Research Report

Nurse-Designed Care Models and Culture of Health

Review of Three Case Studies

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RAND CORPORATION

For more information on this publication, visit www.rand.org/t/rr1811

Library of Congress Cataloging-in-Publication Data is available for this publication.

ISBN: 978-0-8330-9747-7

Published by the RAND Corporation, Santa Monica, Calif.

Preface

The Robert Wood Johnson Foundation (RWJF) recently made a commitment to advancing a national *Culture of Health*—an action framework developed by RWJF that focuses on well-being and equity with the goal of empowering and supporting people to lead healthier lives now and in generations to come. Health care providers are likely to play a key role in promoting a Culture of Health, but to date there are few examples of how this might happen. Nurses may be especially well positioned to contribute to a Culture of Health in their communities because of their unique education and training, as well as their focus on promoting health and well-being. RWJF contracted with the American Academy of Nursing (the Academy) to explore how innovative nurse-designed models of care promote a Culture of Health. The Academy engaged the RAND Corporation to research and document three case studies of nurse-designed models of care, presented in this report. We describe each model, how they address a Culture of Health, and particular facilitators and barriers to their success.

The Academy serves the public and the nursing profession by advancing health policy and practice through the generation, synthesis, and dissemination of nursing knowledge. It is an organization of approximately 2,400 members, known as fellows, who are among the profession's most accomplished leaders in practice, education, research, policy, and management. Fellows include association executives; university presidents, chancellors, and deans; state and federal political appointees; hospital chief executives and vice presidents for nursing; nurse consultants; researchers; and entrepreneurs. The Academy and its fellows create and execute evidence-based and policy-related initiatives to drive reform of America's health system and promote the health of populations.

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Summary

Recognizing that health care is just one of many factors that contribute to the health and wellness of individuals and communities, the Robert Wood Johnson Foundation (RWJF) recently made a commitment to advancing a national *Culture of Health*—an action framework developed by RWJF that focuses on well-being and equity with the goal of empowering and supporting people to lead healthier lives where they live, learn, work, and play, now and in generations to come. To better understand the role that health care providers can play in this initiative, RWJF has been scanning the nation for examples of current models of care that promote a Culture of Health.

Given their unique education and training, their rich history of advocacy and social action on behalf of patients' health, and their focus on patient-centered care, nurses are well positioned to provide care that is consistent with and contributes to a Culture of Health in their communities. RWJF contracted with the American Academy of Nursing (the Academy) to explore the ways that innovative nurse-designed models of care are currently advancing a Culture of Health, and the Academy in turn subcontracted with the RAND Corporation to research and document findings from case studies of three nurse-designed care models that have been recognized as innovative by the Academy's Edge Runner program. This program identifies and designates as Edge Runners those nurses who have designed innovations to remedy challenges in the delivery of health care or address an unmet health need of a population, and who can demonstrate positive clinical and financial outcomes. To develop these case studies, we used data collected from an environmental scan of documents, an online survey, key informant interviews, and site visits. We describe each Edge Runner model, how each addresses a Culture of Health, and the particular facilitators and barriers to each model's success.

We found that nurse-designed models of care focus extensively on activities in the four different "action areas" set forth in RWJF's Culture of Health framework: making health a shared value; fostering cross-sector collaboration to improve well-being; creating healthier, more equitable communities; and strengthening integration of health services and systems. Strong leadership (in the form of a "champion" nurse) and broad community support were key to the success of each of these models. A persistent challenge was identifying a sustainable funding mechanism for community-level efforts aimed at addressing social determinants of health—most of these efforts are currently grant-funded.

The findings and themes have a number of useful implications for public policy, health care providers' efforts aimed at addressing a Culture of Health, and the future of health professional education. Activities needed to address a Culture of Health require multisector partnerships. Health care providers will not be able to address the breadth of a Culture of Health on their own. Instead, the future role of health care providers may be to identify unique resources within each

community, promote communal self-efficacy, and help enable communities to devise their own unique responses at that level.

Furthermore, to varying degrees, each model struggled with a consistent source of funding to sustain the scope of the program. Current trends in domestic health care policy that make providers responsible for overall patient outcomes, such as accountable care organizations, offer potentially promising approaches to make community-level interventions more sustainable. Additionally, health care workforce development must focus on ensuring that care professionals are prepared to be skilled partners and leaders in building a Culture of Health.

Taken together, these Edge Runner models offer important examples of work that promotes a Culture of Health, and they present a useful context for examining how other providers might contribute to a Culture of Health in the communities where they work.

Acknowledgments

We are grateful for the generous support of the Robert Wood Johnson Foundation, especially Susan Hassmiller, Nancy Fishman, and Paul Kuehnert. Also, this work could not have been accomplished without the administrative support of Laura Coley, who scheduled and coordinated interviews and site visits.

Abbreviations

the Academy	American Academy of Nursing
ACO	accountable care organization
AHC	Accountable Health Communities
CMS	Centers for Medicare & Medicaid Services
FQHC	federally qualified health center
INSIGHTS	INSIGHTS into Children's Temperament
NMHC	nurse-managed health center
NP	nurse practitioner
RWJF	Robert Wood Johnson Foundation
the Network	Family Practice and Counseling Network
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children

1. Introduction

The United States spends more per capita on health care than other high-income countries, and it devotes a larger percentage of its gross domestic product to health care than any other nation in the world. Yet the United States ranks last or next to last on many measures of health outcomes, with poorer health and lower life expectancy than other high-income nations (Woolf and Aron, 2016; Davis et al., 2014; McCalla and Ayres, 1997). This suggests that health care plays a relatively small—albeit important—role in the health of populations. Policymakers, clinicians, and other stakeholders are increasingly aware that income, education, and where people live, learn, work, and play are key predictors of the health and wellness of individuals and communities. To address many of these key social determinants of health, the Robert Wood Johnson Foundation (RWJF) recently made a commitment to advancing a national *Culture of Health* (Plough, 2014; RWJF, 2015). RWJF advocates that building such a Culture of Health involves making health a shared value among community members; creating cross-sector collaborations among businesses, health care systems, and community organizations; creating healthier and more equitable communities; and strengthening the integration of health services and systems.

Developing a Culture of Health requires the cooperative efforts of myriad stakeholders (for example, business leaders, government officials, economic developers, social service organizations, faith-based organizations, and health care providers). The specific role that health care providers might play in multisectoral efforts to create a Culture of Health is not clear, however. Some researchers and policymakers have proposed that health care providers might be a valuable link between patients and needed community resources. For example, professionals can educate policymakers about the impact that communities have on health and can promote policies to foster a Culture of Health across the communities they serve (Health Research and Educational Trust, 2014; Dentzer, 2014). Although health care providers are called upon to assume a leadership role in the development of a Culture of Health, they currently have little guidance on the steps they might take to foster a Culture of Health, what steps are most successful, how best to take these steps, and how to address potential barriers. RWJF has been scanning the nation for examples of health care providers' best practices in promoting a Culture of Health and seeks to support replication, adaptation, and innovation through its grant-making and collaboration with public and private entities.

Nurses have a long history of advocacy and social action on behalf of their patients' health, of promoting health in the community, and a tradition of work that is consistent with RWJF's vision of a Culture of Health. Historic innovators in the nursing field include Florence Nightingale, who focused on health and the environment; Harriet Tubman and Sojourner Truth, both of whom advocated human rights as a condition for health; Lillian Wald, who founded the

Henry Street Settlement and pioneered public health nursing; and Clara Barton, who founded the American Red Cross to support community response to disaster relief (American Academy of Nursing, 2015; Stanhope and Lancaster, 2014). Moreover, the nursing model's focus on patient-centered care provides a holistic view of patients that incorporates aspects of their family, community, and work environment and emphasizes the promotion of health and well-being (Smith, 1995). A recent study found that nurse-designed models focus extensively on issues related to a Culture of Health, making them a useful context for examining how other providers might contribute to such a culture (Martsolf et al., 2016). This study reviewed documentation from innovative nurse-designed care models and found that nearly all of the reviewed models focused on activities consistent with the Culture of Health action framework. The highest proportion of models focused on strengthening the integration of health services and systems but also had significant focus on other activities consistent with a Culture of Health. Although this 2016 study demonstrated that nurse-design care models focus on these Culture of Health–related activities, no study has examined *how* nurses' innovative initiatives are consistent with and contribute to RWJF's vision of a Culture of Health. The aim of the current project was to describe how nurse-designed care models address and promote a Culture of Health. We focus on the following specific research questions:

1. How do nurse-designed care models align with the RWJF Culture of Health?
2. What barriers and facilitators do these nurse-designed models face when addressing a Culture of Health?
3. What can RWJF and communities learn from these nurse-designed models to more clearly define possible roles and contributions of the health sector to advancing a Culture of Health?

To address this aim, we present findings from three case studies of nurse-designed care models. To develop these case studies, we use data collected from an environmental scan of documents, an online survey, key informant interviews, and site visits.

2. Background and Setting

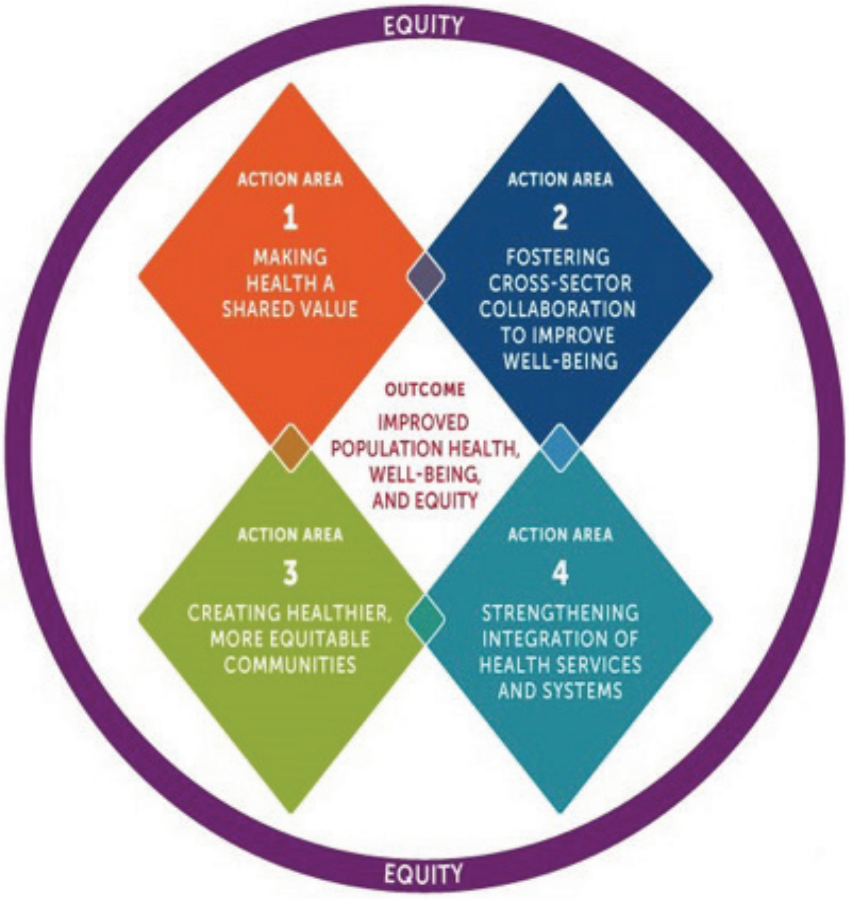
Robert Wood Johnson Foundation Culture of Health Initiative

RWJF's Culture of Health is an action framework developed by the foundation that focuses on well-being and equity with the goal of empowering and supporting people to lead healthier lives now and in generations to come. Although the focus of the Culture of Health is expansive, RWJF has recently published a framework that guides its work and its funding in this area (RWJF, 2015). The overall goal of the Culture of Health initiative is to improve the nation's population health, well-being, and equity through activities in four different *action areas* (Figure 2.1) including:

- making health a shared value
- fostering cross-sector collaboration to improve well-being
- creating healthier, more equitable communities
- strengthening integration of health services and systems.

Each of these action areas includes a number of "drivers," a set of factors that would advance a Culture of Health. RWJF describes these drivers as "the engine of the Action Framework, providing a set of priorities for national investment." For example, within the action area of "making health a shared value," the drivers include mindset and expectations, sense of community, and civic engagement. Each of the action areas also includes a set of measures against which Culture of Health–related success can be tracked.

Figure 2.1. RWJF's Culture of Health Action Framework



American Academy of Nursing Edge Runner Program

In 2005, the American Academy of Nursing (hereafter referred to as the Academy) launched an initiative to identify and recognize nurses who have designed innovative models of care with demonstrated positive clinical and financial outcomes. These nurse innovators, or "Edge Runners," are selected by a review panel of nurses and other stakeholders that examines evidence to ensure they meet the criteria to be an Edge Runner. Evidence for these required elements may include descriptive studies, case studies, program evaluation, and randomized clinical trials or other metrics that document measureable effect. To help increase the visibility of the work of these nurses, RWJF provided seed funding for the selection of the Edge Runners for two years, from 2006 to 2007. In 2015, 39 of 50 Edge Runners that had been recognized by the Academy remained active.

Edge Runners' models have focused on issues ranging from health promotion and wellness to acute and long-term care, and they have addressed the health needs of various populations, including women, children, older adults, and those living in underserved communities. Edge Runners have refined and replicated their work with funding from public and private sources,

and they have shared their work with key staff in local, state, and federal governmental agencies, including the U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS); health journalists; insurers; and others. Many of the Edge Runner models of care have demonstrated both scalability and sustainability.

