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Research Report

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An Evaluation of a Multisite, Health Systems–Based Direct Care Worker Retention Program

Key Findings and Recommendations

For more information on this publication, visit **www.rand.org/t/RRA1966-1**.

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About This Report

This report presents findings from a mixed-methods evaluation of the Transformational Healthcare Readiness through Innovative Vocational Education Program, or THRIVE, which is a support program for newly hired entry-level caregivers implemented across three health systems and funded by the Ralph C. Wilson Jr. Foundation, which also sponsored this report. The program was intended to improve caregiver retention through a year-long program focused on risk assessment, training, and one-on-one coaching. RAND examined the THRIVE program in light of its targeted outcomes and also identified areas for program improvement. This report is intended for stakeholders interested in supports for direct care workers and ways to potentially address retention issues.

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Summary

The U.S. direct care workforce employs nearly 4.6 million people (PHI, 2021) and is one of the fastest growing occupations in the United States (BLS, 2020). Direct care workers, referred to as "caregivers" in this report, include nursing assistants (NAs), home care workers, and residential care aides, all of whom provide basic care to older adults and individuals with disabilities in different health care settings (i.e., hospitals as well as long-term care and residential settings) (BLS, 2020). Despite a growing need for caregivers and an increasing aging population, supply has not kept up with demand due to high turnover and low wages. In addition, caregivers often face high levels of workplace stress, limited training and growth opportunities, and personal stressors (Stone, 2004). As a result, turnover rates for direct care workers are not only quite high but also vary widely, ranging from roughly 35 percent for certified nursing assistants in hospitals (NSI, 2022) to 65 percent for home care workers (Holly, 2021) and even over 90 percent for caregivers in nursing homes (Gandhi, Yu, and Grabowski, 2020). The turnover rates of direct care workers pose a major challenge for health systems as well as care recipients and workers themselves.

In 2019, the Ralph C. Wilson Jr. Foundation funded three health systems (hereafter referred to as "sites") to support the implementation of a new program: Transformational Healthcare Readiness through Innovative Vocational Education (THRIVE). This one-year program was designed to help address barriers to entry-level caregivers and reduce turnover through a comprehensive risk assessment, training, and one-on-one coaching. Although specific titles vary depending on the site, these entry-level caregivers include primarily NAs or those who provide basic care and assistance with activities of daily living (ADLs) to individuals in hospitals, as well as long-term and home care. The foundation and its health system partners selected the RAND Corporation (RAND) to conduct a process and outcome evaluation to determine whether THRIVE was meeting its goals of improving retention and achieving a positive return on investment (ROI) while also identifying potential areas for program improvement.

Approach

RAND utilized a mixed-methods approach for the evaluation, drawing from secondary sources, including health system administrative data and program data documented by THRIVE staff, and primary sources, including 50 interviews with THRIVE staff and 57 interviews with participating caregivers, a web-based survey of caregivers ($n = 93$), and 15 observations of training sessions. Administrative data were collected for Years 1 and 2 of the program—from June 2019 through May 2020 and June 2020 through May 2021, respectively—and a baseline year, referred to as Year 0, covering June 2018 to May 2019. The Ralph C. Wilson Jr. Foundation paused the program midway through Year 3 (i.e., December 2021) based on preliminary evaluation findings and feedback from sites, so data analyses reflect data collected primarily through Year 2 for administrative data and some of Year 3 for qualitative and other programmatic data.

Key Findings

The evaluation focused on five primary evaluation questions. This report details findings by evaluation question.

- Did retention rates improve during or after THRIVE implementation? Did this vary between voluntary and involuntary reasons for attrition?

  - Retention rates did not improve during THRIVE implementation (i.e., Years 1 and 2 of the program).
  - There were no significant differences in retention between Year 1 (accounting only for the nine months prior to the onset of the COVID-19 pandemic in the United States) and the same nine months in Year 0.
  - There were no identified improvements for either voluntary or involuntary reasons for attrition, and Year 2 had significantly lower voluntary retention rates compared with Year 0.
- How are program- or organizational-level factors associated with retention? How are these factors associated with short-, medium-, and long-term outcomes beyond retention?
  - Pay rate (or wage) and race emerged as significant predictors of retention in both program years; those in the lowest pay category and individuals who identified as black had a higher likelihood of termination (voluntary or involuntary) than those in the highest pay category or those who identified as white. Other predictors included part-time status, identification as "other" race, and gender for certain years or types of terminations.
  - Risk acuity level from the THRIVE risk assessment was not associated with retention.
  - Higher levels of burnout predicted caregiver intent to leave within the next six to 12 months while higher perceptions of THRIVE training were predictive of higher intent to leave.
  - Bring Back Days, six half-day curriculum-based sessions delivered throughout the year, appeared to be consistently associated with improvements in other outcomes including absenteeism, relationships with managers and other colleagues, improved commitment to the organization, and improved commitment to the caregiving field.
- What are the strengths of the THRIVE intervention, including the intervention content and modality and the skill and knowledge of those delivering the content, and what are areas for improvement?
  - Although originally designed to be in person only, THRIVE was implemented both in person and virtually with different degrees of synchronicity and levels of staff cross-training. This appears to be due to challenges around organizational staffing shortages, local requirements, and COVID-19.
  - Reported strengths of THRIVE included enthusiastic and passionate staff who provide work-related, practical, and emotional support to caregivers.
  - While there were positive and negative perceptions of the program among caregivers, there seemed to be an overall indifference to THRIVE among caregivers and a lack of understanding of what THRIVE is and the goals when beginning the program.
  - Reported areas for improvement included adjusting THRIVE activities to better target adult learners; using more respectful language; increasing empathy of THRIVE staff toward caregivers; clarifying roles and responsibilities of THRIVE staff; providing more support and engaging THRIVE staff to reduce feelings of burnout or feeling unheard; and improving program diversity in terms of demographics (e.g., race, age), additional skills, and backgrounds of THRIVE staff members.
- Can THRIVE break even or generate a positive ROI so that it is financially sustainable without philanthropic support?
  - During Years 1 and 2, THRIVE did not break even or generate a positive ROI. This was primarily due to no observed improvements in retention rates in Years 1 or 2 of the program.
  - The average total costs to deliver THRIVE per eligible caregiver was $1,772 in Year 1 and $2,263 in Year 2.
  - To break even, a retention rate of over 100 percent in a 12-month period would have been needed in Years 1 and 2, given program costs; in other words, it would not have been possible to break even, given the observed program average expenditures per caregiver.
- What lessons learned would other sites need to leverage when implementing an intervention such as THRIVE in the future?

  - From a planning and learning perspective, other sites should consider ensuring adequate planning time prior to program implementation; obtaining buy-in from leadership, managers, and other departments throughout implementation; and providing opportunities to learn about implementation from other sites.
  - In terms of implementing the program, RAND developed recommendations focused on clarifying THRIVE staff roles and ensuring diversity in backgrounds across THRIVE staff; establishing better program documentation and tracking systems; and ensuring technology is in place to support virtual or web-based options for the program.

Recommendations

RAND recommends potential actions in three different areas:

- Changes to THRIVE
  - Clearly articulate the goals to health system leadership, managers, and caregivers prior to THRIVE implementation.
  - Increase diversity of backgrounds, experiences, and demographics among those developing and delivering THRIVE.
  - Be mindful of the need for clear documentation of processes as well as program data.
- Alternative interventions to improve retention
  - Involve caregivers in the design of the intervention and throughout implementation to ensure user-centered design is embedded into the program and to help address concerns or considerations around equity for caregivers.
  - Consider alternative interventions that may be more effective for the specified goals (i.e., retention) such as pay rate increases.
  - Consider alternatives to a mandatory or "one-size-fits-all" approach, given the diverse backgrounds of caregivers throughout different health systems, and include a more explicit focus on equitable outcomes.
  - Consider the health systems' readiness and level of supportive culture in determining appropriate interventions, including systemic issues that may be important factors related to retention.
- Future evaluation work
  - Use evaluability assessments prior to program implementation to reflect on the program theory and intended outcomes (including potential variations by job or individual characteristics), feasibility of data collection, and manage stakeholder expectations.
  - Incorporate a broader range of data collection participants to include caregivers who may not be active in THRIVE (e.g., a status of graduated or terminated) as well as caregivers' managers.

Contents

Figures and Tables

Figures

Tables

CHAPTER ONE

Introduction

The U.S. direct care workforce employs nearly 4.6 million people (PHI, 2021) and is one of the fastest growing occupations in the United States (BLS, 2020). Direct care workers, whom we refer to hereafter as "caregivers," are defined as personal or patient care aides (PCAs), home health aides (HHAs), and nursing assistants (NAs). These workers provide assistance with activities of daily living (ADLs) and instrumental ADLs to individuals in hospitals, long-term care, and home settings (Campbell et al. 2021; Scales, Altman, and Campbell, 2020; BLS, 2020). These roles require both technical and interpersonal skills for providing physical and emotional support to care recipients and communicating with other members of the care team and family members. Direct care workers are predominantly women and people of color, and roughly one in four workers are immigrants to the United States (PHI, 2021).

Despite an increasing need for caregivers, particularly given the aging population, direct care work also has a high turnover rate, ranging from roughly 35 percent for certified nursing assistants (CNAs) in hospitals (NSI, 2022) to 65 percent for HHAs (Holly, 2021) and even over 90 percent for caregivers in nursing homes (Gandhi, Yu, and Grabowski, 2020). Shortages and high rates of turnover threaten not only the efficiency of the health and long-term care system but also the quality of care that individuals receive (Stone, 2004). Caregiver turnover is a major issue for hospitals, assisted living facilities, and homecare providers as well as care recipients and the workers themselves. Hospitals, assisted living facilities, and homecare providers face a compounding turnover issue as those who stay must take on extra work each time a coworker leaves to fill the now understaffed hours, as well as train and observe new employees until they are at least as productive as the caregiver who left.

Turnover has several major causes, and the impact of each is indeterminate in the literature, but some factors and effects are generally agreed upon. Low wages are often considered the primary reason direct care workers leave their jobs in the first 12 months (Espinoza, 2017). Direct care workers earn low wages, which have not aligned with the increasing need for direct care workers in the last ten years (Campbell et al., 2021). Reimbursement rates from Medicaid pose challenges for increased wages (Campbell et al., 2021), and higher wages may affect workers' eligibility for public benefits, which may in turn reduce their overall compensation (Cook, 2017). Other factors related to turnover include lack of training, benefits, mentoring, and growth opportunities, as well as workplace stress (burnout), personal stressors, short staffing, and negative relationships with other staff (Stone, 2004).

Barriers to entry-level caregivers also affected retention, and in 2019, the Ralph C. Wilson Jr. Foundation provided approximately $15 million in grant funding to three health systems, or sites, to support the implementation of a new program to address these barriers and thus improve retention rates at each of the health systems: Transformational Healthcare Readiness through Innovative Vocational Education (THRIVE).[1] This program was designed to help address barriers that entry-level health care caregivers, namely NAs, may face when first starting their position,. To accomplish this, the program aimed to address life skills (i.e., challenges related to decisionmaking, problem-solving, communication, and relationship-building as well as tar-

[1] The health systems also provided some funding support to cover expenses such as fringe benefits for participating caregivers.

TABLE 1.1
Initial Planned Components of THRIVE

Component	Description
Risk Assessment	• The multicomponent baseline assessment of risk areas facing caregivers including (1) a web-based survey tool (SuccessGPS) measuring inter- and intrapersonal skills; and (2) a coach assessment.
	• Each assessment resulted in a score; these scores were combined for a total risk level characterized by three categories: high, medium, and low risk.
	• The risk levels were then used to tailor needed supports throughout the year, with those at higher risk levels requiring more intensive supports (e.g., in-person coaching) than those at lower risk levels.
Curriculum	Core Classes:
	• A four-day core, in-person program that was focused on topics such as teamwork, goals, budgeting, remaining calm and self-care.
	• Program consisted of lectures, individual and group activities, and reflective journaling.
	Bring Back Days:
	• Six half-day in-person sessions were delivered throughout the year.
	• Sessions were focused on topics such as patient safety and experience, diversity and inclusion, prioritization, and career and life planning.
Coaching	• In-person and phone support were based on the individual's risk level, including support for foundational life skills and helping caregivers feeling valued in the organization.
	• The caregiver could participate in 0 to 12 sessions over the year.

diness and attendance issues) as well as financial needs (e.g., costs of uniforms and supplies, absenteeism due to inability to secure transportation or childcare or working multiple jobs).[2] The THRIVE program centered on year-long supports for the first year of employment as a caregiver, including a baseline risk assessment, enhanced training and associated curriculum on life skills and financial topics, and one-on-one coaching.

THRIVE was implemented in a number of facilities at each site. These were primarily hospital settings within each health care system although caregivers serving clients in nursing homes and home health settings were also included at one site. The program was required, or mandatory, for newly hired eligible caregivers. Eligibility was broad: Only caregivers who did not start work due to reasons such as failing to pass background checks or drug screening tests or caregivers who were nursing students or enrolled in school at their hire or transfer date were not eligible for the program. There was no opt-out option for caregivers who did not want to participate.

Table 1.1 provides a brief explanation of each planned component of THRIVE.

In addition to these program components, THRIVE also provided resources (e.g., information on tuition reimbursement or scholarships) to caregivers to supplement their experience and address certain identified needs (e.g., transportation, uniforms).

The foundation and the implementing health systems engaged RAND as an evaluation partner near the beginning of the program, in June 2019. RAND was tasked with developing and conducting a process and outcome evaluation of THRIVE, with a specific focus on assessing changes in retention (the primary intended outcome).

[2] THRIVE originally proposed including an academic component (i.e., addressing deficiencies in math and/or reading and other variabilities in vocational preparation) to improve work readiness and other potential interventions such as a mobile lab but these components were not implemented or included in plans for the initial launch of THRIVE.

CHAPTER TWO

Evaluation Design

The goal of the evaluation was to determine whether THRIVE affects retention rates in participating systems as well as whether the model is financially sustainable. In addition, because THRIVE is a new program, the evaluation also included a process-focused component to inform ongoing improvements and adjustments to THRIVE across settings.

The evaluation was designed to use a developmental evaluation approach in determining areas for ongoing improvement, the ability of THRIVE to affect retention rates, and the financial sustainability of THRIVE. Developmental evaluation offers an alternative to traditional approaches of formative and summative evaluation by focusing on adaptive development and changing a program due to contextual changes, target population changes, learnings, and/or identification of a viable alternative and allows for real-time feedback (Miller, 2016; Shea and Taylor, 2017). This approach requires a commitment to innovation, a readiness to take risks, tolerance for ambiguity, flexibility, and a commitment to adaptive learning (Patton, 2015). Developmental evaluation also emphasizes a long-term partnership between program staff, funders, and the evaluation team. However, due to challenges in collecting and sharing data across several large health systems, this approach was not used as intended in that we were unable to have open conversations with different stakeholders throughout the project due to requirements for data use and data sharing agreements.

Evaluation Questions

In collaboration with representatives from the foundation and the three participating partner sites, the evaluation team identified five primary evaluation questions:

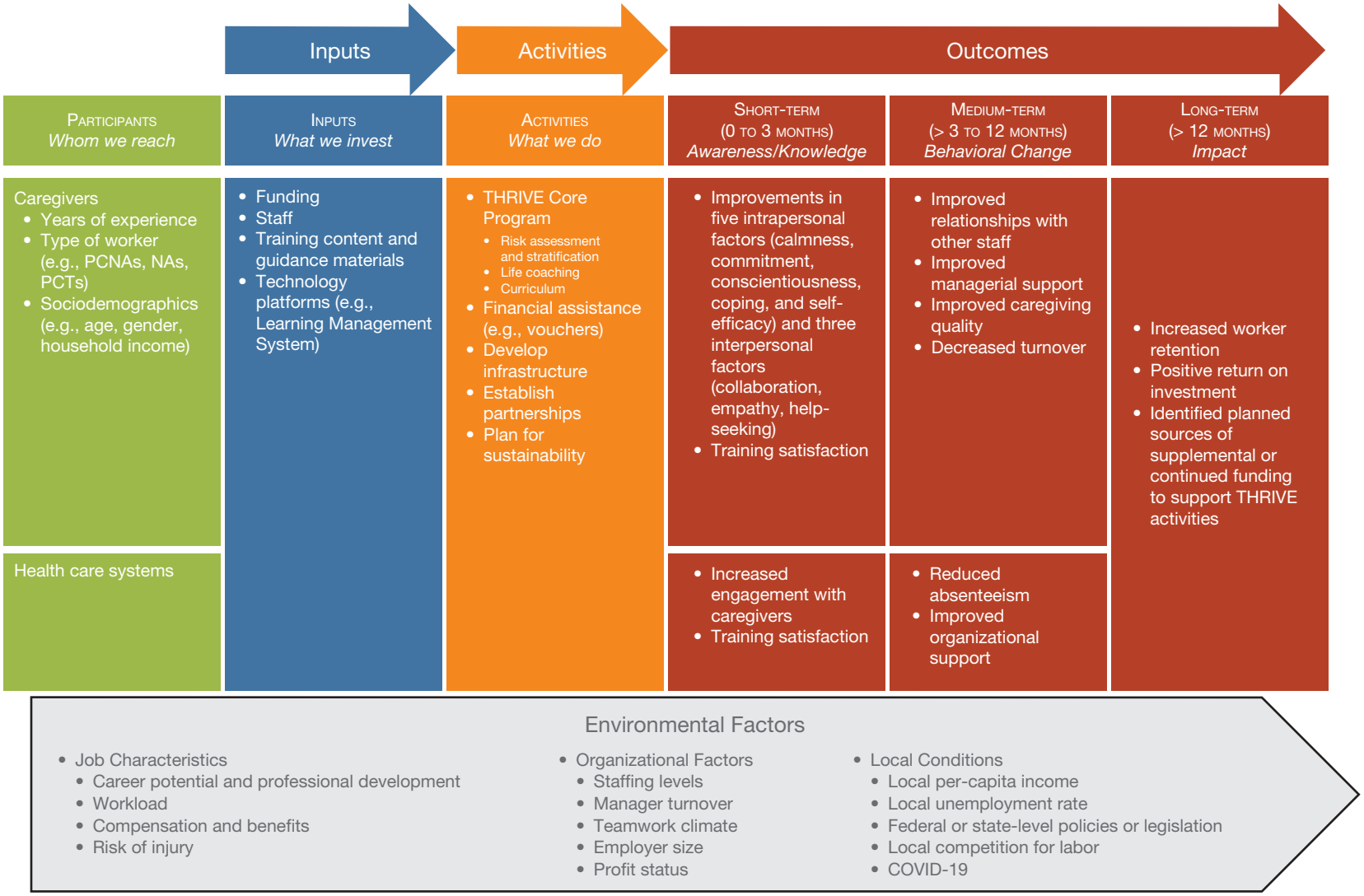
- Did retention rates improve during or after THRIVE implementation? Did this vary between voluntary and involuntary reasons for attrition?
- How are program- or organizational-level factors associated with retention? How are ways these factors associated with short-, medium-, and long-term outcomes beyond retention?
- What are the strengths and opportunities for improvement of the THRIVE intervention, including the intervention content, modality, and skill and knowledge of those delivering the content?
- Can THRIVE break even or generate a positive return on investment (ROI) so that it is financially sustainable without philanthropic support?
- What lessons learned would other sites in the future need to leverage when implementing an intervention such as THRIVE?

Evaluation Logic Model

In the summer of 2019, RAND synthesized and organized the background information to describe the program and articulate the overall program logic in a logic model (Figure 2.1) based on the vision for and expla-

FIGURE 2.1

Evaluation Logic Model



nation of the program. The existing program materials RAND had access to did not include supporting literature or other citations to support the various proposed relationships in this pathway. However, the logic model served as a tool to visualize and organize the potential pathway of how the program might affect caregiver retention (i.e., the primary program goal). These logic model elements helped demonstrate the potential influencing factors on THRIVE from the beginning of the program and were used to guide the development of data collection instruments as well as analyses. While we attempted to include as many variables as possible in the evaluation, some were not included due to data availability (e.g., household income), external circumstances (e.g., plans for sustainability given that the program paused in December 2021), or lack of measures (e.g., improved caregiver quality).

The foundation invested significant funding to three sites to implement THRIVE, and each health system in turn used such funding to hire staff and finance infrastructure improvements to implement and improve the THRIVE program in their local systems, such as building and maintaining technology platforms and other resources to support learners' activities. THRIVE was implemented in approximately ten to 12 facilities in each site.

The planned THRIVE model consisted of three major core components:

- *Curriculum.* A competence-based, learner-centric curriculum with a four-day core program, blending individual and group learning, and follow-up educational sessions (called "Bring Back Days" throughout the first year in the job. The four-day program agenda blends individual and group learning sessions.
- *Risk Assessment.* A baseline risk assessment for each participating caregiver to determine the appropriate level of supports.
- *Coaching.* An assigned coach to provide regular check-ins and support based on the risk assessment.

In addition to these core components, foundation funding also supported a program manager, infrastructure investments, and supplemental activities such as financial assistance, partnership development, and sustainability planning.

The primary outcomes of interest were (1) improving retention rates at the implementing health systems and (2) creating a model that can be sustained without philanthropic investment and replicated by other health systems. Note that we focus on retention in this evaluation (i.e., the consistency of the workforce) as opposed to turnover (i.e., the pace of workers' exits) (Kennedy, Applebaum, and Bowblis, 2020) and predominantly use the term "retention" throughout the report. However, as some view the terms interchangeably, this report may use the term "turnover" when citing relevant literature or when referring to points made by staff or caregivers when they used "turnover" terminology in lieu of "retention."

Other potential short- and medium-term outcomes included factors such as program satisfaction, increasing caregiver knowledge and awareness, and improved interactions with other staff. Finally, there are a range of external factors that may affect caregiver retention. At the organizational level, professional development opportunities, career advancement, and positive treatment by managers have been found to be drivers of engagement and retention, particularly among young employees (Gilsdorf, Hanleybrown, and Laryea, 2017). In terms of benefits and compensation, higher wages, work schedule flexibility, health insurance, overtime pay, and paid time off, as well as retirement plans are also important to young employees (Gilsdorf, Hanleybrown, and Laryea, 2017). While some of these factors cannot be captured or assessed by evaluation activities, it is important to recognize their potential impact when reviewing and interpreting findings.

Data Collection

This evaluation utilized a mixed-methods design drawing from secondary and primary sources of data to assess the evaluation questions of interest.[1] These sources are described more fully in this section.

THRIVE materials and data. Prior to the initial kickoff meeting, the three sites implementing the program shared materials, including a THRIVE facilitator guide, descriptive information about SuccessGPS (a web-based risk assessment form) including associated constructs, a THRIVE coach training deck and guide, a coaching visit template, and formative and summative assessment questions for the curriculum. One of the sites served as the primary developer of the materials, although it also obtained input from other sites during implementation. RAND reviewed these materials to inform the development of data collection and improve the understanding of the program. RAND also received updated materials during the implementation period as items were updated. In addition, RAND received updates to the Caregiving Tracker, which is an Excel-based form that sites used to track programmatic data about THRIVE participants, such as their risk level, coach, THRIVE start date, and current status (e.g., active, terminated). Appendix A details sample fields from this tracker used for the evaluation.

Health system administrative data. We collected individual direct care worker data from partner organizations. These data were requested on an annual basis with program years beginning in June and ending in May (i.e., Year 0 is June 2018 to May 2019; Year 1 is June 2019 to May 2020; and Year 2 is June 2020 to May 2021). We worked with partner organizations to verify the feasibility of collecting each data point covering a 12-month period (i.e., Year 0 was the 12 months prior to the start of THRIVE implementation; Year 1 was the first 12 months of THRIVE implementation). Major data elements we requested included the following:

- THRIVE intervention start date
- Hiring date, transfer date, and termination date (as applicable) for each new caregiver
- Caregiver characteristics at the time of hire
  - Age, gender, race/ethnicity
  - Education, marital status
  - Number of years of experience as a direct care worker, certificates in direct care
- Position characteristics at the time of hire
  - Part-time versus full-time position
  - Workload in number of hours, night shifts
- Termination status (voluntary or involuntary) and reason
- Organizational-level characteristics
  - Direct care worker staffing level (e.g., number of workers per 100 hospital beds)
  - Employment size

Implementation Tracker. The Implementation Tracker was sent to program managers quarterly to capture the number of enrolled THRIVE participants (via Excel) and other relevant programmatic data through SurveyMonkey. See Appendix B for sample fields.

[1] The evaluation originally planned for quarterly learning network discussions. The learning network consisted of partners and the RAND team to offer an ongoing opportunity for reflective discussions on THRIVE implementation and evaluation findings. Only one learning network discussion was held due to challenges and delays obtaining data use agreements and organizational approvals to collect needed evaluation data.

TABLE 2.1
Observation Data Collection Summary

	Year	# Sites	# Observations	Range of Days	Avg Hours Observed per Day[a]
Core Training	1	0	N/A	N/A	N/A
	2	3	6 (2 at each site)	2–3	7–8.5
	3[b]	3	3 (1 at each site)	2–3	7–8
Bring Back Days	1	0	N/A	N/A	N/A
	2	3	3 (1 at each site)	1	1–8.5
	3	3	3 (1 at each site)	1	2–8.5

[a] Includes modules observed.

[b] THRIVE was paused in Year 3, so RAND conducted only one set of observations.

THRIVE observations.[2] RAND conducted remote observations of core classes and Bring Back Day sessions conducted either in person or virtually, depending on site-level restrictions, at each participating health system (see Table 2.1). RAND also observed the computer-based learning modules for Bring Back Day sessions that were developed and used by one site during COVID-19. The aim of the observations was to understand potential differences or adaptations across health systems and identify relevant strengths and weaknesses at each site. Core classes for each site were evaluated roughly every six months beginning in August 2020, and Bring Back Day trainings were observed roughly every six months beginning in December 2020. Six team members trained in participant observation observed the training, and at least one RAND team member was present to observe each session.

Trainings were assessed on eight components, including (1) visual aids and supports, (2) interactions with participants, (3) content knowledge, (4) respect for content, (5) organization/delivery of content, (6) individual style, (7) activities, and (8) time management. RAND reviewed each of these eight components and corresponding scoring prior to observing in order to clarify any questions and ensure standardization across multiple observers. Observation data were entered into a form on SurveyMonkey and exported to Excel for analysis. Evaluation team members internally discussed key themes including strengths and areas for improvement following each round of observations.

Interviews. RAND conducted three rounds of interviews with staff members in the spring of 2020, the fall of 2020, and the spring of 2021 (see Appendix C for sample staff interview guide). Staff members interviewed at each site included the THRIVE program manager, educators, workforce coaches, program support/data specialists, and leadership representatives from the health system, including those from human resources, chief nursing officers, and directors for nursing education. Staff interviews were conducted by four researchers trained in qualitative research. Interviews were conducted by phone and audio recorded, and a notetaker transcribed the interview from the recording. One respondent declined audio recording, and the interviewer took notes during the interview. Interviews averaged 56 minutes to complete.

During the spring and summer of 2021, we conducted interviews with caregivers who participated in the THRIVE program (see Appendix D for sample interview guide; Table 2.2 presents a data collection summary for all interviews). To be eligible for the interviews, caregivers needed to be currently enrolled in THRIVE.

[2] The evaluation plan originally intended to conduct site visits twice annually to observe THRIVE curriculum implementation and interview staff and caregivers in person. Due to delays in approvals for data collection from partner sites and the COVID-19 pandemic, all observations and interviews were conducted virtually and/or over the phone.

TABLE 2.2
Interview Data Collection Summary

	Year	# Sites	# Contacted	# Interviews	Response Rate (%)
Staff	1	1	5	5	100
	2	2	13	24 (13 individuals)	100
	3[a]	3	21[a]	21	100
Caregivers	1	0	N/A	N/A	N/A
	2	2	75[b]	22	29.3
	3	3	119[c]	35	29.4

[a] One site used an opt-in approach to the evaluation with a web-based form before staff or caregivers could be invited to conduct an interview. Two staff members did not complete the form so are not included here as the number contacted.

[b] Eighty caregivers contacted, but five emails were undeliverable, so the response rate is calculated with 75 as the denominator.

[c] The number of attempted caregiver contacts was 123, but four emails were undeliverable, so the response rate is calculated with 119 as the denominator.

