
Integrating Technology into Community Paramedicine Programs



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Technology

- The practical application of knowledge especially in a particular area
- A capability given by practical application of knowledge
- A manner of accomplishing a task especially using technical processes, methods, or knowledge
- The specialized aspects of a particular field of endeavor



*** Merriam-Webster

Medical Definition of Technology

- The science of application of knowledge to practical purposes
- Applied science
- A scientific method of achieving a practical purpose



***Merriam-Webster

Overview - One Successful CP programs noted inefficiencies, restrictions

- Community Paramedicine program seeing over 500 patients/year
- Program experiencing inefficiencies, restrictions and difficulty in the following areas:
 - Time consumed entering patient information from hospital into our system (Microsoft Excel)
 - Modifying our system for each patients Care Plan
 - Scheduling of patient appointments (using a paper calendar and Microsoft Outlook)



Overview - One Successful CP programs noted inefficiencies, restrictions

- Consistency of patient assessment questions (both in patient interview and entry of responses into system)
- Inability to automatically flag patient metrics that were out of range as determined by primary care physician (Care Plan)
- Difficulty in creating standard and customized reports on patients, patient groups, providers and CP Program
- Labor intensive - Community Paramedics spending time performing administrative functions instead of patient assessments



Overview - One Successful CP programs noted inefficiencies, restrictions

- Inability of third parties to view patient records
- Inability to bilaterally transfer discrete patient metrics between Community Paramedicine program and clinical partners.
- Inability to monitor patient metrics over periods of time (regression charting) to compare actual outcomes to projected outcomes.
- Travel time



CP Program Platform Goals:



Lead Through Quality Outcomes

Align with Hospital Initiatives

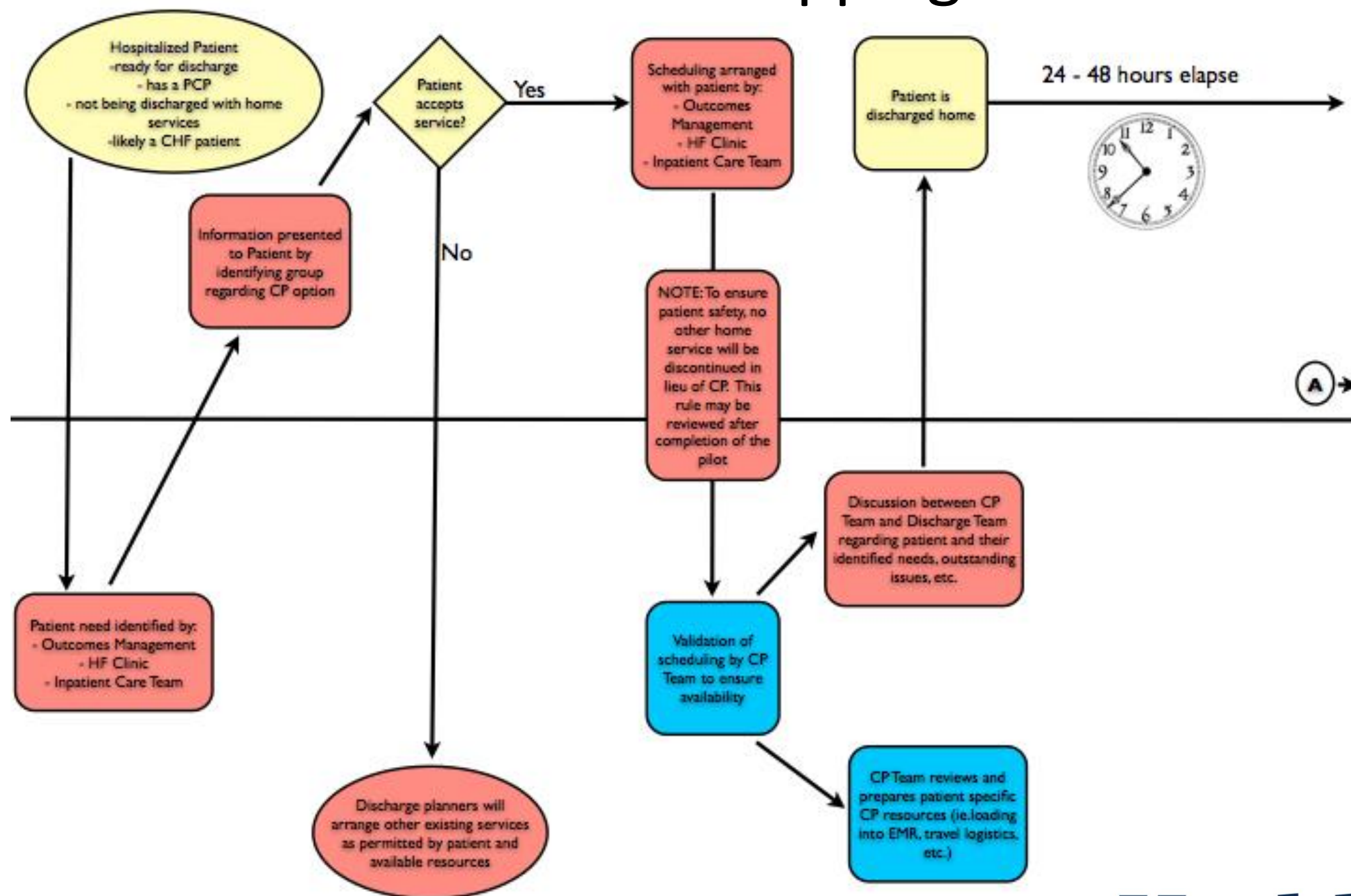
Build Stronger Collaborative Relationships

