IMPLEMENTATION OF TRANSITION OF CARE MODEL IN CHF TO REDUCE REHOSPITALIZATION RATES

Wen-Chih Hank Wu, MD, MPH
Providence VA Medical Center
Associate Professor of Medicine Brown Universityy

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DISCLOSURES

- VA HSRD CHF QUERI
- VA HSRD DM QUERI
- American Heart Association
- Rhode Island Foundation

BACKGROUND

- More than 1/3 of heart failure patients require frequent hospitalizations or placement in long term care
- Approximately 50% of the readmissions were possibly or probably preventable
  - Individual factors
  - System factors

Krumholz, Arch Int Med1997
Fried, J Am Ger Soc1997

BACKGROUND

- Individual factors:
  - Noncompliance with medications (15%)
  - Diet (18%)
  - Failed social support system (21%)
  - Failure to seek medical attention promptly when symptoms recurred (20%)

Vinson, J Am Ger Soc 1990
Oddone, J Gen Int Med1996

BACKGROUND

- System factors:
  - Inadequate discharge planning (15%)
  - Inadequate follow-up (20%)
  - Lack of patient and caregiver education
  - Poor continuity of care
    - lack of inpatient – outpatient provider communication
  - Limited access

Vinson, J Am Ger Soc 1990
Oddone, J Gen Int Med1996

OBJECTIVE

To implement a hospital-wide, pharmacist-led CHF Transition of Care Program (CHF-TCP) to reduce 30-day rehospitalization rates

METHODS

- Operational partners:
  - Chiefs of Medical Service and Cardiology)
  - Mandatory referral to CHF-TCP for all patients admitted with presumed CHF diagnosis within 24h of admission.
  - Telehealth
  - Discharge Planning
- Team:
  - Pharm D
  - NP
  - RN