RAND selected a proportion of caregivers (e.g., 40 caregivers to oversample to achieve a target number of 20) at each site using a stratified sampling approach based on risk stratification level (i.e., high, medium, and low) and facility within the health system.[3] Caregivers were at different stages of their participation in THRIVE at the time of the interview (e.g., some had been enrolled in THRIVE for two months while others had been enrolled for closer to 12 months). The caregivers we interviewed varied in terms of job characteristics, including worker type, shift (day/night shift), and hours worked (full time, part time). Participants were primarily women. Both job and demographic characteristics largely aligned with the characteristics of the overall population served by THRIVE (see Chapter Three). We reached out to caregivers by email with three attempts to contact them at two of the sites and two attempts at the third site. For caregivers who had completed RAND's evaluation survey, described in the next subsection, but who did not respond to our request for an interview, we sent a fourth email (except for one site, which was limited to two follow-up attempts). Caregiver interviews were conducted by four researchers trained in qualitative research and lasted on average 36 minutes (range of 18 minutes to 60 minutes). Interviews were conducted by phone and audio recorded, and a notetaker transcribed the interview from the recording. Caregivers received Amazon e-gift cards for participating in the interview: $50 for caregivers from two sites and $25 for caregivers from a third site.[4]

Interviews with THRIVE staff focused on the different components of THRIVE, their perceptions of the most/least effective components, perceptions of caregiver retention, and organizational factors associated with retention. The caregiver interview protocol focused on caregiver perspectives on THRIVE as a whole, different components of THRIVE, and experiences at the health system. The interview protocols for both THRIVE staff and caregivers evolved throughout the various rounds of data collection to probe interviewees on topics and themes that seemed to be of importance based on our analysis and findings to date. We revised the protocols following each data collection round to probe additional emerging salient themes from our findings to date (see more on the data analysis process below).

[3] One site had an "opt-in" approach to the evaluation—meaning that caregivers needed to express interest in being contacted about potentially being interviewed for the project—so the sampling universe was limited to only those who opted in using a web-based form, thus substantially limiting the potential number of respondents.

[4] RAND intended to provide the same gift card amount to caregivers from all three sites but restrictions at one site prevented this from occurring, resulting in one site allowing RAND to provide $25 gift cards instead of $50 gift cards.

Caregiver Survey. Caregivers across health systems have not only a variety of backgrounds but also different experiences. To gather consistent information across sites, we developed and administered a survey to analyze quantitative data on outcomes and relevant process measures. This ~15-minute survey was intended to serve as a complement to qualitative data from interviews and to be administered annually. However, due to delays in obtaining approvals and the early program pause, the survey was administered only once (i.e., in February, March, and July 2021 at the different sites).

The survey could be sent only to active caregivers (i.e., enrolled in THRIVE at the time, not those on leave, graduated, or terminated). At the time of survey administration, there were approximately 820 active caregivers. The largest site required that active caregivers "opt in" to the evaluation and had to indicate interest in receiving a survey. Thus, the effective pool of active caregivers that were sent a survey was 318, as only 16 percent of caregivers at the largest site indicated interest in receiving a survey link. The response rate for the survey was 29 percent (n = 93). However, of all caregivers active in THRIVE, we received survey responses from approximately 11 percent (93 out of 822). Appendix E details the survey questions and associated frequencies for the survey respondents.

Analysis

As data were collected, RAND implemented steps to ensure the data were ready for analysis including data cleaning, blinding where needed, and preparing files for cross-site analyses (see Appendix F for additional information regarding data security and quality assurance). For the purposes of this evaluation, RAND, the foundation, and the three health systems agreed to aggregate the data at the cross-site level for analysis and reporting purposes.

Qualitative analysis. Interview transcripts were blinded and uploaded to Dedoose (SocioCultural Research Consultants), a qualitative software program to facilitate systematic coding. A preliminary codebook was developed from the interview protocols and primary evaluation questions. A preliminary set of five interview transcripts were coded, and the codebook was further refined to reflect new codes and themes in the data. The initial transcripts were then recoded with the revised codebook, followed by the remaining transcripts. We used a thematic approach to code the data (Ryan and Bernard, 2003).

Three members of the research team coded the transcripts, and a combined kappa score of 0.87 was achieved among the three coders using the test feature in Dedoose (McHugh, 2012). Members of the coding team kept a running log of questions about coding and discussed discrepancies and emerging themes on a regular basis. Following data coding, the team used a rigorous framework matrix for analysis to identify key themes across interview data by corresponding evaluation question. This process included reviewing coded excerpts and identifying commonalities and patterns across responses that emerged spontaneously (i.e., not necessarily by prompting the respondent) in the interviews.

The team used a similar analytical approach for the observational data including using the exported files of each observation to identify primary themes, and it discussed key findings following each round of observations. The observational data were integrated with the interview data to formulate key findings across sites and data type.

We analyzed interview and observational data simultaneously throughout data collection during the course of the project. Following each round of data collection of interviews with THRIVE staff and caregivers and observations of THRIVE core classes and Bring Back Days, we analyzed the data and identified and discussed emerging themes across team members. We used these salient themes from the ongoing analysis to revise the interview protocols for the next round of data collection, including probing interviewees on important items of interest and adding or revising questions based on our findings to date. Because of these changes made to the interview protocols based on important themes the team identified throughout the evaluation,

TABLE 2.3
THRIVE Program Year Start and End Dates

Program Year	Start Date	End Date
0	6/1/2018	5/31/2019
1	6/1/2019	5/31/2020
2	6/1/2020	5/31/2021

some questions may not have been asked of all respondents. In this report, we highlight themes that were identified both in response to specific questions and spontaneously raised (e.g., without prompting or a leading question). We use the following frequency rule to describe the number of respondents who mentioned a particular theme:

- few: less than 10 percent of participants
- some: more than 10 percent but less than 40 percent
- many: more than 40 percent but less than 75 percent
- most: more than 75 percent but less than 95 percent
- almost all: all participants or the vast majority (> 95 percent) gave similar answers and the rest did not comment.

Retention analysis. The retention analysis focused on describing the trends in retention rates and conducting discrete-time survival analysis to assess the effect of THRIVE on retention for each program year. We modeled the amount of time in months it takes for a new hire to leave the organization. We controlled for individual factors (e.g., age, gender, race) that may have differed across health systems and over THRIVE years. To estimate the impact of THRIVE, we used the results of the model to predict retention rates of hires in Year 1 and Year 2 if they had been hired before the implementation of THRIVE.

In our models, a unit of observation is an employment episode in a program year. For individuals with multiple episodes, we consider only their most recent episode. Program years run from the beginning of June to the end of May.

We followed a worker until termination or the end of the program year, whichever came first. Due to continuous hiring throughout the program year, this means that our data were censored, and we did not follow individuals for a full 12 months for our primary analyses. We account for this in the selection of a survival model, plus we complete a sub-analysis for the subset of employment episodes for which we have 12 months of data.

Our analysis was limited to hires who were eligible for THRIVE, whether they actually completed the training. This "intent to treat" approach avoids overoptimistic estimates of an intervention's effectiveness by accounting for likely deviations in implementing the program and avoiding "cherry-picking" of caregivers to include those that may have had more positive outcomes (Gupta, 2011).

We define the THRIVE-eligible population as new hires or transfers to a position with direct patient care. We exclude hires who never started work due to reasons such as failing to pass background checks or drug screening tests[5] and caregivers who were nursing students or enrolled in school at their hire or transfer date. Individuals who transferred to a position without direct patient care were excluded, but other transfers were treated as a continuous period of employment.

[5] If a site did not provide this information, RAND used termination reasons to exclude such individuals.

RAND also conducted sub-analyses to examine terminations due to voluntary and involuntary reasons as well as retention for the time period prior to the beginning of the COVID-19 pandemic. We also conducted secondary analyses to assess the impact of applying probability weights across the three sites to contribute equally to the overall analysis.[6] More detailed methodology on the primary and sub-analyses can be found in Appendix G.

Testing associations between program and organizational factors with short- and medium-term outcomes. The logic model for this evaluation includes some natural hypotheses that our team intended to explore primarily through responses to the Caregiver Survey. Specifically, we were interested in examining the extent to which factors that reflected program- and organizational-level constructs were associated with THRIVE caregivers' intent to leave their current position. In the survey, we measured four different types of job-related factors focused on perceptions of caregiver burnout (four items; Tage et al., 2005), teamwork climate (three items; Sexton et al., 2006), supervisor support (three items; Eisenberger et al., 2002), and organizational support (three items; Eisenberger et al., 1986), as well as three programmatic factors focused on perceptions of THRIVE components (i.e., core classes, three items), Bring Back Day sessions (three items), and coaching (three items). To justify that a summary construct was appropriate for each of the job-related and programmatic factors, we examined the internal consistency (i.e., Cronbach's alpha) of each measure to ensure that the items within that measure were strongly associated with each other. We found adequate Cronbach's alpha (i.e., equal or greater than .70) for all factors (burnout $\alpha = .84$; teamwork climate $\alpha = .78$; perceived supervisor support $\alpha = .94$; perceived organizational support $\alpha = .94$; core training; $\alpha = .84$; Bring Back Day sessions; $\alpha = .83$; coaching $\alpha = .97$). For outcomes (e.g., caregiver intent to leave and recommendations of THRIVE), we examined whether data transformation was necessary given unbalanced frequencies for response options and dichotomized responses for one measure—intent to leave (one item; Burmeister et al., 2019)—so that we could run some exploratory analyses.

The final survey sample size was 90 respondents across the three sites.[7] While the sample size was lower than ideal given the numerous data challenges we faced (see section on "Limitations and Caveats" below), we still ran descriptive statistics, regressions, and other tests of association (e.g., chi-square analyses) as an exploratory approach to better understand the survey data and potentially inform future data collection efforts. The small sample sizes from the survey placed limitations on inferences that could be drawn because these models were underpowered. Due to the small sample sizes and exploratory nature of this analysis, we did not apply Bonferroni's correction to the significance level (.05) tested. We also believe that statistical artifacts, such as suppression,[8] might have occurred in some analyses, but we were unable to test for these given the small sample sizes. While the survey data presented significant limitations, we were able to link the administrative data and Caregiver Tracking data and were thus able to explore individual- and job-level factors (e.g., gender, race/ethnicity, pay rate) against retention outcomes with a much larger sample size.

Return on investment analysis. To understand the program's ROI, RAND incorporated costs (i.e., program cost data, including salaries, fringe benefits, fixed asset depreciation, office space, outside service

[6] Due to variation in sample sizes across three sites, we created probability weights so that the three sites would contribute equally to the overall analysis as part of a robustness test; this did not change the findings.

[7] We computed a priori power analyses using G*Power (Faul, Buchner, and Lang, 2009). Assuming a linear regression model with eight predictors, there would need to be a sample size of at least 160 respondents to detect a small effect size of .15, while 100 respondents would be needed to detect a medium effect size of .25. For logistic regressions, methodologists such as Long (1997) recommend sample sizes of at least 100 participants.

[8] Suppression occurs when one predictor variable changes or suppresses the relationship that another predictor variable has with an outcome variable (Ludlow and Klein, 2014). For example, if two predictor variables are correlated with each other and an outcome variable, the association between one predictor variable and the outcome variable might be different (i.e., negative) because of the presence of the other predictor variable.

expenses, and other materials and expenses) and benefits (i.e., human resource data, including advertising for caregiver recruitment, onboarding expenses, orientation and training expenses, and overtime or substitute worker expenses) and compared them with the program's actual retention. RAND then computed the monetary value of these changes to derive an estimate of ROI, using the following equation:

$$\text{ROI} = \frac{\left[\text{program benefit} - \text{program cost}\right]}{\left[\text{program cost}\right]}.$$

More detailed methodology can be found in Appendix H.

Limitations and Caveats

The evaluation ran into several limitations that affected the utility of the data collected and the conclusions that could be drawn from the findings. The first major challenge was consistently collecting needed data in a timely manner across sites. This was frequently due to delays in obtaining final signed nondisclosure agreements and data sharing agreements, as well as institutional review board (IRB) approval from one site that needed its own IRB in addition to RAND's. These delays prevented RAND from collecting any qualitative data during Year 1, with the exception of staff interviews at one site in May 2020 (the very end of Year 1). These delays also led to an inconsistent data collection cadence across sites. The team also did not observe any components of THRIVE (e.g., core classes and Bring Back Days) prior to the start of the COVID-19 pandemic, so all observations were conducted remotely by RAND and after adaptations were made to the curriculum due to the pandemic.

After receiving necessary approvals, RAND experienced data quality issues with the administrative data from partners, and substantial additional time and resources were required to understand the data (e.g., speaking with various staff at different partner sites) and make necessary adjustments or corrections prior to analysis. This delayed RAND's ability to conduct analyses of the data. Further, not all sites provided data on all requested fields, thus limiting the ability to integrate variables (e.g., education, workload) that may have had an impact on outcomes.

Additionally, while RAND requested data only annually from sites to reduce burden, this approach of collecting reported data by program year instead of on a rolling basis affected the retention analyses in two important ways. First, because hires and terminations occur throughout the program year, we do not have the same number of months of data for all individuals. This censoring of the data limits the modeling approaches and potentially adds error to estimates. Second, we were not able to measure any potential gains or losses beyond the end of the program years. There may be changes in retention, absenteeism, or recruiting many years beyond the hiring date that could be estimated but this would require data collection beyond the grant period.

The evaluation's interviews and surveys were limited by the sampling universe. Although we employed an approach to blindly select interview respondents based on their risk level and site of employment, the universe was limited to active caregivers in THRIVE. RAND was unable to include those who were terminated from the organization, transferred to a non-THRIVE-eligible position, or who had graduated. In addition, while RAND hoped to institute a census for the survey, one site would not allow this approach and instead required an "opt-in" approach for the evaluation before being asked about the survey or interview. Because all caregivers received invitations to participate via email, and although some sites sent text reminders to participants to check their email, only those caregivers who regularly checked their email would have seen the invitation. This was a concern discussed in advance of outreach. Thus, we suspect our sample of participants

may have been biased given the response rates and limited sampling universe. Finally, to address some of the evaluation questions, we rely on self-report survey and interview data from caregivers. While self-reported data are invaluable to understand important perspectives about THRIVE and potential factors influencing retention, we acknowledge that self-reported data have some degree of bias given the subjective nature of the data.

Based on observations and interview data, RAND concluded that THRIVE was not implemented consistently across all three partner sites. Such inconsistency introduced a significant challenge to the cross-site evaluation because the intervention being examined lacked fidelity across partners, which affected potential inferences drawn across sites. The program also did not consistently document certain aspects of THRIVE (e.g., number of coaching sessions), and this inconsistency presented challenges for examining how program components may be associated with outcomes.

In addition, COVID-19 further affected the consistency in THRIVE delivery across sites, compounding these challenges. The COVID-19 pandemic also limited RAND's ability to travel to sites to conduct in-person visits for observations and interviews. While RAND conducted virtual observations and phone interviews, their virtual nature meant that some classroom dynamics may not have been observed. Finally, COVID-19 presented a challenge for the evaluation in terms of the analysis, particularly given the lack of a control group. While RAND's approach to examining retention before COVID-19 affected health systems in March 2020 (i.e., a nine-month analysis described in more detail in Evaluation Question 1 and Appendix G) provides the strongest analytic approach given available data, it does not provide insight into the effects of COVID-19 on THRIVE.

CHAPTER THREE

Evaluation Findings

To provide some context for the findings of this report, we begin this chapter with descriptive information regarding THRIVE implementation over the evaluation period.

THRIVE Implementation

From June 2019 to January 2022,[1] THRIVE served 2,881 caregivers according to information shared in the sites' Caregiver Tracker. The vast majority of these caregivers were new hires who participated in THRIVE before beginning work on the floor. However, there were some exceptions at certain sites (e.g., some individuals were not connected during a break in the program during the pandemic and were invited later; some may not have been linked in a timely manner with human resources [HR]). RAND explored descriptive characteristics of participating caregivers by linking the administrative data with the Caregiver Tracker data. As data were collected only from the administrative sources in Years 1 and 2 due to the program pause, these characteristics reflect participants in the first two years of the program ($N = 2{,}155$). Most of these caregivers (81 percent averaged across both years) were in an NA role (either a PCNA, CNA, or NA) while 16 percent were patient care technicians (PCTs) or PCAs. The majority of THRIVE participants were full time (65 percent) with approximately 23 percent who were part time, and approximately 12 percent classified as pro re nata (PRN) (see Table 3.1).

Demographic characteristics are presented in Table 3.2. Participants were predominantly in the 20 to 29 age range (a little over 60 percent) and identified as women (~86 percent). Over 45 percent of caregivers identified as black or African American, while approximately 38 percent identified as non-Hispanic white.

Sites began delivering THRIVE in June 2019. Caregivers were continuously enrolled in the program throughout the evaluation period, although enrollment numbers varied due to individual health system staffing needs as well as COVID-19 (i.e., some periods when hiring was paused). Figure 3.1 presents THRIVE enrollment over time; the highest period of enrollment was in June 2021.

As of January 31, 2022, the THRIVE program had just under 700 participants still in the program, with close to 900 who had graduated (i.e., were in the program for one calendar year), over 1,200 who terminated from the health system, and close to 60 who transferred to a non-THRIVE-eligible position. Table 3.3 presents a snapshot of the overall program status as of January 31, 2022.

[1] The program was paused beginning in December 2021 based on the foundation's assessment of the preliminary findings RAND presented in the fall of 2021. One site continued to enroll new participants in early January.

TABLE 3.1

Participating Caregiver Job Characteristics

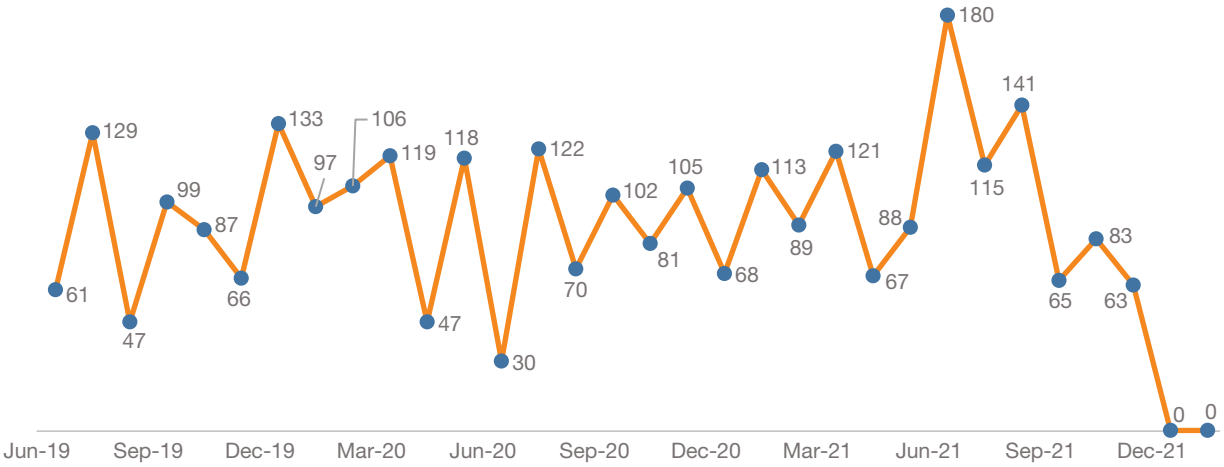
Characteristic	Year 1 Percentage (*N* = 1,153)	Year 2 Percentage (*N* = 1,002)
Role		
Nurse assistant (PCNA, CNA, NA)	77	85
Patient care technician or aide (PCT, PCA)	19	16
Other	3	3
Job status		
Full-time	65	65
Part-time	24	22
PRN	11	14
Shift		
Work involves night shift	43	50
Work does not involve night shift	66	49

TABLE 3.2

Participating Caregiver Demographic Characteristics

Characteristic	Year 1 Percentage (*N* = 1,153)	Year 2 Percentage (*N* = 1,002)
Age		
19 and under	6	10
20 to 29	61	63
30 to 39	21	18
40 to 49	8	7
50 and over	3	3
Gender		
Women	86	87
Men	14	13
Race and Ethnicity		
Black or African American, non-Hispanic	48	45
White, non-Hispanic	37	39
Hispanic	5	7
Other race/ethnicity	10	8

FIGURE 3.1
THRIVE Enrollment, June 2019–November 2021



NOTE: Enrollment numbers are from the Implementation Tracker; data were collected only through November 2021 due to the program pause.

TABLE 3.3
Program Status as of January 31, 2022

Status	*N*	%
Currently in THRIVE	681	24
Graduated	897	31
Terminated	1,236	43
Transferred to non-THRIVE-eligible position	58	2
Other (e.g., excused from THRIVE, on leave)	9	<1
Total	**2,881**	**100**

SOURCE: Enrollment numbers are from the Implementation Tracker; data were collected only through November 2021 due to the program pause.

THRIVE Program Components

Below we describe each of the planned components of the THRIVE program, noting challenges introduced by the COVID-19 pandemic and changes implemented as a result.

Risk Assessment

At the beginning of the program, the baseline risk level of all caregivers were assessed to determine the level of needed supports from THRIVE. This risk assessment included three components that are examined in aggregate to determine a total risk score and category (i.e., high, medium, and low).

- **SuccessGPS.** SuccessGPS is a web-based survey administered to participating caregivers at the beginning of their time in the program, usually during the core training days. This survey includes Likert-type items in eight domains: (1) calmness; (2) commitment; (3) conscientiousness; (4) coping; (5) self-efficacy;

TABLE 3.4
Baseline Risk Stratification Levels

Risk Level	*N*	%
Low	372	13
Medium	1,475	66
High	1,019	21
Missing	15	<1
Total	**2,881**	**100**

(6) collaboration; (7) empathy; and (8) help-seeking.[2] It also includes items regarding contextual factors that could affect job performance such as family obligations or transportation needs. The survey takes approximately 15 to 20 minutes to complete.[3] Each of the domains is scored as either low, medium, or high and then combined into an overall "success" score, ranging from –14 to +14. Those scoring less than –4 are assigned a "high" risk category, those scoring between –4 and +4 are assigned a "medium" risk category, and those scoring +4 are assigned a "low" risk category.[4]

- **Coaching assessment.** During their initial meeting with each assigned caregiver, THRIVE coaches used their professional judgment to assign a risk level of high, medium, or low based on factors that emerged during the discussion. Those for whom there were no concerns were assigned a low-risk score of 1, while those who were at a higher risk (e.g., had housing issues, high levels of reported stress) were assigned a 3.
- **Barrier assessment.** Finally, coaches assessed for physical barriers that may prevent caregiver success, such as an excessive distance between the caregiver's home and the place of work. If there was a barrier present, this was given a score of "3," while no existing barriers were given a score of "1."

A final risk stratification level was computed by adding up the scores from each of the aforementioned assessments. This risk stratification level was then used to determine the needed level of coaching support and to identify other resources that should be offered to the participating caregiver. Scores were not shared with caregivers. Table 3.4 presents a descriptive summary of the baseline risk levels of participating caregivers (their total risk score). These risk levels were not reassessed at the conclusion of the participation in the program. Table 3.5 presents risk levels as assessed by SuccessGPS versus those assessed by coaches assessments and demonstrates that categorizations vary between two of the risk sources (i.e., one would likely expect significant overlap between assessment of risk levels between SuccessGPS and coaches).

Many staff members provided insight into how the risk assessment process was carried out at their sites. The risk assessment process also underwent changes over the course of caregivers' participation in THRIVE. Although reassessments were not part of the initial design, some coaches reported changing the risk level of some caregivers based on behaviors and issues that they may have faced before or while working on their floors or units as well as additional personal challenges and barriers that may have arisen over the course of their time in THRIVE. As one staff member explained,

> So, when the caregiver first comes in, if we assess them in those first couple days and then they have like a drastic turnaround during their clinical orientation, and we see that, it's something we can say so maybe it

[2] SuccessGPS has not been validated for use with this population.

[3] Information on SuccessGPS is from The Caregiver Intake Instrument (CII) THRIVE Coach's Guide (2019).

[4] RAND only had access to the final risk category for SuccessGPS (i.e., high, medium, or low) and not raw data.

TABLE 3.5
THRIVE Caregivers' Risk Levels as Identified by SuccessGPS Versus Those Assessed by Coaches

	Coach Risk Level Rating			
SuccessGPS Risk Level	Low	Medium	High	Total
Low	429	542	252	1,224
Medium	388	646	366	1,403
High	30	107	104	241
Total	**849**	**1,296**	**726**	**2,881**

NOTE: Twenty-three missing values for one, or both, risk assessments.

> was just that one moment or they were having an off day, they said something they probably didn't mean and we can decrease or increase sometimes their risk stratification level before they go onto the unit.

As a result, coaches reported that they sometimes adjusted the frequency with which they reached out to or met with caregivers (see additional information in the Coaching subsection in Evaluation Question 3). They stated that they also worked to identify additional solutions or resources to help a caregiver who may have had a higher risk score than initially determined. A few staff members mentioned the idea of implementing a follow-up to the SuccessGPS that could be conducted at a later time in THRIVE to more formally reassess caregivers' risk levels; however, this was not ultimately implemented at any site. With the additional challenges posed by the COVID-19 pandemic, perceptions about changes in risk assessment scores differed among some staff members across sites in terms of whether caregivers' needs increased, decreased, or remained the same.

With the onset of the COVID-19 pandemic, at least one site adjusted the timing of when to administer the SuccessGPS to caregivers. Instead of conducting the SuccessGPS during the first couple of days of the THRIVE core classes, it was sent to caregivers with instructions and a description of its purpose prior to the first day of core classes.

Curriculum: Core Training

The THRIVE core training was intended to be 32 hours (four days) of in-person curriculum focused on topics such as teamwork, developing goals, budgeting, remaining calm, and self-care. This training was generally delivered before caregivers began working on their floors or units, although in some instances, participants did not attend the core training until after time on the floor or unit, due to internal scheduling challenges or delays due to the pandemic. While the core training was delivered across four days prior to the pandemic, COVID-19 forced each site to examine their approach to this training. After March 2020, the actual length of sessions ranged from two to four days with each site adapting the curriculum based on local needs and priorities. The vast majority of participants completed the core training (n = 2,176, 99 percent). Due to the COVID-19 pandemic, also sites adjusted the mode of delivery (in person versus virtual) of the core classes. Activities were adapted for online platforms at two of the sites, and local social distancing and interaction guidelines dictated further adjustments (e.g., eliminating certain group activities that required participants to be in close proximity).[5] In the interviews, some caregivers and staff expressed challenges with the curriculum activities that were restricted due to COVID-19 because they were not as engaging as in person.

[5] RAND does not have data on how each core session was delivered throughout the project. However, based on interview data and other sources, all sites delivered the core sessions in person prior to March 2020. One site continued to deliver the core

TABLE 3.6
Reported Bring Back Day Participation Levels

Participation Level (%)	Graduated	Terminated from Health System	Transferred to a Non-THRIVE-Eligible Position	Total
0	256	849	31	1,139
1–50	273	230	17	520
51–99	126	61	6	193
100	235	69	2	306
>100 [a]	3	18	2	23
Missing	6	14	0	20
Total	**897**	**1,236**	**58**	**2,194**

[a] Participation exceeded 100 percent in cases where caregivers may have been given access to more Bring Back Day sessions than they were expected to complete by a certain time frame and then terminated or transferred.

> The biggest thing is that there were hands-on face-to-face team-building activities that were built into the curriculum. Like the marshmallow challenge [activity]. Obviously, we can't do those type of activities being virtual, so those have had to be removed. Even when we do go back in person, and there's no set date by [Health System], we probably still can't do those things due to social distancing guidelines.—*Staff*

> I think they're doing a good job under the circumstances. You just can't do everything that you used to do during the pandemic—it's not possible. A lot of the things the class before us did, I'm sure that was more engaging than they are on the phone. It was not their fault; I think they make it as entertaining as they possibly can.—*Caregiver*

Staff also described changes to the content of the curriculum due to the COVID-19 pandemic, including addressing the burnout, stress, and anxiety faced by many health care workers. As one staff member noted,

> PPE [personal protective equipment] is huge, discussing that and the importance of it. Self-care in the time when a lot of people are isolated. We really want to check in on our caregivers and now more so and reflect that in our classes.

Curriculum: Bring Back Days

Bring Back Days, or follow-up educational training sessions to the core training, were originally designed as six half-day sessions delivered throughout the year. These sessions focused on topics such as patient safety and experience, diversity and inclusion, prioritization, and career and life planning.

Actual implementation of Bring Back Days revealed different spacing across sites as well as variations in attendance, from zero sessions to the full six (see Table 3.6). Some sites offered participants who were not offered Bring Back Days consistently throughout the year, the ability to complete the offered sessions beyond the one-year program period. Because of the COVID-19 pandemic, much of the content of Bring Back Days moved from in person to virtual or computer-based learning and was delivered in synchronous or asynchronous modes. As for the core classes, activities were adjusted in the Bring Back Days for online platforms and local social distancing guidelines.

sessions in person; one site moved entirely to virtual for the core sessions; and the third site conducted sessions virtually until local restrictions were lifted and in-person sessions could be resumed.

TABLE 3.7
Hypothetical Caregiver Schedules Based on Level of Support

Month		High	Moderate	Low
1	Wks 1–2	THRIVE Days 1–4	THRIVE Days 1–4	THRIVE Days 1–4
		Initial (during THRIVE)	Initial (during THRIVE)	Initial (during THRIVE)
2	Wks 5–6	In person	In person	Phone
	Wks 8–9	Phone	Phone	Phone
		THRIVE Day 5	THRIVE Day 5	THRIVE Day 5
3	Wks 11–12	In person	In person	Email
4		THRIVE Day 6	THRIVE Day 6	THRIVE Day 6
5		In person	In person	
6		THRIVE Day 7	THRIVE Day 7	THRIVE Day 7
7		In person	Phone	Email
8		THRIVE Day 8	THRIVE Day 8	THRIVE Day 8
9		In person	In person	
10		THRIVE Day 9	THRIVE Day 9	THRIVE Day 9
11		In person	Phone	Email
12		THRIVE Day 10	THRIVE Day 10	THRIVE Day 10

It is important to emphasize that the caregivers whom we interviewed participated in Bring Back Days to varying degrees. Some caregivers did not recall attending Bring Back Day sessions or struggled to remember what the Bring Back Days entailed, which may indicate that clearer communication of the goals and intent of the Bring Back Days may be beneficial for setting expectations.