Foster More Consistent Revenue Growth



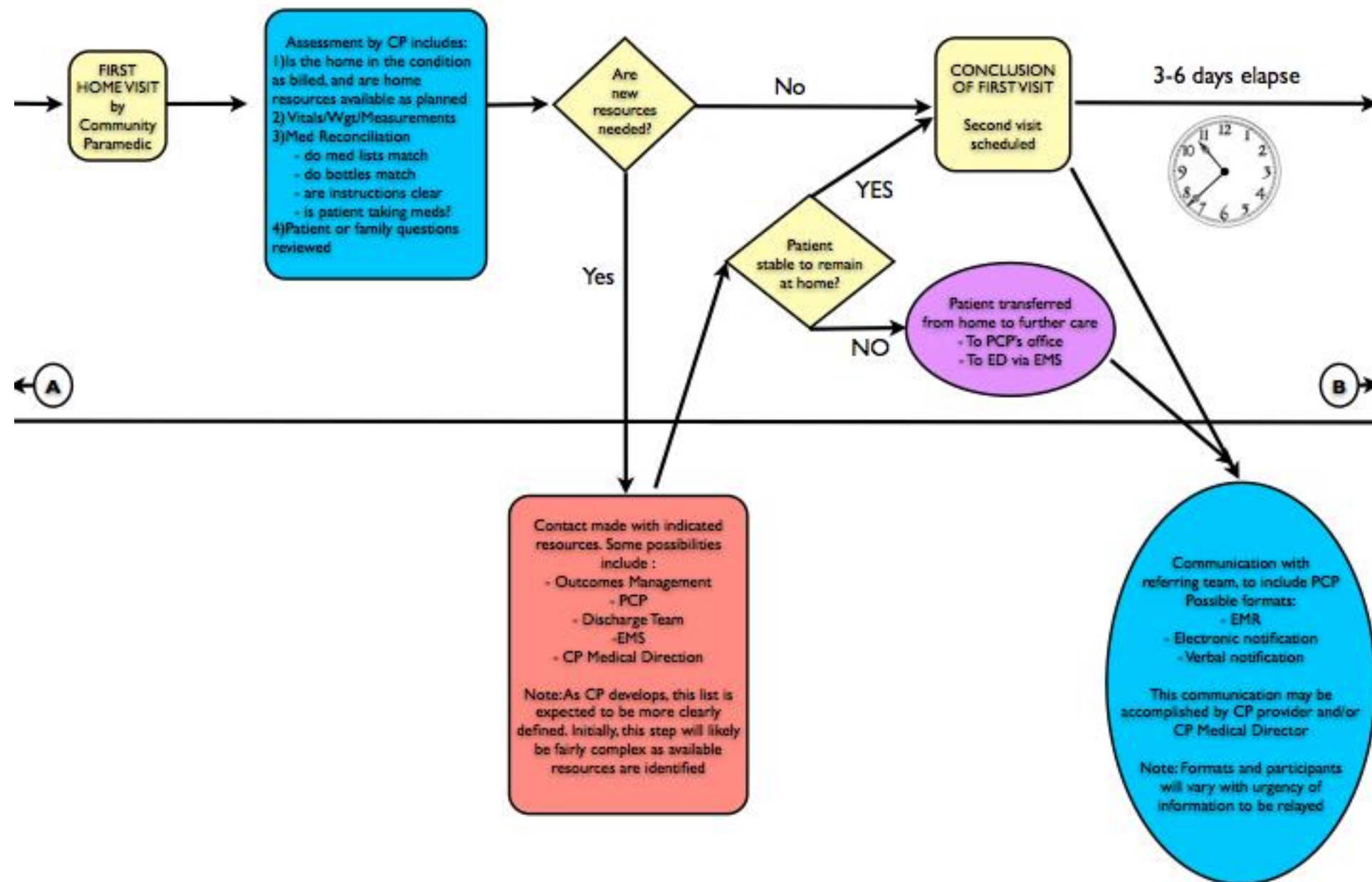
Where to Begin?

CP Process Mapping - I



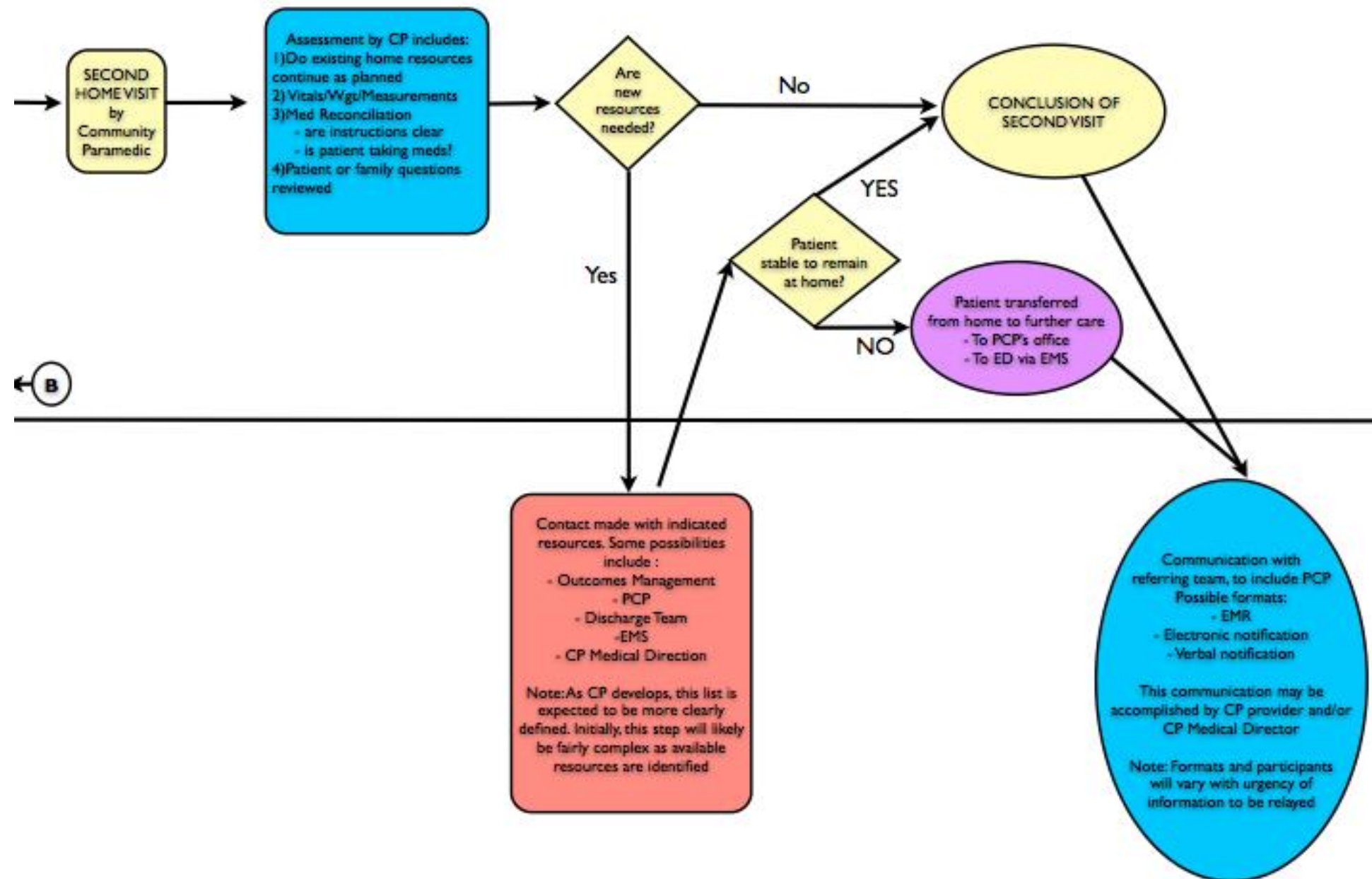
Where to Begin?

