

# Cracking the code on secure clinical communications

How HCA Healthcare tackled one of healthcare's most common challenges

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# About HCA



- 185 hospitals
- 123 surgery centers
- 136 urgent care centers
- More than 270,000 colleagues
- 94,000 registered nurses
- 38,000 active physicians
- 31.2 million patient encounters annually
- 8.9 million ER visits annually
- 85 freestanding ERs
- 1,250 physician practices
- 359 telehealth facilities

# Nursing Informatics

## Leveraging Technology to Deliver Exceptional Care

### Our Services

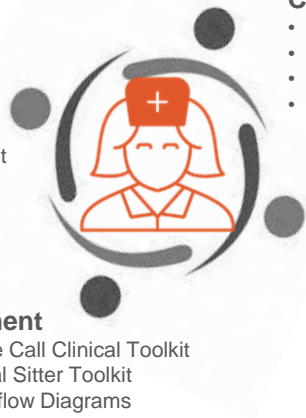


#### Lead Initiatives

- iMobile/Mobile Heartbeat
- Telemetry Escalation
- Mobile Wound Imaging

#### Document

- Nurse Call Clinical Toolkit
- Virtual Sitter Toolkit
- Workflow Diagrams



#### Collaborate

- Patient Keeper
- Language Translation
- Issue Resolution
- TV as a Platform

#### Consult

- Alert Management
- Nursing Workflow
- Bedside monitor design and EHR integration

### How We Collaborate



1

Act as liaisons across technical and clinical departments to align strategies and identify opportunities.

2

Foster relationships and open dialogue with our facility and division partners to understand current needs of our customers.

3

Blend our working knowledge of clinical practice and technical systems to support your project's success!

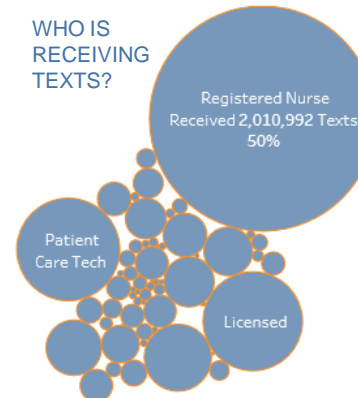
### Our Goals



### How We Impact HCA



WHO IS RECEIVING TEXTS?

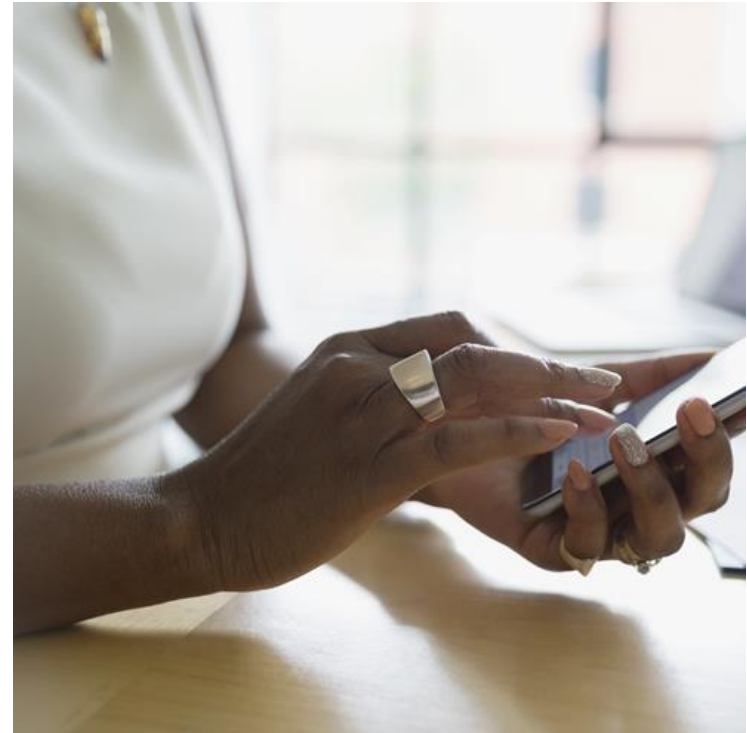


- Provide expertise on nursing workflows and technology integration.
- Ensure solutions are optimally designed, tested and implemented for nursing experience and patient care.
- Document and share best practices and optimal use of nursing technologies.
- Remove barriers to new processes and new technologies.