Coaching

The coaching component of THRIVE consists of tailored in-person and phone support based on the individual's risk level, including support for foundational life skills and helping caregivers feeling valued in the organization. Coaches generally had a nursing or social work background and described their roles as providing support to caregivers through regular "check-ins" and helping them access resources for various benefits at the health system or in the community. Coaches conducted an assessment of any potential barriers for success, including transportation, childcare, or financial challenges with the goal of helping caregivers overcome these barriers and stay in their positions at their health systems for at least one year. Coaches conducted their check-ins with caregivers by phone, virtually, or in person on the floors or units, although in-person visits were limited by the COVID-19 pandemic. While some coaches were also trained to also facilitate sessions of the core classes, not all coaches facilitated sessions across all sites.

Coaches were provided with a sample schedule to guide the number of check-ins based on the caregiver's risk stratification level. These check-ins were intended to be interspersed throughout the year with other activities such as Bring Back Days (see Table 3.7).

Actual caregiver participation in coaching ranged from zero to 12 sessions over the program year and did not always align with the caregiver's risk level. This may have been due to caregivers' or coaches' schedules,

TABLE 3.8
Reported Coaching Participation Levels

Participation Level (%)	Graduated	Terminated from Health System	Transferred to a Non-THRIVE-Eligible Position	Total
0	4	25	0	29
1–50	98	320	17	435
51–99	575	518	34	1,127
100	153	294	6	453
>100[a]	61	69	0	130
Missing	*8*	*16*	*1*	*25*
Total	**899**	**1,242**	**58**	**2,199**[b]

[a] Values may have exceeded 100 percent in cases where the caregiver participated in more coaching sessions than anticipated through the model.
[b] Does not include individuals active in THRIVE or on leave.

missing or skipping sessions, or local health system guidance for more frequent check-ins. Table 3.8 presents the reported coaching participation levels from sites; due to how data on this variable were captured, we are able to present only four aggregate categories of participant levels. These percentages are based on the anticipated number of coaching sessions from the risk stratification level. For example, those in the 51 percent to 99 percent range completed more than half, but not all, of the planned number of coaching sessions based on their stratification level. The nature of check-ins also varied from in person to phone or text. The latter was used more heavily during the pandemic. In addition, there was some testing of a group coaching model.[6]

The ongoing COVID-19 pandemic posed challenges for the coaching component of THRIVE, as sites were limited in their ability to provide in-person coaching sessions particularly during the surge waves of the pandemic. Sites implemented different modes of coaching to meet the needs of caregivers throughout the pandemic, including in-person, video, or phone sessions, individually and in groups. THRIVE staff members highlighted the challenges of shifting away from in-person to virtual coaching sessions during the pandemic and further noted that their inability to visit caregivers on the floor or unit also prevented them from informally checking in with other caregivers on the floor or unit or speaking with nurse managers.

> The worst impact of the pandemic has been on the coaching and depositing into relationships and building it and growing it, having the coaches to be able go to the floor to see people is key. Not really the person they're scheduled to meet because if they're scheduled to meet them, they're going to spend the time, 15–20 minutes, whatever it is face to face with them. But it's for all the other people that they see in their speed-bump meetings. "Hey how are you doing? Anything I can help you with?" . . . It's the speed-bump meetings with the nurse managers: "Hi, I was just here to see so and so. Any questions or concerns that I should know about?" It takes two minutes of the time but builds the relationships with the nurse managers.—*Staff*

> Unfortunately, sometimes face to face is helpful to THRIVERs because coaches can be a sounding board, and this could not happen due to COVID restrictions.—*Staff*

[6] Two sites tested a group coaching model but findings on this approach were not available at the conclusion of data collection.

Resources, Infrastructure, and Program Management

In addition to the above components of THRIVE, the program also offered resources that varied by site and were generally based on caregiver need.[7] These ranged from referrals to wraparound services for behavioral or mental health needs, program incentives (e.g., THRIVE clothing), supports such as rideshare gift cards or food vouchers, and helping with school enrollment. While some of these supports were funded through THRIVE, other supports may have already existed within the health system (e.g., insurance benefits, scholarships).

THRIVE funding was used for needed infrastructure investments such as training classrooms. Across sites as reported in the Implementation Tracker, there were significant investments in construction, equipment, updates to audiovisual equipment or virtual needs, and the like. Infrastructure investments were rarely discussed with THRIVE program staff and caregivers, most likely due to the fact that during the COVID-19 pandemic the classrooms were not being utilized to the extent expected.

THRIVE has program managers and program coordinators to oversee implementation of the grant program. Those in the program manager role typically reported being a source of support for other THRIVE staff (e.g., coaches, facilitators, or educators); coordinating cross-site interactions; interfacing with health system leadership about the program on at least a monthly basis; serving as a liaison between the program and HR and recruiting (generally holding discussions at least weekly with HR); giving presentations about THRIVE in their health systems to raise awareness and increase buy-in; managing program resources, such as gift cards; reviewing retention data, typically on a monthly basis; and responding to requests from the evaluation team. Program managers also reported weekly engagement with external partners. Program coordinators had responsibilities related to scheduling and data management for the program.

RAND evaluated the THRIVE program based on approximately two and a half years of implementation. The remainder of this chapter presents program findings by evaluation question.

EQ1. Did Retention Rates Improve During or After THRIVE Implementation?

The primary goal of the THRIVE program was to improve caregiver retention. Thus, one of the core objectives of this evaluation was to assess whether caregiver retention improved during THRIVE implementation. RAND used administrative data for the comparison year (Year 0) and intervention years (Years 1 and 2) to describe the trends in retention rates, conduct discrete-time survival analysis to assess the effect of THRIVE on retention, and conduct sub-analyses examining voluntary versus involuntary terminations. In addition, RAND conducted a supplemental analysis to examine retention rates before the COVID-19 pandemic. RAND also integrated qualitative data findings regarding perceptions of impact on retention from staff and caregivers.

Retention rates did not improve during or after THRIVE implementation. The results showed that there were no statistically significant differences between Year 0 and Years 1 and 2 (i.e., no change in retention rates).[8] Figure 3.2 shows the adjusted retention rates[9] over a 12-month period. This means if we follow

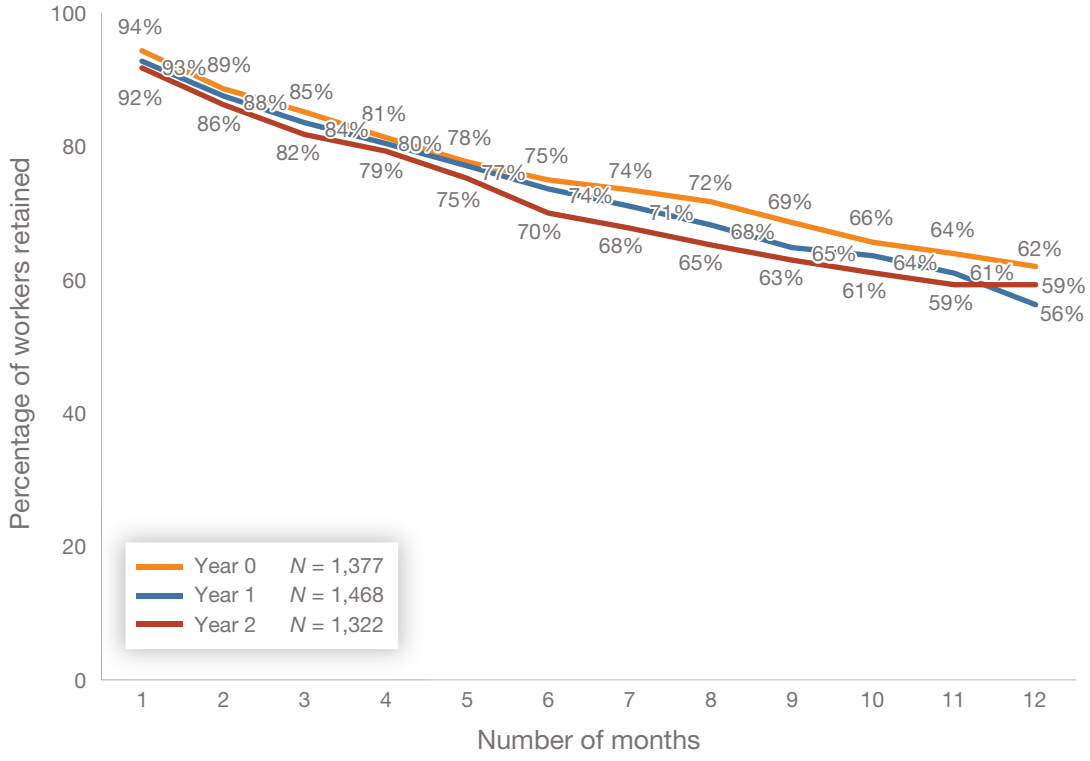
[7] RAND did not have consistent quantitative data on the provision of resources through THRIVE. However, based on data collected for the return on investment analyses, "other materials and expenses" accounted for less than 5 percent of overall program costs.

[8] RAND also conducted an analysis where sites were weighted (i.e., each site contributing equally); results did not vary meaningfully.

[9] Results were adjusted for age, gender, race/ethnicity, pay rate, full-time position, night shift position, and site. Data were unavailable for some important variables (e.g., workload, years of education and experience, family composition). Missing pay

FIGURE 3.2

Adjusted Retention Rates Prior to and During THRIVE Implementation



100 caregivers after they are hired, by the third month, 85, 84, and 82 stay in Years 0, 1, and 2, respectively. By the sixth month, 75, 74, and 70 stay in Years 0, 1, and 2, respectively. By the twelfth month, 62, 56, and 59 stay in Years 0, 1, and 2, respectively.[10]

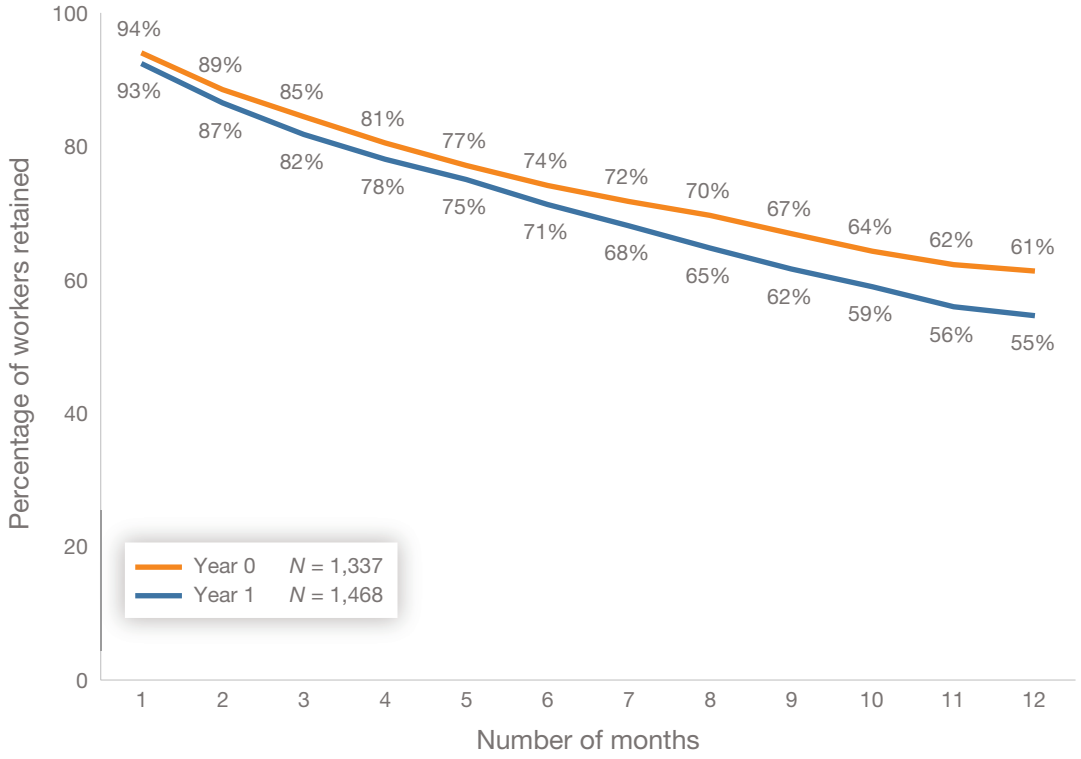
Because our analysis is limited to program years, we were not able to follow all individuals for a full 12 months. For example, someone hired in January would have only five months of data before the end of the program year. Our model selection accounts for this by estimating the termination rate for just those who have enough months of data at each point. A limitation of this model is that the estimates rely on smaller and smaller populations as time goes on and thus become less precise.

To explore this limitation, we also completed an analysis that followed all individuals for whom we have a full 12 months of data—in most cases beyond the end of the program year (see Figure 3.3). However, we were able to do this analysis only for Year 1 because we were unable to collect Year 3 data (and thus track individuals hired throughout Year 2 for 12 months). This analysis revealed results similar to those of the main analysis, but with a significant difference between Year 1 and Year 0 ($p < 0.05$) in retention, with retention worse in Year 1 than in Year 0.

rates (accounting for 9.6 percent of observations in the final sample) were imputed using the entry pay rate for one category of workers where the majority of data were missing (i.e., those with a PRN status). Other observations missing pay rate information were imputed using the median value. The total person months for Year 0, Year 1, and Year 2 were 7,002, 7,254, and 6,284, respectively. Differences between Year 0 and Year 1 and between Year 0 and Year 2 were not statistically significant ($p > 0.05$).

[10] In our primary analysis, we used an approach to capitalize on available data for two years of the program. While this approach allowed us to examine trends in retention across program years, it did require that some observations were censored. Thus, the denominator decreases significantly as the number of months progresses, which can lead to greater estimation error in later months (e.g., Month 12).

FIGURE 3.3
Adjusted Retention Rates for the 12-Month Analysis



In interviews with THRIVE staff and caregivers, we asked respondents to comment on their perceptions of THRIVE's potential impact on retention. Across all three sites, some staff members felt that THRIVE has improved or would improve retention or was a reason that caregivers have not left the health system. In addition, in the interviews a few caregivers spontaneously noted that THRIVE is a reason that they have not left their respective health systems. Some staff also noted that while THRIVE aims to improve retention and provide support, the program may only improve retention slightly, by "buying" some time for caregivers to remain at the health system. As one staff member explained,

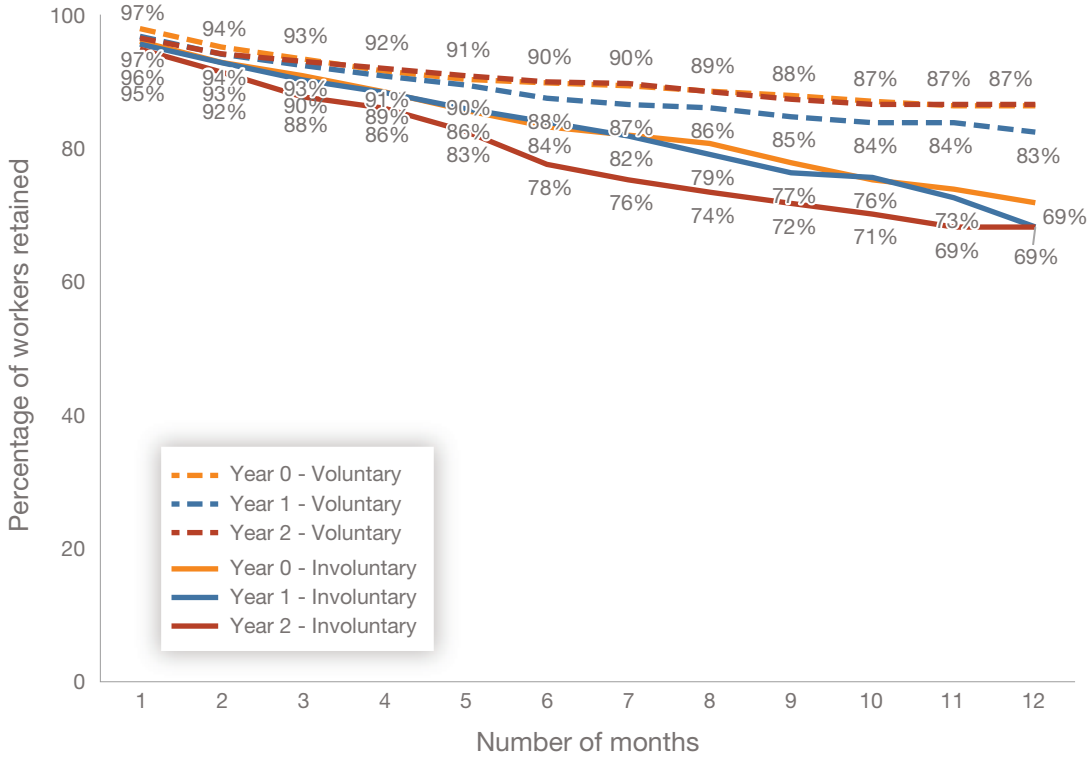
> We helped them for maybe three months longer than they would have been able to stay but in the end, they termed.

Similarly, another staff member noted that while THRIVE provides support to caregivers, many face structural-level barriers that THRIVE is unable to solve (see findings in Evaluation Question 2).

EQ1a. Did Retention Vary for Voluntary Versus Involuntary Reasons for Attrition?

We conducted an analysis of multiple outcomes to see whether retention differed for voluntary and involuntary terminations (see Figure 3.4). Year 2 had significantly lower voluntary retention rates compared with Year 0 ($p < 0.05$). There were no significant differences between Year 0 and Year 1 for either voluntary or involuntary reasons. Overall, voluntary terminations account for a larger proportion of dropouts (i.e., lower retention rates), as reflected in Figure 3.4.

FIGURE 3.4
Differences in Involuntary and Voluntary Retention Rates



In terms of reasons for terminations as tracked in the sites' Caregiver Tracking file (see Table 3.9 which presents reasons by termination type), personal reasons were the most common reason (23 percent), followed by performance reasons (16 percent), attendance reasons (15 percent), and career-related reasons (10 percent).

EQ1b. Did Retention Vary Prior to the COVID-19 Pandemic?

To tease out the potential effect of the COVID-19 pandemic, we examined the first nine months of Years 0 and 1, all of which were prior to the beginning of the pandemic, to see if there were differences in retention rates.[11] While this was not an exact proxy for assessing the impact of COVID-19, an improvement in these earlier months could suggest that THRIVE had a positive effect on retention and that COVID-19 later mitigated or eliminated these benefits in retention. Findings using only pre-COVID data revealed retention rates were similar in Years 0 and 1 (see Figure 3.5).

While the quantitative data on overall retention rates in these nine months did not reveal statistically significant changes, some perceptions on the ground stressed the impact of COVID-19 on retention. Both caregivers and THRIVE staff noted that staffing issues were particularly exacerbated by the ongoing COVID-19 pandemic not only at their health systems but nationally.

Perceived impact of COVID-19 on retention. THRIVE staff raised several considerations and concerns about the impact of the COVID-19 pandemic on caregiver retention at each of the health systems. THRIVE staff generally felt that the ongoing pandemic created or exacerbated challenges affecting retention among

[11] Note this was not a formal evaluation question but was added mid-stream due to the impact of COVID-19 on health systems.

TABLE 3.9

Reasons for Termination Through December 31, 2021

Reason	Year 1 (*N* = 568)	Year 2 (*N* = 453)	Year 3 (*N* = 203)	Total
Involuntary	**209**	**129**	**72**	**409**
Attendance reasons	95	68	26	188
Job abandonment (e.g., left during shift, no call or no show)	33	27	22	82
Performance reasons	42	19	16	77
Violation of rules	7	5	2	14
All other reasons	4	4	1	9
Failed to meet requirements or commitment	3	0	2	5
Resigned (in lieu of termination)	4	1	0	5
Missing	*21*	*5*	*3*	*29*
Voluntary	**359**	**322**	**131**	**812**
Personal reasons	101	130	52	283
Career-related reasons	54	57	16	127
Performance reasons	38	59	27	124
Resigned	43	14	7	64
Quit without notice	33	15	11	59
Job-related reasons (e.g., not satisfied with job or certain aspects such as hours, compensation, manager)	14	19	6	39
Non-return or -reinstatement after leave of absence	10	3	0	13
All other reasons	0	0	2	2
Missing	*66*	*25*	*10*	*101*

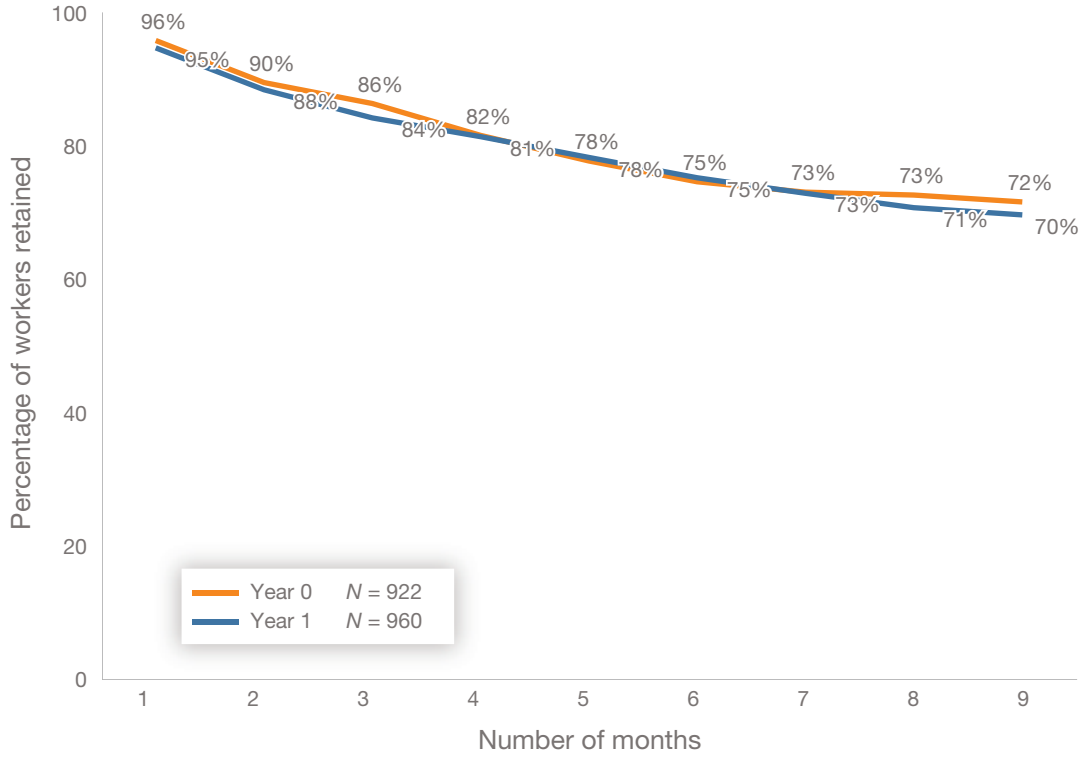
NOTE: As the data include some rehires, the total *N* is slightly higher than previously reported in program status (i.e., number of individuals termed). In Table 3.8, we counted a termination only once if it was the same individual. This table does not include all individuals, given missing data on one or more variables (e.g., termination type) or data availability issues when merging data across source files. Some reasons were recoded by the evaluation team prior to inclusion in this table given likely data quality issues (e.g., career reasons being coded as "involuntary" or attendance reasons being coded as "voluntary").

caregivers, and caregivers also reported some of these challenges related to COVID-19 in the interviews. These challenges included short staffing on the units, which increased the workload for caregivers, fear and concerns around the risk of contracting COVID-19 while working, and inadequate or a lack of childcare for caregivers. THRIVE staff also mentioned that the health systems were strained by many employees leaving the health system, not just caregivers, which also put a strain on the units themselves.

Some staff members across all three sites speculated that the increased need to hire caregivers quickly due to short staffing created a discrepancy between caregiver expectations of the job as opposed to the reality of what the job may entail, which in turn increased turnover. Several staff members explained how this "disconnect" was related to staffing and hiring challenges due to the COVID-19 pandemic:

> Even now it's [COVID-19] still having an effect on us because the hospital is blitz hiring and the interviews that they do with the caregivers aren't long enough, nor do they ask the right questions. And so, we will have caregivers come in here who either work a second full-time job, want to do this job full time and are

FIGURE 3.5
Retention Rates Prior to the COVID-19 Pandemic



> going to school full time. . . . So, it's given us a lot of caregivers that really just had so many barriers against them that they were destined to be terminated and a lot of them have [been].
>
> I think a lot of managers are hiring people who aren't qualified just because they need a body on the unit. Just to try to get that help on the unit because they're so short. And then when they get on the unit, they are so freaked out about everything that's going on that they just can't do it. . . . So quite honestly, I think some of our managers are setting our new caregivers up for failure.

This discrepancy between the expectation versus the reality was only partially attributed to the challenges around hiring due to the pandemic, and some staff reported this tension more broadly. One caregiver even explained the misrepresentation of the position prior to starting the job:

> If I knew that that's what I was going to be doing, I wouldn't have gone for that job. They don't tell you that when you go for the interview.

At the time we conducted interviews in the summer and the fall of 2021, some staff members and caregivers speculated about the impact of upcoming COVID-19 vaccine mandates at their health systems on caregiver retention. While staff and caregivers were able to provide only their perceptions of the potential impact of vaccine mandates given that no mandates had been put into effect at the time of our interviews, some expressed concern that the vaccine mandate may negatively affect retention.

> Of course, the mandated COVID vaccine [is] going into effect soon. I do anticipate we will lose some people. A lot are afraid to. I think we're going to lose more nurses than [caregivers]. But that may create more fear for [caregivers]. It's a lot for staffing.—*Staff*

> [Health System] is mandating a COVID-19 vaccine. . . . So it's been kind a struggle for me because I'm not vaccinated with the vaccine, so I've had some very tough decisions to make as to whether or not I go against what I want and get the vaccine or if I leave my job with [Health System] because I don't want to get the vaccine. So, it's been very difficult on me to try and come to this decision as to what I'm going to do.—*Caregiver*

Other staff commented that the COVID-19 vaccine may actually create a sense of reassurance for caregivers, given the concerns around contracting the virus since the start of the pandemic:

> It might be too early but what I see sort of trending is that they feel boosted up by this, they feel armored. Just like the PPE they had to wear—the mask, the gown, the eye shield, the glove, and all of the PPE—I feel they are now feeling that the vaccine is another protective thing, and they're looking at it as support from the organization.

Evaluation Question 1 Main Findings

- Retention did not improve across sites for Years 1 or 2 compared with baseline.
- Voluntary terminations in Year 2 were significantly higher than in Year 0.
- There were no significant differences in retention between the nine months prior to COVID-19 in Year 1 and the same nine months in Year 0.
- Several staff members perceived THRIVE to positively affect retention, and some caregivers also looked favorably upon the program's impact on their willingness to stay in their job at the health system.

EQ2. How Are Program- or Organizational-Level Factors Associated with Retention?

It is important to understand why changes in retention rates may have occurred in the settings where THRIVE has been implemented. This question focuses on factors that influenced changes in retention rates and how changes in these factors might affect similar programs implementing THRIVE in the future. While THRIVE is primarily intended to improve retention among caregivers, there are a range of other potential short- and medium-term outcomes that may result from implementation as seen in the logic model. This section details findings that provide insight into potential associations along the continuum of the logic model, beginning with potential predictors or factors that may influence retention, followed by factors that may influence short- and medium-term outcomes.

Factors Associated with Retention

Using administrative data provided from sites, RAND explored potential predictors of overall retention including age, gender, race/ethnicity, hourly pay rate ($14.00 or lower, $14.01 to $15.00, $15.01 to $16.00, and $16.01 and higher), position status (i.e., full time, part time, PRN), shift type (i.e., night shift or day shift), and site (or health system) using a logit regression model. The team also explored potential differences based on voluntary or involuntary terminations using a multinomial logit model.

Caregivers with lower pay rates and those who identify as black or African American had a higher likelihood of terminating in both Years 1 and 2. Specifically, results revealed that those in the lowest rate category ($14.00 or lower) had the highest likelihood of terminating compared with the highest rate category

($16.01 and higher) (odds ratio (OR) = 2.7, $p < 0.01$ in Year 1; OR = 2.4, $p < 0.01$ in Year 2), followed by those in the second lowest rate category ($14.01 to $15.00) (OR = 1.8, $p < 0.01$; OR = 1.6, $p < 0.01$ in Year 2).[12] Individuals who identify as black were more likely to terminate than white caregivers (OR = 1.4, $p < 0.05$ in Year 1; OR = 1.3, $p < 0.05$ in Year 2). In Year 1, those identifying as an other racial or ethnic category (e.g., Asian) had a higher likelihood of terminating than white caregivers (OR = 1.4, $p < 0.05$). In Year 2, those working part time were more likely to terminate than those working full time (OR = 1.6, $p < 0.01$).