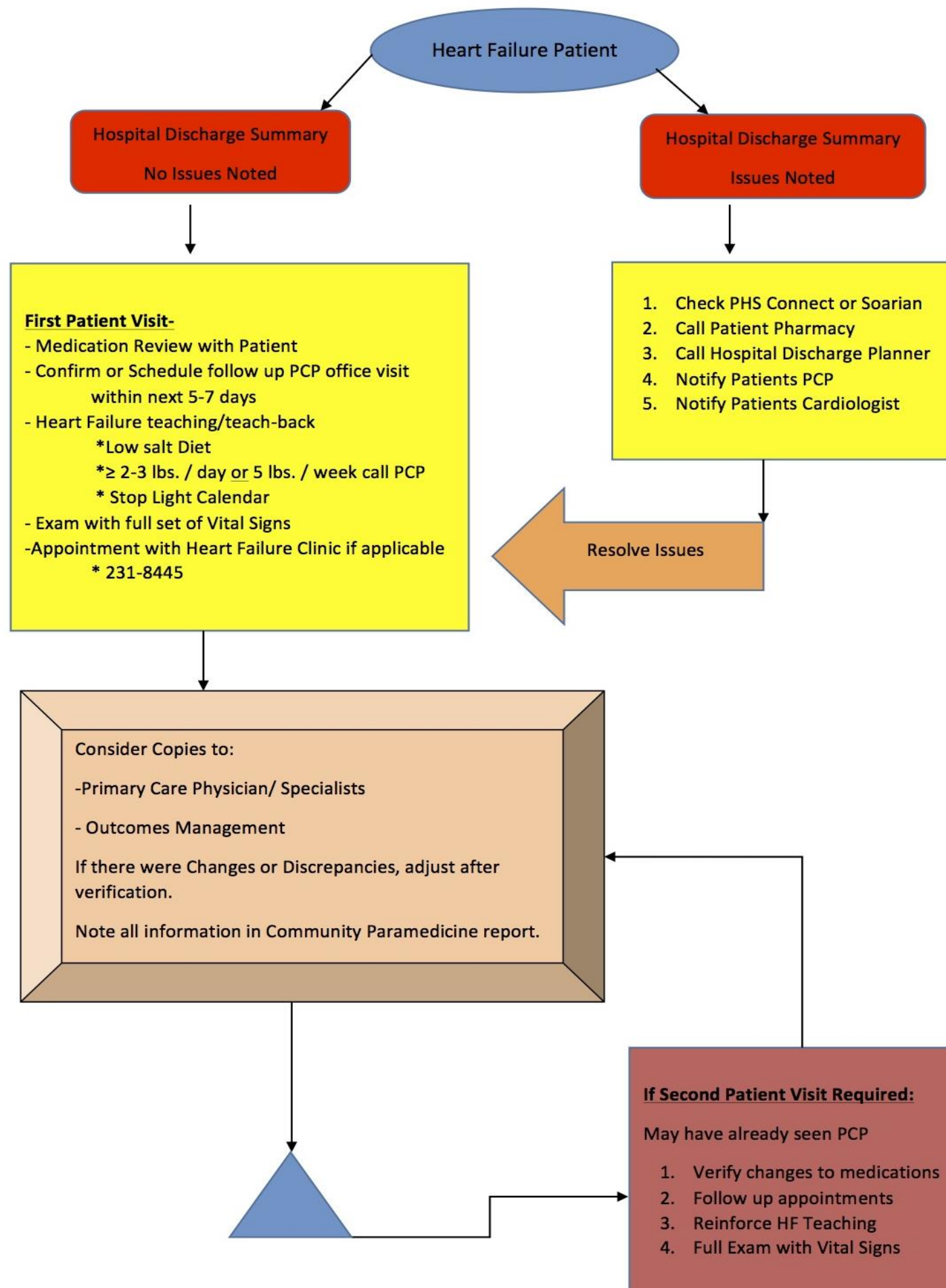
CP Process Mapping - II



Where to Begin?

CP Process Mapping - III





Simplified C.P. Interview Protocol for Heart Failure Patient



Where to Begin?

