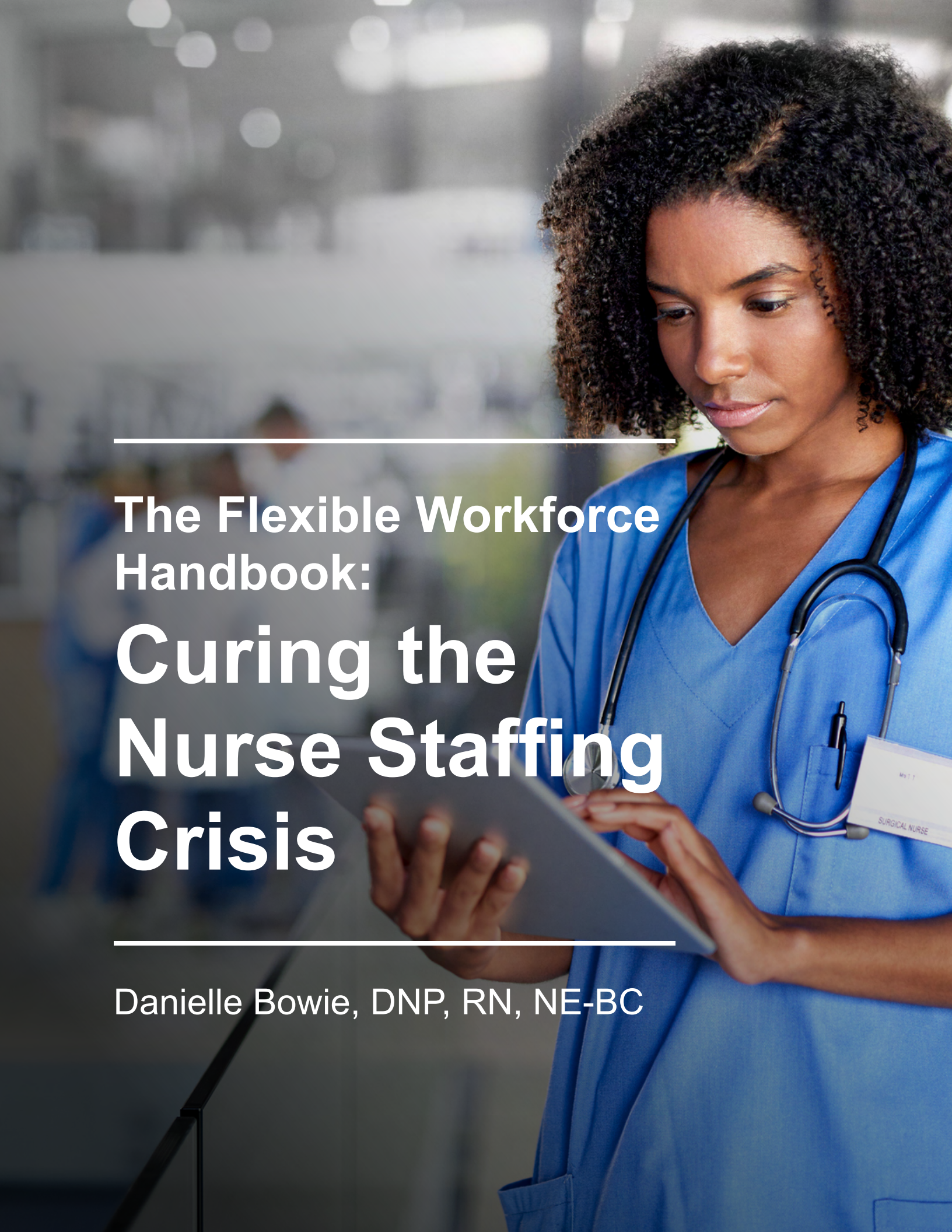

The Flexible Workforce Handbook:

Curing the Nurse Staffing Crisis

Danielle Bowie, DNP, RN, NE-BC

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The Flexible Workforce Handbook:

Curing the Nurse Staffing Crisis

Dedication

To the fearless nurse leaders who are dreaming of —and building—a new flexible nurse workforce for the future.

About the Author

Danielle Bowie, DNP, RN, NE-BC, is chief nursing officer for Trusted Health, which specializes in nurse staffing technology. She has many years of management experience, including system vice president for nursing workforce development at Bon Secours Mercy Health in Cincinnati, Ohio, and system director of clinical resource management at Legacy Health in Portland, Oregon. Dr. Bowie received her master of science in nursing from Vanderbilt University School of Nursing and her doctorate in nursing from Yale University, where she built a predictive nurse scheduling model. She has conducted research and published extensively about the nursing workforce in many journals, including *Nursing Economics*, *Nurse Leader*, and *American Nurse*. Dr. Bowie has worked with several nurse leaders from a variety of organizations to help them in developing innovative workforce strategies to meet their staffing needs.

Introduction

Our goal as healthcare providers is to promote wholistic care to heal the disease or illness that is causing our patients pain, suffering, and a lower quality of life. For example, we don't treat a patient with pneumonia who is hypoxic with oxygen alone because that would not solve the underlying illness causing the symptom. Rather, we provide oxygen to help with symptom management while the illness is treated.

But as nurse leaders, we often treat only the symptoms of the nurse staffing crisis —not the underlying cause. We spin our wheels with staffing tasks in hopes that one day the symptom of chronic understaffing will magically be solved through our tireless efforts to hire more nurses than the year before, work long hours, and devise elaborate deals with staff to pick up shifts. We heroically manage staffing symptoms daily; I know because I spent years doing the work with minimal success until I decided to think about the problem wholistically—moving beyond the actions of staffing symptom management to solving the problem.

In this book, I show how the wholistic approach has helped me tackle staffing in different ways, with a special emphasis on flexibility. You'll find guidance and tools I've used at many hospitals and health systems to build workforce models that address the root cause of the nurse staffing problem—a lack of flexibility. You can use the book's content to build your own flexible workforce. The content is divided into four parts. **Part 1: Build the foundation**, gives you what you need to set the stage for a flexible workforce, including how to conduct an organizational assessment and how to choose a staffing model. **Part 2: Operationalize the structure**, does what its name implies: It describes how to put the structure into practice, including specific strategies for scheduling and staffing and the use of staffing vendor management software. **Part 3: Incorporate flexible workforce programs** gives you the nuts and bolts for innovative programs such as internal travel agencies and gig programs. In **Part 4: Look to the future**, I show how innovations such as artificial intelligence are shaping workforce management now and will continue to do so in the future.

Along the way, you'll find plenty of best practice boxes, which highlight tips based on my experiences and those of other leaders I've worked with, and tools, such as a checklist for implementing an internal staffing agency, that will help smooth implementation of the book's ideas.

I recognize that wholistic management of staffing is easier said than done, but it is possible, and nurse leaders are well equipped to tackle the problem head-on, solve issues, and bring transformational change to their organizations. To do so, we need to stop the mindset of daily symptom management and create a space (uninterrupted work time weekly) to solve the issues at hand. Let's shed our mindset of past practice and sacred rules that have led us to where we are today, and lean into new, fresh, and novel ideas to put into practice!

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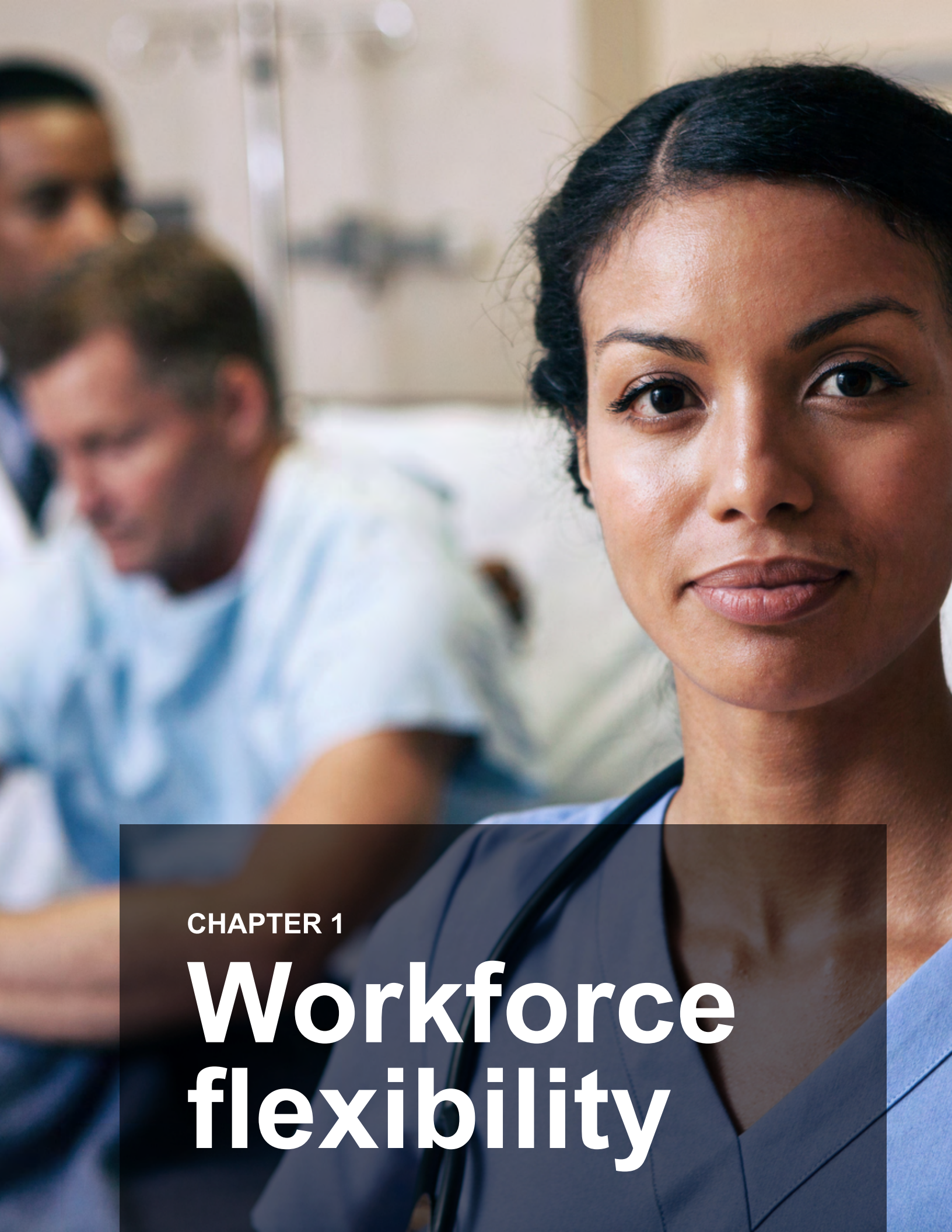
PART 1

Build the foundation



CHAPTER 1

Workforce flexibility

1 Workforce flexibility

In an environment of a nursing shortage, frontline nurses are in the driver's seat when it comes to getting what they want from an organization—including more flexibility. Leaders must juggle recruitment, retention, and patient care as they face a workforce seeking greater flexibility in their work schedules. As a leader, you also seek flexibility, including the ability to respond quickly to real-time staffing needs. You need to be creative in meeting both your and your staff's needs and demands. That creativity depends on understanding the nature of a flexible workforce.

Nurses and flexible work

A report from the National Nurse Staffing Task Force's think tank identified "work schedule flexibility" as one of its six priority topics for nurse staffing.1 (The task force includes representatives from the American Association of Critical-Care Nurses, American Nurses Association, American Organization for Nursing Leadership, Healthcare Financial Management Association, and the Institute for Healthcare Improvement.)

What is meant by flexible work? The Task Force defines work schedule flexibility as "a staffing schedule that encompasses flexibility in work options, policies, and scheduling with nurses cross-trained to various units, to support well-being during a shift that incorporates time for professional development and leadership engagement such as shared governance."1 Strategies to achieve flexibility include float pools (both single entity and system-wide), PRN nurses to supplement float pools, and an interdisciplinary care team that can provide support for certain tasks such as discharges. (How to operationalize some of these options is covered in Part 2.)

But what does flexible work mean to staff? A study examining flexibility from the perspective of both nursing leaders and frontline staff found that self-scheduling (the ability to pick their regularly scheduled shifts) is seen by staff nurses as the most flexible work option (chosen by 59% of respondents), followed by gig or per diem work with no committed hours (17%) and the ability to choose the hospital or unit work location (8%.)2 Self-scheduling also topped the list when nurses were asked to rank flexible work options in order of importance, followed by the ability to work shifts of different lengths (25%.)

How does staff's view of flexibility compare to nurse leaders' views? In the same study, nurse leaders agreed with frontline nurses on the importance of self-scheduling and evaluating different shift lengths. In interviews, a common theme from leaders was the ability to find and adjust frontline nurses to meet staffing needs in real time to ensure every shift is filled while still considering the nurse's skill and competency to ensure safe staffing. Few leaders identified gig and per diem work as new models to consider with technology, and none mentioned balancing full- and part-time options to create additional flexible offerings for staff, yet these were highly ranked by frontline staff.2

The bottom line is that flexibility from the perspective of both frontline staff and nurse leaders needs to be a priority for an organization. You can help your organization maximize workforce flexibility (and help you meet your staffing needs) by building a foundation that supports flexible work and operationalizing innovative programs. Future chapters walk you through the process. Building the foundation includes organizational assessment and design, choosing a staffing

model, and considering how technology can support flexibility efforts (Part 1.) Operationalizing strategies to achieve flexibility include scheduling, staffing, and incentive program, along with vendor management and credentialing (Part 2.) You'll also want to consider incorporating flexible workforce programs, such as an internal travel agency (Part 3.) Finally, know that implementing innovations such as artificial intelligence (AI) and forecasting will help you to continue advancing your flexible workforce into the future (Part 4.)

Rules of the road: Staffing and scheduling

Before starting on your journey to a flexible workforce, you first need to understand an important rule of the road: scheduling and staffing are not interchangeable. They are separate actions that need their own strategy and practice approaches, which create policy distinction, tailored technology utilization, and specific data and analytics.

Scheduling

Scheduling is the action of proactively assigning nurses to days and shifts over a specific time period, set in the future. For example, an inpatient nursing unit schedule is often created 4 to 6 weeks ahead of time and may be anywhere from 4 to 8 weeks in length. This is usually accomplished through self-scheduling or pattern scheduling (a set schedule for the employee) practices set at the hospital or unit level. The goal of a manager in making a schedule is "the assignment of the right people to the right task, to the right time, and to the right place."[3]

When creating a schedule, nurse leaders consider various external and internal factors during the building phase of the scheduling process. Common factors are federal and state regulations, patient characteristics, nurse characteristics, shift length, technology, cost, supply, and patient care models.[4] The basic concept in building a schedule is aligning demand (patients) with supply (nurses.) Traditionally, many organizations forecast demand by using average monthly census or average daily census to predict the number of anticipated patients for the defined schedule period. The forecast is usually done by finance and is often completed yearly for budget purposes. As a nurse leader, you likely already recognize that this process is flawed because it doesn't account for fluctuations in demand, such as hourly census changes, seasonal trends, or weekly trends that can lead to over or understaffing. Ideally, using hourly census averages or mode census will produce better forecasts for building a schedule that aligns demand (projected patients) to supply (the number of qualified and available nurses.) (You can learn more about forecasting Part 4, Chapter 2.)

Staffing

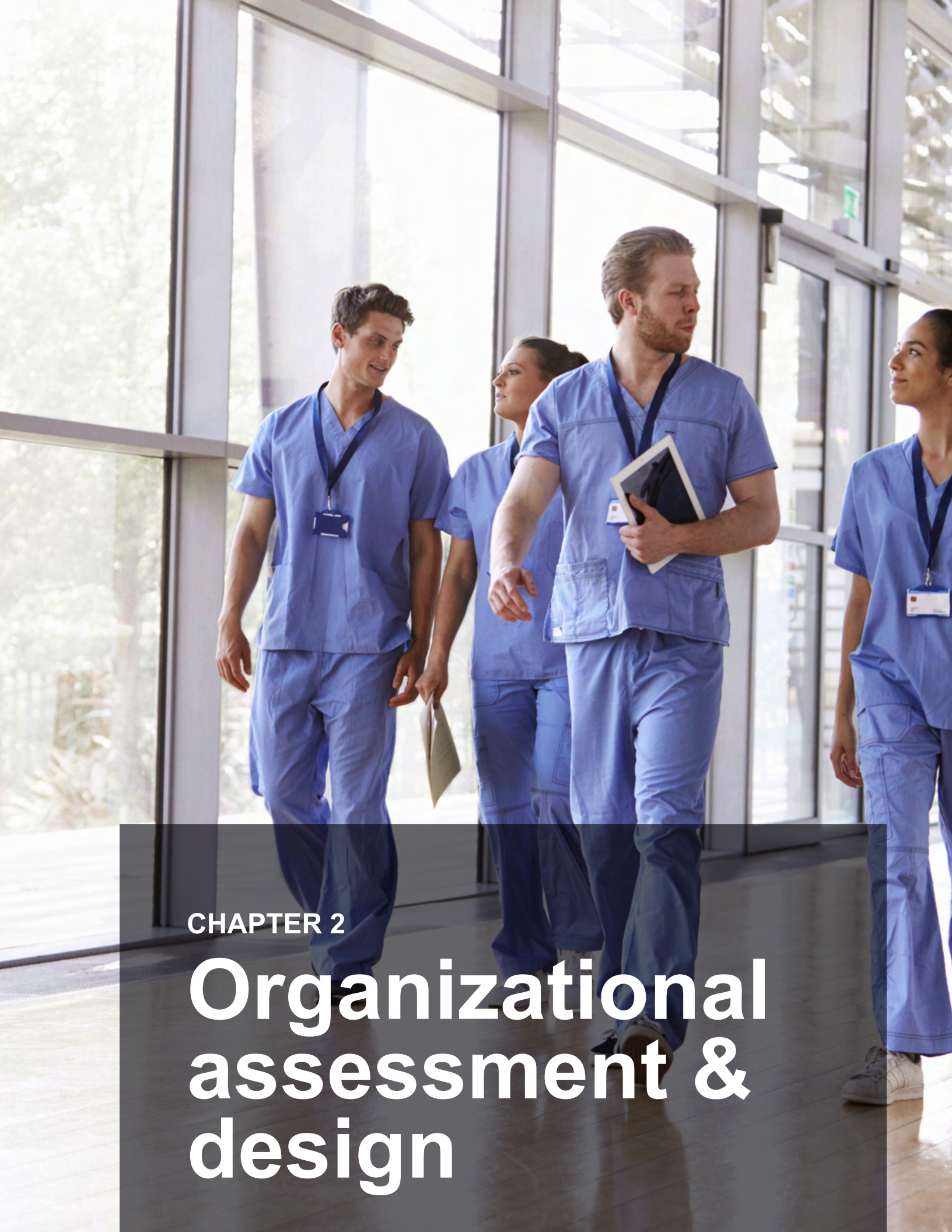
Staffing is the act of using the schedule to deploy nurses for their upcoming shifts. Staffing activities usually begin anywhere from 12 to 24 hours before the start of the impending shift. The process requires evaluating the actual number of patients; anticipated discharges, admissions, or transfers; and the unique patient conditions that require specific nursing skills for care and then comparing that evaluation to how many nurses were scheduled. This analysis identifies staffing overages (too many nurses) or deficits (not enough nurses.)

