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RURAL HEALTH  
RESEARCH CENTER

# Measuring Swing Bed Quality

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Rural Health Research  
& Policy Centers

Funded by the Federal Office of Rural Health Policy  
[www.ruralhealthresearch.org](http://www.ruralhealthresearch.org)

Reverse Site Visit

Washington, DC

July 17, 2018

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# Acknowledgements

- This research was supported by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under PHS Grant #5U1CRH03717.
- The information, conclusions and opinions expressed are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.



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# Background

- CAH swing-bed quality of care is an important Medicare policy issue that has received little attention.
- Recent studies have focused on the cost of swing-bed care (e.g., Office of the Inspector General 2015).
- Swing-beds have not been included in national efforts to address comparability of post-acute quality measures (e.g., IMPACT Act and NQF).



# Background, continued

- Swing-bed programs in rural Prospective Payment System hospitals and Skilled Nursing Facilities must submit Minimum Data Set patient data to CMS. CAHs are exempt.
- CAHs are not uniformly demonstrating the quality of care provided to their swing-bed patients.
- Inability to demonstrate swing bed quality potentially limits CAHs' ability to participate in alternative payment models.



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# Motivation to Assess CAH Swing-bed Quality

- Assess whether patients are getting appropriate care; help them return home as quickly as possible; prevent hospital readmissions
- CAH desire to increase patient volume in swing-bed programs, compare swing-bed care to SNFs
- Ensure compliance with CMS requirements/intent regarding swing-bed care



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# Purpose of Project

- To identify quality measures that can be used to assess the quality of care provided to CAH swing-bed patients, and implement a field test of these measures.



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# Methods

- Review of literature and organizational websites
- Identify hospitals for interviews with input from UMRHRC Expert Work Group members
- Identify state/network efforts to assess CAH swing-bed quality of care
- Phone interviews to discuss efforts to assess swing-bed quality of care, including measures being used/considered, data collection strategies, usefulness

# CAH Swing Bed Quality Measures

- Discharge disposition
  - To home
  - Transferred to a NH/LTC facility
  - Transferred to a higher level of care
- 30-day follow-up status
  - Readmitted to CAH
  - Readmitted to other hospital
  - ED visit at CAH
  - ED visit at other hospital
- Functional status
  - Risk-adjusted change in self-care score between swing bed admission and discharge
  - Risk-adjusted change in mobility score between swing bed admission and discharge



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# Potential Additional Measures

(primarily from IMPACT domains and MDS elements)

- Skin integrity (pressure ulcer status)
- Medication reconciliation
- Incidence of major falls
- Transfer of health information and care preferences when an individual transitions
- Healthcare associated infections



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# CAH Swing Bed Quality Measurement Field Test

- Collaboration with Stroudwater Associates
- 75 CAHs in 13 states
- Collect detailed information on all swing bed patients from April 1, 2018 – March 31, 2019.