In response to a request from the Health Resources and Services Administration of the U.S. Department of Health and Human Services, the Academy undertook an examination in 2014–15 of the commonalities evident in the Edge Runner–designed models of care (Mason et al., 2015). Four commonalities were identified:

1. Health is holistically defined.
2. Individual-, family-, and community-centric approaches to care are central.
3. Relationship-based care enables partnerships and builds patient engagement and activation but takes time.
4. The intervention fosters ongoing group and public health approaches to improve the health of vulnerable and underserved populations.

Many of these commonalities are consistent with the goals, action areas, and drivers of RWJF's Culture of Health initiative. A Culture of Health inherently broadens the definition of health through its focus on well-being and equity, targets all levels of influence from the individual to the community, focuses on collaboration and partnership, and values integrated care.

3. Methodology

To better understand how nurse-designed care models address a Culture of Health, we used an approach focusing on multiple case studies, selecting three nurse-designed care models that have been recognized by the Academy's Edge Runner initiative. In our three case studies, we provide an extensive overview of each Edge Runner model and describe how each addresses a Culture of Health, as well as the facilitators and barriers to each model's success. Finally, we identify a number of "cross-cutting" themes relevant to the promotion of a Culture of Health that emerged from the three case studies. In this chapter, we describe our methodological approach.

Selecting the Edge Runners

To select the three Edge Runner models for intensive exploration through the case studies, we used data from an online survey to determine the barriers and facilitators each model encountered, the degree to which each felt their program contributed to a Culture of Health, and, to ensure diversity across these metrics, the demographics of populations served by each model. Our final selections serve a range of populations—pregnant women; teachers, students and parents; and low-income patients—and there is variation in terms of how much each contributes to a Culture of Health and the barriers each faces in doing so. To select Edge Runners, we plotted all of the Edge Runners in terms of the number of action area activities (discussed later) that they addressed and the barriers and facilitators they faced based on their survey responses. We attempted to select Edge Runners from practices with both high and low barriers and that focused on a significant number of action area activities. Once we had selected three Edge Runners, we reviewed the populations served and the specific action areas that they focused on to ensure some degree of variation on each of these factors. In subsequent chapters, we describe in detail how each Edge Runner approaches promoting a Culture of Health within the communities they serve.

The first case study focuses on CenteringPregnancy. This model combines standard prenatal visits with group discussion and time for community building. Each session starts with expectant mothers recording their own blood pressure, weight, and other biometrics, then having an abdomen check by the nurse-midwife. Following this, a nurse-midwife facilitator leads activities and a group discussion on topics as varied as stress management, labor and delivery, and baby care. The second case study focuses on INSIGHTS, a nurse-led early childhood intervention based on temperament research. INSIGHTS uses puppets and an evidence-based curriculum to help parents, teachers, and students understand various temperaments and apply this understanding to behavior adjustment, interpersonal relationships, and problem solving. Finally, the third case study focuses on the Family Practice and Counseling Network (hereafter referred to as the Network), a nurse practitioner–led network of federally qualified health centers (FQHCs) in Philadelphia, Pa., with one additional location in York, Pa. These health centers

offer primary care, behavioral health care, dental care, and innovative health education classes and programs, including yoga and meditation.

Data

Environmental scan of program documents. At the beginning of the project, we retreived 196 documents related to the 39 Edge Runner models that were active as of June 2015 (Martsolf et al., 2016). Of those 196 documents, 36 were related to the three Edge Runner models that were the focus of our case studies. We collected relevant documents through direct email communication with Edge Runners as well as a focused literature review. We emailed Edge Runners to explain the purpose and approach of the study and ask them to contribute documents about their Edge Runner models. The Edge Runners sent brochures, newspaper articles, book chapters, peer-reviewed articles, and digital articles. In addition to the direct communication, we searched for peer-reviewed literature and other documents using Google Scholar and Google web searches. The key search terms were the name of the Edge Runner model designer, the name of the Edge Runner model, and the combination of the names of the designer and model. We also searched the Academy website for detailed model overviews, which were available for each Edge Runner.

Online Survey. From December 2015 to March 2016, we fielded an online survey of the active Edge Runner models. The survey focused on a number of topics, including the primary setting of the model (e.g., inpatient, primary care, community); the focus population (e.g., women, elderly, low-income); the presence of model components that are consistent with the four action areas of the RWJF Culture of Health framework; barriers and facilitators to the model's success; key community collaborations; and measurement of model outcomes. Representatives from 37 of the 41 Edge Runner models active as of May 2016 (the time of fielding) completed the survey.[1] The complete survey is available in Appendix A.

Key informant interviews. After the Edge Runner representatives completed the online surveys, we contacted 13 of the respondents, requesting that they participate in follow-up telephone interviews to gather more-specific information about their survey answers. We used purposive sampling in order to identify a mix of models based on settings, populations, origins (practice versus research), dissemination, and congruence with the Culture of Health framework that respondents noted in the survey. All 13 representatives, one per Edge Runner model, who were contacted agreed to participate in the interviews. The interviews took approximately 60–90 minutes to complete and were conducted over the phone by an experienced qualitative interviewer. They were audio-recorded and transcribed by a professional transcription service. The interviews were based on a semistructured interview guide developed iteratively by all five authors. The aim of the interviews was to gather more-detailed information that built on each respondent's individual survey responses. Specifically, the interview protocol gathered detailed information on how the models focus on the four action areas of a Culture of Health, facilitators

[1] Note that the number of active Edge Runners increased from June 2015 to May 2016.

and barriers to program success, and outcome measurement. The interview guide is shown in Appendix B.

Site visits. Review of the 13 key informant interviews and review of the survey data guided us to select three models for site visits. To observe all three models in person, we conducted two-day site visits for each of the three case studies. At each site, we interviewed staff, participants, and community partners that were selected cooperatively with Edge Runner representatives. In total, we conducted 20 individual and group interviews during the site visits and took detailed notes during each. Interviews were recorded but not transcribed. We also participated in facility and community tours, and we observed the models' implementation. For example, we participated in a group prenatal visit at the CenteringPregnancy site, and we attended a diabetes support group at the Network. Two researchers participated in the site visits. The interviews were performed by one researcher while the other took extensive notes. Both researchers also took extensive field notes during model observations and community and site tours.

Analysis

To construct the case studies, we incorporated data from across the four data sources to describe each program's focus on promoting a Culture of Health across the four action areas. We also discuss a number of cross-cutting themes that emerged across the three case studies.

Environmental scan. Two researchers read through all model documents obtained through the environmental scan. We used these documents to create summaries of each of the models. These summaries included a description of the history of the model, the model's components, and an overview of model outcomes. The model descriptions were reviewed by each author for accuracy and completeness.

Survey data. We then analyzed the survey data for the three case studies using simple descriptive statistics to better understand how the models focused on a Culture of Health. For example, with regard to each action area, we asked respondents, "To what extent does your Edge Runner model focus on each of the following activities that support this action area?" Each action area included between three and 14 different activities (Table 3.1). The respondents could rate each activity within the action area on a four-point Likert scale (i.e., 0 = not at all, 1 = to some extent, 2 = to a moderate extent, 3 = to a great extent). Using respondents' answers from these items, we identified action areas and activities that Edge Runner representatives identified as being a focus of their model to a great extent. We also asked each respondent to indicate the extent to which 13 different factors acted as either facilitators or barriers to their model's success. The factors were determined by the research team based on expert consultation and literature review. Respondents could rate each of the factors on an eight-point Likert scale (1 = significant barrier, 2 = somewhat of a barrier, 3 = a little bit of a barrier, 4 = both a barrier and a facilitator, 5 = neither a barrier nor a facilitator, 6 = a little bit of a facilitator, 7 = somewhat of a facilitator, and 8 = a significant facilitator). For each case study, we describe the most-significant barriers and facilitators to model success.

Table 3.1. Culture of Health–Related Activities by Action Area from the Survey

Action Area 1: Making Health a Shared Value	Action Area 2: Fostering Cross-Sector Collaboration to Improve Well-Being	Action Area 3: Creating Healthier, More Equitable Communities	Action Area 4: Strengthening Integration of Health Services and Systems
• Volunteer efforts related to socioeconomic issues, physical or environmental health, or general well-being—such as civic engagement, advocacy, and other volunteering • Community-wide well-being and public health discussions • Community-wide health promotion activities • Participation in activities related to development of youth leadership in health • Assessing or fostering community social support • Increasing community members' perceptions that their health is interdependent	• A network of collaborating health care organizations or providers (not just traditional health care providers) to offer services • Diverse backgrounds and perspectives of leadership within the model • Collaborative relationships with community members (e.g., schools, senior centers, public health departments, barber shops) to promote health	• Healthy food availability within historical food deserts, such as promotion of community gardens and grocery stores • Hiring and development of health care workforce within the community • Environmental health, including air, water, and environmental contaminants (e.g., lead) • Economic security, including availability of affordable housing, economic stimulation, and community asset development • Social and basic needs, such as early childhood education, life/job skill training, and literacy • Changing the built environment to encourage/enable physical activity • Infrastructure related to health promotion, including walking trails, access to healthy foods, etc. • Creating safer communities for youth • Reducing adverse childhood experiences • Basic health and well-being education • Recovery from and/or management of trauma or other toxic stress	• Access to services by expanding the reach of current health care services (e.g., telehealth, mobile care, in-home care, special-needs care, medical homes for specific populations), establishing FQHCs or community clinics, expanding behavioral and social services, and patient transportation • Access to health insurance • Focusing health care resources on prevention rather than treatment • Free and low-cost services, such as prescriptions, health and ancillary services, health equipment, and nonmedical supplies and services • Health care services to vulnerable populations (e.g., elderly, low-income, homeless) • General wellness- and health-related community outreach, such as screenings, prevention, primary care, wellness education, support groups, hotlines, websites, and educational resources • Patient needs, including insurance enrollment, connections to health and social resources, financial assistance, community health workers • Chronic disease management • Cultural competence and sensitivity among health care providers • Dental health • Systems for integrating health care delivery across health care sectors, including physical health, behavioral health, public health, social services, and emergency medicine • Consumer experience and patient satisfaction • Efficient and effective coordination of care (e.g., management care teams, nurse care navigators) • Efficient data and patient information-sharing (e.g., through an electronic medical record)

The barriers covered in the survey are listed in Box 3.1.

Box 3.1. Barriers to Model Success

- Current funding levels
- Future/sustaining funding sources
- Availability of health providers (e.g., physicians, nurse practitioners [NPs], medical assistants, registered nurses [RNs])
- Physical space available
- Community relations
- Community investment/buy-in
- Local regulations (i.e., scope of practice or zoning restrictions)
- Availability of administrative support
- Community social norms (e.g., local food culture)
- Social economic environment (e.g., neighborhood crime or socioeconomic status of community members)
- Neighborhood/built environment (e.g., access to parks and sidewalks)
- Overall level of care burden of the patient population
- Support (or lack thereof) from traditional health care stakeholders (i.e., physician organizations)
- Other (please specify)

Key informant interviews. We used standard content analysis to draw themes from the interview data (Hsieh and Shannon, 2005). We first coded all 13 of the key informant interviews, then focused on the coded interviews for the three Edge Runners that were selected for the site visits. To analyze the 13 interview transcripts, we loaded them into Dedoose, a qualitative analysis software package. We created a code book that was developed iteratively by the five authors and included ten *a priori* codes. These *a priori* codes were based on the various sections of the interview protocol. Two of the authors then applied these *a priori* codes to the transcripts in Dedoose. These same two authors simultaneously coded five interviews (38 percent) with the *a priori* codes and compared the results after each interview. When these two researchers reached at least 80-percent agreement in their coding, a single researcher applied the codes to the remaining seven interviews. For this report, we focused on the three coded transcripts from the three site visit participants. The same two researchers read those coded sections again within the three transcripts. The researchers then inductively derived themes within each code. To identify themes, each researcher marked blocks of code in the transcriptions using the comment function in Microsoft Word, taking notes on the major concepts presented in each of the text blocks. The two authors reviewed all of the notes and independently identified themes. The authors systematically reviewed the themes and then wrote memos on each theme that emerged from the notes. The researchers compared the memos and refined the list of themes. When the researchers reached agreement on the themes, one researcher summarized the themes and shared them with the other researchers for face-validity checks and further refinement. After all five researchers reached consensus on the themes, final summaries of the themes were developed and are presented in the results section.

Site visit notes. Site visit notes were reviewed using a similar qualitative approach to that used for the key informant interviews because the site visit notes were meant to complement the interviews. Two researchers reviewed and coded the notes using an open coding scheme. These researchers then extracted themes from the coded sections of the site visit notes and compared them with the themes extracted from the key informant interviews. When the researchers reached agreement on the themes across the site visit notes and key informant interviews, data from the site visit notes were combined with the key informant interview data to create themes across these two data sources. The qualitative analysis for this report uses both the three key informant interviews and the notes from the 20 individual and group interviews that were conducted during the site visits.

Cross-cutting themes. Finally, the same two researchers reviewed all the theme memos from the three key informant interviews pertaining to the case study models and site visit notes and compared them across the case studies to identify cross-cutting themes. One author summarized the themes and shared them with the other authors for face-validity checks and further refinement. Each case study had its own set of themes; however, some of those themes fit all cases and are highlighted in this section.