Once an overage or deficit is projected, a staffing plan is created and operationalized. The plan contains specific staffing actions to ensure the assignment of the right nurse, for the right patient, at the right time. The staffing process is dynamic and can change in a matter of minutes. Everyday nurse staffing actions for efficient operations include mobilization of resource float pool, recruitment of nurses for open shifts, cancelation, flexing and floating, management of unplanned shift vacancies, and the daily maintenance of unit/department schedules to reflect what happened. Many times, nurse leaders do these calculations and changes using spreadsheets and paper, but technology can support this work more efficiently.

Keep the difference between scheduling and staffing in mind as you read future chapters. Remember that scheduling refers to the time up to 24 hours before a shift. After that, staffing takes over.

Benefits of flexibility

It takes time to implement a flexible workforce, but the benefits yield a significant return on investment for the organization. For example, a systemwide float pool can save money by ensuring efficient staffing.



CHAPTER 2

Organizational assessment & design

2 Organizational assessment and design

Many organizational factors have a significant impact on nurse scheduling and staffing, so it's important to assess your organization's design to ensure optimal processes and outcomes. Your assessment (Sidebar: Organizational assessment) should include overall structure and how the work of scheduling and staffing is currently performed. You can then compare your results to best practices to see how operations can be designed or refined to optimize results. Here is a closer look at some key questions you'll want to consider.

Organizational assessment

Questions that should be part of an organizational assessment include the following:

- Is the hospital a part of a health system? If so, are there shared resources such as a float pool with other hospitals in the system?
- Who makes the schedule and manages the timecard?
- Is there a central staffing office?
- Does the organization have system policies for staffing, scheduling, open-shift recruitment, incentive programs?
- Is shared governance in place for monitoring, trending, and evaluation?
- Is there a staffing committee?
- Is there a per diem or gig program?
- Does the organization use a scheduling and staffing technology platform? If so, is it being used effectively?
- What is the process for requesting and onboarding agency/contract labor?
- Does the organization use technology (such as a vendor management system) for agency management?

*As noted in Chapter 1, scheduling is the process of building the schedule and keeping it updated with changes such as staff shift trades. Staffing, which occurs within 24 hours of the start of the shift, involves adjusting as needed because of factors such as sick calls, low or high patient census, and patient acuity.

Who does the work?

Is the answer to the question "who makes the schedule and does the staffing work?" a nurse, a nurse manager, a secretary, an educator, or someone else? Unfortunately, many organizations don't have dedicated scheduling and staffing teams. Instead, various people do the work, which can be well-intentioned but lead to fragmentation, errors, and duplicate effort.

A dedicated team provides the support needed for successful scheduling and staffing operations.

BEST PRACTICE TIP:

An effective dedicated scheduling and staffing team has formal job descriptions, titles, and defined responsibilities.

Those on the dedicated team need good communication skills, problem-solving abilities, basic math skills, and proficiency with technology. The scheduler/staffer role should be a clerical professional—not a nurse—who works closely with frontline nurses and nurse managers and is managed by the nurse director or manager (Sidebar: Scheduling and staffing team.)

Nurse managers have full accountability and responsibility for running their units, but they should not be caught in the minutia of moving people on the schedule or performing daily staffing actions such as recruiting for open shifts or making daily coding entries to the electronic scheduling system for staffing changes. In addition, a frontline nurse should not be pulled from patient care to manage a schedule or do staffing. The training and skill set of a nurse is too valuable for clerical work but is better spent on activities that promote practice at the top of licensure. Examples of these activities are leading evidence-based projects and influencing shared decision-making councils for organizational and practice change.[5]

Staffing and scheduling team

Here are suggested scope, responsibilities, and accountability parameters for those on the scheduling and staffing team. Note that schedulers take responsibility up to 24 hours before a shift, when staffers take over responsibility. Both roles report directly to the system's nurse leadership.

ROLE & SCOPE	RESPONSIBILITIES	INDIRECT LINE ACCOUNTABILITY
Scheduler/ timekeeper 1 FTE* to support 250 to 300 employees	• Creates and edits schedule • Maintains employee scheduling templates • Approves and denies schedule requests • Assigns specialty roles • Fills open shifts • Updates schedule with changes such as staff shift trades • Is responsible for timecard management and daily schedule maintenance up to 24 hours before the start of the shift	• Unit manager • Nurse director/executive
Staffer 1 FTE to support 150 to 300 employees	• Mobilizes clinical staff through employee recruitment to meet daily needs less than 24 hours before the start of shift • Manages unplanned shift vacancies due to factors such as sick call • Firms up the staffing plan by matching the number of people to actual census and acuity** • Updates daily unit/department schedules with staffing changes in the electronic system	• Unit manager • Charge RN and supervisors

*Full-time equivalent
**This includes deploying float pool members.

What do policies contain?

Your organization's policies should address both scheduling and staffing. Check for these core elements.

Scheduling policy core elements

- [ ] **The length and timing** of the schedule describe whether the schedule is posted for a 4, 6, or 8-week rotation and gives guidance for the timing of scheduling events (for example, the self-schedule period, balancing period, manager approval, when the final schedule is posted.)

BEST PRACTICE TIP:
The optimal length for a schedule is 6 weeks.

- [ ] **Shift lengths and times** include day, evening, night, or mid shifts that range from 4 to 12 hours long.

BEST PRACTICE TIP:
Make sure the variety of shift lengths offered provides the right coverage for caring for patients while promoting work-life balance for staff.

- [ ] **Skill mix** is identified as needed.

BEST PRACTICE TIP:
Identify specific needs for each unit, for example, a charge nurse or chemotherapy administration certification.

- [ ] **Weekend coverage** is set at the system, hospital, or unit level. The policy outlines weekend expectations and defines weekend shifts. A weekend rotation can be every other or every third on a set rotation or a specified number of weekend days for nurses to pick up during the self-scheduling process.

BEST PRACTICE TIP:
The goal is to support better work-life balance, so provide the most weekend flexibility possible. Every third weekend is the optimal target.

- [ ] **Shift trades** are a like-for-like trade regarding hours, skill set, and pay.

BEST PRACTICE TIP:
Automate shift trading when possible by using electronic scheduling systems.

- [ ] **Holiday and vacation** recommendations are set at the organizational level per human resources policies regarding pay and then operationalized at the unit level as a manager determines how many people can be off at one time to maintain coverage.

> **BEST PRACTICE TIP:**
> Maintain appropriate staffing levels for units while promoting time off.

- [ ] **Self- or patterned scheduling** is at the unit level when a schedule is being created. (Pattern scheduling is a set schedule for the employee, usually in 4- to 6-week blocks. Both practices can be used separately or combined, such as patterned weekends and self-scheduling during the week.)

> **BEST PRACTICE TIP:**
> Shared governance should determine the type of scheduling.

Staffing policy core elements

- [ ] **Nurse floating parameters** are outlined, including requirements for rotation and who is responsible for tracking.

> **BEST PRACTICE TIP:**
> Identify the right floating groups/clusters. For example, a medical-surgical nurse can float to all medical-surgical units but not step-down units, but a step-down nurse can float to both step-down and medical-surgical units.

- [ ] A maximum number of **continuous work hours** is defined.

> **BEST PRACTICE TIP:**
> Establishing maximum hours worked is a safety element for the nursing workforce. Typically, no more than 16 hours of continuous work is supported in most organizations. Also be mindful of consecutive 12-hour shifts, and work towards no more than three shifts in a row, when possible, to reduce fatigue and risk for error.[6]

- [ ] **Low census cancelation** parameters are defined. They include placing nursing staff either on standby or outright canceling, depending on the overstaffed scenario. An algorithm for who is canceled first is included. For example, agency nurses first, followed by those receiving premium pay or overtime, and then nurses who voluntarily request the day off.

> **BEST PRACTICE TIP:**
> Cancelation should be completed at least 1.5 hours before the start of a shift.

- [ ] The nurse's responsibilities related to **sick calls** are defined, as well as those responsible for receiving and recording sick calls.

> **BEST PRACTICE TIP:**
> Sick call should be no later than 3 hours before the start of the shift to allow enough time to recruit and finalize staffing plans.

- [ ] **Incentives f**or extra and open shifts are defined, and the timing of offering shifts is outlined.

> **BEST PRACTICE TIP:**
> Offer incentives early. This proactive approach reduces the number of last-minute needs, which typically cost more in the long run.[5,7]

Is shared governance engaged?

Shared governance is essential for successful scheduling and staffing. The shared governance council, which should be led by a frontline nurse and the nurse manager, evaluates programs, policies, and outcomes. Examples of decisions that the council would make include those related to how to meet weekend expectation needs.8 You'll want to take steps to ensure the council functions effectively (Sidebar: Shared governance council tips.)

Shared governance council tips

Follow these tips to promote an effective council:[8]

- Have diverse frontline staff representation.
- Establish a charter that includes goals.
- Outline accountability (for example, in some organizations, unit shared governance councils report to system-wide councils.)
- Rotate members.
- Set regular meeting times.

Shared governance doesn't only apply at the unit level. Hospital or system shared governance councils can assess and analyze trends and modify operations to optimize scheduling and staffing. Like unit-based councils, a charter and membership diversity are important. Representatives from human resources and information technology can be helpful to the council's work.[8] For example, human resources staff can help with refining organizational policies or processes with collective bargaining groups.

Once your organizational assessment is complete, you're ready to consider types of scheduling and staffing models.

CHAPTER 3

Scheduling & staffing models

3 Scheduling and staffing models

The optimal nurse scheduling and staffing model improves patient outcomes, cuts costs for the health system, and increases nurse satisfaction. The best model varies based on an organization's structure and culture. You can choose among three primary options—centralized staffing, decentralized staffing, and a hybrid of the two. Here's more about the advantages and disadvantages of these models and how you can design the best model for your organization.

Centralized scheduling and staffing

Centralized staffing reflects its name: It's a single department or team of staffers and schedulers who manage nurse staffing across an organization. Similarly, centralized scheduling refers to a system where scheduling is handled by one person or team organization wide.

A centralized scheduling and staffing model can be built at the system level and used to manage multiple facilities. Or it can be used by one hospital to manage scheduling and staffing for that one facility. In either case, a single team of schedulers and staffers works in parallel with nurse managers to build a balanced schedule based on staffing needs, patient volumes, acuity levels, and other factors that impact staffing requirements.

Nurse scheduling and staffing functions work in tandem in the centralized model. Scheduling encompasses the work that goes into building the 6-week nurse schedule 8 weeks before the shift, including managing trades and requests for vacation or paid time off (PTO) and proactive recruitment for unfilled shifts. Staffing comes into play when staffers are filling any unfilled shifts remaining within 24 hours of the start of the shift. Staffing involves shoring up the nursing schedule to match true demand and managing last-minute changes like sick calls. For example, a centralized staffer may be responsible for staffing six units for a hospital and find that two units are overstaffed by two and four units are understaffed by 10. The staffer can move four nurses from the overstaffed to understaffed units and recruit or pull a float pool in to cover the extra needs.

Both nurse scheduling and staffing require a careful balance of meeting patient care needs and balancing an organization's staffing budget.

Decentralized scheduling and staffing

Like centralized staffing, decentralized scheduling and staffing reflects its name: Staffing decisions are made by individual units or departments within a healthcare facility. Each unit or department is responsible for managing their own schedule and day of staffing needs and for making decisions about how many healthcare professionals are needed to cover staffing requirements.

Hybrid scheduling and staffing

Some organizations use a hybrid scheduling and staffing model. For example, the unit manager might be responsible for building and maintaining the unit schedule up to 24 hours before the start of the shift. The manager approves trades and vacation/PTO requests, adjusts the schedule to account for leaves of absence or resignations, and recruits to fill unfilled shifts. Within 24 hours or less, the central staffing office takes over management of the schedule,

including managing sick calls, recruiting staff for last-minute needs, and adjusting staffing plans through floating, cancelations, or overtime.

Another example is an organization that increases flexibility of a decentralized staffing model by holding daily staffing meetings with nurse managers from each division and weekly staffing meetings with nurse directors. The daily meetings provide the opportunity to review and plan staffing for the next 24-hour period. Resources can be reallocated as needed. The weekly meetings provide the opportunity for directors to review schedules, deploy short-term staffing resources from a staffing pool in response to unplanned scheduling issues, and assess for trends that may impact a unit's ability to staff appropriately.[5]

Benefits and drawbacks

Both **centralized** and decentralized scheduling and staffing models have their benefits and drawbacks. For example, centralized models can help healthcare facilities improve consistency, efficiency, and transparency, which can reduce costs and ensure consistent staffing levels. However, the associated bureaucracy may make them less flexible and less responsive to individual unit or department needs (Sidebar: Pros and cons of Centralization.)

Decentralized models can provide greater flexibility and autonomy but may result in inconsistent staffing levels, less standardization, and unnecessary incentive or overtime spending across an organization.

Pros and cons of centralization

Because centralized scheduling and staffing models are complex and require a significant investment of an organization's time and money, it's important you fully understand this model's pros and cons.

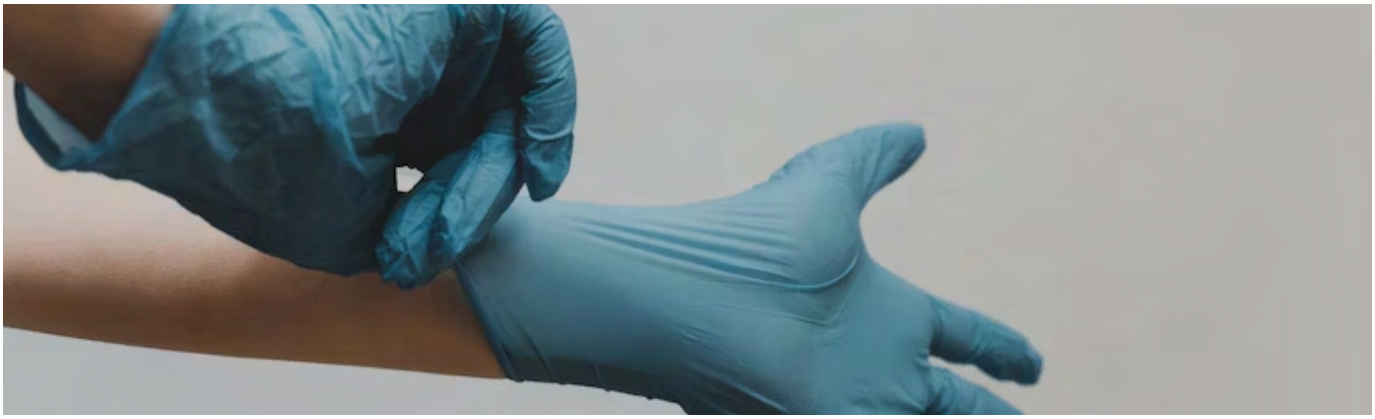
Pros

- **Consistent staffing levels.** Centralized scheduling can help ensure consistent staffing levels across the organization, which helps maintain patient safety and improves quality of care.
- **Scalability and efficiency.** A centralized model makes it easier to scale and standardize scheduling and staffing practices compared to a decentralized model. For example, in a centralized model, one staffer can support more than 500 nurses across 16 units vs. 6 decentralized managers scheduling for 80 nurses each. A centralized approach streamlines staffing processes and reduces duplicative administrative tasks, improving efficiency and reducing costs.
- **Increased transparency.** Centralization provides greater visibility into staffing levels across an organization, making it easier to see where additional staff may be needed. Rather than a decentralized, siloed approach, centralized staffing allows staffers to easily identify any gaps or areas where they are overstaffed, which improves their ability to manage workforce deployment and resource management.

- **Standardization.** A centralized staffing model can help standardize staffing practices and ensure that best practices are followed consistently across the organization. For example, a centralized model empowers nurse schedulers and staffers to standardize rates and scheduling policies (such as schedule publishing timing and PTO and trade administration.) When all units are speaking the same language and moving in the same scheduling cadence, it allows for better operational management with fewer resources than a decentralized model.
- **Cost savings.** The previous benefits add up to cost savings for organizations. For example, when managers build a schedule in the decentralized model and find they're short-staffed, they will try and recruit a nurse to fill that shift. Often, they will pull from what they know, which is their own team and their own resources, which may involve offering overtime or an incentive shift. On the other hand, when scheduling and staffing is managed at a central level, it's easier to curb unnecessary overtime and incentive spending because staffers can leverage resources from overstaffed units or available float pools rather than offering incentives or overtime.

Cons

- **Reduced flexibility.** A centralized staffing model can be less flexible and less responsive to the needs of individual units or departments within the organization.
- **Increased bureaucracy.** A centralized staffing model may require additional layers of bureaucracy and decision-making, which can slow down scheduling and staffing processes.
- **Resistance to change.** Some nurses may resist centralized scheduling, particularly if they feel that it takes decision-making power away from them.
- **Higher cost.** Implementing a centralized staffing model may require additional resources and investment, which can increase costs in the short term, although it can lead to long-term cost savings.



The choice between a centralized or decentralized staffing model (or a hybrid) depends on the specific needs and priorities of your organization. Factors such as organizational size, complexity, and patient volume may influence the decision (Sidebar: Choosing a staffing model.)

Choosing a staffing model

Here are some questions to consider before you choose a scheduling and staffing model:[5]

- What's the overall vision for the nursing scheduling and staffing model? For example, if the vision is to standardize the model for a healthcare system, then a centralized approach may be best.
- Is my hospital part of a multihospital system that will share resources? Limited to no shared resources may tilt the decision towards the decentralized model.
- Will my organization be using a scheduling and staffing technology platform? Technology can make managing a centralized model much easier.
- Is there an employee union? Staffing procedures in a union environment will require special considerations, but both centralized and decentralized approaches are possible.
- Will shared governance teams play a key role in development and implementation? A well-functioning shared governance team can make it easier to change from a current model to one that works better for the organization.
- What is our patient volume? Smaller facilities may not need the complexity of a centralized model.

Universal principles

No matter which model you choose, three nurse scheduling and staffing principles will improve the effectiveness of implementing and sustaining the scheduling and staffing model.