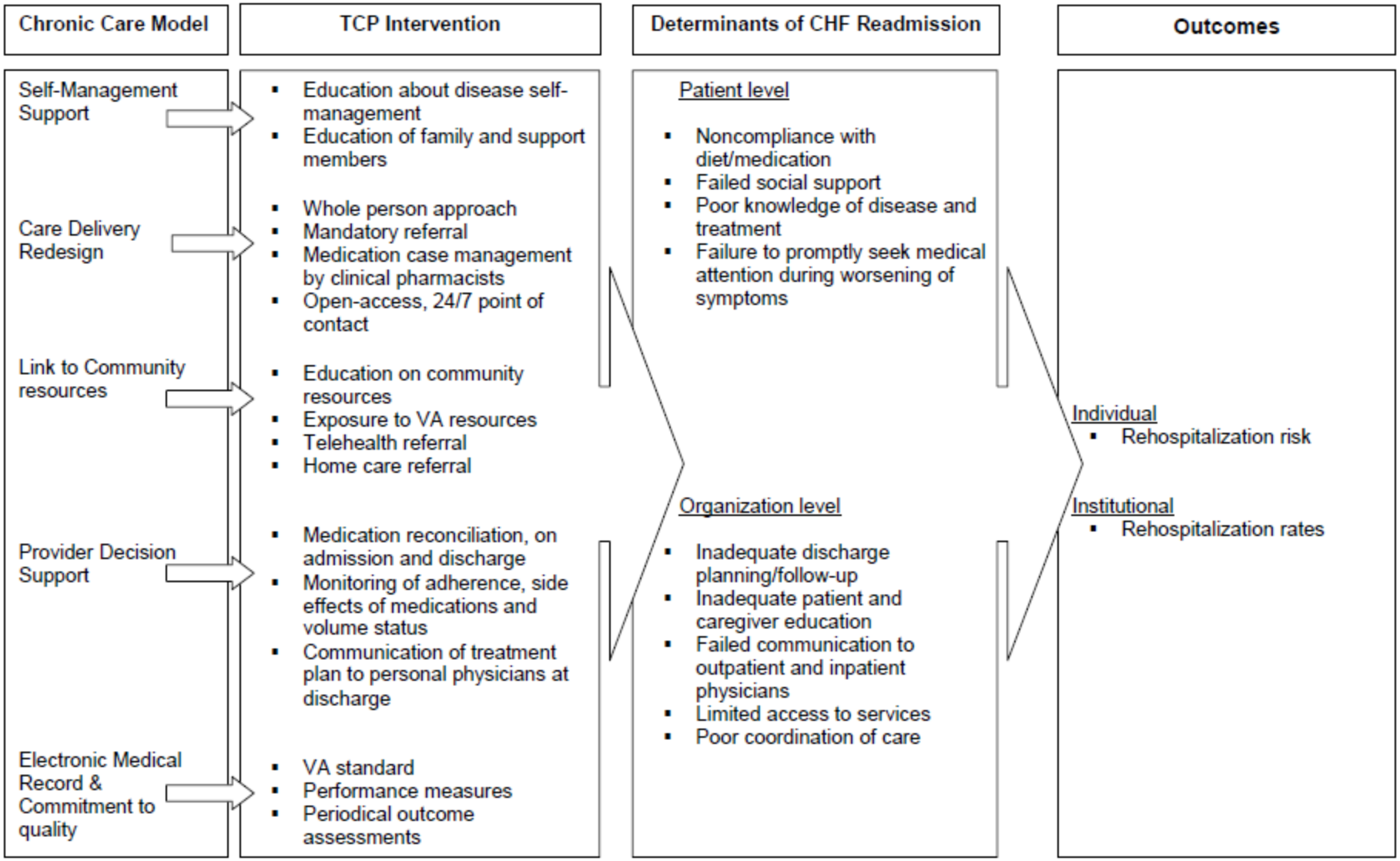
METHODS

CHF-TCP consisted of:

- Medication reconciliation prior to discharge
- Self-management education prior to discharge
- Communication of discharge medication to PCP
- Open access clinic visit for medication reconciliation and dose optimization in CHF within 2 wks post discharge

Theoretical Underpinning of CHF-TCP Intervention

Alignment of VA Resources with **Service Delivery Constructs** of the Chronic Care Model
Intervention Constructs Drawn from the Patient-Centered Medical Home principles



ANALYSIS

- Compare risk-adjusted 30-day rehospitalization rates before (up to one-year) and during the implementation of CHF-TCP at both the patient and the hospital levels.
- Patient level data: chart abstraction
- Hospital level data: VA datasets - PTF

RESULTS – Patient Level

- Time Frame of the intervention
  - 3/1-2011 – 2/28/2012
- Unique patients treated
  - 67
- Encounters
  - Inpatient: 82
  - Outpatient: 192
- Crude 30-day readmission rate:
  - 16/67 = 23.9%

RESULTS – Hospital Level

- Dataset time frame:
  - Control group: 3/1/2010 – 2/28/2011
  - Treatment group: 3/1/2011 – 1/31/2012
- Unique patients:
  - Control group: 167
    - 147 after exclusion of death <30 days (12.0%)
  - Treatment group: 115
    - 98 after exclusion of death <30 days (14.8%)

RESULTS – Hospital Level

- Crude 30-day rehospitalization rates
  - Control group: 25.9%
  - Treatment group: 26.5%

- Adjusted risk of 30-day rehospitalization:
  - Adjusted Odds Ratio = 0.85 (95%CI 0.44-1.65)
  - Excluding NH discharge:
    - Adjusted Odds Ratio = 0.78 (95%CI 0.38-1.60)

