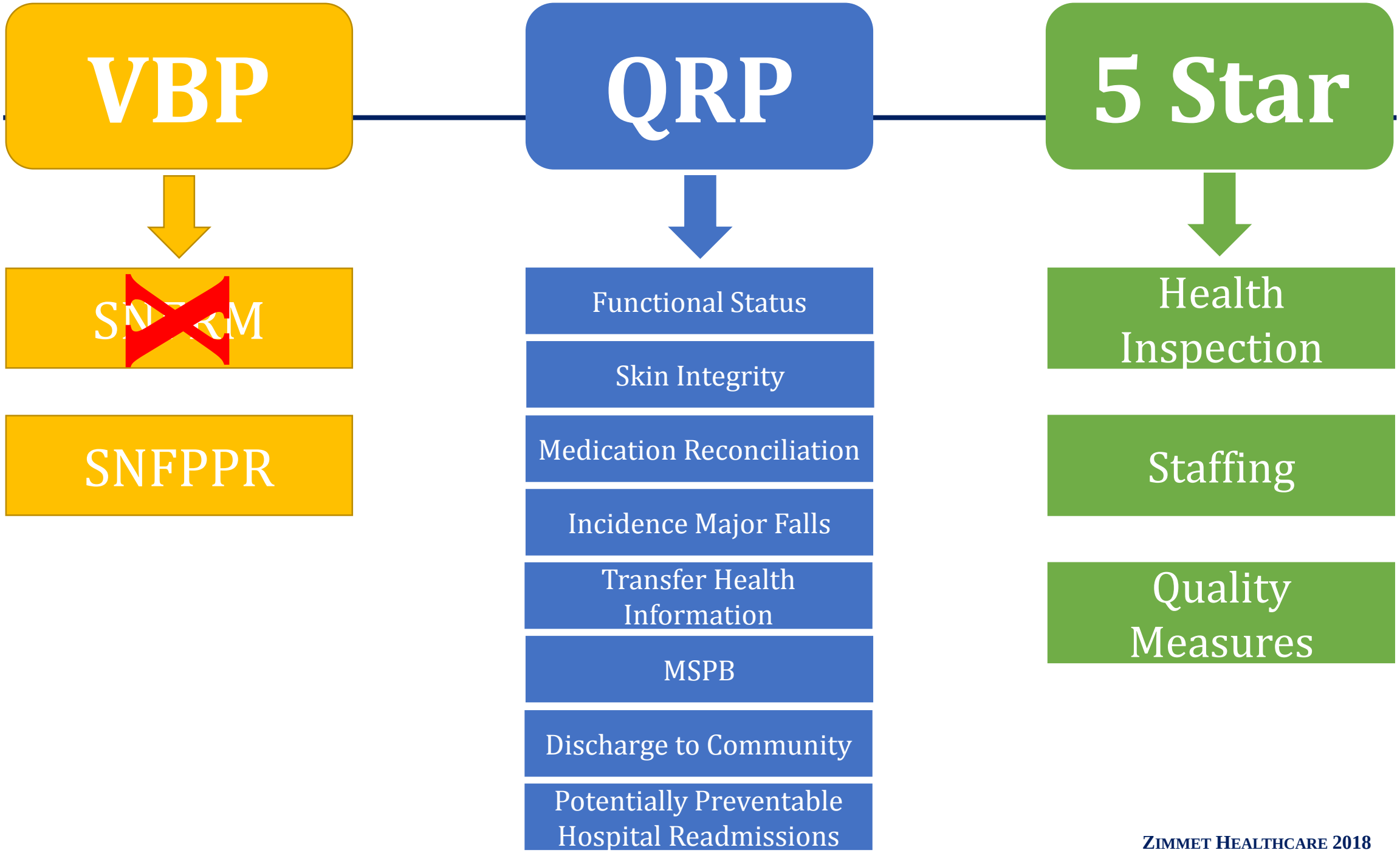
Data Analysis for Clinical Operations and Facility Reimbursement

