# BPCI Advanced Episode Selection

## Analytic Framework and Strategies from Northwestern Medicine

June 7, 2018

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# Northwestern Memorial HealthCare Participation in BPCI "Original"

## Background

| Hospital | Clinical Episode | Episode Length |
|---|---|---|
| **Lake Forest** | CHF | 30 days |
| | COPD | |
| **NMH** | CHF | 30 days |
| | Major joint replacement of the lower extremity | 90 days |
| | Stroke | |

| Key Performance Drivers |
|---|
| • Readmissions |
| • SNF utilization |
| • SNF aLOS |

Total program savings of **$2.6 million**

# BPCI Advanced

## *Voluntary Participation*

Hospitals

and/or

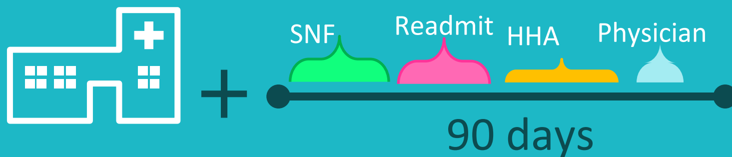
Physician group practices

## *Financial Risk*

| | |
|---|---|
| **Downside Risk?** | Yes |
| **1st Exit Opportunity** | January 2020 |
| **Cap on Risk?** | Yes; 20% of program |

## *Clinical Episodes*

- 32 conditions/procedures
- Trigger = inpatient admission
- 90 days




## *Timelines*

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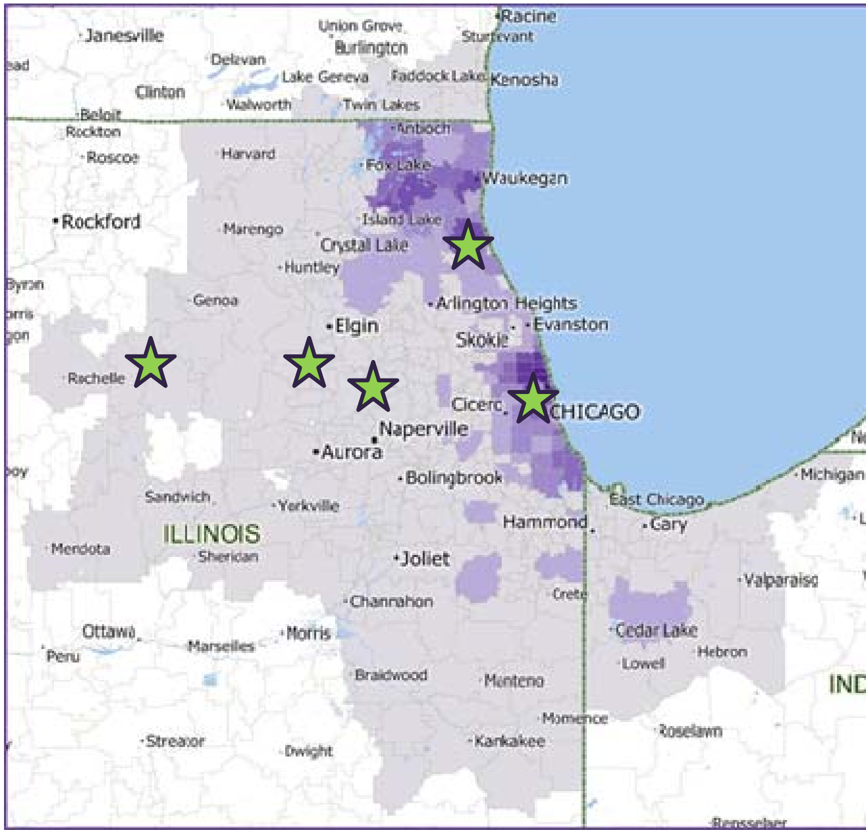
# BPCI-A Applicant and Episode Initiators

## Northwestern Memorial HealthCare




| Northwestern Memorial HealthCare |
|---|
| **Hospitals (5)**<br>•Northwestern Memorial Hospital (NMH)<br>•Central DuPage Hospital (CDH)<br>•Delnor Hospital<br>•Kishwaukee Hospital<br>•Lake Forest Hospital<br><br>**PGPs (2)**<br>•Northwestern Medicine Regional Medicare Group (RMG)<br>•Northwestern Medical Group (NMG) |