# Staff Training and Inter-Rater Reliability Process

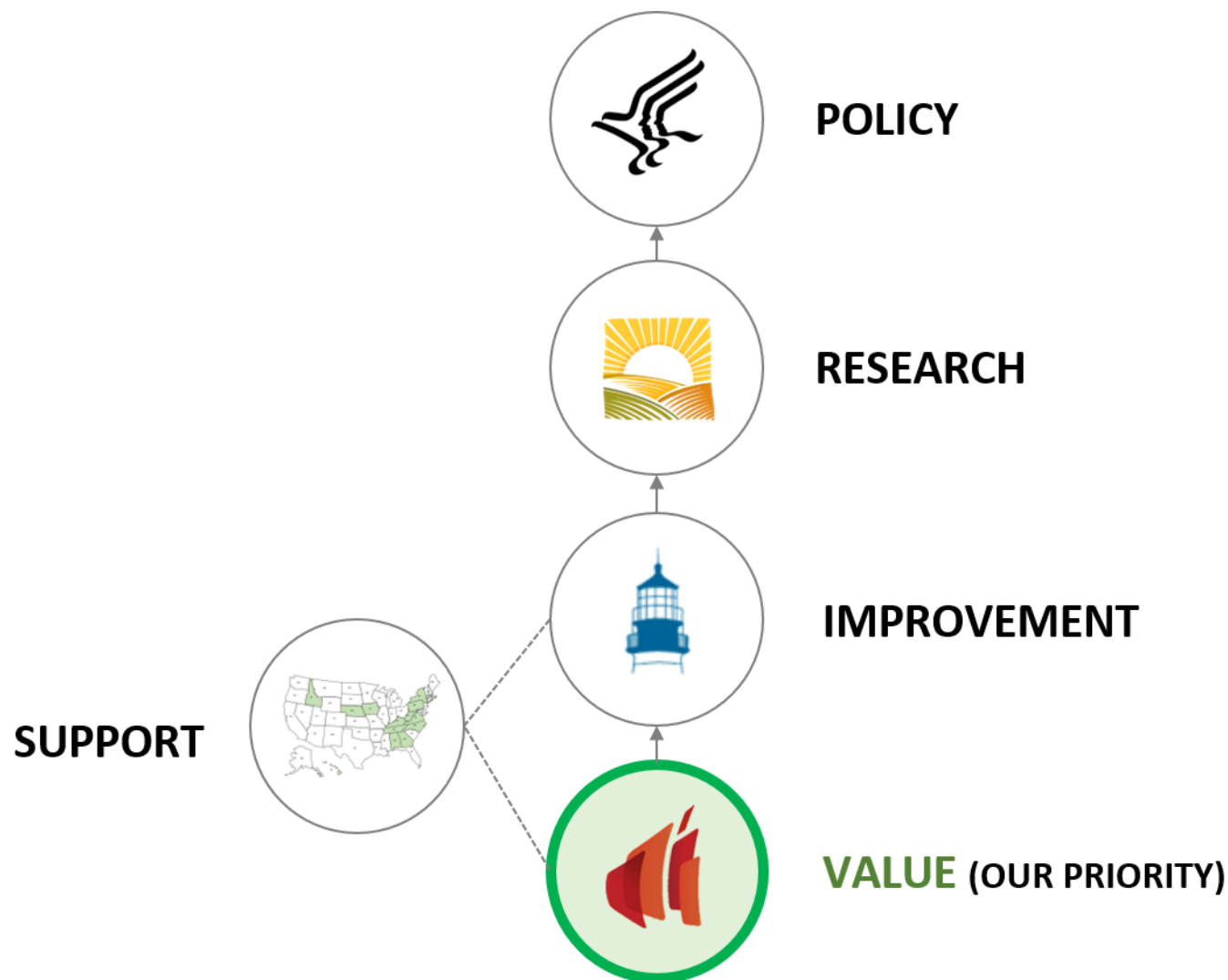
- Training (in-person and webinars) provided to relevant hospital staff by nurses with extensive swing bed experience
- Staff used the data collection tool for three swing bed patient cases developed by the nurse trainers
- Each case had 114 items that required scoring with the large majority of items related to risk adjustment and functional status changes
- Overall, 86% of the items were scored correctly
- Follow-up support provided to staff on specific issues related to risk adjustment and functional status details