Pay rate, identifying as black or other race, and part-time status were associated with a higher likelihood of terminating involuntarily in both Years 1 and 2. Specifically, individuals identifying as black had a relative risk ratio (RR) of 3.2 ($p < 0.01$) in Year 1 and 2.9 in Year 2, while caregivers identifying as other had a relative risk ratio of 2.0 ($p < 0.01$) in Year 1 and 1.9 ($p < 0.01$) in Year 2. Pay rates in the lowest category were significant for both years (RR = 2.4, $p < 0.01$ in Year 1; RR = 1.8 in Year 2). Those with a part-time status had a relative risk of 1.4 ($p < 0.05$) of an involuntary termination.

Pay rate was associated with a higher likelihood of terminating voluntarily in both Years 1 and 2, while gender and part-time status were significant predictors in Year 2. For voluntary terminations, gender was a significant predictor in Year 2 with women at a higher risk of leaving than men (RR = 0.6, $p < 0.01$). Pay rates in the lowest two categories were significant for both years (RR = 2.9, $p < 0.01$ and RR = 1.9, $p < 0.01$) in Year 1; RR = 2.6, $p < 0.01$ and RR = 1.8, $p < 0.05$ in Year 2).

Risk acuity level from the THRIVE risk assessment was not associated with retention. We conducted a bivariate analysis to examine the extent to which risk acuity level (with scores ranging from 3 to 9) in the Caregiver Tracking file were associated with terminations in Years 1 and 2 in the administrative data. Chi-square analysis indicated a nonsignificant finding (χ^2 (6, $N = 2{,}137$) = 9.3, $p > .05$) between risk acuity level and terminations, meaning that the risk acuity measure did not differentiate between those who terminated and those who did not. Given this finding, one potential area to focus on in the future is developing a risk acuity measure that is sensitive to predicting terminations so that it can proactively help identify those more at risk of leaving their job.

Factors Perceived to Be Associated with Retention

The interviews with caregivers provided additional nuance into caregiver perspectives on retention and their own thoughts about staying in their current positions at each of the health systems. Many caregivers noted in the interviews that they did not plan to leave the health system, but many of these caregivers were interested in transferring to a new role or a different facility within the health system. A few caregivers mentioned that they had already transferred within the health system, and a few caregivers stated that they were considering leaving the health system or the health care field in general. Caregivers and THRIVE staff noted several reasons for leaving or considering leaving the health system based on individual, programmatic, unit-based, and structural levels.

Individual-Level Factors

Among individual-level factors that may affect retention, some caregivers mentioned that personal decisions such as returning to school would be a reason they would consider leaving the health system; a few staff recognized this possibility, too. Caregivers also mentioned that scheduling and location of the health system could affect their decision to stay or go; this was especially the case for caregivers who had other personal responsibilities including childcare or school.

[12] In other words, those in the lowest rate category had more than double the odds of termination than those in the highest rate category, while those in the second lowest rate category had an 80 percent increase in the odds of being terminated than those in the high-pay category.

Some staff also mentioned other individual factors and characteristics that they perceived to be related to caregiver retention, including attendance issues and tardiness as well as perceptions of caregivers' work ethic. As one staff member stated,

> We work so hard to work with them and then they give up on us. They don't have that fight in them. How could you not have that fight after all the help you're getting? . . . A lot of people quit for no reason or just give up, it's like "Come on, people, you can go further than that."

Program-Level Factors

Some THRIVE staff mentioned that the coaching component of THRIVE aims to improve retention and is specifically a reason that caregivers stay at the health system, and a few caregivers validated this finding in the interviews. For example, one caregiver spoke to the importance of their coach in helping them talk through difficult work situations, ultimately affecting their decision not to leave their job:

> Honestly, if I didn't have the coach that I have and have someone to vent to, I don't know if I would have gotten frustrated and quit, I don't know if I just would have went mentally insane and exploded and snapped more than I have or what.

Similarly, a THRIVE staff member noted that the support and resources that coaches offer to caregivers is particularly important for retention when caregivers may be facing challenges in their personal lives:

> When [caregivers] are struggling with something, and it's impacting their performance or it's impacting the ability of the employee to do their role, they're [the coaches are] working with them one on one to come up with a plan on how to help them be successful. And when it's something personal that's impacting their ability, they're connecting them with resources or providing them temporary support to give them that boost, until they can get back on their feet again, so they don't lose their job while they're in the process of whatever it is that they're going through personally.

Unit-Level Factors

Caregivers and staff also identified the culture of the unit, including poor relationships with managers, other clinicians, and patients, as a potential reason for leaving the health system. A few caregivers and staff described "toxic units." In the words of one:

> I'm trying to get off my unit as soon as possible because it's completely toxic. My boss is probably a great person, but when it comes to me and my issues, it seems he is turning a blind eye and places the blame on me and thinking it's all my fault, even though it could not be.

Similarly, a THRIVE staff member noted that for caregivers who struggle with poor unit climate, THRIVE may be limited in its ability to affect retention, despite the support that THRIVE provides caregivers:

> The one thing I struggle with is how do I help them [caregivers] with organizational commitment especially when they are coming from a toxic unit. So I'm trying to do it in ways I can. THRIVE helps people who are managing these barriers, but it's not going to necessarily bail them out of it.

Furthermore, another staff member spoke of poor communication, relationships, and unit fit as affecting retention, but being beyond the scope and ability of THRIVE to address, as were broader challenges within the health system:

> There's a lot of short-staffing issues and unit culture issues and sometimes clashing of personalities between the nurse manager and caregiver and those are really hard to help with. . . . So, it's just not good quality of

> life inside of work but it's created by these situations that are a systemic problem, and we can't fix a systemic problem.—*Staff*

Structural-Level Factors

Many caregivers and staff mentioned structural-level factors that affected retention including pay and benefits, lack of upward mobility, staffing challenges, and lack of childcare. Pay and benefits was the most commonly mentioned: some caregivers spontaneously noted that better pay and benefits elsewhere would be a reason for them to consider leaving the health system. For example, one caregiver described competition with other health systems in terms of higher pay:

> I'm not going to lie—I have thought about it [leaving the health system]. Only for lower patient care amounts and also higher pay because there are hospitals that provide higher pay than [this health system] for aides. It's not because I can't budget my money; it's just because that's nice.

Some caregivers and a few staff members noted that lack of upward mobility as a direct care worker was a potential reason for leaving the health system. As one caregiver observed,

> There's no road to a promotion. There's no road for increased pay. Being a [caregiver] is almost like a dead end. There's just nowhere to go. After you're there for twenty years, you're capped out at like $20 per hour. I don't see why anyone would want to do this long term. . . . It will crush you, the average person. We've had so many people quit. Everyone I train, people just quit.—*Caregiver*

Some caregivers and THRIVE staff also mentioned structural-level challenges such as short staffing as a reason caregivers may consider leaving the health system. For example, a caregiver mentioned considering leaving the health system if staffing ratios were to worsen:

> That does bother me. I went in one day and I had had 34 patients [in] one day. How can I give my attention to my patients if I have 34? If it's just two of us on the floor, we might have 18–19 patients which is still a lot.

Finally, racism was a theme that emerged at all three participating sites, with respondents noting personal experiences with racism both within the THRIVE program itself and in the health system more broadly:

> My facility is . . . honestly . . . being a black female, I've experienced some type of racism.—*Caregiver*

> I had a couple [caregivers] that experienced it [racism] in THRIVE. . . . This particular person experienced it on the unit.—*Staff*

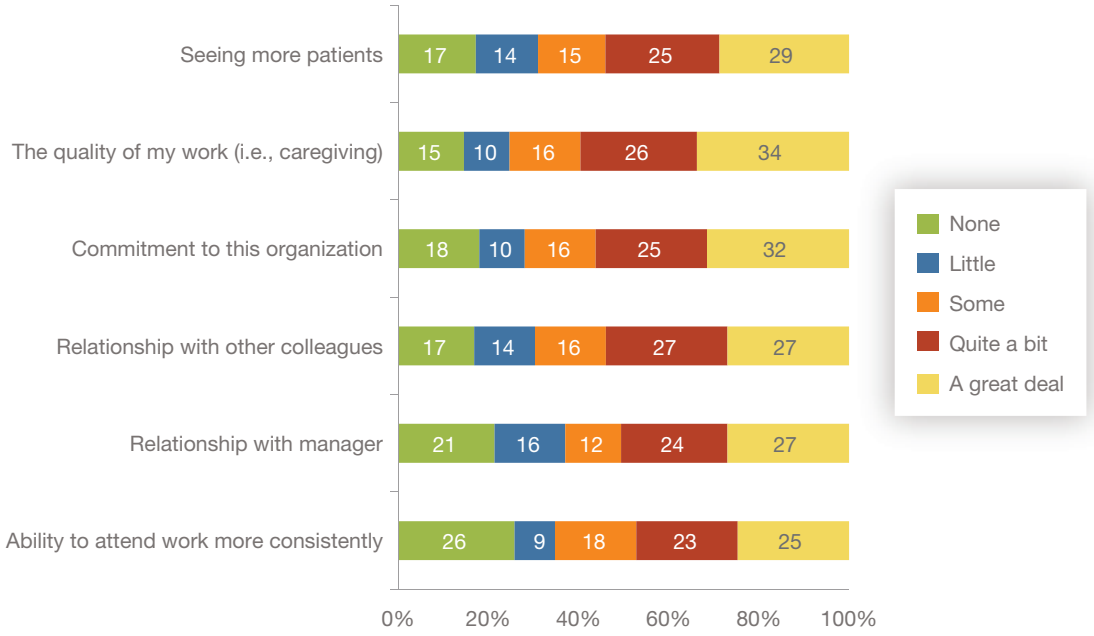
> Yes, there have been some instances where there has been racial inequality and some practices on the floor and some of the units where they have spoken up about it. And I'm glad they've spoken up because it's not who we are and what we do. We have to make it right.—*Staff*

> It's our caregivers who face a lot of this [racism]. So, like I've heard of some caregivers being treated differently than others once they're on the unit by specific staff members. Or . . . sometimes it feels as if there's certain caregivers that I have that can get away with things and others who can do the same thing and it's not the same case.—*Staff*

EQ2a. How Are Program- and Organizational-Level Factors Associated with Short-, Medium-, and Long-Term Outcomes Beyond Retention?

This section details potential factors that may be associated with other outcomes of the program. Following the logic model, these would typically precede changes in retention and thus are important to exam-

FIGURE 3.6
Survey Respondents on the Extent to Which THRIVE Has Helped Them Improve



ine in assessing the program logic. The discussion is focused on medium- and short-term outcomes. Other long-term outcomes beyond retention and ROI (i.e., sustainability) could not be adequately measured and thus modeled. This is partly due to the early "pause" of the program in December 2021.

Factors Associated with Medium-Term Outcomes

The logic model incorporated several potential medium-term outcomes from THRIVE activities. The Caregiver Survey provided measures of some of the medium-term outcomes (e.g., turnover intention was operationalized as a dichotomized variable around a single item asking about intent to leave within 12 months). Survey findings ($N = 90$) revealed that a majority of caregivers indicated that THRIVE helped them improve, on a scale from none to a great deal, in areas ranging from attendance to relationships with colleagues and managers to the quality of their work (see Figure 3.6).

The findings in this section focus on potential factors that may be associated with these medium-term outcomes. Specifically, we conducted a multivariate regression of job and program factors on *intent to leave*—a dichotomous measure from the survey item, "I intend to leave my current position (1 = in the next 6 months or next year; 0 = I have no plans to leave within the next year).

We also conducted multivariate regressions, with site and program factors as potential predictors, on each of the following medium-term outcomes (for specific wording, see item 17 in Appendix E):

- *absenteeism*—a continuous measure from a single item asking about the "ability to attend work more consistently" on a 1 to 5 scale, with 1 = none and 5 = a great deal
- *relationships with managers and other colleagues*—two continuous measures from single items asking about (1) relationships with other colleagues and (2) relationships with manager on a 1 to 5 scale, with 1 = none and 5 = a great deal
- *improved commitment to the organization*—a continuous measure from a single item asking about the "commitment to this organization" on a 1 to 5 scale, with 1 = none and 5 = a great deal

- *improved quality of work (i.e., caregiving)*—a continuous measure from a single item asking about the "improved quality of work (i.e., caregiving)" on a 1 to 5 scale, with 1 = none and 5 = a great deal.

To reiterate, due to the small sample size, the findings we present here should be interpreted with caution, especially given that there is not a lot of variability in some of the data (i.e., programmatic factors, due to the small standard deviations). However, given the limitations, the findings still offer a preliminary view of potential links between job- and organizational-related factors and outcomes, which may be applicable to similar interventions in the future.

Intent to leave. Seventy-six percent of survey respondents indicated they had no intention of leaving their job in the next year, while 24 percent indicated an intention to leave within the next six months or a year. When asked about potential reasons for leaving their current job, the most common were (1) being offered a job with more pay (62 percent agreed or strongly agreed), (2) wanting to start/finish school (54 percent agreed or strongly agreed), and (3) being offered a job with better shifts or hours (41 percent agreed or strongly agreed). Working with less difficult patients and working with a new manager/supervisor were the two least reported reasons for leaving their current job (14 percent and 16 percent agreeing or strongly agreeing, respectively).

To explore potential factors predicting intent to leave, we examined job-related factors (i.e., measures of caregiver burnout, teamwork climate, supervisor support, and organizational support) and program factors—i.e., measures of perceptions of THRIVE core classes, Bring Back Days, and coaching. Each was measured on a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree (see item 14 in Appendix E) as potential predictors of the dichotomous intent to leave (yes or no) in a linear regression model. Two of these emerged as significant, explaining approximately 25 percent of the variation in the model ($R^2 = 0.25$). Burnout (measured on a 5-point Likert-type scale, ranging from 1 = to a very low degree to 5 = to a very high degree; see item 18 in Appendix E) was positively associated with intent to leave ($\beta = 0.17$, $p < .05$), meaning that individuals with higher reported burnout levels tended to be more likely to indicate intent to leave. The one programmatic factor significantly associated with intent to leave was THRIVE core training, which was positively related ($\beta = 0.32$, $p < .05$), meaning that more positive perceptions about core training were associated with higher likelihood of indicating intent to leave. It is unclear conceptually why this finding emerged. It is possible that one of the positive predictors functioned statistically as a suppressor variable (Pandey and Elliott, 2010), resulting in core training being negatively related to intent to leave. Another possibility is that this training helped caregivers be more empowered and that aspects of the training, such as setting career goals, may have influenced their planned trajectory within the health system.

In the interviews with caregivers, we asked about the potential to transfer to a different role in the health system or leave the health system and what might tempt them to leave. While many caregivers stated that they did not think about leaving the health system, several of these caregivers stated that they were interested in transferring either to a new role or different facility within the health system, and two caregivers reported that they had already transferred. Few caregivers expressed interest in leaving the health system.

Absenteeism. RAND also examined whether program factors (core training, Bring Back Days, and coaching components), along with the health system in which THRIVE was delivered, were associated via multiple regression with caregivers' ability to attend work more consistently. The Bring Back Day component was the only significant predictor ($\beta = 1.17$, $p < .05$, model $R^2 = 0.39$). One possible reason for this finding is that those who attended Bring Back Day sessions and viewed them favorably were more likely, or able, to attend work consistently.

Relationships with managers and other colleagues. When site and program factors were examined as predictors of relationships in two separate models (i.e., one with managers and one with other colleagues), Bring Back Day sessions were also the only significant predictor for relationships with managers ($\beta = 0.97$,

$p < .05$, model $R^2 = 0.44$) and for relationships with other colleagues ($\beta = 0.97$, $p < .05$, model $R^2 = 0.53$). One potential reason for Bring Back Day sessions being a significant predictor of perceptions related to improved relationships with others is that these sessions—at least based on some of our observations—provided an opportunity for caregivers to share and vent about work-related experiences and challenges, thereby creating an opportunity for caregivers to learn from each other and THRIVE facilitators about ways to improve interactions and relationships with others. As noted above for absenteeism, it is also possible that those who completed our survey were different from those who did not; perhaps those who completed our survey were more engaged in opportunities such as Bring Back Day sessions because they were trying to improve their ability to have quality relationships with others.

Improved commitment to the organization. We also examined the same predictors—health system where the caregiver worked and the three programmatic factors (core training, Bring Back Days, and coaching components)—on caregiver perceptions about improved commitment to the organization. Again, Bring Back Day sessions were the only significant predictor of reported improved commitment to the organization ($\beta = 1.12$, $p < .05$, model $R^2 = 0.52$). It is entirely plausible that those who attended and had favorable impressions of Bring Back Day sessions were also those who were more committed to the organization. Relatedly, perhaps an increased feeling of commitment to the organization occurred because caregivers were provided the opportunity by the organization to vent about workplace challenges via Bring Back Day sessions.

Improved quality of work (i.e., caregiving). Finally, in examining the same site and program factors on the reported quality of caregiving, Bring Back Day sessions ($\beta = 0.72$, $p < .05$) and core training ($\beta = 0.76$, $p < .05$) were both significant predictors, explaining almost 50 percent of the variation in the outcome ($R^2 = 0.49$); site and coaching were not significant predictors. While Bring Back Day sessions were consistently associated with these medium-term outcomes, that core training emerged as a predictor of the ability to provide quality work as a caregiver is encouraging. Given that some of the core training content is focused on skills needed to be an effective caregiver, this finding provides some evidence of a link between training and caregiving. However, as noted previously, it is possible that those who completed our survey were more engaged in being a caregiver and as a result attributed their perceived improvement in providing care to THRIVE components.

THRIVE staff conceptualized the effectiveness of the THRIVE program as related to outcomes other than retention, including gaining calmness, confidence, and communication skills, among others, that could be applied to work on the floors or units, as well as to achieving other personal goals such as returning to school. A few THRIVE staff also noted that the effectiveness of the program may vary depending on the caregiver's personal goals and circumstances. As one observed,

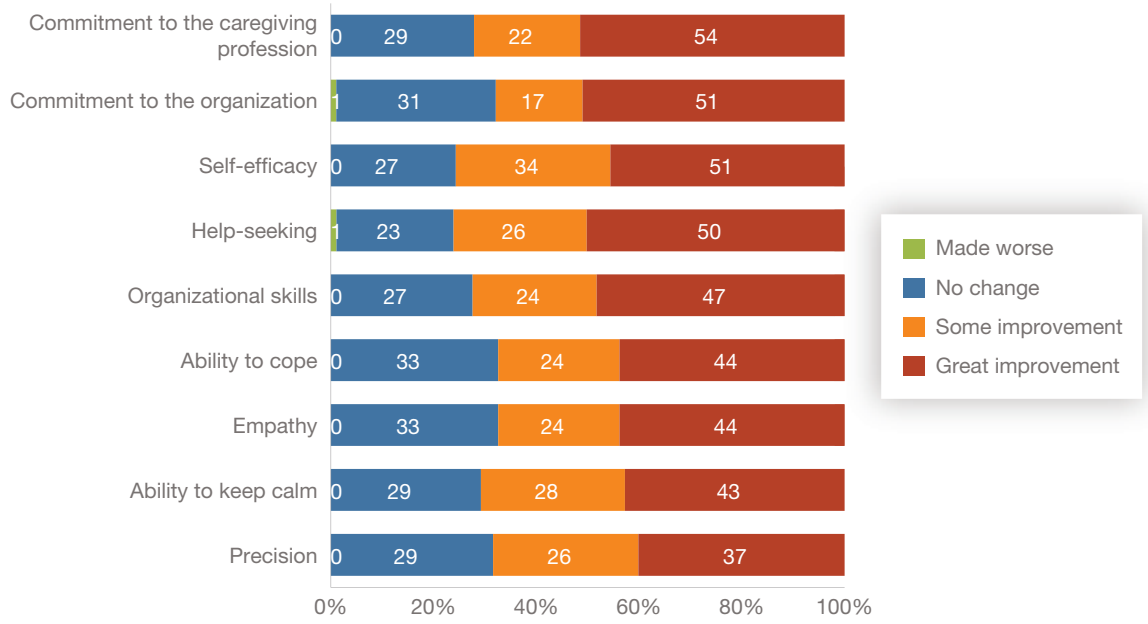
> I think it really varies by person to be honest. I'll say that some [caregivers] come very open minded to the program. Some don't. Something that is going to be beneficial to one, is something the other one might already know.

Factors Associated with Short-Term Outcomes

The logic model incorporated several potential short-term outcomes from THRIVE activities, including satisfaction with THRIVE and improvements in intrapersonal factors (e.g., calmness, coping) and interpersonal factors (e.g., empathy, help-seeking) targeted by the intervention. Survey findings revealed that THRIVE caregivers who completed the survey generally had positive perceptions about the extent to which THRIVE helped them (63 percent agreed or strongly agreed), core training (77 percent agreed or strongly agreed), Bring Back Day sessions (60 percent agreed or strongly agreed), and coaching (92 percent agreed or strongly agreed). The majority (close to 70 percent in most cases) of caregivers reported that they perceived at least some improvement in certain skills (see Figure 3.7) due to their experiences in THRIVE.

FIGURE 3.7

Survey Respondents on Areas THRIVE May Have Been Helpful Based on Experiences



In the interviews, caregivers provided examples of ways that THRIVE helped them change their attitudes toward their patients and other aspects of their life in addition to remaining calm and increasing their confidence and communication skills. One caregiver reported that

> THRIVE helped me with my thinking. . . . When you get negative energy or words back to you, you have to come back as a stronger person and try to overlook it and see the view from their shoes and not just yours.

When examining the contributions of these three programmatic constructs (core training, Bring Back Days, and coaching components) and sites to whether or not caregivers would recommend THRIVE (on a 10-point scale from "not at all" to "highly recommend"), we found that results from a linear regression indicated three significant predictors ($F(4, 64) = 31.8$, $p < 0.05$, model $R^2 = 0.67$): core training ($\beta = 2.14$, $p < .05$), Bring Back Day sessions ($\beta = 1.38$, $p < 0.05$), and coaching ($\beta = -0.97$, $p < 0.05$). This finding suggests that caregivers' willingness to recommend THRIVE were positively linked with their ratings of core training and Bring Back Day sessions but negatively associated with their ratings of their coach. While the reason for this finding is unclear, there might be a suppressor variable occurring, similar to what we noted might be happening when predicting intent to leave. We also examined the extent to which the site location and THRIVE components predicted caregivers' perceived improvements in interpersonal and intrapersonal factors, which ranged from the ability to keep calm and show empathy to self-efficacy and commitment to caregiving. The regression was significant ($F(4, 65) = 18.47$, $p < 0.05$, model $R^2 = 0.53$), with core training ($\beta = 0.44$, $p < 0.05$) being the only significant predictor of perceived improvement in these factors. This finding is consistent with expectations for core training, since each of these concepts is introduced and reviewed during such training, but it raises questions about the importance of Bring Back Day sessions and coaching in helping caregivers improve these factors.

Evaluation Question 2 Main Findings

- Caregivers with lower pay rates and those who identify as black or African American had a higher likelihood of terminating in both Years 1 and 2.
- In terms of survey data with low response rates, one job-related factor (higher levels of burnout) predicted caregiver intent to leave while one programmatic factor (THRIVE coaching) was associated with higher intent to leave.
- More favorable perceptions of Bring Back Day sessions were associated with several outcomes, including lower likelihood of absenteeism and better relationships with colleagues and managers.
- Higher ratings of core training were associated with perceived improvements in intrapersonal and interpersonal factors.

EQ3. What Are the Strengths and Opportunities for Improvement of THRIVE, Including the Intervention Content and Modality and the Skill and Knowledge of Those Delivering the Content?

THRIVE was a new program being implemented and tested in different settings. While the core components of THRIVE were defined at a high level at the beginning of the program, the model was being tested and developed as it was being implemented. This evaluation question focused on obtaining feedback on the overall model, components that were working well within the model, and potential areas for THRIVE improvement. We report on this evaluation question based on findings from the Caregiver Survey, interviews with caregivers and THRIVE staff, and observations of the THRIVE curriculum.

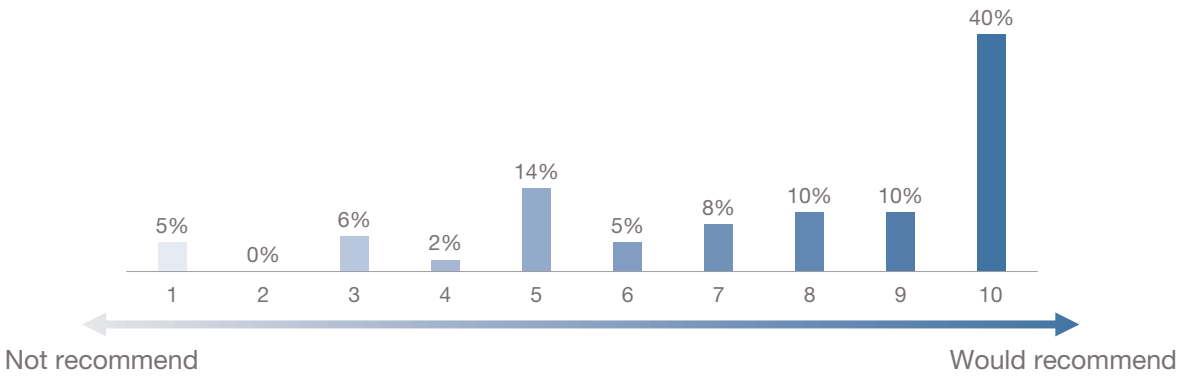
We asked specific questions about the components of THRIVE including the core training, Bring Back Days, and coaching on the survey, although the number of questions was limited due to length of the survey (see Appendix E). Most caregivers who responded to the survey provided positive responses (e.g., "agree" or "strongly agree") to survey items on the content, style, and facilitation of the core training. Similarly, most caregivers provided positive survey responses in terms of the content of the Bring Back Day sessions and their desire to attend them. Caregivers also responded positively to survey questions about coaching, including those concerned with coaches' knowledge, organization and preparedness, and enthusiasm. We also asked targeted questions in the survey to understand the extent to which caregivers would recommend THRIVE to a friend or colleague (73 percent, $n = 87$; see Figure 3.8).

In interviews, RAND probed caregivers about whether and why they would recommend THRIVE to a friend or colleague to understand perceptions in more detail, with mixed results. Caregivers generally appreciated THRIVE as an opportunity to orient themselves within the health system, meet other caregivers, and learn about self-care techniques, while also noting that THRIVE did not benefit them personally but could be helpful to others. The following quotations demonstrate some of the nuances of this mixed response:

> [Would you recommend THRIVE?] I think that is a conditional response. I think I would recommend THRIVE to a caregiver if they had not had the best educational experiences prior to entering the caregiving role maybe or not had experiences in a professional job prior where they had to interact with people who rank above them or even just fellow coworkers who are not sure how to approach those scenarios. But if you had a professional job before, then you probably would understand those sort of concepts.

> For me, it was just a repetitive thing because I've been doing this for a while now. It really wasn't anything new to me. . . . But I do think it's a good thing for new employees because it does give a lot of information that you wouldn't know.

FIGURE 3.8
Survey Respondents' Likelihood of Recommending THRIVE to Others



While most feedback on the program from caregivers was neutral, there were also some indications of ambivalence or indifference:

> It's fine. The person [coach] I have is really kind. I don't know, it also kind of feels unnecessary. It's all good intentions but at the end of the day I don't think it matters.

> It was neutral. There were some activities that they had us do that I felt were a little bit silly. But other than that, it was only three days, so it wasn't anything bad I guess.

In contrast, a few caregivers reacted to THRIVE either very positively or very negatively:

> I can't thank Ralph Wilson Jr. [Foundation] enough and all the staff who do the leg work for this program because this program was life-changing for me. . . . I learned so much about myself and others and how to be a better [caregiver] and a better person in general, so I really can't thank the people who actually do the work.

> I feel like there are really outgoing people [in THRIVE]. They really get you into the spirit of something you want to achieve. It's basically you have a birthday party and everyone you want to come is there to support you. That is how I feel in THRIVE. They really do support you. They even give you phone numbers to people that they have and help you from there.

> For me, personally, I came home, and I felt like a failure because they made me feel like I wasn't doing enough with my life, or I wasn't doing good financially.

> I think the first two meetings [core classes of THRIVE] were beneficial but after that it's annoying. My coworkers and I were all like we have to do this, this sucks. We would all text each other during it and be like ugh this is so dumb.

Risk Assessment Strengths and Areas for Improvement

Two strengths of the risk assessment emerged from the interviews: (1) it served as a basis for discussion of caregivers' needs and personal concerns, and (2) it laid a foundation for provision of potential supports provided by staff members.

Basis for discussion of needs and personal concerns. Some staff members noted the importance of the risk assessment for its ability to identify the needs of caregivers, which in turn allowed staff members to better determine which types of supports a caregiver may need.

> At first I felt like I never would have considered some of these [constructs] as something to work on as a caregiver. I thought that was great.

A few caregivers also mentioned how the risk assessment provided them with an opportunity to express their personal concerns with the coaches.

