

SNF analytics: What you don't know can hurt you

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2 great examples of using data analytics in SNFs to improve performance for Five-Star Quality



1. Quality Measures (QMs)

- Are you aware of your Five-Star QM scores?
- Can you predict if your scores are trending up or down?

2. Staffing (PBJ)

- Are you reporting all the hours you should be?
- See your Staffing Five-Star score before you submit to CMS.

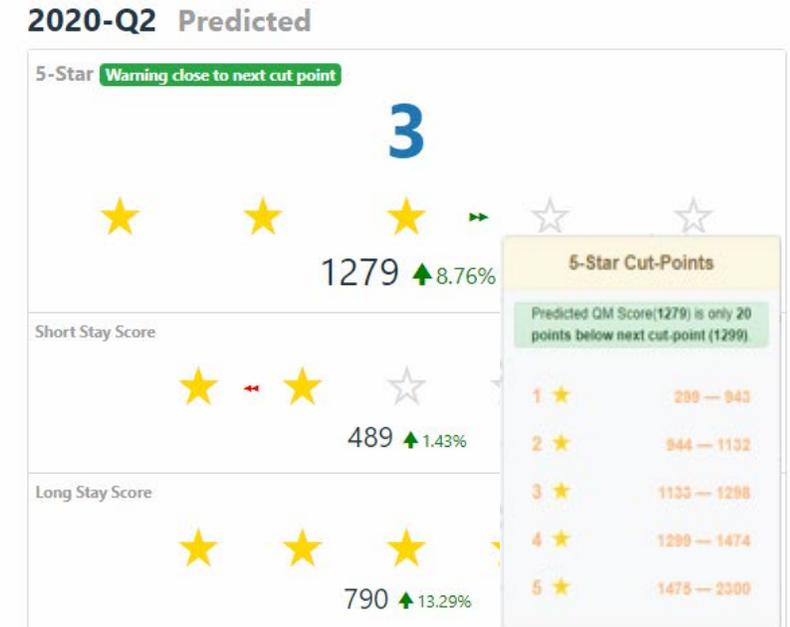
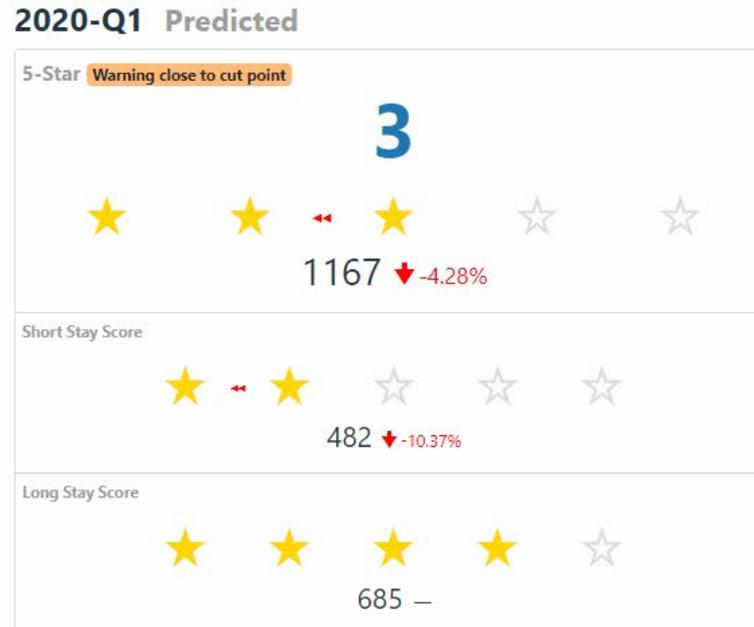
Quality Measures



Know your cut points

5-Star Cut-Points		Short Stay Cut Points		Long Stay Cut Points	
1 ★	299 — 943	1 ★	144 — 473	1 ★	155 — 469
2 ★	944 — 1132	2 ★	474 — 567	2 ★	470 — 564
3 ★	1133 — 1298	3 ★	568 — 653	3 ★	565 — 644
4 ★	1299 — 1474	4 ★	654 — 739	4 ★	645 — 734
5 ★	1475 — 2300	5 ★	740 — 1150	5 ★	735 — 1150

Quality Measures (QMs)– What will you be rated?



Quality Measures (QMs)– How is my score calculated?



