

# HIMSS<sup>®</sup>19

## CHAMPIONS OF HEALTH UNITE

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# Taking a Patient-Centered Approach to Clinical Communication



Session 90, February 13, 2019

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# Conflict of Interest

Candice Friestad, DNP, RN, MSN, MBA

Has no real or apparent conflicts of interest to report.



# Agenda

- Current and future challenges for health systems
- Integrating a communication platform with EHR data
- Integrating a communication platform with alarms and alerts
- Improving Respiratory Therapy efficiency
- Improving time to discharge



# Learning Objectives

- Describe how a disparate health system streamlines communication and clinical workflows
- Summarize how integrating technology with efficient communication of information leads to better patient experience and increased staff satisfaction
- Illustrate efficiency outcomes realized through effective communication



# Largest Employers By State

Who's Providing The Most Jobs?



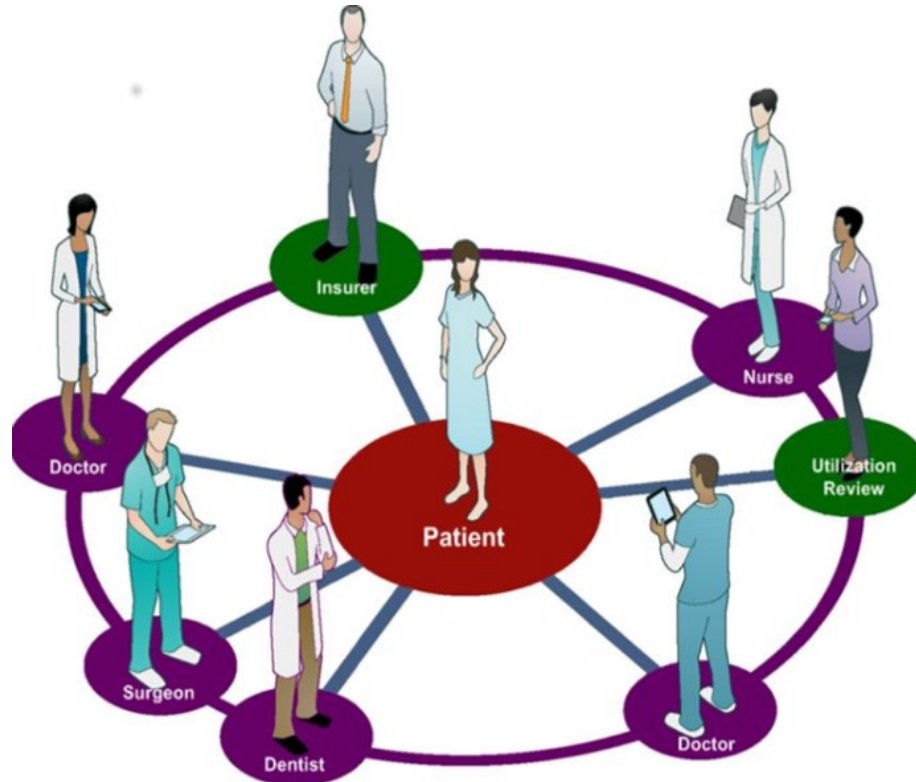
States where active duty military outnumbers private employers.



# Healthcare Challenges

- 0.5-1 million nurses will retire by 2020, plus need for more nurses due to aging baby boomers; nursing job openings will reach 1.05 million by 2022 (Bureau of Labor Statistics, 2012) and by 2040 19% of population 65+ years
- Institute of Medicine to Error is Human, Future of Nursing, Chasm (IOM, 1999, 2011, 2014)
- Preventable medical deaths:
  - 1998 = 90,000
  - 2013 = 114,000
  - Currently in third place as leading cause of death in the United States (following heart disease and cancer)
- Call for quality and safety; Communication between caregivers key element (Joint Commission, 2014). Value of technology in clinical settings, Meaningful Use (ARRA, 2010)





