

# **HOSPITAL TO HOME INITIATIVE**

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DIRECTOR, HEART FAILURE  
PHOENIX VAHCS  
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# Background

- CHF QUERI / Heart Failure (HF) Network launched VA Hospital to Home (H2H) quality improvement initiative
  - Co-sponsored by the ACC and IHI
- Phoenix VAHCS chose a pro-active approach to driving facility quality
- National Goal: Reduce 30-day all-cause HF readmissions by 20% by 2012



# *Background*

- 25% percent of HF patients are readmitted within 30-days
  - **Significant costs**
- Causes of readmission are multi-factorial, not always cardiac
- Transition to home is an area of increasing importance
- Recommended H2H Focus areas:
  1. Medication management
  2. Symptom management
  3. Early hospital follow-up

# *Analysis*

- Phoenix HF outcome data from VSSC was not specific or timely
  - Needed patient-level data
    - Number of monthly HF patients discharges
    - Days to follow up Cardiology appointment
    - ED visit rate
  - Post discharge clinic access was limited
    - No facility –wide recommendation regarding timing or need for post-hospital follow-up
- **The focus of this project was early hospital follow-up**

# *VA TAMMCS Model*

- Assembled a team
- Reviewed the literature
- Reviewed the data
- Developed the flow map from the time of a discharge decision to follow-up appointment with Heart Failure Clinic
- Developed the ideal flow map
- Developed an Early Follow-up Plan
  - Conducted six (6) P-D-C-A cycles that resulted in improvement
- Developed a plan for sustain and spread

# *AIM Statement*

Discharged patients with primary diagnosis of HF will be seen  $\leq 7$  days (median) in HF clinic by April 30, 2012.

# *Secondary Outcomes*

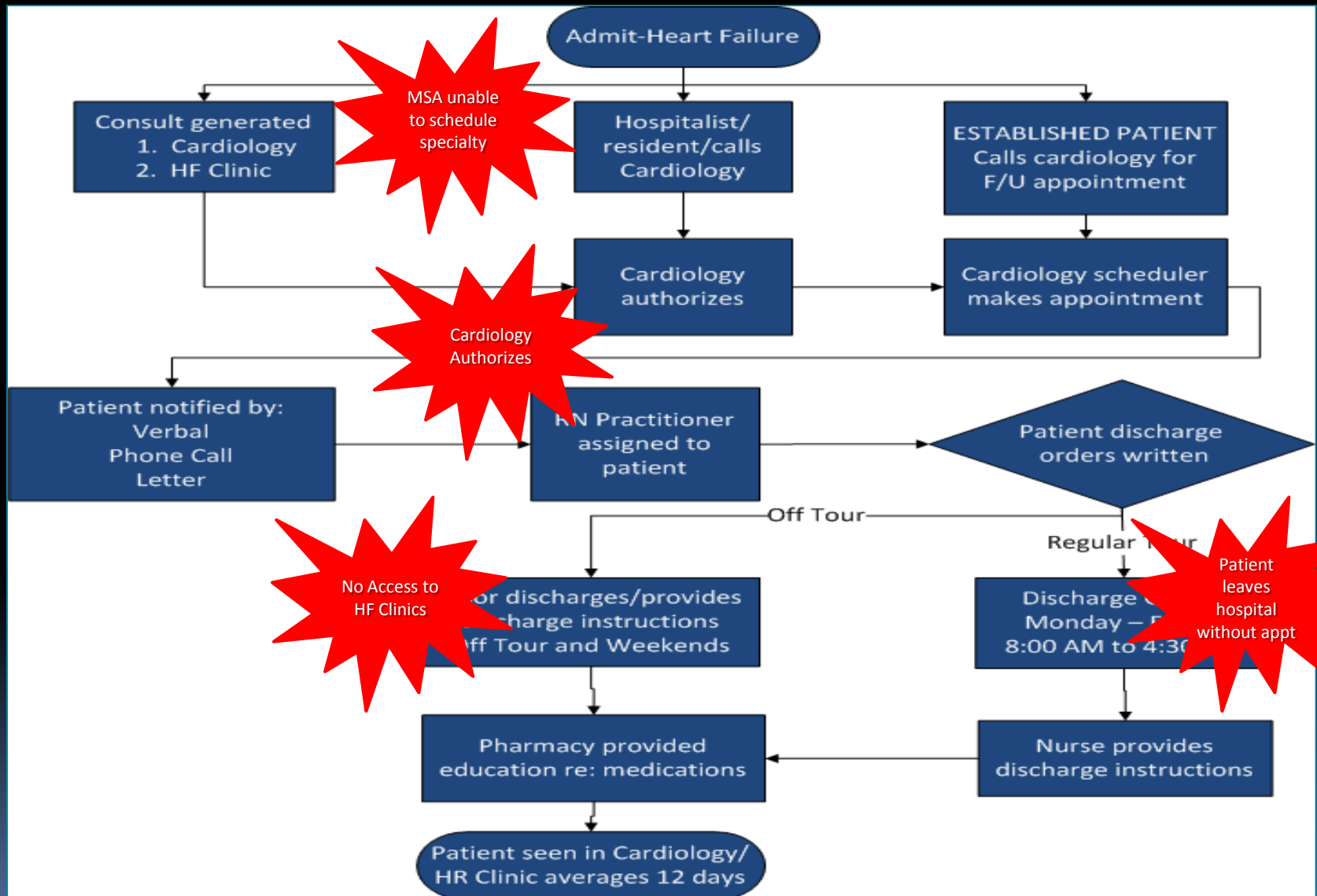
## **1. Assess HF discharge outcomes at Phoenix VAHCS**