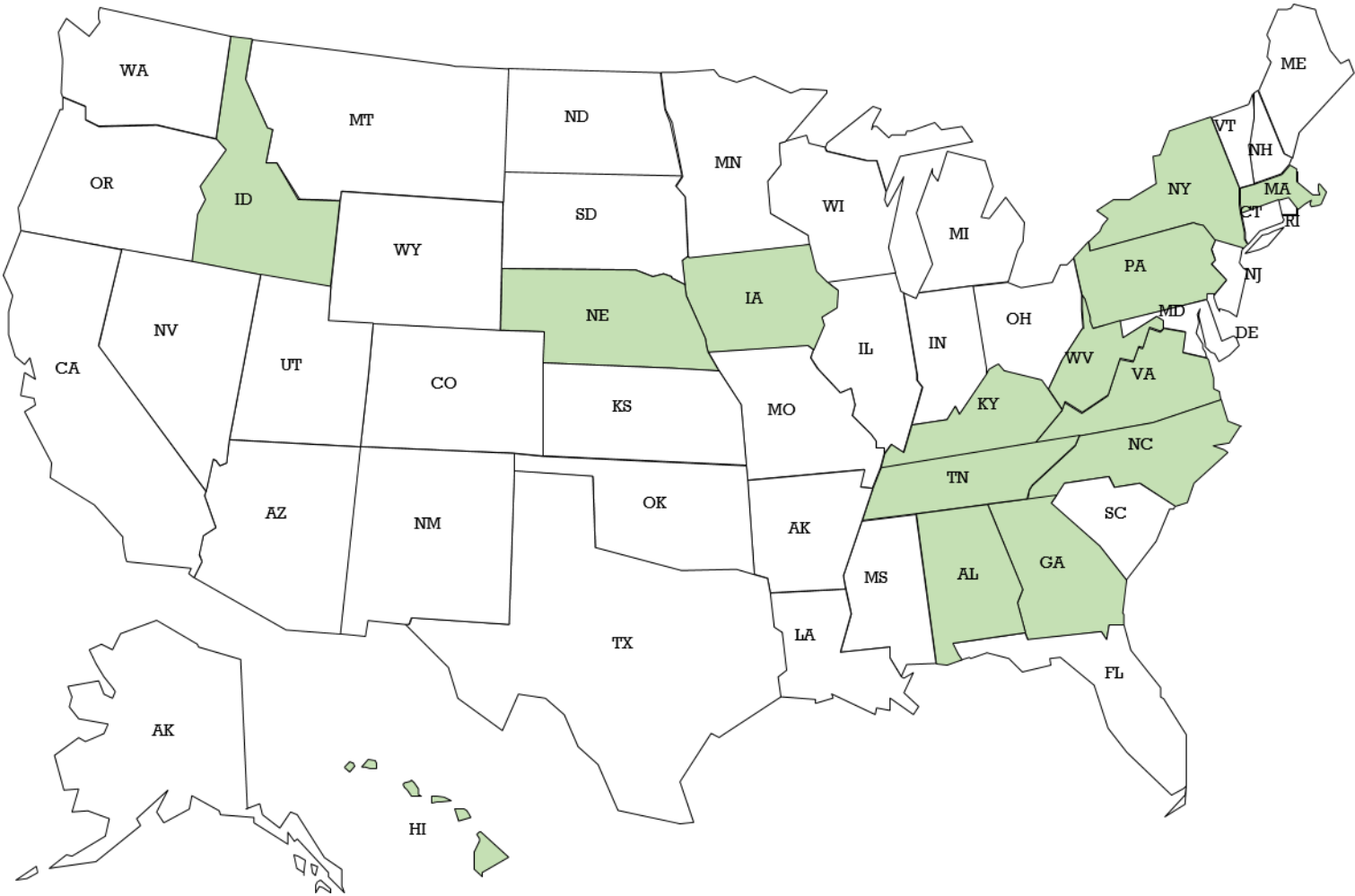
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# CAH Swing Bed Web Application