“With Us, Not to Us”



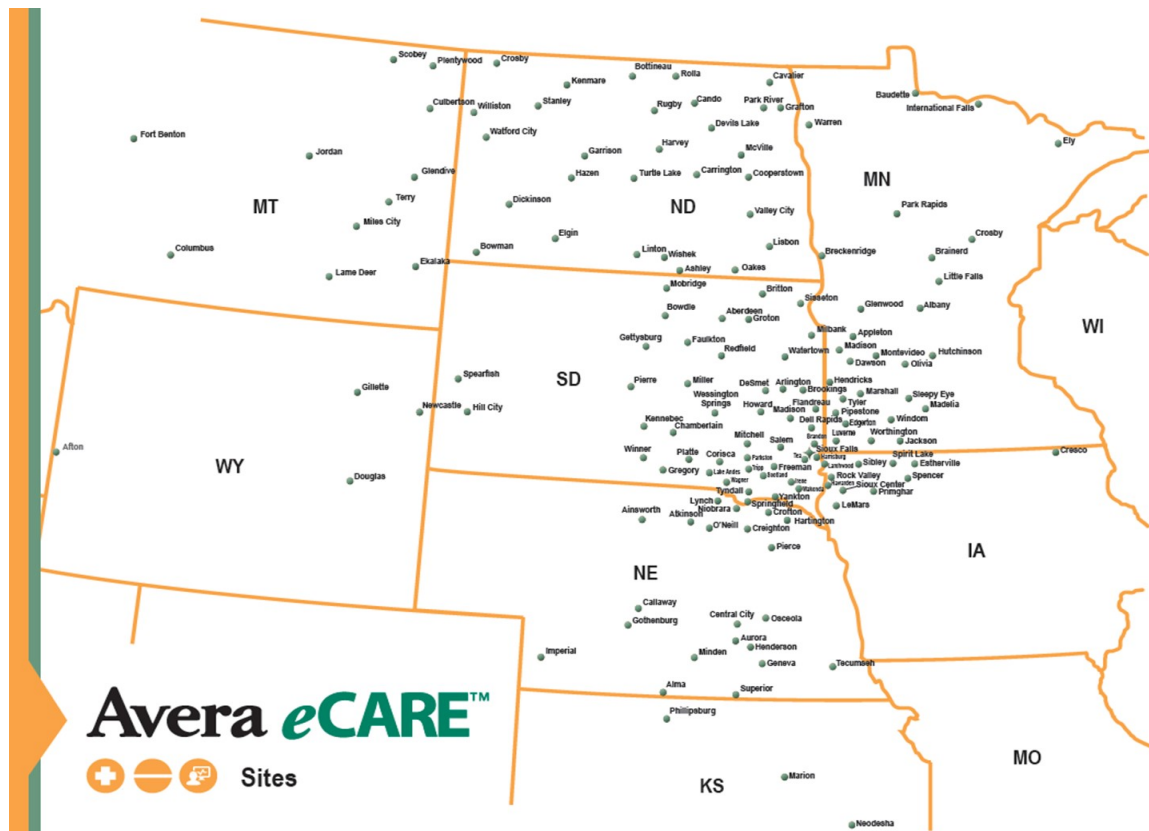
# About Avera Health

- 8 states
- 36 hospitals
- 280 clinics
- 40 long-term care facilities
- 60,000 annual discharges
- Home health and eCare
- 1.5 million covered users
- \$3 billion in revenue
- ANCC Magnet accredited
- HIMSS Stage 7  
EMR Adoption Model





# Avera eCare Virtual Health



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## Avera on Louise:

**Surgery Center, Hospital and Clinic –  
including Orthopedics, GI and Infusion Center**

**Behavioral Health & Addiction Center**

- 87-acre campus
- Opens November 1, 2019
- Green space award
  - All new Avera buildings have same decreased environmental footprint
- Avera standardized EMR and communication platform