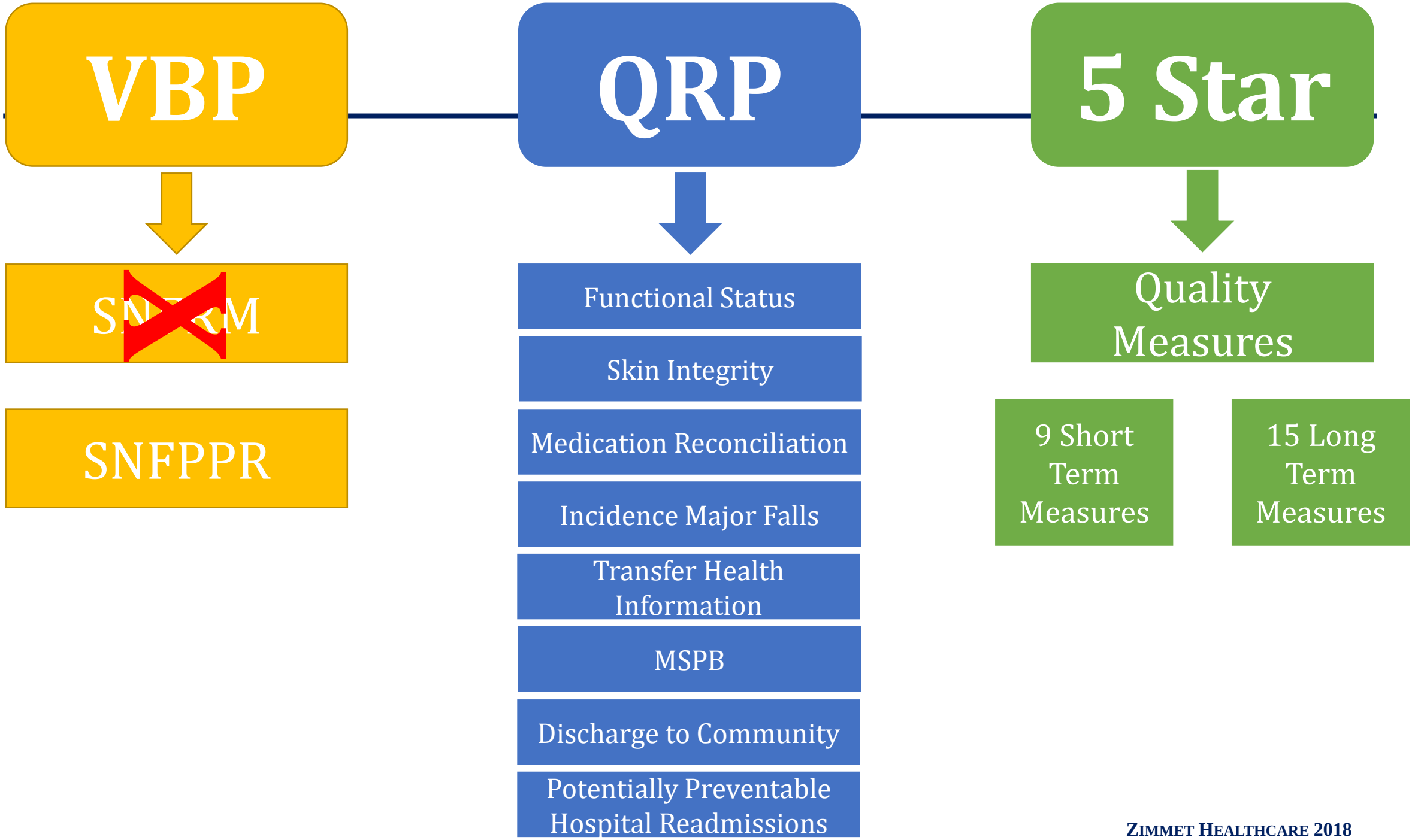
Zimmet Healthcare Services Group, LLC

CORE Analytics

Vincent Fedele, Partner & Director of Analytics

November 13, 2018


VBP
QRP
5 Star
SNFPPR
Functional Status
Skin Integrity
Medication Reconciliation
Incidence Major Falls
Transfer Health Information
MSPB
Discharge to Community
Potentially Preventable Hospital Readmissions
Health Inspection
Staffing
Quality Measures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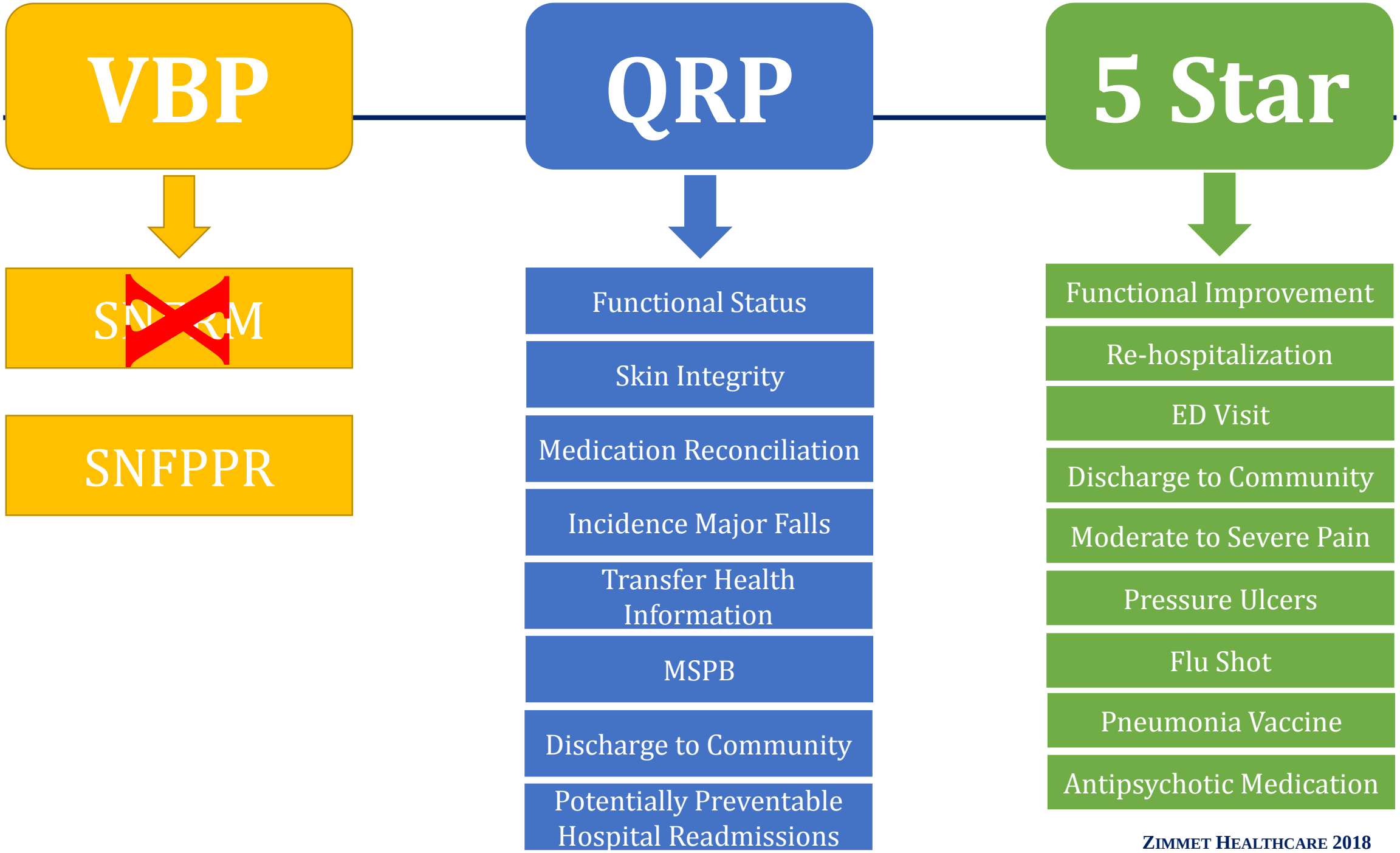
Quality Measures
9 Short Term Measures
15 Long Term Measures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Functional Improvement
Re-hospitalization
ED Visit
Discharge to Community
Moderate to Severe Pain
Pressure Ulcers
Flu Shot
Pneumonia Vaccine
Antipsychotic Medication

VBP

SNFRM

SNFPPR

Up to a 2% reduction in Medicare payment for poor performance

QRP

- Functional Status
- Skin Integrity
- Medication Reconciliation
- Incidence Major Falls
- Transfer Health Information
- MSPB
- Discharge to Community
- Potentially Preventable Hospital Readmissions

5 Star

- Functional Improvement
- Re-hospitalization
- ED Visit
- Discharge to Community
- Moderate to Severe Pain
- Pressure Ulcers
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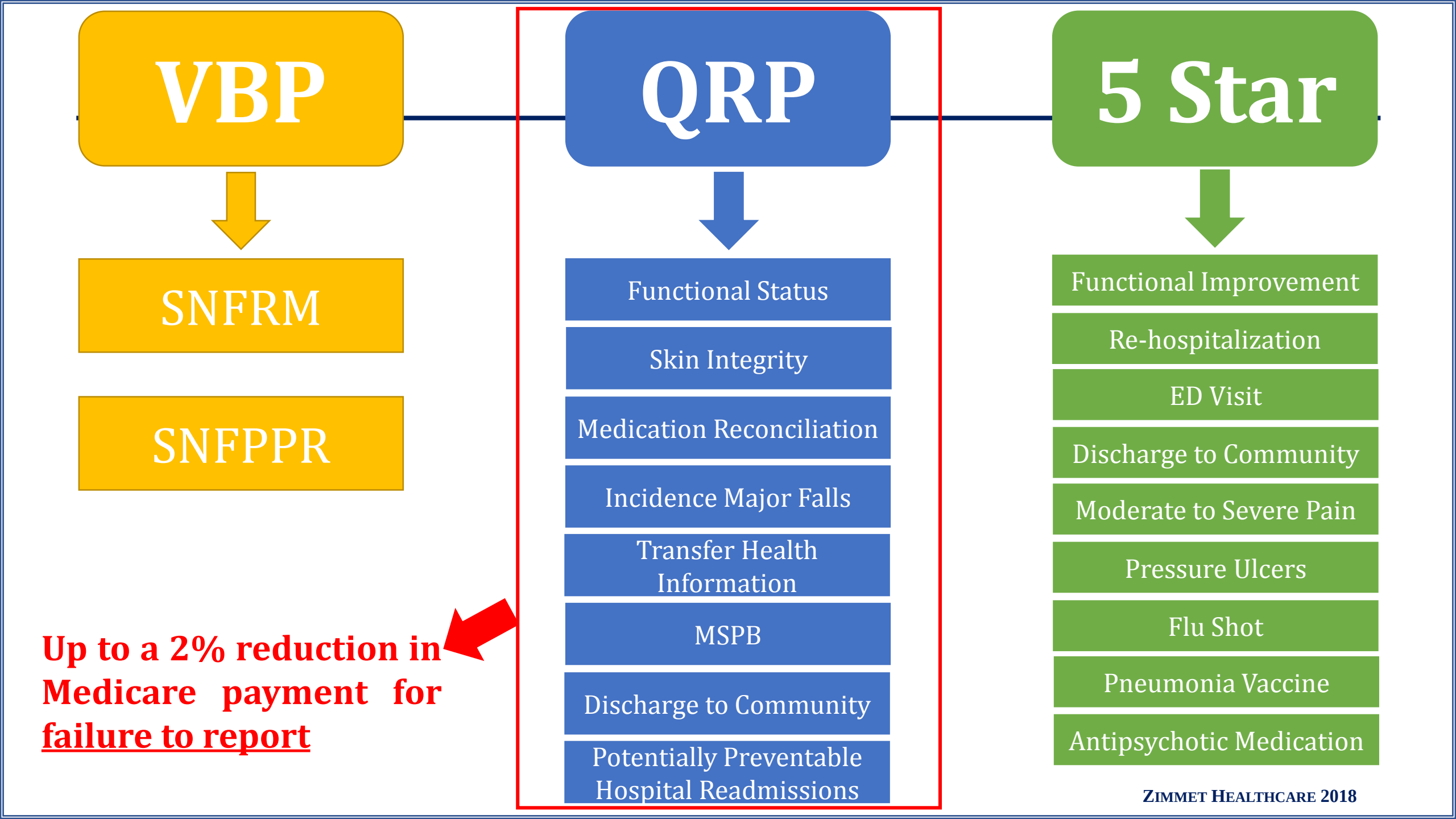
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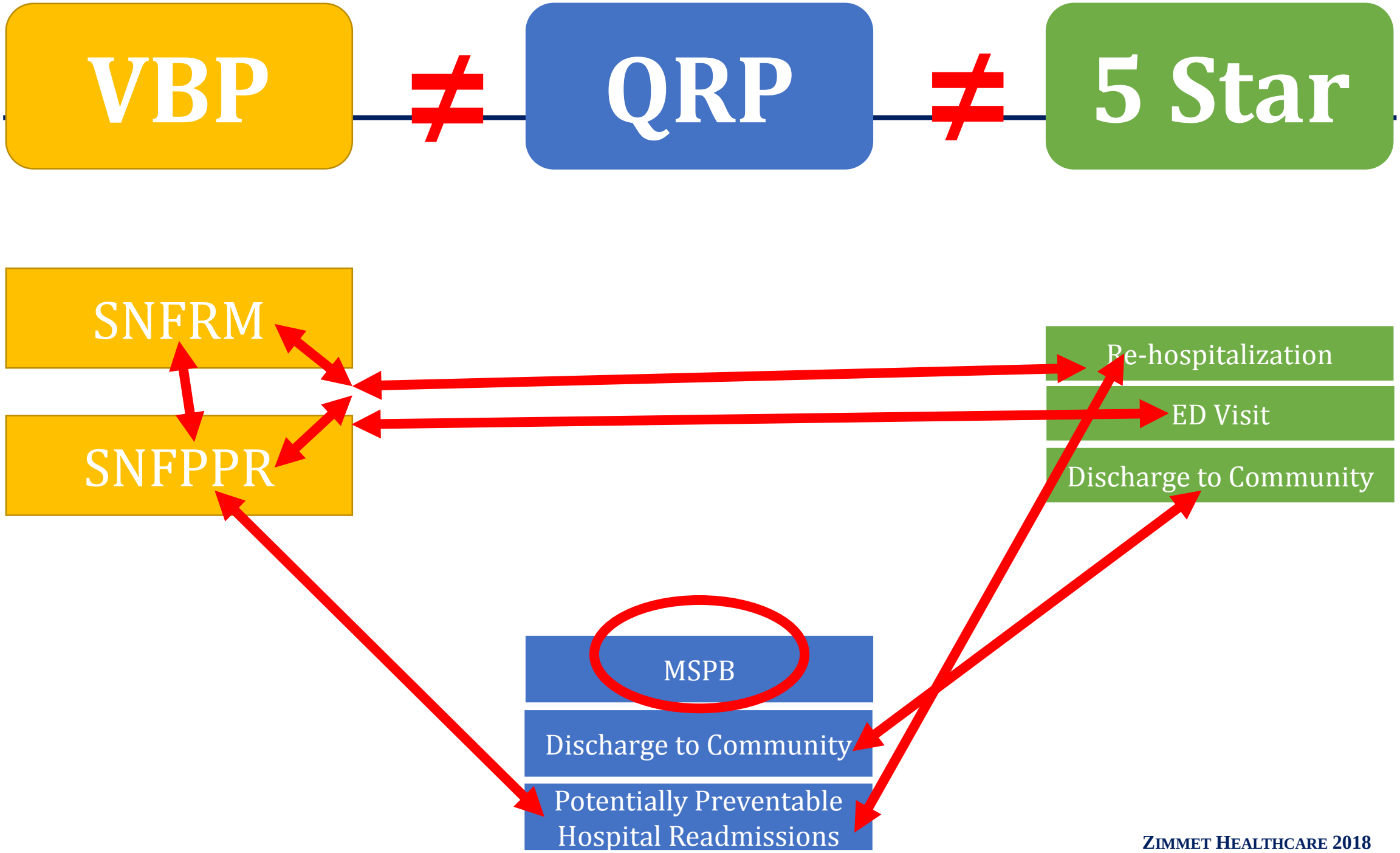
Antipsychotic Medication
Up to a 2% reduction in Medicare payment for failure to report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Potentially Preventable Hospital Readmissions