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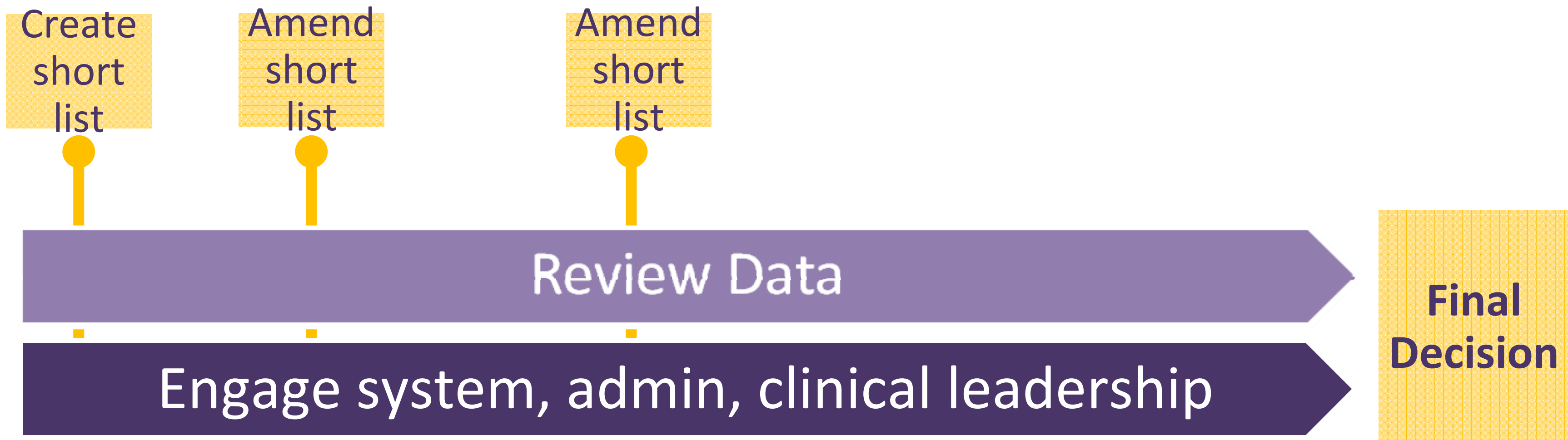
★ NM hospital

# Episode Selection Project Plan

## Plan

## Reality

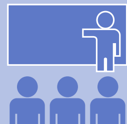


# Considerations for Episode Selection

## Qualitative Factors

### Quality improvement opportunities

- NMH ranked #1 in the nation for HF mortality; concurrent w/ BAT team improvements efforts

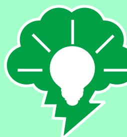


### Clinical champion

- Cardiology and ortho

### Alignment with ongoing initiatives

- BPCI original
- BAT team



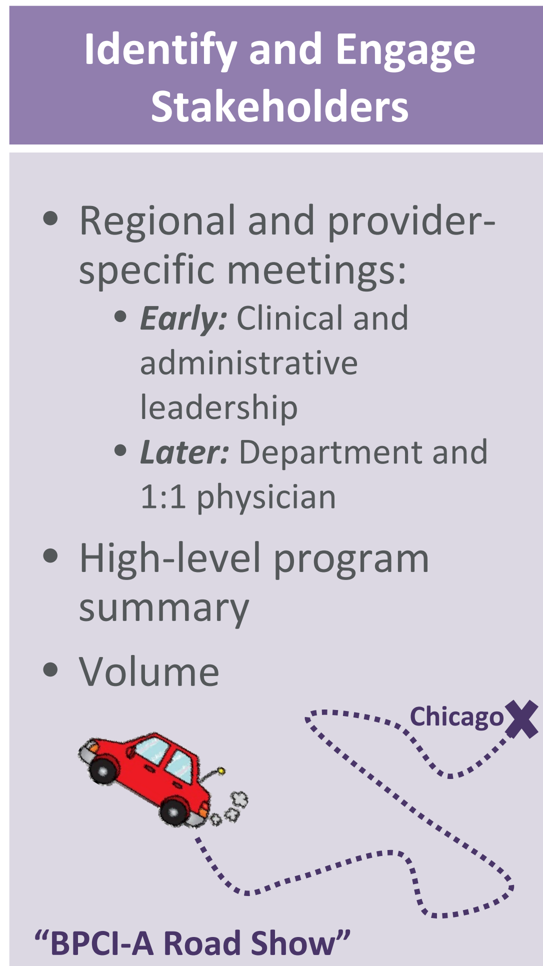
### Strategic investment

- Continue to gain competencies that can be applied to future VBC programs

# Stakeholder Input

## Identify and Engage Stakeholders

- Regional and provider-specific meetings:
  - ***Early:*** Clinical and administrative leadership
  - ***Later:*** Department and 1:1 physician
- High-level program summary
- Volume




**"BPCI-A Road Show"**

## Gauge Interest

- "Are you interested in exploring this opportunity?"
- "Do you want to see more data?"
- "Any questions?"