N037 - Improvements in Function					
Short Stay		NHC			
5-★					
2019-Q4		2020-Q1		2020-Q2	
65.34%		45.45%		41.34%	
↓ -12.6		↓ -19.89		↓ -4.11	
Num.	Den.	12	28	6	16
12	23	61.13%	60	56.94%	45
4Q Avg.	Score				
67.14%	75				
State Avg.			National Avg.		
65.96%			67.95%		

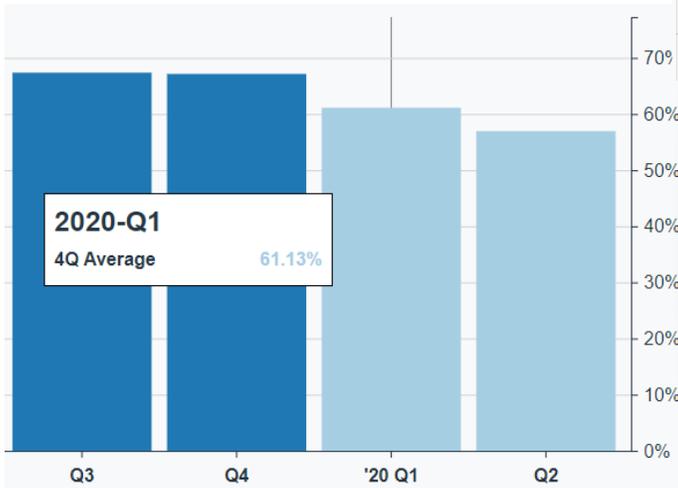
N037 - 2020-Q2			
Risk adjusted 4Q Average (56.9380%) is only one resident away from DECREASING QM Score.			
QM Score Cut-Points			
150	82.76% — 100.00%	135	77.45% — 82.75%
120	73.65% — 77.44%	105	70.39% — 73.64%
90	67.38% — 70.38%	75	64.28% — 67.37%
60	60.91% — 64.27%	45	56.64% — 60.90%
30	50.15% — 56.63%	15	0.00% — 50.14%
48.4		/ 85 ≈ 56.9380%	

Quality Measures (QMs)– Which residents contribute to my score?



Who are my numerators, and why?

What is the trend?



12 Numerator Residents - 2020 Q1

Name	Start Date	Latest Date	Gender	Age	Group
Resident 3525982	2019-09-25	2019-10-18	Male	73	Num Den
Resident 3526046	2019-12-06	2020-01-15	Male	41	Num Den

Target Assessment

Oct. 18th, 2019 ID: B-2578631 View

ND - Discharge

Discharge

A0310A 99	A0310B 99	A0310F 10
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Numerator Trigger

Resident improved in performance with transfer (G0110B1), locomotion (G0110E1), or walking in the corridor (G0110D1).

Staffing Five-Star (PBJ)



- The goal of the CMS Payroll-Based Journal (PBJ) is collecting auditable data to track nursing home staffing levels and employee turnover and tenure, which can impact the quality of care delivered.
- Use an analytics tool to identify all reported hours and track scores.

Hours by job title and pay type

PBJ Job Title	Exempt (1)	Non-Exempt (2)	Contract (3)	Total
Administrator (1)	968.44	0.00	3.00	971.44
Medical Director (2)	0.00	0.00	20.00	20.00
Other Physician (3)	0.00	0.00	1.00	1.00
Physician Assistant (4)	0.00	0.00	0.00	0.00
Registered Nurse Director of Nursing (5)	446.00	0.00	0.00	446.00
Registered Nurse with Administrative Duties (6)	515.42	153.69	0.00	669.11
Registered Nurse (7)	4.70	2,289.14	0.00	2,293.84
Licensed Practical/Vocational Nurse with Administrative Duties (8)	449.37	0.00	0.00	449.37
Licensed Practical/Vocational Nurse (9)	0.00	4,939.71	0.00	4,939.71
Certified Nurse Aide (10)	0.00	11,371.56	52.93	11,424.49
Medication Aide/Technician (12)	0.00	1,771.72	0.00	1,771.72
Nurse Practitioner (13)	0.00	0.00	12.00	12.00
Pharmacist (15)	0.00	0.00	18.18	18.18
Dietitian (16)	0.00	248.77	0.00	248.77
Occupational Therapist (18)	0.00	0.00	450.77	450.77
Occupational Therapy Assistant (19)	0.00	0.00	408.37	408.37
Physical Therapist (21)	0.00	0.00	618.70	618.70
Physical Therapy Assistant (22)	0.00	0.00	1,009.18	1,009.18
Physical Therapy Aide (23)	0.00	0.00	456.37	456.37
Speech/Language Pathologist (26)	0.00	0.00	448.44	448.44
Qualified Activities Professional (28)	0.00	475.31	0.00	475.31
Other Activities Staff (29)	0.00	475.17	0.00	475.17
Qualified Social Worker (30)	459.84	0.00	0.00	459.84
Other Service Worker (optional) (40)	0.00	1,586.94	0.00	1,586.94
	2,843.77	23,312.01	3,498.94	29,654.72

Am I missing any job titles?