# Safety Concerns Related to Communication

## 2018

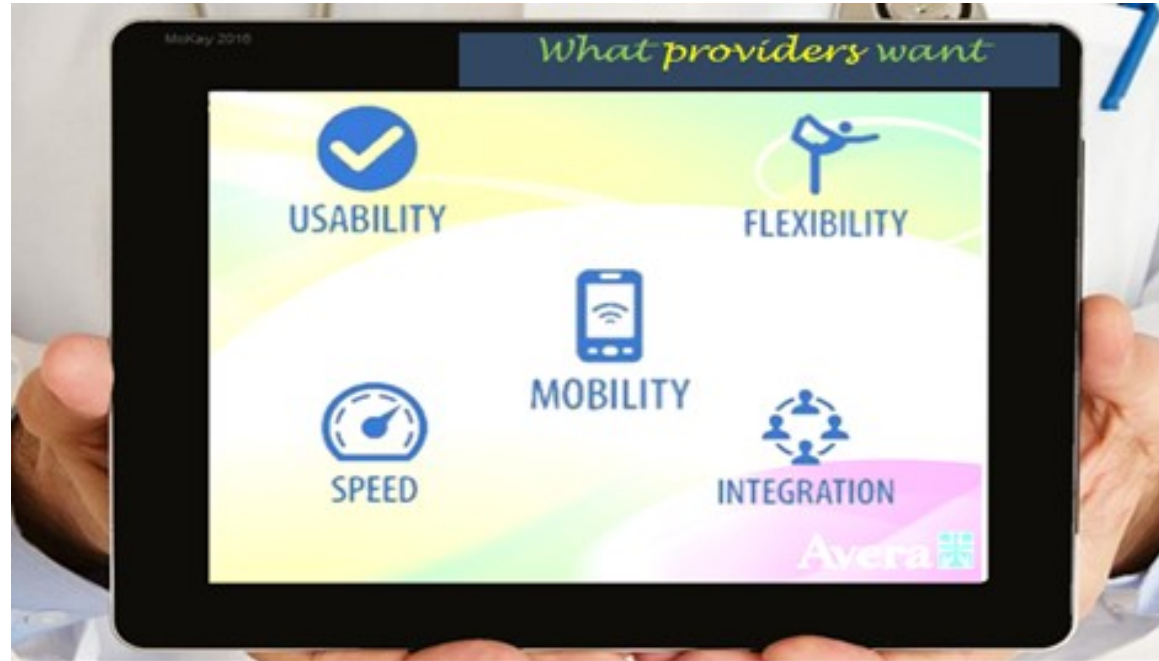
1. Diagnostic errors
2. Opioid safety across the continuum of care
3. Internal care coordination
4. Workarounds
5. Incorporating health IT into patient safety programs
6. Management of behavioral health needs in acute care settings
7. All-hazards emergency preparedness
8. Device cleaning, disinfection and sterilization
9. Patient engagement and health literacy
10. Leadership engagement in patient safety



# Information in Silos



# Providers Want Mobility



# Remember 2006, Before the iPhone?


## iPhone release dates:

- 1<sup>st</sup> gen: June 2007
- 3G: July 2008
- 3GS: June 2009
- 4: June 2010
- 4S: October 2011
- 5: September 2012
- 5C/5S: September 2013
- 6/6Plus: September 2014
- 6S/6S Plus: September 2015
- SE: March 2016
- 7: September 2016
- 8: September 2017
- X: November 2017