SNF VBP Financial Impact

	Provider VBP "Profile"			
Beds (#)	**Poor (-2%)**	**Fair (-1%)**	**Average (0%)**	**Excellent (1.65%)**
50 - 99	$ (21,941)	$ (10,970)	-	$ 18,101
100 - 149	$ (27,318)	$ (13,659)	-	$ 22,537
150 - 199	$ (38,254)	$ (19,127)	-	$ 31,560
200 - 249	$ (40,895)	$ (20,448)	-	$ 33,739
250+ beds	$ (48,349)	$ (24,175)	-	$ 39,888

*Based on annual Medicare Part A billing for PA SNF providers

Current SNF Analytics Landscape

- Old and expensive information
- Costly EMR integration
- Limited benchmarks available
- Minimal comparative integrity
- Data “silos”
- Lack of data sophistication

hot · spott · ing

verb | hät spät iNG

healthcare hotspotting is a data-driven process of identifying extreme patterns in order to guide targeted intervention to improve the quality of care and reduce costs

The DON identified that 65% of residents were discharged to the hospital during weekday night shifts through hotspotting.

cost jump · er

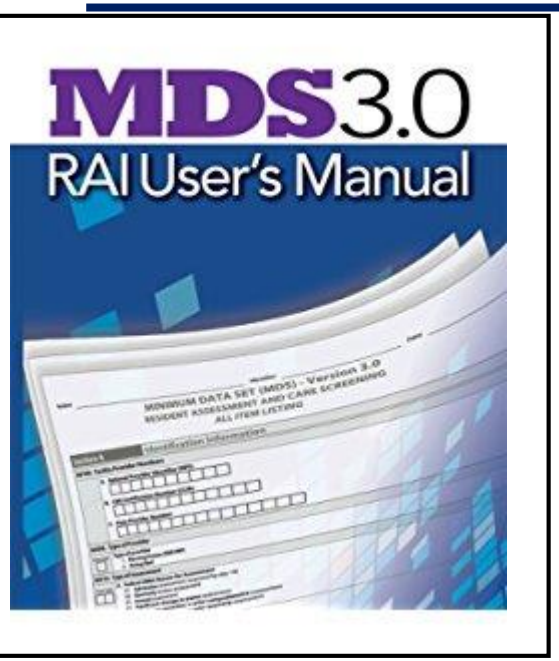
noun | kôst jəmpər

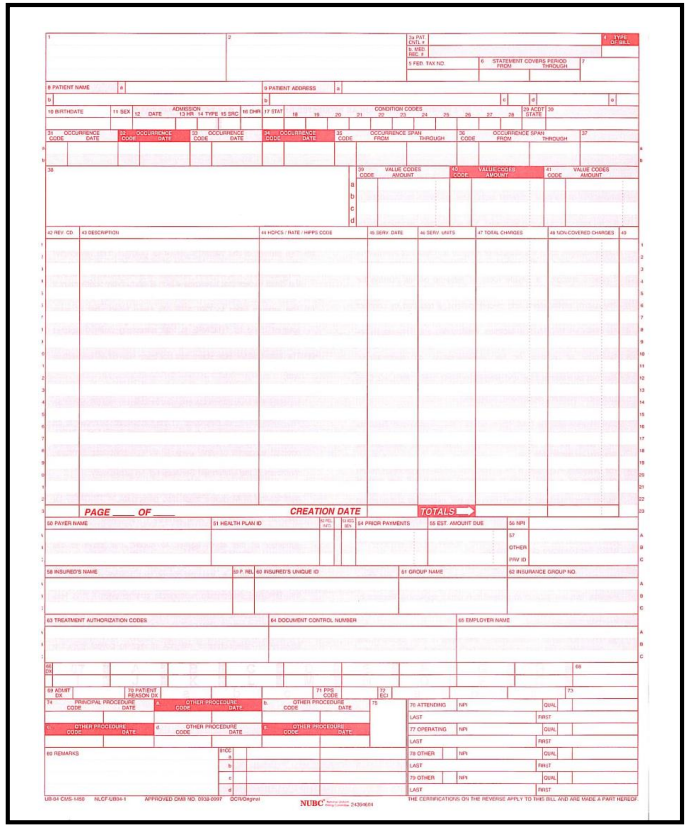
a patient that experiences a significant increase in healthcare costs from one period to another

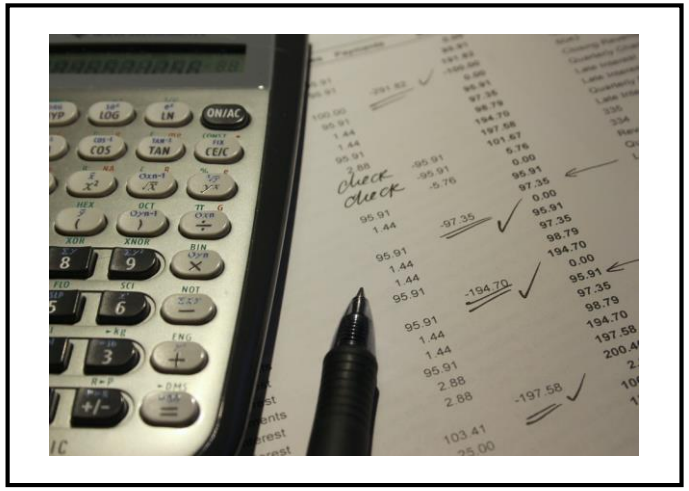
CFO: How did we miss the target price for that episode of care?

DON: Mrs. Jones was readmitted to the hospital four times this quarter due to her deteriorating condition, she's a real cost jumper.