# Our Journey

# Why a communications platform?

- Protection of all forms of data
- Compliance with HIPAA
- Response to patient/family requests
- Reduce environmental noise and interruptions in care
- Improve transitions in care
- Improve clinician to clinician collaboration



# Objective

To transform care coordination within HCA by leveraging smart phone technology for the entire care team.



## Patient Experience

- Decreased care interruptions
- Reduced noise
- Communicate directly between nurse and patient



## Compliance

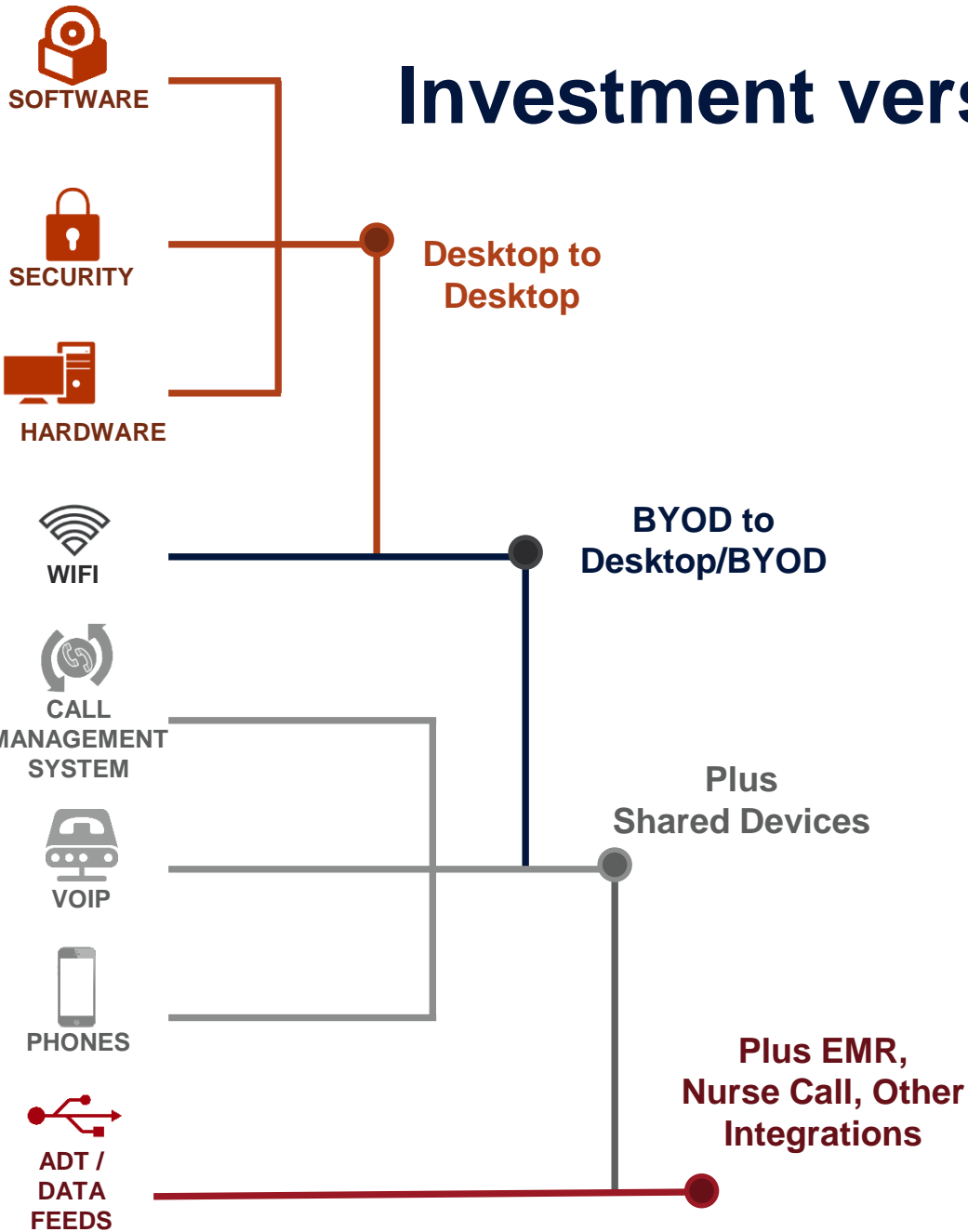
- Secure messaging
- HIPAA/HITECH compliance
- Modernized pathways