Am I missing any pay types?

Did I include all reportable hours?

PBJ- What will you be rated?



ezPBJ Five Star Staffing Forecast

Date Range
01/01/2020 - 03/31/2020 (91 days)
(First and Last Dates within Quarter with Work Shifts/Hours)

Overall Staffing Rating Projection
★★★★☆

Average Daily Resident Census
43.4505
(from MDS/CMS CASPER via ezPBJ Sender, updated daily)

		Aides	LPNs	RNs	Total Nursing
Rating Goal Selection	Select an RNs and/or Total Nursing Goal by Clicking on the Stars →				
		★★★★★			★★★★★
Reported Hours <small>(PBJ Submission)</small>	Actual (ezPBJ)	13,975.64	6,323.39	2,982.03	23,281.06
	Reported Hours Projection	13,975.64	6,323.39	2,982.03	23,281.06
Reported HPRD <small>(Reported Hours / Census / Days)</small>		3.534561432859496 3 hours 32 minutes	1.5992405656506188 1 hour 36 minutes	0.7541814349561097 45 minutes	5.887983433466223 5 hours 53 minutes
Case-Mix HPRD <small>(Based on MDS, Strive & RUGS)</small>	Previous Actual <small>(2020 1st Quarter)</small>	2.24072 2 hours 14 minutes	0.75402 45 minutes	0.36602 22 minutes	3.36076 3 hours 22 minutes
	Case-Mix HPRD Projection	N/A	N/A	0.36602	3.36076
Reported to Case-Mix HPRD Ratio <small>(HPRD Reported / HPRD Case-Mix)</small>		1.577	2.121	2.060	1.752
National Average HPRD <small>(Using 2020 1st Quarter National Averages)</small>		Not Provided	Not Provided	0.37638 23 minutes	3.20666 3 hours 12 minutes
Adjusted HPRD ⓘ <small>HOURS Adjusted HPRD = (HOURS Reported HPRD / HOURS Case-Mix HPRD) * HOURS National Average HPRD</small>				0.7755281364099792 47 minutes	5.6180033554192494 5 hours 37 minutes
Staffing Rating Projection <small>(Using this Quarter's Cut Points)</small>				★★★★☆	★★★★★



PBJ- How is my score calculated?

RNs	Total Nursing
★★★★★	★★★★★
2,982.03	23,281.06
<input type="text" value="2,982.03"/> ↻ ±	<input type="text" value="23,281.06"/> ↻ ±
0.7541814349561097 45 minutes	5.887983433466223 5 hours 53 minutes
0.36602 22 minutes	3.36076 3 hours 22 minutes
<input type="text" value="0.36602"/> ↻ ±	<input type="text" value="3.36076"/> ↻ ±
2.060	1.752
0.37638 23 minutes	3.20666 3 hours 12 minutes
0.7755281364099792 47 minutes	5.6180033554192494 5 hours 37 minutes
★★★★★	★★★★★

Overall Staffing Hours and Rating						
RN Rating		Total Nurse Staffing Rating (RN, LPN and Nurse Aide)				
		1	2	3	4	5
		< 3.108	3.108 - 3.579	3.580 - 4.037	4.038 - 4.407	≥ 4.408
1	< 0.317	★	★	★★	★★	★★★
2	0.317 - 0.507	★★	★★	★★	★★★	★★★★
3	0.508 - 0.730	★★	★★★	★★★	★★★★	★★★★★
4	0.731 - 1.048	★★★	★★★	★★★★	★★★★★	★★★★★
5	≥ 1.049	★★★★	★★★★★	★★★★★	★★★★★	★★★★★

Note: Adjusted staffing values are rounded to the three decimal places before the cut points are applied.

<input type="checkbox"/>	Add One Star to Overall Rating (if greater than health inspection rating)	<input type="checkbox"/>	Subtract One Star from Overall Rating
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PBJ- how could I achieve another star?