- a) 30-day Emergency visit rate (all-cause)
- b) 30-day Readmission rate (all-cause)

## **2. Measure**

- a) Monthly HF discharges
- b) Length of stay

# Current Process Map – HF Discharge





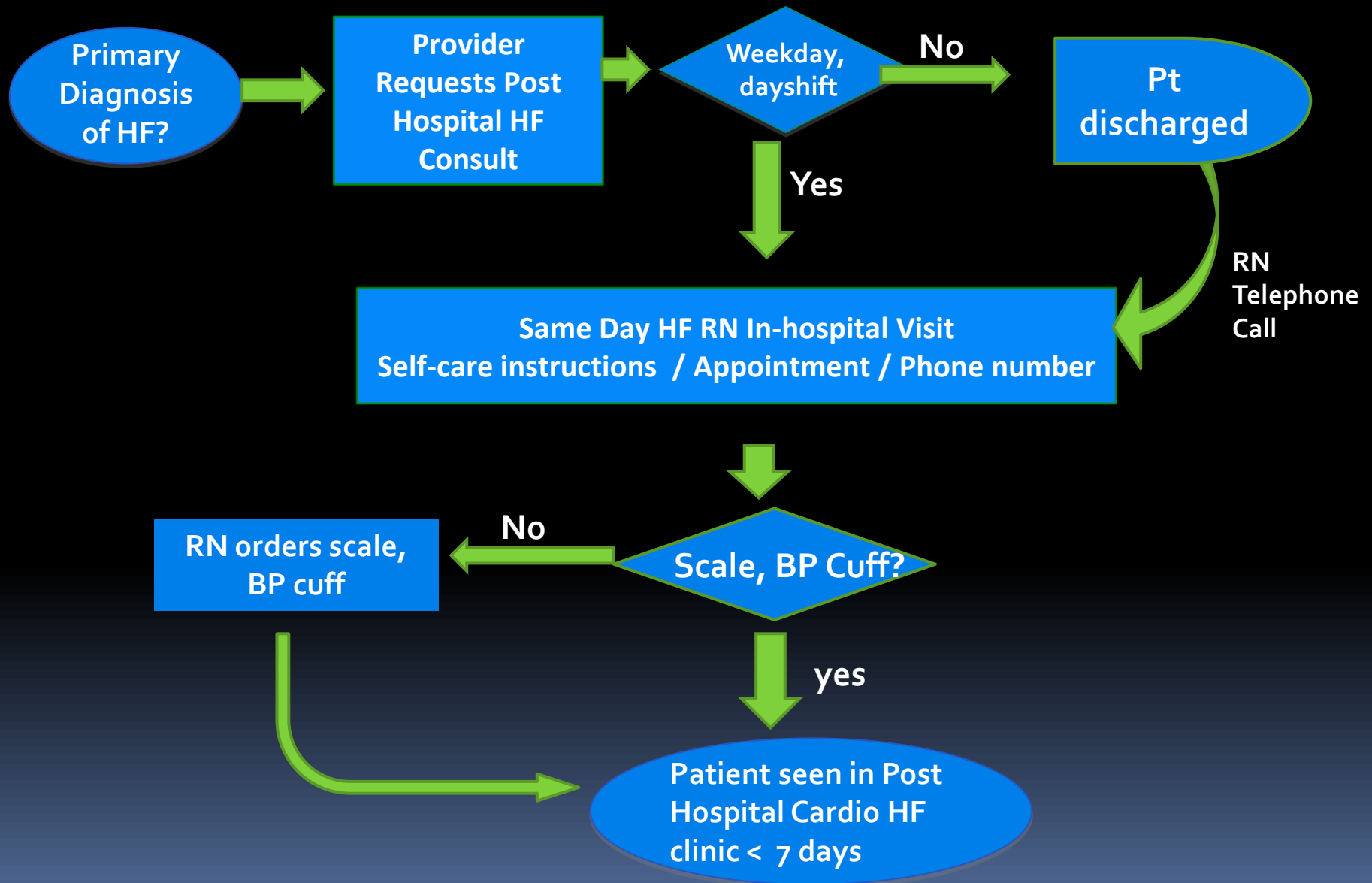
# *Initial Implementation: Early Follow-Up Plan*