1. Obtain nurse input. When nurses have input into an organization's scheduling and staffing processes, the model will better incorporate their needs, implementation of the model will be smoother, and nurses will be more committed to it.

2. Maximize flexibility. Scheduling and staffing flexibility allow an organization to adapt quickly to changing patient needs, including changes in patient census and acuity and varying available staff levels.

3. Prioritize transparency. Transparency and collaboration increase trust in the system and maximize scheduling and staffing issue solutions.

If you choose a centralized scheduling and staffing model, you'll need technology that can help you build an effective staff mix, strategically schedule staff to ensure that less-desirable shifts have coverage, and reduce unnecessary overtime and excessive floating across multiple units.

CHAPTER 4

Workforce system technology

4 Workforce system technology

Workforce management has many moving parts and requires a comprehensive technology ecosystem to achieve scalable and optimal operational outcomes. The use and operational investment into contemporary workforce technology has many benefits.

- Organizations can use technology platforms to clean up their data integrity by driving standardization of familiar workforce language/coding.
- Technology can help organizations create one area for education management, skills and competency documentation, and licensure management with greater transparency.
- Technology will drive huge wins with operational efficiency by automating redundant, manual processes that bog down frontline leaders.
- The clean database achieved through technology will enable intelligent, and data-driven insights for optimal workforce management in real time for better proactive and strategic management.[9]

Even though the work required to implement new technology or configure existing systems may seem intimidating, the reward and payoff from automated workforce management outweigh the challenges.[9]

Workforce system technology components

In addition to scheduling and staffing technology, the elements below are necessary to create a comprehensive technology ecosystem for workforce management

- **Human resources information systems (HRIS)** house employee information such as job, licensure, certifications, and personal information (such as phone number and address,) as well as organizational policies and reporting structure.
- **Learning management system**, which offers virtual learning programs and keeps a record of completed programs that support competencies.
- S**cheduling and staffing** technology supports functions such as building unit schedules; managing trades, offers, and open-shift claims; and facilitating day of staffing activities.
- **Time and attendance** technology is used to manage daily worked shifts, with timecard punches in and out of an active shift. Appropriate coding for the worked shift is included, such as charge or preceptor role, orientation, as well as vacation or paid time off.
- **Open shift recruitment** technology automates the offering of unfilled shifts once the schedule is published.
- **Vendor management system (VMS)** technology manages external labor (agency nurses.) This helps you source, obtain, and validate credentials; offer the position; and deploy the nurse on assignment. (Part 2, Chapter 3, contains more information about a VMS.)

Each of these elements is the source of truth for a specific area, meaning that it provides a big picture understanding of the data. The HRIS system is the source of truth for employee licensures and certification. The scheduling and staffing system is the source of truth for skills for employees such as conscious sedation; this information is verified from the learning management system. The time and attendance system is the source of truth for vacation and hours worked. VMS is the source of truth for external labor such as agency nurse skills and competencies and items needed to meet The Joint Commission standards.

In an ideal world, the HRIS and learning management system integrate with the scheduling and staffing system to auto-populate employees' licenses, certification, and skills to complete the employee profile. The profile drives employee scheduling, such as what shifts employees can claim in self-scheduling and staffing decisions based on patients' conditions and nurse skill set. If no integration is achieved or a source of truth is not established, manual entry, which will most likely be duplicative and labor intensive, will be required. Set up the source of truth pathway for the various elements and push for integration.

In evaluating workforce system technology options, the organization needs to choose, purchase, and implement the product that best fits the practice environment.[7]

Choosing a scheduling and staffing system

Create criteria for measuring the performance of proposed systems before purchasing (Sidebar: Scheduling and staffing technology platform criteria.) You'll need to work closely with key stakeholders, including nurse managers and frontline staff—their involvement is key to obtain buy-in. Other key stakeholders are representatives from IT, human resources, and finance.

BEST PRACTICE TIP:

Set expectations for frontline staff up front. For example, you might have staff test certain parts of a proposed system and complete an evaluation form; however, the final decision will rest with senior leadership.

Ask for a full demonstration of the product and speak with other organizations who have implemented it. If the company is a start-up, consider a partnership to create and push the innovation forward. You also want a company that will provide support not only during implementation, but afterwards as well. Ask about helpline options and how software updates are handled.

Even if your organization has a technology platform in place, it would be beneficial to evaluate it using the same purchasing criteria. This process can help you identify areas for improvement.

Scheduling and staffing technology platform criteria

Use these criteria to help ensure the technology platform meets your organization's needs and that you optimize your return on investment.[8,10]

Versatility

	YES	NO
• Can the platform support both enterprise-wide operations (hospital or multiple hospital views) and unit-specific needs?	☐	☐
• Is there potential growth and expansion in the future (you may start with inpatient use, but later want to expand to the outpatient setting)?	☐	☐

Flexibility

• Can the organization make changes so that the system better meets its unique needs?	☐	☐

User-friendly

• Can end-users easily navigate the platform (check for visual cues for basic functions and number of clicks needed)?	☐	☐

Mobility

• Can end-users easily download the mobile option?	☐	☐
• Does the mobile option work on multiple types of devices?	☐	☐
• Does the mobile option offer robust features such as the ability to self-schedule, view a posted schedule, make trades, request time off, and be notified of and sign up for extra shifts?	☐	☐

Integration

• Does the platform integrate with existing technology (for example, learning, human resources, and finance systems, electronic calendars)?	☐	☐

Functionality

• Does the platform automate scheduling and staffing work?	☐	☐
• Can the platform forecast future scheduling and staffing needs?	☐	☐

Implementing the system

Operational investment in implementing and configuring technology is just as important, if not, even more important, than investing in buying the technology itself. Too often, organizations make expensive purchases of the latest technology and fail to provide the same investment during the configuration and implementation stage. You'll need to budget for and commit to the people and time needed to achieve configuration and implementation success. Consider designating "super users" who can advocate for the system and serve as a resource for others. Establishing a timeline and providing frequent progress updates to key stakeholders also are key.

BEST PRACTICE TIP:

Don't apply past practice to new technology. Objectively evaluate what the technology can do and push it to the limits. Too often, leaders take a new technology system like scheduling and staffing and turn off all automation features such as trades, offers, or extra-shifts, because they want managers to approve everything to match current practice. Automation builds in the rules, so that step is no longer needed. Make every effort to use features of the technology to its fullest.

You have conducted your organizational assessment, decided on a staffing model, and considered how technology can optimize your scheduling and staffing processes. Now it's time to operationalize the structure you have set up. That's in Part 2.

PART 2

Operationalize the structure

CHAPTER 1

Raising the pillars

1 Raising the pillars

Once an organization has built a foundation for a flexible workforce, the next step is to operationalize the structure. Operationalizing includes scheduling, staffing, proactive incentive programs, and setting up staffing vendor management and credentialing. These are covered in Part 2. Operationalizing also includes creating innovative flexible workforce programs such as an internal travel agency and gig programs, which are discussed in Part 3. Several basic principles serve as pillars to support all these efforts.

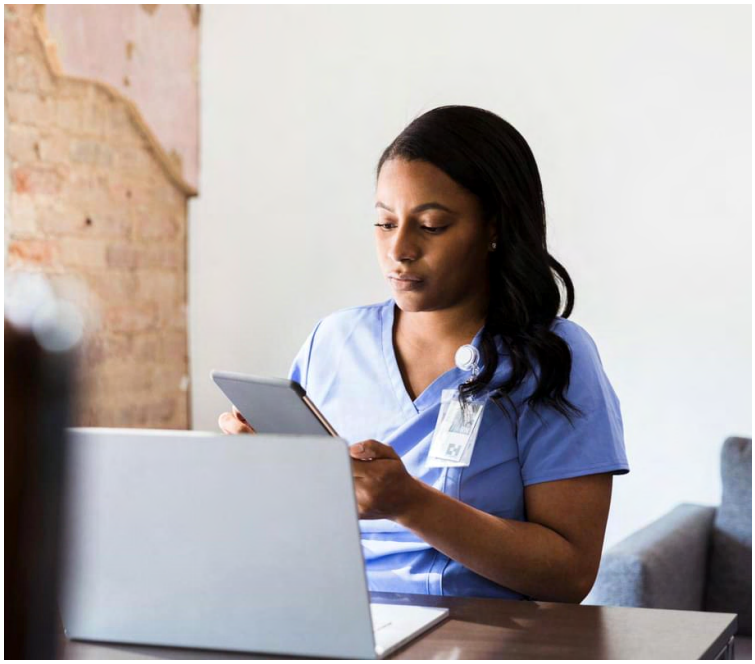
Take a team approach

Making changes to scheduling and staffing processes can be scary for frontline staff—and for nurse leaders—even when the goal is to create more flexibility. People naturally wonder how a change will affect them personally, which creates stress. They also may be reluctant to let go of current practices and try new ideas such as gig work. And although technology to help better manage scheduling and staffing can be effective in the long run, some may be reluctant to let go of current practices rooted in paper.

Establishing a team that comprises key stakeholders and that has set expectations can help ease stress. The composition of the team will depend partly on its purpose. For example, a team assigned to work on an incentive program for open shifts will need to include compensation experts from human resources, while a team assigned to address self-scheduling processes will need frontline staff. It's also important for all participants to understand that flexibility doesn't mean "anything goes."10 The organization still needs full staffing on a 24/7 basis. Yet the capacity for flexibility is wide and can be an important incentive for staff recruitment and retention.

Establish scheduling and staffing policies

Based on your organizational assessment and review of scheduling and staffing policies, the need to either revise or create new ones to meet the organization's needs is an essential step to create standardization for operational efficiency as well as flexibility (Sidebar: Scheduling and staffing policies.) The revision or creation of standard system policies should promote a fair, transparent, and equitable environment that supports workforce flexibility.[10] In fact, fair scheduling practices have been linked to positive nurse satisfaction.[11]



Scheduling and staffing policies

Core components for scheduling and staffing policies are listed in Part 1 (Chapter 2.) A few that are particularly key for workforce flexibility are the following:[10]

- **Weekend coverage.** If possible, use every third weekend instead of every other weekend.

BEST PRACTICE TIP:

Build in flexibility for how nurses meet the requirement. For example, a nurse could fulfill the requirement to work four weekend shifts in a 6-week cycle by working every Saturday for four weeks or by working two weekends in a row.

- **Early incentivization.** Policies should promote proactive filling of open shifts by creating opportunities for nurses to select extra shifts with high-dollar incentives early in the staffing process. This avoids last-minute recruitment that creates chaos and higher spend.
- **Offer and trade options.** Building in offer and trade options for both partial and full shifts will increase nurse satisfaction.
- **Weekend-only programs.** Having a weekend-only policy gives nurses who are raising a family or going back to school an important work option. You can include the option of picking up a mid-week shift at an incentivized rate.

Cross-train staff

Upskilling and cross-training staff deepens the expertise of your workforce, while providing a variety of clinical experience and work options. For example, to build a sustainable pipeline supply, rapid upskilling and cross-training should be considered for highly specialized areas with common patient populations. Look for areas of practice similarity to promote rapid training. For example, post-anesthesia care unit and critical care staff care for patients who need close monitoring, so may be good candidates for cross-training.

Also look for areas to upskill and cross-train in both inpatient and outpatient settings. For instance, would staff in an inpatient rehabilitation or medical/surgical unit like exposure to outpatient settings to diversify their work experience?

BEST PRACTICE TIP:

Keep an electronic record of training. The record should integrate with your staffing technology, so it's easy to identify those qualified to be offered extra shifts in a particular area. This will reduce the need for external agency staff and the likelihood of not having the necessary staff for a shift.

BEST PRACTICE TIP:

If you are spending more than 2% to 5% of your total labor spend on external labor, you need to bolster or build more internal flexible programs to account for seasonal demands or vacancies and reduce reliance on travel nurses.

Provide education

As with any new initiative, education is key. Both managers and staff need to understand the purpose of flexibility, strategies for achieving it, and the specifics of relevant policies and operations. Be sure to allow enough time for education before the go-live date for new policies (such as self-scheduling) and use multiple strategies, including meetings, flyers, staff huddles, and the intranet. You'll also want to incorporate scheduling and staffing policies into new employee orientation.

Establish goals

Historically, organizations have often lacked a flexible workforce and relied on external labor, with 5% to 7% coming from agencies. Flexible labor (such as weekend or float pool programs) made up about 3% to 10% of the workforce, and the remaining 85% to 90% consisted of departmental core hires. Unfortunately, the COVID-19 pandemic led to inflated reliance on external labor, with some organizations operating with 15% to 20% levels of contract labor. To stay competitive, plan on this mix: 2% to 5% for external labor, 20% to 35% for flexible workforce options (such as internal travel agency, system float, weekend, and PRN programs,) and the remainder of the workforce reserved for departmental core positions.

Start small

Solving the nursing workforce challenge is not a one-size-fits-all approach. It's best to take a multi-program approach when building a comprehensive workforce strategy. Start simple with one or two programs, evaluate success, gain feedback from managers and frontline staff, and continually innovate and analyze workforce trends to find the best programs for your organization.

Now you're ready to start implementing a flexible workforce, starting with scheduling, staffing, and incentive programs.

CHAPTER 2

Scheduling, staffing, & incentive programs

2 Scheduling, staffing, and incentive programs

You can use several strategies related to scheduling, staffing, and proactive incentivizing to promote a flexible workforce.

Scheduling

Scheduling flexibility starts with self-scheduling. Self-scheduling promotes engagement in the scheduling process and aligns with the trend towards a gig economy.[10] Nurses feel a sense of ownership, and the ability to schedule within the context of external commitments reduces the likelihood of absences.

Typically, a 6-week schedule is open for 10 days, no later than 21 days before the start of the shift. Once the schedule is closed, the scheduler "balances" it to ensure adequate coverage. Flexible strategies for scheduling flexibility include the following:[10]

- **Different shift lengths** (such as 4, 6 or 8 hours,) which may attract nurses with other commitments, like school or family.
- **Auto-approval of shift trades**, which allows nurses to adapt their schedules to unexpected events.
- **Offering extra shifts** after the schedule has been published; these should be available to all qualified staff and be posted in the electronic schedule so staff can see their options. If the staffing need is great, consider offering high-dollar incentives early in the process to creative proactive shift recruitment vs. reactive recruitment. Historically, organizations offer the highest incentive dollar amount right before the start of the shift, which causes staff to hold out for last-minute offerings.

BEST PRACTICE TIP:

Rather than a "first-come, first-served" approach, create rotational groups, so each team member has the opportunity to pick their schedule first. Also, be sure to build in parameters to ensure trades are equitable from a financial (not incurring overtime) and a skill mix perspective. Use auto-trades to remove the need for manager or scheduler review.

One of the least targeted areas for flexibility is staffing. Yet, this area provides multiple opportunities that can yield significant benefits.

Staffing

Staffing refers to deploying nurses for shifts, usually starting 24 hours before the shift begins. At this point, the staffer considers whether assigned staff is appropriate for patient census and acuity or if overstaffing or understaffing exists.[8]

Options for correcting overstaffed situations include the following:

- **Floating.** Nurses are reassigned to other units for a specific shift where patients need additional support. The reassignment and assigned duties are based on care needs and the nurse's skills, knowledge, ability, and competence.
- **Low census on-call.** A nurse is placed on-call for a regularly scheduled shift and may be called back for the shift if patient volume increases.
- **Cancelation.** There is a surplus of nurses to cover potential census demands throughout the shift, so the nurse is canceled for a regularly scheduled shift or an extra shift.

Options for correcting understaffed situations include the following:

- **Mobilization of float pool resources.** This requires evaluating how many float pool nurses exist and deploying them to help meet the staffing demand by taking a patient assignment on a unit they are qualified to work.

BEST PRACTICE TIP:

Float pool nurses also can help with census fluctuations or staffing shortages created from sick calls or unplanned absences.

- **Last-minute recruitment for open shifts.** A nurse is recruited via text message technology to pick up an extra shift for their unit or a unit where they are qualified to work within a couple hours of the start of the shift. The need to recruit may be created as a result of sick calls or census surges.

Proactive incentive programs

Achieving optimal staffing often varies at the shift level because of the complexity of matching the right number and skill level of nurses to the variable patient demand created by changes in census and acuity. Filling open shifts can result in considerable stress for both managers and staff, but a proactive incentive approach can reduce that stress.

Incentive policies define how an organization will pay additional money to recruit for an upcoming open (unfilled) shift. They outline the process for managing open shifts, give an overview of the dollar amounts, and define the scope of the program. These policies are in addition to other traditional workforce policies that an organization may use to meet their staffing demands, such as weekend programs and call shift expectations.

When operationalized correctly, a proactive incentive program alleviates last-minute recruitment frenzy and mitigates potential gaming of the process by frontline nurses holding out for the most money possible as managers become increasingly desperate. Here's how you can develop and implement a successful proactive incentive program.

Step 1: Form a team

The incentive program team should include human resources compensation experts, finance staff, operational nurse leaders, and frontline staff. If frontline staff cannot serve on the team, be sure to involve them in other ways, such as working with decision-making councils.

This will help ensure buy-in.

You'll want to take a rapid process improvement approach to facilitate the project team in designing the new program. The draft of the new program that the team develops should be circulated to executives and key operational leaders for review and approval.

Step 2: Analyze existing policies
The team's first step is to gather all existing policies related to incentives at the unit, hospital, and system levels. These include staffing and overtime policies, union contracts, and policies related to internal PRN/per diem, weekend, and call programs. Review the policies, identifying overlaps and key elements you may want to keep.

Step 3: Structure the program
Consolidate existing incentive policies and integrate them into a single incentive program. Having one program improves efficiency and ensures leaders are not outbidding each other for the same talent.

BEST PRACTICE TIP:

Align your incentive policy with your staffing policy so both represent the incentive program. The program also needs to align with any union contracts.

Hourly rate. A tiered program helps the organization to adapt to market trends and demands more effectively. Keep the number of tiers to no more than three. Consider having a low, medium, and high dollar range that is applied as additional money per hour to an extra shift that is worked.

BEST PRACTICE TIP:

Review and assess incentive hourly rate on an annual basis and adjust as needed based on market trends.

Eligibility. Determine eligibility criteria for the workforce.

- Full-time/Part-time staff are eligible once they have worked their hired hours
- PRN/per diem staff need to work their required hours determined by the organization's PRN policy before being eligible for incentive shifts.
- Internal agency or float pool staff can be eligible for incentive shifts in areas they are competent to work but should only be eligible for the lower-level tier since they already have a high hourly rate associated with their flexible position.
- International staff (temporary to permanent) should only be eligible for the lower-level tier since they already have a high hourly rate associated with their temporary to permanent position.

- External travelers typically are not eligible for incentive shifts. However, if there is an immediate need and all other options have been exhausted, organizations can offer the lowest incentive level as a last option.
- The incentive should be stacked with overtime when an employee is picking up an extra-shift above 40 hours a week.