> It was good. I liked it because I got to express a lot of my concerns and how I felt about certain different things using the [Success]GPS.

Provision of potential supports from staff members. The risk assessment also served as a useful starting point for conversations between coaches and caregivers to allow coaches to probe on specific topics or challenges when meeting with caregivers for the first time. Based on the information gained from the risk assessment, staff members were able to refer caregivers to resources as well as inform them about opportunities such as scholarships for which they may be eligible.

The primary area of improvement for the risk assessment was the misalignment between the SuccessGPS and the coaching assessment. Staff members reported differences between the score produced by the risk assessment and coaches' own assessment of risk based on their interactions with caregivers both as they progressed through THRIVE and started working on their floors or units. In some instances, coaches thought that the risk assessment may not accurately capture the true risk level of the caregiver. As one staff member noted,

> So there's a lot of error in that GPS I feel. So now I more so rely on my initial assessment with [the caregivers] where we're just talking and hit on all those barriers during that.—*Staff*

Factors that may have affected the accuracy of the risk assessment include social desirability bias, lack of time spent on SuccessGPS and privacy concerns about the program, and possible bias in the coaches' assessments. We describe each of these below.

Social Desirability Bias

Some staff members speculated that caregivers may have answered questions in the SuccessGPS in a socially desirable way that may have affected the accuracy of the score calculated on the risk assessment. A few staff members noted that caregivers may have felt as though they were being "sized up" or judged while completing the risk assessment process, especially as new employees to the health system and that this led them to answer questions on the risk assessment more favorably.

> I think the main thing is that you are getting these questions and putting them into the computer, you are a new hire and it's probably hard in the back of their minds. . . . I think some of them think they are being sized up or think that they should answer this the right way even if it's not right.

> This gentleman of mine questioned me about the GPS and was argumentative about it because it was judgmental and not a good judge of anything really, and I said it's not used in any form of HR or given to [Health System]. It is a tool I utilize to better get to know you. I gave the example of if you were to answer that you struggle with transportation on this call, I have that data and we could discuss opportunities to work together to establish a plan like a bus route close to work.

Lack of Time Spent on SuccessGPS and Privacy Concerns About the Program

A few staff members noted that the risk assessment may not have accurately captured the true risk level of the caregivers because caregivers may have rushed through SuccessGPS without taking the time to think

through their responses. However, they did acknowledge that the risk assessment includes nearly 100 questions and may have required more time.

> So the GPS is really something that I used more when I began coaching initially and would kind of go off of that and say "here you said this, tell me about that." And I came to find out that a lot of people, through those GPS questions, . . . tried to click through and get it done or they're not reading it correctly or they mean to hit strongly agree side and they accidentally hit strongly disagree.
>
> The accurateness of the tool varies. I have [caregivers] that answer strongly agree to every barrier, and when I am on my call with them, I will say I see that you struggle with childcare, transportation, and your home life. Do you want to tell me about it? And they will say no I don't have any kids. Some of them go so fast through it that they are just clicking I believe.

In addition, a few staff members suggested that caregivers may have privacy concerns about putting personal information into a computer that is owned by their employer.

> I think sometimes in the conversations that you have with people when you build that rapport and relationship, they might be more open to saying, "I'm struggling with this" or they don't like working with certain people. They are not going to put that in a computer for work because they are concerned about that.

A further issue noted by one staff member was that the risk assessment does not take into account whether the caregiver is placed on a "toxic unit," which can affect the needs and behaviors of the caregiver, as well as their risk assessment score.

Overall, there is evidence that the way in which the risk assessment is conducted may lead to some inaccuracies and inconsistencies in terms of how the assessments are scored, which can affect the extent to which staff members interact with caregivers and the level of support they provide.

Potential for Coaches' Bias

Coaches not only differed with the SuccessGPS results in their own assessment of risk, but could also override those results. As one staff member said,

> For me personally, I think that sometimes the GPS is the weakest point in the [program] because it is driven by caregiver disclosure and self-awareness. So sometimes somebody will score low on the GPS in terms of risk, but I will observe behaviors or they will start talking to me about situations and I will say, "Hmm, I don't agree with a low on this." I think sometimes that is the part where I'm overriding the most.
>
> In addition, given that the coaching assessment was predicated on the judgment of the coach, that judgment could be influenced by the coach's own conscious or unconscious bias, as one staff member acknowledged: We just recently had a participant [for] who[m] English is their second language. So, I always just assume, and I shouldn't assume that they will come back as a high risk. And she was right in the middle. It's hard, it's your second language. And you're taking this assessment not in your home language.—*Staff*

Curriculum: Core Training Strengths and Areas for Improvement

The primary strengths of the core classes identified from the interviews with caregivers and THRIVE staff as well as from the observations of the course classes are that (1) the content and delivery were engaging and interactive for caregivers and (2) the classes provided an opportunity for caregivers to become oriented to the health system and meet other new caregivers.

Core Class Content and Delivery

In the interviews, many caregivers and THRIVE staff shared that the core classes include activities that are interactive and engaging and that lessons relating to budgeting, goal-setting, self-care, and diversity and inclusion were enjoyable. Other caregivers and staff felt that the content was helpful in strengthening caregivers' skills, especially those relevant to their lives and/or work at the health system. Caregivers reported that specific topics such as improving on-the-job communication and ways to handle difficult patient situations while working on the floor or unit were helpful.

> They really kept it exciting, I guess, more than just sitting there listening to someone lecture.
>
> There's something creative about engaging with THRIVE. There's something creative about engaging the process, and it makes me want to be more expansive, which is something I want anyway. That's something I appreciate.
>
> I've never actually worked on a floor before and didn't know how to approach a nurse or a doctor who is giving information about a patient and asking for help and stuff like that. It really taught me that you need to be open when communicating.

A few caregivers and staff members noted that the core classes helped caregivers think about their career goals and long-term plans, as well as how to achieve those goals:

> They also asked us what are our five-year goals. . . . Yeah, five-year goals, ten-year goals. Where do I see myself financially or career-wise? I'd say that was a good thing to share because I also saw my coworkers. . . . They also have career goals which made me feel good.—*Caregiver*
>
> Like I said, I do have the vision board from the class set up in my bedroom at my house. Yes, we did a lot of stuff and covered everything. It was just really therapeutic, and very helpful with how are you going to get from here to there, and what are your strengths and weaknesses, what can we work on and how can I help you . . . deal.—*Caregiver*

Our observations of the core classes also highlighted the enthusiasm and passion for THRIVE across facilitators at all sites. Facilitators were also generally well prepared and used a variety of learning tools to engage caregivers, including videos, whiteboards for brainstorming activities, and Kahoot! (a game-based learning platform). Facilitators also seemed to create a safe space for learning and asking questions, provided positive reinforcement and validation to caregivers, and were generally relatable. Caregivers also seemed relatively engaged throughout the core classes; sessions with activities that allowed for group discussions seemed to be the most effective for engaging caregivers.

Job Support Network

Some staff and caregivers shared in the interviews that by interacting with and getting to know other caregivers in the core classes, caregivers were able to create a support network during their time at the health system. Caregivers found this support from interacting with their coworkers in core training activities, but also through course content, which served as an introduction to both the job of being a caregiver and the health system, including practical information about employee benefits.

> Participating in THRIVE was different, never experienced before, getting to hear other people's experience or what they have been through—my coworkers—was a good thing.—*Caregiver*
>
> It is a large organization where they are physically not even certain where to go sometimes. That education and being amongst others so they don't feel alone. They can see others have the same questions and concerns. That is a safe environment.—*Staff*

We next discuss primary areas for improvement in (1) the content of the core classes and (2) their facilitation and delivery.

Core Class Content

In the interviews with caregivers, some said that the content of the core classes in general was repetitive and not relevant to their work. Additionally, some caregivers stated that much of the content was common knowledge for them, especially for caregivers with several years of experience in health care, and could have been condensed.

> Sometimes I do feel like some of the stuff is a waste of time. Sometimes they'll speak about stuff that doesn't pertain to work. There's a couple things I just can't bring them to mind, I just know it. It can be repetitive, and it can also be subjects that don't pertain to work for me. Some of it is stuff that I've learned already in life.

Some caregivers shared that they would have preferred topics with direct ties to their new job, such as scheduling and clinical skills. Our observations of the core classes also highlighted the need for increased clarity about the goals of each session and activity and their relevance to caregiving in general. As one caregiver noted,

> I just think a lot of the new employees were very confused as to why we were doing this and not jumping into actual operations of what does it mean to work for [Health System]. How do we look at our pay, how do we look at our schedules? What are we actually going to be doing in our job, which is what people thought THRIVE was.

In addition, some caregivers expressed in interviews that the activities were not targeted toward adult learners. Specifically, caregivers perceived the activities with arts and crafts to be "childish" and would have preferred to have had discussions instead.

> We had to make a poster about this concept of empathy. Or make a poster about a concept of respect. And to me it just felt childish for a lack of a better word and almost like we were in a scenario that we didn't need to be in. We could have just had a simple conversation about it and moved on. . . . It was a little dragged out with the implementation of arts and crafts. Which I understand for engagement purposes, textbook-wise it's a good thing to keep people engaged, but it felt a little ridiculous in a room full of adults.

> I thought some of the things we did reminded me of stuff we did in high school. Making posters and drawing stuff, it just reminded me of something we had to do in high school, and I thought it was a little beyond, like childish, I guess I would say.

Content Delivery and Facilitation

Both caregivers and staff shared in the interviews that sites increased hiring at their health systems and that the in-person groups were too large. A few caregivers and staff mentioned that caregivers who would participate in a smaller group setting tend to become quieter in larger groups and that groups of caregivers who got along well in large groups tended to become loud and be perceived by facilitators as a disruptive.

From both the interview and observational data, the delivery of the THRIVE content would benefit from increased attention to targeting caregivers as adult learners. Some caregivers and a few staff both mentioned that caregivers felt belittled by the educators during the core classes. In context with prior themes of content feeling "childish," it is important that core training facilitators maintain professionalism with caregivers, specifically avoiding using gendered language or condescending language in their interactions with caregivers, and maintaining a rapport with caregivers that is appropriate for adult learners.

> I feel like this is a little condescending program. . . . It just rubs me a little bit the wrong way and maybe it's because the way I've been talked to about it too.—*Caregiver*

> So many times I hear my coworkers say, "These people wouldn't get it," but I feel that it's up to us to get them up to this level. "These people" will get it if we just give them that opportunity. Not everybody from low SES [socioeconomic status] setting doesn't mean that they don't have the background to understand certain things and can't learn how to use computers.—*Staff*

From the observational data, it seemed that the core classes would benefit from a clearer delineation of sessions and closer adherence to the day's agenda. Time management was also an issue: Some sessions were very short, delayed, or ran over the allotted time. While keeping with the agenda, caregivers may need additional time to reflect before sharing their thoughts on the prompted questions, and facilitators may need to accommodate the reflection time needed before asking caregivers to respond with their reflections to the larger group.

Curriculum: Bring Back Days Strengths and Areas for Improvement

Caregivers and THRIVE staff described strengths of the Bring Back Days in terms of their (1) content and (2) delivery and facilitation.

Content

THRIVE caregivers appreciated that Bring Back Days provided an opportunity to revisit curriculum topics from the core classes. Some caregivers mentioned that the curriculum resonated with them more after having worked on the unit, and others found value in some of the new topics presented in the Bring Back Days, such as those that were most related to their positions as caregivers:

> Yeah, it's really informative of how to operate in the workplace.

> In the beginning when we were training, we would go over things, and it's just theory. But once you are part of a unit, once you talk to patients, all of those modules start making sense. So it was much better for me to go through everything after I've been with patients and I'm part of the unit because it would just make sense to me.

Delivery and Facilitation

Bring Back Days offered caregivers interpersonal opportunities to reconnect with other caregivers and THRIVE staff. Caregivers particularly appreciated listening to other caregivers' experiences of working on the floors or units.

> I think the Bring Back Day was good because it allowed us to refresh everything that we talked about the first time, and it was nice to just talk with everybody again after going time without having any interaction with the people I was a part of THRIVE with.

Caregivers also appreciated that THRIVE staff were friendly, and our observations of the Bring Back Days (as was noted in the core classes) also demonstrated that THRIVE staff were welcoming and enthusiastic about the content. It also seemed that caregivers were generally engaged in the discussions and were comfortable sharing their personal stories and the challenges they encountered while working on the units. Small group sessions appeared to be particularly effective for building rapport between the facilitators and caregivers.

> They are pretty neat; you listen to some of these people's stories, and they have never worked in a hospital maybe they worked in a nursing home. It's funny listening to them; we all kind of meet in the middle

> and it's all the same. We've all gone through these situations if you've had experience in a hospital or with customer care. We're all like the same group of people. Like going back and forth and talking with the individuals.

In terms of administration of the Bring Back Days, some caregivers and staff mentioned that the virtual sessions or modules facilitated ease of scheduling and attendance and allowed caregivers to complete the Bring Back Days on their own time, although others described many challenges with scheduling and attendance (described in more detail below).

We present here areas for improvement in the Bring Back Days, which include (1) scheduling and attendance, (2) content, and (3) delivery and facilitation.

Scheduling and Attendance

Caregivers and staff mentioned logistical challenges around scheduling and attendance for Bring Back Days that were offered virtually in a synchronous or asynchronous format because of other priorities, including work on the floor or unit, other jobs, family obligations, or school. Short staffing on the floors or units made it particularly challenging for caregivers to attend Bring Back Days. A few caregivers also mentioned that they did not have time to complete the online modules while they were on their shift on the floor or unit. Caregivers who worked the night shift also noted a particular challenge in attending a scheduled Bring Back Day session.

> I'm always working on those days. [Health System] is short staffed, and they would not even think of taking me off the schedule in order to go to class.

> The Bring Back modules were a pain in the butt, I'm not going to lie. They were completed but they were late for the most part because there is so much to do on the floor you don't really have time to sit down at the computer and do them so you have to do them when you get home, but you shouldn't do them at home unless it specifically says do then at home. So, they were completed.

> They [were] mandating us and making us work four days with 12 hours straight. I'm not about to work four days and wake up the next morning at 7:00 a.m. for no THRIVE. They understood what was going before we even had to say anything. We'd say we can't make it. Yea, it's paid but if I don't have to get up and do seven to 12 hours, I'm not getting up.

Staff similarly recognized the difficulties of scheduling and attendance for caregivers to return to Bring Back Days, not only in terms of caregivers' other responsibilities, but also because of a lack of scheduling support and communication.

> They have a lot on their plate, a lot of times they're going to back to school, they have families, they're just not engaged in regards to coming for the Bring Back Days at all.

> Our scheduling of these folks to come back, it's just like a Chinese puzzle. We are working on it, we're getting better with it, but we realized that there would be those individuals after the core 3 which is not the core 4 that they would maybe struggle getting back for the Bring Back Day. We thought that with different school schedules and with the COVID these floors were short, they were understaffed.

> I can tell you the thing that sucks the most of . . . my time that's least effective is the amount of time spent trying to schedule [caregivers] for Bring Back Days. A lot of my coaching time is spent on that.

Content

Some caregivers mentioned that the content presented in the Bring Back Days was redundant relative to the core classes and did not provide them with new information. Our observations of the Bring Back Days also

suggest that time management could be improved in reviewing topics previously covered in the core classes. Caregivers stated that they would have preferred the topics presented in the Bring Back Days to be more relevant to their experiences as caregivers. A few caregivers and staff suggested that the Bring Back Day content could be more individually tailored to caregivers' needs or that caregivers could select online Bring Back Day modules that resonated most with them.

> It's just so boring. I mean we can all be learners and yada yada yada, but you can only be lectured about stress management and how to schedule your day so many times.

> They were a nice refresher, somewhat annoying. They were pretty repetitive as far as like, "Tell us what you like about it, what have we done to help you?" It was very repetitive in that it was always like "What do you think, what do you think, what do you think?" That was a little frustrating. Other than that, it was fine, it was a nice little refresher.

As with the content of the core classes, some caregivers felt that the content of Bring Back Days was not appropriately targeted to them as adult learners. Caregivers were also often unclear on the goals of the Bring Back Days and often had difficulty recalling specific content sessions.

> Bring Back Days I'm going to be honest, I'm tired so I'm half paying attention anyways or I'm paying attention but it's not sticking. . . . Any of the Bring Back Days, I can't really think of anything because it's like, to me the Bring Back Days is more of me being back in high school sitting in class I don't want to be in. Where it's giving me info that could or could not be helpful, but unless I have a situation I can relate to, it's not relevant to me.

> I don't really even know, I don't really feel supported by THRIVE as much. Even though I did those modules, you still have to do a new learning module every couple of months on your learning account. I don't understand most of the concept behind it. I don't know what watching a couple of videos and answering some questions will teach me.

Delivery and Facilitation

Given that many of the Bring Back Days were conducted virtually and either synchronously or asynchronously, the use of technology was as an issue. Some caregivers felt that the virtual mode of facilitation for the Bring Back Days made it challenging to connect with others. Caregivers also expressed that it was difficult for them to receive validation from the facilitators in a short session when sessions were conducted synchronously, and a few expressed not wanting to participate because of how the sessions were structured Other caregivers who completed the Bring Back Day sessions in the asynchronous online module described the inability to easily check in with THRIVE staff members. Some also noted difficulty paying attention to the sessions, both for asynchronous and synchronous learning.

> Honestly, I felt like the virtual conference is pointless because we were set at one hour or two hours and the other participants—there was no cut off for them. They were just talking and talking, and no one could get a word in and then the topic changed. Not everyone could say something.

> Like when it's time to talk there's some people [other caregivers] that always talk like, 'Oh I had that experience!' and no one else gets to talk.

While time management could be improved to more effectively use the time available for the sessions and to allow for participant interaction, time management was also an issue when it came to activities in the Bring Back Day sessions, which had different durations and could have used more time to introduce the activities. A lack of clear delineation between different sessions and a lack of clear objectives point to additional areas for improvement.

Coaching Strengths and Areas for Improvement

Both staff and caregivers noted several strengths of coaching including (1) the accessibility of THRIVE coaches and (2) the work-related, practical, and emotional support coaches provided caregivers.

Coaching Accessibility

Accessible and personable coaches emerged as the most common theme for coaching strengths. Many caregivers reported that their coaches reached out to them on a regular basis, usually every month, and were willing to meet or respond to caregivers' outreach when needed. One caregiver noted that their coach was easy to reach if they had a problem or an issue arose:

> Knowing that if I have an issue, I can text my coach, let her know what is going on, and she will get back to me. Comforting to know she will look into issues.

Another caregiver described how the coaches were personable and provide individualized support:

> They are really awesome. They're really good at what they do. I love that they take the time to individually—not just as a group—sometimes you feel like you're getting categorized in a group setting, but they individually take time out to know who you are and recognize you by your name, your face.

Many caregivers also described positive coaching experiences due in part to the coaches' availability:

> They [the coaches] are always available, they gave us their phone numbers. . . . If we have any questions, we were able to just text them or call them, like, "Hey, I have a quick question for you." I think the coach is a very good resource because it's someone who is always available for you.
>
> I like that they're very open with you and they're very supportive and they let you know over and over again that if you need anything, about anything, that you can always go to them.

In interviews with THRIVE coaches, they reinforced this accessibility by describing how they made themselves available to caregivers, responding to texts and phone calls when needed in addition to their regular check-in outreach.

Coaching Support

Some caregivers described how their coaches provided support related to their jobs and work environment. Coaches served as a "sounding board" for challenges caregivers encountered on the unit, including relationships with managers, clinical staff, or other caregivers. Caregivers noted that coaches offered strategies and communication techniques for interacting with patients, other staff, or their managers. One caregiver noted that THRIVE and their coach gave them "confidence to speak with my manager if I'm not happy with something." Another caregiver stated:

> They [coaches] are a great source because they follow-up with you on a timely manner to know how your work life is going, any issues that you have, any concerns that you can't share with anybody, anything you want to share with your managers, but you don't know how to so coaches really help a lot.

Coaches also supported caregivers in navigating difficult situations that they encountered on the unit, particularly those related to staffing shortages. As one caregiver noted,

> Sometimes it can be overwhelming because we're short staffed. So with that, THRIVE gives me the ability to talk to my mentor [coach] about that and she tries to figure out ways how to help me or try to figure out what we can do or how I can go about trying to figure it out, but we are short-staffed.

Caregivers also said that because their coaches had backgrounds working in patient care, they were able to relate to caregivers' issues in ways that other sources of support, such as family members, could not. Caregivers noted that the coaches were a "third party" and not directly involved in the dynamics on the unit, which they also found to be particularly helpful when dealing with difficult situations.

> Sometimes you can go to a family member and talk to them, but they don't know what's going on in the health care world. I'll talk to my friends, and they'll be like what are you talking about. I can go to the THRIVE people because they've been in the nursing world, they can understand what I'm talking about—it's more the coaching part that's been getting me through. Changing my perception, they even helped me on the floor with my attitude.

Finally, some caregivers described relying on their coaches for emotional support, either about issues that arose in the workplace or in their personal lives. Coaches supported caregivers by listening empathetically and providing encouragement:

> I actually love [coach]. She is the best because when I say she's there for me when I literally about to have a mental breakdown, I can call her. She'll calm me down and just help me all the way through. She helped me get back into school. I'm going to do my road test soon. She's just been helping me, just keeping me focused.
>
> I know that [coach] has always been there for me, and she would talk to me if I wanted for hours on end just to see how I'm doing and what it is that she can help me with, and what if there are any improvements or if there is something setting me back, or anything. So that's what I really enjoy about it.

Another caregiver noted being surprised by their ability to trust their coach with discussing personal issues:

> [Coach] just makes me feel comfortable. I don't normally open up to people about stuff that goes on in my personal life or things I have concerns about in my personal life.

Our interviews with THRIVE staff and caregivers suggested two main areas for improvement for the coaching component of THRIVE: (1) perceived lack of value to many caregivers and (2) ensuring a manageable ratio of caregivers to coaches. In addition, there were other suggestions such as increasing awareness of the coaching component among nurse managers.

Perceived Lack of Value

Caregivers and THRIVE staff noted challenges that caregivers faced in participating in the coaching component of THRIVE, and many caregivers noted that they did not experience added value from the coaching, given these challenges. A few caregivers felt that the coaching sessions during one's shift took away from time spent on the floor or unit. As one caregiver stated,

> I can see how having to take time away from our jobs to make sure we attend this phone call that isn't doing that much for us can be frustrating. I'd say maybe reach out at least once and then, if that person says, "I'm struggling here" or "I need more resources," then continue with that, but otherwise, it sort of feels like a waste of time.—*Caregiver*

Some caregivers felt that they did not need coaching, especially if they had on-the-job experience. As one caregiver stated, "[The coaching] doesn't benefit me, personally, only because I've been doing this [job] for so long." A few staff members also mentioned that while they believed coaching was a beneficial component of THRIVE, it may not be a valuable use of time or beneficial for all caregivers:

> There are [caregivers who] definitely benefit, who can benefit from the one-on-one coaching, but there are others that it's just not necessary to their success and it doesn't really add much value to them, but they still fall in our case load.

> I think it's nice to have a support system and another person in your corner, but the downfall is there are a lot of people out there who don't need an extra person, and they are aware of their social supports—who they can go to when they need help—and we lose contact with those people. We are the annoying person trying to get a hold of them and that for me, I don't enjoy that part of it. So maybe filtering some people out of THRIVE.

Changes in Coaching Load

Adjustments in the ratio of caregivers to coaches may be needed to improve the coaching. Some THRIVE staff across all three sites noted that coaches may have too many caregivers on their caseload, which affects the quality of their individual coaching. Staff reported caseloads to be between 55 and 135 caregivers, depending on the month and enrollment. One staff member described the strain of a high caseload and its impact on the ability to provide individualized and high-quality coaching services:

> I think there is this tension right now with how high our caseloads are that I think sometimes just due to sheer time and scheduling needs, I don't always have my full attention available to folks even when I'm meeting with them. My brain is kind of pulled [in] a bunch of different directions. So, I think THRIVE failed to allow for that capacity all of the time when there [is] a lot of disproportionate work or strain put on to the coaches or the staff if they are doing too much with too little.

One caregiver recognized their coach's caseload, noting that THRIVE

> can use some more coaches. I love my coach, she gets back to me when she can, but they have a lot of people, which requires a lot of time.

Some staff said that a high coaching caseload led to burnout. According to one staff member,

> I think there are still just too many caregivers per coach so that we sometimes feel like we can't do our jobs well for every single caregiver and that's really unfortunate because we all take great pride in what we do. So, I think that's the way it's been impacted in terms of burnout and just volume overall.

As noted earlier, not all caregivers and THRIVE staff felt that the coaching component should be required for all THRIVE caregivers. Limiting the coaching component of THRIVE to caregivers who may be most likely to benefit from coaching or those who desire coaching support could reduce coaches' caseloads.

Other Suggestions for Improvement

Although mentioned less frequently, a few THRIVE staff and caregivers suggested improved alignment in coach-to-caregiver assignments and incorporating caregivers' preferences around coach selection (e.g., based on a sense of rapport and similar lived experiences). As one caregiver explained,

> I feel like it would be beneficial if we were able to choose our coach, I think, because sometimes you connect with the other coaches in the classroom more. You may want to talk to them or feel more comfortable talking to them, but you're kind of stuck with the coach you have.

THRIVE staff also discussed other ways of improving coaching including increasing awareness about coaching among nurse managers and being able to provide additional follow-up resources for caregivers.

Resources and Infrastructure Investments Strengths and Areas for Improvement

Coaches typically served as the primary source of connection to the resources provided to THRIVE participants. Some caregivers expressed their appreciation for these connections:

> Whatever I need, whether it is personal or work related, they'll support you in any way. I love the coaches; they text you. It's so personal. They'll reach out to you really if you are having car trouble, they can give you resources. Like I said, if you're expecting, they'll give you resources. If you're having a conflict at work, they're like your own personal advocate.
>
> When I first began at [Health System] I had thoughts of maybe going back to school. She had told me about a couple different resources they had available such as scholarships that they offer and how to go about taking advantage of those and the information I would need. That and like I said the childcare resources that she offers, so, it's been informative and things that I could take advantage of if I wanted to or needed to. Especially going back to school with a one-year-old, having a scholarship would be really helpful to some people.
>
> Something that was helpful—I told my coach I was going back to school, and she sent me info about tuition reimbursement and stuff like that. That was really helpful but that's the only thing that stands out for me.
>
> I want to say [name] is the person I talk to. I talked to her a couple times. She gave me some good information. One of the things she said I should try to do is the insurance. . . . She said it doesn't hurt to put in the application. . . . I did what she told me to do and actually got a discount on it.—*Caregiver*

As noted above, infrastructure investments were rarely mentioned in discussions with program and staff and caregivers, most likely due to the fact that most sessions were moved to virtual platforms during the COVID-19 pandemic.

Program Management and Operating Context Strengths and Areas for Improvement

We identified two primary strengths related to program management and administration of the THRIVE program based on interviews with THRIVE staff: (1) leadership and manager support and (2) cross-site collaboration.

Leadership and Manager Support

THRIVE staff considered buy-in and support from leaders in the health system, such as senior nursing leaders and HR directors, to be integral to building and maintaining a strong THRIVE program. THRIVE staff also mentioned that support from managers on the floors or units overseeing caregivers participating in THRIVE was also important for the program's success.

> I do think that now we're getting a lot of manager buy-in because they're seeing the benefit of having a coach, the benefit of the THRIVE classes and teaching professionalism and just teaching the classes that we talk about here. They're seeing the benefit of Bring Back Days.

Program managers and other THRIVE leaders reported meeting with nurse managers periodically to raise awareness about the program, communicate the benefits, and gain support for it. Many caregivers also noted that their manager was supportive of their participation in THRIVE, enabling them to attend Bring Back Days or coaching sessions.

Opportunity for Cross-Site Collaboration

THRIVE staff mentioned that for cross-site calls created opportunities to about strategies that may have been useful at other sites. Staff members appreciated the role of the curriculum coordinator, in particular, who was responsible for organizing and answering any questions related to the THRIVE curriculum:

> We have curriculum meetings that have been like bimonthly and now every month [the education manager] who oversees all of the curriculum has done a fabulous job of seeing us if we have any questions or concerns.
>
> This has been what's been so great about our cross-site calls with [THRIVE staff at other sites]. So, we've tried to really collaborate and say, "What has worked for you?" . . . I think we're all on the same page in plugging along.—*Staff*

The areas for improvement included (1) alignment across health systems, (2) THRIVE staffing and training, (3) awareness of THRIVE among caregivers and managers, and (4) the mandatory nature of the program for all caregivers.

Alignment and Collaboration Across Sites

There was a lack of alignment across sites in how THRIVE was implemented. These variations across sites were reported as positive by some THRIVE staff (i.e., inherent need for adaptations and flexibility given system differences) and negative by others (i.e., inconsistent or inadequate application of THRIVE). Further, a few staff who reported that not all information was shared consistently or that they did not feel listened to across all sites. One staff member explained that their site felt that their ideas for improvements in the curriculum were not considered by all sites, which led them to

> try to jazz it up a little bit. We try to come up with creative activities that are going to keep people engaged. The subject can be dull. We put our own little twist on it too.