## Clarify Organizational Priorities

- **Financial:** Breakeven
- **Clinical:** Improve care and patient experience
- **Strategic:** Continue to gain competencies that can be applied to future VBC programs

# Considerations for Episode Selection

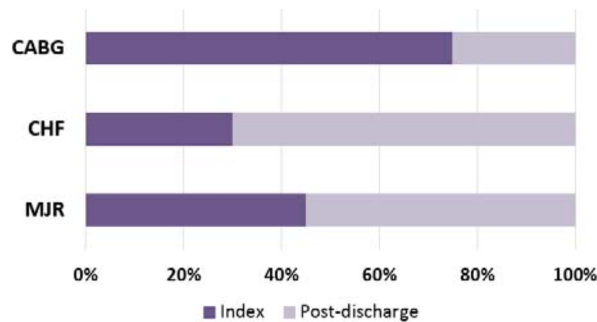
## Quantitative Factors

| Surgical | Medical |
|---|---|
| **100** episodes/year | **150** episodes/year |

Need sufficient volume to reduce:

- Variation
- Impact of outliers

**Volume**




What can be impacted?

- Readmission rate
- Discharge disposition
- SNF aLOS

**% Opportunity**

| Episode | Avg. Episode Payment | Target Price | % +/- actual vs. target |
|---|---|---|---|
| MJR | $25,000 | $24,500 | 2.0% |
| CHF | $23,000 | $25,000 | -8.0% |

Are current payments below projected financial benchmarks?

**Target Prices**

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# Highest Volume Episodes

| Episode | # Hospitals w/ >100 episodes |
|---|---|
| Major joint replacement of the lower extremity | 5 |
| Sepsis | 4 |
| Simple pneumonia and respiratory infections | 4 |
| Congestive heart failure | 2 |
| Chronic obstructive pulmonary disease, bronchitis/asthma | 2 |
| Stroke | 2 |
| Renal failure | 1 |
| Cardiac Valve | 1 |
| Cardiac arrhythmia | 1 |
| Percutaneous coronary intervention | 1 |

# Potential Changes in Volume

## 1) Precedence

| Episode | Volume |
|---|---|
| Major joint replacement of the lower extremity | 4 |

When **non-NM physician** cases are removed, volume **drops by over 99%**

## 2) Staff/Org Changes

- Surgeons leave
- New space constructed
- Efficiency gains

Cardiac surgery +30%

MJR -30%

## 3) Policy Changes

Example: Removal of TKA from inpatient-only list

*Estimated decline in inpatient TKA*

20%

80%

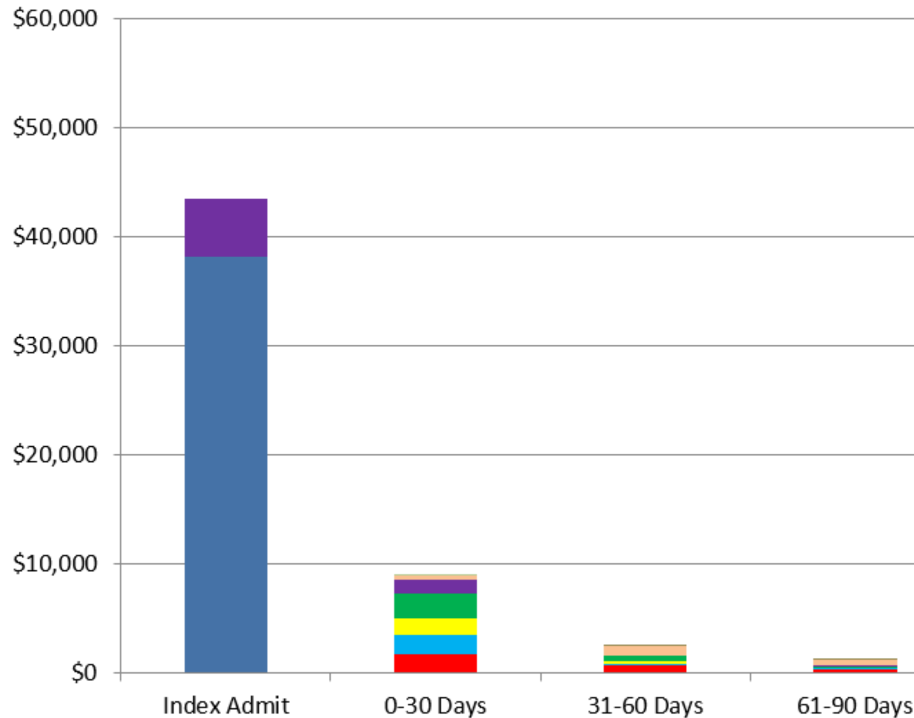


Data obtained from claims-based model created by DataGen using the Medicare Standard Analytic File. Volumes are not exact; cannot know true volumes until NMHC selects episodes for which to accept risk.