Incentive rate criteria. Develop criteria for offering incentives for unfilled shifts. It can be helpful to review past schedules to develop these. Less desirable shifts typically have a higher incentive amount compared to less desirable ones.

Shift distribution. You'll want to define how to distribute open shifts, starting with the most qualified but least expensive nurse.

Example of an incentive program with all four elements

INCENTIVE LEVEL & HOURLY RATE	ELIGIBILITY	CRITERIA FOR INCENTIVE RATE	DISTRIBUTION ORDER
TIER 1 **$10/HR**	Full-time, part-time, overtime, PRN/per diem float pool, internal agency, external agency, international	• Unit shift vacancies (unit vacancies on a particular shift) are less than 10% • More desirable shifts such as day shifts, mid-week shifts	1. Part-time 2. PRN/per diem (once requirement met) 3. Full-time 4. Float Pool 5. Internal agency 6. Overtime 7. International 8. External agency
TIER 2 **$20/HR**	Full-time, part-time, overtime, PRN/per diem float pool	• Unit shift vacancies are greater than 10% • Less desirable shifts (Mondays, Fridays, evenings, nights, weekends)	1. Part-time 2. PRN/per diem (once requirement met) 3. Full-time 4. Float pool 5. Overtime
TIER 3 **$30/HR**	Full-time, part-time, overtime, PRN/per diem float pool	• Emergent needs related to seasonal trends (flu, snowstorm,) or unit shift vacancies greater than 20% • Less desirable shifts (Mondays, Fridays, evenings, nights, weekends)	1. Part-time 2. PRN/per diem (once requirement met) 3. Full-time 4. Float pool 5. Overtime

Step 4: Establish open shift management processes

Now you're ready to operationalize your incentive program as a tool for managing open shifts. To bring the program to life—and avoid costly staffing errors because of a lack of coordination—you'll need to create processes related to how to offer incentives. Keep three key points in mind.

1. **Define roles and responsibilities.** It needs to be clear who has the access and authority to offer incentive shifts. Otherwise, lack of coordination between the staffing office team and nurse managers could end up in the two outbidding each other for the same staff.

BEST PRACTICE TIP:

Centralize incentive shift offerings in a central staffing office if you have one. The office will then have a high-level view of current staffing resources, which allows for better operational management.

2. Determine timing. Incentives for open shifts should be offered early, with the established dollar amount for the tier. Don't wait until the last minute (4 hours before the start of the shift) to offer the most money. Offering the money days in advance rewards proactive behavior by staff. Above all, don't send last-minute messages for the highest incentive pay recruitment unless absolutely necessary to deal with a true emergency such as a storm or other catastrophic events.

BEST PRACTICE TIP:

Offer the highest tier for open shifts early, based on established criteria. For example, the unit schedule is complete, and you have 14 days to fill 21 unfilled day shifts due to leave of absences. On day 14, offer Tier 3 because your unit shift vacancy is greater than 20%. (The unit shift vacancy is determined by taking the total unfilled day shifts [for example, 21 shifts] divided by total day shifts needed [for example, 98 shifts], which in this example gives you a vacancy of 21% [21/98=21%].) As shifts are filled and the shift vacancy drops below 20%, change the incentive level to the Tier 2 for remaining shifts. Never offer the most expensive incentive offering right before the start of the shift.

3. Use staffing technology. Dynamic staffing technology enables you to provide automated shift matching and price transparency for your frontline nurses. Find a technology that users can access via a mobile device, integrates with your current scheduling system, and allows for configuration of incentive shift pricing and automated distribution of those shift offerings to your workforce. This will reduce management overhead, staffing errors, and manual workflows such as email, phone calls, text messages, and paper sign up.

BEST PRACTICE TIP:

Empower frontline nurses to own their practice and select their shifts. If they can do so on a mobile device, expect them to sign up for shifts themselves. Do not enter shifts for them, which creates more work and increases the chance of errors. Train, educate, and set expectations.

Step 5: Launch the program
Set a go-live date. Give yourself at least a month before go-live to educate managers, the staffing office, and frontline staff about the program. Tap into outlets such as management meetings, the intranet, huddles, and staff meetings, and create educational flyers for distribution.

BEST PRACTICE TIP:

Discuss transparent pricing, the process, and proactive staffing incentives with frontline staff, which will help reduce their attempts to "game" the system by holding out for more money until closer to the shift.

Step 6: Follow-up
The sample incentive program and recommended best practices presented here are just a starting point. Data trends should be evaluated quarterly. Look for trends that could inform how to dynamically incentivize shifts by day of week and time of day because not all shifts are created equal in the eyes of the nurse. Some desirable shifts may not need a higher incentive amount when compared to less desirable shifts. You also should review and update the program on an annual basis.

Historically, incentive programs have been described as being "gamed" by frontline nurses who know how to get paid the most. This may be true, but with automated technology and innovative, strategic incentive programs, organizations can effectively change the game to better manage costs, while ensuring quality patient care. With the right tools, technologies, and analytics, you can change—and effectively win—the staffing incentive game.

CHAPTER 3

Vendor management & credentialing

3 Vendor management and credentialing

Managing staffing vendors and ensuring proper credentialing of vendors and staff are essential for optimizing workforce efficiency and flexibility. Part 1 (Chapter 4) briefly touched on vendor management system (VMS) technology; this chapter digs down deep into core components of the technology and necessary operational tactics for success in managing external labor like agency and travel nurses for seasonal or urgent demand.

Vendor management models

Organizations can use different models for vendor management. An organization may choose to manage vendors on their own, with or without the use of VMS technology, or it may choose to use a managed service provider (MSP,) with or without a VMS (Sidebar: Vendor management models.)

The MSP functions as a vendor broker to evaluate if it can fill the staffing need; if not, it sends the need out to its channel partners. A VMS is a technology platform that automates and streamlines the management of the entire vendor supplier panel. For example, an organization may work with 30 suppliers. All the suppliers work through the VMS via features such as back-and-forth communication, candidate submissions, and documentation.

Vendor management models

Here are examples of how organizations can manage vendors, along with associated features and outcomes for each.

MODEL	FEATURES AND OUTCOME
Self-management (no MSP*, no VMS** technology)	• The organization has a larger internal team that manages agency contracts and processes. • The process is manual and done through email, spreadsheets, and internal files. • The organization pays lower traveler bill rates because there are no MSP service fees. • There is the potential for duplicative work, errors, and a large internal team to manage.
MSP without VMS technology	• The vendor broker acts as a service layer. • The organization pays higher traveler bill rates to cover the fees for the MSP service. • Work with the MSP is manual through emails, spreadsheets, and internal file management.
MSP and VMS	• The service layer and technology are paired. • The process is automated and driven through the VMS platform. • There is a single source of truth for traveler onboarding, credentialing, and work assignment. • The organization pays higher traveler bill rates to cover the fees for the MSP service.

MODEL	FEATURES AND OUTCOME
Self-managed (no MSP) and VMS technology	• The organization has a small internal team to manage agency contracts and processes because of automation and efficiency gains with the VMS technology. • The organization pays lower traveler bill rates because there are no MSP service fees. • The VMS technology can be provided at no cost to the health system.

*Managed service provider
**Vendor management system

The most economical and scalable approach is self-management through a VMS. With the right workforce technology, greater efficiency and gains can be achieved at a much lower operating cost compared to the MSP layer. A VMS provides organizations with a centralized system for automating and streamlining the vendor management process (Sidebar: VMS features.) And with a VMS, vendors have more direct communication with an organization.

VMS features

What does a vendor management system (VMS) do? Typical features include the following:

- **Vendor registration and onboarding.** A VMS usually has a portal where vendors (suppliers of travel nurses) can register and provide information about their company and the services they offer. The VMS also may automate the onboarding process, including collecting necessary documents such as background checks, skills, competencies, and past work history and references.
- **Credentialing and compliance management.** A VMS may automate the vendor credentialing process, including verifying credentials, tracking expiration dates, and monitoring compliance with applicable laws and regulations.
- **Vendor selection and contract management.** A VMS may provide tools for selecting vendors based on specific criteria, such as price, quality, and availability. It also may automate the contract management process, including negotiating contracts, tracking contract terms and conditions, and managing contract renewals.
- **Performance tracking and reporting.** A VMS may track vendor performance metrics, such as service levels and customer satisfaction, and generate reports for stakeholders.
- **Spend management.** A VMS may track vendor spend and provide tools for managing vendor invoices and payments.
- **Communication and collaboration.** A VMS may provide tools for communicating with vendors, such as messaging and document sharing, and for collaborating with internal stakeholders, such as procurement and compliance teams.

VMS benefits

A VMS empowers organizations to manage their vendor relationships more efficiently and cost-effectively. Benefits include the following:

- **Efficiency.** A VMS automates many of the time-consuming tasks associated with vendor management, such as document management and performance monitoring. This automation can save healthcare organizations considerable time and effort and enable them to manage their vendor relationships more efficiently.
- **Compliance.** A VMS helps ensure vendors are compliant with applicable regulations and policies. The system can automatically track vendor credentials, certifications, and licenses and alert the organization if a vendor isn't in compliance.
- **Analytics.** A VMS provides healthcare organizations with data and analytics on vendor performance, costs and compliance. This can enable organizations to make more informed decisions about vendor relationships and identify areas for improvement.
- **Cost savings**. A VMS provides data on vendor performance, quality, and costs that organizations can use to negotiate better pricing with vendors. The system also can help identify areas where costs can be reduced by consolidating vendors or negotiating better terms.
- **Improved quality.** A VMS allows organizations to monitor vendor performance and quality to ensure they are providing high-quality products and services. This can improve the quality of care and patient outcomes.

A VMS benefits vendors and vendor labor too, in the following ways:

- With a VMS, staffing agencies have an equal chance to fill opportunities, which creates a healthy market competition among the agencies.
- Travel nurses can more easily see available jobs, which gives them more choice over where they work.

VMS best practices

To reap the benefits of a VMS, it's important that your organization follows some best practices.

- **Perform due diligence.** Before selecting a vendor, conduct due diligence to ensure that the vendor is financially stable, has a good reputation, and complies with relevant regulations.
- **Make contractual terms clear.** Ensure that all vendor contracts include clear terms and conditions, including service-level agreements, confidentiality requirements, and termination clauses. Common contractual terms for clinical considerations include:
    - *Defining travel vs. local nurse distance from the hospital and rate of pay.* For example, a true travel nurse would live more than a 50-mile radius from the hospital and be paid a traveler bill rate, which is higher. A local travel nurse would live within the 50-mile radius and would be paid a lower bill rate by the hospital because they do not need to pay for travel, housing, and meals.
    - *Orientation expectations.* This includes how many hours the organization vs. the vendor will pay for nonproductive time the traveler spends in orientation.

  - *Hiring terms and conditions.* This refers to a situation where the hospital would like to hire the travel nurse after assignment completion. Negotiate no fee for hire after the assignment is complete.
  - *Floating expectations.* These should include the parameters under which the travel nurse would float to another area.

- **Monitor performance.** Regularly monitor vendor performance to ensure they are meeting contractual obligations, including quality standards, timeliness, and regulatory compliance. For example, when an organization requests an agency nurse the turnaround time for submission of candidates should be less than 12 hours. Typical vendor performance can be conducted monthly or every other month.
- **Address risk management.** Assess vendor risk and implement risk mitigation strategies, such as contingency planning, disaster recovery, and cybersecurity measures.
- **Ensure regulatory compliance.** Ensure vendors comply with all applicable federal, state, and local regulations.
- **Promote effective communication.** Maintain open and transparent communication with vendors, including regular reporting and issue escalation procedures.
- **Maintain a vendor portfolio.** Keep a portfolio of vendors and periodically review the vendor panel twice a year or annually to ensure that it's up-to-date and that vendors are meeting organizational needs.
- **Train staff.** Train staff on vendor management policies and procedures to ensure that they understand their roles and responsibilities.

Following these practices will result in successful use of the VMS.

BEST PRACTICE TIP:

Examples of regulations include HIPAA (Health Insurance Portability and Accountability Act) and HITECH (Health Information Technology for Economic and Clinical Health.) Compliance with specialty-specific licensure requirements for providers is also important.

Success story: VMS

A nurse manager at a hospital using a vendor management system (VMS) to credential nurses for a variety of inpatient and non-inpatient nursing needs submits a request for a 13 or 26-week travel nurse assignment to cover a leave of absence. The VMS flags the request for a hospital executive and finance team to approve. When it is approved, the request goes to all five different staffing agency vendors working in the VMS—all the agencies have an equal opportunity to source candidates and upload documentation to fulfill that need at the best rate in the timeliest fashion. From there, the nurse manager easily parses available candidates in the VMS portal and manages the interview, offer, onboarding, timecard, and bill payment process, all through the VMS platform.

Best in class VMS technology will improve vendor management

Works by Trusted Health is an all-in-one hospital vendor management system that can be customized to any healthcare organization's vendor management needs—whether an organization works with an MSP or self-manages. Works stands apart from other healthcare vendor management systems because it empowers health systems to understand trends in vendor pay in their region, allows them to adjust rates, and manage any labor pool with a clinician facing mobile app. The platform empowers quantitative management of vendor relationships, mitigates risks and ensures regulatory compliance while improving patient care and financial stability.

Documentation

Documentation related to all aspects of the vendor management process is streamlined into one central system. This approach mitigates the risk of one-off emails or text messages, simplified record-keeping, and streamlines operations.

A key part of documentation of individual travel nurses. Typical documentation for onboarding a travel nurse is submitted by the vendor, through the VMS, to the organization. It's the organization's responsibility to review the candidate submittal packet to ensure proper documentation that meets standards from The Joint Commission. Your onboarding steps should include:

- **Verify licenses and certifications.** Verify that the clinician has a valid license and any additional certifications required for the position. Clinicians also should have insurance coverage.
- **Conduct a background check.** A background check helps ensure the clinician has no criminal history, malpractice claims, or disciplinary actions. The vendor works with a third-party to conduct the check, and a report is provided to the organization.

BEST PRACTICE TIP:

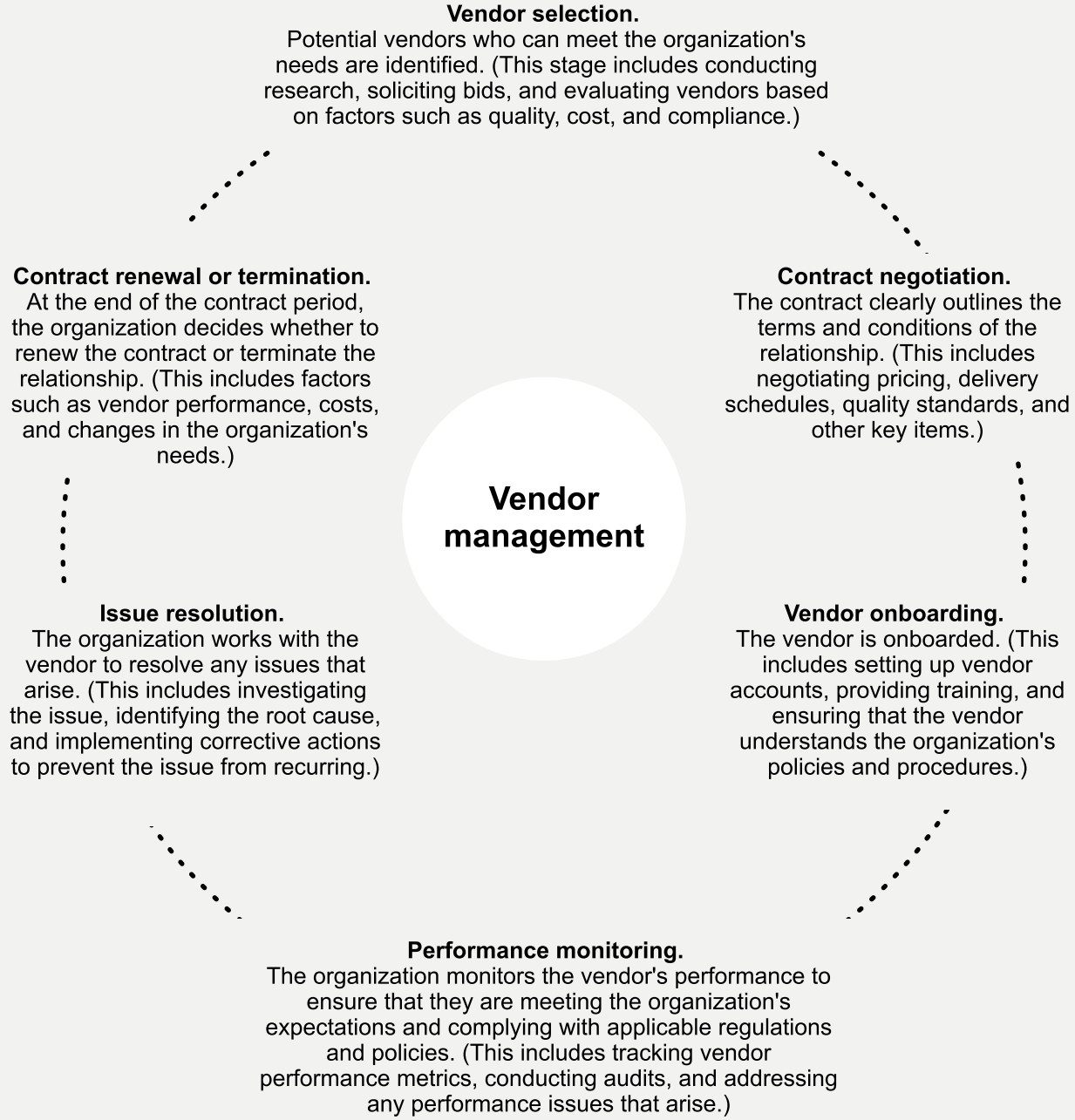
In most cases, license and certification verification can be done via the website for the board of nursing or certifying body.

- **Check references and employment history.** Contact the clinician's references to verify their skills, experience, and qualifications, and contact previous employers to verify their employment history, including job responsibilities and work performance. This will help ensure patient safety.
- **Verify immunizations.** Verify that the clinician has received all required immunizations, such as the influenza vaccine, and that vaccination is current. This can help stem the spread of infection within a healthcare system.
- **Provide orientation and training.** Clinicians need to be familiar with the facility's policies, procedures, and culture.

Successful use of a VMS also requires that you understand the life cycle for vendor management (Sidebar: Vendor management life cycle.)

Vendor management life cycle

The typical vendor management lifecycle in healthcare involves the following stages:



By following a comprehensive vendor management lifecycle, organizations can ensure they are working with high-quality vendors who help them meet their needs.