1. Pilot early-access Post Hospital HF Clinic
  - a) 12+ slots per week 'carved out' of existing schedule
  - b) Schedule in HF clinic within 7-days
2. Remove barriers - eliminated Cardiology MD authorization
  - a) Consults triaged and scheduled same day
  - b) Day of discharge consult request
3. RN reassigned to HF Triage Nurse role to answer patient phone calls

# Additional Implementation Steps

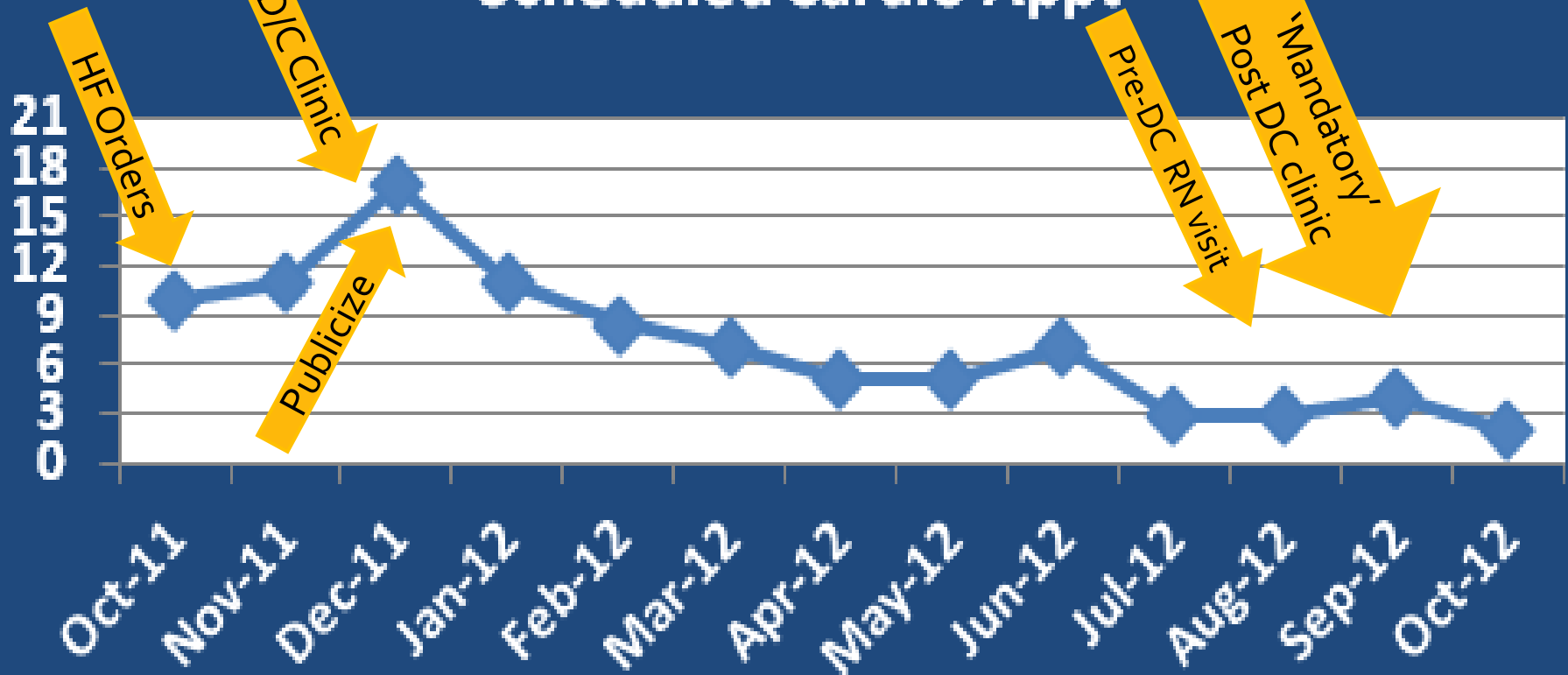
- 1. HF RN face-to face visit**
  - a) Same-day pre-discharge
  - b) Self care, scale, BP cuff, appointment instructions
  - c) Consults print to her printer
  - d) Publicize new process to hospitalists
- 2. Simplified consult template**
  - a) Explain goals, entry criteria, referral process
  - b) Include community HF discharges
- 3. Make Post Hospital Clinic 'mandatory'**
- 4. CPRS HF order set**

