



# Making Workforce Data Management a Priority

*American Nurse Today*

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*Today*  
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# Welcome!

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Editor-in-Chief  
*American Nurse Today*



# Plan for Today

- Discuss why it's important to manage workforce data
- Review a case study of successful implementation to achieve a data-driven workforce
- Describe how a system used a staffing system to achieve positive outcomes
- Identify next steps towards a data-driven workforce



# Panel

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Division Director for Care Management  
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Portland, OR



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System Director of Clinical Resource Management  
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**Kathy Baker, PhD, RN, NE-BC**

Nursing Director  
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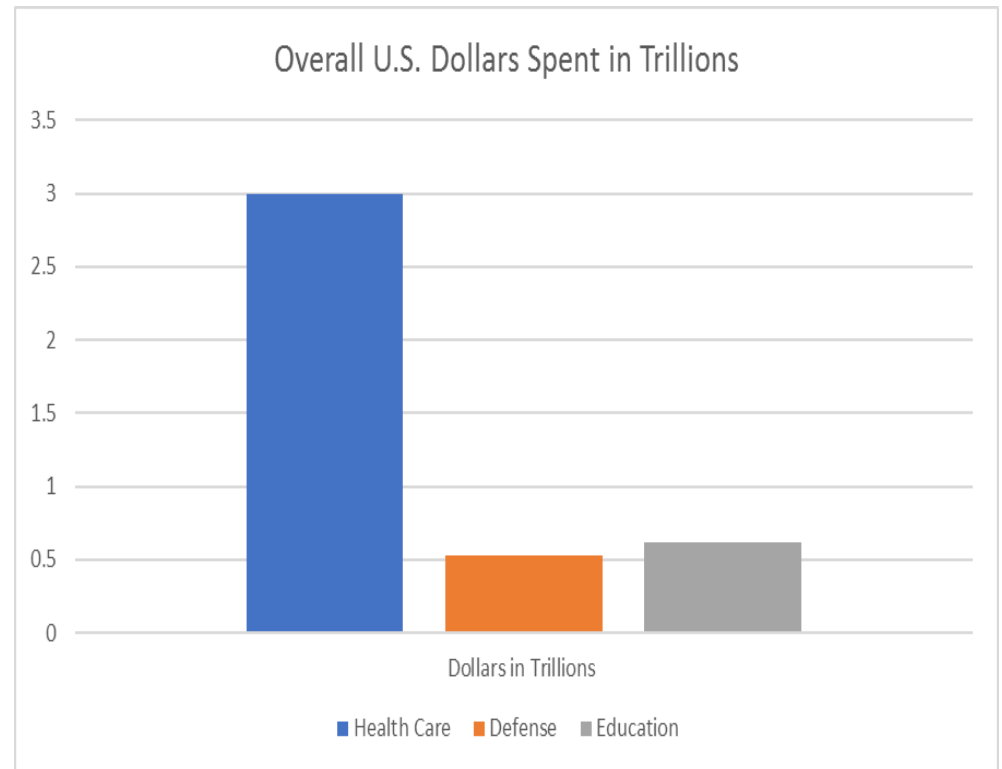


# Why You Need to Manage Workforce Data

Jennifer Mensik, PhD, RN, NEA-BC, FAAN  
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Treating the health care system like a (wildly inefficient) job program conflicts directly with the goal of ensuring that all Americans have access to care at an affordable price.  
-Baicker & Chandra (2012).



# Complexity of Matching RN to Patient

## Staffing

- Staffing is the act of scheduling and maintaining the appropriate number of personnel on a given shift and day to ensure safe, effective, efficient, equitable, and timely patient-centered care through the utilization of the entire nursing process.
- Appropriate nurse staffing is a match of RN expertise with the needs of the recipient of nursing care services in the context of the practice setting and situation. (ANA, 2012, p. 6)



# Complexity of Matching RN to Patient

## Scheduling

1. Assigning the appropriate number of workers to the jobs during each day of work
2. Determining when an activity should start or end (e.g., start and end of a shift) depending on its
  1. duration (e.g., different shift lengths to accommodate patient flow)
  2. predecessor activity(ies) (e.g., admissions)
  3. predecessor relationships (e.g., patient education before discharge)
  4. resource availability
  5. Target completion date (e.g., patient discharge).