THRIVE Staff Turnover, Roles and Responsibilities, and Team Dynamics

Turnover in key THRIVE positions, without adequate cross-training or clear documentation of roles and responsibilities, caused delays and challenges with program implementation. Short staffing was a challenge not only in the broader health system but also within the THRIVE program at the sites themselves. A few staff also mentioned that they did not receive formal training in the program and that information was generally shared through informal conversations and reading materials when they began their positions:

> When I first started, I will say it [training] was pretty minimal at first, I was kind of learning as we go. And a lot of it I did on my own, self-taught learning about different things with coaching. . . . We had some minimal stuff about the program and what the purpose is and the contract. I probably reread the coaching manual like 50 times trying to narrow it down, and then I would go on and research some of the topics on my own too just to get comfortable and understanding of it since it was new to me.

We received mixed feedback from THRIVE staff members as to whether the coach and educator roles should be combined (i.e., coaches cross-trained as educators and vice versa). Some THRIVE staff suggested that cross-training coaches and educators would allow coaches to be more aware of any issues raised in the core classes. We also heard from some staff that the roles of educators and coaches were not balanced, in that coaches had a higher ratio of caregivers, and that cross-training could help balance workloads among THRIVE staff members. The program may also benefit from clarity in the descriptions of THRIVE staff roles, particularly for any potential turnover among THRIVE staff.

> I think if coaches and educators were cross-trained, and they had their group that they were onboarding and they were the ones teaching the class and they were the ones that were following the full year, that coach/educator would take ownership of—I don't want to say of success because ultimately they own their success—but they would be making sure trying to get those caregivers on the Bring Back Days because it's there on those days, they're teaching. So it would be making sure they're following up.

> Providing well-developed job descriptions, roles, and responsibilities for each team member, along with the development of a transition plan outline would make future personnel changes less disruptive to continued program implementation.

Some THRIVE staff members thought that the program could be improved by considering an ideal staff team makeup, including increasing diversity in professional and demographic backgrounds of staff members. A few staff members noted the importance of increasing racial diversity among staff team members given the predominance of black caregivers. In addition, a few staff members suggested additions to the roles of staff members, such as incorporating a mental health expert on the team to assist with specific caregiver needs and particularly with the stress, anxiety, and burnout due to the ongoing COVID-19 pandemic:

> It would be really great if THRIVE had a specific counselor or therapist available for referrals because a lot of folks in this population [who] come through our program absolutely would benefit and are interested in mental health therapy or counseling.

THRIVE staff also mentioned challenges in team dynamics, such as not feeling as though they were consistently listened to by other THRIVE team members either at their health system or across sites. In particular, a few staff members noted that attention to team dynamics is critical for the program's success:

> I think we have some difficult personalities on our team that can be very challenging and maybe even toxic sometimes that kind of put their feet in and just won't do things.

Awareness of THRIVE and Buy-In to the Program

Many caregivers reported little awareness and knowledge of THRIVE prior to beginning the program, which created challenges for setting expectations and articulating the core goals of the program to support caregivers. We also learned in the interviews with caregivers that some were unclear about which components of their orientation to the health system fell under the THRIVE program and which were part of the general clinical orientation.

> I didn't feel prepared to do my job once I got on the floor because the majority of the [length of orientation] weeks of orientation were spent on THRIVE modules. I was confused because I didn't know what it [THRIVE] was, and . . . it didn't seem like my manager or anyone else on my unit knew what it was. So mostly confusion at first.

> I was kind of confused about it at first, but after . . . talking with the THRIVE coaches and the educators, and my actual educators that work in my department, I began to learn a little bit more about them and a little bit more about the resources that they have to offer. And things of that nature.

> Basically, they just put you in THRIVE. They don't really ask you. They just put you in it. I was kind of unsure what the purpose of things were. It's a good program. It's just kind of lengthy. You know, you sit there for eight hours. Basically, they're just reinforcing what you already know, but you're not asked if you want to go to THRIVE or not.

Some THRIVE staff also reported that some managers were less familiar with THRIVE, which posed challenges for their support of the program. One staff member spoke of the need for improvements in terms of "nurse manager buy-in overall," but also expressed concern about "the lack of awareness about the THRIVE program in general." Other staff members noted,

> There are some managers that don't believe their associates need help with their interpersonal skills, that they don't need help with communication, and this is just a waste of time and I want them on my floor right

> now because I have patient care. . . . You will always have people who don't buy into things, you will always have the late buyer-in'er's.
>
> Even sometimes with our managers, I don't think they fully understand what the program is to be able to explain to a new hire if they could potentially give them that information.

Similarly, some caregivers noted that their managers were either not supportive of their participation in THRIVE or were generally unaware of the program:

> I'm not going to lie, I don't think she [manager] even cares about the THRIVE program. She hasn't mentioned anything to me about the THRIVE program.
>
> I don't think my manager knows what THRIVE is. I mean she probably does, but I don't think we've ever spoken about it. My manager is rarely on the unit. I've talked to her like five times in the year.
>
> [The floor] is busy. That's why they don't want to give me a day off when I have to do THRIVE.

A clearer description and explanation of the THRIVE Program and its goals for both caregivers and nurse managers may help set expectations and goals for the year-long program.

Mandatory Nature of the Program

We also received mixed feedback from caregivers and staff as to whether THRIVE should be mandatory for all entry-level caregivers. While some staff firmly believed that all components of THRIVE should be mandatory, others provided more nuanced responses, suggesting that some components (e.g., coaching) could be optional based on the caregiver's background and preferences. Other staff suggested that THRIVE could be expanded across the health system, not just to entry-level caregivers but to other employees as well. Caregivers also provided mixed feedback on the mandatory nature of the program, as some felt that while the program was not necessarily beneficial to them due to prior experience in the health care setting or other related factors, it may be helpful for caregivers who were new to working in health care:

> [THRIVE] doesn't benefit me personally, so far. It just doesn't benefit me, personally. But it's really good for people and not just a medical thing. It's helpful for people getting into any field. It helps for anybody who's started a career in any aspect. . . . It just doesn't seem to be as beneficial for a person who is more established.—*Caregiver*
>
> I'm always on the fence with that [mandatory nature of THRIVE], but I think it should be mandatory. I think it does add value. It's just the Bring Back Days that need to be looked at once again on how we bring them back.—*Staff*

Finally, although the sample size is small, survey responses indicate that half of the caregivers (50 percent) who participated in THRIVE had at least three years' experience providing direct care or caregiving services to patients. Close to 20 percent (18.5 percent) had more than ten years of experience.

EQ4. Can THRIVE Break Even or Generate a Positive Return on Investment So That It Is Financially Sustainable Without Philanthropic Support?

If THRIVE is determined to be successful, it is important to also understand whether it is a financially sustainable model on its own, without philanthropic investment. This is key to understanding the potential

Evaluation Question 3 Main Findings

- THRIVE was implemented differently than designed at the beginning of the project regarding the mode of delivery (virtual versus in person), synchronicity, and level of staff cross-training. This appears to be due to challenges related to organizational staffing shortages, local requirements, and COVID-19.
- There seems to be an overall indifference to THRIVE among caregivers and a lack of understanding of what THRIVE is when beginning the program.
- Reported strengths of THRIVE include enthusiastic and passionate staff who provide work-related, practical, and emotional support to caregivers.
- Reported areas for improvement include adjusting THRIVE activities to better target adult learners; using more respectful language; clarifying roles and responsibilities of THRIVE staff; providing more support and engaging THRIVE staff to reduce feelings of burnout or feeling unheard; and improving program diversity in terms of demographics (e.g., race, age), additional skills, and backgrounds.
- The program should reconsider the requirements that all eligible caregivers participate in THRIVE.

expansion of THRIVE into different health systems as well as its continuation in existing settings. For a program to be financially sustainable without outside funding, it needs to break even or generate a positive ROI. Put another way, the incremental investment in THRIVE needs to be equal to or smaller than the incremental financial benefits accrued. By "incremental" we mean in comparison with an alternative, which is the time period 12 months prior to the implementation of THRIVE. RAND examined THRIVE's ROI for Years 1 and 2. Year 3 was not included as the program was paused halfway through that year and thus Year 3 data were not available.

We conducted a cost analysis to derive the average program (or intervention) cost per direct care worker. Based on the data provided by the health systems, the average total cost per THRIVE-eligible caregiver was $1,772 in Year 1 and $2,263 in Year 2. The breakdown of these amounts is shown in Figure 3.9. The majority of the costs were THRIVE staff labor (salaries and fringe benefits), which accounted for 47 percent of costs in Year 1 and 54 percent of costs in Year 2. Within this category of staff labor, those in administrative functions (e.g., program managers, coordinators) accounted for 41 percent of labor costs in both Years 1 and 2. Given increases in hiring in Year 2, there was an increased expense for THRIVE staff to be averaged out across caregivers. Time for caregivers to attend core training and Bring Back Days accounted for 33 percent of costs in Year 1 and 25 percent in Year 2.

Based on the data inputs, the average expenses for each terminated caregiver were $5,254 in Year 1 and $5,972 in Year 2. The breakdown of these amounts is shown in Figure 3.10. Most of the increase in termination expenses in Year 2 was associated with higher costs for replacement workers.

The benefits come primarily from retention changes. If retention improved, expenses for hiring, onboarding, training, and terminations, and substitute or overtime workers would be reduced.[13] We converted benefits into dollars but there are other potential benefits such as improved satisfaction or morale or productivity that we were not able to monetize. Due to the historical nature of the comparison, the results

[13] Overtime and temporary (or substitute) workers are more expensive. Only costs beyond the terminated worker's rate were included.

FIGURE 3.9

Average Cost per Caregiver for THRIVE Return on Investment Cost Categories

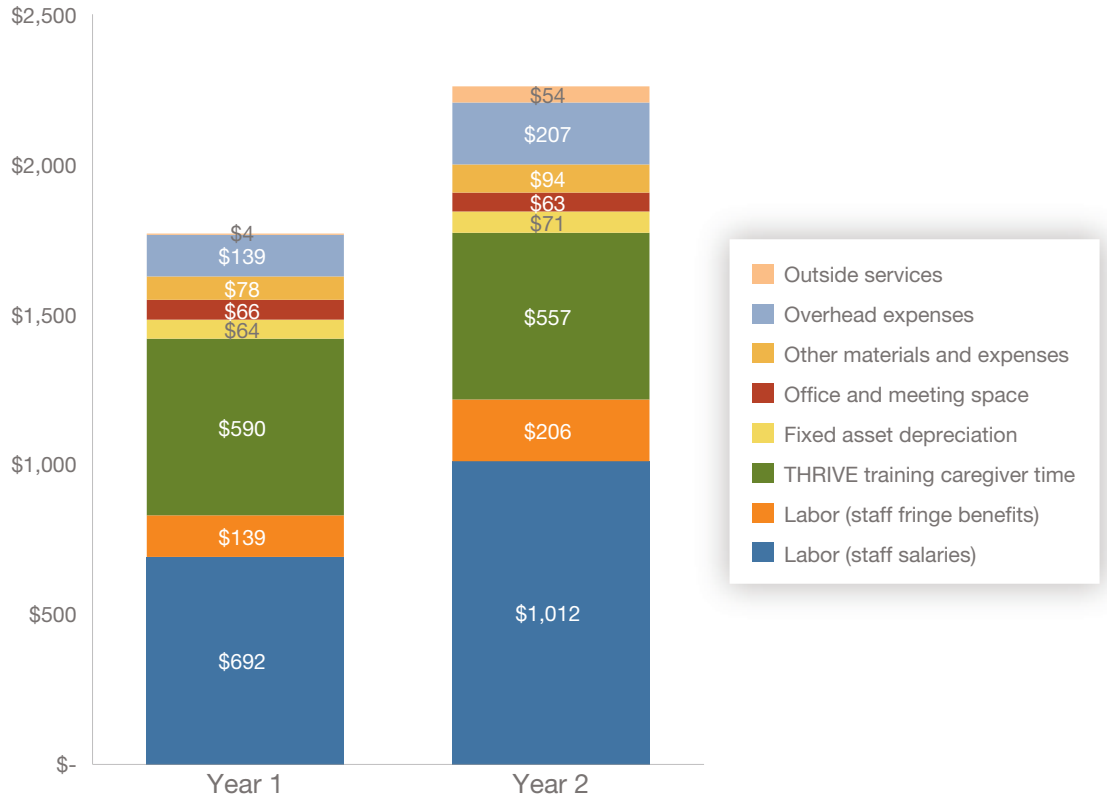


FIGURE 3.10

Average Expenses per Terminated Caregiver

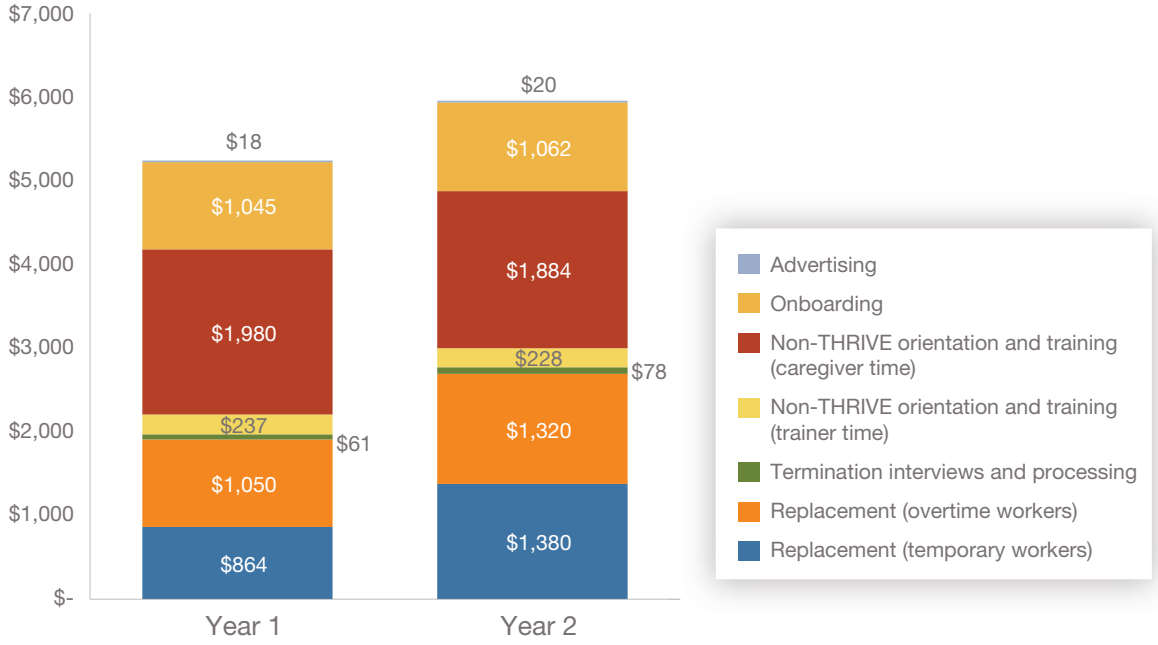


TABLE 3.10
Hypothetical Percentage Changes Needed to Break Even Based on Current Termination and Hiring Cost Estimates

Percentage Change in Retention	Needed Year 1 Average Cost per Participant	Needed Year 2 Average Cost per Participant
35	$1,839	$2,090
30	$1,576	$1,792
25	$1,314	$1,493
20	$1,051	$1,194
15	$788	$896
10	$525	$597
5	$263	$299
Total	**$1,839**	**$2,090**

may be confounded by concurrent events such as trends in retention and other changes in the partner organizations.

In Years 1 and 2, THRIVE did not break even or generate a positive ROI. The ROI in Year 1 was –1.09. In other words, for every dollar invested in the program, there was an associated loss of the dollar invested and an addition 9 cents (i.e., $1.09). In Year 2, the ROI was –1.11 (i.e., an associated loss of $1.11). To break even, the program would have needed to have an average retention rate that exceeded 100 percent in a 12-month period in Years 1 and 2, respectively. In other words, given the program costs, it would not have been possible for the program to break even.

Given this finding, RAND conducted an exercise to identify hypothetical point changes in the 12-month retention rate and the associated spending per THRIVE participant that would be required to break even (see Table 3.10).[14] Since the Year 0 retention rate was over 60 percent, we present estimates beginning with a 35 percentage point change. If retention had increased by just over 5 percentage points and the intervention was delivered at an average cost of less than $300 per person (or specifically $265 in Year 1 and $299 in Year 2), the ROI would reach a breakeven point.

As a reminder, the average costs per caregiver were $1,772 in Year 1 and $2,263 in Year 2.[15] When comparing these numbers with the majority of costs for the program (i.e., THRIVE staff labor and fringe benefits) which were $831 in Year 1 and $1,218 in Year 2, an increase of more than 15 percent change in retention would be required in Year 1 and 20 percent in Year 2. Alternatively, in examining costs of time paid directly to caregivers for the program, even 48 hours of required training and education time (e.g., three days of core training and six Bring Back Day sessions) at an average rate of $15 per caregiver would be approximately $720. Those costs alone would require close to a 15 percent change in retention in Year 1 and more than 10 percent in Year 2.

[14] We are considering the retention rate of only the new hires. This ignores any additional hiring to replace terminated workers hired prior to the program year.

[15] Based on this exercise, these estimates do not indicate that the retention rate would need to exceed 100 percent but this is due to conversions between examining 12-month retention and average months of retention.

Evaluation Question 4 Main Findings

- Average total costs per THRIVE-eligible caregiver was $1,772 in Year 1 and $2,263 in Year 2.
- Average expenses per terminated caregiver were $5,254 in Year 1 and $5,972 in Year 2.
- THRIVE did not break even or generate a positive ROI in either Year 1 or Year 2 of the program.
- To break even, a retention rate over 100 percent in a 12-month period would have been needed in Years 1 and 2.

EQ5. What Lessons Learned Would Other Sites Need to Leverage When Implementing an Intervention Such as THRIVE in the Future?

Throughout the project, RAND explored questions related to lessons learned that may be useful to other health systems considering implementing an intervention such as THRIVE. Findings for this evaluation question emerged primarily from staff interviews but also the one learning network discussion held in October 2019 (focused on what worked well and what did not work well regarding planning for and implementing THRIVE for the first four months of the project). There were a number of lessons learned from staff reflecting on both positive and negative implementation experiences, including (1) ensuring adequate planning time; (2) obtaining organizational buy-in; (3) providing cross-site learning opportunities; (4) clarifying staff roles and ensuring diversity among THRIVE staff; and (5) improving program documentation and tracking, as well as ensuring that technology is in place to support program needs.

Ensure Adequate Planning Time Prior to Program Implementation

Sites had dedicated planning time prior to THRIVE's initial implementation. This allowed them to involve a range of organizational representatives and truly integrate the effort into organizational operations (e.g., alignment with human resources, corporate onboarding). Sites felt this planning time was critical to early successes. Sites also mentioned the importance of communication with leaders throughout the health system prior to the implementation of the program, with some noting that even earlier program promotion and cascading of program information to HR and recruitment would have allowed management and senior leadership more time to adapt to the change:

> Prior to the launch of THRIVE, you really want to make sure recruitment and HR and everyone is on the same page that your criteria for who needs to attend THRIVE is well known, the benefits of the program are well known. . . . I think keeping communication open and talking about the program regularly is very important.—*Staff*

> Leadership support is paramount to really any program rolling out well, so I think that would be necessary. Not only executive leadership to roll it out but also whoever you're working with.—*Staff*

There was also a recommendation to start small. As one staff member noted, "Don't spread your wings too far." The desire to accommodate as many caregivers as possible in the program can lead to issues with both scheduling and training, so time should be allowed for implementing processes with fidelity before expanding. For example, THRIVE staff felt that there should be at least two days dedicated to learning about the risk assessment tool from a subject-matter expert, in order to understand its components and how to use it, as well as to allow time to practice using it.

Obtain Buy-In from Leadership, Managers, and Other Departments Throughout Implementation

For participating sites, interest in THRIVE began at the executive level and implementation teams were built from that. If executive support is not in place, then given the amount of coordination needed across program roles, a strong leadership structure that is supportive of the effort is needed. Staff emphasized the importance of buy-in from senior leadership for ensuring a strong, sustainable program. Staff noted that communication to different leaders within the health system about the goals of THRIVE is critical to building support for the program.

> I think it's important to make the connection between THRIVE and the manager and HR and the organization. THRIVE can't exist on its own trying to help people. . . . There needs to always be a strong connection so that we can work together to have that person succeed in the job, whatever that may be.

> The message has to come that there is support from the top level but communication, that building your relationship has to happen with frontline managers and the frontline educators, because they're going to either support everything or they're not going to. If they don't, they find ways around and try to get their people out of it. They need to see the benefit of it, with communication with those.

Sites also noted that there may be some resistance from clinical sites and suggested that consistent communication, through open forum Q&A sessions or regular meetings with nurse managers to talk about the benefits of THRIVE, program expectations, and how the process will work, could be a great benefit. Sites reported that constantly aligning communications with nurse managers has been important as these individuals play a key role in the coaching process. For example, one staff member noted the importance of raising awareness and building support among nurse managers:

> Maybe that would mean even more training for nurse managers that collaborate with THRIVE so there's a better understanding of what we do, which I know we've had something like that before maybe a more in-depth one.

Finally, sites spoke to the importance of relationships and communications with HR and recruiting. They suggested that regular meetings with these departments help ensure an open line of communication and facilitate alignment of schedules, calendars, and the like.

Provide Opportunities to Learn About Implementation from Other Sites

Program staff and leadership highlighted the importance of being able to observe activities at other sites. For example, they noted that facilitators and educators should observe training sessions at other sites to promote training fidelity and consistency and increase program impact. Staff also noted that program managers, facilitators, and educators should share and explain scheduling documentation to help the team understand the complex process related to coaching.

Program meetings in general were useful for partner organizations to discuss challenges and solutions and align processes across the three partner organizations. Specifically, "coaching calls" provided coaches with an opportunity to learn from one another and raise potential issues to be addressed. Staff across sites found that coaches requested to meet on their own to talk with other coaches about lessons learned and best practices. Given the collaborative nature of this effort and given that the health systems span three different cities and multiple facilities within each health system, face-to-face meetings were noted as critical to allow for observation of best practices and relationship building.

Clarify THRIVE Staff Roles and Ensure Diversity in Backgrounds Across THRIVE Staff

Staff members' comments and perspectives about cross-training coaches and educators suggest that the program should clearly consider roles and responsibilities of staff members. While some staff members did not feel that the coach and educator roles should be combined, others felt that cross-training of these roles would provide staff with additional connection to caregivers on their caseload and alleviate an imbalance in workloads between educators and coaches. The composition of the THRIVE staff team should also incorporate diversity in terms of professional background and demographics of staff members. Increasing racial and ethnic diversity among staff members in particular may help align the demographics of THRIVE staff members to caregivers participating in the program who identify as predominantly black or African American.

Establish Better Program Documentation and Tracking Systems and Ensure That Technology Supports Program Needs

Some staff members mentioned challenges with the current technology systems for THRIVE, noting that their systems for documentation hindered the program's implementation and could be improved. For example, the Excel spreadsheet used to summarize the risk assessment should be carefully reviewed and tested to ensure scores are being calculated correctly and consistently for caregivers and that the formatting of results is useful for coaches. There was also continued room for improvement, such as including a mechanism to accommodate and document changes in risk levels of caregivers throughout the program and find a way to have more consistency across coaches. In general, participants noted that better use of technology for recruitment, onboarding, scheduling, and documentation of caregivers throughout the program would improve efficiency and communication for THRIVE staff.

> Our hindrance is we could be more computer savvy—as opposed to sending individual text messages to THRIVERs, have a group text message where all THRIVERS receive the same message. This would improve efficiency and decrease the amount of time communicating to all THRIVERs.

> I think our documentation and our database could be improved. I think it lacks a formal program. I don't think the way that we do things now is efficient. I think the tools that we use to document are very basic and I think we could do a lot better, and we have taken steps to that.

The COVID-19 pandemic required sites to implement one or more virtual solutions for the program, whether it was virtual core training or computer-based modules for Bring Back Days. Better technological infrastructure and capacity, as well as better training around technology needs, this may have facilitated less disruptions to implementation of different THRIVE components.

Evaluation Question 5 Main Findings

- Ensure adequate planning time prior to program implementation.
- Obtain buy-in from leadership, managers, and other departments throughout implementation.
- Provide opportunities to learn about implementation from other sites.
- Clarify THRIVE staff roles and ensure diversity in backgrounds across THRIVE staff.
- Establish better program documentation and tracking systems and ensure technology is in place to support virtual or web-based options for the program.

CHAPTER FOUR

Recommendations

This chapter presents RAND's recommendations based on findings to date (i.e., largely reflecting program Years 1 and 2). Our recommendations are organized into three areas: (1) adjustments to THRIVE as the current model stands; (2) alternative interventions to help achieve the desired goal of improved retention; and (3) evaluation considerations.

Adjustments to THRIVE

To a great extent, our evaluation was process-focused. That is, we sought to identify areas where the program had strengths as well as potential areas for improvement. This component of the evaluation proved challenging at times due to variations in implementation approaches within and across sites. While THRIVE was initially presented as a very specific model with criteria and steps for each component, we found implementation varied fairly significantly, with changes increasing when the COVID-19 pandemic hit. For example, the core training was initially intended to take place in person for four days, with an accompanying facilitation guide specifying talking points and core content. While the core training began that way across all sites, it was changed to two or three days depending on the site and to a virtual mode instead of in-person sessions for some sites. Bring Back Day sessions also changed from in person to virtual with some being stopped altogether for a brief period of time. Further, coaching sessions had a planned structure based on the risk acuity level, but this also changed based on either reported need for the participant or health system preferences to have a regular occurring check-in for all caregivers. In addition, some health systems began implementing group coaching as opposed to one-on-one coaching. (Because group coaching had only begun to be implemented during our data collection period, we were able to gather perceptions from only a few staff.) While health systems made these changes to be responsive to their own needs and restrictions, the lack of fidelity to the original model inhibited the ability to assess what components may have been working well across health systems. Thus, feedback or lessons learned needed to be aggregated to high level (e.g., provision of some coaching), which can minimize the practical utility of informing specific changes (e.g., provision of at least X number of individual coaching sessions predicted Y outcome).

Despite these challenges, we present here recommended changes to THRIVE based on evaluation findings to date. Note that the program is undergoing potential revisions at the time of the report writing. While these findings are applicable to the current implementation approach to THRIVE, some may be considered for future iterations of the program or programs that may have similar design elements.

Clearly articulate the goals to leadership, managers, and caregivers up front. Successfully implementing a program of this magnitude (i.e., mandatory attendance for all newly hired caregivers) requires multiple levels of support. THRIVE program staff spoke to the importance of ensuring that health system leadership and caregivers' managers understood the program and its goals to be supportive of caregivers' participation in THRIVE. In addition, given that caregivers often had difficulty recalling certain sessions of the core classes and Bring Back Days, often confusing them with general clinical orientations, clearer communication

of the goals and intent of the core classes/Bring Back Days may be beneficial for setting expectations for them and at all levels.

Increase diversity of backgrounds, experiences, and demographics among those developing and delivering THRIVE. THRIVE was implemented as a universal approach to support for all newly hired caregivers. Yet, the program serves a diverse group of mostly women from different racial and ethnic backgrounds, years of work experience, and economic status, among other things. It does not appear that caregivers were consulted about the design of the program and even some staff often did not feel heard when suggesting modifications or potential areas for improvement. Further, some of the language used during the facilitation of the trainings could be perceived as inappropriate (e.g., "childish") or even offensive at times. Finally, the evaluation team heard about caregivers' experiences of racism across health systems which did not appear to be consistently reported to all THRIVE staff, suggesting there may have been some hesitancy in sharing this information. While racism was not always tied directly to THRIVE, it can have a major effect on one's work experience. THRIVE could benefit from examining potential areas of structural or other types or racism and present approaches to address them for both staff and caregivers. Further, it could be helpful to consider increasing diversity in THRIVE staff composition as well as offering opportunities for caregivers to connect with THRIVE staff who may have similar lived experiences.

Be mindful of the need for clear documentation of processes as well as program data. THRIVE staff noted some challenges with documentation throughout implementation and pointed to the need for more efficient systems. For example, much of the tracking of coaching sessions was initially completed on paper with approaches to documentation varying based on the coach. Some sites moved to a more formalized system to have more standardization across sites, but these data were not available from the beginning of the project. In addition, the team often encountered data entry errors, missing data, or other challenges that could inhibit internal quality improvement efforts as well as external evaluation efforts.

Alternative Interventions to Improve Retention

As findings from the outcome evaluation pointed to no change in retention, RAND recommends exploring alternative interventions that may be more likely to affect change in this outcome.

Involve caregivers in the design of the intervention and during implementation. While THRIVE was implemented to benefit caregivers and many decisions around the program were made with the "North Star" of improving retention, it did not appear that caregivers were involved in any discussions or decisions when it came to developing the intervention. The perspectives of caregivers did become apparent to RAND in the course of the evaluation, but those perspectives pertained to the existing model. As the program considers changes to the current intervention, or a new intervention, RAND recommends directly engaging a variety of caregivers to get their input on both the acceptability and feasibility of some of the proposed approaches. Developers may also want to consider engaging a third party to obtain feedback so that caregivers feel they can freely express their opinions (as opposed to having potential concerns about being honest with individuals who are also their employers). RAND would recommend getting this input before implementation but also throughout implementation as part of a continuous quality improvement lens.