## Care Coordination

- Asynchronous communication
- Patient details and lab notifications
- Approved point of care applications & online knowledge tools

# Investment versus Impact



**Least expensive, but must be at a computer. Example: Bed manager to unit clerk**

**Use of personal devices to desktop. Example: MD to Nursing Unit or House supervisor to bed manager**

**Allows for mobile users, flexible use cases, but requires complex asset management**

**Allows users to see information about the patient, connects additional systems to communicate. Most complex design and maintenance**

# From Pilot to Enterprise

## Workflow Value



- 2014: 3 Alpha sites locally
- 183K texts over 3 months; **61% texts originating from the nurse**
- 2015-16: 15 Beta sites representing all divisions  
*\*Pause for VoIP quality challenges*
- Standardized builds, kitting, and configs for data analysis and change management
- Trends in workflows & best practices

## Product Scale



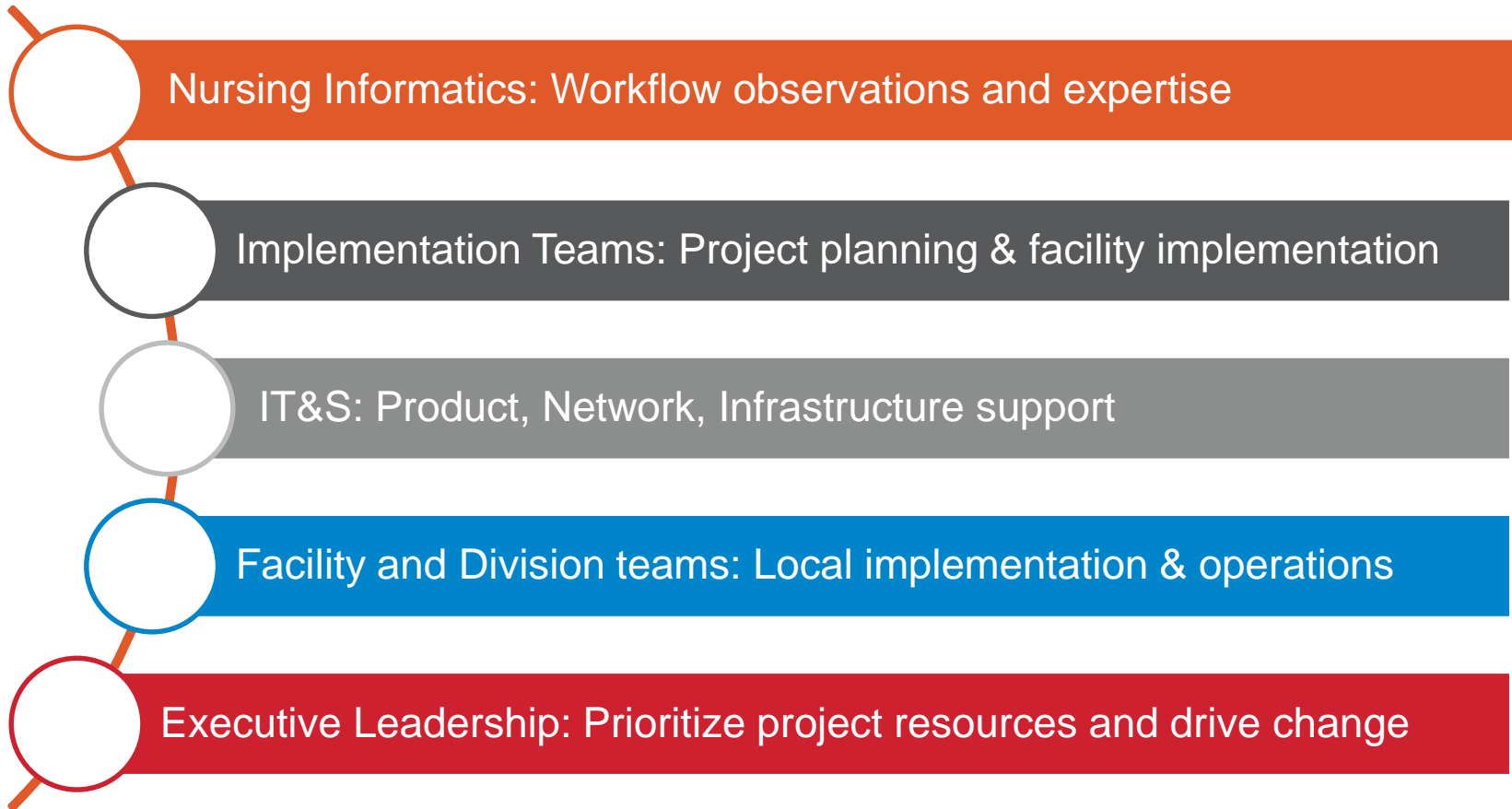
- 2017-18: increased implementations to 50 sites per year (~70% acute care beds)
- Revised toolkit and project plan, focused operational structure
- Call Manager standardization
- Scope expansion to non-clinical roles & increased device allocation
- Formal governance for apps, enhancements, integrations