Vendor credentialing

Every service that directly or indirectly interacts with patients at your healthcare organization requires vetting. This vetting effort is the vendor credentialing process—the process of assessing and verifying the qualifications and compliance of vendors who provide products and services to healthcare organizations. For example, organizations must confirm the quality of their contingent labor workforce, whether licensed or non-licensed, to reduce risk and ensure that patients receive quality care. Credentialing confirms that each member of a healthcare organization's workforce (such as travel nurses, certified nursing assistants, lab techs, or even IT support) meet the necessary standards and regulations to operate within healthcare facilities. The goal of vendor credentialing is to protect patients, staff and the healthcare organization by ensuring that only qualified and compliant vendors and clinicians work within the facility. By enforcing vendor credentialing requirements, your organization can reduce the risk of regulatory violations, lawsuits, and negative publicity.

Examples of vendor credentialing benefits include the following:

- **Improved quality of care and patient outcomes.** Vendor credentialing ensures that only qualified and competent vendors are allowed to work in healthcare facilities. It also enhances communication and collaboration and improves the efficiency and effectiveness of vendor management.
- **Safeguarding of patient safety.** Safety includes physical safety, data protection, and confidentiality. Vendor credentialing ensures only credentialed vendors have access to sensitive patient data, maintaining HIPAA compliance and your patient's privacy and confidentiality.
- **Compliance adherence.** Vendor credentialing ensures compliance with all government and private healthcare rules. Well-maintained vendor credentialing records come in handy when The Joint Commission or other regulatory bodies audit your organization's vendor credentials. With a streamlined vendor credentialing system, it's easy for you to pull a report on internal and external labor qualifications for auditing entities.

Vendor credentialing requirements also benefit vendors. Participating in a vendor credentialing system can help vendors establish credibility, gain new business opportunities, improve efficiency, and ensure compliance.

Credentialing process

You'll want to incorporate the following best practices into the vendor credentialing process.

Practices related to the vendor as an entity include:

- **Enact a clear and comprehensive credentialing policy.** Outline the necessary qualifications, documentation, and processes for credentialing vendors. Make the policy consistent with industry standards and regulatory requirements.

- **Require registration.** Require vendors to register with the healthcare facility or the vendor credentialing service (if you choose to use an external agency to manage the process.) Registration should include company name, contact information, and a list of services provided.
- **Collect documentation.** Require vendors to provide documentation that serves to verify their credentials, such as proof of liability insurance, business licenses, and professional certifications.
- **Conduct ongoing monitoring.** Monitor vendors regularly to ensure they continue to meet credentialing requirements.

By following these best practices, healthcare organizations can ensure that their vendors—and the clinicians the vendors provide—are qualified and competent to provide care and that they meet the necessary regulatory and compliance requirements.

Credentialing management

Vendor credentialing is typically managed in-house by the healthcare facility or outsourced to a third-party service. The vendor credentialing program typically maintains a database of vendors and their credentials, which is accessible to authorized personnel within the healthcare facility. This database tracks vendor compliance and ensures that only qualified and reliable vendors can provide goods and services to the organization.

In the past, keeping track of vendor credentialing requirements has been a siloed and manual process, including a heavy administrative workload, handled through disjointed emails and PDFs. Now, many organizations are implementing a VMS, as described earlier in the chapter. Here are a few ways technology is making the vendor credentialing process more efficient and effective:

- **Online vendor credentialing platforms/vendor management systems.** These platforms allow healthcare organizations to centralize their vendor credentialing process and manage it online. Vendors can submit their credentials and documentation through an online portal and healthcare organizations can review and approve them in real-time. This can significantly reduce the time and effort required for vendor credentialing.
- **Integration with other systems.** Vendor credentialing technology can integrate with other healthcare systems, such as electronic health records and supply chain management systems. This can help ensure that vendors are compliant with all relevant regulations and policies and that they are providing products and services that meet the needs of the healthcare organization.
- **Real-time monitoring.** Some vendor credentialing platforms offer real-time monitoring of vendor compliance. This can include monitoring for changes in professional licenses, insurance and other documentation. Real-time monitoring can help healthcare organizations stay on top of vendor compliance and quickly address any issues that arise.

Overall, technology makes credentialing vendors more efficient, effective and reliable. By leveraging these technological advancements, healthcare organizations can improve patient safety, reduce risk and streamline their operations. You may want to consider how your

organization can integrate technology into the credentialing process.

Part 2 has covered nuts and bolts related to operational actions for creating and maintaining a flexible workforce. You'll want to build on these by incorporating some of the innovative workforce programs discussed in Part 3.

PART 3

Incorporate flexible workforce programs

CHAPTER 1

Internal travel agency

1 Internal travel agency

Work flexibility is the new currency of the nursing workforce and is just as important as competitive hourly pay, compensation packages, and incentive programs in attracting and retaining staff. Organizations must dedicate time and resources to build flexible workforce programs that will help meet staffing expectations. The beauty of these different programs is that the design itself is flexible: You can use a variety of innovative approaches to ensure your organization's specific needs are met.

This chapter discusses one innovative approach—the internal travel agency. (Future chapters will cover gig programs and other options such as weekend-only programs.) As the name implies, an internal travel agency is owned and operated by a health organization and consists of clinicians employed by the organization. It's essentially a travel agency, but in this case, clinicians—who can be nurses, allied health professionals, or technicians—may be traveling within a single hospital or to multiple hospitals within a health system.

Types of agencies

An internal travel agency can be system or local based on the amount of travel involved (Sidebar: System vs. local based internal travel agency.) In a system travel agency, the employee's assignment is 50 miles or more from their primary residence, but in a local travel agency, the employee lives within 50 miles of the assignment. Because of the wider geographic range, employees of a system travel agency receive a housing stipend and meal allowances, along with their hourly wages. They also are on contracted assignment (4-26 weeks) for an inpatient unit or float pool at a hospital or region (supporting hospitals within driving distance.) Clinicians in a local travel agency live closer to home, so they don't need a housing stipend or meal allowance. They may be on a 4- to 8-week contract and assigned to a specific hospital unit when the schedule is built. They also can be assigned to a unit on a daily basis for specific staffing needs such as sick call coverage or census fluctuation demands.

In both approaches, employees need to be licensed in the state where they practice. Not surprisingly, employees in the system's internal travel agency are the highest paid clinicians in the system, followed by those in the local agency.

System vs. local based internal travel agency

Note the similarities and differences between system and local internal travel agencies.

	SYSTEM	LOCAL
TRAVEL DISTANCE	50 miles or more from primary residence	Less than 50 miles from primary residence
ORGANIZATIONAL LEVEL	System (new cost center at the system level)	System (new cost center at the system level)
REPORTING STRUCTURE	• Reports to the system manager • One job description/ job code in the HRIS*	• Reports to the system manager • One job description/ job code in HRIS
DEFINED ROLE AND WORK	• Full-time (0.9 with benefits) or part-time (0.6 with benefits) • Hired into a specialty pool • Works at all entities • Cost center at the system entity level (non-productive pay) and productive payment from unit cost center worked	• Full-time (0.9 with benefits,) part-time (0.6 with benefits,) or no committed hours/gig with no benefits • Hired into a specialty pool • Works at all entities • Cost center at the system entity level (non-productive pay) and productive payment from unit cost center worked
ASSIGNMENT	Contracted (4 to 26 weeks) to work on a unit, in a float pool for a hospital, or in a system float pool	Contracted (4 to 8 weeks) to work in a specific hospital unit (when schedule is built) or assigned to a unit on a daily basis for specific staffing needs a couple of hours before the start of the shift
STIPEND/ REIMBURSEMENT	Housing stipend, meal, and incidental allowance; may receive a mileage allowance if required to travel daily	Reimbursed for travel expenses between facilities if floated mid-shift
SAMPLE BENEFITS**	Paid time off (including time off between assignments,) retirement, incentive pay, certification pay, licensure reimbursement	Paid time off (including time off between assignments,) retirement, incentive pay, certification pay, licensure reimbursement
REQUIRED EXPERIENCE	1 to 2 years	1 year

	SYSTEM	LOCAL
LICENSURE	Needs to be licensed in states where practicing	Needs to be licensed in states where practicing

*Human resources information system
**Sample benefits are based on employment status such as full-time, part-time, or per diem.

Here's how you can build a successful internal travel agency in four steps, with best practices included. A checklist in the Resources section of the book summarizes the process.

Step 1: Set the stage

Most big projects start with building a team, and creating an internal travel agency is no different. Your interdisciplinary team should include representatives from strategic partners, such as nursing, human resources, talent acquisition, finance, and information technology.

The first step for the team is to conduct an environmental scan to gain key insights that can be used to build the program and determine the return on investment (ROI) model. The scan should include the following:

- Use of external agency staff for the past 6 to 18 months, including specialties needed and the amount of money spent. Convert the agency hours into full-time equivalent (FTE) positions and note the agency hourly rate.
- Any flexible workforce programs that currently exist in the health system (such as float pools, PRN programs, and weekend programs) and any unique incentive programs.

Gather job descriptions, compensation models, and operational policies. If you operate in a union environment, review the contract for relevant pay and practice information.

Once you have analyzed the environmental scan results, your team will be ready to set the high-level vision for the program. This strategy session should include key stakeholders who might not be part of the main interdisciplinary team, such as a representative from the C-suite. This is the time to dream big. List everything you would like the program to accomplish to help promote staffing flexibility and retention; also consider future operational models of use such as contract assignments, daily deployment, or new models of care such as tele nursing.

Several questions can help drive the discussion and provide information that will help operationalize the agency, including the following:

- Will the agency operate at the system level, with all hospitals participating in the internal travel agency? Or does a local travel agency model make more sense? Consider the number of states the system has facilities in and the overall geography, which will determine distances staff may need to travel.

- Will the internal travel agency be for-profit or not-for-profit? A for-profit agency could be marketed to other health systems, but this option would require further visioning work, particularly in terms of how to promote and sell a staffing service.
- What tools and technology will be needed to manage the agency? For example, you'll need a vendor management system (VMS) that is designed for healthcare to manage the internal travel agency onboarding, credentialing, and assignments.
- What roles will be eligible for the agency? You may choose to focus only on nurses or include technicians and allied health professionals.

BEST PRACTICE TIP:

Start simple so you can get up and running quickly, test proof of concept, and work out the details. That means launching as a not-for-profit entity and focusing on a single discipline (usually nursing) at a couple of hospitals before you launch system wide.

Step 2: Build the operating framework

You'll need this framework to guide the nuts and bolts of the program.

Start by setting up a management team for the agency, starting with a hiring manager and educator. Add technology to execute the program and extend resources. For example, the automation in an effective VMS can allow one manager to manage 150 to 200 employees through the onboarding, competencies, and contract life cycles. (See Chapter 3 in Part 2 for more information about a VMS.) You'll also need to set up a cost center if you're using the not-for-profit model.

Other components of the framework are job parameters, compensation, operational principles, manager education, and metrics.

Establish job parameters

Create a job description that includes years of experience and that specifies employee type (full-time, part-time, or per diem) and flexibility requirements such as travel within a prescribed geographic area. Employees should have a minimum of 1 year of experience to participate in a local agency and 1 to 2 years' experience for participation in a system agency.

Build onboarding and training plans for the employees who will participate in the agency, making sure that initial and ongoing education and competency assessments align with existing organizational practices. You'll need to have complete documentation of onboarding to every new facility for the internal travel assignment, whether it's for one shift or for 26 weeks. Typically, documentation is specific to the unit or hospital, such as a unit checklist or review of hospital specific policies not covered in the system policy. These can be assigned to the nurse through an electronic learning system. You'll also need documentation for specialty competencies and any organizational education requirements.

Determine compensation

Partner with your compensation team to develop a travel compensation model. For instance,

employees who have to travel more than 50 miles from their place of residence and stay overnight for an assignment will need compensation for meals and incidentals, as well as a housing stipend in addition to their hourly rate. Those who don't travel 50 miles will need reimbursement for mileage if they drive mid-shift to another facility in addition to their hourly rate, which would cover mid-shift travel.

BEST PRACTICE TIP:

A resource for establishing per diem rates for items such as housing and meals/incidentals is the U.S. General Services Administration website (https://www.gsa.gov/travel/plan-book/per-diem-rates,) where you can search by city, state, or ZIP code.

Additional compensation to consider includes paid time off plans, reimbursement for state licensure and certification, incentive shift offerings, tuition reimbursement, and professional opportunities such as a clinical ladder. For employees who travel 50 miles or more, consider offering paid time off between assignments, which is a competitive advantage compared to external agencies.

Another way to stay competitive with external agencies is to build a compensation model that allows you to adjust base pay range related to market trends. It's a good idea to evaluate the base wage rate after every assignment. You may need to adjust the wage up or down, depending on demand related to census surges or seasonal trends such as influenza. Other options to consider include the following:

- Cheaper incentives for picking up extra shifts while on assignment (for example, if you have a tiered incentive program, offer this group the lowest level incentive amount for any extra shifts to offset the cost.)
- Variety of shifts and specific roles to attract different demographics of the workforce (for example, nurses nearing retirement might be interested in 8-hour shifts where they provide coverage for breaks or administer medications.)

Develop operational principles

Develop operational principles for requesting and deploying travel employees. Criteria for requests might include turnover metrics, number of unfilled positions, and percentage of workforce on leave of absence. The length of contracts for those in system travel programs ranges from 4 up to 26 weeks. For local travel programs, you'll need to determine how employees will be assigned to shifts—when the schedule is created (for example, to cover leaves of absence) or when there is an immediate need, such as to cover sick calls. Both options may be included.

BEST PRACTICE TIP:

Local travel employers should be assigned to shifts based on daily staffing needs to best meet market demand related to changes in census and patient acuity.

Provide manager education
Managers need to have a thorough understanding of the internal travel agency for it to be a success, so develop plans for educating them. Discuss the agency at management meetings (focusing on the benefits to leaders) and provide handouts explaining how it will work. Training material should include how to determine if a request should be made, how to make a request for an internal travel agency employee through the VMS, how long it will take to fill the request, and how the internal travel employee will be supported.

Once a request is fulfilled, the department manager will need to confirm acceptance, ensure the traveler's schedule is completed, and ensure the unit onboarding checklist is completed within the first few days of the traveler's assignment.

Establish program metrics
Key performance indicators are program metrics that will help assess program effectiveness. Metrics should include the following:

- Time it takes to fill a request for an internal travel employee (A good goal is 2 to 4 weeks, depending on supply; track this by specialty.)
- Comparison of spending for external vs. internal travelers. External agency spend should trend down as you build up the internal program. The more internal flexible resources you have, the less you need an external agency. Keep in mind that a healthy external agency spend for an organization is on average 2% to 5% annually.
- Hiring targets for each quarter (and pipeline of candidates)
- Workforce trends such as turnover and retention for internal travel employees
- Operating costs

It's a good idea to measure metrics monthly and to review quarterly and annual reports of these metrics.

You'll also want to plan how the travel employee, frontline staff, and managers will evaluate the program. Ad hoc check-ins should be supplemented with evaluations after each completed assignment. If you're using employee engagement technology, build in a simple survey or feedback options to facilitate this feedback. Keep it short (five questions or less,) asking about the experience from both the manager and frontline clinician's perspective.

Step 3: Establish the ROI model and hiring plan

In step 2, you established the compensation model for the internal travel agency, including hourly rate and benefits. This will allow you to determine how much you could save by converting from an external to an internal travel agency. To calculate cost savings, you'll need three pieces of external agency data—annual expense, average hourly rate for external travelers, and number of FTEs by specialty.

Once you have that information, set a target for reducing use of external agency FTE (for example, 30% of current use,) convert that reduction to internal agency FTE, and project cost savings. Include any additional expenses such as costs related to technology and labor expenses of the management team (including managers and educators,) and marketing (Sidebar: Converting FTEs.)

This analysis will establish how many people you need to hire for the agency, so you can develop a hiring plan for internal and external candidates.

Converting FTEs

Here is an example of how to convert external agency full-time employees (FTEs) to internal agency FTEs. The hourly rate of the internal travel agency is all inclusive (base rate, housing, meals, incidental expenses, and benefits.) Your total compensation for internal travel agency staff should be at least 8% to 10% cheaper than the external travel agency to achieve the cost saving.

	EXTERNAL TRAVEL AGENCY	INTERNAL TRAVEL AGENCY	COST SAVINGS
ANNUAL EXPENSES (FTES)	4.31 million	3.07 million (projected)	1.24 million (converting 18 external travelers to 18 internal travelers)
AVERAGE HOURLY RATE	$115	$82	
FTES BY SPECIALTY	18	18	

BEST PRACTICE TIP:

Ensure the plan includes strategies for sustaining operations while building the supply of staff. For example, if you hire internal candidates from inpatient departments within your health system for the new internal travel agency, set an expectation that they will transfer in 8 weeks, which allows the department manager time for backfill and rehire for that position on their unit. Alternatively, you could move the internal hire into the program and keep them in their home unit for 8 weeks to allow the department manager to backfill that position. This ensures your workforce doesn't leave while waiting to get into the program.

Step 4: Operationalize the plan

Operationalizing the plan includes recruitment, technology, and monitoring.

Recruit staff
Work with your organization's marketing and talent acquisitions team to market your agency (both internally and externally) and recruit employees (Sidebar: Marketing the internal travel agency.) You also need to share your recruitment plan, including how many employees you want to hire by specialty, and monitor hiring monthly. Consider converting existing external travelers to the internal travel agency.

Marketing the internal travel agency

Strategies for marketing an internal travel agency include the following:

- Flyers and handouts for managers to share during daily huddles with their staff
- Flyers and handouts for managers to share with external travelers to encourage them to switch to the internal agency (Be sure to highlight the benefits of an internal travel agency over an external one.)
- Information on internal organization websites (Once the program is in place, consider posting videos of travelers sharing their positive views.)
- Postings on job and social media platforms such as Indeed, LinkedIn, and Instagram.

Implement technology
Make sure workforce VMS technology is in place and training for users has been completed. Managers need to know how to make requests, and the program operations manager needs to be facile with using the system. As noted earlier, an effective VMS technology minimizes overhead management costs and allows for a manager to manage and operationalize a team of 150 to 200 internal travelers.

VMS technology also can facilitate onboarding of staff by automating the process for ensuring that competencies, licensure, and credentials are aligned with organizational needs, and keep an up-to-date electronic copy that is easily accessible when needed for any regulatory needs.

Monitor progress
During an employee's assignment, solicit input from the employee and department manager to gain feedback on performance, determine if the placement is successful, and whether redeployment or extension of the contract is warranted. This should be done at the end of every assignment, along with any determined ad hoc needs for every employee.

BEST PRACTICE TIP:
Offer a "try before you buy" experience for your internal workforce, especially for those who have not traveled. Help those who decide after one to two assignments that the internal travel agency is not a good fit for them return to their original unit or another unit.