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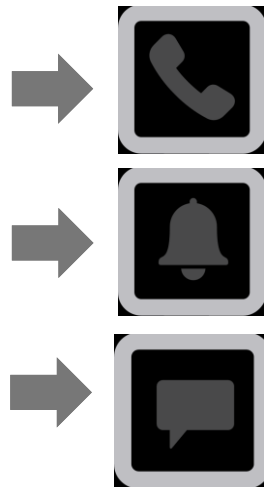
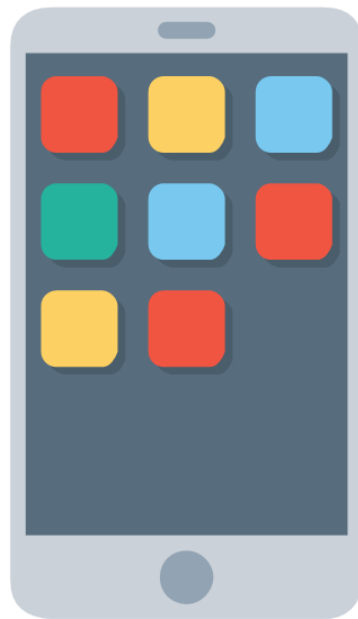
## Integrating a Communication Platform with EHR Data

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# EHR Integration



- ✓ ADT patient information
- ✓ Critical lab results
- ✓ Transport requests
- ✓ Bed requests
- ✓ STAT blood draw orders
- ✓ Respiratory orders
- ✓ Discharge orders
- ✓ Room service request





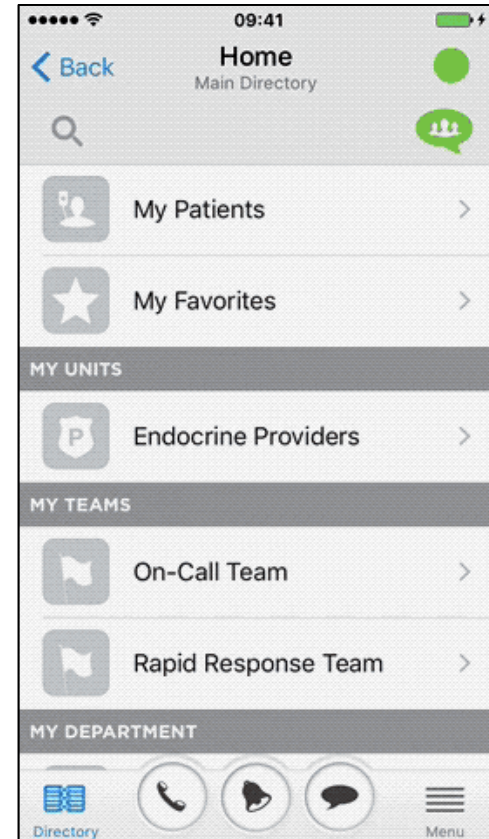
# Patient-centric Directory

- Access patient demographics and location
- Search for and view each patient's care team
- Create group conversations with care team members



# Care Team

- Share care team information via EHR with the communication platform
- Providers can manually assign themselves to patients
- Provider's patients are visible at login



# Integrating a Communication Platform with Alarms and Alerts



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# Optimizing Alarm Management

- Clinical alarm management committee responsibilities:
  - Maintain inventory of alarms
  - Maintain standardization of alarms to the extent possible
  - Review alarm reports, review adverse events
  - Identify strategies to reduce alarm fatigue
- Alarms and alerts via middleware to communication platform **MUST** be justified and **actionable**:
  - Patient safety
  - Best practice/Evidence-based practice
  - Patient/staff satisfaction
  - Workflow improvement



# Alarm and Alert Management

- Alerts from equipment (patient monitors, nurse call) and HER
- Ability to assign designated patient care staff to appropriate alarms
- Alarm escalation and cancellation is bidirectional with secure smartphones