This study was approved by RAND's Human Subjects Protection Committee.

4. Case Study 1: Sharon Rising and CenteringPregnancy

Model Overview

In the early 1990s, Sharon Schindler Rising, a certified nurse midwife, realized that she was spending her days having the same conversations about prenatal care with pregnant woman after pregnant woman. Seeing the inefficiency of this model of individual prenatal visits, and understanding the value of social support in promoting health, Rising decided to bring together women who were in a similar stage of pregnancy and facilitate a group discussion about having a healthy pregnancy, labor and delivery, and preparing for baby care and being a parent. Her goal was to be a thoughtful facilitator who could engage the women in these discussions and use the group to provide support to women as they struggled with issues, such as quitting smoking. The success of this experiment led Rising to formalize this model of care, evaluate it through randomized clinical trials, and disseminate it. The CenteringPregnancy® model is being implemented in over 450 sites across the United States and internationally (Centering Healthcare Institute, undated).

Rising and the Centering Healthcare Institute nonprofit that she founded have received funding from the National Institutes of Health and from private foundations, such as the Kellogg Foundation, Anthem, Strategic Grant Partners, and the March of Dimes. The Agency for Healthcare Research and Quality has identified CenteringPregnancy as an evidence-based innovation in health care (Agency for Healthcare Research and Quality, 2015).

CenteringPregnancy brings together three components of care into a group setting: health care, interactive learning, and community building. Group visits are between 90 minutes and two hours and are attended by 8 to 12 women. Brief individual visits with a health professional are also conducted when needed in a semiprivate space. The groups are led by two trained facilitators: a physician or nurse practitioner and a nurse, social worker, or other clinic staff person. The CenteringPregnancy model is "quintessentially relationship-centered," fostering relationships among pregnant women and providers, women and their partners, and among the pregnant women in the group (Massey, Rising, and Ickovics, 2006; Novick et al., 2011; Picklesimer, Heberlein, and Covington-Kolb, 2015). The CenteringPregnancy model adheres to the following guiding principles:

- Health assessment occurs within the group space.
- Participants are involved in self-care activities.
- A facilitative style of leadership is used.
- The group is conducted in a circle.
- Each session has an overall plan.
- Attention is given to core content, although emphasis may change.

- There is stability of group leadership.
- Group conduct honors the contribution of each member.
- The composition of the group is stable, not rigid.
- Group size is optimal to promote the process.
- Involvement of support people is optional. Some women bring their spouses or partners or significant support person to participate in sessions.
- Opportunity for socializing within the group is provided.
- There is an ongoing evaluation of outcomes.

The CenteringPregnancy model has been evaluated in a number of studies, including randomized clinical trials with various populations (e.g., teens, Canadian women, Hispanic women, African-American women, and most recently a population of women in Malawi and Tanzania). Research shows that CenteringPregnancy improves maternal outcomes, such as birthweight, preterm births, and readiness for baby care; leads to high patient satisfaction; and improves knowledge of the perinatal experience. The samples of many of the studies of CenteringPregnancy comprised low-income, Medicaid, and ethnically diverse pregnant teenage and adult women in rural and urban areas across the country. The positive effects of the CenteringPregnancy model were often most pronounced among African-American women.

A number of studies have shown that the CenteringPregnancy model reduces the rate of low birthweight and preterm births and Caesarean sections (Ickovics et al., 2003; Grady and Bloom, 2004; Ickovics et al., 2007; Skelton et al., 2009; Barr, Aslam, and Levin, 2011). One randomized clinical trial, Ikovics et al. (2007), reported a 33-percent reduction in preterm births among 995 women of diverse ethnicity; and the reduction was even greater for African-American women, at 41 percent. These reductions were achieved with no increase in the cost of antenatal or perinatal care and with higher levels of patient satisfaction than among the women in the control group who received standard care. The reductions may be attributed to women's increased knowledge of self-care during pregnancy, labor, and delivery, as well as better readiness for baby care. McNeil et al. (2012) found that the CenteringPregnancy model improved women's sense of empowerment and social support. The CenteringPregnancy model has also been found to improve women's use of family planning services (Hale et al., 2014), increase breast feeding rates (Grady and Bloom, 2004; Ickovics et al., 2007; Klima et al., 2009; Tanner-Smith, Steinka-Fry, and Lipsey, 2013), and reduce biological, behavioral, and psychosocial risks for HIV when HIV self-management was integrated into the model (Kershaw et al., 2009). One qualitative study of African-American and Hispanic women who were on Medicaid or uninsured found that the women were enthusiastic about a group approach to antenatal care (Novick et al., 2011); other studies have documented high levels of patient satisfaction with the CenteringPregnancy model compared with the traditional individual model of antenatal care (Grady and Bloom, 2004; Ickovics et al., 2007; Klima et al., 2009; Robertson, Aycock, and Darnell, 2009), and one study from the Netherlands documented an increase in interpersonal

trusting relationships for women in the program leading to increased self-confidence (Kweekel et al., 2016).

The success of the model has spurred Rising to apply it to other health and health-related issues, including well woman/well baby, diabetes, and obesity. She founded the Centering Healthcare Institute, which consults with health care organizations and trains health professionals on using her model for a variety of health problems and issues. The Centering Healthcare Institute provides a curriculum and training for facilitators, oversight to ensure fidelity of the model when adapted to specific sites and populations, and policy and advocacy support for dissemination of the model.

How the CenteringPregnancy Model Addresses a Culture of Health

Quantitative Findings

Based on the survey responses, the CenteringPregnancy model incorporates activities across the four Culture of Health action areas (Table 4.1). The model focused most explicitly on Action Area 4, "strengthening integration of health services and systems": Rising indicated that the model focused "to a great extent" on 57.1 percent of the example activities in Action Area 4. Rising also identified closely with Action Area 2, "fostering cross-sector collaboration." Rising noted that the model focused "to a moderate extent" on 66.6 percent of the activities in Action Area 2. For Action Areas 1 and 3, respectively, the respondent reported that the model focused on 67 percent and 64 percent of the items at least to "to some extent."

Table 4.1. CenteringPregnancy's Focus on the Culture of Health Action Framework Action Areas

Action Area	Not at all (%)[a]	Some Extent (%)[a]	Moderate Extent (%)[a]	Great Extent (%)[a]
1: Making health a shared value (6 items)	33.3	50.0	16.7	0.0
2: Fostering cross-sector collaboration to improve well-being (3 items)	0.0	33.3	66.6	0.0
3: Creating healthier, more-equitable communities (11 items)	36.4	45.5	9.1	9.1
4: Strengthening integration of health services and systems (14 items)	0.0	28.6	7.1	57.1

[a] Represents the percentage of activities with each action area that the model focuses on to varying extent.

Themes from the Qualitative Analysis

In this section, we present the themes from the qualitative interviews with the Edge Runner model developer and from site visits.

Fostering social support. As a group-based model, one of the pillars of CenteringPregnancy is fostering social support; even still, the extent to which the social support is operationalized is

notable. In the group we observed, for example, there was a single mother who was having trouble accessing WIC (Special Supplemental Nutrition Program for Women, Infants, and Children). Another mother heard about this situation, gave the mother the number for WIC, and offered to provide her with transportation. Another example came from men in a class who started a smoking cessation support group after they learned about the detriments of smoking around babies. One man from the group stood up, told everyone to throw out their smoking paraphernalia, and said, "We can't afford to do this. We've got to be better dads than that. I'm stopping and I'm here for you. Here's my number." This pregnancy-informed social network, created as a result of the CenteringPregnancy groups, is a poignant example of making health a shared value (Action Area 1), group by group.

Promoting equitable communities through inclusion. Pregnancy classes, while valuable, can be expensive because often they are not covered by health insurance. However, the CenteringPregnancy model bundles prenatal visits with group education. Pregnant women and their partners are able to get the prenatal care and the pregnancy and health education they need, generally all covered by insurance, thus expanding access to prenatal education. For CenteringPregnancy, inclusion also means welcoming people from all walks of life into the group space. In the group we observed, moms-to-be ranged from homeless and unemployed women to a lawyer. Promoting equitable opportunities directly relates to creating healthier, more equitable communities (Action Area 3).

Establishing strong collaborations with a major hospital system. CenteringPregnancy's connection to the local hospital system is critical to its mission. One hospital expanded the number of midwives in conjunction with the CenteringPregnancy model. The mothers do a walkthrough of the birthing rooms at the hospital to prepare them for what happens when they go into labor. All of the staff are familiar with the CenteringPregnancy model and seem to appreciate the program because the CenteringPregnancy mothers come to them "more prepared for pregnancy" than non-CenteringPregnancy mothers. CenteringPregnancy's strong partnerships with hospitals benefit not only moms but also the hospital staff. This is an example of Action Area 2 (fostering cross-sector collaboration).

Providing integrated care. At its core, the CenteringPregnancy model is focused on providing integrated care—a tenet of Action Area 4 (strengthening integration of health services and systems). During the interview, Rising spoke about the systems-level changes required to provide this type of integrated care:

> We're working much more now within large systems . . . how to make large system change. And it's just really hard work. It's very hard to change how administrators or clinicians, or any of the staff . . . think about a whole different way of giving and receiving care.

In addition to integrating health education with prenatal visits and birth, there was a large emphasis on emotional health. One mom said, "They really focus on having a healthy mindset

through your pregnancy. [After Centering,] emotionally I was in a better spot, I felt more prepared."

Redefining health: "De-medicalizing" childbirth. By discussing topics that are not typically defined as medical concerns related to childbirth—for example, relationships, support systems, and coping with fear of the unknown—the CenteringPregnancy model broadens and redefines the concept of health. By empowering women to monitor their own health—for example, by taking their own blood pressure and weight at the start of each group—the model makes prenatal care less "medical" and more accessible to moms. These are both good examples of how the CenteringPregnancy model relates to the "mindset and expectations" driver of Action Area 1 (making health a shared value).

Barriers and Facilitators to Program Success

Facilitators

Quantitative Findings

The survey data revealed that only four factors out of 14 (Box 3.1) facilitated the success of the model. Three of these were identified as "significant" facilitators, including the availability of health providers, their relations with the community, and the overall level of care burden of the population (Table 4.2).

Table 4.2. Facilitators for the Success of the CenteringPregnancy Model

Factor	Little Bit of a Facilitator	Somewhat of a Facilitator	Significant Facilitator
Availability of health providers			X
Community relations			X
Overall level of care burden of the population			X
Social economic environment	X		

Themes from Qualitative Data Analysis

These themes are developed based on the qualitative interviews with the Edge Runner model developer and site visits.

Reimbursement. While establishing a reimbursement system for CenteringPregnancy can be a complicated process, it is nonetheless a significant facilitator to the model's success. At the site we observed, the provider group receives capitated payments for each CenteringPregnancy patient. These payments cover care throughout the perinatal period. This provider group has also been able to negotiate reimbursement with private insurance. This makes the program accessible for all who have health insurance, while minimizing the administrative burden of fee-for-service

billing, an advantage to a program for which the availability of administrative support is already a challenge, as described below.

Logistically accessible program. CenteringPregnancy groups are held at times that are convenient for the women and often match bus schedules. Some classes are even held after work hours, making this prenatal care far more convenient for working women than having to take off work to go to a doctor's appointment. This is an advantage for space usage at the clinic but does require staffing adjustments. The program also groups participants based on the month of their due date: Because everyone in the class is in a similar stage of pregnancy, topics can be addressed in a time-appropriate manner.

Having a champion leader. Strong leadership is key to the success of the expanding number of CenteringPregnancy sites around the country. As Rising describes it, "What happens in an individual community is often more dependent on the energy of the facilitators who become the 'champions' at the site." One such champion in Baltimore meets with her groups in the evenings, cooks meals for them, and holds spa nights. Of this leader, Rising said, "she has an absolutely astounding centering model going. . . . It's just amazing." Champion leaders and facilitators also help foster the social support systems that are critical to the continuity of the program and to its enjoyment by participants.

Barriers

Quantitative Findings

The survey data revealed that six factors out of the list of 14 (Box 3.1) were barriers to the success of the CenteringPregnancy model. The three "significant" barriers included future funding sources, availability of physical space, and availability of administrative support (Table 4.3).

Table 4.3. Barriers to the Success of the CenteringPregnancy Model

Factor	Little Bit of a Barrier	Somewhat of a Barrier	Significant Barrier
Future funding			X
Current funding		X	
Physical space			X
Local regulations (i.e., scope of practice or zoning regulations)		X	
Administrative support			X
Support from traditional health care stakeholders		X	

Themes from Qualitative Data Analysis

These themes are developed based on the qualitative interviews with the Edge Runner model developer and site visits.

Other logistical barriers. Facilitating the CenteringPregnancy model at a standard obstetric-gynecological practice entails a number of logistical issues that must be considered to ensure program success. One potential barrier is the need to reach a critical mass that covers the cost of running the group. Another potential logistical barrier is finding paid facilitators who are willing to work in the evenings, multiple times a week, to facilitate groups.

Social norms in health care. A common societal norm in the American health care system is providing individual care and an extreme focus on patient privacy. The CenteringPregnancy model requires a shift in thinking among the participants toward a more open, group-oriented care experience. For this reason, the CenteringPregnancy model may not appeal to everyone. One challenge is determining how to sell the CenteringPregnancy concept to women who might be more reserved or private about their health. The CenteringPregnancy approach attempts to combat this by encouraging participants to try out a group session to see if it suits them—and "oftentimes, they stay."