You'll also want to continue to monitor both key metrics and cost savings. It takes time to build your pipeline and switch supply from external to internal, so evaluate cost savings 6 months and 1 year after implementation to determine the full benefit of the program.

Achieving success

It takes a minimum of 2 to 3 months to launch an internal travel agency program, but 6 months is a more realistic time frame to ensure all the critical components are established. Following the steps outlined in this chapter will facilitate the initial and ongoing success of your program.

CHAPTER 2

Gig nurse programs

2 Gig Nurse Programs

Gig work is in demand, particularly by younger nurses. Internal PRN/per diem/gig programs (referred to as gig in this chapter) can be paired with an internal travel agency. These programs are cost-effective ways organizations can fit staffing demand with flexibility for both the organization and the frontline nurse.

Those who participate in these programs should not receive benefits or any commitment for full-time work, but they should have maximum and minimum work hour requirements and guidelines that outline their eligibility for incentive pay. Here is a typical profile for an internal gig worker:

- **Background:** interested in occasional shifts
- **Benefits and commitment:** none
- **Qualifications and hiring:** consistent with system's processes
- **Required hours:** minimum of one shift every 30 to 90 days
- **Pay structure:** flat rate of pay, with additional incentive based on higher need
- **Shift:** uses mobile app to pick up available shifts

Ensure a gig nurse work time does not consistently exceed 30 hours per week because those hours align with a traditional part-time role that should receive benefits.

BEST PRACTICE TIP:

Guidelines should note that those participating in gig programs must meet the minimum hours for work before being eligible for incentive shifts. For example, a gig nurse should work a minimum of 24 hours per pay period before being permitted to pick up incentive shifts.

Several models for gig programs exist. Understanding the options will help you make the best choice(s) for your organization.

Types of gig programs

A gig worker can be a primary or secondary job in the organization's existing internal workforce. An important distinction is that a primary gig job is the employee's first and only job within the health system, whereas a secondary gig position is a secondary job the internal employee is hired into to pick up shifts in different areas where they are cross-trained to work.

A secondary gig job position is always a non-full time employee (FTE) role without benefits. For example, a medical-surgical nurse is hired into a .6 FTE role and works their regularly scheduled 24 hours a week. This nurse also has been cross-trained to work in certain ambulatory clinics and has a secondary job within in the HRIS system that allows them to pick up extra shifts for

the clinics as needed. There will need to be good alignment between the different managers of those areas to ensure the employee is not overworking. One way to prevent overworking is to build rules into your scheduling technology that limit the number of consecutive worked shifts in a row. Secondary gig positions offer creative ways for organizations to find ways to retain and grow their own workforce.

Gig programs can be built at the system or hospital level depending on needs, and you can experiment with both primary and secondary gig positions (Sidebar: Examples of gig positions.)

Examples of gig positions

You can build primary and secondary gig positions.

Primary internal gig positions
Distinguish a gig role as primary when it is only one job code. Here are three examples to consider; each option can be intra-hospital (within one hospital) or more than one hospital. You may want to consider offering benefits to traditional and innovative internal gig workers.

	TRADITIONAL INTERNAL GIG	INNOVATIVE INTERNAL GIG	SEASONAL GIG
REPORTING STRUCTURE	• Existing float pool manager • One job code	• Existing float pool manager • One job code	• Existing float pool manager • One job code
ROLE AND WORK	• No FTE requirements* • Hired into one job description/job code • Picks up shifts related to specialty such as medical-surgical only within hired hospital • If trained in special roles such as charge nurse or are cross-trained can pick up shifts for trained roles and cross-trained areas	• Part-time (0.6 or 0.3) employment • Hired into one new job description/job code • Serves as preceptor/ mentor/break nurse for the hired amount (FTE) and picks up extra shifts at hired hospital as the gig portion (one shift per schedule period) • If trained in special roles such as charge nurse or are cross-trained can pick up shifts for trained roles and cross-trained areas	• Hired as 0.6 FTE • Hired into one new job description/job code • Works as 0.9 FTE during peak months and 0.3 FTE during slow census months • If trained in special roles such as charge nurse or are cross-trained can pick up shifts for trained roles and cross-trained areas

*Full-time equivalent. Define minimum and maximum number of shifts worked.

Secondary internal gig positions
These positions can be within a single hospital or within more than one patient care setting.

	SECONDARY GIG POSITION
REPORTING STRUCTURE	• Existing reporting structure for primary job is kept. • The second job code/profile is from the receiving hospital's float pool. • Union hospitals are excluded. • Nurses maintain their primary employment hire but have a second job profile that allows them to pick up extra shifts at a second or third hospital.
ROLE AND WORK	• The nurse can pick up and work shifts in qualified areas, per specialty and trained role. • The payment for secondary job is from the cost center of the unit worked, while in the secondary job code is at the hospital float pool or other identified site for work.

The beauty of gig programs is that they are flexible. The examples in this chapter are simply a starting point; variations can and should be designed. An important point is the need for innovative technology that can move these programs into operational reality and scalability from manual processes to truly automated programs.

Technology for internal and external gig programs

Scheduling solutions have limited capabilities related to automating open-shift recruitment and intelligent pricing of unfilled shifts, which is essential for scaling gig-workforce programs. The work of filling shifts often falls to the staffing office or nurse manager to manually recruit for every single shift, resorting to phone calls or one-off text messages within 24 hours before the start of the shift when the need is critical. The chaos of manually filling shifts tends to lead to high spend and less lead time to find the right clinician who isn't overworked.

Works by Trusted Health is an innovative staffing technology that can fill these gaps by automating the process through a bi-directional integration with the schedule. The internal or external clinician has a mobile app, and open shifts are distributed weeks ahead of the need to match the clinician's preference. When the shift is claimed in the mobile app the schedule is automatically populated with the claimed shift, removing the need for a manager or staffer to make manual changes. Works allows for organizations to truly scale and operate flexible workforce programs.

CHAPTER 3

More innovative flexible work options

3 More innovative flexible work options

You'll want to consider adding additional workforce programs that provide staff with flexibility. Options include weekend programs, resource and break nurses, telehealth, career pathways, and nurse mentors and preceptors.

Weekend program

Weekend programs aren't new, but they remain versatile options organizations can use to staff hard-to-fill weekend shifts and offer a break from rigid "every other weekend" expectations for full-time staff. The program typically defines the weekend for day- and night-shift employees, offers part-time employment with a set schedule for weekend shifts, and pays a higher hourly rate for the employee to compensate for the every weekend commitment.

BEST PRACTICE TIP:

Use the weekend program to move from requiring staff to work every other weekend to requiring them to work every third weekend. This strategy allows you to offer work-life balance to frontline nurses who want to work fewer weekends.

Resource nurse and break nurse

Resource nurses and break nurses ease hospital staff stress and workload by providing time away from the bedside and performing tasks such as changing wound vac dressings, administering conscious sedation at the bedside, or placing a nasogastric tube. In states with minimum staffing requirements, break nurses are often essential to "cover" for frontline nurses who are temporarily away from the bedside. The parameters for both roles should be defined so they complement the workload of traditional shifts. For instance, nurses working the 7 AM to 7 PM shift would benefit from resource nurse and break nurse support starting at 9 AM through the 7 PM shift change.

Fill these positions based on competency, experience, and work performance to ensure they attract and retain high performers who are self-starters and good communicators and who will maintain high levels of visibility through rounding with charge nurses and work productivity.

BEST PRACTICE TIP:

These roles also are an opportunity to retain experienced nurses looking for new options for work and alternatives to traditional shift offerings.

Telehealth

With COVID-19, more healthcare organizations turned to nontraditional models of care and explored telehealth offerings to augment the workforce. It's important to remember that telehealth models will not reduce the number of nurses needed, but they do require clear delineation of work and job responsibilities for the on-site nurse and the virtual nurse. The onsite nurse may not be responsible for care coordination or discharge education, but still needs to conduct physical assessments and provide daily care. The virtual nurse is responsible for care coordination and education and can consult with the onsite nurse who has clinical assessment

BEST PRACTICE TIP:

Consider telehealth models of care as a strategy for retaining staff who are near retirement and thinking of leaving the bedside due to long hours and the inability to meet the physical demands of the job.

Career pathways

A career pathways program is essential for the development, retention, and rapid upskilling and cross-training of the workforce. It's well-known that nurses enjoy variety and options within the life cycle of their career, and this type of program helps a nurse understand how to move through different career options with clearly defined goals and objectives. Career pathways programs also benefit the organization by building a healthy pipeline of nurses who can move from the bedside into leadership roles or change their specialties to meet hard-to-fill demands such as the operating room or women's health.

Define four to six key career pathways for the bedside nurse to consider. Examples include transitioning from the medical/surgical specialty to critical care or emergency department, from direct care nurse to nurse educator, from direct care nurse to nurse informaticist, and from direct care nurse to nurse manager. Within the pathways, note competencies, experiences, and classes that can be offered to help nurses start the transition.

BEST PRACTICE TIP:

Embed career pathway material into the nurse manager's check-in with frontline nurses to help the manager bring structure to career conversations, awareness of the offerings, and how to apply to the program.

Nurse mentor and preceptor

Precepting and mentorship are key offerings that organizations need to build the next generation of nurses. Structured preceptor programs and roles provide the best experience for the new nurse and combat 90-day and first-year turnover; preceptors also are essential for nurses new to the organization and those changing specialties.

In addition to preceptors, who focus more on the transfer of tactical skills, effective mentors offer a more holistic nursing experience to nurses who are seeking help with professional growth and development. If possible, create a combined nurse mentor and preceptor program for new graduate nurses and new hires to provide support. Those in the preceptor and mentorship roles can have a range of experience from 1 year to near retirement age, which will help in closing the experience gap and transferring knowledge.

BEST PRACTICE TIP:

Offer mentorship opportunities both to nurses who want to give back by being a mentor and to nurses who want to be mentored. Remember that mentorship coexists with other roles, so consider cross-training. For example, someone could be a gig nurse and a mentor or a break nurse and a mentor. Cross-training in mentorship promotes not only practice relevance, but also a non-traditional work experience that offers variety and flexibility to retain experienced nurses or nurses nearing retirement.

Two more programs

You might consider two other innovative but less common programs. The first is adjusting nurses' hours to 10-hour shifts, with 8 hours as productive time (patient care) and 2 hours as indirect time for charting, committee work, or research. This approach removes overtime costs, engages frontline nurses in professional growth and development, and builds retention and loyalty.

The second is offering frontline nurses two types of employment—hourly or salary. A salaried nurse may be more committed to the organization. However, you'll need to provide perks such as pensions and financial support for career advancement to incentivize nurses to choose this option. This option can be a win-win for both the employee and organization. The employee receives investment from the organization in terms of growth, development, and opportunity, while the organization gains loyalty, commitment, and a deepened talent bench for its workforce pipeline.

Think about which of the options in this chapter fit best with your organization's values, workforce needs, and resources. It's likely that you already use external travel nurses, but you need to consider how to use them most effectively.

CHAPTER 4

External travel & per diem nurses

4 External travel and per diem nurses

Similar to internal agency and gig programs, there are principles and practices that should be applied to the use of external travel nurse labor. First, it's important to establish a philosophy for your organization. Do you believe you can completely remove the need for external travel nurses all together? If so, focus on building internal programs with breadth and depth to cover all workforce needs.

If you believe a portion of your workforce strategy should be reserved for external labor, then best practice should be to build the most effective management practices and programs for this area. A healthy workforce should only have about 2% to 5% labor spend reserved for external labor to manage census swings, seasonal challenges, and support for unpredictable staffing needs. You want to get the most out of this investment, so consider how you make travel assignments and the use of external per diem nurses.

Travel nurse assignments

If you hire travel nurses for standard 13-week assignments to cover seasonal trends or outstanding vacancies related to hiring challenges, the best approach is to hire them into the float pool either for the hospital or at the system level. Build the 6-week schedule for the float pool travelers, so they know the days they are to work but they don't where they will work. The staffing office should assign the traveler to the unit 1.5 hours before the start of the shift. This helps the organization get the most out of its investment and limits the chances for cancellation related to low census.

BEST PRACTICE TIP:

Assess the type of specialty travel nurses you need, such as critical care, step-down, labor and delivery, and assign them to the float pool for their 13-weeks contract instead of an individual unit. This gives you the most flexibility.

External per diem nurses

In addition to traditional travel assignments like 13-weeks contracts, consider using per diem external labor. Like the design of internal gig programs, the external per diem program offers organizations the opportunity to secure labor the day it's needed, at a lower bill rate than traditional traveler cost. To be successful, work with travel companies (vendors) who can supply local external talent and onboard at least two to three suppliers to give you an ample supply. After suppliers are onboarded (and ideally through VMS,) you'll need to onboard a pool of per diem nurses by ensuring their profiles are complete (including skills, competencies, and background checks) and orient them to the preferred areas such as medical-surgical or critical care. After orientation, place per diem nurses into the active group of cleared workers who can be contacted for available shifts to work a couple of hours before the start of the shift.
Use mobile technology that integrates with your scheduling technology to automate the

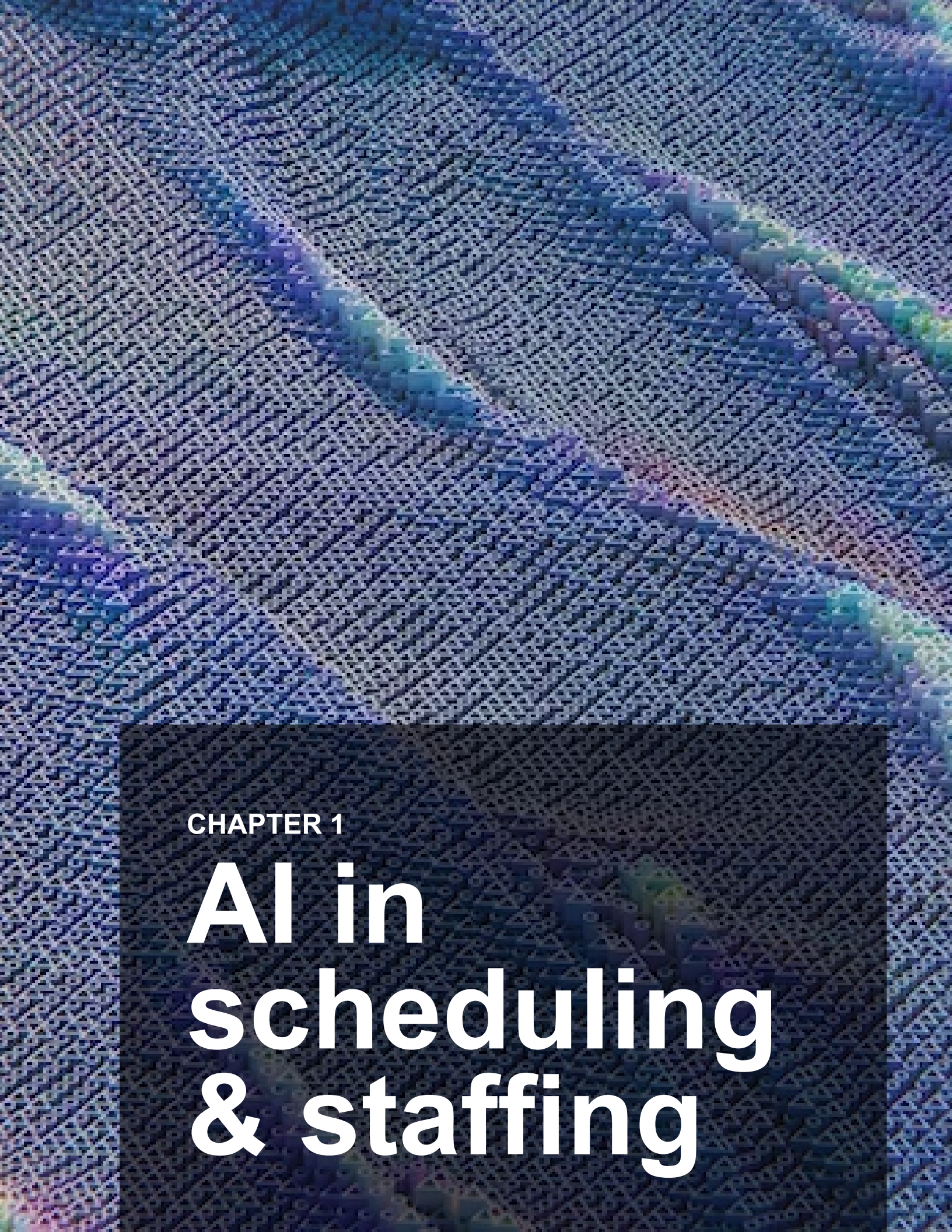
process from end to end and allow organizations to scale pools from fewer than 50 to over 1,000 nurses.

Analyzing effectiveness

You'll want to analyze the effectiveness of each flexible program by reviewing retention and recruitment metrics, staffing outcomes, vacancy, productivity metrics, and qualitative results on a quarterly or biannual basis for the first year. Use survey and meeting to obtain feedback from managers and frontline nurses. After the first year, move to annual evaluation of the programs.

PART 4

Look to the future



CHAPTER 1

AI in scheduling & staffing

1 AI in scheduling and staffing

Many innovations are improving workforce management now and will continue to do so in the future. Those include artificial intelligence (AI) and forecasting. This chapter focuses on AI, which is transforming the way healthcare operates, from front-office tasks and financial workflows to decision-making—and scheduling and staffing (Sidebar: What is AI?) AI can significantly benefit your workforce management by reinventing key scheduling and staffing processes and facilitating dynamic pricing.

What is AI?

AI is a broad category of technology-enabled cognitive processing that includes machine learning, deep learning, and generative models—all of which have potential to influence nursing. AI isn't a substitute for human cognitive processing, but when designed and implemented correctly, it's a valuable tool that supports decision making.

Role and benefits of AI

AI can reinvent key processes related to scheduling and staffing.

- **Compensation.** AI can help you determine nurse payment rates and shift pricing by collecting and analyzing data on multiple variables, such as:
    - historical patient data like volume, admissions, and census: determines seasonal patterns and demand throughout the year
    - staff preferences: shows shift desirability and available staff supply
    - real-time monitoring: takes in current situational information
    - performance: accounts for importance of quality metrics and patient outcomes
    - market comparisons: benchmarks against local and national staffing compensation rates
    - associated costs: factors in components such as overtime expenses, agency fees, and penalties for understaffing.
- **Scheduling.** AI-powered platforms can use historical data to predict scheduling needs and use staff information and preferences to match available nurses with open shifts based on their skills, certifications, and availability. AI also can factor in optimal nurse-to-patient ratios and current patient acuity to recommend a well-balanced schedule.
- **Recruiting.** Staffing isn't all about filling shifts; it's about filling them with the right people who can meet your organization's needs. AI tools can help you find the best-fit staff by automating various parts of resume screening, interview scheduling, skill assessment, and other recruitment processes. It also can help remove bias from these processes.
- **Retention.** By analyzing data on nurse workload, scheduling patterns, and job satisfaction surveys, AI systems can flag potential burnout risks and suggest strategies for workload redistribution, scheduling optimization, and culture shifts.