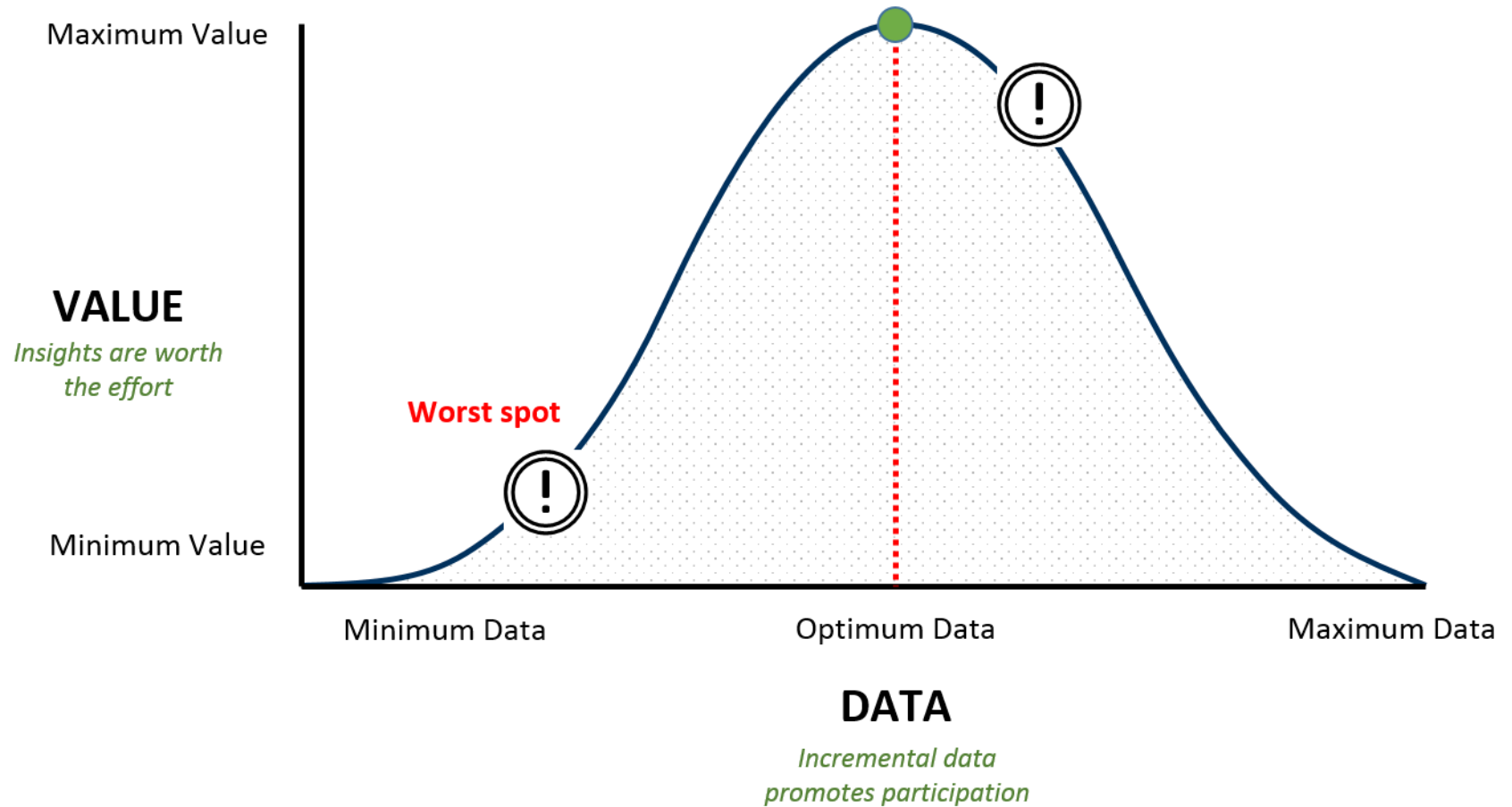
# Collaborating Organizations



# Collaborating States



# Data Value Curve



# Data Collection Elements by Category

Data Category		Admission	Discharge	31 Days	Total
Patient Data		● (5)	● (2)	● (1)	8 (9%)
Risk Adjustment		● (26)			26 (32%)
Functional	Self Care	● (7)	● (7)		14 (17%)
	Mobility	● (17)	● (17)		34 (41%)
		55	26	1	82



# Web Application

## USER PORTAL



**Secure**



**HIPAA Compliant**



**Multiple Users**

## Data Collection & Entry



**Paper Forms**



**Data Entry**

## Analytics & Benchmarki ng



**Benchmarking**



**Printable Reports**

## Aggregate Data Sharing



**Project Findings and  
Research**

# Agreement Structure

## Master

MASTER SUBSCRIPTION AGREEMENT

This Subscription Agreement ("Agreement") is made and entered into this **XX day of MONTH, YEAR** by and between STROUDWATER ASSOCIATES, a Maine corporation with principal places of business in Portland, Maine and Atlanta, Georgia ("Stroudwater"), and **HOSPITAL NAME of HOSPITAL LOCATION** ("Client").