## Platform Proficiency

- 2019-20: Remaining hospitals (140 total by end of 2019; ~90% beds)
- Optimization and tech refresh efforts for original 18 sites (3 year cycle)
- Clinical decision support systems vs alarm management concerns
- Inter-app linking for seamless transitions to encompass other workflows



# Key players for success



# Our Outcomes

# By the numbers

50.5M

Secure Texts

20M

Calls

1.7M

Broadcasts

104K

Unique Users

44K

iPhones

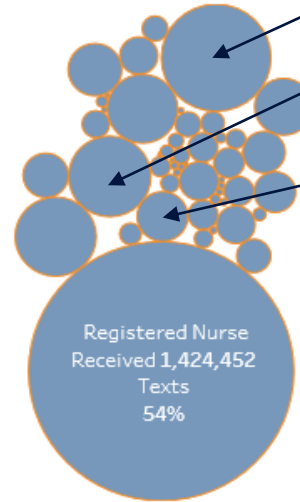
90 Facilities

# User saturation

## Senders (based on texts per unique user)

Role_	Texts per Unique User
Monitor Tech	7777
House Supervisor	3168
Ultrasound Tech	1735
Clinical Coordinator	1525
Social Work	1351
MRI Tech	1249
Child Life Specialist	1150
EKG Tech	1020
Patient Care Tech	1006
Speech-Language Patholo..	1004
Physical Therapy	1000
Transporter	995
X-Ray Tech	987
Leadership	941
Respiratory Therapy	893
Case Management	880

## Recipients



## Top user groups (based on total texts sent)


- Registered Nurse
- Patient Care Tech
- Monitor Tech
- Respiratory Therapy
- Licensed Independent Provider
- Physical Therapy
- Leadership
- X-Ray Tech
- Pharmacist
- Transporter
- Case Management
- Pharmacy Tech
- Ultrasound Tech
- Clinical Coordinator
- Occupational Therapy
- Social Work
- Phlebotomist
- Laboratory
- House Supervisor
- Resident
- Speech-Language Pathology
- Unit Clerk
- EKG Tech
- MRI Tech
- CT Tech
- Nuclear Medicine Tech
- Rapid Response Nurse
- Echo Tech
- Child Life Specialist

# Workflows trends

- Bed placement for ED admissions
- Emergency and/or house-wide operations
- Intra-departmental communication for assistance
- Direct patient conversations with nurse call integration
- Prioritization of pending discharges
- Arrangement of specimen collection
- Coordination of radiology exams
- Escalation of remote telemetry notifications
- Patient transitions within surgical services
- Productive transport routines
- Fall reduction with nurse call and/or virtual sitter integration