# Current HF Referral Process



# Primary Outcome –Time to Follow-up

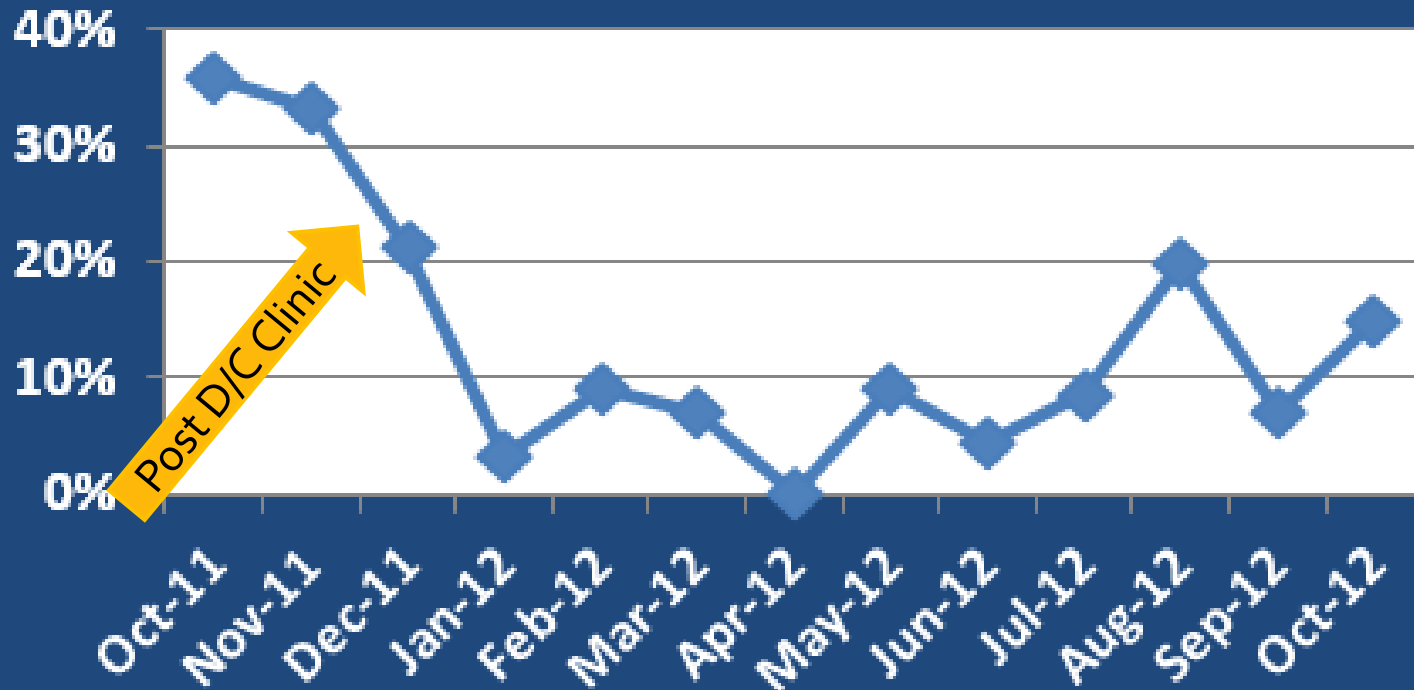
## Median Weekdays Post Discharge to Scheduled Cardio Appt