WHEREAS, Stroudwater provides software applications and products along with the associated database that assists clients in analyzing their performance data (the "Program") and Client wishes to access and utilize the Program;

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound hereby, agree as follows:

- Right to Access Software.** Stroudwater does hereby grant to Client a revocable, nonexclusive and non-transferable license to use the Programs described in **Exhibit A**, attached hereto and incorporated herein by reference. Client may not allow any other person or entity to use the Programs.
- Terms and Payment.** Client shall pay to Stroudwater the annual fees set forth in **Exhibit A**, payable as set forth therein.
- Term and Termination.**
  - Term.** The term of this Agreement shall commence on the date set forth in **Exhibit A** (the "Commencement Date") and shall continue as set forth therein.
  - Termination.**
    - Termination for Good Cause.** If either party materially breaches this Agreement and the breach is of such a nature that it cannot be cured within fifteen (15) days, or if the breach could be cured but is not cured within fifteen (15) days of the breach, the party's receipt from the other party of written notice describing the breach in reasonable detail, the other party may immediately terminate this Agreement by giving written notice of termination to the breaching party. A breaching party shall be permitted one (1) opportunity to cure a breach of this Agreement while such Agreement is in effect. Thereafter the non-breaching party may elect to terminate this Agreement effective upon notice to the breaching party without providing a cure period.
    - Termination by Mutual Agreement.** This Agreement may be terminated at any time by written agreement of the parties.
    - Termination Without Cause.** Either party may terminate this Agreement at the end of any annual term and for any reason by giving not less than thirty (30) days advance written notice to the other party.

## Exhibit A

EXHIBIT A  
PRODUCT AND SERVICE ORDER SHEET

1. Name of Hospital: **HOSPITAL NAME**

2. Name and Address of Hospital (City, State, and Zip Code): **HOSPITAL NAME, HOSPITAL LOCATION, HOSPITAL CITY, STATE, ZIP CODE**

3. Product and Service Schedule

WEBSITE PRODUCTS	Est Month	Base Price	Items
	Product	Product	Product
Website Price:			
PROFESSIONAL SERVICES:			
Title:			
Maximum Third Party Fee:			
Maximum Third Party Fee:			
Maximum Third Party Fee:			

4. Commencement/Renewal Date: **START DATE**

5. Product and Service orders will be accepted/fulfilled upon receipt of payment in full.

Read and Agreed to:

**HOSPITAL NAME** STROUNWATER ASSOCIATES

BY: **CEO NAME** *[Signature]*  
Chief Executive Officer Douglas M. Wolf, President

Intimate Possible Contact

Name: \_\_\_\_\_ Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_

Version 1.0  
Effective Date: 01/01/14

## Exhibit B

EXHIBIT B

on Stroudwater  
University of  
ensure data  
transmission  
liance

**\$0.00**

- **Master Service Agreement** between Stroudwater and your CAH serves as the governing document that establishes mutual obligations related to use of the website, Business Associate Agreement terms, and HIPAA, etc.
- **Exhibit A** outlines payment terms (there are none for this project)
- **Exhibit B** describes how Stroudwater will share data with UMRHRC

**Demo**

# The Swing Bed Quality Pilot Project

## THE VIEW FROM A CEO'S DESK

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LESLIE MARSH CEO  
LEXINGTON REGIONAL HEALTH CENTER  
LEXINGTON, NE.



# Hope Is Not A Strategy

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# Goals Are Clear

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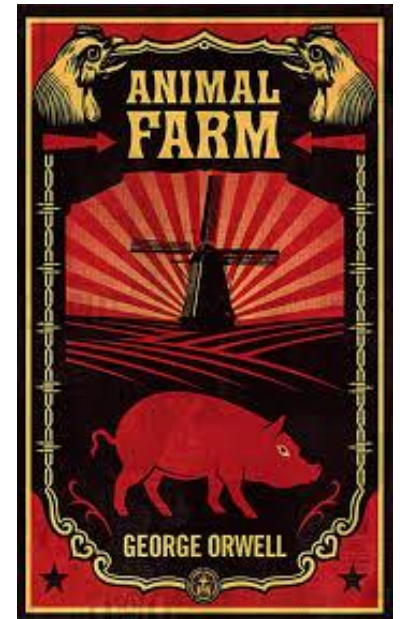
## Quadruple Aim

- Cost
- Population Health
- Patient Experience
- Wellbeing of the Care Team

# Some Goals Are More Equal Than Others

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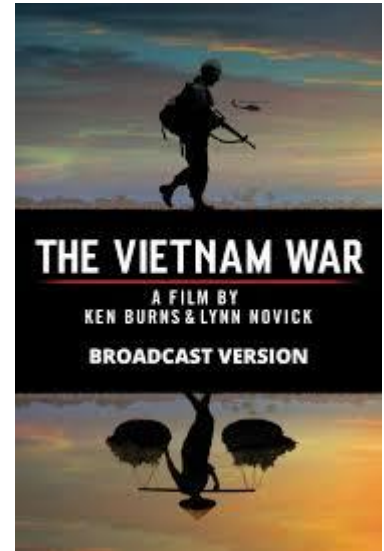
In the current cost-containment environment, value is the most “equal”.