Patient-Centric Care Coordination

- Looked for a platform that enables a patient-centric approach across our geographically dispersed EMS care teams.
- EMS teams enroll patients into appropriate care plans. As needed, our paramedics can quickly individualize care plans to meet the unique needs of our patients.
- We found being able to individualize the patient's care plan improved outcomes and lead higher satisfaction scores.



Meeting Portability Goals:

- Need Platform to be accessible on multiple devices, different operating systems.
 - Desktop Computer
 - Laptop Computer
 - Tablets
 - Mobile Cellular Devices



Next Step:

Patient Scheduling

Example 30-Day Care Program						
SUN	MON	TUE	WED	THU	FRI	SAT
		 Pre-Discharge		 Home Visit		
		 Live Encounter				
						
						
					 Live Encounter	

Integrate a scheduling system that includes:

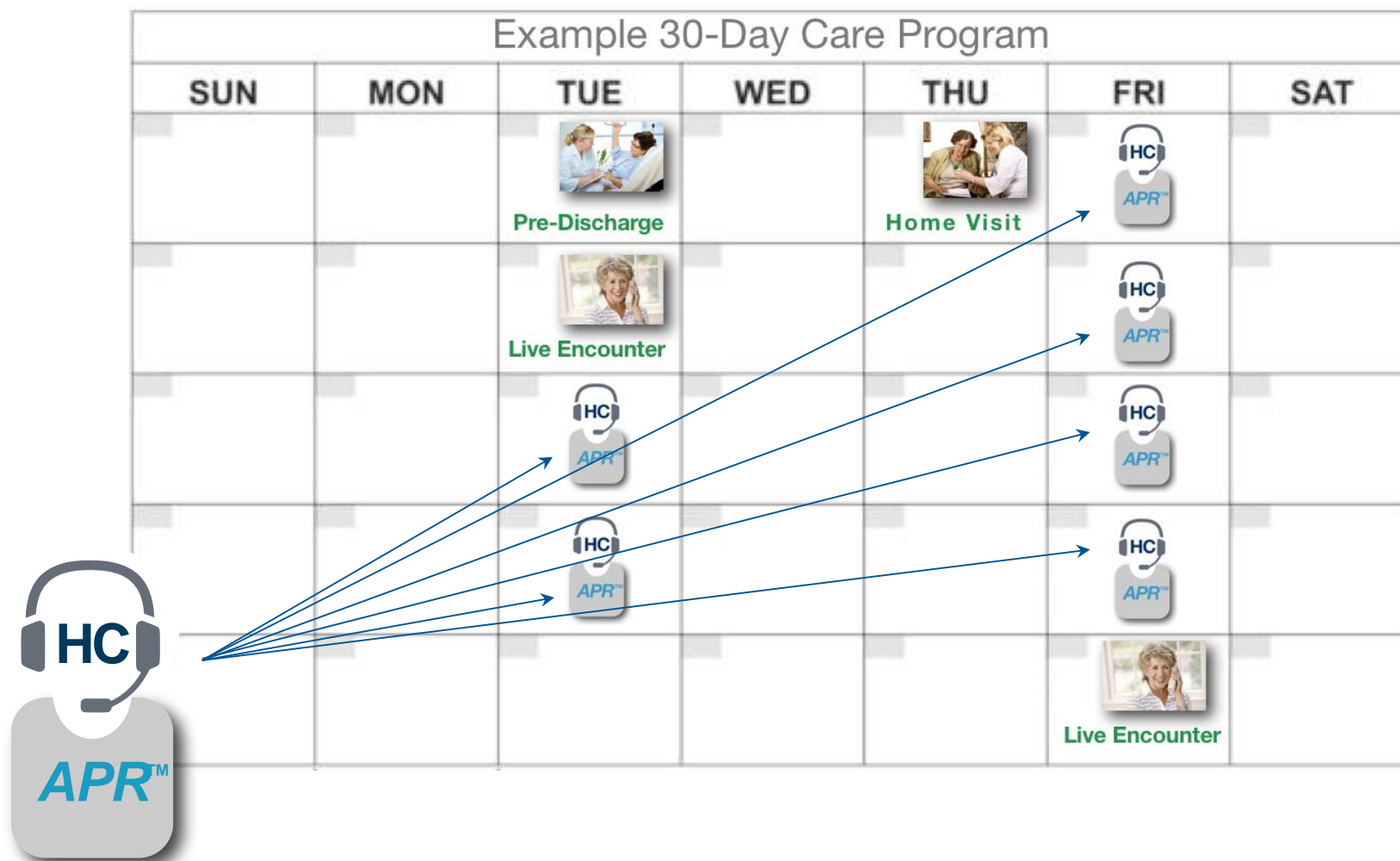
- scheduled visits viewable by entire care plan team.
- directly linked to patient medical record and patients care plan.
- Accessible from office or in the field



Next Step:

Remote and Automated Response


Remote and Automated Patient Response



- *extends the reach of care teams*
- *provides more proactive care while reducing staff labor and*
- *live call tracking records staff-client interactions, promoting accountability with an audit trail*