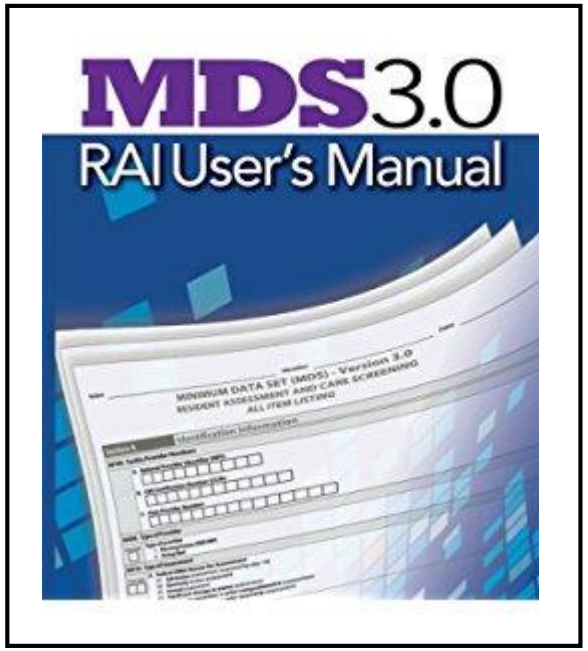
SNF Data Sources

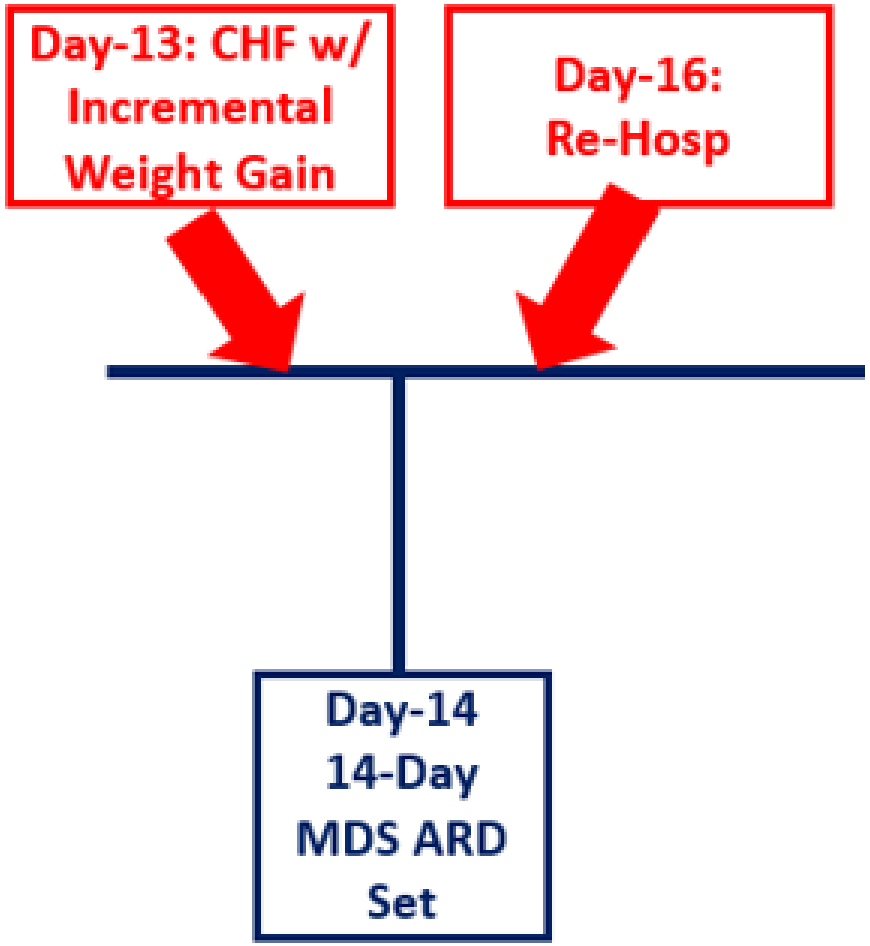






The Minimum Data Set (MDS)





Medicare Public Claims File

- Contains info on inpatient & post-acute utilization
- Patient flow & discharge patterns
- Available to “researchers” for a cost
- Quarterly data (93% mature) released is up to 7.5 months old
- Annual data (99% mature) released is up to 23 months old
- Data is often not case-mix adjusted

Medicare Cost Report

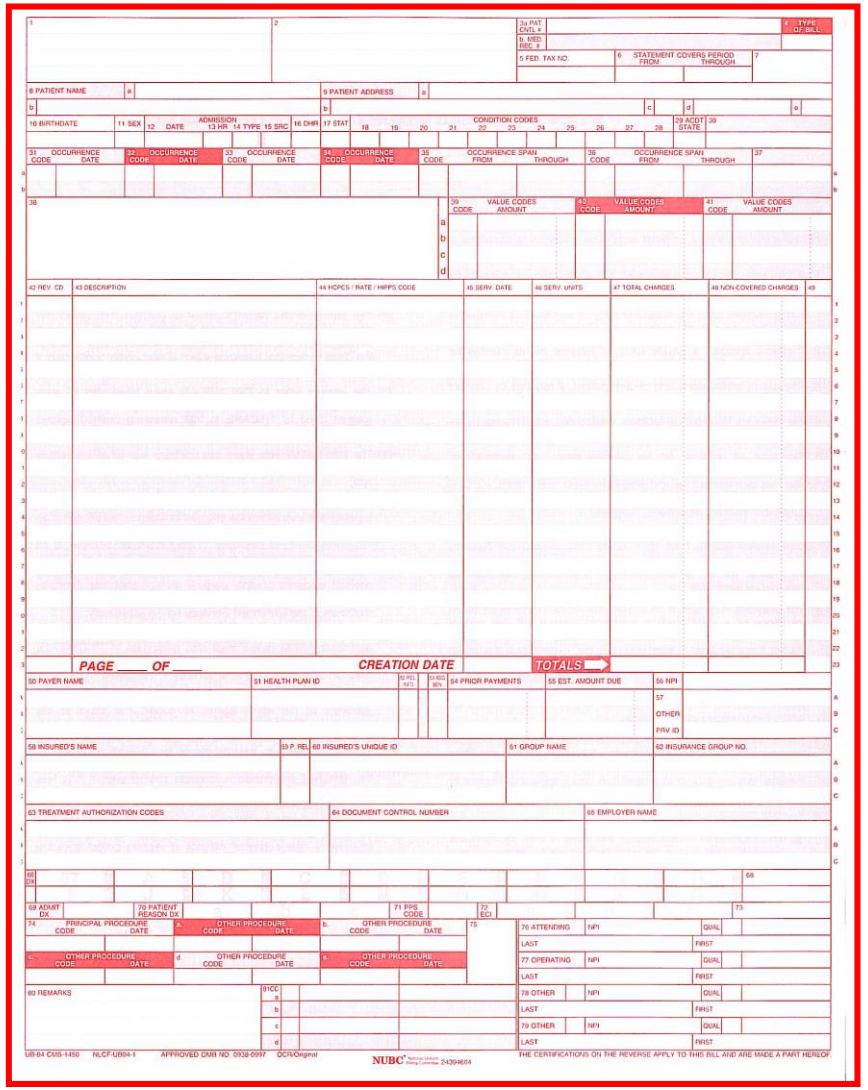
- Medicare providers required to submit
- Available via the HCRIS database
- Data is old
- Good source for occupancy, payor mix & RUG distribution
- No comparative equality for cost centers
- Cannot be reliably used for many measures

Electronic Medical Record (EMR)

- Treasure trove of clinical information
- Actionable intelligence at point of contact with the patient
- Interventional analytics often are not EMR companies focus or strength – often requires third-party data application
- Importance of strong clinical documentation