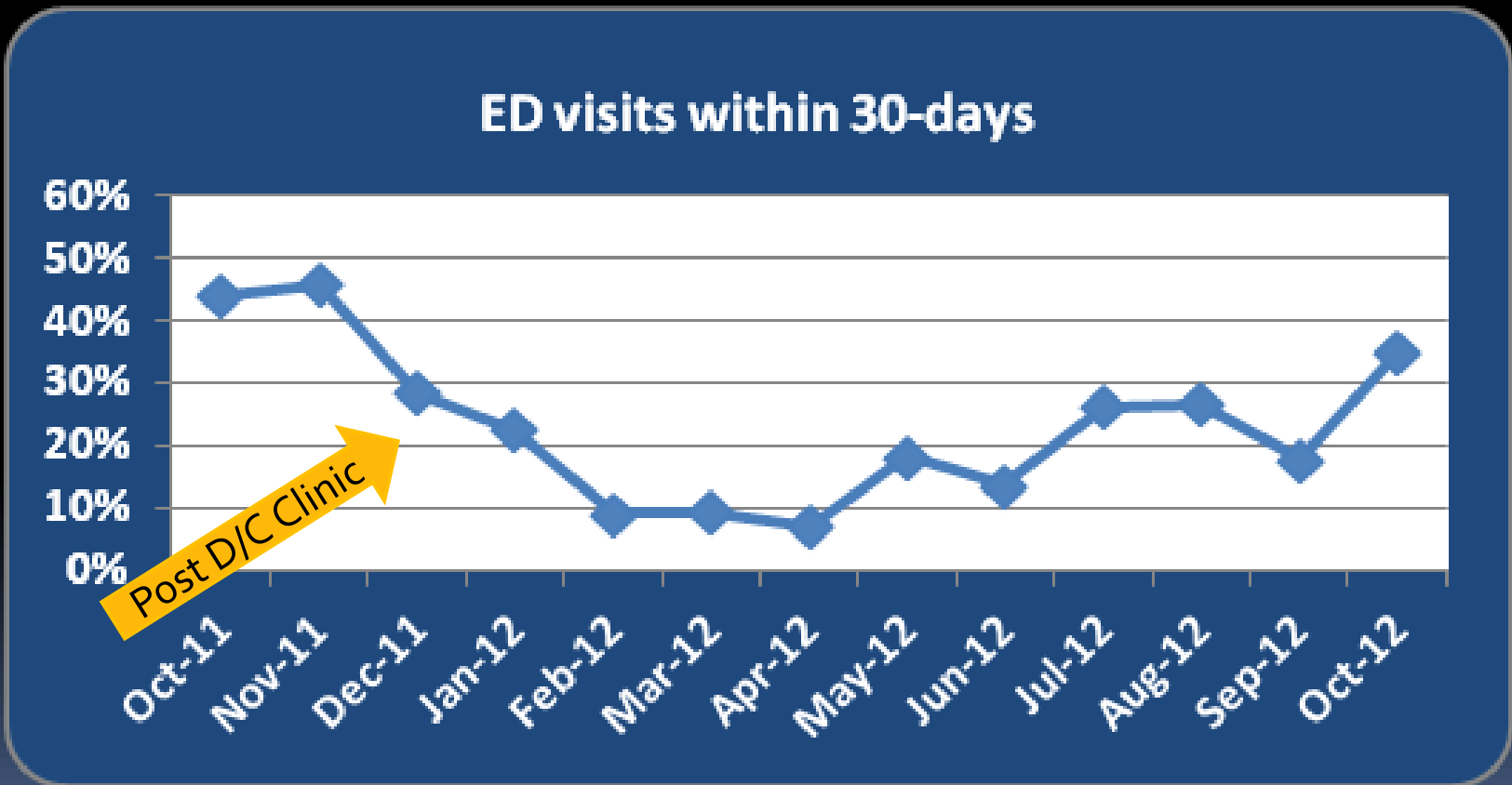
# *Secondary Outcomes*

## *Readmission*

30-day Re-admission Rate (all cause)