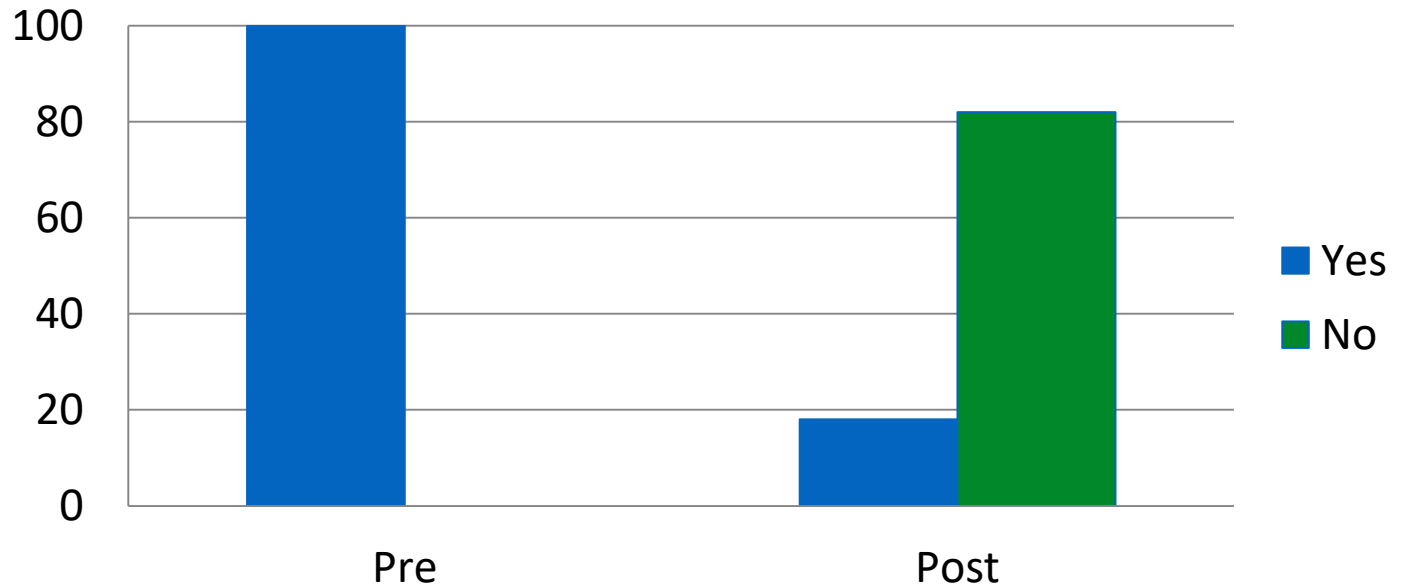


# EHR Alarms and Alerts

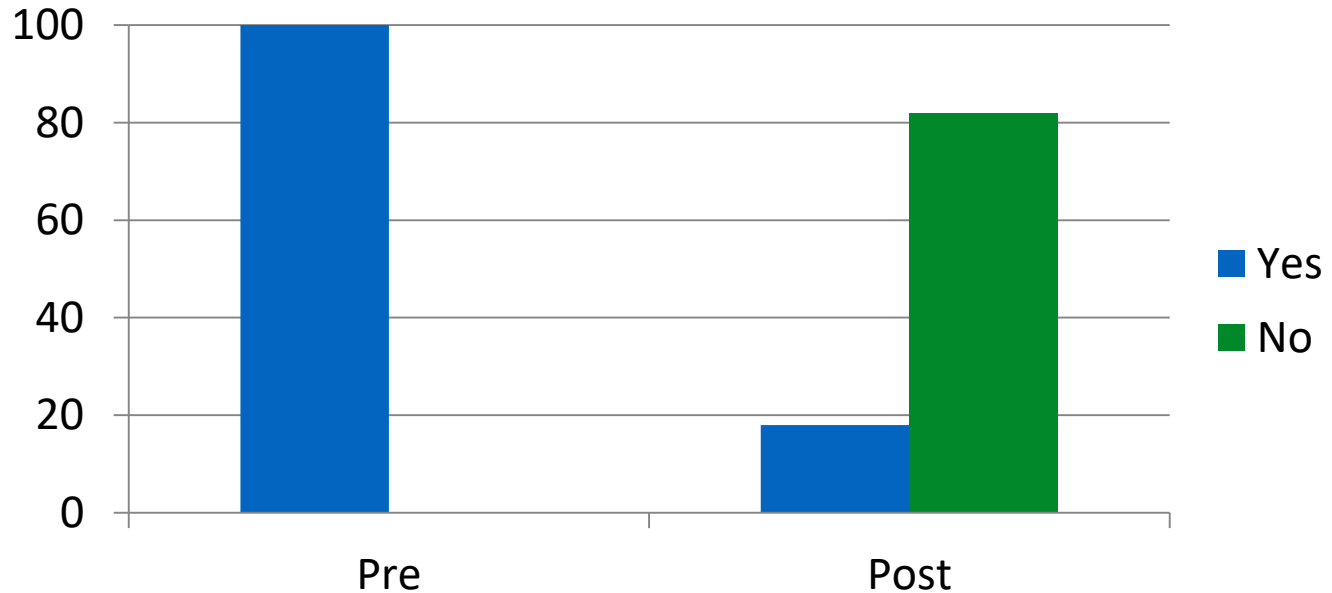
- Heparin level, lactic acid and INR to bedside RN and Pharmacy
- Critical labs to bedside RN, RRN, Pharmacy
  - Lab critical call process changed
- All Respiratory Therapy orders to assigned patient RT(s)
- Discharge orders to bedside RN, RRN, RT, Social Worker, Case Manager, Pharmacy