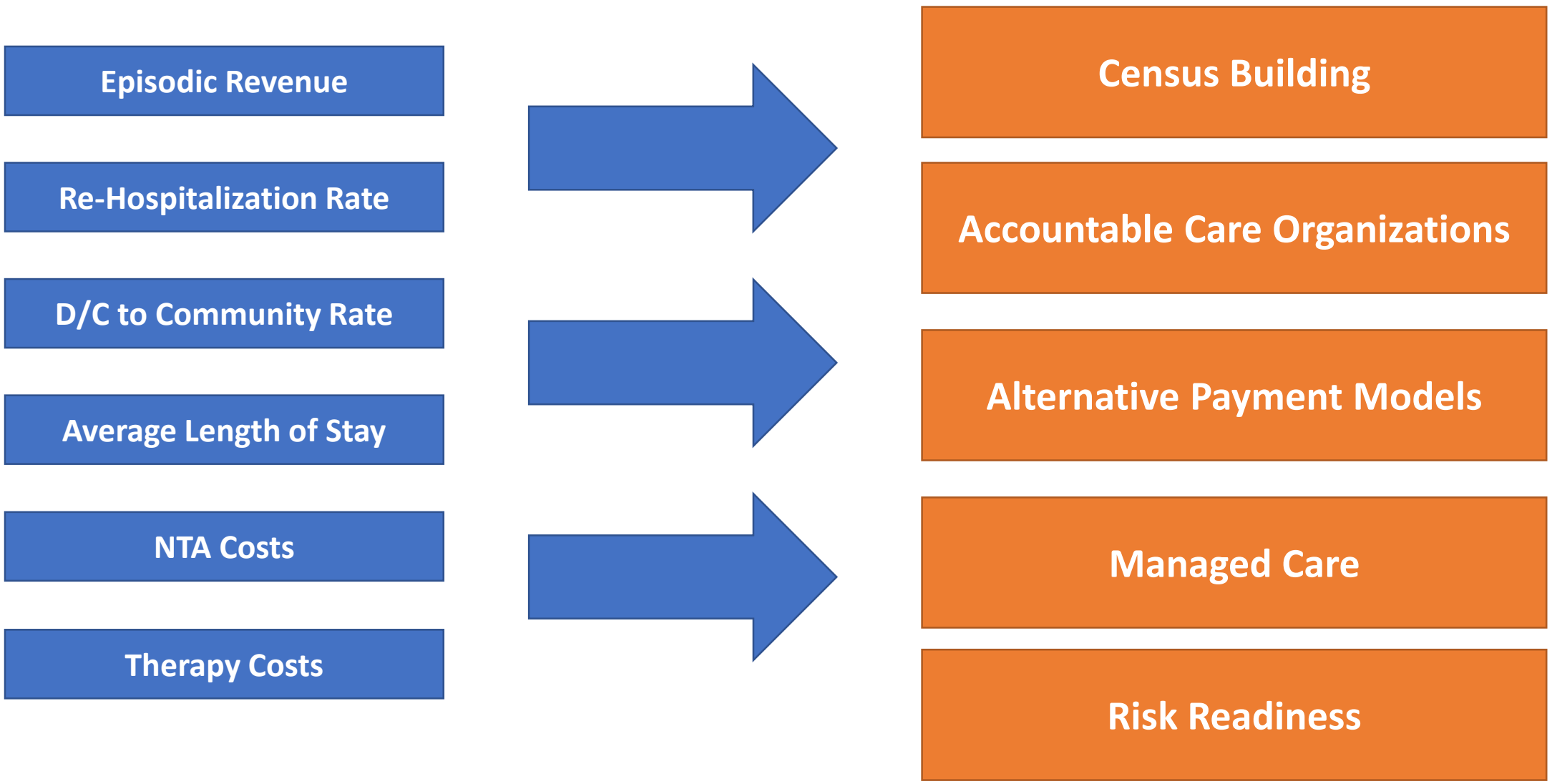
Medicare UB-04

- Diagnosis
- **Comorbidities**
- Episodic revenue
- Per diem revenue
- **Pharmacy charges**
- Radiology charges
- Laboratory charges
- Rehab charges
- Re-hospitalization rate
- D/C to community rate



- ALOS
- **Length of QHS**
- Length of prior SNF
- Treatment history
- **Physician identifier**
- Managed Care levels
- APM participation
- Age
- Sex
- Time of admission

What KPIs to Measure and Why

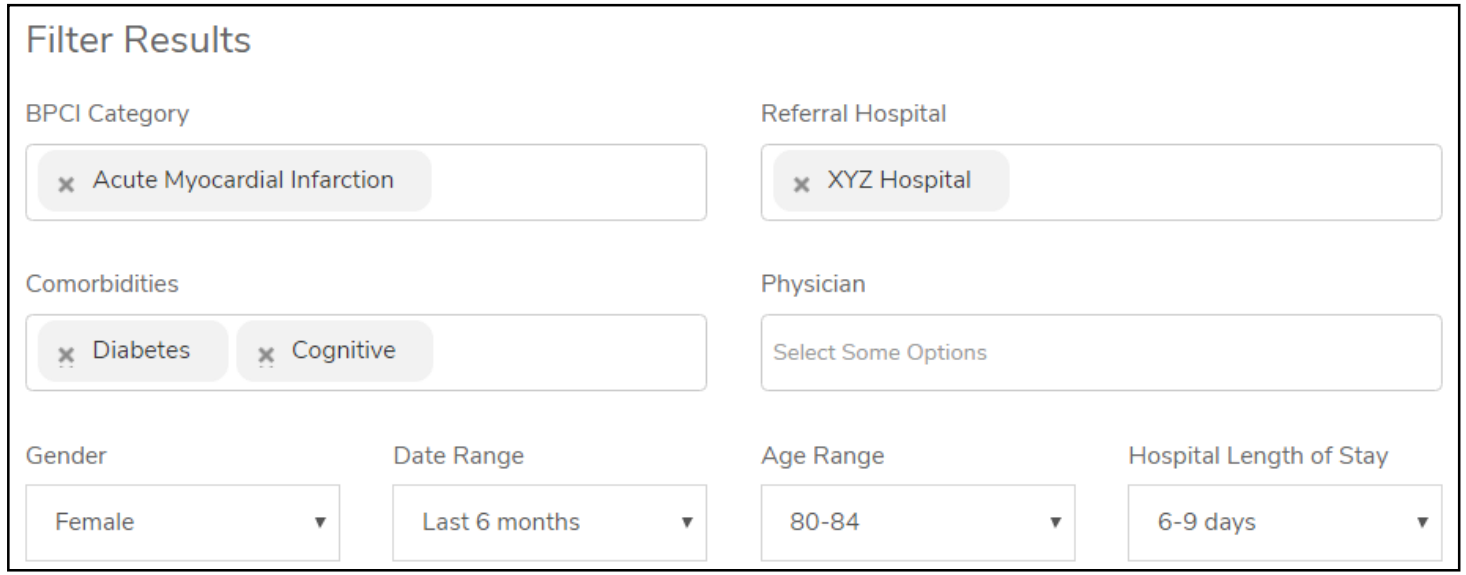


The "Next Generation" Part

- **Current Data**
- Blended Clinical and Financial
- Competitor Data
- Facility Market Share
- Leakage
- Pinpoint Marketing
- **Rapid Response Teams**

Key Independent Variables

- Primary Diagnosis
- Clinical Condition Category
- Patient Comorbidities
- Physician efficiency
- Gender
- Age Range
- Acute utilization
- Referral hospital