Partner-hospital and insurance collaboration. Creating a relationship with a hospital system and establishing an insurance reimbursement system are time-intensive and complicated processes that can be barriers to expansion. This is reflected in the survey data: Personnel from CenteringPregnancy indicated that current funding was somewhat of a barrier and future funding was a significant barrier. Additionally, while nurse-midwives are increasingly recognized as providing care that is both safe and cost-effective, the nurse-midwife model is not widespread in the U.S. health care system, which lags significantly behind other countries in preparing nurse midwives. Often, reimbursement for the model requires collaboration with participating insurers. Some insurers face challenges in reimbursing the group visits and may not have experience reimbursing for care delivered by nurse-midwives. However, even when a reimbursement model is established, there are additional costs that include materials, training, snacks, and perhaps an additional staff member to help with facilitation. Increasingly, because of the research evidence of health outcomes and cost savings (Crockett et al., 2017), some programs have been able to work with health plans to establish a higher reimbursement rate for women in CenteringPregnancy groups to accommodate those costs. Both of these issues create challenges in expanding the model to new sites.

Summary

CenteringPregnancy is a nurse-designed care model that integrates prenatal care, social support, and education in group visits. It focuses on a number of activities consistent with the RWJF Culture of Health framework. The model's clearest connection to the framework is through its efforts to integrate traditional prenatal care and education into a group environment that promotes social support for mothers, all in an effort to demedicalize prenatal care and broaden the notion of prenatal health beyond solely physical health.

Key to the success of the program has been a champion leader who worked tirelessly to develop and spread the model. The sustainability of the program relies on local champions to maintain the program within their home institutions. Negotiating reimbursement with payers is also crucial for ongoing success of the model. The program site that we visited has been able to successfully negotiate reimbursement with payers—but as the program spreads, each new site must address the issue of reimbursement within its own market.

Finally, the future of the CenteringPregnancy model relies on ever-evolving social norms around health care. Patients and providers often emphasize the importance of privacy, as well as the primacy of the physician. The continued sustainability and spread of this model relies on changing social norms that prioritize the effectiveness of the model over patient privacy. Continued success of the model will rely on addressing long-standing beliefs, attitudes, and perceptions about how care is (and should be) delivered to patients and by whom.

5. Case Study 2: Sandee McClowry and INSIGHTS

In 1994, Sandee McClowry and her colleagues conducted a study of 89 mothers with children ages 8 to 11 to examine the interplay between child temperament, family socioeconomic status, and maternal characteristics, including stress levels (McClowry et al., 1994). McClowry reported that a child's temperament was associated with a specific type of behavioral problem in this cohort. In addition, a child's behavior was influenced by a mother's response to daily hassles.

As a result of this study and subsequent work (McClowry, 1995; McClowry, 2002), McClowry and her colleagues developed INSIGHTS into Children's Temperament (INSIGHTS), a temperament-based, social-emotional learning intervention, which, if used early in children's education, can improve academic achievement, reduce disruptive behaviors, and enhance children's self-regulation. The intervention identifies four basic temperaments—shy, social and eager to try, industrious, and high-maintenance—and consists of a series of classes in which parents, children, and teachers take part in a variety of skill-building activities, such as watching videos, using puppets, and participating in role-playing and facilitated discussions. Parents and teachers learn to recognize the temperament of a child; reframe the temperament by focusing on its positive qualities or strengths, rather than just on its problems; and tailor a response to a specific temperament and situation. Children learn to recognize their behaviors and how to self-regulate, with the aim of enabling them to reduce disruptive behaviors, focus their attention in the classroom, and improve their academic success.

To ensure the successful implementation of the INSIGHTS model, facilitators are trained in the theory, research, and methods for using INSIGHTS with teachers, parents, and children. Fidelity to the intervention is assured through scripts, standardized materials, documenting sessions via videotaping, and supervisory review. Teachers and parents begin by learning the three "R"s: recognition, reframing, and responding.

With the initial support of a grant from the National Institute for Nursing Research, McClowry launched a series of randomized clinical trials to examine the outcomes of INSIGHTS for children in disadvantaged neighborhoods and low-performing schools in New York City. McClowry used an after-school reading program called Read Aloud as an attention-control intervention. The findings from these trials document improvements in children's behavior problems and school achievement, and in parent and teacher use of strategies for responding to the behavior problems. For example, O'Connor and her colleagues examined the impact of INSIGHTS versus a reading program on academic achievement, sustained attention, and reducing the disruptive behavioral problems of kindergarten and first-grade children attending 22 urban elementary schools serving mostly low-income families (O'Connor et al., 2014b). The schools were randomly assigned to either the intervention (INSIGHTS) or control

(reading program) group, and measurements occurred at five intervals between the second half of kindergarten and the end of first grade. The INSIGHTS group improved math and reading achievements faster than those in the reading program. The INSIGHTS children sustained their attention and reduced their disruptive behaviors, whereas the children in the reading group experienced an increase in behavioral problems. The researchers found both direct and indirect effects of the INSIGHTS intervention on academic achievement. The indirect effects were realized through improvements in sustained attention and reduction in disruptive behaviors. INSIGHTS continues to be disseminated in schools across the United States and in Jamaica. However, because the spread of the program has largely been funded by grants, the financial sustainability of the program remains a challenge.

The impact of INSIGHTS on behavioral and academic outcomes has been demonstrated in a number of studies:

- In a study of 345 shy, low-income children randomly assigned to either INSIGHTS or a reading program, the children in INSIGHTS advanced in critical thinking and math (but not in language art skills) more rapidly than those in the reading program in the transition from kindergarten to first grade. These outcomes were attributed to both the direct effects of INSIGHTS and the indirect effects of the intervention on behavioral engagement (O'Connor et al., 2014a).
- In a study of low-income kindergarteners and first graders with high-maintenance temperaments, children were randomly assigned to receive INSIGHTS or the reading program (McCormick et al., 2015). A temperament that is high-maintenance is characterized by low levels of task persistence and high levels of motor activity and negative reactivity. Children with high-maintenance temperaments in INSIGHTS had significant and faster reductions in disruptive behaviors and off-task behaviors. INSIGHTS was found to have direct effects on these behaviors and indirect effects by enhancing the quality of the student-teacher relationship.
- An early study focused on 146 inner-city first- and second-graders, their teachers, and their parents (McClowry, Snow, and Tamis-LeMonda, 2005). The children were evaluated for disruptive disorders (attention-deficit hyperactivity, oppositional, and conduct) using the Disruptive Disorder module of the Diagnostic Interview Schedule for Children (DISC-IV). Child behavior problems were measured using the Parent Daily Report. Both children with and without a diagnosed behavior disorder in INSIGHTS had reductions in behavior problems, but the children with a diagnosed disruptive disorder had the greatest reduction. The authors found the size of the effects compared favorably with other, similar behavior interventions.
- The findings of a 2009 study of INSIGHTS suggests that first- and second-grade African-American boys exhibiting early behavioral problems are particularly responsive to the intervention (McClowry et al., 2010). The parents and teachers of 116 inner-city children in

six schools participated in this study, which also used a reading program for a control group. INSIGHTS reduced problem behaviors among both boys and girls, and improved teacher management of the classroom and teacher perceptions of student competence. Moreover, the boys had higher levels of disruptive behaviors at baseline and INSIGHTS significantly reduced their overt aggression toward others, as well as their attention problems.

How INSIGHTS Addresses a Culture of Health

Quantitative Findings

Based on the survey data, the INSIGHTS model focuses most strongly on Action Area 2 (fostering cross-sector collaboration). The respondent noted that they focused "to a great extent" on 66 percent of Action Area 2 and "to a moderate extent" on 33.3 percent (Table 5.1). The INSIGHT representative identified least with Action Area 4: For 93 percent of the activities related to Action Area 4 (strengthening integration of health services and systems), the respondent indicated that they focused on them "not at all."

Table 5.1. INSIGHT's Focus on Culture of Health Action Areas

Action Area	Not at All (%)[a]	Some Extent (%)[a]	Moderate Extent (%)[a]	Great Extent (%)[a]
1: Making health a shared value (6 items)	16.7	33.3	0.0	50.0
2: Fostering cross-sector collaboration to improve well-being (3 items)	0.0	0.0	33.3	66.6
3: Creating healthier, more equitable communities (11 items)	54.5	9.1	0.0	36.4
4: Strengthening integration of health services and systems (14 items)	92.9	0.0	0.0	7.1

[a] Represents the percentage of activities with each action area that the model focuses on to varying extent.

Themes from the Qualitative Analysis

In this section, we present the themes from the qualitative interviews with the Edge Runner model developer and from site visits.

Broadening the definition of health. A primary objective of INSIGHTS is to broaden the definition of health beyond just the absence of physical ailments. As McClowry noted in her interview:

> We see children in a very broad sense of health, the way the Institute of Medicine defines health. It's not just physical health but it's also being able to develop and realize one's potential by developing life skills. There is such a correlation between academic skills and social skills and lifetime satisfaction and well-being, including jobs. Our kids are very little but these are the skills that they need in order to function well at school and later in the larger world.

This notion of considering children's well-being and their ability to thrive socially as essential to both their education and their health pushes the traditional definition of health care. Similarly, equipping teachers and parents to address these life skills to improve the child's overall health also works to broaden the term's definition. This approach to broadening the reach of health care is consistent with Action Area 4, especially the notion of expanding access to behavioral health services out of the office and into the community.

Creating collaborations across the community with non–health care stakeholders. Another key objective of the INSIGHTS model is fostering collaborative relationships between non–health care stakeholders, particularly schools and parents. McClowry noted:

> I've always tried to engage community leaders in [the model, including] superintendents and the school board [members], but also some politicians. That's critical, too. And then I look upon our parents as leaders within the school community and the larger community.

This type of collaboration is especially important given the fact that INSIGHTS is school-based and requires significant cooperation across these stakeholders. Collaboration with schools is also a way to engage the broader community. Development of such collaborative relationships is central to Action Area 2 (fostering cross-sector collaborations).

Providing a venue for social support. Central to the vision of INSIGHTS is helping participants adapt to weakening social support structures within their communities. Interviews with school administrators and teachers suggested that chronic poverty, unemployment, drug use, and corrosion of the nuclear family have caused tremendous stress on children and families in their community, and this stress often presents itself through behavioral health issues, especially the use of violence to solve problems. These administrators and teachers see the INSIGHTS model as a vehicle for addressing some of these social support issues. In fact, McClowry notes:

> You could well label us as an antiviolence program. Some of the government websites label us that way. Children who are living in these historically poor neighborhoods face incredible safety issues. Unless they have the social skills to negotiate, to handle the environment and still maintain their own resiliency and integrity, the whole cycle of violence just gets larger. So it's just beautiful to see the children learn to problem solve in INSIGHTS. Part of our program with the kids is teaching them a very systematic problem-solving.

Practicing the strategies put forth in the INSIGHT program allows children to develop their problem-solving skills and helps them to thrive socially, which is critical to creating and maintaining their social support networks. The INSIGHT model's focus on fostering social supports, particularly with regard to managing toxic childhood stress, is very consistent with Action Area 1 (making health a shared value), for which having a sense of community is a main driver.

Creating a shared value of health. In addition to fostering social supports within the community, the INSIGHTS program engenders a shared value of health by helping students, teachers, and parents understand what constitutes healthy behavior within their community. By

teaching the same content to students, teachers, and parents, the INSIGHTS program ensures continuity of the model's philosophy and techniques across the community. As one participant in a parent-group meeting stated:

> Any time there are strategies that teachers are using, if a parent has an opportunity to reinforce that at home that's even more helpful. Sometime kids come home and say, "well, at school we do it this way," so, as a parent, I want to know the strategies that are used at school.

Facilitators and Barriers to Program Success

Facilitators

Quantitative Findings

The survey data revealed that none of 13 listed factors facilitated the success of the INSIGHTS model.

Themes from Qualitative Data Analysis

These themes are developed based on the qualitative interviews with the Edge Runner model developer and site visits.

Broad and enthusiastic participation within the community. The parents, teachers, and students we interviewed and observed were all very enthusiastic about the INSIGHTS model. In the classes we observed, students were engaged with the puppets and the interactive nature of the lessons, and teachers and parents were eager to master the strategies and skills to better manage children with different temperaments in their classrooms and their homes.

Having a champion leader. INSIGHTS has a champion leader (i.e., McClowry) who can relate to students, teachers, and parents alike, as well as to school superintendents and the funding community. McClowry moved among and related to each group with ease, and her commitment to the program was impressive. In addition to having a strong leader in McClowry, the INSIGHTS model has a champion in the community site that we visited (Avery County School System in North Carolina), where a preschool teacher and parent has been integral in getting her colleagues on board and in convincing parents of the strength of the model. This parent/teacher has worked after hours without compensation to complete her training in the INSIGHTS model and to help spread awareness of the model in her community.

Appropriately tailored to the needs of the community. INSIGHTS' success is also facilitated by its focus on ensuring that the model is culturally appropriate for different age levels, communities (e.g., urban, rural), and various ethnic and racial groups. During our visit to Avery County, INSIGHTS leadership were concerned that the model's materials, originally developed for inner-city children in New York, might not translate to a rural, largely white population. To the leadership's surprise, the feedback from students and teachers about the program materials allayed this concern: Everyone has different temperaments, regardless of skin

color, so the materials were as appropriate for this population as they were for the inner city. Nonetheless, the fact that INSIGHTS leaders are considering these cultural issues is an important part of the program's continued success.