Robust Task Manager



8

1

John Logan

Task Manager

All Tasks 8

At-Goal Assessment 0

Flagged Assessment 0

Missed Assessment 2

Live Encounter 6

Callback 0

Custom 0

Advanced Filters

Groups... All

Programs... All

Priorities... All

Status... Incomplete

Dates... Past

Date Filtering

Rows per Page: 100

Apply Filter

Task	Schedule	User	Priority	Date	Group	Program
Test Call, It Daily - Missed Assessment 23132	Repeatable	Assigned to 1 Team	■■■■	Due 02/01/2017 08:01 AM	West	Personal Touch - SOB
Straight, Sue - Day 1 - Live Phone Call 7465	Day 1		■■	Due 01/16/2017 08:00 AM	Hospital to Home	Post Surgical Care Plan
Practice, Steve - Home Visit 12356748	Day 3	Assigned to Cheryl London	■■	Due 01/23/2017 08:30 AM	Hospital to Home	Heart Health Care Plan
Pope, Thomas - Quarterly Live Call 1	Day 120	Assigned to 1 Team	■■	Due 01/20/2017 08:00 AM	West	Heart Health Follow up
Lawson, Larry - Home Visit 764	Day 1	Assigned to Cheryl London In progress by HealthCall Support	■■	Due 01/23/2017 11:00 AM	Hospital to Home	Community Social Needs Assessment
Jordan, John - Missed Assessment 4434	Day 27	Assigned to Cheryl London	■■■■	Due 01/18/2017 08:00 AM	West	Personal Touch - SOB
Destjean, Dave - 3rd Live Phone Call 123	Day 20		■■	Due 01/26/2017 08:00 AM	North	Heart Failure Device
Cooper, Daniel - Phone Call danieltester	Day 0	Assigned to Cheryl London	■■	Due 01/31/2017 03:15 PM	Resupply	Heart Failure Device

8 Tasks



Care Plan Registry

The screenshot shows the Bay Area Health Care Plan Registry interface. At the top, there is a header with the Bay Area Health logo, a search bar for patients, and a user profile for John Logan. The main content area is titled "Assign Programs: Destjean, Dave". Below this, there is a section for "Current Assigned Programs" with "Cancel" and "Save All Changes" buttons. To the right, there is a section for "Available Programs" with a search bar and a list of programs. Each program has an information icon (i) and an add button (+). The programs listed are: AHA - Heart Failure CarePlan, Community Social Needs Assessment, CPAP Compliance, CPAP Resupply, CPAP Resupply (Live), Diabetic MTM, Heart Failure Device, Heart Health Care Plan, Heart Health Follow up, and High Risk Pregnancy Program. At the bottom of the available programs section, it says "18 Programs".

Bay Area Health

Search Patients...

John Logan

Assign Programs: Destjean, Dave

To see more information about a program press the **i** button next to the program. For this patient, programs marked with **↔** have assessment information being shared by one or more care teams.

Current Assigned Programs

Available Programs

To assign a program to a patient, press the **+** button next to the program.

Search Programs...

AHA - Heart Failure CarePlan	i	+
Community Social Needs Assessment	i	+
CPAP Compliance	i	+
CPAP Resupply	i	+
CPAP Resupply (Live)	i	+
Diabetic MTM	i	+
Heart Failure Device	i	+
Heart Health Care Plan	i	+
Heart Health Follow up	i	+
High Risk Pregnancy Program	i	+

18 Programs

Comprehensive Care Plan Assessments

- Standardized, consistent questions per care plan
- Check lists, prompts and decision support tools
- Discrete patient metrics, ranges to be modified to each patients plan
- Answers outside designated range are flagged
- Notation fields to enter patient information additional to care plan



Dialog Prompter for Consistent Questions

Encounter In Progress: Dave Destjean

Patient Information

Patient Name:

Dave Destjean

Patient ID:

123

Care Program:

Heart Failure Device

Program Start:

01/05/2017

Program End:

01/29/2017

Primary Phone:

(219) 678-0693

Secondary Phone:

Alternate Contact:

N/A

Jump To...

Task Details

Priority:

Med-Low

Due Date:

01/26/2017 08:00 AM

3rd Live Phone Call

Checklist

Dialog Prompter

Assessment

Notes

Actions

Introduction and Purpose of the Call

"Hi Mr. Destjean I'm _____, from Bay Area I'm calling because your health is important to us. We are calling you to see how you are doing and to go over some important information about caring for yourself. I will also be talking to you about the follow up program that will help with your progress now that you are home (or home again). We will be talking about your home oxygen equipment, your current health state and our program to help progress. Do you have any questions for me before we start?"

TIP Allow the patient to verbalize any questions he/she might have regarding his/her equipment, the call itself or their health status. Listen attentively. This allows the patient ease of communication and allows you to create a positive rapport with the patient. The better the relationship the more positive the patient outcome.

Be sure to note their comments that might help you better relate to this patient in the future.

Explaining Followup Schedule with the Patient

"Mr. Destjean, do you have your calendar available so we can review your follow up schedule? Typically, you can expect either a live call or an automated call from me each week on _____ for the next four weeks."

TIP Review the calendar with the patient. It is important for the patient to understanding when "live" calls will occur and when the automated assessments will occur. This leaves no surprises for the patient. It also

Cancel

Pause

Save & Close

Mark Complete

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HealthCall
Continuing Education Series

Encounter In Progress: Sue Straight

Patient Information

Patient Name: Sue Straight
Patient ID: 7465
Care Program: Post Surgical Care Plan
Program Start: 01/04/2017
Program End: 02/06/2017
Primary Phone: (219) 476-4375
Secondary Phone:
Alternate Contact: N/A

Jump To... ▾

Task Details

Priority: Med-Low
Due Date: 01/16/2017 08:00 AM

Day 1 - Live Phone Call

Checklist

Dialog Prompter

Assessment

Notes

Actions

0 of 11 questions answered.

✕ Clear Answers

Did you review with the patient when to
call their doctor and when to call 911?

☐ Yes

☐ No

Are you checking your temperature
daily?

☐ Yes

☐ No

Have you had a temperature greater
than 100.9?

☐ Yes

☐ No

How was your temperature taken?

--Select--

Is the skin around your surgical site

☐ Yes

✕ Cancel

⏸ Pause

💾 Save & Close

✓ Mark Complete



Discrete Answers for Actions

Encounter In Progress: Dave Destjean

Patient Information

Patient Name:

Dave Destjean

Patient ID:

123

Care Program:

Heart Failure Device

Program Start:

01/05/2017

Program End:

01/29/2017

Primary Phone:

[\(219\) 678-0693](tel:(219)678-0693)

Secondary Phone:

Alternate Contact:

N/A

Jump To...