There are many possible paths

While the goal in Vietnam was clear to those at the top, at the “boots on the ground” level it was not at all clear how to get there.

Our perspective from the front line is that we need to find the best possible path - so, we need information.



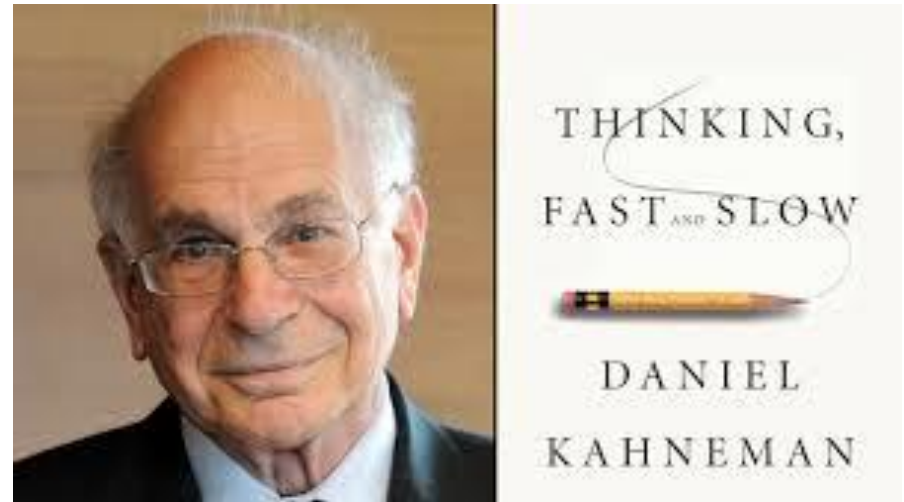


# Data is not a magic button

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You can look at data and still arrive at the wrong conclusion.

Daniel Kahneman won a Nobel Prize in 2002 by pointing out that people misuse information.



## Cognitive Reflection and Decision Making Test - Psychologist Shane Frederick 2005

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(1) A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost? \_\_\_\_\_ cents

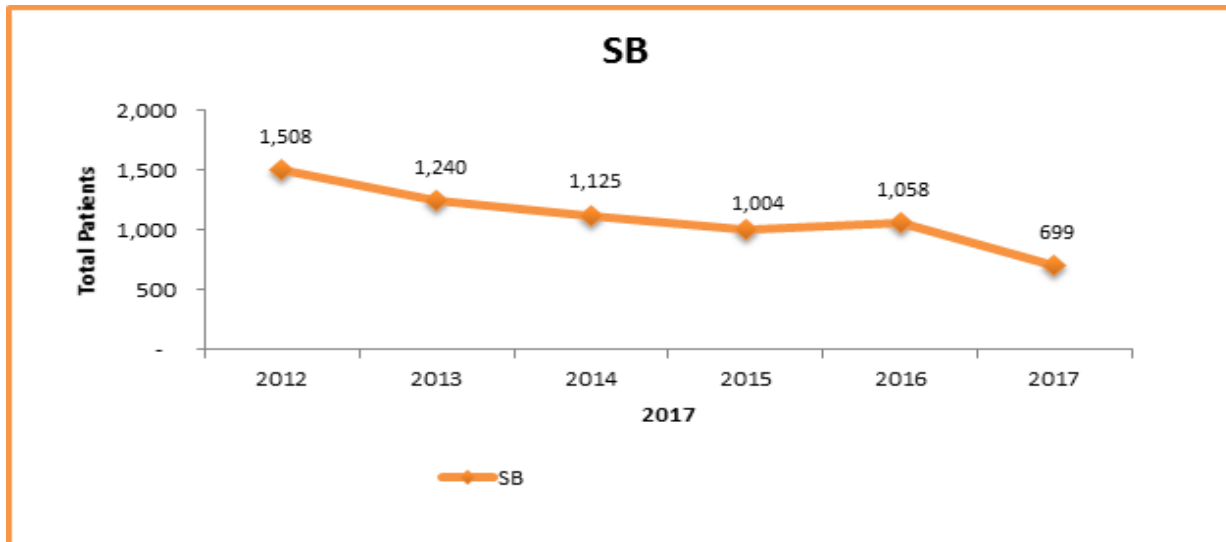
(2) If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets? \_\_\_\_\_ minutes