Barriers

Quantitative Findings

The survey data revealed that three factors out of the list of 14 (Box 3.1) were barriers to the success of the INSIGHTS model. All three—future funding, current funding, and the social economic environment (Table 5.2)—were significant barriers.

Table 5.2. Barriers to the Success of the INSIGHTS Program

Condition	Little Bit of a Barrier	Somewhat of a Barrier	Significant Barrier
Future funding			X
Current funding			X
Social economic environment			X

Themes from Qualitative Data Analysis

These themes are developed based on the qualitative interviews with the Edge Runner model developer and site visits.

Creation of a "business model" has been a consistent challenge. The INSIGHTS model is still largely financed through research grants with no clear reimbursement mechanism or future funding to sustain the model. While the school district we visited was very interested in adopting INSIGHTS broadly across its community, adoption requires a school district with great interest and significant resources. In Avery County, the school superintendent was very supportive of the model but did not have the funds to implement and sustain the model. The challenge of implementing this model in a financially sustainable way is front and center in this expansion effort in rural Appalachia.

Behavioral health often appears low on the list of priorities. Health care and social norms around behavioral health are another barrier. Public schools, especially those in rural, lower-income counties, face myriad challenges. For many schools, addressing students' behavioral health concerns may not be a top priority for financial or staff resources, since many face significant challenges just providing basic levels of safety and education. The Avery County superintendent pointed out that the county has a limited number of school nurses and counselors, most of whom are already overwhelmed. As a result, he noted, the "community could use the support" that the INSIGHTS model would provide to parents and teachers, but there simply may not be enough resources to dedicate to such initiatives.

Programs require extra "visits" from parents, making it difficult to execute in a community with frayed social supports. Logistically, the parent component of the INSIGHTS model is complicated to implement. Parents are often juggling work and child care needs, and finding a convenient time for most parents has proven to be very difficult. This was reflected in the survey as well, where the socioeconomic environment was listed as a "significant barrier." In addition, asking parents to come to a meeting at school and not providing child care seemed to place a huge burden on parents. The same was true for teachers: Asking them to meet after school for training, but without compensation for their time or child care, seemed to be a burden as well.

Summary

The INSIGHTS model of care is a temperament-based, social-emotional learning intervention, aimed at improving academic achievement, reducing disruptive behaviors, and enhancing children's self-regulation. INSIGHTS contributes to a Culture of Health by working with various community stakeholders to broaden the traditional notion of health and health care and to respond to toxic stress that often results from fraying social support systems. The model implicitly recognizes that behavioral health and social functioning are fundamental aspects of health and well-being. While the model improves health, it is not viewed as a reimbursable benefit from the perspective of health insurance companies. Furthermore, other sectors (e.g., education) are not able to provide a sustainable method of payment. Therefore, the model has often had to be creative and rely on the efforts of champion leaders and community members to find alternative funding resources, such as grants and in-kind support through volunteer time.

6. Case Study 3: Donna Torrisi and the Family Practice and Counseling Network

FQHCs date back to the 1960s, so modern FQHCs in and of themselves are not particularly innovative (Goebel, 2013). However, Donna Torrisi, a nurse practitioner, demonstrated that nurses could bring a new model of care to FQHCs. In 1992, she launched what is now the Family Practice and Counseling Network ("the Network") of nurse-managed health centers (NMHCs) in or near low-income housing projects and medically underserved neighborhoods in Philadelphia and York, Pa.

Today, the Network consists of four comprehensive health centers: the Abbottsford/Falls Health Center in North Philadelphia, the Stephen and Sandra Sheller 11th Street Family Health Services in North Philadelphia, the Health Annex in Philadelphia, and the East York Health Center in York County, all under a single FQHC. One of the distinguishing features of the Network's centers is the focus on integrating behavioral health and primary care. In a one-stop shop approach, clients are able to see a variety of health professionals in one visit, depending upon need. The health care teams are led by nurse practitioners and may include physicians, social workers, behavioral health specialists, legal aides, nutritionists, dentists, and others. In addition, the Network takes a preventive approach to the health problems of a given neighborhood through programs and interventions that aim to prevent lead poisoning, obesity, diabetes, smoking, cancer, and other conditions.

The strategies and services that make the Network particularly innovative are illustrated by the Stephen and Sandra Sheller 11th Street Family Health Services, a clinic that serves a poor, largely African-American community with a high rate of diabetes, obesity, congestive heart failure, trauma-related depression, and other chronic illnesses. The health center is affiliated with Drexel University and partners with the Philadelphia Housing Authority Community Residents. Originally founded by Patricia Gerrity, a public health nurse and Edge Runner in four housing projects in North Philadelphia in 1996, the 11th Street Family Health Services provides a wide range of services, including team-based primary care, complementary and integrative health services (e.g., mindfulness practices, yoga), behavioral health services, legal services, home visits, group pregnancy visits, the Nurse-Family Partnership program for high-risk pregnant women and their children, a fitness center and exercise program, cooking/nutrition classes, a farmer's market and garden tended by community youth, chronic illness self-management programs, trauma support groups, smoking cessation programs, and other services developed in response to the needs and wants of the community. Specialty care is provided by Drexel University School of Medicine's physicians and medical students. This one-stop-shopping model, with its patient-, family- and community-centered approach, has resulted in an expansion of services, a state-of-the-art physical space, and recently a named endowment.

Unlike some Edge Runner models that arise from programs of funded research, the Network is an example of a needs-driven innovation. There are relatively few peer-reviewed papers on the Network's outcomes. The Network conducts a needs assessment every three years as required for grant renewal by the Health Resources and Services Administration, and its most recent assessment revealed the following information: In 2015, the Network served more than 22,000 people and recorded almost 100,000 encounters for medical, behavioral, and dental services. Approximately 80 percent of the Network's patients are African-American and live at less than 200 percent of the federal poverty level. The areas served by the Network have one of the highest rates of new AIDS cases in the nation; dramatically higher rates of adverse childhood events—four times the prevalence of adverse childhood experiences (ACE) scores of 4 or higher (Felitti et al., 1998; Waite, Davy, and Lynch, 2013; Centers for Disease Control and Prevention, 2016); poor and untreated dental health; and a higher rate of untreated mental health problems than Pennsylvania in general.

How the Network Addresses a Culture of Health

Quantitative Findings

Based on the survey answers, the Network focuses on all the action areas in the Culture of Health framework, but most extensively on the activities in Action Area 4 (strengthening integration of health services and systems). The respondent identified 100 percent of the examples in Action Area 4 as issues they focus on "to a great extent." Torrisi noted that the Network focuses on 66 percent of Action Area 2 activities "to a great extent." The same is true for 54.5 percent of the Action Area 3 activities and 33.3 percent of the Action Area 1 activities (Table 6.1).

Table 6.1. The Network's Focus on the Culture of Health Action Areas

Action Area	Not at All (%)[a]	Some Extent (%)[a]	Moderate Extent (%)[a]	Great Extent (%)[a]
1: Making health a shared value (6 items)	16.7	50.0	0.0	33.3
2: Fostering cross-sector collaboration to improve well-being (3 items)	0.0	33.3	0.0	66.6
3: Creating healthier, more equitable communities (11 items)	9.1	18.2	18.2	54.5
4: Strengthening integration of health services and systems (14 items)	0.0	0.0	0.0	100.00

[a] Represents the percentage of activities with each action area that the model focuses on to varying extent.

Themes from the Qualitative Analysis

These themes are developed based on the qualitative interviews with the Edge Runner model developer and site visits.

Strong focus on "whole-person orientation." The Network has deeply embedded the notion of caring for the "whole person" into all the programs and services they provide. Creating a health center that can provide primary care, behavioral health care, and dental care, as well as "healing" through yoga and meditation, contributes to this whole-person orientation. The Network also has a special focus on "trauma-informed" care models. This "whole-person orientation" closely reflects Action Area 4 (strengthening integration of health services and systems).

Integrating health care services is the key. The Network was founded on a belief in the importance of integrating behavioral health into primary care. This integrated care philosophy soon led to the integration of dental care and the inclusion of more-innovative healing programs, including yoga, aroma, art, and music therapy programs. The Network also deploys community health workers who can link the community with the clinics to ensure that health services are accessible to everyone in their community of interest. These activities reflect Action Area 4 (strengthening integration of health services and systems).

Creating a more equitable community. The Network has taken on a mission of creating a more equitable community in a variety of ways. One example is its sponsorship of the Peaceful Posse, a group mentorship program for middle school boys that teaches such important concepts as respect and self-worth to help these boys deal with toxic stress. Another example is the presence of a community liaison at each health center and a community advisory board. Individuals in both positions help ensure that the health centers are continuing to meet the changing needs of the community. This notion of creating a more equitable community is directly tied to Action Area 3 (creating healthier, more equitable communities).

Collaborating with diverse partners. One theme that emerged throughout our interviews with Network representatives and from our visit to the Network is the importance of collaboration, the highlight of Action Area 2 (fostering cross-sector collaboration to improve well-being). For example, Torrisi explained how the Health Annex in Southwest Philadelphia partnered with a local organization, Action AIDS, to open a primary care and behavioral health office in the same physical space as the Health Annex:

> We had a strong partnership with an HIV organization and we worked together on a variety of projects, and they said they would love to have primary care in one of their offices. And because we really believed that was a good idea and we had an excellent relationship with this organization, we did pursue that. We didn't get any extra funding for that. We are currently expanding beyond HIV in that site to care for their friends and families in the greater population. So that's how that site came to be.

The Network has also collaborated with community hospitals and external providers. In her interview, Torrisi stated:

> We have relationships with hospitals that will use discounts for uninsured patients for things like radiology services. We have strong relationships with hospitals around prenatal care. And we actually have engaged physicians to come to our offices to provide prenatal care and then deliver in their institutions. We have a community cardiologist who is willing to see our uninsured patients for nothing.

Building social support within the community. Although the Network focuses on providing high-quality care to individual patients, this model also helps foster social support among patients and communities. For example, a diabetes group at Abbotsford Falls provides a forum for patients to gather on a weekly basis to learn strategies to care for their diabetes and support each other through the disease. While education and self-management are the clear goals of the group, the path to that goal largely includes providing a social support system for each patient. Another example is the Network's community health worker program. These workers help community members navigate hospital systems, transportation, appointments, and keeping on track with self-management goals. They hired two community residents "who are well known and well trusted." The community health workers "work hand-in-hand with the community on helping them develop health goals. And they support very vulnerable people [in] sometimes the littlest things, like how to set up a pillbox or getting to their colonoscopy appointment, things that we take for granted."

Facilitators and Barriers to Program Success

Facilitators

Quantitative Findings

The survey data revealed that 12 factors out of the list of 14 (Box 3.1) facilitated the Network's success. The only item not noted as a facilitator of success was "social norms," which was marked as "not a barrier or a facilitator" (Table 6.2).

Table 6.2. Facilitators for Success of the Network Edge Runner

Factor	Little Bit of a Facilitator	Somewhat of a Facilitator	Significant Facilitator
Current funding levels			X
Future funding sources			X
Availability of health providers			X
Physical space available			X
Community relations			X
Community investment/buy-in			X
Local regulations			X
Availability of administrative support			X
Social economic environment			X
Neighborhood/built environment			X
Overall level of care burden of the population			X
Support from traditional healthcare stakeholders			X

Themes from Qualitative Data Analysis

These themes are developed based on the qualitative interviews with the Edge Runner model developer and site visits.

Reimbursable model can subsidize other non-reimbursable services. The Network provides a mix of services with varied levels of available reimbursement from private insurance, Medicare, and Medicaid. Some of these services have generous reimbursement from health insurance, while other services do not have any clear reimbursement strategy (e.g., cooking classes). The Network's reimbursable services can be used to subsidize these other services. As Torrisi notes,

> We finance [non-reimbursable services] with surpluses that are generated mostly through primary care. That is really the bread and butter of our organization. Behavioral health is a money loser, dental is about a break even, and primary care really supports a lot of the services.

The Network's ability to subsidize non-reimbursable services has been enhanced through expansions in Medicaid under the Affordable Care Act, which has reduced its uninsured rate substantially in recent years. This has allowed the Network to provide more funding for other services. It is important to note, however, that although reimbursement for primary care supports many other activities, the funds can only go so far. The Network is implicitly limited in what it can offer, given that only select services are covered.

Strong leadership. Another important facilitator is passionate and visionary nursing leadership. This includes the overall direction of the Network by Torrisi, as well as visionary leadership at specific sites, including Patricia Gerrity at the 11th Street Family Health Services. Both of these leaders have gained tremendous trust within the community and have grown their

organizations substantially over the last 25 years. They are also constantly seeking new ways to meet the needs of patients and their communities and to expand the reach of the Network.

Deep community support. The work of the Network is also assisted by tremendous community support. Torrisi summarizes the relationship with the community as follows:

> We have a very, very strong relationship with the community in our Philadelphia centers—not only people who serve on the community board, but we have patients who come to the health center every day, for one thing or another, whether it's the pain management group or a behavioral health visit or to see the podiatrist or working out in the gym. We have real strong supporters on the part of the community. And they refer their family and friends. That's our biggest referrer, it's really word of mouth . . . our best marketing.