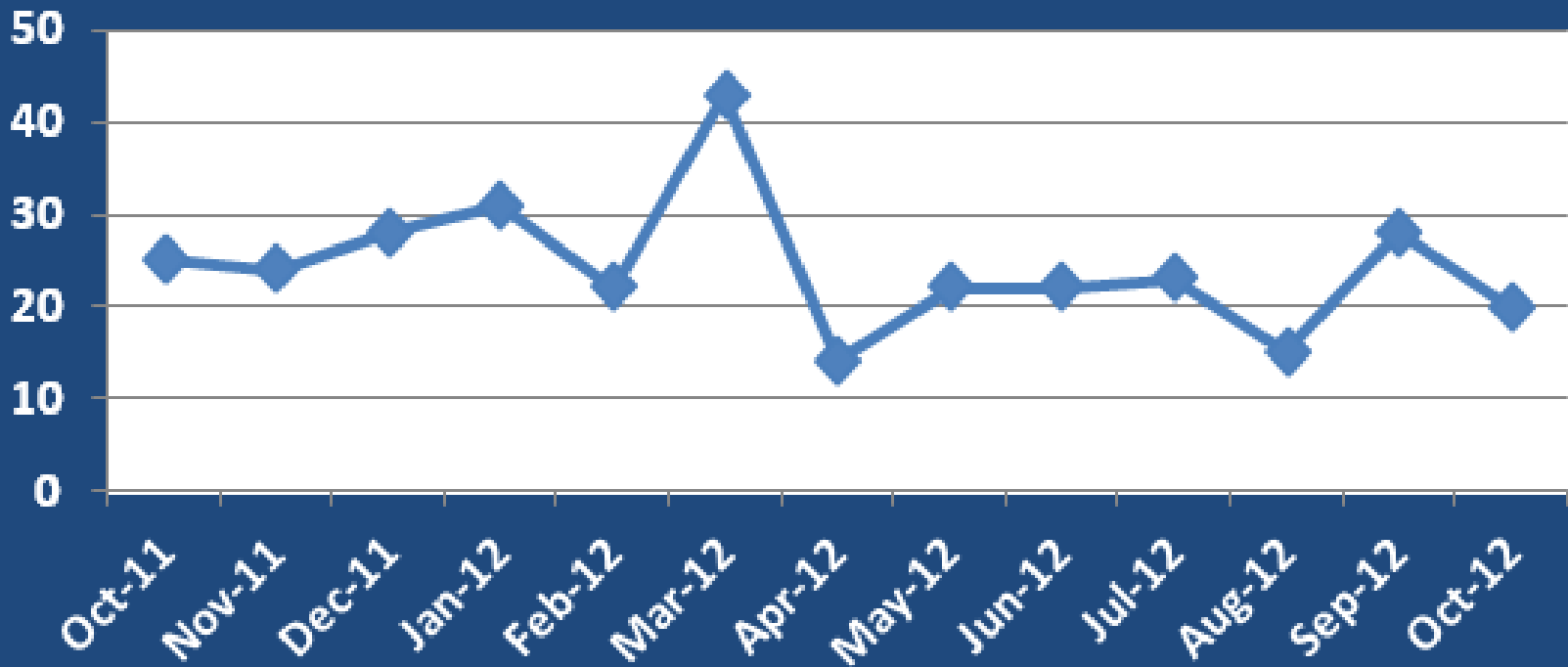


# *Secondary Outcomes – Percentage All-cause Emerg. Dept. Visit*

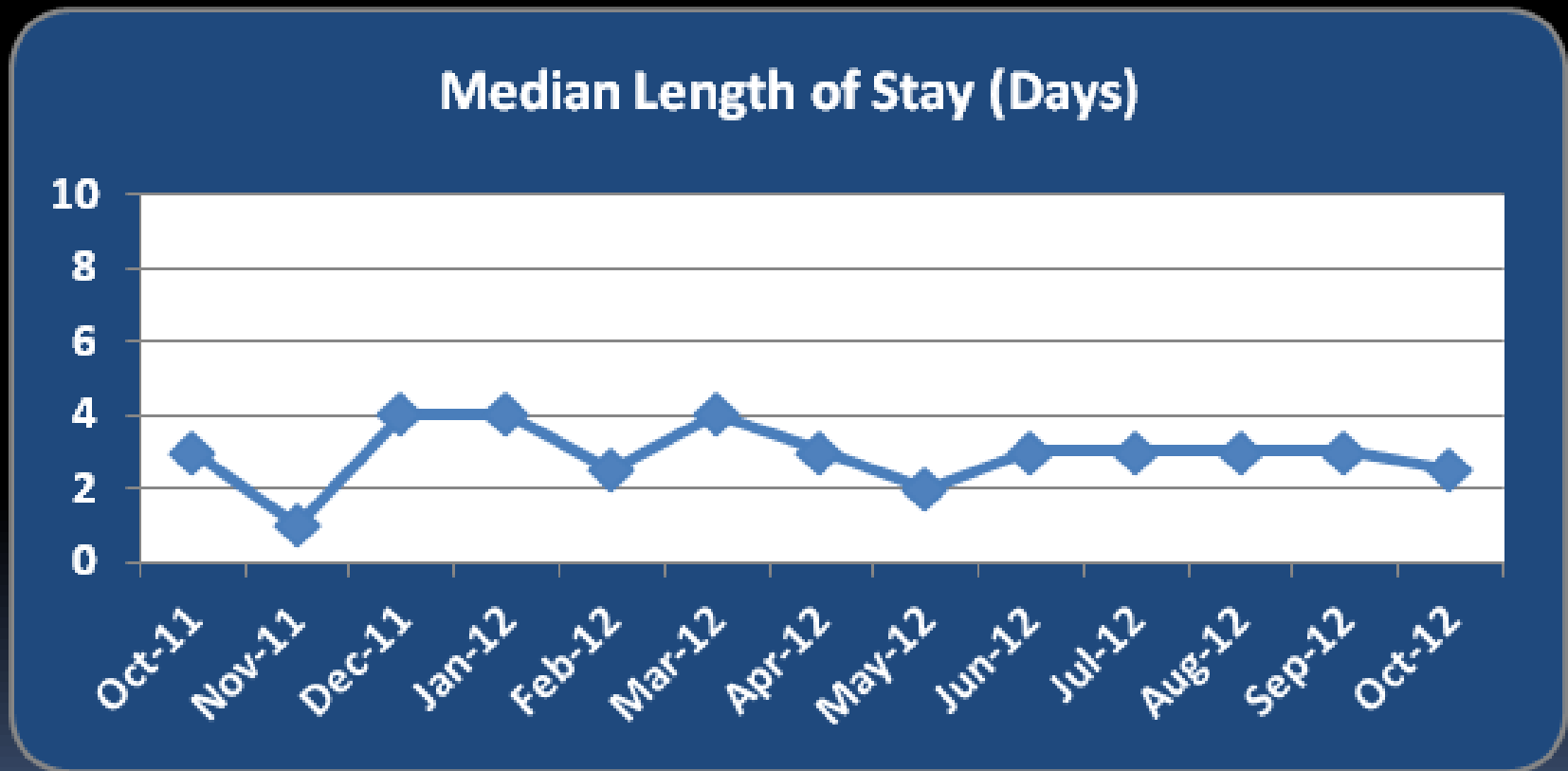


# *Secondary Outcomes – Validate Monthly Primary HF Discharges*

Monthly Heart Failure Discharges



# *Secondary Outcomes – Measure Length of Stay*





# *Projected Annual Cost Avoidance*

*Calculated June 2012*

## 1. Reduced HF readmissions

- 78 readmit avoided/yr x mean LOS 5.4 d x \$1720/day = \$724,000 per year inpatient cost avoided

## 2. Reduced 30-day Emergency visits

- 109 ED visits avoided / yr x \$408/ ED visit = \$44,580 per year

## 3. Conservative estimate –

- Does not include cost savings of avoided Community Fee Basis, increased bed availability

***Total = \$768,580 / yr***

# *Barriers*

1. Absence of team training in system redesign
2. Limited contact with other VAMCs involved in H2H
3. Cardiology staff reported to different services (Medicine, Nursing, HAS)
4. Transitions in executive and team leadership
5. Lack of patient-level data to inform decision-making, analysis
6. Lack of clear team incentives
7. Complexity of VA scheduling process

# *Facilitators*

1. Leadership from co-chair, Phoenix VA Quality Improvement Director
2. Supportive executive leadership
3. VISN 18 Quality forum, Phoenix VA quality expo (1<sup>st</sup> place)
4. Committed and supportive team members
5. VA HF Network conference calls
6. Physician champion in Cardiology

# Conclusions

1. The primary AIM was achieved
  - Reduced median weekdays to Cardiology follow-up from > 10 d to < 3 d
2. Secondary outcomes improved
  - a. 30-day all-cause Re-admissions from >30% to ≈15%
  - b. 30-day Emergency visits initially reduced from 45% to 25%, now rising
3. Length of stay remained unchanged