(Businessdictionary.com, 2012)



# Complexity of Care Delivery Model Data

Lack of understanding your unit's care delivery model

## Staffing levels

- Acuity systems
- Recognize the importance of all nursing “work”
  - Not just the time it takes to complete medication passes and I.V. starts
  - Place importance and dedicate the appropriate amount of time

## Staffing mix

- All RN model may not be financially feasible nor satisfying to RNs
  - Define roles
  - Define right mix to get all work done

## Information technology systems

- Match IT systems to the workflow of nursing
- Build meaningful reminders

# Complexity of Care Delivery Model Data

So why do we treat staffing our units as if patients were the same?

- *Because it is easier and because most of us lack the tools or ability to start to drill down on the differences.*

## Position Control Data

- Not widely used or used inappropriately
- Doesn't match care delivery model
- Treat all RNs or staff as same or interchangeable





# Complexity of Patient Flow Data

- Artificial variability is controlled by the hospital, for example, when surgeries are scheduled.
- Natural variability are things that can not be controlled, such as the flow of emergency department patients, tornados, earthquakes, mass causality events, and a bad flu season.
- How do we measure this **flow and patient turnover** and how does the organization account for it for staffing, not just for census?



# Missed Care and Items

- “Any aspect of required patient care that’s omitted in part or whole, or delayed, doesn’t come without consequences or adverse events” (p. 40).
- Omission or commission
- Reasons for missing care:
  - Labor resources
    - Unexpected rise in patient volume or acuity
    - Poor personal deployment
    - Excessive workloads
  - Material resources
  - Communication



# Missed Care and Items

- Examining missed care by nursing process
  - assessment was missed 44% of the time
  - intervention, 73% of the time
  - planning, 71% of the time
- Missed nursing care items
  - ambulation (84%)
  - assessing effectiveness of medications (83%)
  - turning (82%)
  - mouth care (82%)
  - patient teaching (80%)



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# Exploring the How: Strategies for Successful Workforce Technology Implementation to Achieve a Data-Driven Workforce

Danielle Bowie, DNP, RN, NE-BC  
System Director of  
Clinical Resource Management  
Legacy Health System



# This is Legacy Health

- Northwest Regional integrated delivery system with revenues of 2 billion+
  - 13,500+ employees
  - 4,200 nurses
- 8 Hospitals
  - Regional trauma/burn center, specialty surgical, pediatric, behavioral health, and community based hospitals
  - 64,000 discharges
  - 290,000 ED visits
  - 42,000 surgeries

The logo for HEALH features the word "HEALH" in a green, serif font. A stylized green sprout with two leaves is positioned between the 'A' and 'L', with its stem extending down to the 'H'. The entire logo is set against a blue rectangular background with a subtle gradient.

HEALH



# This is Legacy Health

- 108 ambulatory settings
  - 795 provider multispecialty group
  - 1.1 million ambulatory visits
- Joint ventures in outpatient surgery, urgent care
- Retail pharmacy
- Cancer center
- Hospice
- Regional laboratory
- Research institute
- Health plan

The logo for Legacy Health, featuring the word "HEALTH" in a green, serif font. A green sprout with two leaves is positioned between the 'L' and 'H', with its stem extending downwards. The logo is centered within a blue rectangular box that has a subtle gradient.