Task Details

Priority:

Med-Low

Due Date:

01/26/2017 08:00 AM

3rd Live Phone Call

Checklist

Dialog Prompter

Assessment

Notes

Actions

Patient Contact (select one)

☐ Home visit

☐ Chart evaluated, did not call patient

☐ Patient visited office

☐ Called patient, no answer

☐ Called and reached patient

☐ Called patient, left message

☐ Patient called

☐ Patient returned call

☐ Attempted home visit, no answer

☐ Assist role

Referrals

☐ Referred to social work

☐ Referred to physician

☐ Referred to clinic

☐ Referred to case manager

☐ Referred to ER

☐ Referred to labs/testing

☐ Referred to nurse practitioner

☐ Referred to home health

☐ Referred to registered dietician

☐ Referred to DME

Cancel

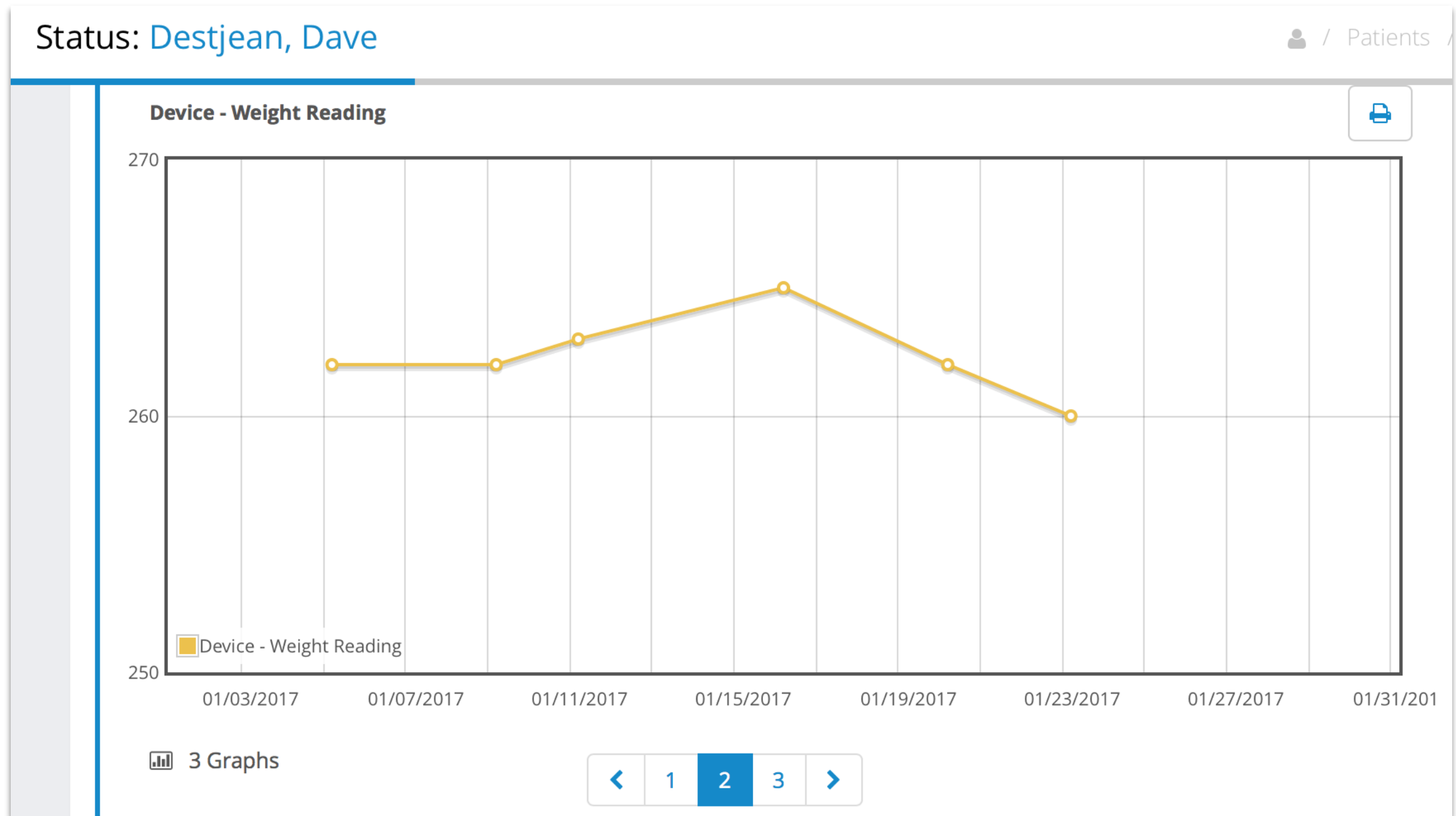
Pause

Save & Close

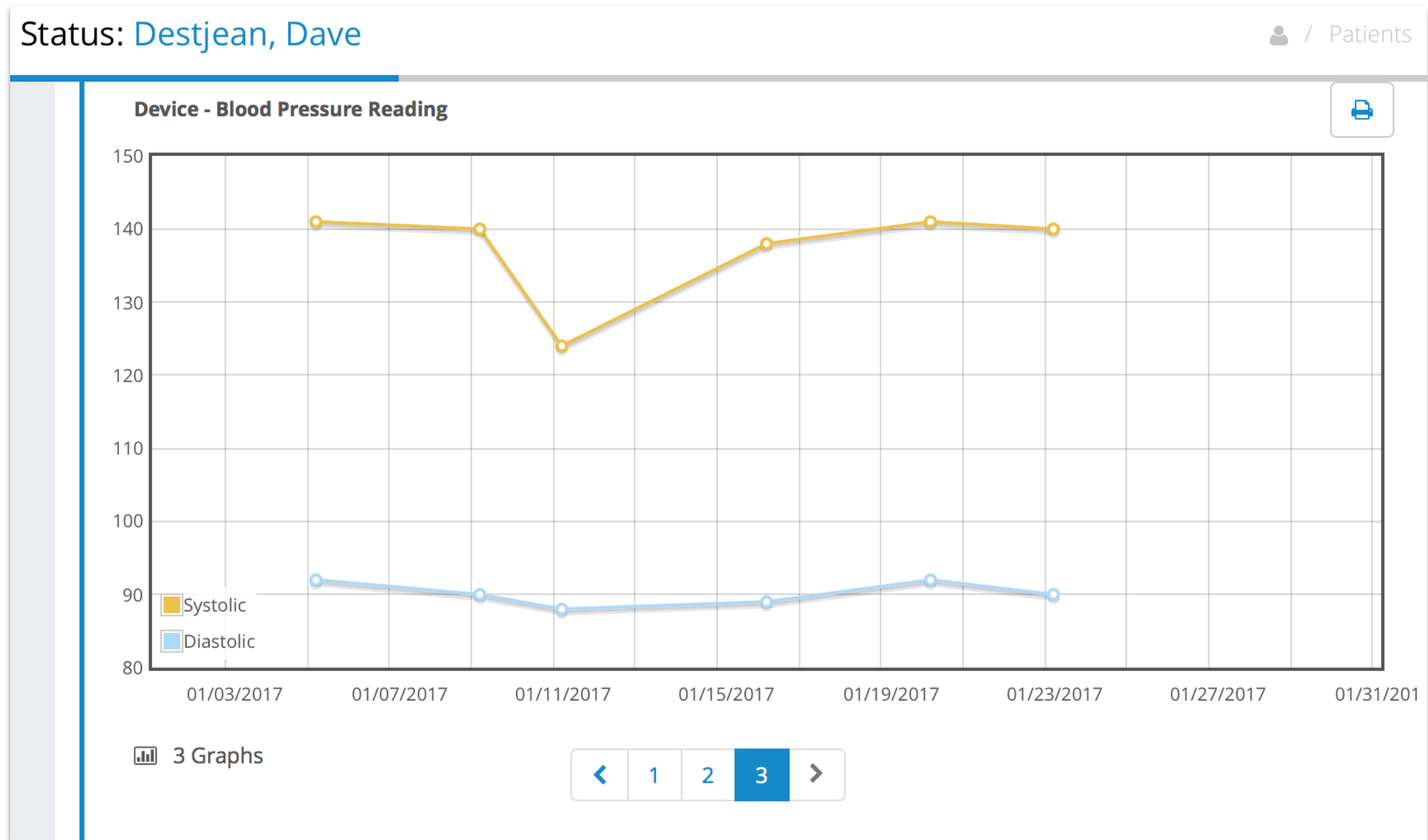
Mark Complete



Reporting Capabilities - Trending (Weight)



Reporting Capabilities - Trending (Blood Pressure)





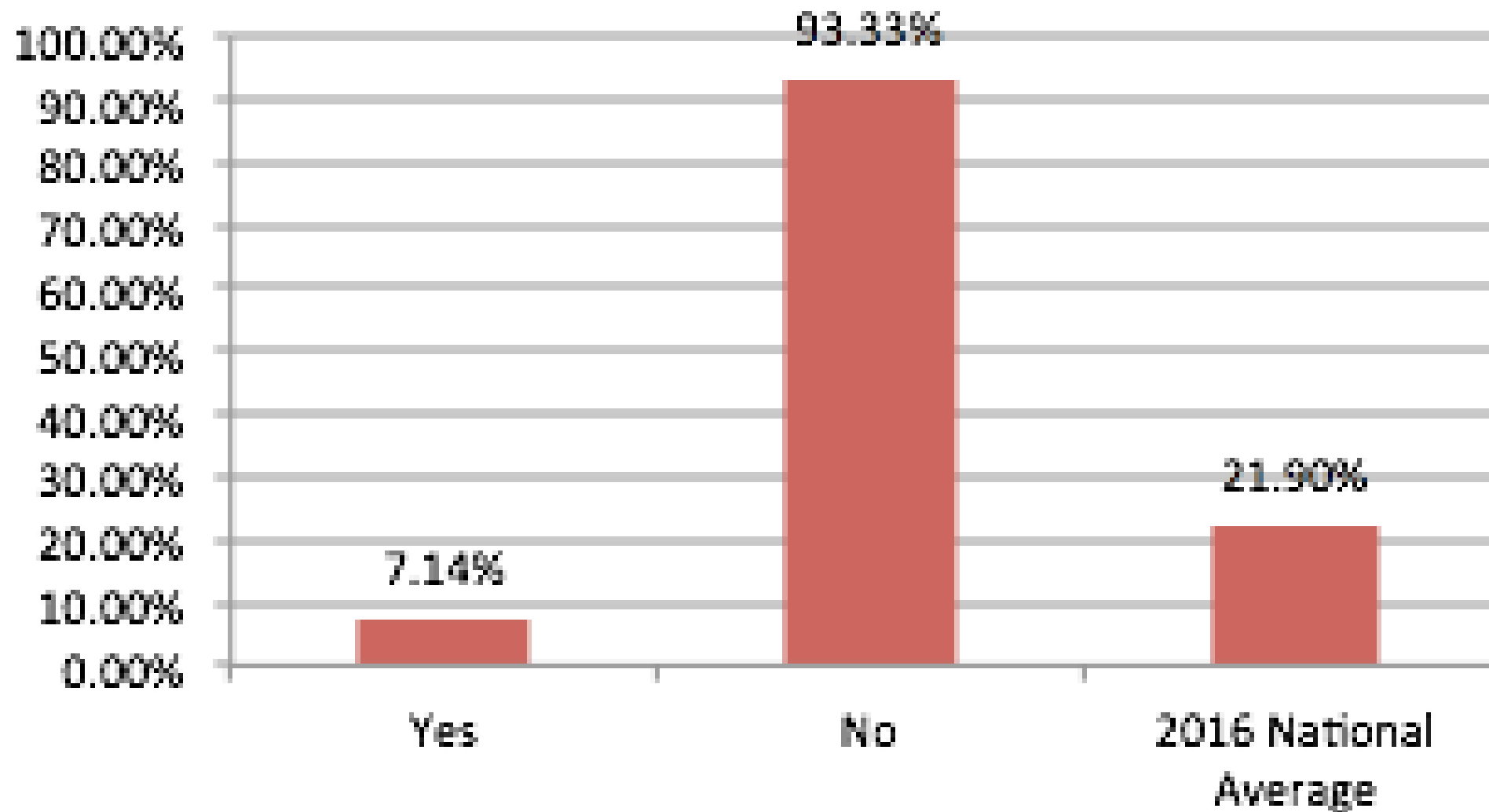
What Effect can Integrating Technology into the COPD Post Acute Care Environment have on 30-Day Readmission Rates?