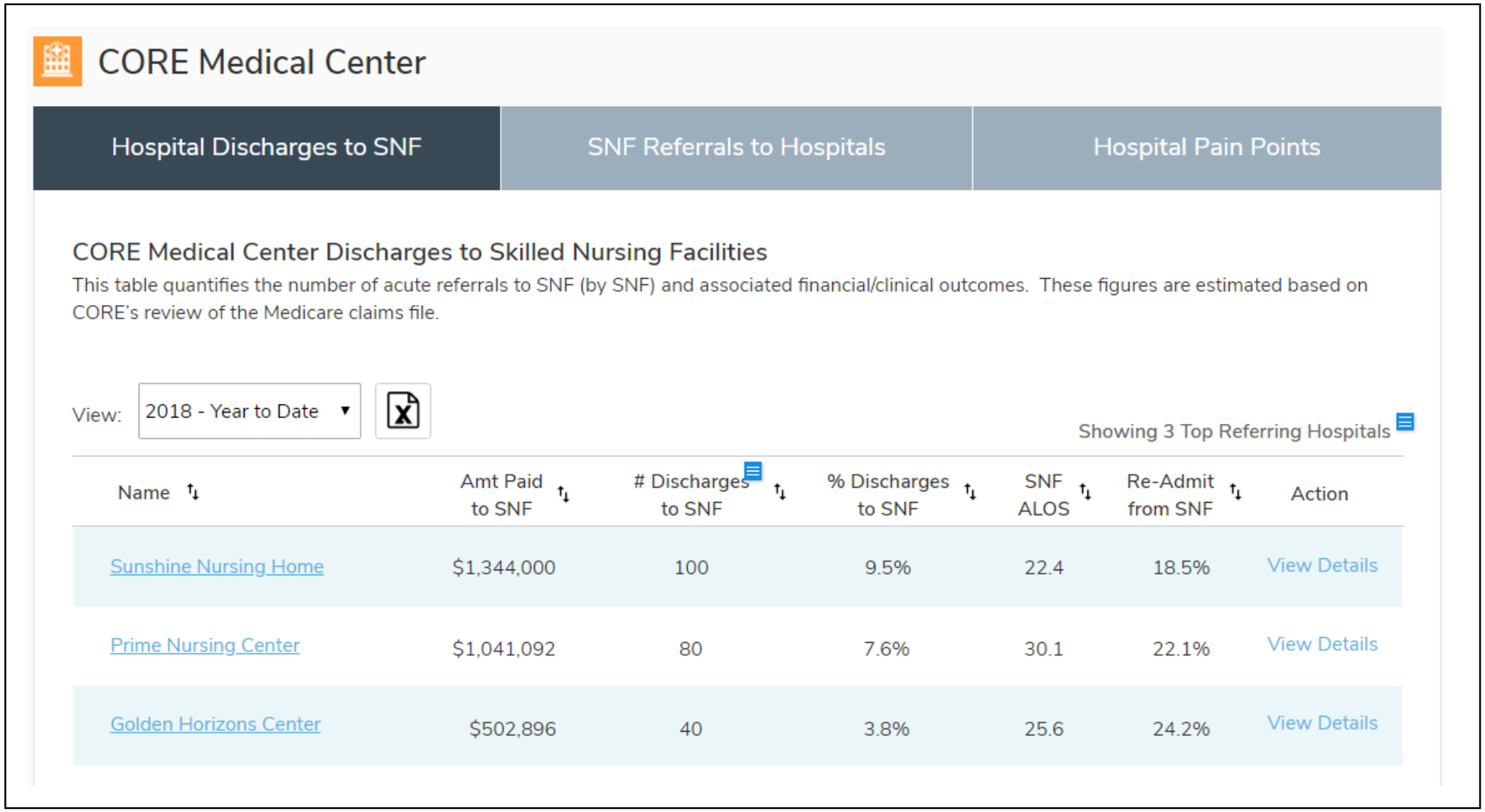
Limitations

1. As a practical matter, **none of this can be done manually**.
2. Many claims-based SaaS solutions are not geared to the SNF market and as such, are **exorbitantly priced**.
3. Available data is often old and unadjusted for **independent variables**.
4. Integration is often expensive, does not work, or does not provide **comparative equality**.

Comparative Analytics Ground Rules

1. Know what to measure & where to find it
2. Merge historic public data with current claims information
3. Demonstrate value by ‘pain point’
4. Adjust for case-mix
5. “Use it or lose it”
6. Ensure comparative integrity
7. Understanding risk adjustment & limitations for monitoring

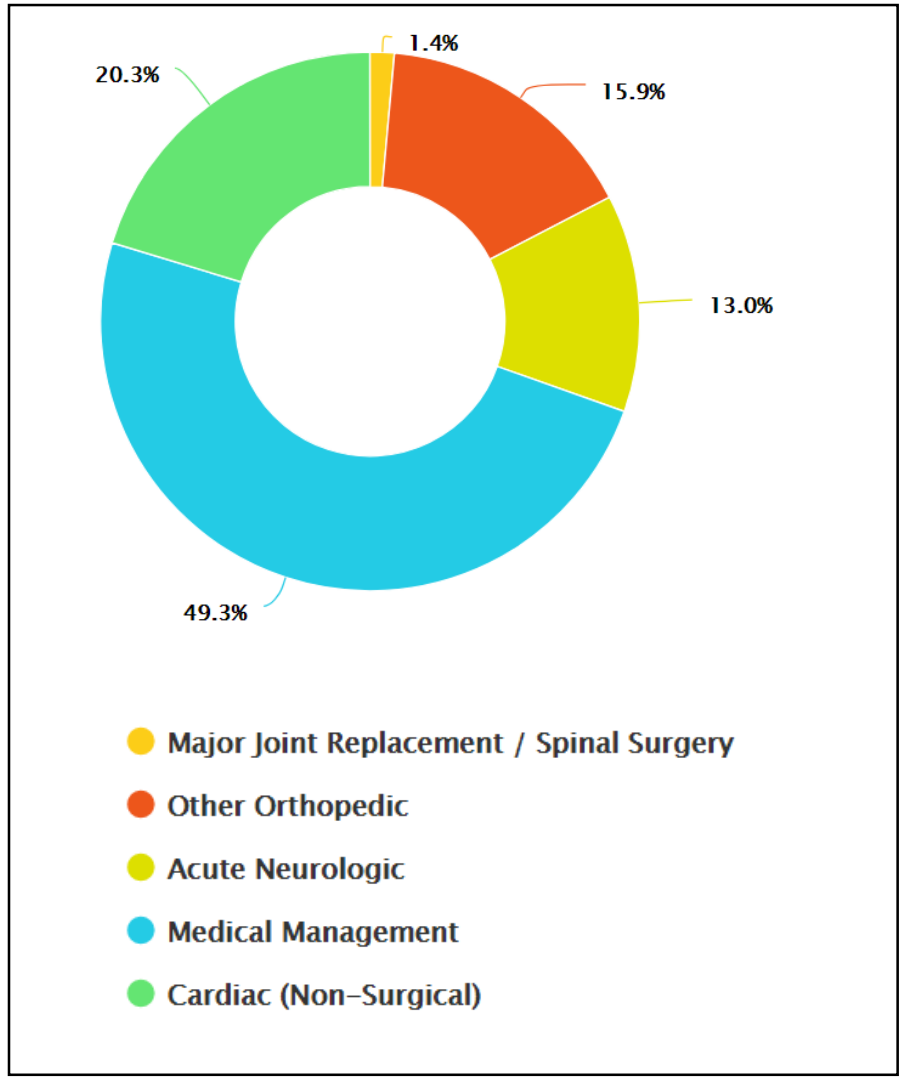
Determining Market Share



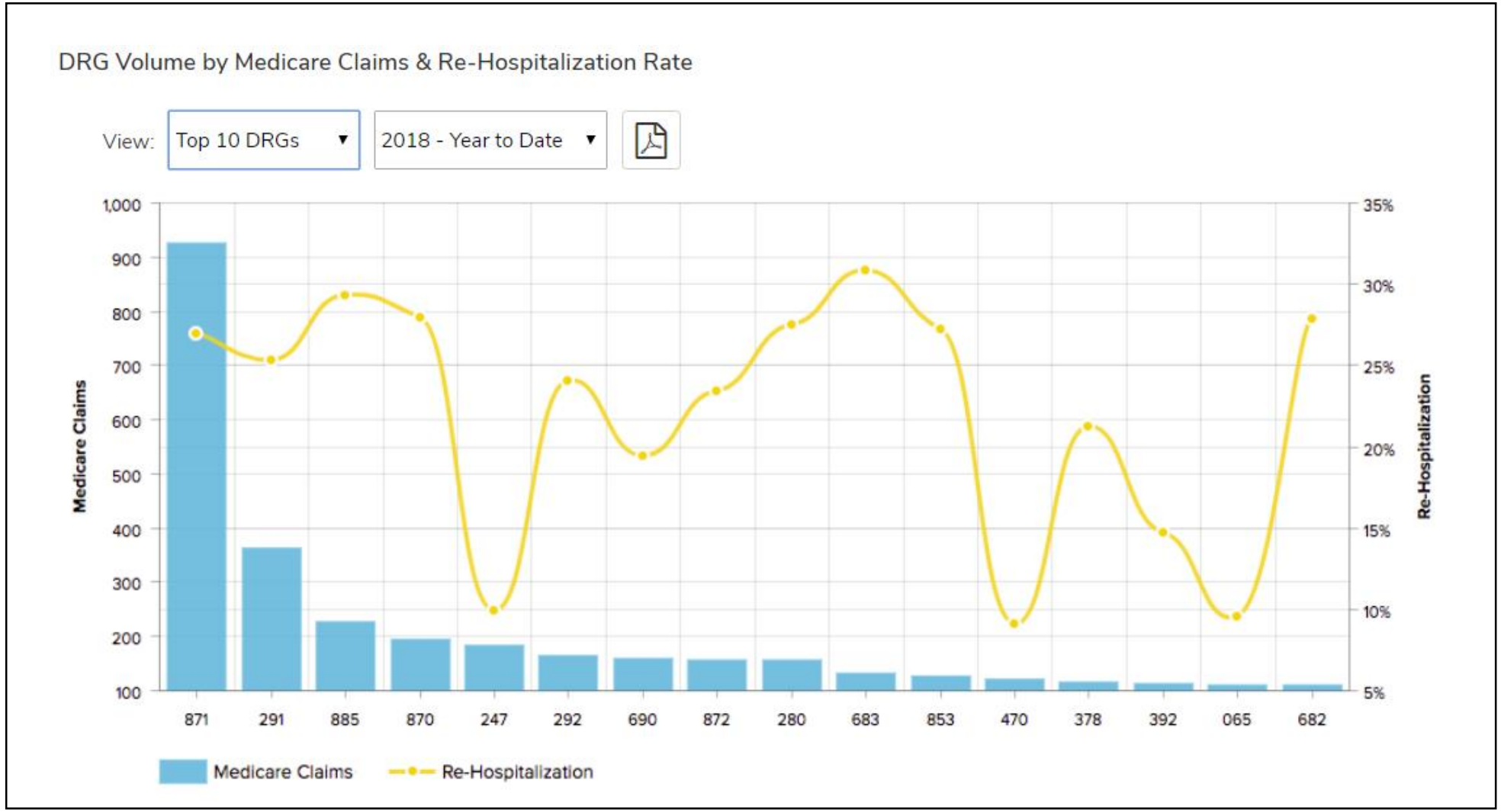
Name	Amt Paid to SNF	# Discharges to SNF	% Discharges to SNF	SNF ALOS	Re-Admit from SNF	Action
Sunshine Nursing Home	$1,344,000	100	9.5%	22.4	18.5%	View Details
Prime Nursing Center	$1,041,092	80	7.6%	30.1	22.1%	View Details
Golden Horizons Center	$502,896	40	3.8%	25.6	24.2%	View Details