One mechanism through which the Network tries to stay responsive and adaptive to the changing needs of the community is the community advisory board, which provides a voice and feedback from community members. Many of the leaders in this group were community activists who initiated the development of the clinics when they were first located in public housing in the 1990s. This board provides regular feedback on issues ranging from the waiting time on phone lines to shuttle service.

Valuable link to university assets. Another key facilitator of success for the Network is that one of the health centers (the 11th Street Family Health Services) is part of Drexel University. This gives the advantage of having access to faculty and students that can provide additional resources to patients. Many new programs that have spread throughout the Network—such as cooking classes, art and music therapy, trauma-informed care models, and mind-body integration—started out as initiatives of faculty, staff, or students at Drexel and were supported by other university resources.

Barriers

Quantitative Findings

The survey data did not reveal any barriers to the Network's success.

Themes from Qualitative Data Analysis

These themes are developed based on the qualitative interviews with the Edge Runner model developer and site visits.

Taking the program outside of the walls. One pervasive barrier to successfully addressing a Culture of Health is the fact that health care providers have historically been reactive, meaning they are largely addressing the needs of individuals who pass through the doors of their facilities. A significant growing focus of the Network is to move *outside* the walls of the clinic and proactively address the needs of the community. This has proved challenging. One recent effort, developing a community health worker program, has sustainability concerns as it is largely funded by grants. The 11th Street Family Health Services has also worked to develop an

extensive community liaison program that can proactively identify health and well-being needs within the community. However, efforts to extend care into the community more proactively remains a work in progress.

Nurse practitioner workforce. Another important barrier is the Network's ability, or inability, to hire NPs. Torrisi noted that there is a relative shortage of NPs in Philadelphia: "Our hardest attraction, actually, is nurse practitioners because they're in such demand—not because they don't want public health, but they are in such demand." Furthermore, restrictive scope-of-practice laws in Pennsylvania do not allow autonomous practice for NPs. Having to find physicians to provide oversight to the NPs is an economic challenge for the Network. As Torrisi stated:

> State regulations around nurse practitioners who practice independently [are] an issue because it means we have to find physicians who are willing to be collaborating physicians and we have to pay them. And we pay them for not doing very, very much. And we could use those resources in other ways.

Economic and social issues. Economic and social issues in the community—high poverty rates, environmental contaminants (e.g., lead), and frayed social support systems—present an additional barrier to the Network's success. One of the most pressing concerns, raised regularly by Network respondents, is the role of violence and toxic stress in the communities in which they work. The Network has gone to great lengths to deliver care based on a "trauma-informed" approach. In her interview, Torrisi described this approach:

> We have a committee consisting of staff and patients working on the issue of becoming a trauma-informed organization. And we have an organizational statement on this issue that is part of our policies and procedures that we actually just fine-tuned. And we have some subcommittees looking at screening, looking at creating a trauma-informed physical environment, policies and procedures that are trauma-informed. So we are looking at this in all areas of the organization and what the health center feels like when someone walks into it, what does it look like, what does the culture feel like? The health center needs to be designed in a manner that patients can find their way around—for example, by having clear signage. Having a large health center that is easy to negotiate is part of providing a sensitive and responsive environment for patients and that is part of being culturally sensitive.

Summary

The Family Practice and Counseling Network is a network of nurse-managed health centers focused on providing a broad range of "whole-person" services to patients in low-income communities in Philadelphia and York, Pa. The Network addresses a Culture of Health through the integration of health care services and a strong population-health perspective that continually examines the health status and needs of the communities it serves. From its inception, the Network was focused on integrating primary and behavioral health care. From there it has added a number of healing and social services, including yoga, aroma, art, and music therapy. Inclusion

of such services implicitly recognizes the "whole person," integrated nature of humans as mind, body, and soul. The Network is able to provide such whole-person care given the reimbursement available for primary care, which subsidizes many services that are not traditionally covered by health insurance. The continued growth and spread of this model, however, will rely on identifying financing approaches for services outside of traditional primary care.

Furthermore, the impact of such models as the Network are inherently limited by stressors within the communities where they operate, including high poverty rates, environmental contaminants (e.g., lead), and frayed social support systems. Although the Network strives to move outside its walls to address these issues, the task is significant and requires sustained participation of stakeholders from across the community.

7. Cross-Cutting Themes

Once individual themes were identified within the models, we identified themes that cut across the models based on the qualitative interviews with Edge Runner model developers and site visits. Given the diversity of the models included in the case studies, it is notable that a number of themes were common across the models. Such cross-cutting themes are important considerations that may be relevant to a wide range of providers attempting to address a Culture of Health.

Responding to fractured social support networks. One important theme that cuts across all of the case studies is the importance of community social supports. All of the Edge Runners, to one extent or another, articulated the importance of filling in for many social institutions (such as families, faith organizations, and other community organizations that provide similar support systems) that are losing significance and resulting in an unmet need for enhanced social support that transcends racial, economic, and geographic characteristics of any given community's population. For example, the CenteringPregnancy program often offered social support to pregnant women who, in previous generations, might have lived in close-knit, multigenerational families and communities that could have offered them emotional support and education. Interviewees from the CenteringPregnancy program report that many of the mothers no longer live near family who can provide such social support and mentorship. Likewise, the rural county in Appalachia where we observed the INSIGHTS model was typical of other rural counties that have experienced significant population losses as a result of years of decline in agricultural and industrial employment. One of INSIGHTS' objectives is to reduce the childhood stressors that result from growing poverty and increasing social decay of the community. Similarly, the Network responds to fractured social networks through such group programming as the Peaceful Posse Program and a diabetes support group—both of which create opportunities for community members to form social networks around shared experiences.

Self-efficacy for health. In addition to providing social support networks, all three programs focus on improving participants' health self-efficacy, or the belief in one's ability to succeed in a given situation. Creating a shared value of health is accomplished through engaging individuals, families, and communities in addressing health needs and empowering them to be self-advocates. CenteringPregnancy exemplifies this through teaching pregnant women to monitor their own health during prenatal visits, and empowers them to ask questions and learn from each other. At the 11th Street Family Health Services, the primary care focus is on what patients say they need—a "patient first" mentality. INSIGHTS teaches children to self-manage their behaviors, while giving parents and teachers the tools to develop their own self-efficacy and confidence in improving their responses to a child's behavior.

Being "bilingual." Another common theme that cuts across these models is the need to deftly navigate extremely different populations. Specifically, these organizations were deeply invested in the communities in which they worked, and they collaborated extensively with local organizations. This shared commitment required each of the models to understand the needs of the individuals and organizations that make up specific communities. They had to speak the language of the community to gain trust, communicate clearly, and design services that were needed and wanted. Yet each of these Edge Runner models also depends on resources from outside of the target communities to sustain their work: Each model focused to some extent on low-income, minority, or otherwise vulnerable communities, where important financial and social resources are not generally readily available. To access resources outside their communities, Edge Runners were often required to enlist the collaboration of institutions—most notably businesses, health systems, and universities. For example, the 11th Street Family Health Services relied on the commitment of Drexel University and long-term donors invested in the community working cooperatively with community stakeholders to ensure that their community had access to nontraditional services. All the models we studied needed individuals who could act as a "bridge" between disparate stakeholders—put another way, those who could speak the different languages of disparate stakeholders.

Establishing a plan for scale and sustainability. Each of the Edge Runner models emerged from different starting blocks—either as a research or implementation grant-funded initiative, through being closely tied to a university, or, in the case of CenteringPregnancy, without any funding or university affiliation. As a result, each model needed to develop an approach to scale its programs and move beyond the development phase. This required the creation of business plans and approaches to sustainability. One important factor that affects the sustainability of these models is a clear reimbursement mechanism. While the Network has been able to secure significant reimbursement for primary care to subsidize programs that have no clear funding stream, it sees the value of global payments to allow it to address what its patients and the community need and want. The INSIGHTS model has no clear reimbursement mechanism and will require a more creative business case to ensure scale, spread, and sustainability.

Champion leaders. Each Edge Runner model has impassioned and dedicated champions who are able to lead and sustain the models. The nurses who started and run each model bring incredible passion and dedication to their effort. Success in promoting a Culture of Health seems to require champions who can deftly move in and out of local communities as well as powerful institutions, and who can promote visions of cooperation that transcend both types of organizations.

Defining health holistically. Each of the Edge Runner models has sought to redefine health and the role of the health care provider. The definition of health implicitly held by all three models is a holistic one. The shared goal is to demedicalize wellness through the integration of physical, mental, emotional, and mind/body care. The CenteringPregnancy model of delivering prenatal education and care in a nonclinical group setting recognizes the importance of the

mental and emotional well-being of the mother, not just the physical health of the mother and her baby. The INSIGHTS model recognizes the intricate connection between academic success and the physical and emotional well-being of children. The Network's one-stop-shopping model recognizes that a broad range of factors—physical, mental, socioeconomic, environmental, legal, etc.—are crucial to the health of individuals, families, and communities.

Promoting and enhancing equity. All three case studies also demonstrate the role that health care providers can play in promoting and enhancing equity in their communities. Each of these programs is addressing health disparities, both through the services they provide and through their approach: involving community members such that power and decisionmaking is shared, promoting both engagement and equity. The Network serves low-income, inner-city patients and has a community advisory board to guide its decisionmaking. The INSIGHTS program has focused on inner-city and rural school districts that have limited resources for unrequited programing, and seeks input from teachers and parents alike in their program planning efforts. And the CenteringProgram, while it does not inherently target an underserved population, gives insured patients from all backgrounds an equal opportunity to access prenatal group education and empowers them to be engaged in their own health and to dictate the flow of each session based on their individual questions and circumstances.

8. Discussion

This report provides evidence that lessons about creating a Culture of Health can be learned from nurse-designed models of care, which have goals and experiences consistent with the Culture of Health framework. Using three nurse innovators recognized by the American Academy of Nursing as "Edge Runners," we conducted three case studies using an environmental scan of the literature, online survey responses, key informant interviews, and site visits. The three models were selected for their diversity of populations served, how each contributes to a Culture of Health, and barriers and facilitators to doing so. The three selected and presented in this report are CenteringPregnancy, a facilitated group approach to prenatal care; INSIGHTS, a program that helps teachers, parents, and children better respond to and manage child temperaments; and the Family Practice and Counseling Network, a cluster of nurse-managed health centers that integrate behavioral health and primary care for vulnerable communities.

Although all three models focus to varying degrees on all four action areas in the Culture of Health framework, the findings from these case studies have important implications especially within Action Areas 1 (making health a shared value) and 4 (strengthening integration of health services and systems). Two of the models (e.g., the Network and CenteringPregnancy) had a particularly strong focus on Action Area 4. Previous work has demonstrated that nurse-designed care models have a particularly strong focus on this action area, which is not surprising given that nurses are traditionally within the health care system and work across various health care sectors (Martsolf et al., 2016). The sort of health service integration that the Edge Runners were able to achieve was largely driven by a committed focus to broadening the notion of health and focusing on a *whole-person orientation*. This orientation demonstrates a particularly significant shift in the way that health care providers have traditionally viewed the relationship between the body and mind—conceptualizing the body, mind, and spirit as largely disconnected entities. Such dualistic views have often contributed to a compartmentalizing of physical and mental health care and leaving the health of the spirit largely ignored. Many recent efforts to reconnect physical and mental health are under way, notably in the area of behavioral health integration programs (SAMSA-HRSA Center for Integrated Health Solutions, undated) and others illustrated in our case studies. However, such a reconnection of the body, mind, and spirit is a kind of philosophical switch that has yet to be made by many health care providers.

Each of our case study participants is focusing to varying degrees on making health a shared value (Action Area 1). However, in the survey, none of the case study participants listed making health a shared value as their strongest focus area and two of the three case study participants (CenteringPregnancy and the Network) reported that they focused on this action area least. These findings are consistent with previous work that suggests that nurse-designed care models do not

traditionally focus on making health a shared value (Martsolf et al., 2016). During the interviews and site visits, however, we found that in fact the nurse-designed care models are undertaking a number of activities consistent with making health a shared value. This suggests that these nurses either had trouble understanding how their work integrates into this action area or had difficulty articulating the connection of their work to making health a shared value. This finding is consistent with previous work showing that health care stakeholders often had difficulty conceptualizing and operationalizing how to make advances in this action area (Acosta et al., 2016). These findings suggest that RWJF and other interested stakeholders should continue to help health care providers and communities better understand and translate how their work is consistent with making health a shared value, continue to seek ways to advance in this specific action area, and continue to highlight the importance of working with communities to better foster a shared value of health.

Despite the call for health care providers to help communities advance toward making health a shared value, we should not ignore the fact that efforts focused on "making health a shared value" face significant philosophical barriers that are deeply embedded within the social imagination of modern people. Namely, modern western culture places tremendous emphasis on the primacy of the individual, wherein communities become a collection of autonomous and self-actualizing individuals. Such a "dis-embedding" of individuals from communities creates serious difficulties in fostering the sorts of communal commitments necessary to promote the notion of the interdependence of health (Taylor, 2007). Furthermore, the centrality of the individual is likely integral to the fraying of social support networks that Edge Runners are responding to and addressing.