(3) In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? \_\_\_\_\_ days

*Frederick, Shane. 2005. "Cognitive Reflection and Decision Making." Journal of Economic Perspectives, 19 (4): 25-42.*

# Decline in Swing Bed Admissions at LRHC

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2018 - 1240

# LRHC Begins the Journey to Value

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## Reduction in readmissions

- Transition Team creation
  - LRHC has seen a substantial decline in their readmission rate
  - The team completes a stratified risk assessment on admission and begins discharge planning immediately
  - The team deploys CHWs, clinic staff, dietitians, mental health providers and social services to improve quality of life post-discharge.
- Collaboration of care
  - The team collaborates with all providers and ensures that transition care calls and visits continue after dismissal
  - Patients that are found to be at high risk for readmission or poor management of care are referred to our Medically Managed program –

## Functional Capacity and Independence: Pilot Project Enrollment

- Setting up study to examine patients receiving care through LRHC swing bed services v. SNF
  - Criteria
    - Age
    - Functional Capacity
    - Length of Independence

# Adaptive Management

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The idea that as information comes in, you make adjustments on the fly knowing that those responses are not the final answer.

We intentionally and purposefully created practice strategies to address to address the decline in admissions.

Provided information to patients, LRHC providers and specialists. We created a 'You have a choice campaign' were persistent in advocating for patient choice.

# LRHC – Swing Bed Quality Outcomes Analysis Pilot Project

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**Data will be examined and used to:**

**Compare LRHC to other CAHs**

**Determine level of functional improvement in our swing bed patients**

**Determine percentage of cohort that were able to return to their most independent level of care/prior living situation**

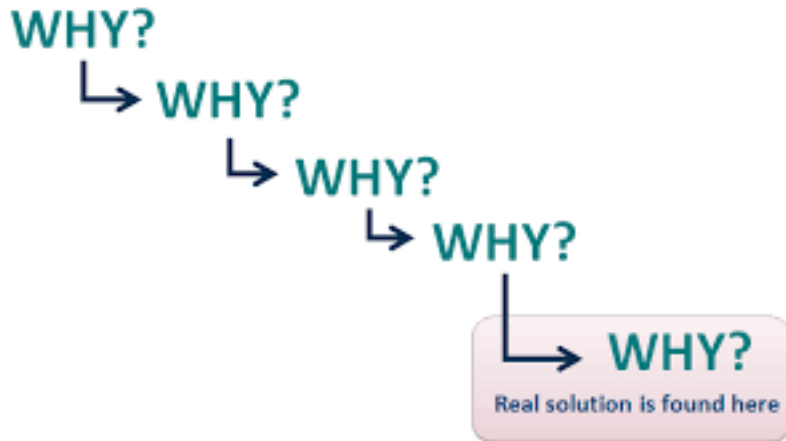
**Continue to assess 30 Day Readmission Rate and:**

- **Identify trends and use this information to predict future high-risk readmissions**
- **Review functional level at discharge and determine if additional swing bed care warranted**
- **Compare LOS with non-readmission patients, including diagnosis types to help predict LOS to prevent readmission with different risk stratification levels.**

**Assess overall LOS, functional capacity and length of independence to cost of care compared to alternative options**

# So Why Participate in this Pilot?

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Why? We want timely rural-relevant data

Why? We want to make the best possible decisions

Why? We want to provide value to all stakeholders  
(patients, payers, partners)

Why? We want a successful hospital

Why? We want our community to thrive