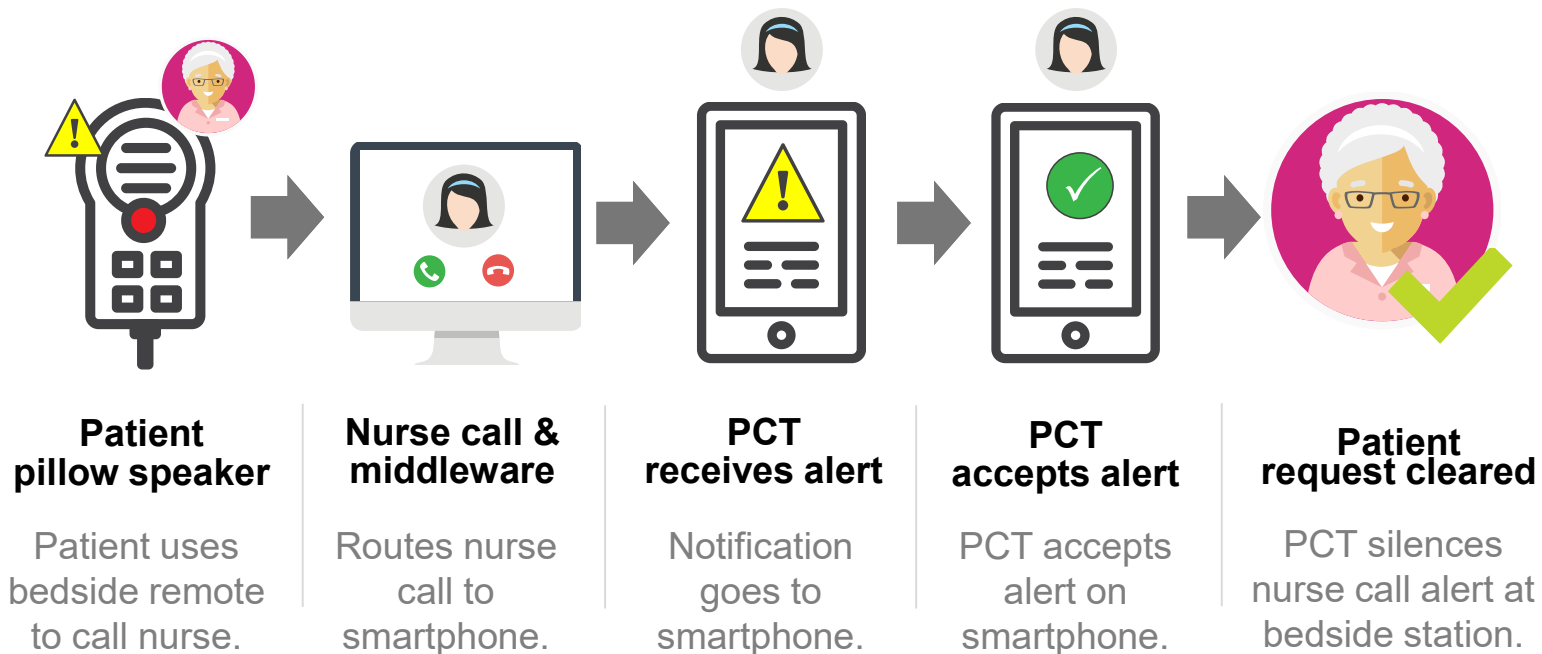
# Respiratory Therapy: Missing or Late Medications Decrease by 80%