RESULTS – Hospital Level

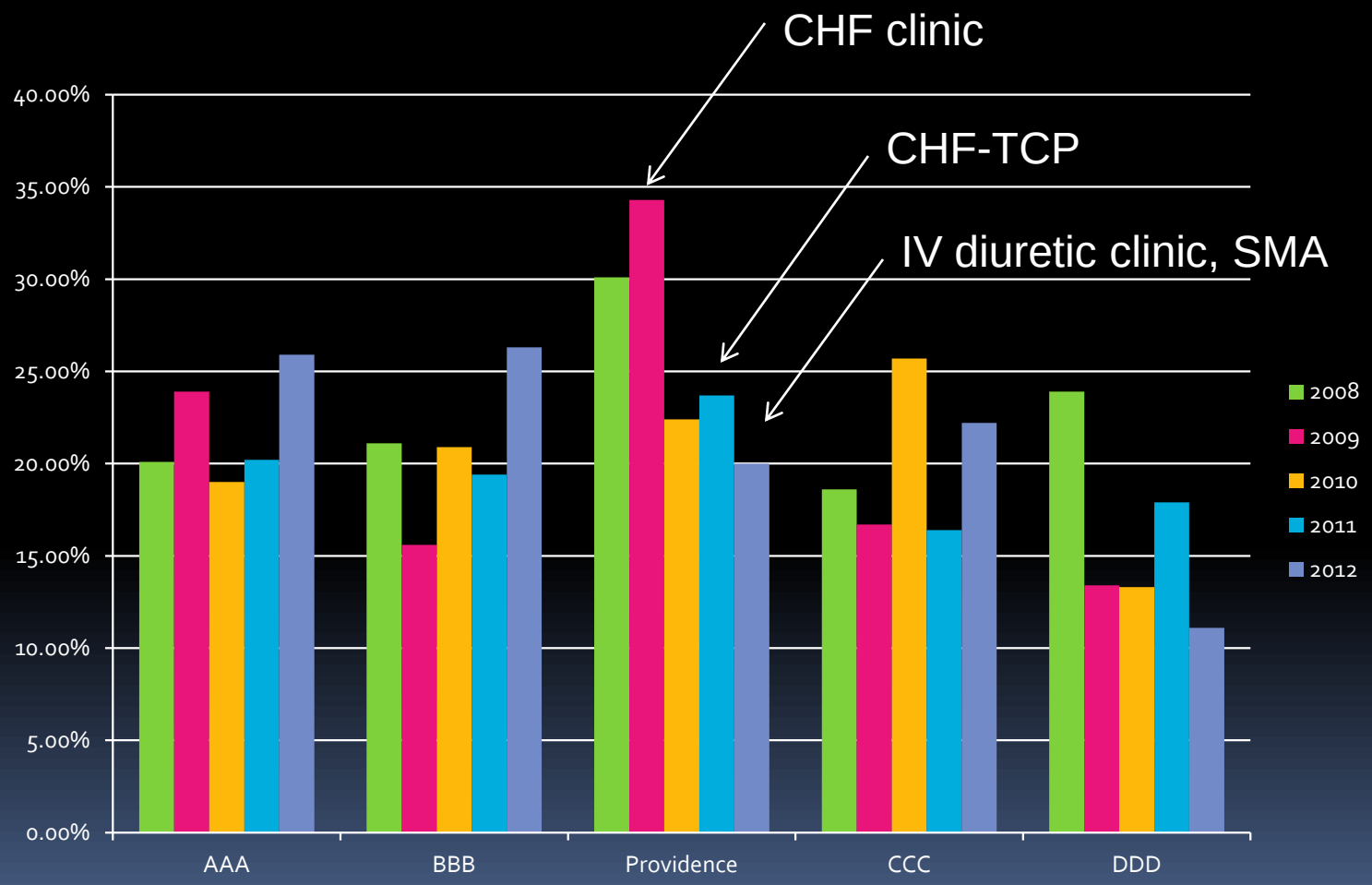
- Risk Adjustment Model:
  - Age
  - Hematocrit
  - Creatinine clearance
  - Charlson comorbidity score
  - CHF admissions prior 6 months
  - Hospitalizations prior 6 months