- **Performance.** AI-powered systems can monitor and analyze nurse performance metrics, such as patient outcomes, medication administration accuracy, and adherence to best practices. These tools can help identify areas for improvement, provide feedback, and support ongoing professional development for nurses.

Overall, the algorithmic and analytic capabilities of AI related to scheduling and staffing turn information into insight, allowing organizations to better determine base pay for typical shifts, design incentives for times of low supply or high demand, and adequately reward excellent performance. These effects can yield the following benefits for you and your organization:

- **Increased efficiency.** Streamlining and automating tasks such as staff screening, scheduling, and shift assignments saves time and reduces manual effort, allowing organizations to operate more efficiently.
- **Better accuracy.** With a better grasp of supply and demand, organizations can better anticipate the required staffing levels for different shifts, reducing the likelihood of understaffing or overstaffing situations.
- **Improved clinical outcomes.** By using demand forecasting to set shifts and scheduling assignments, organizations can ensure patient safety, augment access to care, improve quality of care, and advance community health.
- **Higher satisfaction.** Using AI to achieve better compensation structures, recruiting procedures, and retention management helps improve nursing staff satisfaction. When staff feel happier, more fulfilled, and less burned out, everyone wins—patients most of all.
- **Lower costs.** AI helps organizations more effectively balance supply and demand, determine appropriate payment, and allocate resources more wisely—all of which are critical to preserving financial health and limiting waste.
- **Collaborative culture.** When organizations have the right clinicians in the right place at the right time for the right price, they are building a strong culture of collaboration. When staff are part of a positive, supportive environment, turnover also can be reduced.

Organizational fit

In answering the question as to whether AI is a good fit for your organization, keep in mind that it can be a useful tool regardless of organization size, specialty, or location. It also can support the vendors that provide nurse staffing services to healthcare facilities.

Larger hospitals and multifacility healthcare systems benefit from AI's ability to consolidate, coordinate, and streamline staffing practices and procedures across many departments or sites of care. These organizations typically have massive amounts of data to sort through, so AI has a large impact in terms of reducing manual labor, automating basic processes, and creating far-reaching efficiencies.

Organizations in **rural locations or underserved areas** often are stretched very thin on time and resources—and have more trouble than most with nurse recruitment and staffing. AI can help address these challenges by predicting demand, optimizing resource allocation, and minimizing unnecessary spending.

Specialty care facilities, such as oncology, critical care, or pediatric care, can benefit from AI. AI can assist in matching nurses with the appropriate expertise and certifications to these specialized units, ensuring the availability of qualified staff and maintaining high-quality care.

Both internal and external staffing agency vendors can also find benefit from AI's abilities to assist in matching available nurses with open shifts, optimizing assignments based on skills and preferences, and streamlining scheduling processes, resulting in more efficient and effective nurse placements.

While many organizations can benefit from applying various AI products to scheduling and staffing processes and procedures, AI is not one-size-fits-all. You must fully assess your own organization's requirements, resources, and potential challenges—as well as the quality and viability of available solutions—before implementing AI to address scheduling and staffing needs.

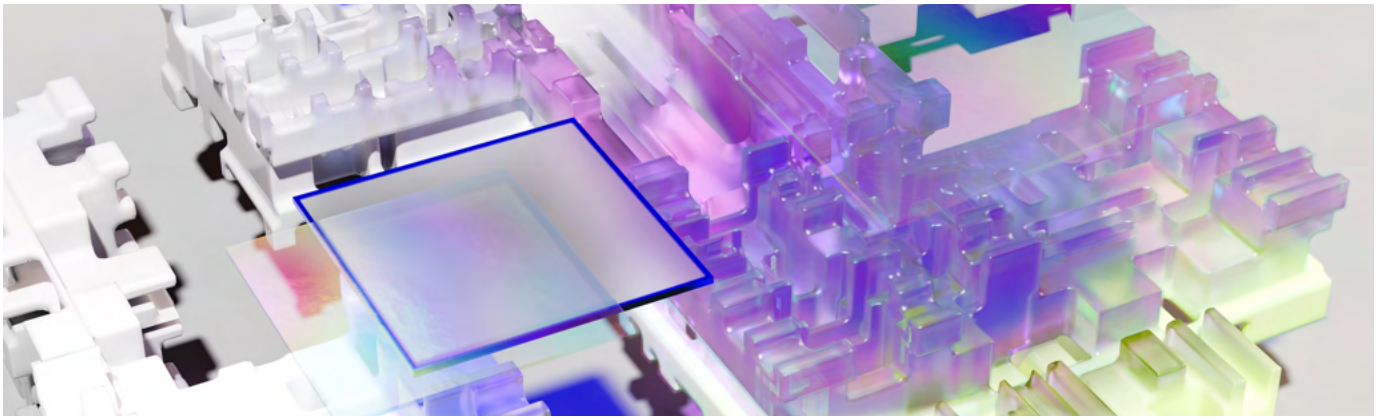
BEST PRACTICE TIP:

Engage stakeholders across your organization when determining your specific goals and expectations of potential AI products.

Choosing an AI product

AI can be transformational, but not all AI products are created equal. Thorough evaluation before purchasing is key. Keep in mind what AI experts from MIT wrote: "The quality of an AI tool—and the value it can bring your organization—is enabled by the quality of the ground truth used to train and validate it."[12]

Ground truth refers to the information in training data sets that teaches an algorithm how to arrive at a predicted output; this data set then becomes the standard that developers us to measure the accuracy of the system's predictions.12 Ask vendors how they determined ground truth and validated their system against it. You want ground truth to be based on objective data as much as possible.



You'll also want to ask many other questions during the evaluation process to help you choose an AI product that meets your needs (Sidebar: Choosing an AI product.) One factor to consider is whether the product supports dynamic pricing.

Choosing an AI product

Here is a checklist of questions you and your organization should consider before purchasing an AI product.

- [ ] How does the AI product integrate with our existing staffing processes and systems? Will it require significant changes to our workflows or infrastructure?
- [ ] What data sources does the AI product use, and how does it handle data privacy and security?
- [ ] Can the AI product effectively handle the unique characteristics of nurse scheduling and staffing, such as varying certifications, shift preferences, and skill requirements?
- [ ] What level of customization and flexibility does the AI product offer? Can it adapt to our specific staffing needs, policies, and preferences?
- [ ] What is the implementation process? How long does it take to set up, train, and integrate the product into our operations? Are there any potential disruptions during implementation?
- [ ] How user-friendly is the product? Will staff require extensive training or technical expertise to use and navigate the system effectively?
- [ ] What level of technical support and maintenance does the AI vendor offer? Is there ongoing support available for troubleshooting, updates, and system enhancements?
- [ ] Does the AI vendor have experience and expertise in the healthcare and nurse staffing industry? Can they provide references or testimonials from other clients?
- [ ] What is the scalability and future development roadmap for the AI product? Can it adapt to changing needs, evolving technology, and industry advancements?
- [ ] How does the AI product address ethical considerations and biases in staffing decisions? Is there transparency in the algorithms and decision-making processes?
- [ ] Can the AI product integrate with our other healthcare systems, such as electronic health records or workforce management systems, to ensure seamless data exchange and interoperability?
- [ ] What are the potential risks and challenges associated with implementing the AI product? How does the vendor mitigate those risks and support a smooth transition?

You'll have other questions and considerations based on your specific needs, regulations, communities, and resources.

AI and dynamic pricing

Historically, organizations have used legacy tools and arduous administrative processes to recruit, incentivize, and schedule clinicians to fill open shifts. Examples include:

- **One-time shift bonuses or hourly rate increases.** These are typically offered in times of high census, often requiring the unit manager to share current rates with their team manually via email or text message and manually apply pay codes to timecards or schedules.
- **Incentive shifts within scheduling.** In this case, the scheduling tool posts incentive shifts with rates proportional to the current unit fill rate. While directionally correct, this approach can unnecessarily drive up rates if the scheduling tool is unaware of dynamic census changes and all the available clinicians who are willing to work.
- **Overtime contracts.** To secure longer term commitments, some staffing offices require nurses to sign contracts that pay out a sizable lump sum payment but require the nurse to continually pick up extra shifts for weeks on end. At best, this requires a significant operational commitment from the staffing and payroll offices. At worse, this practically guarantees burnout for the. overcommitted healthcare professionals who are willing to sign.
- **Redeemable bonus points.** In this situation, “bonus points” are offered for each overtime shift worked. Points can be redeemed for quasi-monetary benefits such additional paid time off, similar to how accumulated airline miles can be redeemed for free flights. While creative, this approach misses the mark. Clinicians simply want to be rewarded financially for their extra efforts.

Unfortunately, none of these effectively capture workforce activity and global shift needs, and they don’t allow for proactive adjustments. A better solution is dynamic pricing.

About dynamic pricing

Dynamic pricing ensures that staffing standards are met by considering internal workforce capacity, overtime limits, and preferences. This type of pricing also will augment unfilled needs with external supply. Organizations can incorporate contractual guidelines associated with external supply into these shift recruitment strategies while mitigating the risk of agency overspend.

Although dynamic pricing can be done with some scheduling and staffing technology systems through manual intervention from the administrator, who must adjust pay rates on a weekly or daily basis, AI technology automates the whole process creating better price matching, transparency, and scalability for the organization.

AI’s role

An example of how AI built into a technology can facilitate dynamic pricing is Works by Trusted Health. The AI engine in Works empowers organizations to fill open shifts in the most optimal way by dynamically adjusting open shift incentive pricing based on relative need and clinician availability. The technology provides proactive decision support to frontline managers to fill open shifts without overspending weeks ahead of the staffing need.

As clinicians review and claim available shifts, the mobile application in Works learns their behavior over time. When a new shift need is presented, Works can predict the probability of

that opening being filled by any of your available staff, including core, float pool, internal gig, and externally sourced per diem or travel resources. Works uses this probability to dynamically adjust the price of posted shifts to maximize the likelihood that a clinician would be willing to work the area(s) of highest need, while minimizing spend for areas of more complete coverage.

With dynamic pricing, shift prices can be entirely automated (including determining whether it's prudent to incentivize a shift) or can be limited to vary across fixed ranges to maintain compliance with any labor policies or third-party supplier contracts enacted at your organization. Every shift claim on any unit in your facility triggers Works to adjust pricing for all remaining shifts to account for the claim. This also functions in reverse: If additional needs are introduced into the system to account for call-ins, sick days, or moments of high census, Works re-prices openings automatically to encourage optimal coverage.

As clinicians continue to interact with the platform, all requested shifts are automatically posted back to your scheduling solution with the appropriate rate, removing the need for staffing offices or even unit managers to handle data entry or keep track of legacy incentive policies.

CHAPTER 2

Forecasting

2 Forecasting

Forecasting is key for successful workforce management, yet often organizations continue to rely on outdated models such as hours per patient day (HPPD,) which don't account for indirect staff costs, such as sickness and non-clinical work. Another issue is that patient acuity is often not sufficiently factored into the equation.

It's important for you to know that more than 50 years of research has led to the development and testing of forecasting solutions such as optimization methods, forecasting models, algorithms, and decision-support systems. Those solutions can provide significant cost-saving and quality impacts if implemented into practice.[13,14] You'll want to carefully consider how these can be integrated into your staffing and scheduling efforts.

Forecasting process

Forecasting is often categorized by one of three phases—budget and planning, scheduling, and staffing (re-allocation of staff within 24 hours of a shift.)[3]

The *budget/planning phase* is often how staffing standards are set for an inpatient unit. Typically, the monthly average midnight census is forecasted annually by the finance team. The annual forecast is to project the number of full-time equivalents (FTEs) needed to meet the annual census forecast, which gives an inpatient unit their HPPD. HPPD is calculated by dividing the total number of nursing hours by the total number of patients forecasted for the unit in a 24-hour period. The calculated HPPD is used by the manager to create the daily schedule.

The *scheduling phase* is often described as the nurse scheduling problem, which is a "complex combinational optimization problem that can be modeled mathematically."[3] Forecasting during this phrase had been described as the need to "translate incident data to a demand for staff, and a method for forecasting incidents."[15] In essence, the number of nurses needed may be related to the number of patients and administrative or state regulations concerning nurse-to-patient ratios.

Various approaches can be used forecast the distribution of incident data for staff demand over a span of time. Those approaches include simple averaging, exponential smoothing, regression, and seasonal and nonseasonal autoregressive integrated moving average models (ARIMA.)[15,16] Each forecasting approach has benefits and challenges related to building, validation, and integration into the practice environment and offers a more reliable alternative for aligning the demand for nurses to the supply.

Forecasting during the *staffing phase* has been the focus of several areas in this book. The key is to use real-time census data feeds compared to the number of scheduled nurses to ensure the right number of staff are available to care for patients at the right time. Technology solutions can support this effort by modeling this real-time data to identify staffing gaps for the upcoming shift.

Unfortunately, several barriers to forecasting exist.

Forecasting barriers

Barriers to effective forecasting include a gap between research and practice and a lack of technology.

Research-practice gap

Forecasting has been well-researched, yet a substantial gap exists between research findings and implementation into practice. Reasons for this gap include limited collaboration between researchers and those in the practice environment, research that is too narrowly focused, limited collaborative partnership between the large scheduling vendors and practice partners like health systems to co-create and implement new models, nurses failing to embrace new technology and models because of the need to adopt new workflow processes, and the inability of models to incorporate self-scheduling techniques. Another problem is that research published in disciplines other than nursing has not been translated into nursing journals.[13,14]

Perhaps one of the most common sources of the gap is that research articles often lack a discussion on practical use and implementation. The articles are focused primarily on how the model was built and coded from a technological standpoint, which is foreign and intimidating to many nurse leaders and frontline staff. Some of the optimization models also are highly constrained due to the multifaceted nature of the problem, thereby reducing the generalizability of a model to be used from one practice environment to the next.15,16 As a final point, nurse scheduling research generated by the discipline of nursing is usually anecdotal, lacking in the rigor of data sets and tested empirical outcomes. The research-to-practice gap must be closed by the profession. There is too much at stake in today's current healthcare environment to allow for mismanagement of nursing personnel resources because of outdated, non-data-driven management methodologies.[7]

Lack of technology

A lack of technology translates into significant limitations in forecasting ability because the quantifiable variables of scheduling and staffing that need to be captured are limited with paper and manual processes. Without technology, meaningful workforce data will be minimal, perpetuating the cycle of unnecessary overspend or misuse of nursing resources.8 Another reason for lack of technology is resistance to changing manual processes and discomfort with using the systems.8 When these occur, nurses miss opportunities to capture and record meaningful data events.

Technology expands the scope of what can be obtained, resulting in much more effective operations. An added benefit is that this technology captures and records the staffing story through data desperately needed to further research and forecast practice. Money is often cited as a barrier to technology, but investment in scheduling and staffing technology systems yields significant return on investment by improving efficiencies to create better labor management.

Breaking barriers

How can you help break barriers to effective forecasting? Here are a few strategies:[8]

- **Encourage publication of academic research with nurses as co-authors.** Future research concerning nurse scheduling models should be developed by a nurse or in partnership with nurses and published in nurse-management journals to reach a broader audience for distributing new knowledge to those who can directly impact the scheduling

environment.[17] The focus of articles should be on how forecasting models and technology were implemented in practice and what could help nurse leaders to do the same. Encourage current and future researchers in this area and let journal editors know the types of articles you're interested in.

- **Keep current.** This includes information on research and evidence-based projects. Use this information to advocate for change in your organization's scheduling and staffing practices.
- **Invest in staffing and scheduling technology systems.** These systems are essential for operational efficiencies and transparency of staffing practices for frontline staff. You, along with your staff, can use this technology and press for improvement to make it better. Investment upfront in technology has the potential to provide significant returns if used and configured the right way.[7]
- **Be willing to innovate.** The focus of this book has been on innovation in workforce management, from creating new gig positions to integrating technology. If you're willing to innovate, the sky's the limit for breaking down barriers, including barriers to forecasting. Don't be afraid to challenge the status quo related to scheduling and staffing processes in your organization.

Breaking down barriers will improve scheduling and staffing forecasting, which can be a game-changing outcome for nursing. Implementing new models and technology into practice will enable the profession to move to the next level by removing redundant manual processes performed by nurse managers and lack of transparency for frontline clinicians. Engaging and embracing AI, forecasting, and using technology will allow nurse leaders to operate at the top of their licensure and give autonomy and flexibility to the frontline staff. New practice models can be intimidating but are absolutely necessary for nurse leaders to consider and use to solve the nurse staffing crisis (Sidebar: Success story: Forecasting cost savings.)

Success story: Forecasting cost savings

A study was conducted to develop and implement a nurse scheduling forecasting model for a 33- bed inpatient nursing unit to improve schedule accuracy during the schedule creation phase. The predictive scheduling model was designed using historical nurse staffing datasets for 2015, 2016, and 2017 to predict the number of nurses that needed to be scheduled in a 6-week cycle daily for the day shift. The forecasting identified weekly variation trends for nurse needs, which was different from scheduling the same number of nurses every day of the week.

The nurse schedule predictions were implemented into an electronic scheduling system to account for nurse demand variation weekly for a 6-week schedule before self-scheduling. The schedule was created with new forecasts, and post-implementation data were collected to compare the accuracy of nurse schedule predictions to the actual day of nurse staffing need. Results revealed that the nurse scheduling forecasting model improved schedule accuracy by 271% and achieved a projected cost savings of $12,458 in overtime costs.[8,17]

Into the future

In this book, I've shared ideas for how we as nurse leaders can use innovative strategies to tackle age-old workforce challenges. I hope the tools and guidance will help you build a more flexible workforce, which in turn will improve the satisfaction of staff (and your own satisfaction,) and ultimately patient care. As you continue your workforce management journey, I encourage you to leave past practices behind and look to the future with passion and focus to change the current practice environment. It's possible to solve the nurse staffing crisis by critically evaluating existing programs and committing to adjusting, redesigning, or building completely new innovative programs to incorporate the best practices discussed in this book. Keeping that mindset will get us out of the continuous cycle of symptom management and solve the nurse staffing problem for good. Most importantly, do not be afraid to try and lean into the future—with fearless leadership, anything is possible!

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Resources

Resources

In the following pages you will find several resources that may help you in your journey to a more flexible workforce.

