- **We recommend that future evaluations examine those with different levels of burnout to see how an intervention could differentially impact individuals.** In this study, most providers had relatively low levels of burnout and most took part in different interventions, so we were unable to examine burnout in this capacity.

- **We recommend that future initiatives empower participants of RI SIM-funded initiatives to start new programs based on what works in their practice or in the profession.** Healthcare stakeholders in Rhode Island generally agree that the RI SIM initiative is working to create a culture of collaboration among the healthcare community. This sentiment was shared by the various representatives of Rhode Island's healthcare sectors answering questions from a survey, regardless of how frequently or how long they have been engaged with the RI SIM initiative (Goldman, 2019). As

detailed above, three different interviewees from this study had started new collaborative programs because they identified a need and felt empowered to start a new program due to what they had learned through their participation in a RI SIM-funded initiative. To encourage this type of work, providers could be offered some type of incentive, such as a small grant or practice enhancement, especially if they are willing to share the information as part of a learning collaborative.

Conclusion

While the RI SIM Steering Committee's vision was the Triple Aim, their strategies did include practice transformation, and we conclude that the RI SIM-funded initiatives have impacted the fourth aim of having more satisfied providers. This study found many ways in which RI SIM-funded Initiatives improved organizational processes, patient care, and professional development for participants and their organizations. Further, integrated behavioral health initiatives greatly improved provider satisfaction, mostly due to being able to provide better patient care. Related to burnout, many participants reported a decrease in burnout because they found their participation in a RI SIM-funded initiative led to patient care improvements and less administrative work. Some did find additional administrative burden due to their participation, but often found the extra work worth it if the initiative provided substantial value-add. Finally, study results support thoughtful consideration of the amount of time involved, how transformative the content will be, and the amount of administrative work involved when designing interventions for providers and their organizations. Study results also support that team-based, integrated care provides substantial value for positively impacting provider satisfaction and burden and improving patient care.

References

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J. A., Busse, R., Clarke, H., ... & Shamian, J. (2001). Nurses' reports on hospital care in five countries. *Health Affairs*, 20(3), 43-53.

American Academy of Family Physicians. (2019). Family physician burnout, well-being, and professional satisfaction. Retrieved from https://www.aafp.org/about/policies/all/physician-burnout.html

Asegid, A., Belachew, T., & Yimam, E., (2014). Factors influencing job satisfaction and anticipated turnover among nurses in Sidama zone public health facilities, South Ethiopia. *Nursing Research and Practice,* 1-26.

Bagheri, S., Kousha, A., Janati, A., & Asghari-Jafarabadi, M. (2012). Factors influencing the job satisfaction of health system employees in Tabriz, Iran. *Health Promotion Perspectives*, *2*(2), 190.

Bodenheimer, T. & Sinsky, C. (2014) From Triple to Quadruple Aim: Care of the patient requires care of the provider. *Annals of Family Medicine*, 12(6).

Castle, N. G., Engberg, J., Anderson, R., & Men, A. (2007). Job satisfaction of nurse aides in nursing homes: Intent to leave and turnover. *The Gerontologist*, *47*(2), 193-204.

Edwards, D., Burnad, P., Coyle, D., Forthergrill A., & Hannigan, B. (2000). Stress and burnout in community mental health nursing: a review of the literature. *J Psychiatr Ment Health,* 7(1), 7–14.

Friedberg, M. W., Chen, P. G., Van Busum, K. R., Aunon, F., Pham, C., Caloyeras, J., ... & Crosson, F. J.(2014). Factors affecting physician professional satisfaction and their implications for patient care, health systems, and health policy. *RAND Health Quarterly, 3*(4), online.

Gardner, R.L., Cooper, E., Haskell, J., Harris, D.A., Poplau, S., Kroth, P.J., & Linzer, M. (2019). Physician stress and burnout: The impact of health information technology. *Journal of the American Medical Informatics Association, 26*(2), 106-114.

Gerrity, M. S., Pathman, D. E., Linzer, M., Steiner, B. D., Winterbottom, L. M., Sharp, M. C., & Skochelak, S. E. (1997). Career satisfaction and clinician-educators. *Journal of General Internal Medicine*, 12, S90-S97.