Given the complexity of developing a shared value of health, the conditions necessary to address this action area may not be easily packaged into an intervention that can be delivered by health care providers. This means that providers will not be able to address the breadth of a Culture of Health on their own. The most important resources for addressing these deep-seated cultural commitments likely reside within communities themselves—for example, in community members such as clergy, teachers, and shop owners. Therefore, health care providers will need to function less like technical experts and more like community partners. Providers' role in making health a shared value may be to identify unique resources within each community, promote communal self-efficacy, and enable communities to uniquely devise their own community-level responses. Enabling community members to identify and address their own needs is likely to take time and hard work.

Furthermore, a number of the cross-cutting themes that we identified have a number of useful implications for public policy and the future of health professional training. Particularly, despite the success of the models, each site struggled with a consistent source of funding to sustain the scope of the program. Many of the aspects of the models that we examined still relied on grant funding and substantial academic support without reliable long-term and independent funding sources. The models that were most successful were able to use ambulatory care reimbursement

to subsidize other non-reimbursable interventions, which often focused on promoting community health and patient wellness. In general, reimbursement policies and practices are not yet aligned with supporting a Culture of Health. However, current trends in domestic health care policy represent potentially promising approaches to making community-level interventions more sustainable.

For example, accountable care organizations (ACOs) are an important payment policy wherein payers reimburse health systems using partially capitated, global payments to provide care to populations of patients (CMS, 2015). Medicare and many private payers are providing financial incentives to providers (e.g., hospitals, physicians, nurses) to organize themselves into ACOs (Muhlestein and McClellan, 2016). To the extent that payers continue moving toward capitated payments that benefit ACOs if the populations they serve are healthier, health providers may turn more of their focus on community-level interventions that aim to improve overall patient health and well-being without relying on the acute care delivery system. In addition, behavioral preventive services are seldom reimbursable in our current healthcare system.

The Accountable Health Communities (AHC) model is another payment model being tested by CMS to evaluate the impact of health care services partnering with social service organizations in the community to identify health-related social needs of individuals and families, help community members to navigate these services, raise awareness of available community services, and ensure that clinical and community services are meeting the needs of the community (e.g., housing, transportation, food insecurity) (Alley et al., 2016). Under this five-year initiative, CMS is investing $157 million to test a payment model for supporting AHC and will be evaluating the model for its impact on health care costs, quality, and the health of Medicare and Medicaid beneficiaries. The Edge Runner models detailed in this report have already demonstrated the ability to partner with community-based organizations and services, but the Family Health and Counseling Network and other nurse-managed health centers that serve a defined geographic community are particularly well suited for being clinical partners in AHC.

Promoting the development of community-level Culture of Health–related activities through the ACO or AHC structures would require improvements in funding for rigorous evaluations of the impact of specific community health-promoting interventions on reducing health care costs and improving the health of the population. Health-related research funding, however, continues to be most heavily skewed toward basic science and biomedical interventions more broadly (Federation of American Societies for Experimental Biology, undated). To the extent that researchers and clinicians aim to develop health care interventions aimed at promoting a Culture of Health, more resources must be dedicated to better understanding the types of interventions that are most successful. Furthermore, although more funding is needed in this space, it is important to note that many of these Culture of Health–related interventions have been tested and scaled but the findings have not been collated and summarized with the specific Culture of Health–related action areas in mind. More work should be done to aggregate and synthesize the work on evidence-based interventions that focus on each of these action areas.

Attention must also be paid to the development of the health care workforce to ensure that they are prepared to be skilled partners and leaders in building a Culture of Health among individuals, families, and communities. Emphasizing interdisciplinary learning and collaboration in health professions' education would help prepare the workforce to work together across silos and within communities to create a Culture of Health. Specifically, nurses should be included whenever possible in Culture of Health–related initiatives, as they are well positioned to contribute given their leadership skills, holistic framework and philosophy centered on the patient (individual, family, community), relationship-building skills, and public trust. Working within the community underscores the importance of identifying, developing, and nurturing leaders in promoting a Culture of Health. Although nurses have the skills, philosophy, and education to be clear leaders in the Culture of Health movement, all members of the interprofessional health care team need to be prepared to lead work on building a Culture of Health. This is especially important because health system integration and whole-person care require the contribution of the entire health care team. The Edge Runners are nurses who *designed* innovative models of care that promote health, but any of these models could be led by other health professionals, including social workers, physicians, pharmacists, physician assistants, and mental health workers. This is also reflected in RWJF's redesign of its leadership programs to emphasize interprofessional development and collaboration.

To make the Culture of Health initiative successful, nursing education (and that of all health professions) must continue to adapt to the needs inherent in a Culture of Health framework. Specifically, nurses and other health care professionals need to be equipped with skills related to understanding and addressing patients' need for social supports and recognizing that community health is significantly determined by patients' social circumstances. In the field of nursing, nursing education must emphasize even more the role of public health and community health nursing. Many of the newest investments in nursing education relate to simulation laboratories and clinical experiences that are acute and intensive in nature (Josiah Macy Jr. Foundation, 2016). These foci underscore potentially implicit assumptions within nursing education about the relative primacy of inpatient and intensive care vis-à-vis community and public health nursing. To change this, nursing schools must invest in education and training to support population health management, public health, primary care, and community nursing, offering such instruction as big-data analytics, public health theory, and skills related to care management and coordination. But all health professional students must be exposed to this change in focus if we are to build interprofessional teams that can actively and knowingly contribute to building a Culture of Health among individuals, families, and communities. This includes integrating biomedical and social models of health (Rowe et al., 2016). In addition, *how* health professionals interact with individual patients and community leaders is a critical aspect of Culture of Health work that requires strong communication skills and a reorientation of the traditional role of health professionals to one in which they are facilitators, partners, relationship-builders, good listeners, and connectors. Building healthier, more equitable communities demands a level

playing field between the health care provider and the community member, whether patient or leader, and a health professional who is skilled in engaging people in Culture of Health work. Changing the curriculums of schools of health professions will require development of deans and faculty aligned with the vision and a culture change within the schools.

RWJF's recent efforts to promote a Culture of Health in communities across the United States mark a significant change in focus for one of the largest private funders of health services research. The Culture of Health initiative is wide-ranging, and meeting RWJF's expansive goals will require the cooperation of an array of health care and non–health care stakeholders, including community leaders. To participate in Culture of Health–related activities, health care providers must better understand their unique role in a Culture of Health and how it intersects and interacts with the current state of communities and their capabilities. In this report, we describe the efforts of three innovative nurse-designed care programs that have focused on advancing a Culture of Health in the communities in which care is delivered. These case studies provide very useful examples of how health care providers can be important partners for advancing a Culture of Health among individuals, families, and communities. They are but three examples of nurse-designed models of care that can be examined for their contributions to Culture of Health work. Supporting innovative models of care such as these can advance the health of the population, improve the nature and quality of health care services, reduce the costs of health care, and continue to push forward the Culture of Health vision.

Appendix A: Survey Tool

Purpose

The purpose of this survey is to better understand the extent to which various Edge Runner models contribute to a Culture of Health as part of the work that they do. The Culture of Health is a strategic framework of the Robert Wood Johnson Foundation (RWJF) for improving the health and well-being of Americans by creating a society in which all individuals, regardless of their ethnic, geographic, or socioeconomic circumstances, have the opportunity to live the healthiest lives possible. This approach recognizes the importance of social, economic, physical, and environmental factors outside of the health care system that affect the health and well-being of individuals and communities. Such an approach requires health care providers to participate in collaborative activities to address these important social determinants of health.

As part of this survey, we will ask you a series of questions about your specific Edge Runner model of care to understand how the model might be contributing to a Culture of Health. We expect the survey to take 15–20 minutes and greatly appreciate your participation in this important work.

Informed Consent

Your participation in completely voluntary and you can stop at any time. No one outside of the research team will see your answers. Within the research team, we will use the name of your organization to link us to other public documents from your organization and may be contacting you in the future to conduct a case study of your organization.

Please hit the start button to begin.

Demographics

This first series of questions gathers some basic demographic characteristics of your Edge Runner model of care.

1. Is the Edge Runner model (check one)
    a. Under the direction/control of the primary developer
    b. Disseminated outside the initial target area—in collaboration
    c. Disseminated outside the initial target area—with minimal involvement by primary developer
    d. Other, please explain: _____

Edge Runner Model Setting

2. Please select the answer that best describes the extent to which your Edge Runner model (referred to as "model" in the table) operates within the following settings:

(Select one answer for each setting)

	1 Primary Setting of the Model	2 Secondary Setting of the Model	0 Not Part of the Model
Inpatient or hospital			
Primary care practice			
Outpatient office, not primary care			
Long-term care (such as nursing home or continuing care community)			
School			
Child day care			
Adult day care			
Home			
Community setting—by itself			
Community setting—co-located within another organization (maternal child health clinic, WIC clinic, housing development, etc.)			
Other, please explain: _____ _____			

Population

3. Please select the answer that best describes the extent to which your Edge Runner model is used to serve the following populations: (Select one answer for each population)

	0 Not at All	1 Some Extent	2 Moderate Extent	3 Great Extent
Women				
Infants/early childhood				
Middle childhood/adolescence				
Elderly				
Low-income				
Homeless				
All members of a specific geographic region				
All members of a health plan				
General population of a health system				
A population with a specific disease or condition such as diabetes, heart disease, or HIV/AIDS				
Racial/ethnic minorities				
Rural populations				
Other, please explain: _____ _____				

Initiation

4. How did you identify the need for the Edge Runner model? (Check all that apply)

   ❑ 1 Community identified the need
   ❑ 2 A formal needs assessment was conducted
   ❑ 3 Practitioner or researcher identified need (outside of formal needs assessment).
   ❑ 4 Other: _____

5. How was your Edge Runner model started? (Select one answer)

   ❑ 1 A practice-based model that added a research/evaluation element
   ❑ 2 A research-based model that has been scaled up and disseminated
   ❑ 3 Other, please specify _____

Edge Runner Activities

The Robert Wood Johnson Foundation has identified four "Action Areas" or potential opportunities for community members to work together to promote a **Culture of Health**. These areas, and the drivers for those areas are listed below:

- Action Area 1: Making health a shared value
- Action Area 2: Fostering cross-sector collaboration to improve well-being
- Action Area 3: Creating healthier, more equitable communities
- Action Area 4: Strengthening integration of health services and systems

For more information about the Culture of Health framework, see www.cultureofhealth.org/en/about

The following set of questions is used to help us understand how your Edge Runner model may advance the Culture of Health through each of these Action Areas.

In Action Area 1: Activities that relate to making health a shared value are activities to create a greater sense of community, increase demand for healthy places and practices in a community, and create a stronger belief in interdependence of health between individuals.

6. To what extent does your Edge Runner model focus on each of the following activities that support this action area? (Select one answer for each activity)

Activity	0 Not at All	1 Some Extent	2 Moderate Extent	3 Great Extent
Volunteer efforts related to socioeconomic issues; physical or environmental health; or general well-being, such as civic engagement, advocacy, and other volunteering				
Community-wide well-being and public health discussions				
Community-wide health promotion activities				
Participation in activities related to development of youth leadership in health				
Assessing or fostering community social support				
Increasing community members' perceptions that their health is interdependent				

7. Does your model focus on any other activities that could contribute to Action Area 1 (making health a shared value)? Please explain.

_____

_____

_____

In Action Area 2: Activities that relate to fostering cross-sector collaboration to improve well-being are activities that promote diverse partnerships, as well as both vertical and horizontal collaborations within and outside of the healthcare system to improve health.

8. To what extent does your Edge Runner model focus on each of the following activities that support this action area? (Select one answer for each)

Activity	0 Not at All	1 Some Extent	2 Moderate Extent	3 Great Extent
A network of collaborating health care organizations or providers (not just traditional health care providers) to offer services *(Programmer instruction: If any box other than "not at all" is checked, please answer Q10 below).*				
Diverse backgrounds and perspectives of leadership within your model				
Collaborative relationships with community members (e.g., schools, senior centers, public health departments, barber shops) to promote health *(Programmer instruction: If any box other then "not at all" is checked, please answer Q11 below).*				

9. Does your model focus on any other activities that could contribute to Action Area 2 (fostering cross-sector collaboration to improve well-being)? Please explain.

_____

_____

_____

(Programmer instruction: ONLY ANSWER if you indicated that you are "a network of collaborating health care organizations or providers (not just traditional health care providers to offer services" above).

10. Consider the **health-related** organizations that your Edge Runner model has engaged or partnered with. What sectors do they come from? For each sector, indicate the strength of your partnership with this sector (Select one answer for each organization; check all that apply).

Health-Related Organization	3 Extremely Strong	2 Somewhat Strong	1 Present, But Not Strong	0 Not Present
State or local health department				
Hospitals				
Primary care providers				
Specialty care providers				
Dental organizations				
Mental health organizations				
Dialysis centers				
Home health organizations				
Long-term care facilities				
Emergency response services				
Health care advocacy groups (e.g., diabetes or heart disease advocacy groups)				
Medical-Legal Partnerships				
Other, specify: _____ _____				

(Programmer instruction: ONLY ANSWER if you indicated that you have "collaborative relationships with community members (e.g., schools, senior centers, public health departments, barber shops) to promote health" above).

