

**2013 NATIONAL HEALTH CARE FOR  
THE HOMELESS CONFERENCE &  
POLICY SYMPOSIUM**

WASHINGTON, D.C., MARCH 14-16, 2013

THURSDAY, MARCH 14, 2013, 1-2:30PM

**HomeBase**

*Advancing Solutions to Homelessness*

# **SERVING MENTAL HEALTH CLIENTS IN RESPITE CARE**

CHALLENGES IN DEMONSTRATING COST-EFFECTIVENESS

**HomeBase**

*Advancing Solutions to Homelessness*

# SPEAKERS

- **Dr. Nishant Shah, MD, MPH** – Medical Director, Contra Costa County Health Care for the Homeless Project
- **Amanda Stempson, JD** – Staff Attorney, HomeBase
- **Jay Lee, JD** – Staff Attorney, HomeBase

# RESPIRE CARE: WHAT IS IT?

- Acute and post-acute medical care for homeless persons
- Too ill or frail to recover on the streets
- Not ill enough to be in a hospital

# RESPIRE CARE: IN CONTRA COSTA COUNTY



# RESPIRE CARE: IN CONTRA COSTA COUNTY

- Philip Dorn Respite Center – 24 beds
- City of Concord's Adult Shelter facility
- Referrals from all major hospital systems
- Full-time Health Care for the Homeless Nurse
- 226 referrals & 59 placements in July-December, 2012

# RESPIRE CARE: HEALTH OUTCOMES

- 3-4 times more likely to die prematurely
- Lack of a stable home environment diminishes long-term effectiveness of hospital care
- Difficulty following self-care instructions due to stress, exposure, poor nutrition, and limited access to water & bathing facilities

# RESPIRE CARE: MAKING THE ECONOMIC CASE

- System-wide Savings (Kertesz, et al, 2009)
  - 50% fewer hospital readmissions within 90 days of discharge



# RESPIRE CARE: MAKING THE ECONOMIC CASE

- **System-wide Savings (Buchanan, et al. 2006)**
  - 58% fewer inpatient days
  - 36% fewer emergency department visits
  - 12% more outpatient clinic visits during 12-month post-discharge period

# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- But How Much Are We Saving?



# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- (1) Average Cost Comparisons
  - San Francisco Medical Respite & Sobering Center
  - Operating Costs per bed per day = \$180
  - Average CA hospital expenses per inpatient day = \$2,279
  - Difference = \$2,099 per day.
- **BUT Comparing Apples to Oranges?**

# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- (2) Estimating Avoided Bed Days
  - Sacramento Interim Care Program (ICP)
  - Called its 4 referring hospitals every day
    - How many patients they would have referred to respite if beds had been available
  - Average number of days such patients remained in inpatient care vs. average number of days spent in respite care

# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- (2) Estimating Avoided Bed Days (cont.)
  - Every 4 days in ICP saved 1 hospital day.
  - Average ICP costs per bed = \$120
  - Average hospital costs per inpatient bed = \$1,200
  - Cost savings per day = \$720 ( $\$1,200 - 4 \times \$120 = \$720$ )
- BUT Time-Intensive
- Also Relies on Estimates from 4 or more Discharge Planners

# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- (3) Multi-Factor Formula
  - “Utah Formula” from Fourth Street Clinic in Salt Lake City
  - Shifts Focus from ABD to Total Cost Savings
    - ABD
    - PLUS Reductions in ER Admissions
    - Factoring in Insurance Recovery Rate
  - BUT relies on System-Wide Cost Savings (Buchanan, et al. 2006)
  - Cost savings formula is not tied to hospitals’ costs

# RESPITE CARE: HOSPITAL-SPECIFIC SAVINGS

- (4) Medicare LOS-Based Avoided Bed Days
  - Santa Clara County Medical Respite Program (MRP)
  - Medicare Reimbursement Geometric Mean Length of Stay (Medicare LOS)
    - Mean length of hospitalization for given procedure, determined by the Medicare Diagnosis-Related Group (DRG) guidelines for classifying medical procedures.

# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- (4) Medicare LOS-Based Avoided Bed Days (cont.)
  - Avoided Bed Days = Medicare LOS – Actual Length of Stay + “Homeless Factor”
  - “Homeless Factor” = 4.1 days, based on national studies showing that homeless people stay an average of 4.1 days longer than housed patients



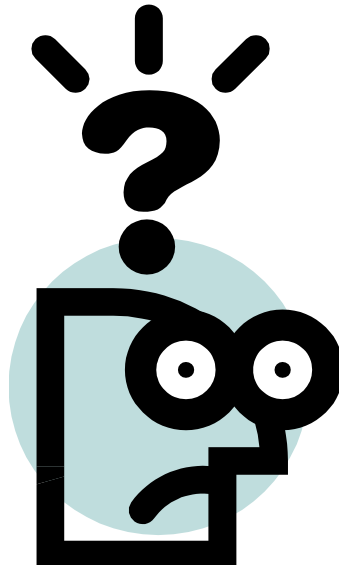
# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- (4) Medicare LOS-Based Avoided Bed Days (cont.)
  - E.g., John Doe with Cellulitis w/o Multiple Chronic Conditions
    - DRG Code = 603
    - Medicare LOS = 3.8 days
    - Actual length of hospitalization = 6 days
    - Homeless Factor = 4.1
    - Avoided Bed Days (ABD) =  $3.8 - 6 + 4.1 = 1.9$  days