Gilles I., Burnand B., & Peytremann-Bridevaux I. (2014). Factors associated with healthcare professionals' intent to stay in hospital: A comparison across five occupational categories. *Int J Qual Health Care,* 26, 158–66.

Goldman, R.E. (2019). Combined qualitative evaluation report for cohorts 1 & 2 of the interprofessional education program. Rhode Island Interprofessional Community Preceptor Institute.

Hayashi, A.S., Selia, E., McDonnell, K. (2009). Stress and provider retention in underserved communities. Journal of Health Care for the Poor and Underserved, 20(3), 597-604.

Hedrick, S. C., Chaney, E. F., Felker, B., Liu, C. F., Hasenberg, N., Heagerty, P., ... & Fihn, S.D. (2003). Effectiveness of collaborative care depression treatment in Veterans' Affairs primary care. *Journal of General Internal Medicine*, 18(1), 9-16.

Helfrich, C. D., Dolan, E. D., Simonetti, J., Reid, R. J., Joos, S., Wakefield, B. J., ... & Nelson,K.

(2014). Elements of team-based care in a patient-centered medical home are associated with lower burnout among VA primary care employees. *Journal of General Internal Medicine*, *29*(2), 659-666.

Hill, R.G., Sears L.M., & Melanson, S.W. (2013). 4000 clicks: A productivity analysis of electronic medical records in a community hospital ED. *Am J Emerg Med*, 31(11), 1591-1594.

Jamoom, E., Patel, V., King, J., & Furukawa, M. F. (2011). Physician experience with electronic health record systems that meet meaningful use criteria: NAMCS Physician Workflow Survey. *NCHS Data*, 29, 1-8.

Jha, A.K., Iliff, A.R., Chaoui, A.A., Defossez, S., Bombaugh, S., Bombaurgh, M.C., Miller, Y.R (2018). A crisis in health care: A call to action on physician burnout. Massachusetts Medical Society, Massachusetts Health and Hospital Association, Harvard T.H. Chan School of Public Health, and Harvard Global Health Institute, Retrieved from http://www.massmed.org/News-and-Publications/MMS-News-Releases/Physician-Burnout-Report-2018/

Langabeer, J. R., DelliFraine, J. L., Heineke, J., & Abbass, I. (2009). Implementation of Lean and Six Sigma quality initiatives in hospitals: A goal theoretic perspective. *Operations Management Research*, 2(1-4), 13-27.

Latessa, R., Colvin, G., Beaty, N., Steiner, B. D., & Pathman, D. E. (2013). Satisfaction, motivation, and future of community preceptors: What are the current trends? *Academic Medicine*, *88*(8), 1164-1170.

Locke, E.A. (1976) The Nature and causes of job satisfaction. In Dunnette, M.D., Ed., Handbook of Industrial and Organizational Psychology, 1, 1297-1343.

Meucci, M. (2018). *Culture of collaboration survey (Round 1) results.* University of Rhode Island Rhode Island State Evaluation Team: Kingston, RI.

Murphy, D. R., Reis, B., Kadiyala, H., Hirani, K., Sittig, D. F., Khan, M. M., & Singh, H. (2012a). Electronic health record–based messages to primary care providers: valuable information or just noise? *Archives of Internal Medicine*, *172*(3), 283-285.

Murphy, D. R., Reis, B., Sittig, D. F., & Singh, H. (2012b). Notifications received by primary Care. practitioners in electronic health records: A taxonomy and time analysis. *The American Journal of Medicine*, 125(2), 209-e1.

Pomerantz, A., Cole, B. H., Watts, B. V., & Weeks, W. B. (2008). Improving efficiency and access to mental health care: combining integrated care and advanced access. *General Hospital Psychiatry*, *30*(6), 546-551.

Rutman, L., Stone, K., Reid, J., Woodward, G. A. T., & Migita, R. (2015). Improving patient flow using lean methodology: An emergency medicine experience. *Current treatment Options in Pediatrics*, *1*(4), 359-371.

Schottenfeld, L., Petersen, D., Peikes, D., Ricciardi, R., Burak, H., McNellis, R., & Genevro, J. (2016). Creating patient-centered team-based primary care. AHRQ Pub. No. 16-0002-EF. Rockville, MD: Agency for Healthcare Research and Quality

Shanafelt, T. D., Boone, S., Tan, L., Dyrbye, L. N., Sotile, W., Satele, D., ... & Oreskovich, M.R. (2012). Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Archives of Internal Medicine*, *172*(18), 1377-1385.