# Legacy Health and GE Healthcare Partnership



- Staffing and scheduling
- Open shift notification
- Mobile time management app (*All Legacy Health*)
- Business analytics (*All Legacy Health*)
- Patient classification
- Attendance plus (*All Legacy Health*)

# **Implementation Strategies for Workforce Technology Implementation**

1. Establish the project team
2. Determine the how
3. Assess organizational structure
4. Establish timing
5. Standardize documents
6. Engage in before and after go-live support activities

# Barriers to Implementation

## External and Internal Variables

Holidays

Complete system  
upgrade during  
implementation

Path of total solar  
eclipse: 8/21/17

Use of two staffing  
and scheduling  
technologies over 7  
months

Past attempts of  
failed staffing and  
scheduling technology  
implementations

# Key Drivers of Success for Implementation

- Leadership engagement
- Collaboration with functional partners
- Project leadership
- User engagement methods
- Marketing



# Project Outcomes

- Project timeline maintained with every project milestone completed on time
- Project budget maintained
- High success rate of end-user adherence





# Workforce Metric Outcomes

- Enterprise assessment of workforce trends to develop workforce strategies. Trends evaluated include:
  - LOA rates
  - Unfilled shifts
  - Premium shift usage
  - Departmental staffing patterns
- Reduced premium labor spend through using central recruitment workforce technology.
  - FY18 cost savings of \$115,824



# **Start with Technology: How a Workforce Management Solution Helped Drive Outcomes at VCU Health**

Kathy Baker, PhD, RN, NE-BC

Nursing Director

Resource Management and Emergency Services

VCU Health System



# Registered Nurses: The Demand Continues

## Demand is high

- Projected growth of the RN profession of 16% from 2014 – 2024, more than twice the average growth rate for all occupations
- Current shortage projections are due to shifting dynamics of healthcare delivery, reimbursement, and aging population

## Work force dynamics

- Stronger economy—more RNs choosing part-time hours or retiring
- Changing workforce demographics—more mobile
- Qualified applicants still turned away from nursing programs

# Retention Challenge

## Meeting the RN workforce's needs

- Work-life balance is critical to job satisfaction and retention
- Prefer technology as means of communication and improving work flow



Sources: Pellico, Brewer, Kovner, 2009; Sherman, Dyess, Hannah, Prestia, 2013; Jamieson, Kirk, Andrew, 2013.

# Evidence Informs VCU Health's Strategy

## Pillars of VCU Health's Retention Strategy



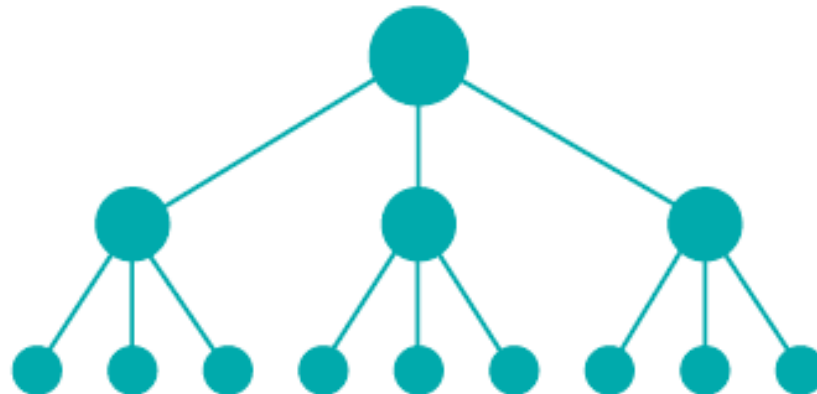
Source: Groff, Paris, Tehrar, 2011.