# RESPIRE CARE: HOSPITAL-SPECIFIC SAVINGS

- (4) Medicare LOS-Based Avoided Bed Days (cont.)
  - Benefits – Ability to estimate ABD for each patient & each type of procedure
  - BUT psychiatric patients' LOS not well-predicted by DRG LOS

# COST SAVINGS FORMULA: WHICH TO CHOOSE?



# COST SAVINGS FORMULA: CONTRA COSTA

- Hybrid of Medicare LOS Formula and “Utah” Formula
  - Total Cost Savings =
    - Cost Savings from **Avoided Bed Days for Non-Psychiatric Patients**
      - Plus
    - Cost Savings from **Avoided Bed Days for Psych Patients**
      - Plus
    - Cost Savings from **Reduced ER Admissions**

# COST SAVINGS FORMULA: CONTRA COSTA

- Hybrid of Medicare LOS Formula and “Utah” Formula
  - Cost Savings from Avoided Bed Days for Non-Psychiatric Patients =
    - Medicare LOS – Actual LOS + Homeless Factor of 4.1
      - Multiplied by:
    - Average Hospital Inpatient Cost per Day
      - Multiplied by:
    - 93% (Factoring in 7% Insurance Recovery Rate for homeless patients)

# COST SAVINGS FORMULA: CONTRA COSTA

- Hybrid of Medicare LOS Formula and “Utah” Formula
  - Cost Savings from Avoided Bed Days for Psychiatric Patients =
    - Estimated Avoided Bed Days (By asking Referring Hospitals to estimate ABD based on patients’ psychiatric condition)
      - Multiplied by:
    - Average Hospital Psych Inpatient Cost per Day
      - Multiplied by:
    - 93% (Factoring in 7% Insurance Recovery Rate for homeless patients)

# COST SAVINGS FORMULA: CONTRA COSTA

- Hybrid of Medicare LOS Formula and “Utah” Formula
  - Cost Savings from Reduced ER Admissions =
    - Average Reduction in ER Admissions for Respite Clients (0.8 based on Buchanan, et al. 2006)
      - Multiplied by:
    - Average Unrecoverable Cost of ER Admissions (\$1,203 based on national average ER expense per uninsured)
      - Multiplied by:
    - Number of Clients Discharged to Respite per Year

# COST SAVINGS FORMULA: CONTRA COSTA

- Hybrid of Medicare LOS Formula and “Utah” Formula
  - Total Annual Cost Savings =
    - $(\text{Total ABD}_{\text{non-psych}} \times \text{Average Hospital Cost/Day}_{\text{non-psych}} \times 93\%)$ 
      - +
    - $(\text{Total ABD}_{\text{psych}} \times \text{Average Hospital Cost/Day}_{\text{psych}} \times 93\%)$ 
      - +
  - Cost Savings from Reduced ER Admissions



# COST SAVINGS FORMULA: CONTRA COSTA

- Hybrid of Medicare LOS Formula and “Utah” Formula
  - Total Annual Cost Savings =
    - $(\text{Total ABD}_{\text{non-psych}} \times \text{Average Hospital Cost/Day}_{\text{non-psych}} \times 93\%)$ 
      - +
    - $(\text{Total ABD}_{\text{psych}} \times \text{Average Hospital Cost/Day}_{\text{psych}} \times 93\%)$ 
      - +
    - Cost Savings from Reduced ER Admissions

# COST SAVINGS FORMULA: CONTRA COSTA

- **Ongoing Fine-tuning**
  - E.g., Updating DRG Codes to reflect underlying medical condition
- John Doe – 58-year old male with Stage 4 tongue cancer
  - DRG Code was for mouth procedures – Medicare LOS of 3.8 days
  - Actual Length of Stay was 121 days
  - Died in Respite

# CHALLENGE: MENTAL HEALTH PATIENTS

- **Challenge in Demonstrating Cost Savings**
  - **Mental Health Patients**
    - Hospitals report that Psychiatric DRG Code does not predict actual LOS (which may also reflect relative inefficiencies of care)
    - Respite clients with primary psychiatric diagnoses often stay in respite for a very long time

# CHALLENGE: MENTAL HEALTH PATIENTS

- **Challenge in Demonstrating Cost Savings**
  - **Temporary Solution**
    - Asking referring hospitals to estimate avoided bed days based on patient's mental health condition
    - BUT discharge planners typically not equipped to accurately estimate predicted LOS

# CHALLENGE: MENTAL HEALTH PATIENTS

- **Challenge in Demonstrating Cost Savings**
  - **Alternative Solutions?**
    - 5-variable analyses (Huntley, et al. 1998)
      - Primary diagnosis of schizophrenia
      - Number of previous admissions
      - Primary diagnosis of mood disorder
      - Age
      - Secondary diagnosis of alcohol or other SA disorder

# CHALLENGE: MENTAL HEALTH PATIENTS

- Challenge in Demonstrating Cost Savings
  - Alternative Solutions?
    - Shifting focus back to quality of patient care

# QUESTIONS?

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