11. Consider the organizations **outside of the traditional health arena** that your Edge Runner model has engaged or partnered with. What sectors do they come from? For each sector, indicate the strength of your partnership with this sector (Select one answer for each organization)

Nontraditional Organizations	**3 Extremely Strong**	**2 Somewhat Strong**	**1 Present, But Not Strong**	**0 Not Present**
Education (K–12)				
Income support entities				
Legal services				
Local government				
Community leaders				
Local businesses				
Faith-based organizations				
Housing organizations				
Employment organizations (e.g., job-training programs)				
Political/advocacy organizations (women's reproductive rights, general poverty, race-focused organizations)				
Child welfare				
Environmental organizations				
Transportation agencies				
Research institutions				
Other, specify: _____ _____				

In Action Area 3: Creating healthier, more equitable communities are activities that eliminate disparities in health; make health care and health environments available to all and improve well-being.

12. To what extent does your Edge Runner model focus on promoting, or programming for . . . (select one answer for each)

Activity	0 Not at All	1 Some Extent	2 Moderate Extent	3 Great Extent
Healthy food availability within historical food deserts, such as promotion of community gardens and grocery stores				
Hiring and development of health care workforce within the community				
Environmental health including air, water, and environmental contaminants (e.g., lead)				
Economic security including availability of affordable housing, economic stimulation, and community asset development				
Social and basic needs, such as early childhood education, life/job skill training, and literacy				
Changing the built environment to encourage/enable physical activity				
Infrastructure related to health promotion, including walking trails, access to healthy foods, etc.				
Creating safer communities for youth				
Reducing adverse childhood experiences				
Basic health and well-being education				
Recovery from and/or management of trauma or other toxic stress				

13. Does your model focus on any other activities that could contribute to Action Area 3 (creating healthier, more equitable communities)? Please explain.

_____

_____

_____

In Action Area 4: Strengthening integration of health services and systems activities are improving equitable access to high-quality care, creating efficient and affordable health care and reducing avoidable barriers to equitable health care.

14. To what extent does your Edge Runner model focus on . . (Select one answer for each)

Activity	0 Not at All	1 Some Extent	2 Moderate Extent	3 Great Extent
Access to services by expanding the reach of current health care services (e.g., telehealth, mobile care, in-home care, special-needs care, medical homes for specific populations), establishing FQHCs or community clinics, expanding behavioral and social services, and patient transportation				
Access to health insurance				
Focusing health care resources on prevention rather than treatment				
Free and low-cost services, such as prescriptions, health and ancillary services, health equipment, and nonmedical supplies and services				
Health care services to vulnerable populations (e.g., elderly, low-income, homeless)				
General wellness and health related community outreach, such as screenings, prevention, primary care, wellness education, support groups, hotlines, websites, educational resources				
Patient needs, including insurance enrollment, connections to health and social resources, financial assistance, community health workers				
Chronic disease management				
Cultural competence and sensitivity among health care providers				
Dental health				
Systems for integrating health care delivery across health care sectors, including physical health, behavioral health, public health, social services, and emergency medicine				
Consumer experience and patient satisfaction				
Efficient and effective coordination of care (e.g., management care teams, nurse care navigators)				
Efficient data and patient information sharing (e.g., through an electronic medical record)				

15. Does your model focus on any other activities that could contribute to Action Area 4 (strengthening integration of health services and systems)? Please explain.

_____

_____

_____

Measures of Success

16. RWJF has identified a number of measurement areas in order to track progress toward a Culture of Health within and across communities. Please indicate the extent to which your model attempts to affect each of these measurement categories.

Category	To What Extent Is Your Model Designed to Address . . .	0 Not at All	1 Some Extent	2 Moderate Extent	3 Great Extent
Social cohesion and shared value of health	A: Community members' mindset and expectations regarding health (e.g., value placed by individuals on health and well-being, public discussion on forums and social networks regarding health, etc.)?				
	B: Individuals' sense of community and social connectedness (e.g., individuals' reports of social support and sense of community)?				
	C: Individuals' civic engagement (e.g., voter turnout or volunteering)?				
Multisectoral collaboration to build health partnerships	A: Enumeration and quality of community partnerships (e.g., proportion of businesses with wellness programs, number of collaborative partnerships with health departments)?				
	B: Investment in cross-sector collaboration (e.g., corporate giving, allocations in giving)?				
	C: Policies that support collaboration (e.g., community policing, climate resilience)?				
Improved and equitable opportunity for healthy choices and environments	A: The built and physical environment (e.g., housing affordability, access to healthy foods, presence of sidewalks or parks)?				
	B: The social and economic environment (e.g., segregation, early childhood education, public libraries)?				
	C: Policies and governance (e.g., air quality, presence of health-promoting policies)?				
Improved quality, efficiency, and equity of health and health care systems	A: Access to care (e.g., access to public health, stable insurance, dental visits)?				
	B: Health care consumer experience (e.g., patient experience surveys)?				
	C: Balance (between prevention and treatment) and integration across health and health care systems (e.g., electronic health record connectedness, hospital partnerships)?				
Improved population health, well-being, and equity	A: Individual and community well-being (e.g., personal health ratings, caregiving burden)?				
	B: Chronic conditions and toxic stress (e.g., adverse childhood experiences, disability associated with chronic condition)?				
	C: Health care costs?				

[IF Q16A WAS 1, 2 OR 3, ASK 17A_1; OTHERWISE GO TO 17B_1]

17. A_1. You indicated that your model addresses [INSERT Q17A RESPONSE CHOICE THAT ACCOMPANIES 17A: community members' mindset and expectations regarding health (e.g., value placed by individuals on health and well-being, public discussion on forums and social networks regarding health, etc)]. Are you collecting any data in this area?

    - ❏ 1 Yes
    - ❏ 0 No
    - ❏ 2 We collected data in this area in the past but are not currently

17. A_2. *[IF 1 Yes or 2 collected in past]* Please list the specific measure(s) you currently are using or used in the past. (2,000 characters maximum)

_____

_____

_____

[IF Q16B WAS 1, 2 OR 3, ASK 17B_1; OTHERWISE GO TO 17C_1]

17. B_1. You indicated that your model addresses [INSERT ANY Q17B individuals' sense of community and social connectedness (e.g., individuals' reports of social support and sense of community)]. Are you collecting any data in this area?

    - ❏ 1 Yes
    - ❏ 0 No
    - ❏ 2 We collected data in this area in the past but are not currently

17. B_2. *[IF 1 Yes or 2 collected in past]* Please list the specific measure(s) you are currently using or used in the past. (2,000 characters maximum)

[REPEAT FOR IF 1, 2, OR 3 ANSWERED FOR Q16C–Q16O]

[IF Q16O WAS 1, 2 OR 3] ASK 170_1; OTHERWISE GO TO 18]

17. O_1. You indicated that your model addresses [INSERT ANY Q17O health care costs]. Are you collecting any data in this area?

    - ❏ 1 Yes
    - ❏ 0 No
    - ❏ 2 We collected data in this area in the past but are not currently

17. O_2. *[IF 1 Yes or 2 collected in past]* Please list the specific measure(s) you are currently using or used in the past. (2,000 characters maximum)

Edge Runner Model Barriers and Facilitators

18. Please select the answer that best describes each factor as a barrier or facilitator of Edge Runner model success (or neither or both). (Select one for each factor)

Factor	1 Significant Barrier	2 Somewhat of a Barrier	3 Little Bit of a Barrier	4 Both Barrier and Facilitator	5 Little Bit of a Facilitator	6 Somewhat of a Facilitator	7 Significant Facilitator	8 Neither Barrier nor Facilitator
Current funding levels								
Future/sustaining funding sources								
Availability of health providers (e.g., physicians, NPs, medical assistants, RNs)								
Physical space available								
Community relations								
Community investment/buy-in								
Local regulations (i.e., scope of practice or zoning restrictions)								
Availability of administrative support								
Community social norms (e.g., local food culture)								
Social economic environment (e.g., neighborhood crime, or socioeconomic status of community members)								
Neighborhood/built environment (e.g., access to parks and sidewalks)								
Overall level of care burden of the patient population								
Support (or lack thereof) from traditional health care stakeholders (i.e., physician organizations)								
Other, specify: _____ _____ *Programmer instructions: Leave areas for up to 5 multiple "others"*								

19. Please summarize how you think your model adds to a Culture of Health.

_____
_____
_____
_____
_____

These are all the questions we have for you. Thank you for completing the survey.

Appendix B: Interview Protocol

Edge Runner Interview Protocol

Introduction

Thank you for taking the time to talk with us today about your Edge Runner model. As part of this interview, we will ask you a series of questions about your specific Edge Runner model of care to understand how the model might be contributing to a Culture of Health. We expect the survey to take 60 minutes and we greatly appreciate your participation in this important work.

The purpose of this interview is to better understand the how various Edge Runner models contribute to a Culture of Health as part of the work that they do. The Culture of Health is a strategic framework of the Robert Wood Johnson Foundation (RWJF) for improving the health and well-being of Americans by creating a society in which all individuals, regardless of their ethnic, geographic, or socioeconomic circumstances, have the opportunity to live the healthiest lives possible. This approach recognizes the importance of social, economic, physical, and environmental factors outside of the health care system that affect the health and well-being of individuals and communities. Such an approach requires health care providers to participate in collaborative activities to address these important social determinants of health. In preparation, we sent you a document with more details about the RWJF Culture of Health initiative.

Informed Consent

Your participation is completely voluntary and you can discontinue the conversation at any time.

Before we begin, I want to assure you that your responses to our questions are held in confidence. No one outside of the research team (composed of researchers from RAND, Hunter College, and the University of Pennsylvania) will see your specific answers. We may use a quote from our interview in a journal article or report but will not attribute it specifically to you without your permission. If we do want to attribute quotes specifically to you, we will ask your permission in advance. Within the research team, we will use the name of your organization to link us to other public documents from your organization. Do we have your permission to contact you in the future to conduct a case study of your organization? [Yes/No]

We would like to take notes during our conversation just so that we can capture all of your important feedback. We will destroy the notes at the end of the project (December 2017). Is this okay with you? We would also like to audio-record the interview to make sure that our notes are

accurate. Are you OK if we audio-record the call? We will also destroy the recording once we ensure the accuracy of our notes.

Let me remind you that your participation is voluntary and if you are uncomfortable with any questions that are asked, please feel free to not respond to the questions. Again, we estimate that the interview will take 60 minutes to cover all the different aspects of your work.

What questions do you have for us? *[Answer any questions and then proceed to interview.]*

Intro/Edge Runner Demographics

1. On the survey you indicated that [INSERT SURVEY RESPONSES for how it started, how the need was identified, the population served and the setting]. Is that still accurate?
2. Is there anything else that you feel is important that we know about your Edge Runner?

Culture of Health Framework

As you know, we are interested in the Culture of Health framework because we feel it aligns closely with what nursing is and what nurses do in general, and specifically with your Edge Runner program.

3. Did you get a chance to review the Culture of Health framework document that we sent before the interview? [IF NOT, provide an overview of the framework, and move to question 4]
4. How do you see the model fitting or not fitting in the work that you do? With your (name Edge Runner program)
5. What are other ways in which you and/or your program affect a Culture of Health in the communities/systems in which you work?
6. As you think about the Culture of Health model—and your Edge Runner program—what is missing? What do you do that is NOT reflected in the Culture of Health but is important to how your program works—and to its success?

Action Area 1

7. On the survey, you indicated that your Edge Runner focuses on [INSERT POSITIVE SURVEY RESPONSES for AA1]. Can you tell me about these activities?
8. On the survey, you indicated that your Edge Runner does not focus [Insert Negative Survey Responses for AA1]. Can you provide any insight into why you don't focus on activities in this area?

Action Area 2

9. On the survey, you indicated that your Edge Runner focuses on [Insert Positive Survey Responses for AA2]. Can you tell me about these activities?

10. On the survey, you indicated that your Edge Runner does not focus [INSERT NEGATIVE SURVEY RESPONSES for AA2]. Can you provide any insight into why you don't focus on activities in this area?

Action Area 3

11. On the survey, you indicated that your Edge Runner focuses on [Insert Positive Survey Responses for AA3]. Can you tell me about these activities?
12. On the survey, you indicated that your Edge Runner does not focus [INSERT NEGATIVE SURVEY RESPONSES for AA3]. Can you provide any insight into why you don't focus on activities in this area?

Action Area 4

13. On the survey, you indicated that your Edge Runner focuses on [Insert Positive Survey Responses for AA4]. Can you tell me about these activities?
14. On the survey, you indicated that your Edge Runner does not focus [INSERT NEGATIVE SURVEY RESPONSES for AA4]. Can you provide any insight into why you don't focus on activities in this area?

Measurement

15. As an Edge Runner, what are you trying to achieve and how do you measure that?
16. Are there secondary outcomes that you've measured or you've seen changes in as a result of implementing your Edge Runner Model?
17. If you had the resources in place, what else would you measure? How?

Attributes of Edge Runner Model Success

1. On the survey, you indicated that [INSERT SURVEY RESPONSES for core facilitators for success] were elements that made your Edge Runner successful. Can you explain how the facilitators you selected contribute to the success?
2. What are the barriers and facilitators to your Edge Runner model being sustainable, scalable, etc., and transferred to other settings?
3. If you had the resources, what would be your short-term and long-term strategies that you have not yet been able to do to build a Culture of Health in the community or population you serve?
    a. What would help you to do these things?
4. What lessons have you learned with regard to affecting a Culture of Health through your Edge Runner model? What advice would you tell other innovative health care professionals who are looking to affect a Culture of Health through their organization?

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