# Staffing Is the Foundation

**Evidence:** Adequate staffing improves patient outcomes, reduces burnout, and enhances job satisfaction

## **Actions:**

- Use of a decentralized staffing model—involvement of unit-based committees
- Staffing decisions owned by staffing committee as part of our shared governance model
- Daily and weekly review of staffing by nurse leaders at all levels
- Unit staffing based on outcomes and evidence
- Incentives for off shifts and weekend differential
- Providing internal agency and flexible staffing
- Use technology for real-time staffing decisions and predictive workforce planning





# API: Staffing System of Choice at VCU

- Historically our systems and work processes struggled to efficiently support our decentralized staffing model
  - Perceptions of staffing adequacy below the Magnet means
  - Some divisions struggled to manage staffing resources within their budget
  - RNs raised concerns regarding excessive reassignment (floating)
- RFP for a staffing software solution developed and evaluated by frontline RN staffing and scheduling committee

# API: Staffing System of Choice at VCU

- Implementation of the new staffing system led by a frontline RN team
- Staffing and scheduling committee introduced new workflows around staffing with the enhanced capability of our system
  - Optimized the use of supplemental staffing RNs to minimize reassignment of unit-based staff
  - Created incentivized shifts to encourage self-directed floating



# Managing the Change Process

- Steadfast goals
- Trust
- Transparency
- Role modeling an organizational perspective
- Nurse manager accountability
- Peer-to-peer feedback
- Adopting best practices with scheduling and electronic system
- Role definition
  - Nurse manager
  - Nurse manager on call
  - Staffing office/clinical administrator



# Leveraging Technology



[Home](#)

[Staff](#) ▼

## Find a Shift

Shift ID:

**Find**

## Search by Criteria

(Select any or all criteria below. Leave blank or unselected to specify no preference.)

**Shift Day:**

☒ ☒ ☒ ☒ ☒ ☒ ☒

Mon Tue Wed Thu Fri Sat Sun

- or - **Specific Date:**

**Shift Starts During:**

☐ ☐ ☐  
Day Evening Night

**Shift Type:**

☐ ☐ ☐  
Work On Call Non-duty

# Actions Into Outcomes

	FY11	FY17	% Change
HAPI >Stage II or greater	3.6%	1.09%	70% ↓
FALLS with INJURY per 1000 patient days	0.6	0.15	75% ↓
Total infections per 1000 patient days	1.4	0.7	50% ↓
• Number of CLABSI	129	78	40% ↓
• Number of CAUTI	106	28	64% ↓

# Outcomes

- All units at VCU Health managed within their budgeted RN HPPD for FY2017 and YTD FY2018
- 2017 RN engagement score in “Staffing and Resource Adequacy” exceeded the Magnet benchmark

ANCC Category	VCUHS Score	Magnet Benchmark Score
Adequacy of Resources and Staffing	3.53	3.48