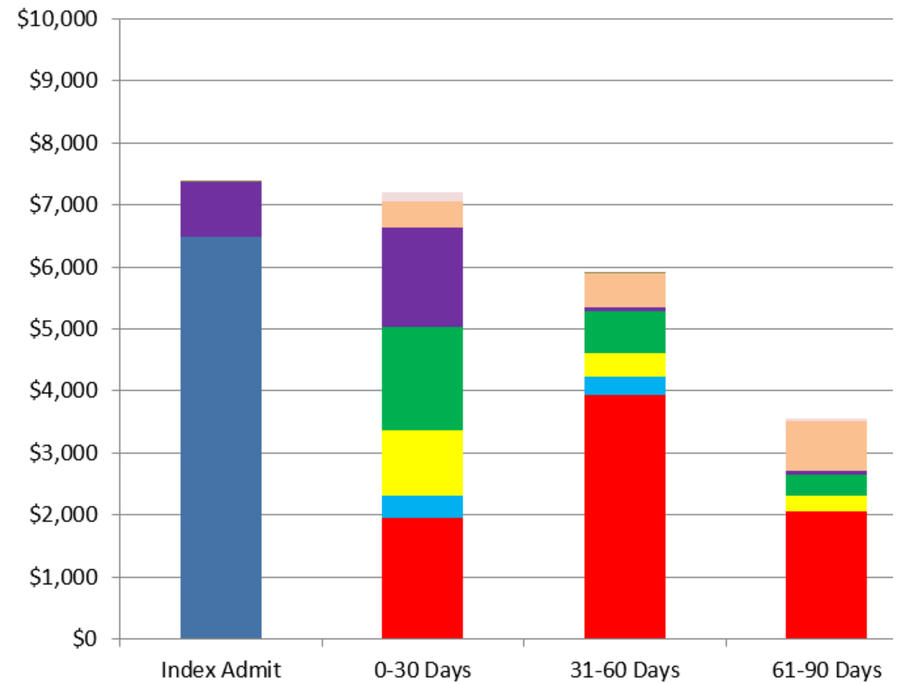
# Separating Opportunity from Risk

**Note: Different y axis scales*

Cardiac Valve




CHF




| | Index | 0 – 30 | 31 – 60 | 61 – 90 |
|---|---|---|---|---|
| % Episode Payment | 77.9% | 16.3% | 4.5% | 2.2% |

| | Index | 0 – 30 | 31 – 60 | 61 – 90 |
|---|---|---|---|---|
| % Episode Payment | 35.4% | 34.6% | 28.3% | 17.1% |

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Initial Admit · Readmission · Inpatient Rehab · HHA · SNF · Professional · Outpatient · DME

# CHF Readmissions

| Readmission DRG | Average Days From Anchor | Total Number of Readmissions |
|---|---|---|
| *291-HEART FAILURE & SHOCK W MCC* | *38* | *25* |
| *292-HEART FAILURE & SHOCK W CC* | *46* | *24* |
| *682-RENAL FAILURE W MCC* | *24* | *11* |
| 871-SEPTICEMIA OR SEVERE SEPSIS W/O MV >96 HOURS W MCC | 43 | 10 |
| 286-CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W MCC | 40 | 7 |
| *683-RENAL FAILURE W CC* | *25* | *6* |
| 309-CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC | 48 | 6 |
| 378-G.I. HEMORRHAGE W CC | 36 | 5 |
| 189-PULMONARY EDEMA & RESPIRATORY FAILURE | 59 | 5 |
| *293-HEART FAILURE & SHOCK W/O CC/MCC* | *34* | *5* |
| *191-CHRONIC OBSTRUCTIVE PULMONARY DISEASE W CC* | *56* | *4* |
| 287-CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W/O MCC | 29 | 4 |
| 603-CELLULITIS W/O MCC | 35 | 3 |
| *190-CHRONIC OBSTRUCTIVE PULMONARY DISEASE W MCC* | *40* | *3* |
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# Super Bundle

CHF

COPD

Renal Failure

Who are these patients?