- Scheduling policy core elements
- Scheduling and staffing technology platform criteria
- Internal agency checklist
- Vendor management life cycle
- System vs. local internal travel agency
- Examples of gig positions

Scheduling policy core elements

- [ ] **The length and timing** of the schedule describe whether the schedule is posted for a 4, 6, or 8-week rotation and gives guidance for the timing of scheduling events (for example, the self-schedule period, balancing period, manager approval, when the final schedule is posted.)

BEST PRACTICE TIP:
The optimal length for a schedule is 6 weeks.

- [ ] **Shift lengths and times** include day, evening, night, or mid shifts that range from 4 to 12 hours long.

BEST PRACTICE TIP:
Make sure the variety of shift lengths offered provides the right coverage for caring for patients while promoting work-life balance for staff.

- [ ] **Skill mix** is identified as needed.

BEST PRACTICE TIP:
Identify specific needs for each unit, for example, a charge nurse or chemotherapy administration certification.

- [ ] **Weekend coverage** is set at the system, hospital, or unit level. The policy outlines weekend expectations and defines weekend shifts. A weekend rotation can be every other or every third on a set rotation or a specified number of weekend days for nurses to pick up during the self-scheduling process.

BEST PRACTICE TIP:
The goal is to support better work-life balance, so provide the most weekend flexibility possible. Every third weekend is the optimal target.

- [ ] **Shift trades** are a like-for-like trade regarding hours, skill set, and pay.

BEST PRACTICE TIP:
Automate shift trading when possible by using electronic scheduling systems.

- [ ] **Holiday and vacation** recommendations are set at the organizational level per human resources policies regarding pay and then operationalized at the unit level as a manager determines how many people can be off at one time to maintain coverage.

BEST PRACTICE TIP:

Maintain appropriate staffing levels for units while promoting time off.

- [ ] **Self- or patterned scheduling** is at the unit level when a schedule is being created. (Pattern scheduling is a set schedule for the employee, usually in 4- to 6-week blocks. Both practices can be used separately or combined, such as patterned weekends and self-scheduling during the week.)

BEST PRACTICE TIP:

Shared governance should determine the type of scheduling.

Staffing policy core elements

- [ ] **Nurse floating parameters** are outlined, including requirements for rotation and who is responsible for tracking.

BEST PRACTICE TIP:

Identify the right floating groups/clusters. For example, a medical-surgical nurse can float to all medical-surgical units but not step-down units, but a step-down nurse can float to both step-down and medical-surgical units.

- [ ] A maximum number of **continuous work hours** is defined.

BEST PRACTICE TIP:

Establishing maximum hours worked is a safety element for the nursing workforce. Typically, no more than 16 hours of continuous work is supported in most organizations. Also be mindful of consecutive 12-hour shifts, and work towards no more than three shifts in a row, when possible, to reduce fatigue and risk for error.[6]

- [ ] **Low census cancelation** parameters are defined. They include placing nursing staff either on standby or outright canceling, depending on the overstaffed scenario. An algorithm for who is canceled first is included. For example, agency nurses first, followed by those receiving premium pay or overtime, and then nurses who voluntarily request the day off.

BEST PRACTICE TIP:

Cancelation should be completed at least 1.5 hours before the start of a shift.

- [ ] The nurse's responsibilities related to **sick calls** are defined, as well as those responsible for receiving and recording sick calls.

BEST PRACTICE TIP:

Sick call should be no later than 3 hours before the start of the shift to allow enough time to recruit and finalize staffing plans.

- [ ] **Incentives f**or extra and open shifts are defined, and the timing of offering shifts is outlined.

BEST PRACTICE TIP:

Offer incentives early. This proactive approach reduces the number of last-minute needs, which typically cost more in the long run.[5,7]

Scheduling and staffing technology platform criteria

Here are some questions to consider before you choose a scheduling and staffing model:[5]

- What's the overall vision for the nursing scheduling and staffing model? For example, if the vision is to standardize the model for a healthcare system, then a centralized approach may be best.
- Is my hospital part of a multihospital system that will share resources? Limited to no shared resources may tilt the decision towards the decentralized model.
- Will my organization be using a scheduling and staffing technology platform? Technology can make managing a centralized model much easier.
- Is there an employee union? Staffing procedures in a union environment will require special considerations, but both centralized and decentralized approaches are possible.
- Will shared governance teams play a key role in development and implementation? A well-functioning shared governance team can make it easier to change from a current model to one that works better for the organization.
- What is our patient volume? Smaller facilities may not need the complexity of a centralized model.

Internal travel agency checklist

Use the checklist below as a guide to developing an internal travel agency.

Step 1: Set the stage

☐ 1. Team established, with representatives from

- Nurse executive
- Nurse manager
- Frontline staff
- Human resources
- Finance
- Information technology

☐ 2. Materials gathered

- Use of external agency staff for past 6 to 18 months (agency hours converted to FTE positions)
- Current flexible workforce programs (e.g., float pools, weekend programs)
- Job descriptions
- Compensation models
- Operational policies
- Union contract

☐ 3. Overall strategy determined

- Addition of senior leadership member to team for discussion
- Will the agency operate at the system level, with all hospitals participating in the internal travel agency?
- Will the internal travel agency be for-profit or not-for-profit?
- What tools and technology will be needed to manage the agency?
- What roles will be eligible for the agency?
- Pilot test parameters (focus on one or two hospitals, focus only on nurses)

Step 2: Build the operating framework

☐ 1. Agency management team established

- Hiring manager
- Others

☐ 2. Technology chosen

- Products

☐ 3. Job parameters set

- Job description with years of experience and employee type (full-time, part-time, per diem)
- Onboading plans
- Training and ongoing competencies
- Checklist for assignments

☐ 4. Compensation determined

- Reimbursement based on mileage (more or less than 50 miles)
- Paid time off
- Reimbursement for licensure
- Shift incentives
- Tuition reimbursement
- Clinical ladders
- Plan for adjusting wages

☐ 5. Operational principles developed

- Criteria for requesting and deploying staff (e.g., turnover metrics, number of unfilled positions, percentage of workforce on leave of absence)
- Contract length
- Shift assignments for local travelers

☐ 6. Manager education completed

- Flyers
- Training materials
- Policies (including how to make requests)

☐ 7. Program metrics established

- Key performance indicators (e.g., time to fill request, comparison of spending for internal vs. external travelers, hiring targets for each quarter, turnover/retention trends, operating costs)
- Plan for travel employee, frontline staff, and managers to evaluate program
- Plan for reviewing evaluations after assignments

Step 3: Establish the ROI model and hiring plan

☐ 1. Cost savings calculated

- Based on set target for reducing agency staff
- Considers annual expense, average hourly rate, and number of FTEs by specialty for external agency staff

☐ 2. Number of staff needed to hire and hiring plan determined

- Transition plan for internal staff completed

Step 4: Operationalize the plan

☐ 1. Recruitment plans completed

- Flyers
- Handouts
- Information on website
- Online job platforms postings
- Plans include internal staff and external travelers

☐ 2. Technology implemented

- Vendor management system in place
- Training completed

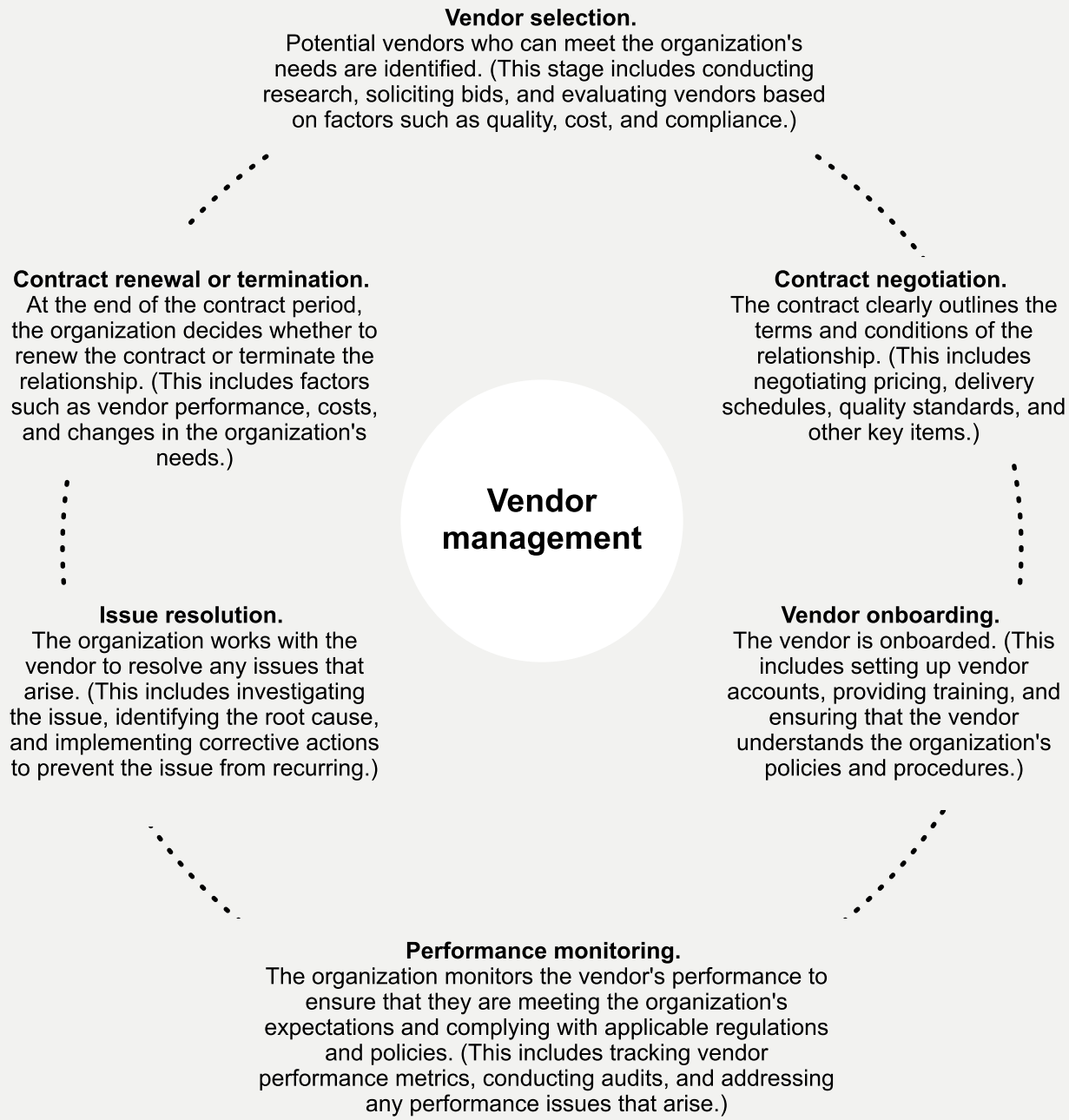
☐ 3. Plan to monitor progress completed

- Time frame obtaining and evaluating feedback (end of every assignment)
- Time frame for analysis of key metrics
- Cost savings to be checked at 6 months and 1 year

Vendor management life cycle

Vendor management life cycle

The typical vendor management lifecycle in healthcare involves the following stages:



System vs. local internal travel agency

System vs. local based internal travel agency

Note the similarities and differences between system and local internal travel agencies.

	SYSTEM	LOCAL
TRAVEL DISTANCE	50 miles or more from primary residence	Less than 50 miles from primary residence
ORGANIZATIONAL LEVEL	System (new cost center at the system level)	System (new cost center at the system level)
REPORTING STRUCTURE	• Reports to the system manager • One job description/ job code in the HRIS*	• Reports to the system manager • One job description/ job code in HRIS
DEFINED ROLE AND WORK	• Full-time (0.9 with benefits) or part-time (0.6 with benefits) • Hired into a specialty pool • Works at all entities • Cost center at the system entity level (non-productive pay) and productive payment from unit cost center worked	• Full-time (0.9 with benefits,) part-time (0.6 with benefits,) or no committed hours/gig with no benefits • Hired into a specialty pool • Works at all entities • Cost center at the system entity level (non-productive pay) and productive payment from unit cost center worked
ASSIGNMENT	Contracted (4 to 26 weeks) to work on a unit, in a float pool for a hospital, or in a system float pool	Contracted (4 to 8 weeks) to work in a specific hospital unit (when schedule is built) or assigned to a unit on a daily basis for specific staffing needs a couple of hours before the start of the shift
STIPEND/ REIMBURSEMENT	Housing stipend, meal, and incidental allowance; may receive a mileage allowance if required to travel daily	Reimbursed for travel expenses between facilities if floated mid-shift
SAMPLE BENEFITS**	Paid time off (including time off between assignments,) retirement, incentive pay, certification pay, licensure reimbursement	Paid time off (including time off between assignments,) retirement, incentive pay, certification pay, licensure reimbursement
REQUIRED EXPERIENCE	1 to 2 years	1 year

	SYSTEM	LOCAL
LICENSURE	Needs to be licensed in states where practicing	Needs to be licensed in states where practicing

*Human resources information system
**Sample benefits are based on employment status such as full-time, part-time, or per diem.

Examples of gig positions

Examples of gig positions

You can build primary and secondary gig positions.

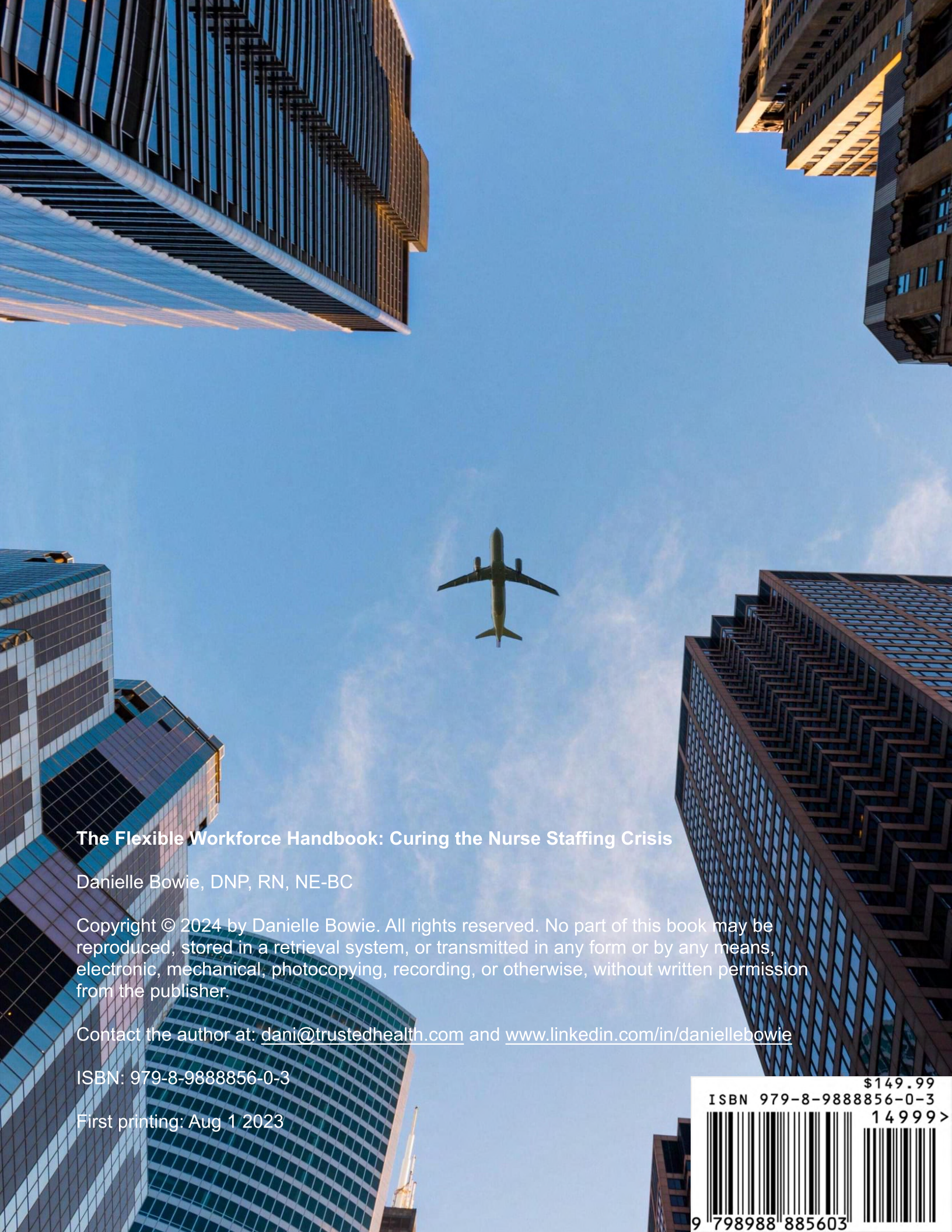
Primary internal gig positions
Distinguish a gig role as primary when it is only one job code. Here are three examples to consider; each option can be intra-hospital (within one hospital) or more than one hospital. You may want to consider offering benefits to traditional and innovative internal gig workers.

	TRADITIONAL INTERNAL GIG	INNOVATIVE INTERNAL GIG	SEASONAL GIG
REPORTING STRUCTURE	• Existing float pool manager • One job code	• Existing float pool manager • One job code	• Existing float pool manager • One job code
ROLE AND WORK	• No FTE requirements* • Hired into one job description/job code • Picks up shifts related to specialty such as medical-surgical only within hired hospital • If trained in special roles such as charge nurse or are cross-trained can pick up shifts for trained roles and cross-trained areas	• Part-time (0.6 or 0.3) employment • Hired into one new job description/job code • Serves as preceptor/ mentor/break nurse for the hired amount (FTE) and picks up extra shifts at hired hospital as the gig portion (one shift per schedule period) • If trained in special roles such as charge nurse or are cross-trained can pick up shifts for trained roles and cross-trained areas	• Hired as 0.6 FTE • Hired into one new job description/job code • Works as 0.9 FTE during peak months and 0.3 FTE during slow census months • If trained in special roles such as charge nurse or are cross-trained can pick up shifts for trained roles and cross-trained areas

*Full-time equivalent. Define minimum and maximum number of shifts worked.

Secondary internal gig positions
These positions can be within a single hospital or within more than one patient care setting.

	SECONDARY GIG POSITION
REPORTING STRUCTURE	• Existing reporting structure for primary job is kept. • The second job code/profile is from the receiving hospital's float pool. • Union hospitals are excluded. • Nurses maintain their primary employment hire but have a second job profile that allows them to pick up extra shifts at a second or third hospital.
ROLE AND WORK	• The nurse can pick up and work shifts in qualified areas, per specialty and trained role. • The payment for secondary job is from the cost center of the unit worked, while in the secondary job code is at the hospital float pool or other identified site for work.



The Flexible Workforce Handbook: Curing the Nurse Staffing Crisis

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