4. Validated the # monthly HF discharges ≈ 25 / month

# *Conclusions*

4. No additional staff FTEs were required
5. Significant cost-avoidance, \$768,580 / year
6. Possible improved patient satisfaction from timely care, improved access

# *Limitations*

- **Did not exclude palliative care patients (in contrast to VSSC) from outcome measures**
- **Days to Cardiology follow-up was calculated as weekdays instead of calendar days**

# *Sustain & Spread*

## *(Next Steps)*

- 1. Continual improvement**
  - 1. New metrics (scale/BP cuff, education), drill down**
- 2. HF Education class**
- 3. Shared medical appointment for HF**
- 4. HF Toolkit Pre discharge - BP cuff, scale at point-of-care**

# Team

- S. Dev, MD, Leader
- K. Shepard, RN, Facilitator
- D. Tumbiolo, RNP
- H. Hatseras, RD
- J. Crawford, MD
- J. Bertrand, DSS
- A. Wisdom, RN
- M. Cangco, RN
- C. Taylor, PharmD
- N. Biehl-Judge, RNP

## Ad Hoc:

M. Chesser, MD; C. Gallogly Informatics, C. Burke, MD; L. Hopper, RN; C. Harney, RN; M. Stites, RN; M. Vito, RN; P. Craft; R. Martin; M. Duffy, MD; D. Simon, DSS; M. Lazkani, MD





Cardiology Outpatient Consult Order Lipid Panel if none last 11 months

Post Hospital Heart Failure Clinic Consult

8 CARDIAC REHAB EVALUATION

Pre Cardiac Cath Consult

**Objective:**

The goal of this clinic is to 1) see HF patients within 7 days after hospital discharge or emergency department visit and 2) schedule patient appointment prior to hospital discharge.

**Entry criteria:**

1. Primary diagnosis of acute decompensated HF as cause of hospital admission/ED visit (VA or non VA facility)  
OR Secondary diagnosis of HF as significant contributing diagnosis to recent hospitalization as deemed by referring provider.