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# NM's Short List

| | Hospital 1 | Hospital 2 | Hospital 3 | Hospital 4 | Hospital 5 |
|---|---|---|---|---|---|
| MJR | √ | √ | | | |
| CHF | √ | √ | √ | √ | √ |
| Renal Failure | √ | | √ | | |
| COPD | √ | | √ | | |

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# Next Steps

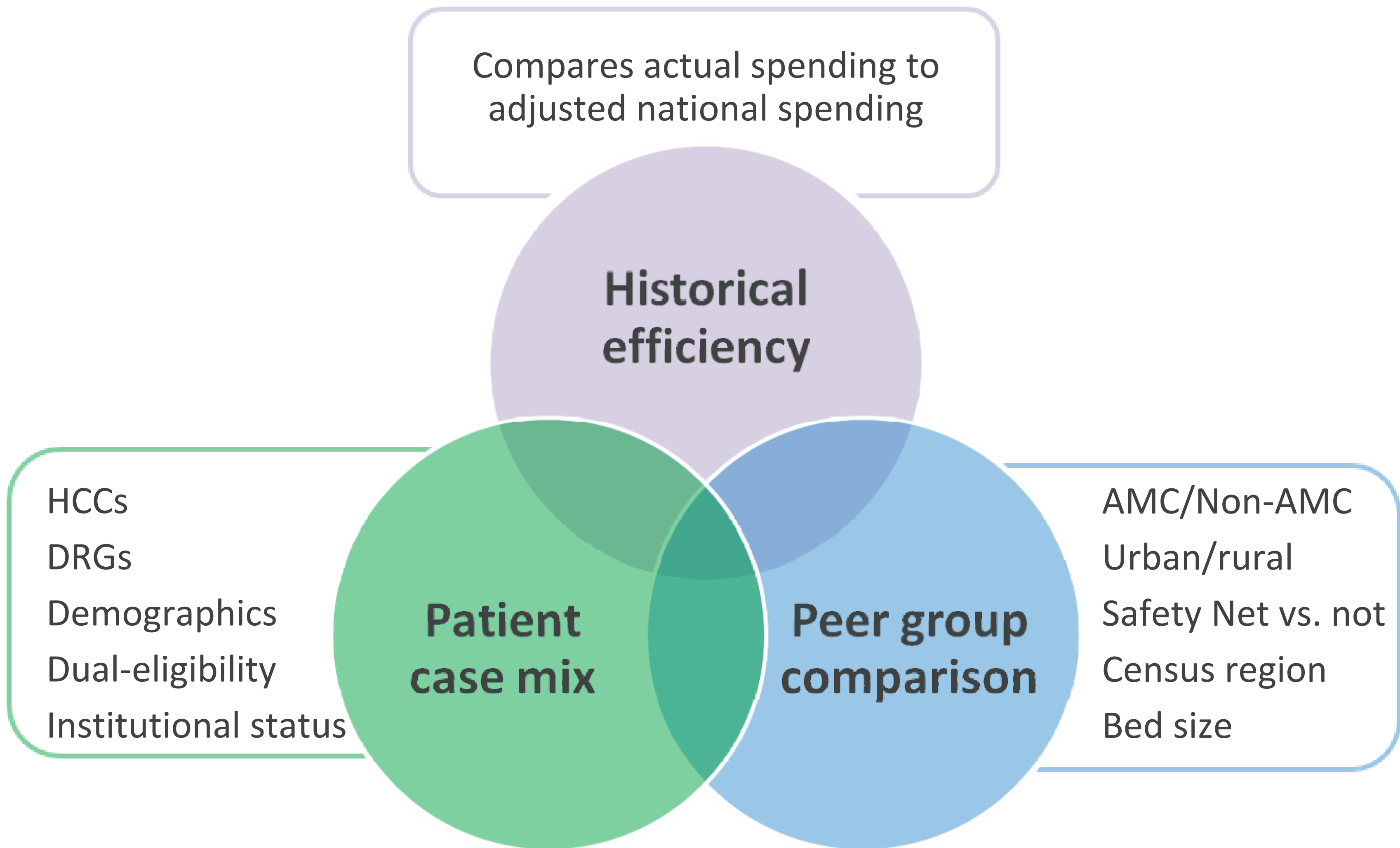
## "Super Bundle" meeting

- Bring cardiology, pulmonary, and nephrology together
- Review data
- Discuss potential clinical interventions
- Discuss necessary resources

## Target price review

- Compare actual episode payments to target prices
- Remove episodes with large projected losses
- Discuss feasibility for breaking even for episodes on the margin
- Engage clinical teams of previously eliminated episodes with large projected gains

# Benchmark Price Methodology

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(Hopefully)

See you next year!

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