Shawhan, R. R., McVay, D. P., Casey, L., Spears, T., Steele, S. R., & Martin, M. J. (2015).

A simplified trauma triage system safely reduces overtriage and improves provider satisfaction: a prospective study. *The American Journal of Surgery*, *209*(5), 856-863.

Sim, W., Zanardelli, G., Loughran, M. J., Mannarino, M. B., & Hill, C. E. (2016). Thriving, burnout, and coping strategies of early and later career counseling center psychologists in the United States. *Counselling Psychology Quarterly*, *29*(4), 382-404.

Yeracaris, P. (2019). Breakfast of Champions, Care Transformation Collaborative of R.I. [Powerpoint slides].

Appendix A

Interview Guide for RI SIM Evaluation

on Provider Burnout & Satisfaction, and the Value-Add of the Program

2 days before the interview—send email with some background on the program & summary of the main focus of the questions & the single item burnout measure

** We will tailor the interview guide for each person selected based on their participation.

A version of this will be said at the beginning of the call:
"Is this _____? Great, my name is Skye Leedahl from the University of Rhode Island. Thank you for agreeing to talk with me today. I am going to ask you some questions related to _____(insert the specific initiative) that was funded by the SIM grant. Do you remember the project? (If not, provide additional information about the project). Just as a brief background, the SIM stands for 'Rhode Island State Innovation Model', which was a funded-initiative that began in 2015 thanks to a CMS grant. The overall purpose of the grant is to promote positive changes to the healthcare system and improve Rhode Island's population health. Today in this about 20-minute interview, I want to just focus on your participation in _____ (insert the specific initiative) related to if and how the project contributed to job satisfaction, burden, and value-add of the initiatives.

I will be recording our phone call for analysis purposes. Is it okay to begin recording?"

Concept: Reasons for participation

1. Why did you originally sign up to participate in _____ (insert initiative) and/or how did you get recruited to participate in?

2. What were your expectations for the program at the outset?

Concept: Benefits of program participation

3. How specifically did you benefit from this funded initiative?
   (use examples as needed: a training was provided, a staff person was provided, a dashboard was added, a resource was provided, being able to make a call in to the service)

   a. Potential probes to get more information, if needed:
      i. What are the significant components of the funded-project that you benefitted from?
      ii. Since you now have _____ (insert whatever it was the program provided), what benefits are you noticing?
      iii. <u>If you participated or if the entire staff did</u>, has that changed your ability to practice? (use with, for example, MHFA training)

iv. Has your program participation made your work or a colleague's work easier to complete?

Concept: Value-Add of the program

4. Without _____ (insert whatever helped them) or if it were to go away, how would that change your work life?

Concept: Job satisfaction

5. Has the program contributed to your job satisfaction in any way? If so, how?

    a. Potential probes to get more information, if needed:
        i. Would your job satisfaction improve or decrease if _____ (insert the thing that changed as a result of the program) were to change?
        ii. For either case, what changes might improve satisfaction in the future?

6. Has your program participation led to more or less administrative work?

    a. Potential probes to get more information, if needed:
        i. Has the program changed/streamlined your practice's policies, procedures, and/or workflows?

Concept: Provider burnout

7. One of the things we are interested in is provider burnout, do you think this program has added to or reduced your burden? Please explain why.

8. Using the measure of burnout that I sent to your email, how would you rate your level of burnout? (The options are 1-5).

(1) "I enjoy my work, I have no symptoms of burnout," (2) "Occasionally I am under stress and I don't always have as much energy as I once did, but I don't feel burned out," (3) "I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion," (4) "The symptoms of burnout that I am experiencing won't go away. I think about frustration at work a lot," and (5) "I feel completely burned out and often wonder if I can go on. I am at a point where I may need some changes or may need to seek some sort of help."

9. Are there other venues where provider satisfaction/burnout is being addressed that we should coordinate with moving forward?

Concept: Additional Ideas

10. Is there anything else you'd like to add that we haven't talked about yet related to your participation in the SIM project?

"Thank you for taking the time to talk with me today. I really appreciate your time."