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# Wrap-up and Next Steps

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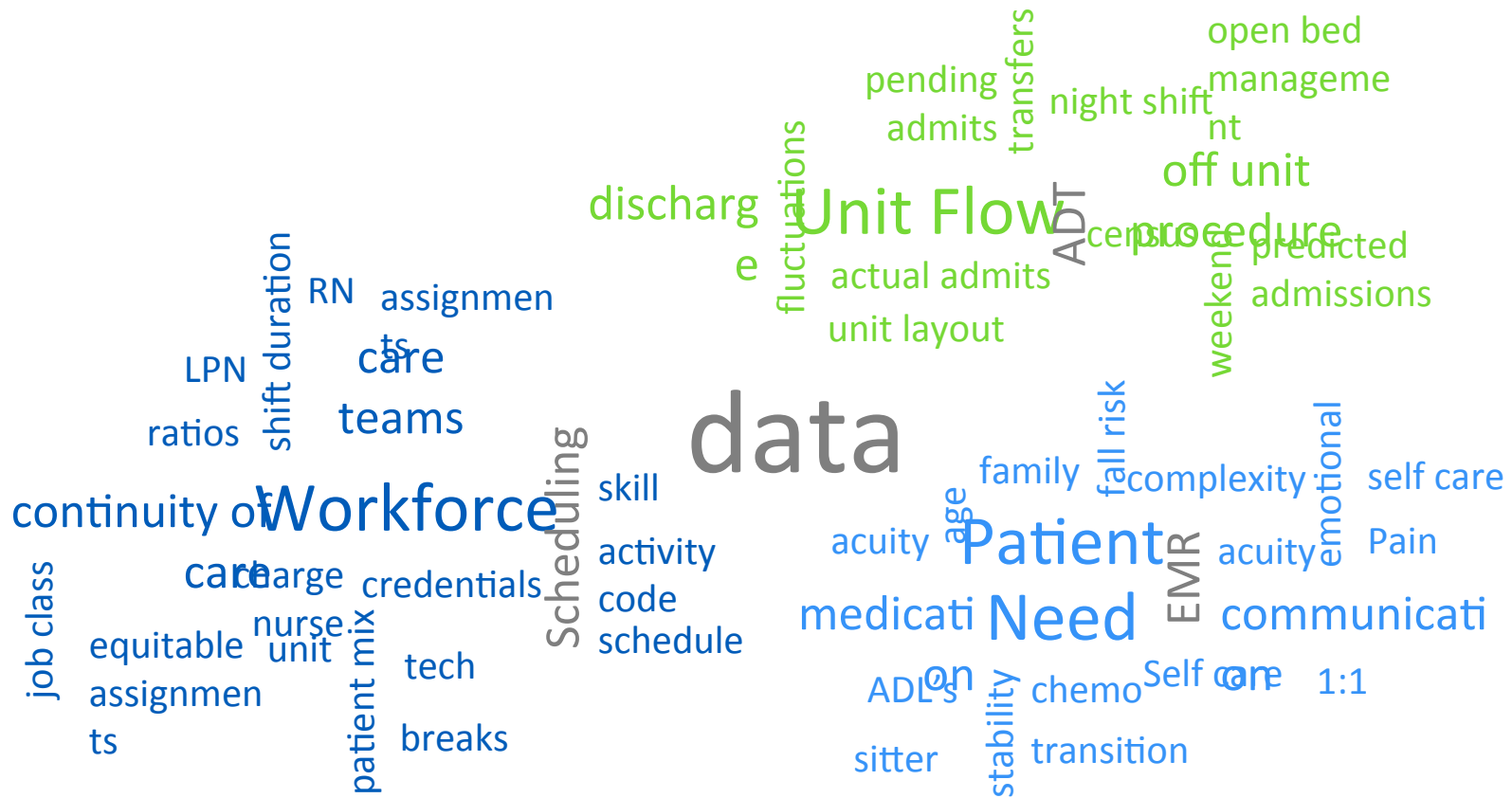


# **Bottom Line: Data Creates Safe Outcomes**

- It starts with patient-centered, data-driven workforce management: Dr. Mensik
- Implementing patient-centered, data-driven workforce management benefits patients, staff, and the organization: Dr. Bowie
- Leveraging staffing technology is an investment not a cost: Dr. Baker

**It's all about driving operations with outcomes.**

# It Starts With Leveraging Your Data



# Our Vision



- A common consensus that appropriate patient-driven staffing is foundational to everything in healthcare will be developed.
- Inappropriate staffing will be replaced by patient-centered, data- and evidence-driven staffing.
- Clinically intelligent staffing technologies will empower nurses to make their greatest contribution to patient care outcomes and financial and operational outcomes.
- Appropriate staffing driven by data and intelligent staffing technologies will create happy patients and families and caregivers

# Caregiving Is a Compassionate Profession

Appropriate, data-driven staffing will ensure we can give our patients the **COMPASSION** they deserve.



# Coming Soon...



A new resource...

*Best Practices for Workforce Management: A Toolkit for CNOs*

Topics include:

- Importance of data-driven, patient-centered workforce management
- Making the business case
- Creating an effective workforce management system
- Case studies of success stories

Expected release date: August (Will add toolkit cover if completed)

# Questions?

If you submitted a question during today's webinar that wasn't answered, please send your question to Sofia Goller at ***American Nurse Today*** (contact information below). Or, if you have additional questions, please contact:

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