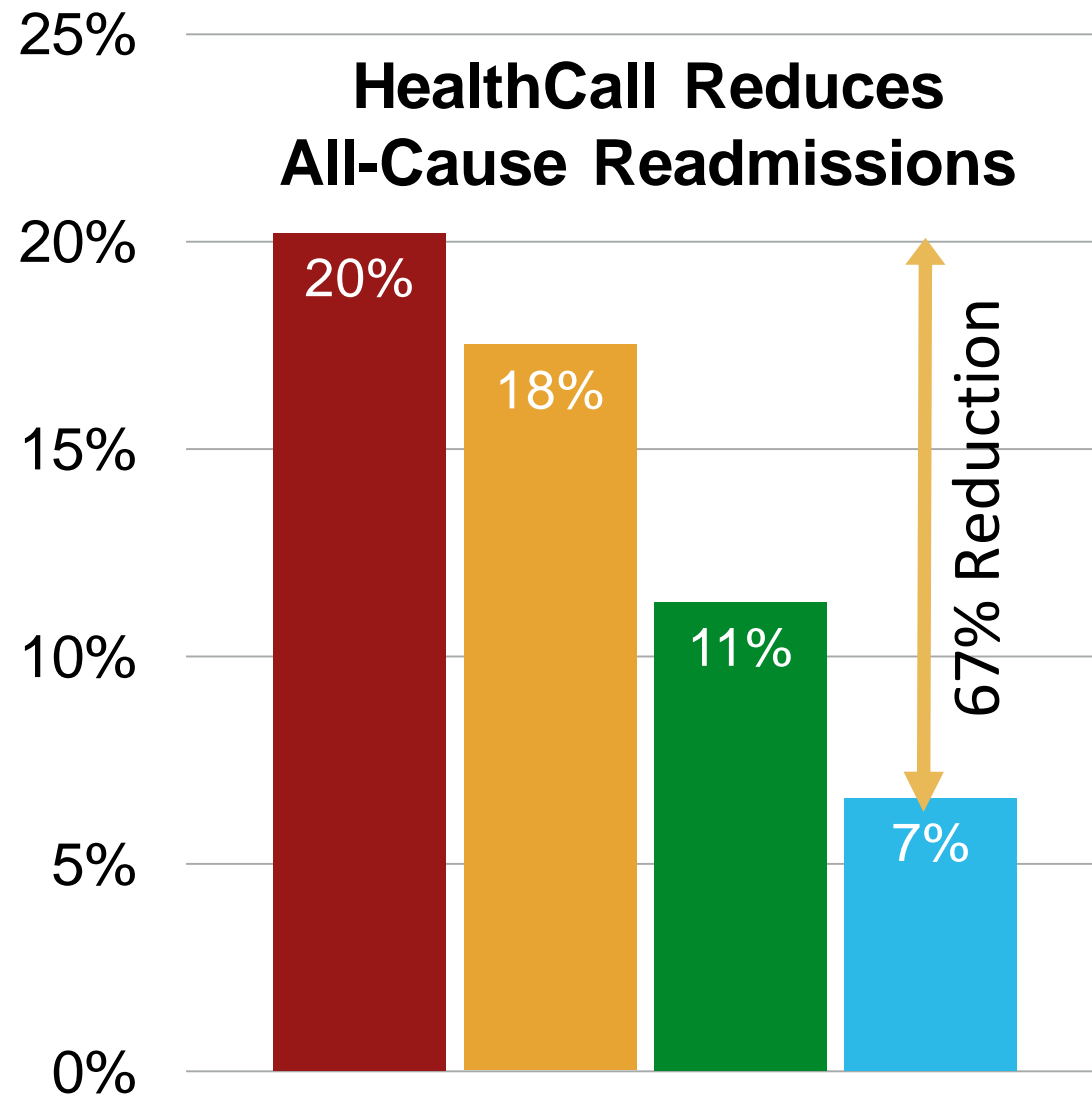
Community Paramedicine Performance

Heart Failure Results - Fishers Fire Department

30-Day Post Discharge Readmission Rates



Outperforming the National Average



These are real world results, not a research study, with nearly 16,000 patients across multiple service providers nationwide.

- U.S. National average COPD readmission rate: 20.2%
- CMS all-cause readmission target: 17.5%
- HealthCall all client average readmission rate: 11.33%
- HealthCall all client median readmission rate: 6.67%
- N=15,924, n=7,981, 99% confidence, 3% margin of error



Coordinating Patient Care

- Building a patient-centric care team
- Communicating with each patient's providers
- Being transparent, keeping providers involved
- Keeping up with changing providers
- Using HC technology to build care teams like social networking



United States Variables - Reimbursement

- Reimbursement Systems in the United States - This process is in flux with the election of a new President, which include
 - Pay for Performance Systems
 - Bundled Payment Systems
 - National, State and Private Insurance payment streams
 - Uninsured citizens





Thank you!

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