Consider alternative interventions that may be more effective for reaching the specified goals. The THRIVE intervention was intended to improve retention. While there appeared to be some theoretical assumptions about intervention components and how they might help with retention, preliminary data from this evaluation did not show any improvements in the primary outcome. Further, based on other data from caregivers, other factors seem to influence their decision to stay with the organization more than their participation in THRIVE or the resources provided. For example, most caregivers indicated that they would leave if

a different job paid more, if they wanted to start or finish school, or if they were offered a job with a better shift or hours. While THRIVE does offer some support for individuals who may want to go back to school (e.g., through coaching discussions), increased wages or the ability to change shifts or hours is not part of the THRIVE program. As the program looks to affect retention, RAND recommends considering interventions that are not currently a part of THRIVE. For example, that pay rates emerged as a significant predictor of retention is aligned with existing literature that shows wages to be one of the largest predictors of retention (Espinoza, 2017) and thus pay rates should be considered an issue for future interventions.

Consider alternatives to a mandatory or "one-size-fits-all" approach to the intervention. Caregivers across health systems represent a diverse workforce in terms of age, race and ethnicity, education, work experience, and more. Our findings revealed a fair number of caregivers who reported that THRIVE was not useful to them but may be useful to other caregivers. We tended to hear this most commonly from those who had been professional caregivers for a number of years or who may have had advanced education degrees. A few staff also noted that resources may be better invested in those individuals who are interested in being a part of THRIVE as opposed to all caregivers. Narrowing the focus of the intervention to a certain subset of employees (e.g., high-risk caregivers) may also yield a higher ROI but could be challenging to implement. In addition, many caregivers in the program face systemic barriers that require more explicit strategies to address so as to strengthen equity among those working in direct care provision (PHI, 2020). Thus, moving from an "equality" lens to an "equity" lens may be particularly beneficial (defined by RAND's Center to Advance Racial Equity Policy [undated] as "fair and just access to opportunity") because equity is more person-centric and tailored to each individual's needs. Many health systems are already set up to incorporate critical gender- and race-related outcomes data to identify potential disparities as these are commonly collected data points.

Consider the health system's readiness and level of supportive culture in determining appropriate interventions. Each health system invested significant time in preparing and delivering THRIVE and spoke to the importance of leadership buy-in. However, there are other aspects of readiness and a supportive culture that should be carefully considered to maximize the potential success of a new intervention. For example, one of the key goals of THRIVE was to positively affect retention. However, many health systems were already struggling with retention issues prior to implementing THRIVE, and these were exacerbated by the COVID-19 pandemic. These staffing issues extended to other members of the care team such as nurses, which often led to caregivers working on floors or units that were understaffed. While some of the supportive aspects of THRIVE may have been appreciated (e.g., transportation vouchers, someone to vent to about issues), THRIVE did not include components to directly address these larger staffing issues (e.g., ways to improve recruitment across the care team). Further, there may be some considerations as to whether such a program as THRIVE can (or should) continue during a global pandemic.

In addition, like other health systems, those implementing THRIVE faced systemic issues related to power struggles, racism, classism, sexism, and so on, which further compound caregivers' feelings of being undervalued within the care team. While not an explicit area of a priori focus for our evaluation, we learned about systemic issues that warrant attention moving forward. That is, if systemic issues are not addressed adequately, any intervention that seeks to improve employee outcomes within the context of these systemic issues is to be negatively affected by these very issues. While we understand that systemic issues are very difficult to thoroughly address, we are not saying that no intervention can be successful. Rather, we are suggesting that interventions that aim to tackle some of these systemic issues might be one of the drivers of the culture change needed within systems and have a higher likelihood of success. Developers of a future intervention should carefully consider what is needed at the health system level to maximize the potential success of efforts to improve retention and equity among caregivers.

Future Evaluations

In addition to lessons learned regarding THRIVE and future interventions to improve retention, we also provide recommendations for future evaluations of THRIVE or a similar intervention.

Consider conducting an evaluability assessment prior to program implementation. Evaluability assessments are useful to help ensure all stakeholders have a shared understanding of the model design, information availability, and institutional context. This process can facilitate shared expectations of what the evaluation can, and cannot do, and inform decisions around evaluation priorities and goals. The assessment is guided by a series of questions that are asked of all stakeholders to identify potential areas where there are discrepancies and document the baseline state of information. Table 4.1 presents sample guiding evaluability assessment questions in three major areas.

Because understanding stakeholders' capacities to participate in a multisite evaluation is critical to evaluation design choices, these fact-finding activities can identify different stakeholder group's perspectives on key outcomes (and a reasonable timeline to expect to see changes in those outcomes) and definitions of success, experiences in implementing similar efforts; and any relevant anticipated barriers or facilitators to implementation. Further, it can serve as an opportunity to capture preferences on intended use of findings, particularly as they relate to the level of conclusions. For example, if there is a preference for a cross-site approach that focuses on intervention implementation across implementing organizations, then findings should be based on themes and commonalities across sites. This can be beneficial in that no one group or implementing organization is singled out for performance. However, this approach can also have drawbacks in that differences in implementation or outcomes or performance may be masked or heavily influenced by

TABLE 4.1
Sample Guiding Evaluability Assessment Questions

Area	Guiding Questions
Model design	• Are the long-term outcomes for the model clearly defined? Are the proposed steps toward achieving each clearly defined?
	• How are the model components expected to interact? How clearly defined are the expected interactions?
	• To what extent are different stakeholders holding different views about the model's objectives and how they will be achieved?
Information availability	• Are the intended and actual model participants identifiable? Is there a record of who will be involved in project activities and when?
	• Do baseline measures exist (e.g., at the health system- and worker-levels)?
	• Is it possible to engage a control or comparison group?
Institutional context	• Has the project accumulated enough implementation? Or will it accumulate experience to enable useful lessons to be extracted?
	• What forms of coordination are possible and/or required for the model evaluation?
	• What evaluation questions are of interest to whom? Are these realistic, given the model design and likely data availability?
	• How do people want to see results used? Is this realistic?
	• Will stakeholders be able to manage negative findings?

SOURCE: Adapted from R. Davies, R., "Planning Evaluability Assessments: A Synthesis of the Literature with Recommendations," Report of a Study Commissioned by the Department for International Development, Working Paper 40, London: DFID, October 2013.

one or more organizations. Alternatively, some evaluation questions can only be answered with the inclusion of a control group and/or a longer pre-intervention period of data for comparison. Making all such these decisions can be resource-intensive and require additional commitment from implementing organizations.

Expand pool of individuals available for discussions about THRIVE. RAND believes an evaluation would be strengthened by allowing for qualitative data collection (e.g., interviews or focus groups) with individuals who were not able to be included in this evaluation due to stipulations from participating sites. While the full list of potential data collection participants could be reevaluated, we believe two changes would be particularly effective. The first would be to allow discussions with THRIVE caregivers following their completion of the program or following termination. RAND was able to speak only to caregivers actively enrolled in THRIVE, and this limited the possibilities for gaining insights into factors affecting retention. The second would be to engage caregivers' managers for additional interviews to better understand ways that THRIVE may be having an impact at the unit or floor level as well as potential areas for improvement.

Incorporate evaluation questions explicitly focused on equity. While RAND collected demographic data and controlled for these variables in its analysis, there were no explicit questions around the potential disparities in short- and long-term outcomes among certain segments of the workforce (e.g., women, individuals identifying as black, and so on). RAND did conduct some exploratory analyses of potential relationships, but this should be done more systematically and be guided by theories about which program components will lead to improved equality or equity among participants.

CHAPTER FIVE

Conclusion

RAND conducted a mixed-methods process and outcome evaluation of THRIVE at three health system sites beginning in June 2019. The team collected data through December 2021, at which time the intervention was "paused," based on preliminary findings and feedback. This report presented findings to date for each of the prespecified evaluation questions.

Summary of Findings

RAND examined five evaluation questions of interest. Here, we summarize the major takeaways from the evaluation, beginning with the primary goal of the program (i.e., improving retention and breaking even or achieving a positive ROI), followed by predictors of retention and other outcomes. This is followed by a summary of the strengths and areas of improvement for THRIVE and lessons learned for other health systems in the future.

Retention did not improve from baseline for either the first or second year of THRIVE implementation. Compared with Year 0, there were no statistically significant changes in Year 1 or Year 2 of THRIVE implementation. Only Year 2 had significantly lower voluntary retention rates compared with Year 0 ($p < 0.05$). Results did not vary meaningfully when weighting sites equally. Finally, RAND found no improvements or significant differences between the first nine months of Year 0 and the first nine months of Year 1 when examining rates prior to COVID-19.

There was not a positive ROI for the first or second year of program implementation. THRIVE did not break even or generate a positive ROI in either Year 1 or Year 2 of the program, given that there was no change in retention (and turnover numbers were higher although not significantly so). RAND computed the average total costs per THRIVE-eligible caregiver as just over $1,770 in Year 1 and approximately $2,260 in Year 2. The average expenses per terminated caregiver were $5,254 in Year 1 and $5,972 in Year 2. The ROI was –1.09 for Year 1 and –1.11 for Year 2. To break even, a retention rate exceeding 100 percent in a 12-month period would have been needed in Years 1 and 2, which is not feasible.

Individual and job-related factors, most notably pay rate and race, were significant predictors of retention. Pay rate (or wage) and race emerged as significant predictors of retention in both program years; those in the lowest pay category and individuals who identified as black had a higher likelihood of terminating than those in the highest pay category or those who identified as white. Other predictors included part-time status, identification as "other" race, and gender for certain years or types of terminations (i.e., voluntary versus involuntary).

For program and organizational factors, Bring Back Days were the most consistent predictor of other outcomes (e.g., absenteeism, relationships with managers). Higher levels of burnout and higher ratings of core training (e.g., content met expectations, facilitator did a good job) predicted caregiver intent to leave within the next six to twelve months. Risk acuity level from the THRIVE risk assessment was not associated

with actual retention. Bring Back Days appeared to be consistently associated with improvements in other outcomes, including absenteeism, relationships with managers and other colleagues, and commitment to the organization in the caregiving field.

THRIVE was implemented by passionate and enthusiastic staff, and many caregivers appreciated opportunities and/or resources provided through the program. Caregivers generally appreciated THRIVE as an opportunity to orient to the health system, meet other caregivers, and learn about self-care techniques. Both caregivers and staff emphasized the passion and enthusiasm of THRIVE staff.

Most feedback on the program was neutral. While most survey respondents reported that they would recommend THRIVE to a friend or a colleague, we learned in the interviews with caregivers that they did not feel that the program benefited them personally, although they thought it could potentially benefit other caregivers with less experience. It may be important to consider the requirements of the program and whether all eligible caregivers should participate in THRIVE. Most feedback on the program was neutral, and there seemed to be an overall indifference about THRIVE on the part of caregivers. Caregivers often had difficulty recalling certain components of THRIVE or confused the THRIVE core classes with the general health system orientation. Additional clarity about the program may help set expectations and help caregivers better understand the goals of the program. In addition, increasing awareness about THRIVE among nurse leadership may also increase buy-in for the program. The program could also be improved by refining THRIVE activities and facilitation of THRIVE to better target adult learners. Expanding and improving diversity of THRIVE staff in terms of demographics, additional skills, and backgrounds will also strengthen the program.

Future programs should prepare early, obtain organization support, and clarify roles and responsibilities among a diverse program staff team. We identified several lessons learned around program implementation including early preparation, ensuring strong leadership support, encouraging collaboration and ongoing idea generation among participants, and clarifying THRIVE staff roles and ensuring diversity across staff backgrounds.

Summary of Limitations

The evaluation included several important limitations and caveats. First, significant delays in collecting data inhibited the ability of the team to gather data throughout the implementation period (particularly in Year 1). The second challenge area was data quality and consistency issues across sites, particularly for the administrative data, which required additional time and resources to standardize, where possible, clean, and analyze with appropriate assumptions or caveats. The third area of challenges was the sampling universe for caregivers. RAND was permitted to speak only with caregivers currently enrolled in THRIVE. Further, at the largest site, caregivers had to opt-in to the evaluation and the data collection activities, which significantly reduced the effective sample of participants.

Inconsistencies in implementation across sites and across time, as well as documentation, also presented challenges and affected the evaluation team's ability to point to specific areas for potential improvement or identify potential predictors of outcomes. Finally, the COVID-19 pandemic compounded implementation challenges and also created a largely unmeasurable external factor given the lack of a control group in this study. While RAND attempted to mitigate the above challenges throughout the evaluation through data management or analysis adjustments, they remain important to keep in mind in the interpretation of findings and associated recommendations.

Recommendations

RAND presented next steps in a few different areas. One relates to potential changes to THRIVE. Based on data collected to date, three areas for improvement emerged. The first is to clearly articulate the goals of the program to different stakeholders in the organization (i.e., leadership, managers, and caregivers) before implementing it. The second is to increase diversity among those developing and delivering THRIVE. The third is to be mindful of the need for clear documentation of processes as well as program data. Given the variations in how THRIVE was administered, we are unable to offer specific recommendations on THRIVE components (e.g., ideal number of coaching sessions, use of in-person versus virtual formats).

The second area for next steps is to explore alternative interventions to improve retention. If this is pursued, RAND would recommend involving caregivers in the design of the intervention and throughout implementation. This process may include examining and understanding the contextual and structural factors caregivers face, both inside and outside the workplace in order to tailor the intervention to caregivers' needs. We would also encourage developers to think creatively and comprehensively about potential interventions that may be more effective for the specified goals (i.e., retention). Further, we would suggest considering alternatives to a mandatory or "one-size-fits-all" approach given the diverse backgrounds and experience levels of caregivers throughout different health systems.

In addition, RAND recommends that future evaluation funders consider the use of evaluability assessments prior to program implementation to reflect on the program theory, feasibility of data collection, and manage stakeholder expectations. We would also recommend that a future evaluation incorporate a broader range of data collection participants to include caregivers who may not be active in THRIVE (e.g., a status of graduated or terminated) as well as caregivers' managers. Finally, we believe a future evaluation would benefit greatly from a more explicit focus on equity, particularly as it relates to caregiver outcomes.

APPENDIX A

Data Collection: Caregiver Tracking Fields

Table A.1 lists sample fields collected from sites to track key programmatic information about THRIVE participants. Sites did not consistently report on all fields.

TABLE A.1
Sample Fields from THRIVE Caregiver Tracker

Field	Description
Study ID	Caregiver ID
Coach	Coach's name
Hospital	Caregiver's hospital or facility
Unit	Caregiver's unit
Nurse manager	Last name or ID
FT/PT/PRN	Full-time, part-time, or PRN or per diem status
Initial primary barrier	Physical barriers that prevent caregiver success (e.g., commute)
Initial barrier	If barrier exists, listed as 3. If no barrier exists, listed as 1.
Initial GPS	Given as output from GPS assessment
Initial coach	Derived from Coach's professional judgement
Risk stratification	Calculation of final score (additive from barrier, GPS, and coach assessment) simplified into a 1, 2, or 3 risk stratification level
Initial primary construct	ProfComm = Commitment to the profession; OrgComm = Commitment to our organization
Referrals	Referrals are resources for our caregivers from both inside and outside the organization
THRIVE start date	THRIVE start date
Termination	Voluntary or involuntary termination
Termination reason	Reason for termination
Core training[a]	Number of core days attended
Coaching participation	Percentage of coaching sessions attended
Bring Back Day participation	Percentage of Bring Back Days attended

[a] Variables around THRIVE participation (e.g., core training, coaching participation, and Bring Back Day participation) were added in Year 3 and not consistently tracked prior to Year 3. Also, these were provided only for those who had graduated, terminated, or transferred to a non-THRIVE-eligible position.

APPENDIX B

Data Collection: Implementation Tracker

One THRIVE Implementation Tracker was completed by program managers approximately once a quarter. These data were collected via Excel for program numbers and via SurveyMonkey for other questions.

Site Information

1. Choose your health system:
2. What was the date of your first THRIVE training? *[Asked only for first administration of tracker]*
3. How many THRIVE participants have been enrolled since the project started through DATE, YYYY by role? *If there were no participants who enrolled in any of the following roles, please write "0" in the corresponding field.*

Role	Number
Patient Care Nurse Assistant (PCNA)	
Nursing Assistant (NA)	
Certified Nurse Assistant (CNA)	
Home Health Aide (HHA)	
Patient Care Technician (PCT)	
Patient Care Aide (PCA)	
Medical Assistant	
Other, please specify:	

4. How many THRIVE participants have been enrolled by month? *If there were no participants who enrolled in any of the following roles during this month, please write "0" in the corresponding field.*

Role	Month YYYY	Month YYYY	Month YYYY
Patient Care Nurse Assistant (PCNA)			
Nursing Assistant (NA)			
Certified Nurse Assistant (CNA)			
Home Health Aide (HHA)			
Patient Care Technician (PCT)			
Patient Care Aide (PCA)			
Medical Assistant			
Other, please specify:			

5. How many THRIVE participants have discontinued or stopped engaging in THRIVE but are still with the organization? *If there were no THRIVE participants in any of the following roles that discontinued or stopped engaging in THRIVE during this month, please write "0" in the corresponding field.*

Role	Month YYYY	Month YYYY	Month YYYY
Patient Care Nurse Assistant (PCNA)			
Nursing Assistant (NA)			
Certified Nurse Assistant (CNA)			
Home Health Aide (HHA)			
Patient Care Technician (PCT)			
Patient Care Aide (PCA)			
Medical Assistant			
Other: Click or tap here to enter text			

THRIVE Activities

6. We would like to better understand what components of THRIVE are being implemented at your site. Please select the option that best represents the status of each activity below <u>within the past three months.</u>

	Adhered to Facilitator Guide for			
	No Cohorts (not a part of curriculum)	*Some Cohorts*	*Most Cohorts*	*All Cohorts*
Day 1				
Welcome	☐	☐	☐	☐
THRIVE Program Introduction	☐	☐	☐	☐
Icebreaker	☐	☐	☐	☐
Facility Tour	☐	☐	☐	☐
Who's Got Your Back/Identifying Support Systems	☐	☐	☐	☐
SuccessGPS	☐	☐	☐	☐
SuccessToolkit	☐	☐	☐	☐
Keep Calm and Chill: Part 1	☐	☐	☐	☐
THRIVE Learning Tools	☐	☐	☐	☐
Reflective Portfolio/Journaling	☐	☐	☐	☐
Flipped Classroom/Modules	☐	☐	☐	☐
Day 2				
Activity: Intros and Kahoot	☐	☐	☐	☐
Keep Calm and Chill: Part 2	☐	☐	☐	☐
Planning for Success: Part 1	☐	☐	☐	☐
Planning for Success: Part 2	☐	☐	☐	☐
Intro to Group Practice	☐	☐	☐	☐
Group Practice	☐	☐	☐	☐
Reflective Portfolio/Journaling	☐	☐	☐	☐
Flipped Classroom/Modules	☐	☐	☐	☐

Day 3				
Activity: Intros and Kahoot	☐	☐	☐	☐
Building Your Personal Brand	☐	☐	☐	☐
What Are You Saying?	☐	☐	☐	☐
The Art of Being a Caregiver	☐	☐	☐	☐
Tell Me More (Effective Feedback Conversations)	☐	☐	☐	☐
Group Practice	☐	☐	☐	☐
Reflective Portfolio/Journaling	☐	☐	☐	☐
Flipped Classroom/Modules	☐	☐	☐	☐
Day 4				
Activity: Lessons and Hopes Reflection and Kahoot Review	☐	☐	☐	☐
There Is No "I" in Team	☐	☐	☐	☐
Can We All Get Along	☐	☐	☐	☐
Team of Teams	☐	☐	☐	☐
Developmental Goals Discussion	☐	☐	☐	☐
Reflective Portfolio/Journaling	☐	☐	☐	☐
THRIVE Journey Sharing	☐	☐	☐	☐
THRIVE Wrap Up	☐	☐	☐	☐

7. Please select the option that best represents the proportion of caregivers covered for **Coaching-related activities <u>within the past 3 months</u>.**

	Covered in Coaching Sessions for		
	No Caregivers	*Some Caregivers*	*All Caregivers*
Coping	☐	☐	☐
Calmness	☐	☐	☐
Commitment	☐	☐	☐
Conscientiousness	☐	☐	☐
Self-Efficacy	☐	☐	☐
Collaboration	☐	☐	☐
Empathy	☐	☐	☐
Help-Seeking	☐	☐	☐

8. Please provide any additional comments you may have regarding the proportion of caregivers covered for coaching topics.

9. Please select the option that best represents the proportion of caregivers covered for **Bring Back sessions <u>within the past 3 months</u>**.

	Covered in Coaching Sessions for		
	No Caregivers	*Some Caregivers*	*All Caregivers*
Patient Safety	☐	☐	☐
Caregiver Safety	☐	☐	☐
Self-Care	☐	☐	☐
Diversity & Inclusion	☐	☐	☐
Care of Specialized Populations	☐	☐	☐
Prioritization/Time Management	☐	☐	☐
Patient Experience	☐	☐	☐
Other, please specify below.	☐	☐	☐

10. If other session topic, please specify:

11. Please provide any additional comments you may have regarding the proportion of caregivers covered for the session topics.

12. Please select the option that best represents the proportion of caregivers covered for **Financial Assistance <u>within the past three months</u>**.

	No Caregivers	*Some Caregivers*	*All Caregivers*
Uniform allowance	☐	☐	☐
Wellness or personal care items	☐	☐	☐
Supplies (e.g., pens, journals)	☐	☐	☐
Vouchers and support program for emergency childcare	☐	☐	☐
Transportation (bus passes, subsidized parking, Uber/Lyft)	☐	☐	☐
Other, please specify below.	☐	☐	☐

13. If other type of financial assistance, please specify.

14. Please provide any additional comments you may have regarding the proportion of caregivers covered for the types of financial assistance listed.

15. Please select the option that best represents the proportion of caregivers covered for **Training and Incentives for Academic Progression and College Readiness activities**.

	No caregivers	*Some caregivers*	*All caregivers*
Career Coach	☐	☐	☐
Other, please specify below.	☐	☐	☐

16. If other, please specify:

Staff and Infrastructure

17. Please list the staff currently supporting THRIVE (i.e., being paid with use of THRIVE funding).

	Number of hours per week spent on:			
Name and Title	*In-classroom THRIVE training of direct care workers (i.e., initial 4-day training, Bring Back sessions, and preparation work)*	*Providing THRIVE life coaching to newly hired direct care workers*	*Administrative and management tasks (i.e., time managing THRIVE and other THRIVE administrative tasks)*	*Other, please specify below*

18. If other, please specify:

19. Following up on administrative, management, and other tasks noted above, how frequently have you engaged in any of the following activities since THRIVE began?

	Never	*Once or twice*	*At least monthly*	*At least weekly*	*Daily*
Held discussions or gave presentations to other facilities or clinics to explain or promote THRIVE	☐	☐	☐	☐	☐
Held discussions or gave presentations to organizational leadership on THRIVE	☐	☐	☐	☐	☐
Engaged with external partners on questions related to THRIVE	☐	☐	☐	☐	☐
Held discussions or meetings with HR	☐	☐	☐	☐	☐
Held discussions or meetings with Recruiting	☐	☐	☐	☐	☐
Review retention data on THRIVE participants	☐	☐	☐	☐	☐

20. What infrastructure investments have been made since the project start?
Click or tap here to enter text.

Challenges

21. What have been the most pressing challenge areas for implementing THRIVE during this time period?

22. What would have been helpful to address these challenges?

23. If there is anything else you would like to note about the status and activities of the THRIVE program at your health system since DATE YYYY, please describe below.

APPENDIX C

Data Collection: Sample THRIVE Staff Interview Guide

"***[If new]***" refers to staff members who had not yet been interviewed as part of the evaluation.
"***[If repeat]***" refers to staff members who had previously been interviewed as part of the evaluation.

Background

1. ***[If new]*** **What is your role at [*Insert Health System Name*]?**
   [If repeat] **Confirming you are still a [*Role*] at [*Insert Health System Name*]?**

   [If new] **What brought you to [*Insert Health System Name*]? Tell me a little bit about your experiences with THRIVE. When did you get involved? What do you do as part of the program?**

2. ***[If repeat]*** **Have any of your roles or responsibilities changed since we last spoke? If so, how?**

Experiences with THRIVE

3. ***[If new]*** **Tell me a bit about what training or background you were provided on THRIVE.**
   [If repeat] **Have you received any additional training or guidance on the delivery of THRIVE since we last spoke?**

4. ***[If coaching role]*** **Can you tell me more about the risk assessment process? What do you use to assess risk and how is the information used in THRIVE? Do you reassess risk?**

5. ***[If new]*** **What has changed regarding THRIVE's implementation since you started?**
   [If repeat] **What has recently changed regarding THRIVE's implementation?**

   [If new] **In what ways do you feel COVID-19 has affected THRIVE?**
   [If repeat] **In what ways do you feel COVID-19 has affected THRIVE over the past 6 months?**

6. ***[If new]*** **What do you feel are the most effective components of THRIVE? How do you define effective? What do you feel are the least effective components of THRIVE?**

7. ***[If new]*** **What would you like to see changed about THRIVE?**

8. ***[If new]*** **How would you categorize the level of involvement and engagement of caregivers with THRIVE? Are there certain components of THRIVE where there is more or less engagement?**
   [If repeat] **Have there been any changes in the level of involvement or engagement of caregivers over the past six months?**
9. ***[If new]*** **What are common issues you see that THRIVE caregivers are experiencing as they enter the program? As they progress through the program?**
10. ***[If new]*** **What changes have you seen in caregivers due to THRIVE?**
11. **What situations, if any, can you think of where THRIVE wasn't able to help a caregiver to its full potential? What would be have been helpful in this situation?**
    [If repeat, probe for any changes in the last 6 months]
12. ***[If new]*** **What are your thoughts on THRIVE being mandatory for entry-level caregivers? Are there certain components of THRIVE that you think should be voluntary vs. mandatory?**

Experiences at Health System

13. ***[If new]*** **What are your thoughts on having THRIVE be expanded broadly for staff across the organization? If you were to expand THRIVE to another site (or facility) within [Health System], which one would you choose, and why?**
14. **What issues has [Health System] faced recently around hiring and staffing? How about staff burnout?**
15. ***[If new]*** **How has THRIVE addressed issues around racial injustice? How has THRIVE addressed issues of diversity and inclusion? What challenges has THRIVE faced in addressing these issues?**
    [If repeat] **Have you heard of any caregivers who have faced racism within [Health System]? How have these situations been approached or addressed?**
16. **Are there unique aspects to your health system that help or hinder THRIVE implementation? If so, please describe.**
17. **If THRIVE were implemented in a different health care system, what would you think would be important to emphasize for establishing an effective THRIVE program? What factors do you think would affect successful implementation?**
18. **Anything else we did not cover that is important to note?**

APPENDIX D

Data Collection: Sample Caregiver Interview Guide

Background

1. **How long have you been a caregiver?**
2. **What is your title at [Health System]? How long have you been working at [Health System] in this role?**
3. **What brought you to [Insert Health System Name]?**
4. **Do you have other jobs? If yes, what do you do and how much time do these other positions take up?**

Experiences with THRIVE

5. **How did you first learn about THRIVE?**
6. **When did you start THRIVE?**
7. **Tell me a little bit about your experiences with THRIVE. What activities did you do as part of the program?**
8. **What do you like about THRIVE?**
9. **What do you not like about THRIVE?**
10. **How hard is it for you to participate in THRIVE and continue to do your job?**
11. **Has your manager been supportive of your participation in THRIVE? Why or why not?**
12. **How has THRIVE helped you in your job?**
13. **How would you say participating in THRIVE affects the way you felt or feel about other aspects of your life?**
14. **Would you recommend THRIVE to a friend or new hire interested in caregiving? Why or why not?**

Organizational Culture

15. **How has COVID-19 impacted your ability to do your job?**
16. **What do you like about working at [Facility/Site of Care]?**

17. **What do you not like about working at [Facility/Site of Care]?**
18. **When was the last time you thought about leaving [Health System]?**
19. **What could your manager do more of or less of to improve your experience here?**
20. **Is there anything else that you feel is important for us to know or would like to share?**

APPENDIX E

Data Collection: Caregiver Survey Frequencies

This appendix presents frequencies for the Caregiver Survey, which was administered via SurveyMonkey to active caregivers in the THRIVE program. We administered the survey one time at each site (in February, March, and July 2021 given individual site preferences for scheduling).