CONCLUSIONS

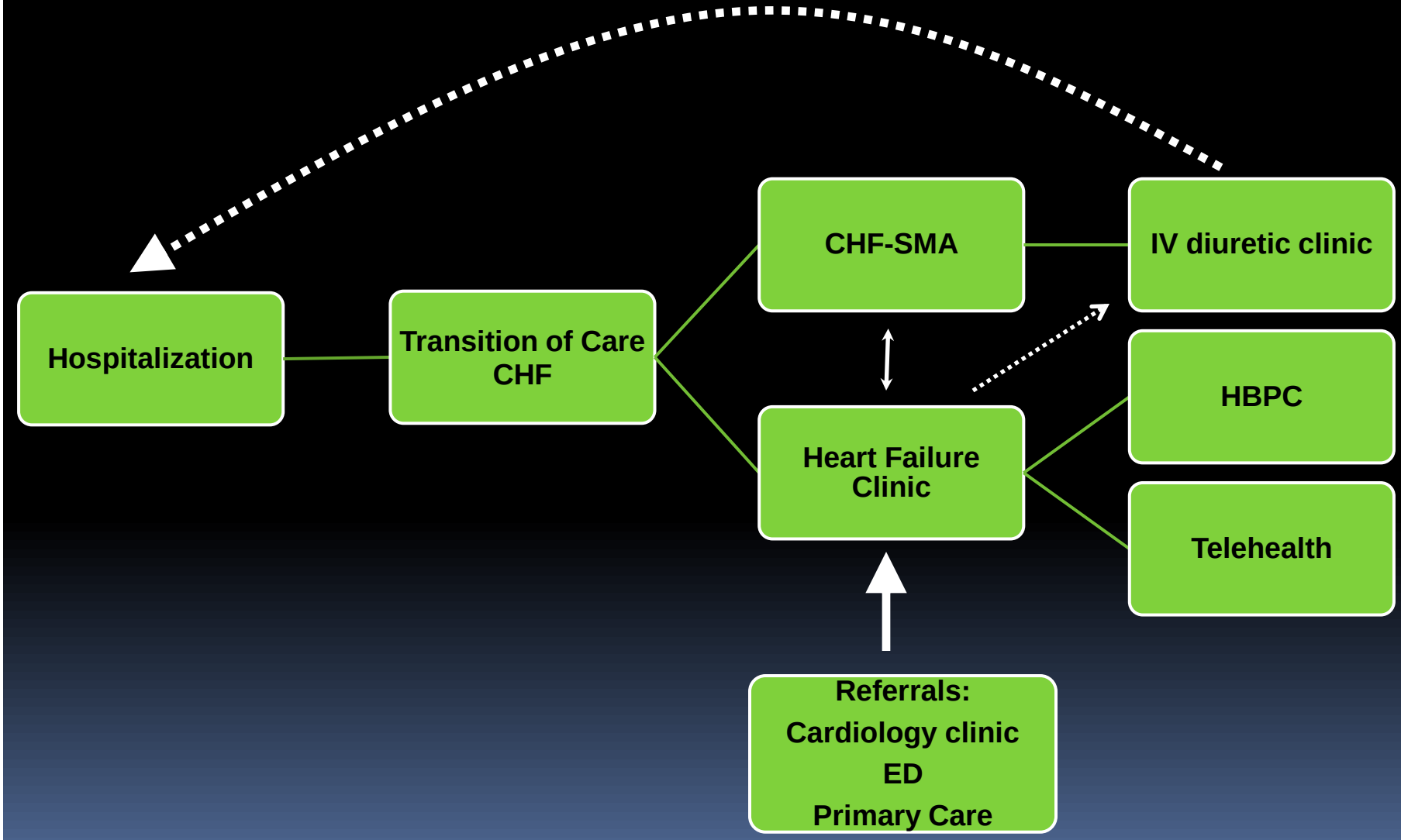
- Implementation of the CHF-TCP was successful at Providence VAMC
- Given partnership with operational partners and use of pre-existing staff, the model is potentially sustainable
- CHF-TCP is still currently active at Providence VAMC

CONCLUSIONS

- We were unable to show a statistical significant impact due to limited sample size
- Results displayed important trends on the potential positive impact of a transition of care program in CHF to reduce 30-day readmission rates
- Results also serve as pilot data for the design of studies with broader implementation of CHF-TCP programs


CHF clinic
CHF-TCP
IV diuretic clinic, SMA
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
AAA
BBB
Providence
CCC
DDD
2008
2009
2010
2011
2012

Organization of CHF Care



Co-Investigators

- Andrea Dooley, Pharm.D.;
- Lan Jiang, M.S.;
- Gaurav Choudhary, MD