**“iMobile saved lives.”**  
*Mass-casualty  
coordination at  
Sunrise Hospital in  
October 2017* 

**“Texting gets a better  
response! Before I  
would forget who I  
was holding for!”**  
*Bed Mgmt* 

**“No need to leave the  
patient unattended  
while searching for  
assistance.”**  
*Care Tech* 

# Facility successes

Persistent group chats to meet departmental needs

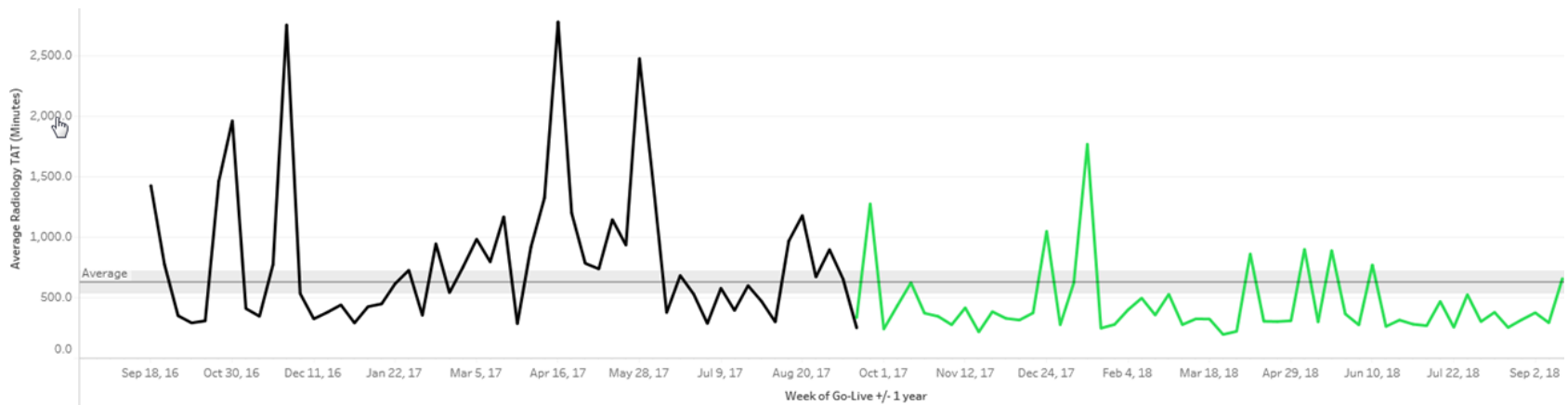
- *Bed Manager + House Supervisor + ED Clerk + Inpatient Charge Nurse → **15% faster for ED admissions***

One to many Broadcasts for reducing hold times and/or searching for help

- *Need a cosign → **33 hours saved per day across the hospital** (each broadcast represents an estimated 3 minutes of activity)*

Easy identification of bedside nurse for proactive texts

- *“Patient NPO and have a 20 gauge IV for CT at 10am?” → **20% faster Radiology TAT***



# Text etiquette for health care

## Appropriate

- Clinical reminders (e.g., discontinuation due for Vancomycin on Smith, Sam Room 521)
- Non-urgent requests or inquiries (e.g. Is Appleseed, Johnny available for MRI in 4 hours?)
- One-way courtesy patient status updates that do not require response (e.g. Day, Sandy is 4cm dilated)
- Operational coordination (e.g. bed assignment notification)

## NOT Appropriate

- Patient orders (e.g., give Morphine 2mg IV q4h)
- Urgent action or response needed (e.g., intubation needed in room 4 stat)
- Broadcasting or group text *without* supporting workflows & policies (e.g., code blue)
- Non-patient or non-facility conversations (e.g., are you going to the concert next weekend?)
- Excess “acknowledgement” texts (e.g., “Okay”, “Got it”)

# Final take-aways

- Realize it ain't just an app!
- Detail assessments of current state workflows to create departmental use cases, gain buy-in, and determine potential gaps with other communication tools.
- Monitor appropriateness of escalation paths for nurse call systems, or other alerts...their impact will be magnified at go-live!
- Hands-on education; it's all about the workflow and context, not the ability to send a text.
- Close the loop on clinical workflows, experience, and etiquette after the technology dust settles.



# Actual patient experience...

*As a patient, I observed enhanced communication and coordination of my care with iMobile. For example, I had a question for my rehab physician. My nurse called her directly at that moment and my concern was answered immediately. While I was in PT, I was due for a med. My nurse texted my therapist to find me and came to administer the med while I was in PT. There are many more examples; seeing the clinicians communicate clearly, immediately, thus coordinating care decreased my and my family's anxieties of a three-week hospital stay.*

*-Lynne King, former Nursing Informatics colleague*



# Thank You!

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