Your Role

1. **When were you hired?** *(n = 90)*

Year	*N*	%
Before 2019	2	2.2
2019	13	14.4
2020	41	45.6
2021	0	0.0
Missing	34	37.8

2. **At which facility do you work?** *(n = 90)*
   Frequencies not presented due to potentially identifying information

3. **What is your position at this organization?** *(n = 89)*

Year	*N*	%
Nurse Assistant (PCNA, CNA, NA)	74	83.1
Patient Care Tech or Aide (PCT, PCA)	8	9.0
Other (HHA, ER Tech, etc.)	7	7.9

4. **Are you a member of a union at this organization?**
   Frequencies not presented because all data for this item came from one site only

5. **How many years of experience do you have providing direct care or caregiving services to patients?** *(n = 90)*

Level of experience	*N*	%
No experience	9	10.0
Less than 1 year	15	16.7
Between 1 and 2 years	20	22.2
Between 3 and 5 years	21	23.3
Between 5 and 10 years	8	8.9
More than 10 years	17	18.9

6. Are you caring for a family member or friend at this time? *(n = 90)*

Other Caregiving	*N*	%
Yes, I receive payment(s) to provide care to a family member or friend	3	3.3
Yes, but I do not receive payment(s) to provide care to a family member or friend	15	16.7
No, I do not provide care for family members or friends	70	77.8
Other, please specify: *1) not at the moment; 2) I provide for my children and care for them*	2	2.2

7. How do you usually get to work for your caregiving position? Please select the method of transportation you use most frequently to get to and from work. *(n = 89)*

Transportation	*N*	%
Car, truck, motorcycle or van	82	92.1
Bus	2	2.3
Train, rail or trolley	0	0.0
Walk	0	0.0
Uber/Lyft	5	5.6
Bicycle	0	0.0
Taxicab	0	0.0

8. How many hours do you usually work per week in this position? *[open numerical field] (n = 90)*

	N	%
1 to 10	3	3.3
11 to 20	5	5.6
21 to 30	20	22.2
31 to 40	50	55.6
Over 40	12	13.3

9. Do you work any night shifts? *(n = 89)*

Night shift work	*N*	%
No	43	48.3
Yes, sometimes	16	18.0
Yes, often	30	33.7

10. Do you work on weekends? *(n = 90)*

Weekend work	*N*	%
No	5	5.6
Yes, sometimes	35	38.9
Yes, often	50	55.6

11. In the past 3 months, how many days or shifts did you miss work due to illness, injury, extra rest, etc. (not including approved days off)? *(n = 90)*

Missed shifts	*N*	%
0 days or shifts	42	46.7
1 to 3 days or shifts	37	41.1
4 to 10 days or shifts	8	8.9
More than 10 days or shifts	3	3.3

Experiences with THRIVE

12. My personal goals are focused on.

	SD	*D*	*N*	*A*	*SA*
Being a better caregiver *(n = 89)*	1.1	1.1	12.4	28.1	57.3
Getting promoted *(n = 88)*	1.1	5.7	26.1	34.1	33.0
Improving life skills *(n = 89)*	0.0	3.4	10.1	31.5	55.1

13. Please rate your level of agreement with the following statements:

	SD	*D*	*N*	*A*	*SA*
THRIVE helps me do my job. *(n = 90)*	3.3	7.8	21.1	44.4	23.3
THRIVE meets my needs. *(n = 89)*	2.3	7.9	19.1	41.6	29.2
I am satisfied with THRIVE. *(n = 89)*	2.3	4.5	21.4	43.8	28.1
I use what I learned from THRIVE in my job. *(n = 89)*	3.4	4.5	18.0	39.3	34.8

14. Please rate your level of agreement with the following statements.

	SD	*D*	*N*	*A*	*SA*	*I have not participated in this part of THRIVE*
4-Day Training						
The content met my expectations *(n = 90)*	1.1	5.6	20.0	33.3	38.9	1.1
There was a good mix of presentations and activities. *(n = 89)*	0.0	3.4	7.9	46.1	42.7	0.0
The facilitator(s) did a good job. *(n = 89)*	0.0	0.0	5.6	32.6	61.8	0.0
Bring Back Sessions						
The content met my expectations. *(n = 90)*	1.1	5.6	17.8	28.9	33.3	13.3
The facilitator(s) did a good job. *(n = 88)*	0.0	1.1	5.7	35.2	45.5	12.5
I was excited to attend the Bring Back sessions. (n = 88)	4.6	10.2	21.6	21.6	27.3	14.8
Coaching						
My coach was knowledgeable. *(n = 90)*	0.0	1.1	4.4	27.8	63.3	3.3
My coach was organized and prepared for our discussions. *(n = 88)*	0.0	1.1	6.8	28.4	60.2	3.4
My coach was enthusiastic. *(n = 87)*	1.2	0.0	5.8	29.9	59.8	3.5

15. On a scale from 1 to 10, with a 1 being not at all and a 10 being highly recommended, would you recommend THRIVE to a friend or colleague? *(n = 87)*

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
4.6%	0.0%	5.8%	2.3%	13.8%	4.6%	8.1%	10.3%	10.3%	40%

16. There are a number of areas that THRIVE may have been helpful to you. Please select the answer that best applies based on your experiences with THRIVE.

	Made worse	*No change*	*Some improvement*	*Great improvement*	*This was not a part of THRIVE*
Ability to keep calm *(n = 89)*	0.0	29.2	28.1	42.7	0.0
Ability to cope *(n = 89)*	0.0	32.6	23.6	43.8	0.0
Empathy *(n = 89)*	0.0	32.6	23.6	43.8	0.0
Organizational skills *(n = 89)*	0.0	27.0	25.8	47.2	0.0
Help-seeking *(n = 88)*	1.1	22.7	26.1	50.0	0.0
Precision *(n = 89)*	0.0	29.2	33.7	37.1	0.0
Self-efficacy *(n = 88)*	0.0	27.3	21.6	51.1	0.0
Commitment to the caregiving profession *(n = 89)*	0	29.2	16.9	53.9	0.0
Commitment to the organization *(n = 90)*	1.1	31.1	16.7	51.1	0.0

17. To what extent has THRIVE helped you improve in the following areas?

	None	*Little*	*Some*	*Quite a bit*	*A great deal*
Ability to attend work more consistently *(n = 89)*	25.8	9.0	18.0	22.5	24.7
Relationship with manager *(n = 89)*	21.4	15.7	12.4	23.6	27.0
Relationship with other colleagues *(n = 89)*	16.9	13.5	15.7	27.0	27.0
Commitment to this organization *(n = 89)*	18.0	10.1	15.7	24.7	31.5
The quality of my work (i.e., caregiving) *(n = 89)*	14.6	10.1	15.7	25.8	33.7
Seeing more patients *(n = 87)*	17.2	13.8	14.9	25.3	28.7

Experiences at Your Health System

18. Please select the answer that best represents your current situation.

	To a very low degree	*To a low degree*	*Somewhat*	*To a high degree*	*To a very high degree*
Do you have enough energy for family and friends during leisure time?[a] *(n = 87)*	13.8	23.0	46.0	10.3	6.9
Is your work emotionally exhausting? *(n = 87)*	6.9	18.4	44.8	19.5	10.3
Does your work frustrate you? *(n = 87)*	19.5	23.0	34.5	13.8	9.2
Do you feel burnt out because of your work? *(n = 87)*	13.8	34.5	25.3	14.9	11.5

NOTE: [a] This was reverse-scored.

19. Think about where you perform most of your work. Please rate your level of agreement with the following statements:

	SD	*D*	*N*	*A*	*SA*
It is difficult to speak up if I perceive a problem with patient care. *(n = 87)*	4.6	9.2	19.5	44.8	21.8
Disagreements are resolved appropriately (i.e., not *who* is right, but *what* is best for the patient). *(n = 87)*	5.8	2.3	33.3	36.8	21.8
I have the support I need from other personnel to care for patients. *(n = 87)*	1.2	3.5	25.3	50.6	19.5
It is easy for personnel here to ask questions when there is something that they do not understand. *(n = 87)*	2.3	4.6	24.1	48.3	20.7
Those caring for patients work together as a well-coordinated team. *(n = 87)*	2.3	8.1	29.9	35.6	24.1
The organization values my contributions. *(n = 87)*	4.6	10.3	31.0	39.1	14.9
The organization strongly considers my goals and values. *(n = 87)*	3.5	10.3	35.6	34.5	16.1
The organization really cares about my well-being. *(n = 87)*	9.2	11.5	34.5	28.7	16.1
My supervisor is willing to extend her/himself to help me perform my job to the best of my ability. *(n = 87)*	4.6	9.2	20.7	39.1	26.4
My supervisor takes pride in my accomplishments at work. *(n = 87)*	5.8	9.2	23.0	40.2	21.8
My supervisor tries to make my job as interesting as possible. *(n = 86)*	7.0	12.8	26.7	33.7	19.8

20. I intend to leave my current position: *(n = 86)*

Turnover intention	*N*	%
In the next 6 months	12	14.0
In the next year	9	10.5
I have no plans to leave within the next year	65	75.6

21. I would leave my current position if . . .

	SD	*D*	*N*	*A*	*SA*
I was offered a job that paid more *(n = 87)*	4.6	12.6	20.7	31.0	31.0
I was offered a job with better shifts or hours *(n = 87)*	10.3	16.1	32.2	20.7	20.7
I was offered a job closer to home *(n = 86)*	15.2	22.1	36.1	15.1	11.6
I could work with less difficult patients *(n = 87)*	21.8	24.1	40.2	8.1	5.6
I was able to work with a new manager or supervisor *(n = 86)*	27.9	37.2	18.6	8.1	8.1
I was able to find a job in a different career or field *(n = 87)*	19.5	28.7	29.9	16.1	5.8
I wanted to start or finish school *(n = 87)*	12.6	10.3	23.0	26.4	27.6
Other *(n = 1)* : I plan to leave my position to become an RN. I will be done with school next year.					

About You

22. Do you think of yourself as: *(n = 86)*

Gender identity	*N*	%
Male	8	9.3
Female	78	90.7
Transgender man/trans man/female-to-male (FTM)	0	0
Transgender woman/trans woman/male-to-female (MTF)	0	0
Genderqueer/Gender nonconforming neither exclusively male nor female	0	0
Additional gender category (or other); please specify	0	0

23. What is your marital status? *(n = 85)*

Marital status	*N*	%
Never been married	54	63.5
Married	12	14.1
Living with partner	12	14.1
Separated/divorced/widowed	7	8.2

24. Are you a citizen of the United States? *(n = 85)*

Citizenship	*N*	%
Yes, born in the United States	78	91.8
Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas	0	0
Yes, born abroad of U.S. citizen parent or parents	0	0
Yes, U.S. citizen by naturalization	5	5.9
No, not a U.S. Citizen	2	2.4

25. What is your age? *(n = 85) [note: original question was What year were you born?]*

Age	*N*	%
18 to 25	37	43.5
26 to 35	24	28.2
36 to 45	18	21.1
46 to 55	5	5.9
55 and older	1	1.1

26. What is your race? Select all that apply. *(n = 90)*

Race	*N*	%
White	39	43.3
Black or African American	44	48.9
American Indian or Alaska Native	1	1.1
Asian Indian	1	1.1
Chinese	1	1.1
Filipino	1	1.1
Japanese	0	0
Korean	0	0
Vietnamese	0	0
Other Asian	0	0
Native Hawaiian	0	0
Guamanian or Chamorro	0	0
Samoan	0	0
Other Pacific Islander	0	0
Other race	3	3.3

27. Are you of Hispanic, Latino, or Spanish origin? *(n = 84)*

Hispanic, Latino, or Spanish origin	*N*	%
No, not of Hispanic, Latino, or Spanish origin	82	97.6
Yes, Mexican, Mexican American, Chicano	1	1.2
Yes, Puerto Rican	0	0
Yes, Cuban	0	0
Yes, another Hispanic, Latino, or Spanish origin	1	1.2

28. What is the highest degree or level of school you have completed? If currently enrolled, mark the previous grade or highest degree received. *(n = 87)*

Education	*N*	%
No schooling completed	0	0
Nursery or preschool through Grade 12	0	0
High school graduate (high school diploma or GED)	22	25.3
Some college credit, no degree	37	42.5
Associate's degree (for example: AA, AS)	9	10.3
Bachelor's degree (for example: BA, BS)	17	19.5
Master's degree (for example: MA, MS, MSW, MBA)	2	2.3
Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD)	0	0
Doctorate degree (for example: PhD, EdD)	0	0

29. What is your estimated household income (includes you and others living in your home)? *(n = 83)*

Estimated household income	*N*	%
Less than $40,000	53	63.9
Between $40,001 and $60,000	18	21.7
Between $60,001 and $80,000	4	4.8
Between $80,001 and $100,000	4	4.8
More than $100,001	4	4.8

30. How many people are living or staying at your home? Include yourself as well as everyone who is living or staying in your home for more than 2 months. Do not include someone who is living somewhere else for more than 2 months such as a college student living away or someone in the Armed Forces on deployment. *[Open numeric field] (n = 84)*

Number of people	*N*	%
1	12	14.3
2	24	28.6
3	22	26.2
4	13	15.5
5	9	10.7
6	3	3.6
8	1	1.2

How many of these individuals are under the age of 18? *[Open numeric field] (n = 84)*

Number of individuals under the age of 18	*N*	%
0	44	52.4
1	18	21.4
2	9	10.7
3	10	11.9
4	1	1.2
5	1	1.2
7	1	1.2

31. In the past 12 months, did you or any member of this household receive benefits from the Food Stamp Program or SNAP (the Supplemental Nutrition Assistance Program)? *(n = 85)*

SNAP benefits	*N*	%
Yes	16	18.8
No	67	78.8
Unsure	2	2.4

32. In general, how would you rate your overall health? *(n = 86)*

Overall health	*N*	%
Excellent	12	14.0
Very good	22	25.6
Good	40	46.5
Fair	11	12.8
Poor	1	1.2

33. In general, how would you rate your overall mental or emotional health? *(n = 86)*

Mental or emotional health	*N*	%
Excellent	16	18.6
Very good	15	17.4
Good	25	29.1
Fair	24	27.9
Poor	6	7.0

34. Are you currently covered by any of the following types of health insurance or health coverage plans? *[Check all that apply]* *(n = 90)*

Health insurance and coverage	*N*	%
Insurance through this organization	44	48.9
Insurance purchased directly from an insurance company (by me or another family member)	11	12.2
Medicare, for people 65 and older, or people with certain disabilities	0	0
Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability	26	28.9
TRICARE, VA (enrolled for VA health care), or other military health care	0	0
Indian Health Service	0	0
Other type of health insurance or health coverage plan	7	7.8
I am not covered by health insurance.	2	2.2

35. Are you responsible for the health care coverage of others in your household? *(n = 85)*

Health care coverage responsibility	*N*	%
Yes	35	41.2
No	50	58.8
Unsure	0	0

APPENDIX F

Data Security and Quality Assurance

We worked with the Ralph C. Wilson Jr. Foundation and the partners to understand any relevant regulatory requirements to carry out the proposed data collection activities. In addition to data security and privacy concerns, oversight by our Human Subjects Protection Committee (HSPC), RAND's IRB, ensured that all evaluation research involving human subjects is conducted ethically, as required by federal regulations. RAND's "Federalwide Assurance for the Protection of Human Subjects" (FWA00003425, effective through June 22, 2023) served as our assurance of compliance with the regulations of 17 federal departments and agencies. According to this assurance, the HSPC is responsible for review of all research, regardless of the source of funding. The HSPC monitors research on an ongoing basis and conducts periodic reviews. It also advises researchers about safeguarding the rights and welfare of human subjects. HSPC policies and guidance supported the ability of the evaluation team to obtain and collect caregiver and staff data from the health systems.

Co-Principal Investigator Jason Etchegaray initiated review by RAND's HSPC and ensured clear communication with each partner site as well as the foundation on our application's status, sharing a copy of the final determination letter with two of the partner sites. One site used their own IRB. Etchegaray served as the liaison with a representative from each partner in cases of additional questions.

For secondary data, RAND reviewed data as they were uploaded onto its secure Kiteworks site. The team raised any associated questions directly with program managers at each site, who generally served as the liaisons for data received. These questions tended to concern missing data, anomalies, or unexpected inputs. In addition to the manual spot checks, RAND also conducted a more thorough analysis once data were compiled into a master datafile to identify any unusual cases. The co-PI discussed the issues with the research programmer and documented associated decision rules.

The RAND team managed all aspects of primary data collection, including training interviews to ensure consistency across sites, sending emails with survey hyperlinks, monitoring and encouraging responses, and gathering submitted data for analysis and reporting. Staff training began prior to commencing data collection. Refresher trainings were implemented prior to subsequent rounds of data collection (e.g., in later years). Standard training focused on understanding the purpose of the data collection activity, completion timelines, strategies to proactively address potential issues, and communication guidelines with participants. We built guidance into data collection protocols to ensure consistency across data collectors. For example, we developed "Interviewer" versions of protocols including specific instructions on areas to probe, clarifies skip logic, definitions, and the like.

APPENDIX G

Methods for Assessing Changes in Retention

The approach to assess changes in retention employed a pre-post study design to compare caregiver retention rates. This included a baseline year (i.e., one year prior to the program) and each program year (Years 1 and 2).[1] To assess retention, RAND collected administrative data from human resources for the three partner sites for each program year. Primary variables included hire date, termination date (if applicable), termination reason (if applicable), age, gender, race, ethnicity, full-time status, type of work shifts, setting (i.e., hospital, nursing home, or home health care), and pay rate. Following receipt of data, we held phone discussions and corresponded via email over the course of multiple months to obtain clarifications and ensure our understanding of the data. We then merged data across sites to identify common variables and ensure decision rules were applied to obtain as much cross-site consistency as possible.

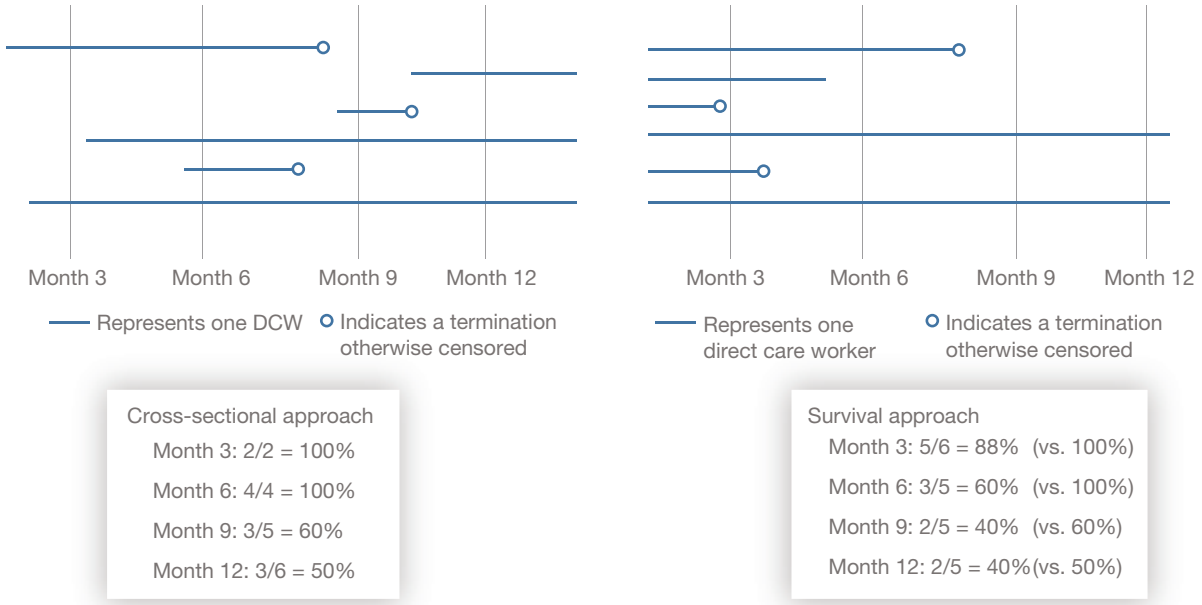
All caregivers who were newly hired for or transferred to a position that would have been eligible for THRIVE from June 2018 to May 2019 were included in the analysis for the baseline year (Year 0). For Years 1 and 2, the analysis included all caregivers who were newly hired for, or transferred to, a position eligible for THRIVE. This did not include caregivers who never started work due to reasons such as failing to pass background checks or drug-screening tests[2] and caregivers who were nursing students or enrolled in school at their hire or transfer date. Otherwise, RAND included all eligible caregivers, whether they were enrolled in THRIVE or not. The number of eligible caregivers was 1,468 in Year 1 and 1,322 in Year 2. The number of THRIVE attendees was 1,140 (78 percent) and 1,002 (76 percent) in Years 1 and 2, respectively. This "intent to treat" approach avoids overoptimistic estimates of an intervention's effectiveness by incorporating practical implementation considerations, such as missing individuals who should have been enrolled in the model or other deviations. This approach may limit the potential impact of the program by including individuals who did not complete the THRIVE program, but preliminary analyses showed little difference in the impact of THRIVE on these two groups. Additionally, we do have concerns about the data quality and believe that individuals with no or partial attendance may be flagged as attended. Finally, we do not have much information on why eligible individuals may not have been enrolled in some cases or why some did not complete the program, but it is likely related to factors associated with termination, such as a short tenure or issues with absenteeism.

For the analysis, we combined all employment spells in the treatment year (Year 1 or Year 2) and the control year (Year 0). RAND conducted a descriptive analysis using Kaplan-Meier curves. The team also ran a logistic regression using a discrete-time survival model. The data were expanded so that each observation represented a month of employment for each individual, with an indicator for termination. Independent variables included monthly employment duration indicators; age; gender; race and ethnicity; job status (full-time or part-time); working any night shifts; and pay rate.

[1] Based on preliminary findings from Years 0, 1, and 2; the program was then put on pause and thus Year 3 data were not collected due to this pause and anticipated changes to the intervention.

[2] If a site did not provide this information, RAND used termination reasons to exclude such individuals.

FIGURE G.1
Comparison of Cross-Sectional Approach with Survival



We could follow Year 0 and Year 1 hires for a full 12 months after hiring, but our data stop at the end of Year 2. This means that we do not have 12 months of data for most of those hired in Year 2. To account for this censoring, we use a survival approach for analyzing all years. This minimizes the effect of different hiring dates during the program year by limiting the sample of each program month to just those who were employed. This approach was used in lieu of a cross-sectional approach, which is affected by hiring timing. For example, if more people are hired at the end of a year, a cross-sectional approach would lead to a higher retention rate (see Figure G.1 for comparison).

Two separate analyses were run—the first compared Year 1 with Year 0 and the second compared Year 2 with Year 0. In each case, being hired in Year 1 or Year 2 was considered the treatment. Using the results of the logistic regression, we predicted a monthly retention rate for each individual in the treated population for both Year 0 and Year 1 and then aggregated to the full population. This Year 0 prediction is our counterfactual—an estimate of the retention rate if the Year 1 population were hired in Year 0 (i.e., before THRIVE implementation). We summed the monthly rates to estimate the expected number of months of employment in a 12-month period. The difference between the two annual means represents the program impact. Bootstrapping was used to generate 95 percent confidence intervals.

Since we are able to follow Year 0 and Year 1 hires for a full 12 months, we also performed an analysis comparing these years without censoring. We were not concerned about spillover effects of THRIVE programming that may have affected the retention of Year 0 hires in their latter months. These hires were not eligible for THRIVE and likely did not receive adequate exposure to THRIVE training to have an impact.

RAND also conducted secondary analyses to (1) use a multinomial logistic model with a categorical outcome (no termination, voluntary termination, and involuntary termination) to assess varied program impact on type of termination; (2) assess the impact of equally weighting site results; (3) examine the time period before the COVID-19 pandemic began (i.e., the first nine months of the first program year [Year 1]); and (4) an uncensored version of the main analysis following Year 1 hires for a full 12 months after hiring.

RAND's approach to the retention analysis had several limitations and considerations. First, due to the historical nature of the comparison, we were not able to assess potential confounding effects of changes in the organizational environment. Second, we were unable to assess the effects of the COVID-19 pandemic but did examine data from June to February in Years 0 and 1 to see if the trends in retention rates were similar prior to the COVID-19 pandemic. Third, data were unavailable for some important caregiver characteristics such as workload, education, experience, and family composition, which may have affected the results.

APPENDIX H

Methods for Assessing Return on Investment

To assess the program's ROI, RAND calculated the investment (i.e., the cost of the program) and derived estimates for program benefits based on potential savings due to improved retention. These savings represent spending less on termination, hiring, training, and replacing labor through the use of overtime or temporary workers. Program cost and benefit categories, calculated for Years 1 and 2, are presented in Tables H.1 and H.2, respectively.

We compute the total costs per THRIVE-eligible worker by summing up all categories of cost across all sites and dividing by the number of THRIVE-eligible workers identified in the administrative data. Total savings from forgoing a hire was calculated by summing up all hiring expenses and dividing by the reported number of hires in the program year. Total savings from forgoing a termination was calculated by summing up all termination administrative and replacement labor costs and dividing by the reported number of terminations in the program year. By assuming that every termination is offset by a future hire, we combine the termination and hiring expenses.

To estimate the total program savings per worker, we start with the results from the retention analysis to estimate the percent change in the number of terminations. Multiplying this rate by the estimates of the cost of terminating and hiring a worker results in the total program savings per worker. In our specific analysis, we estimate a net increase in termination, so this savings is actually a negative number, representing an increase in costs associated with an increase in terminations.

To compute the ROI for each program year, the following equation was used:[1]

$$\frac{\text{program savings} - \text{program cost}}{\text{program cost}} \times 10.$$

[1] Different definitions of "investment" could be used in the denominator of this equation, for example, limiting to up-front fixed costs, such as computers, furniture, and construction. We chose the most inclusive definition, which will result in lower estimated losses per investment dollar.

TABLE H.1
Program Cost Categories

Category	Inputs	Description
Labor *(Reported to RAND in Excel)*	THRIVE program staff compensation	Salaries and fringe benefits for THRIVE staff (i.e., 1 to 2 program managers; program coordinator; and program specialists [e.g., educators, coaches]).
Caregiver time *(Rates pulled from admin data)*	Caregiver THRIVE training compensation	Assumes each THRIVE caregiver spends 48 hours of time billed to THRIVE (e.g., 3 core days, 6 Bring Back Days at 3 hours each) at their hourly rate. The hourly rate does not include fringe benefits due to lack of data inputs.
THRIVE-related fixed asset depreciation *(Reported to RAND in Excel)*	Space construction and renovation	Depreciation expenses on construction and renovations to office and meeting space associated with THRIVE training; assumes a 15-year depreciation period.
	Furniture, fixture, and equipment	Depreciation expenses on furniture, fixtures, and equipment; assumes a 15-year depreciation period.
	Computer	Depreciation expenses on computers (assumes a 3-year depreciation period) or lease cost.
	Software and information system	Depreciation expenses on software and information systems; assumes a 3-year depreciation period.
THRIVE office and meeting space *(Reported to RAND in Excel)*	Office space	Monthly renting cost from local market multiplied by the percentage used by THRIVE multiplied by 12 months.
	Conference room	Monthly renting cost from local market multiplied by the percentage used by THRIVE multiplied by 12 months.
Other THRIVE materials and expenses *(Reported to RAND in Excel)*	Other program-specific materials and expenses	Office supplies; program staff local transit; transportation assistance for caregivers; community outreach; food expenses; incentives for caregiver academic progression; financial/material support; workbook/licensing/printing; program speakers; cell phones; cleaning service; advertising and marketing; and repairs and maintenance.
THRIVE-related outside services[a] *(Reported to RAND in Excel)*	Expenses for outside services	Outside speakers; childcare; financial counseling; setup for learning management system; setup for risk assessment; ride share services; grocery/gas cards; scrubs; health and wellness incentive items; property management.
Overhead expenses on THRIVE costs *(from consolidated financial statements)*	Expenses for overhead	All other THRIVE-related costs multiplied by an estimated overhead ratio. Overhead ratio = management & general cost/health service cost; these costs are pulled from the financial statements of each organization.

[a] Reported only for two out of three sites.

TABLE H.2
Program Benefit Categories

Category	Inputs	Description
Cost saving areas *(Reported to RAND in Excel; rate information from administrative data)*	Hiring and recruitment	Advertising costs, hiring bonuses.[a]
	Bringing on board, orientation, and training	Costs to bring on board, orient, or train, including caregiver time costs (i.e., number of hours times hourly rate, excluding fringe benefits).
	Vacancies	Extra overtime salaries for caregivers. Each organization reported overtime payment in both total dollars and total number of hours. The cost of overtime is defined as the extra salary cost in addition to what the organization would normally pay caregivers if there was no vacancy and the same amount of work is done without incurring overtime. Thus, extra overtime salaries = total overtime payment—normal caregiver hourly rate × total # of hours. For extra temporary direct care worker compensation = total temporary caregiver cost—normal caregiver hourly rate × total # of hours.

[a] No organizations reported hiring bonuses.

Abbreviations

ADLs	activities of daily living
BLS	U.S. Bureau of Labor Statistics
CNA	certified nurse assistant
HHA	home health aide
HR	human resources
HSPC	Human Subjects Protection Committee
IRB	institutional review board
NA	nursing assistant
OR	odds ratio
PCA	patient care aide
PCNA	patient care nurse assistant
PCT	patient care technician
PI	principal investigator
PPE	personal protective equipment
PRN	pro re nata
ROI	return on investment
RR	risk ratio
THRIVE	Transformational Healthcare Readiness through Innovative Vocational Education

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