Date Range
 01/01/2020 - 03/31/2020 (91 days)
 (First and Last Dates within Quarter with Work Shifts/Hours)

Overall Staffing Rating Projection
 ★★★★★

Average Daily Resident Census
 43.4505
 (from MDS/CMS CASPER via ezPBJ Sender, updated daily)

	Aides	LPNs	RNs	Total Nursing
Rating Goal Selection	<input type="button" value="Select an RNs and/or Total Nursing Goal by Clicking on the Stars →"/> <input type="button" value="Remove Goals"/>		★★★★★	★★★★★
Reported Hours (PBJ Submission) <input type="button" value="Reset All to Actual"/>	Actual (ezPBJ) 13,975.64	6,323.39	2,982.03	23,281.06
	Reported Hours Projection <input type="text" value="7,909.83"/> <input type="button" value="↺"/> <input type="button" value="↻"/>	<input type="text" value="6,323.39"/> <input type="button" value="↺"/> <input type="button" value="↻"/>	<input type="text" value="4,033.57"/> <input type="button" value="↺"/> <input type="button" value="↻"/>	18,266.79
	Change in Hours	-6,065.81 hrs (~-66.7 / 91 days)	1,051.54 hrs (~11.6 / 91 days)	-5,014 hours 16 minutes (-5,014.27)

Final thoughts on improving Five-Star scores using data analytics



1. Own your data

Learn how to use your tools to analyze the current score, as well as trends.

2. Set goals

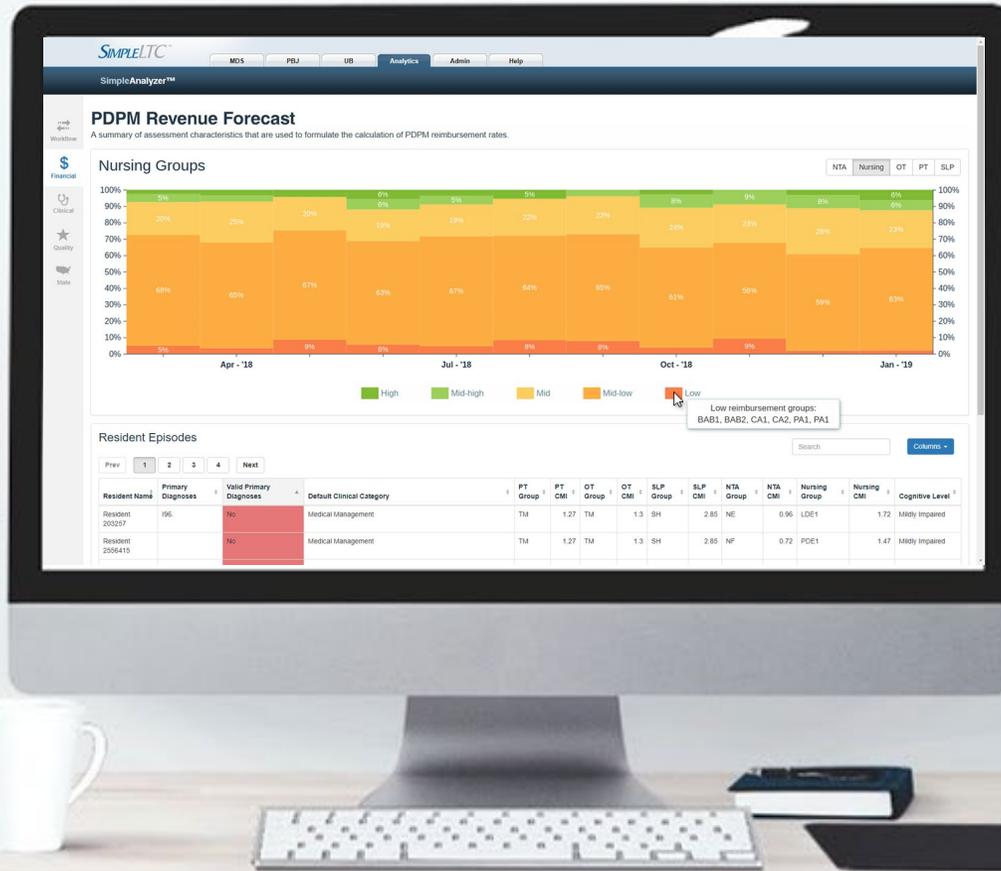
Set a goal that can be achieved and work with your staff to build processes.