Measuring Outcomes by Referral Source

Category	Admissions	Revenue Per Admission	30-Day Re-Hosp Rate	Avg Length of Stay	Community Discharge Rate
Other Orthopedic	29	$15,290	13.8%	22.7	79.3%
Medical Management	82	$15,625	23.2%	23.4	59.8%
Cardiac (Non-Surgical)	26	$12,165	34.6%	18.2	57.7%
Major Joint Replacement / Spinal Surgery	3	$12,910	0.0%	19.0	100.0%
Acute Neurologic	9	$17,863	0.0%	27.0	77.8%

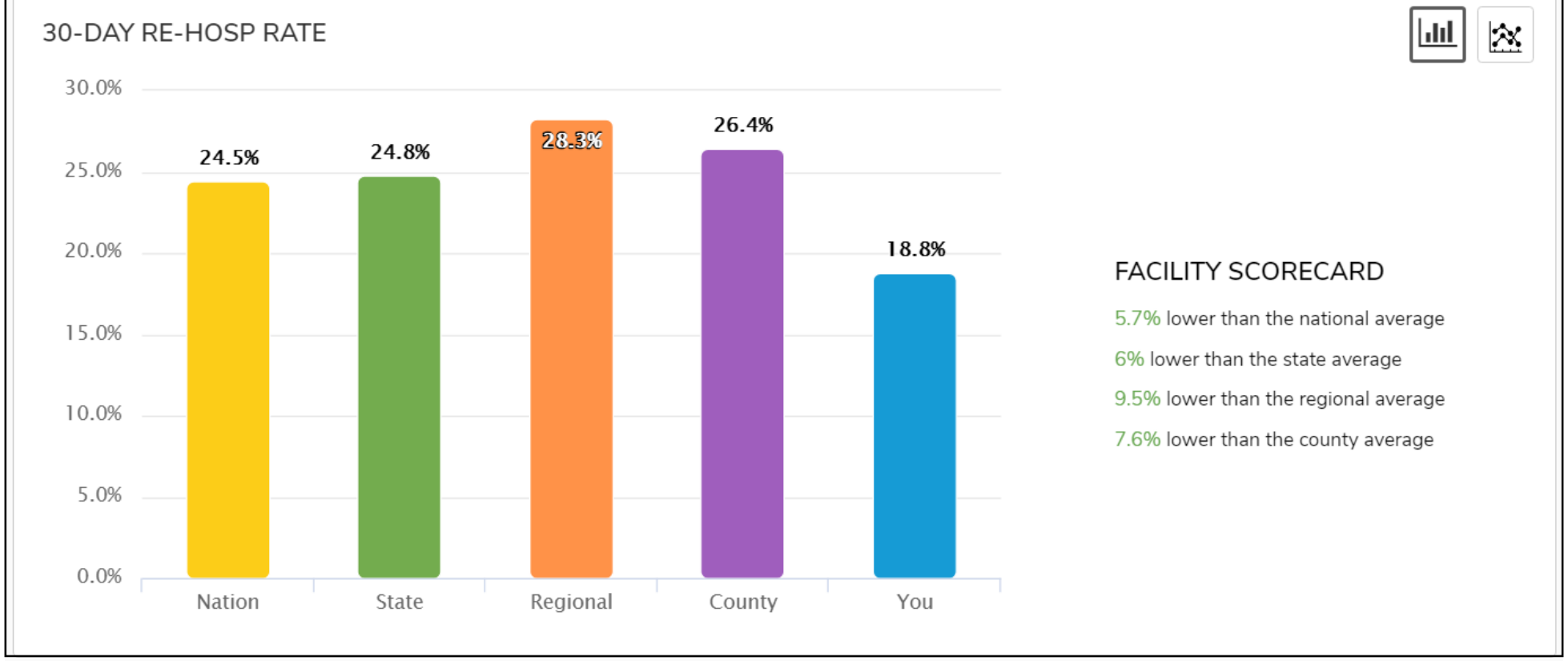


Marketing to Hospital “Pain Point”



Benchmarking Performance w/ Current Data

REVENUE PER ADMISSION	30-DAY RE-HOSP RATE	AVG LENGTH OF STAY	COMMUNITY DISCHARGE RATE	NON-THERAPY ANCILLARY COSTS	TOTAL THERAPY COSTS
$10,829	18.8%	16.0 days	50.7%	$1,092	$3,385



FACILITY SCORECARD

- 5.7% lower than the national average
- 6% lower than the state average
- 9.5% lower than the regional average
- 7.6% lower than the county average

Predictive Analytics

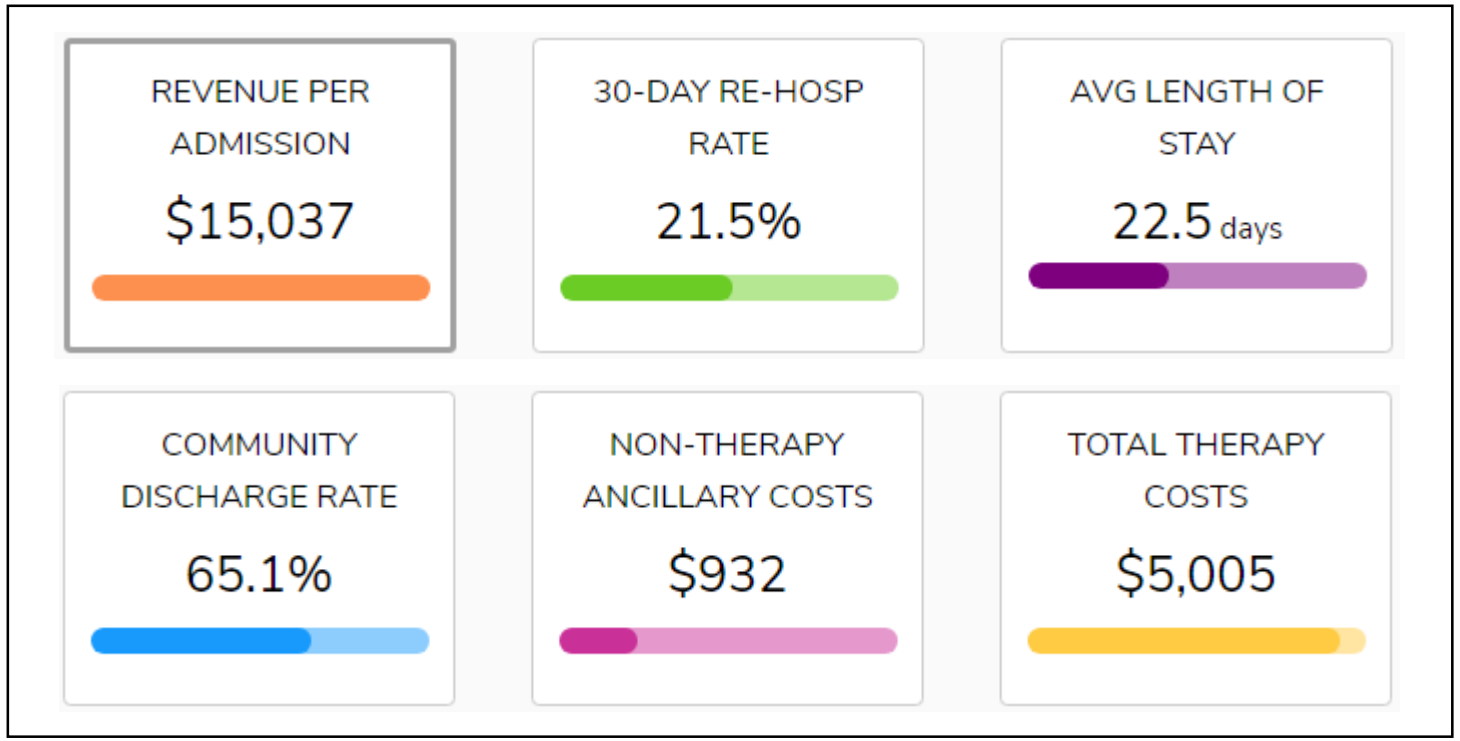
"the use of data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes based on historical data"