**You can expect the following from us:**

Evaluate and treat patient for 1 post hospital visit. We will see the patient up to 3 times for stabilization visits. Thereafter we will

A) Make recommendations for subsequent follow up with Primary Care OR  
B) Accept patient into Advanced HF clinic if they meeting criteria for advanced HF (stage C to D and NHYA class 3 to 4 symptoms).

[Click here for signs of Advanced Heart Failure](#)

**Please order following tests if possible to expedite diagnosis/treatment**

Inpatient BMP and BNP (within 7 days of hospitalization) [click here](#)

Outpatient BMP and BNP (within 7 days of hospitalization) [click here](#)

↩ Echocardiogram (if no Phoenix VA echo within 3 months of hospitalization)

[Click here to order POST HOSPITALIZATION HEART FAILURE CLINIC CONSULT](#)

↩ If patient has a Pacemaker please order Pacemaker Surveillance [CLICK HERE](#)

Post-Hospital Heart Failure Clinic Consult

\*\*\*\*\*

Please schedule with a goal of 14 day followup, but ideally within 7 days  
\*\*\*\*\*

Cardiology Phone:Main Desk Extension 2323

Fax: 602-222-2739 (for patient records)

Call or page HF Nurse Coordinator Andrea Wisdom at Extension 7403  
or 779-1325 you need further assistance.

Aim:

- 1.Improve the 30-day rehospitalization rate, quality of life, and access to care in Veterans with heart failure (HF) :
  - a.In collaboration with the American College of Cardiology/VA HF Network Hospital-to-Home Initiative

Specific Goals:

- 1.Evaluate all HF patients WITHIN 7 days after PHOENIX VA HOSPITAL discharge or emergency department visit.
- 2.Evaluate all HF patients WITHIN 14 days after COMMUNITY HOSPITAL discharge or emergency visit.

Note -

If patient was discharged > 30 days prior to consult request, please order routine OUTPATIENT CARDIOLOGY CONSULT.

Patients who are unable to be scheduled within the recommended time frame will be triaged appropriately by the HF nurse coordinator and telephone appointment will be performed when appropriate.

Consult Requirements - Target Patient Population:

1. PRIMARY diagnosis of acute decompensated HF as cause of hospital admission / ED visit
- OR
2. SECONDARY diagnosis of HF as significant contributing diagnosis to recent hospitalization if justified by referring provider.

Intake questions :

- 1.Was the patient's PRIMARY discharge diagnosis decompensated HF? \* Yes  No
  - a.If HF was a SECONDARY diagnosis, please justify whether HF was a significant factor leading to admission and whether early hospital

 **Template: POST HOSPITAL HEART FAILURE CLINIC**

Intake questions :

1. Was the patient's PRIMARY discharge diagnosis decompensated HF? \* Yes  No
- a. If HF was a SECONDARY diagnosis, please justify whether HF was a significant factor leading to admission and whether early hospital follow-up is necessary. Please mention if there are signs of advanced HF.
- [Click here for definition of advanced HF].  
Inadequately justified requests will be cancelled and recommended for OUTPATIENT CARDIOLOGY CONSULT.

2. Is patient current hospitalized at Phoenix VAMC? \* Yes  No
- a. (If yes) what is anticipated discharge date?
- b. (if yes,) Have you ordered weigh scale from Prosthetics?  
\* Yes  No  N/A
- c. (if yes) Have you ordered a BP cuff from Prosthetics?  
\* Yes  No  N/A  
(If no) For patients already in outpatient setting, please order the following tests (next available):  
chem14, serum blood natriuretic peptide (BNP), CBC, Echocardiogram (if no Phoenix VA echo within 3 months)
- d. (if no) Was patient discharged from COMMUNITY HOSPITAL/EMERGENCY DEPT?  
\* Yes  No
- e. (if yes) Please request relevant records - cardiac cath, cardiac hospitalization, echo, nuclear stress, cardiology.
- f. (if yes) Are relevant records already scanned in the chart?  
\* Yes  No  N/A
- g. (if yes) Sent for scanning? \* Yes  No  N/A
- h. (if yes) Have records been requested? (Please forward to Penny Craft in Cardiology Rm 4123, Fax 602-222-2739) \* Yes  No  N/A

If yes, please order pacemaker surveillance on the Post Hospital Heart Failure Order Screen.

3. Please enter a brief clinical history and any specific questions, if applicable:

4. Does patient have defibrillator or pacemaker? \* Yes  No
- a. If yes, please order a pacemaker check (surveillance).

5. Is the discharge summary available regarding the most recent or current admission? Please specify.

All

None

\* Indicates a Required Field

Preview

OK

Cancel