3. Monitor routinely

Track your scores more frequently than CMS. Don't wait for deadlines, be proactive.

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SimpleAnalyzer™

MDS Five-Star analytics

PDPM performance insights

Real-time QM improvement

Pre-transmission MDS scrubbing

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Your one-stop shop for PBJ success

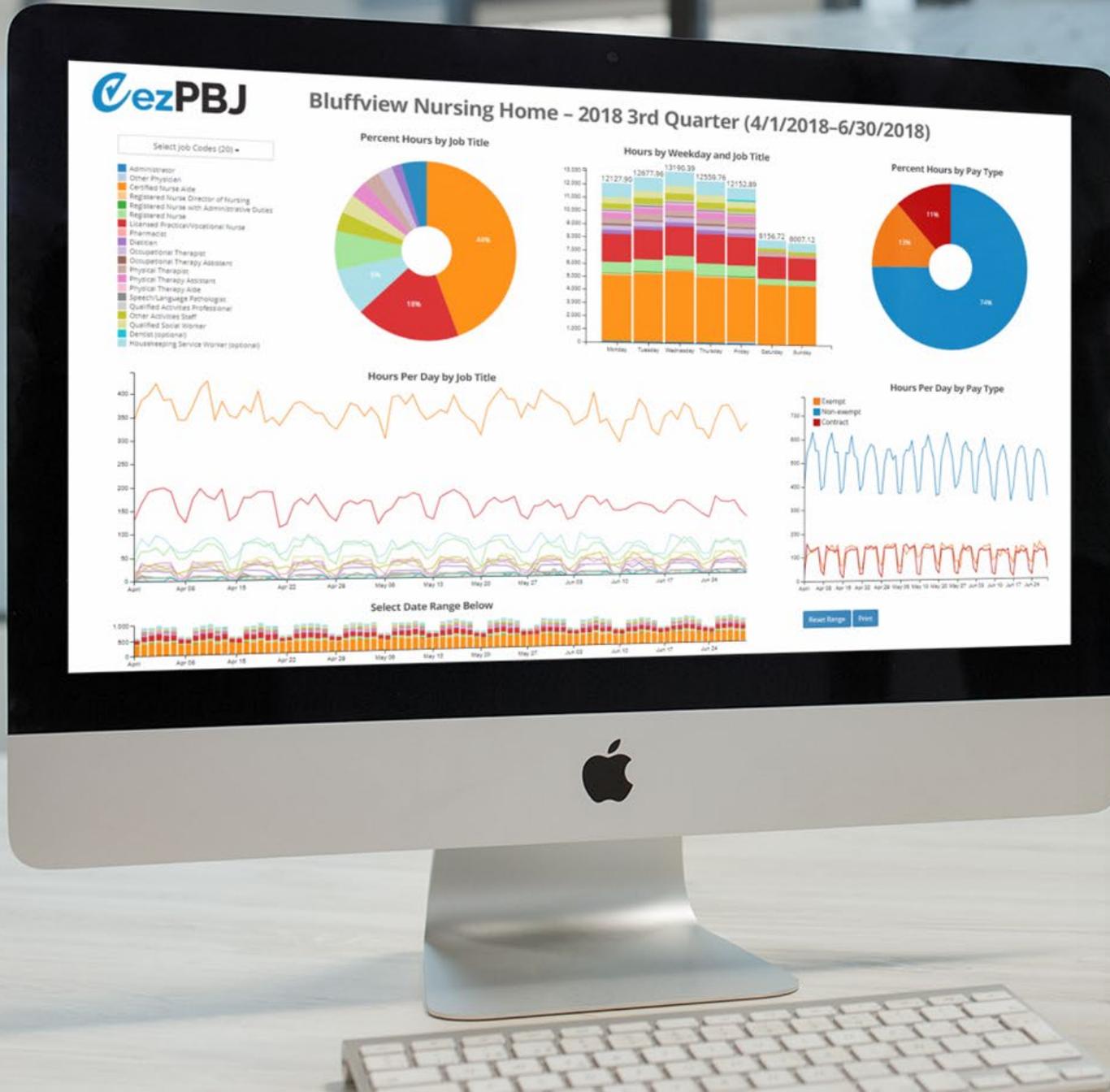
Assemble, validate and submit your PBJ

Predict Staffing Five-Star ratings

Submit PBJ reports with one click

Benchmark results against other facilities

[Request demo](#)



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