# Have You Missed Administering New Medication because You Were Not Alerted of New Order?







Nurse call – alarm middleware – communication platform



# Improving Time to Discharge

# Discharge Challenges

- Delays in patient throughput
- Speed bumps in discharge process
- 4.3 million days are spent waiting for an inpatient bed in the United States
- 37,000 deaths in 2016 were related to ED boarding
- 10 bed days = \$38,000
- 5 bed days = approximately \$20,000
- *Can you afford \$167 per hour?*

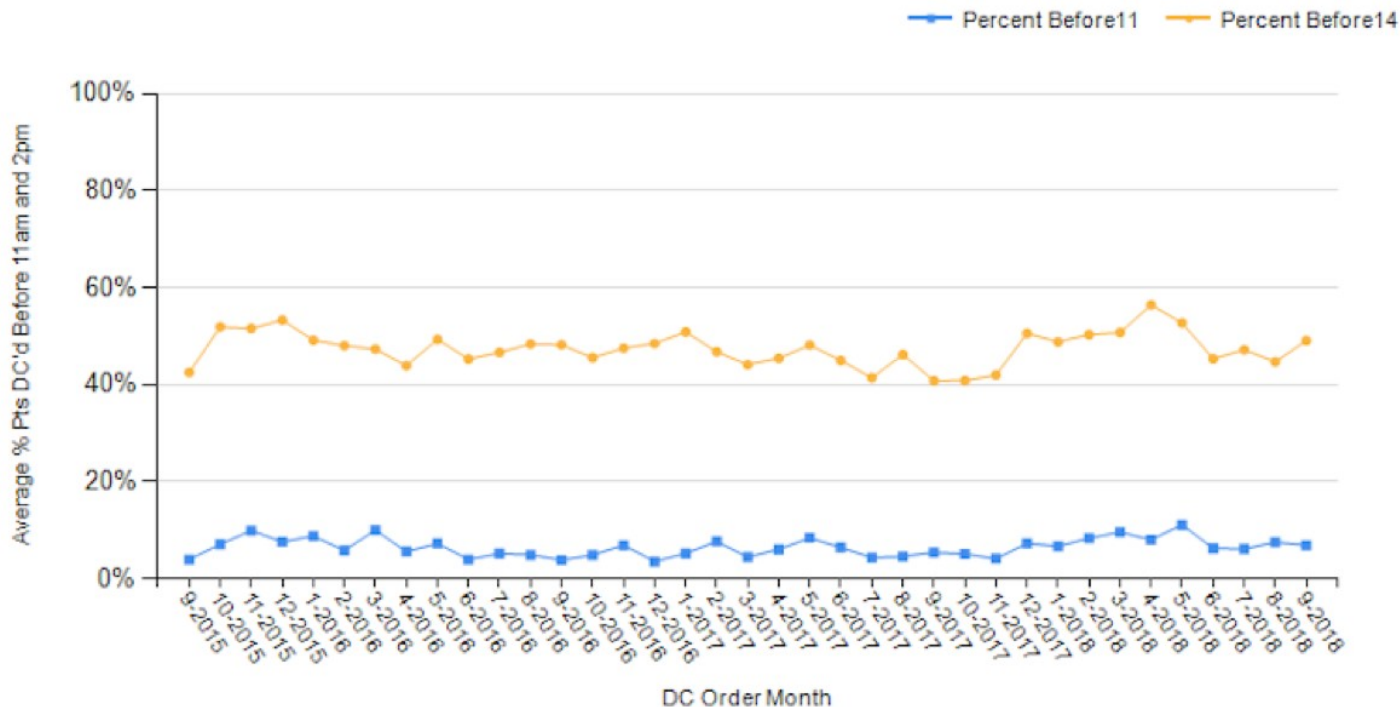
*London School of Economics, November 2017*