Predictive Analytics Ground Rules

1. “The first step in predicting the future is admitting that you cannot”
2. Big Data = Small Math
3. Big Data ≠ Actionable Data [data-driven decisions at point of care]
4. Limit independent variables
5. “Micro-risks” can add up quick
6. Predictive algorithms are more accurate at the “population” level
7. Accurate prediction requires a combo of financial & clinical data

Predictive Modeling

BPCI Category	Fractures femur and hip/pelvis	**Referral Hospital**	All	**Comorbidities**	Cognitive	**Gender**	Female
Age Range	85+	**Hospital Length of Stay**	6-9 days				



PDPM Implications

- Primary dx code reporting & consistency with MDS Section I8000
- Primary diagnosis code mapping
- **Benchmarking therapy utilization by Dx**
- Impact on episodic spend for APM
- Mitigate audit risk
- Reimbursement “logic tests”

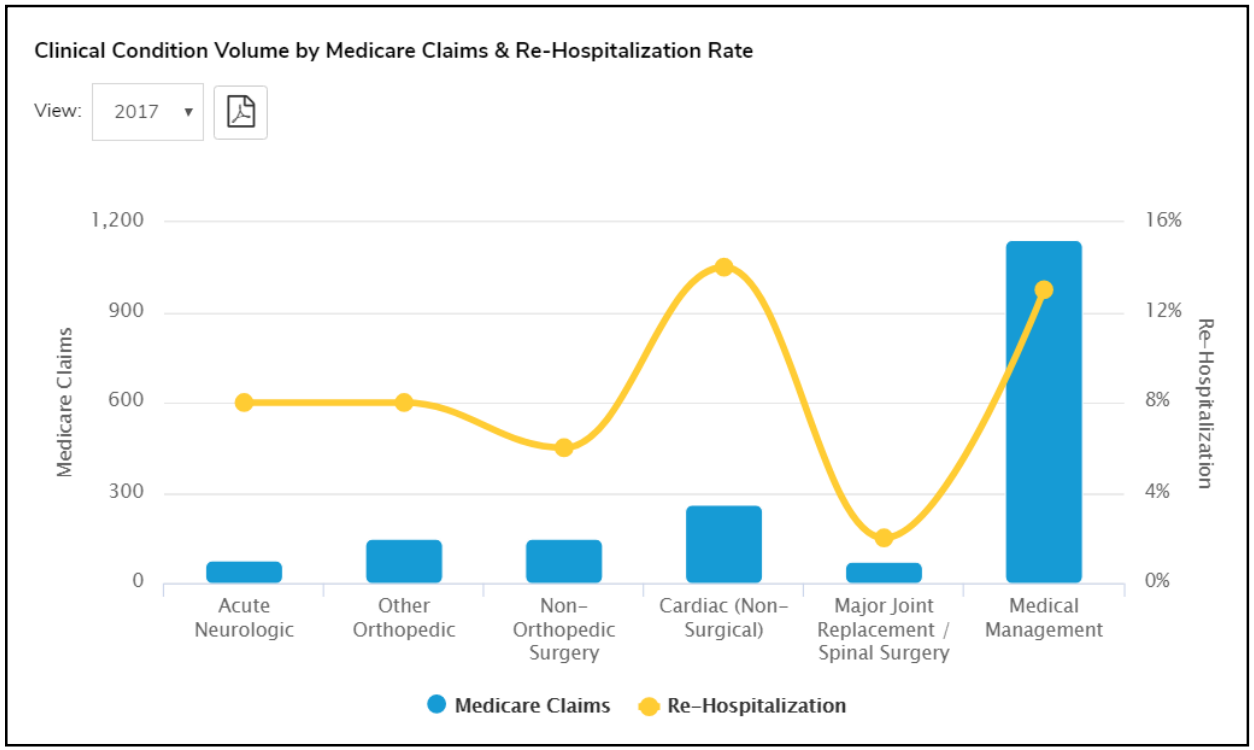
Reimbursement Logic Tests

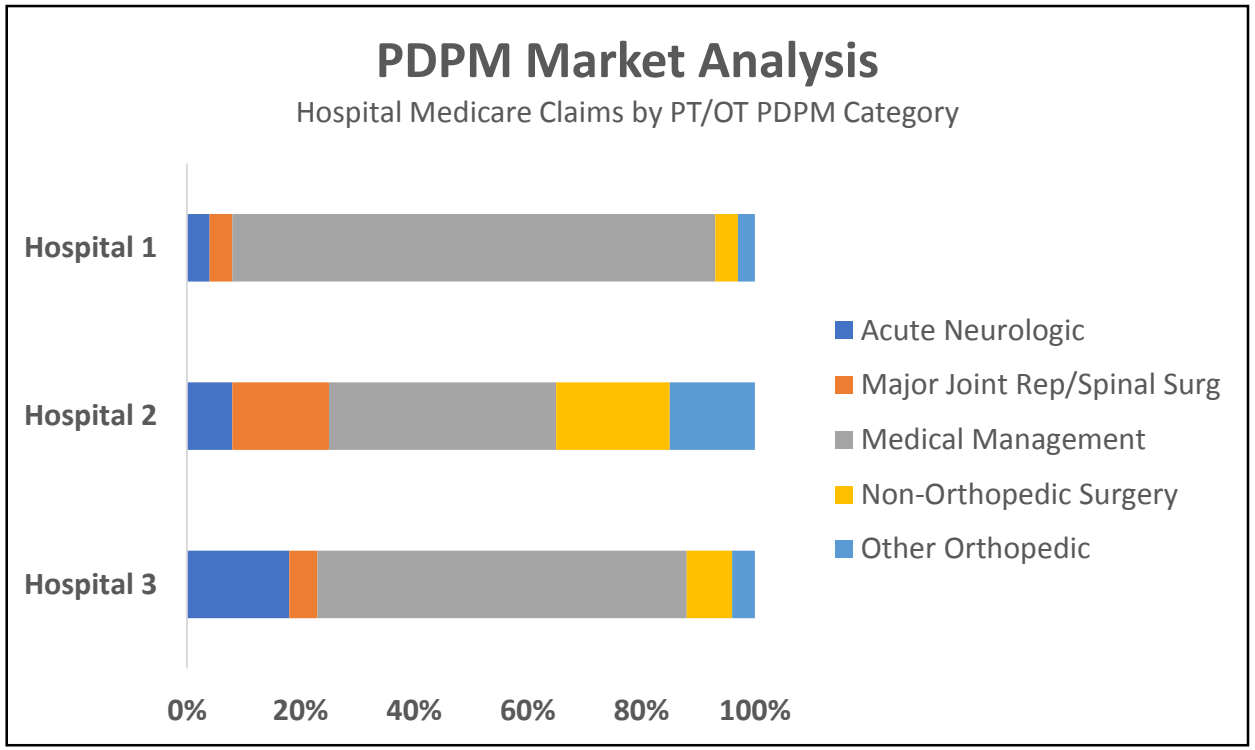
CORE Reimbursement

Facility: Baby Boomer Care Center ▾ Reporting Period: November 2018 ▾

Resident	MDS Section	PDPM Component	Score	Service Date	Issue/Explanation	New Score	Per Day	Days	Total	Resolution
Smith, A	I	PT / OT	TJ	10/27/2018	Medical Management captured, but Dx Z96.6 (aftercare Joint Replacement) reported on UB	TB	$24	27	$648	Issue Corrected ▾
Jones, K	I	ST	SA	11/04/2018	Dysphasia Dx (R47) and Dementia Dx (F03.9) reported on Field 67 of UB	SE	$43	21	$904	Issue Corrected ▾
Ellen, P	I	NTA	NF	11/10/2018	Diabetes Mellitus Dx on Field 67 of UB = 2 NTA points but 0 captured	NE	$67	18	$1,209	Pending ▾
Stevens, W	I	NTA	ND	10/29/2018	IV med charges on UB; NTA = 3. IV = 5 points omitted	NB	$222	14	$2,221	Issue Corrected ▾
Stevens, W	K, O	Nursing	PDE1	10/29/2018	IV med charges on UB but not reflected in Nursing component	CDE1	$14	45	$630	Pending ▾

PDPM Market Analysis





Next Steps

- Establish core data elements. Determine how to measure. Risk adjust.
- Marry clinical & financial data: **ANALYTICS + CARE MANAGEMENT**
- Any software data application must help NOW & fit vision for FUTURE

  What are your vendors doing to prepare for PDPM?
- Identify market opportunity and implement strategy
- Design facility protocols around data analysis & risk stratification
- Get ready to take risk with future payment systems

Contact Information

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