<https://onlinelibrary.wiley.com/doi/epdf/10.1002/hec.3613>



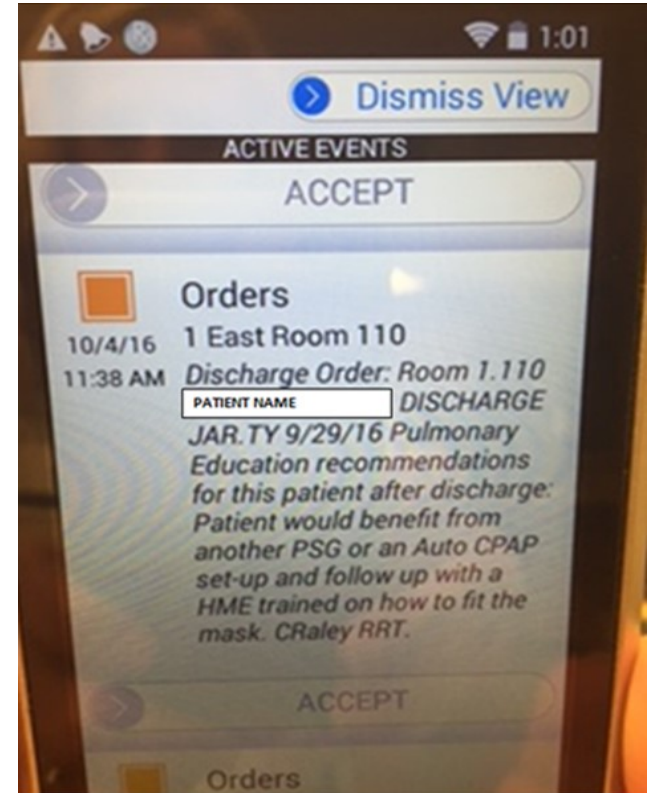
# Goal to Reduce Time to Discharge

Discharge 25% by 11 a.m. and 50% by 2 p.m.



# Discharge Solutions

- Communication platform plus alarm middleware enables order in EHR to be sent to:
  - Unit resource RN
  - Bedside RN
  - Pharmacy
  - Respiratory therapy
  - Case management
  - Social workers
- Alert includes specific patient information as well as instructions and comments from the physician order



# Improvements in Time to Discharge

Avera McKennan Hospital & University Health Center

Discharge Time		May-July 2014	FY 2016	FY 2017	FY 2018	Improvement (minutes)
<b>Average order to DC</b>	Hours/minutes	3:22	3:01	2:59	2:57	<b>0:25</b>
<b>Order placed</b>	Time of day	11:20	11:52	11:34	11:35	<b>0:17</b>
<b>DC out of computer</b>	Time of day	14:11	14:46	14:24	14:25	<b>0:21</b>
<b># of discharges</b>		3,057	22,270	24,678	25,917	

# Outcome Benefits

- Inpatient hospital beds are at a premium
- Financial struggles in healthcare will make for less facilities
- Right patient in right bed (specialty) at right time
- Various communication modalities and care settings:
  - In hospital
  - In clinic
  - In ER and Urgent care
  - In Home Care
  - In eHealth and TeleHealth



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# Wearables and the Future



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# Questions

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