

Hospital DRG Payment Analysis

Applied Business Analytics

BAN5650

Team Grand

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Methodology

- Rndrng_Privr_State_Abrvtn = MA
- Combined 2019 and 2021 data
- Concatenated DRG codes and DRG Description
- Compiled all DRGs from 2019 and 2021 data
 - Grouped Total Discharges and Average Total Payment for respective years
- Effect of service mix change
 - 2021 service mix
 - 2021 service mix on 2019 total discharges (How many hospitalizations would there have been in 2021 if we had considered total hospitalization volume from 2019?)
 - 2019 average total payment
 - Cost using 2019 average total payment and 2021 service mix on 2019 total discharge
 - 2019 average payment at 2019 service mix
 - Impact of service change
- Effect of individual average DRG payment

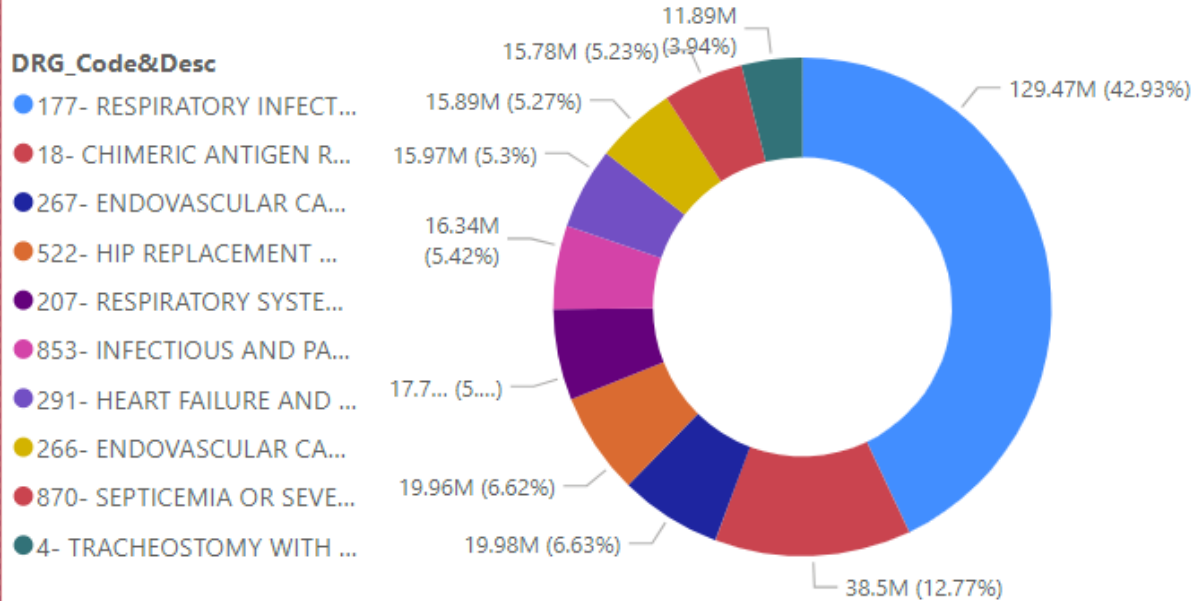
CHANGE IN AVERAGE MEDICARE REIMBURSEMENT IN MASSACHUSETTS (2019 – 2021)

- **60%** of the increase in overall average payment was due to change in individual DRG payments
- **40%** of the increase in overall average payment was due to change in service mix

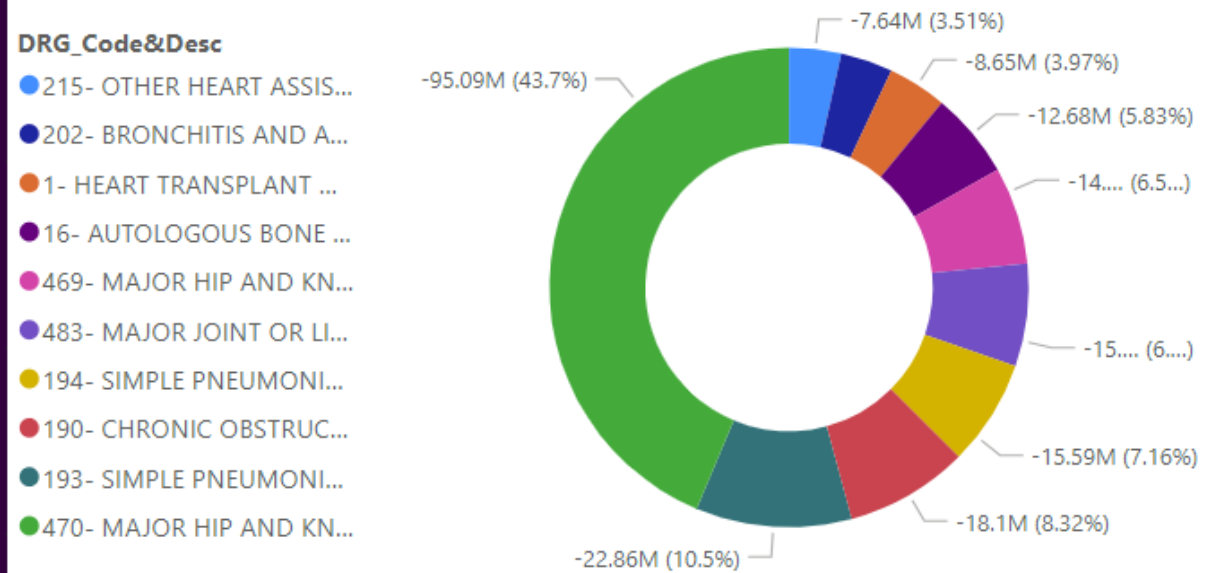
Step 5: Summarize YOY Overall Avg Payment Change		
Impact of Service mix change	\$	220,936,018
2019 Total Discharge		223222
The total average payment per unit change	\$	990
Impact of DRG Avg payment change	\$	277,134,548
2021 Total Discharge		185708
The total average payment per unit change	\$	1,492
Total Impact	\$	2,482

DRGs contributing to average payment increase due to service mix change

Top 10 DRGs



Bottom 10 DRGs

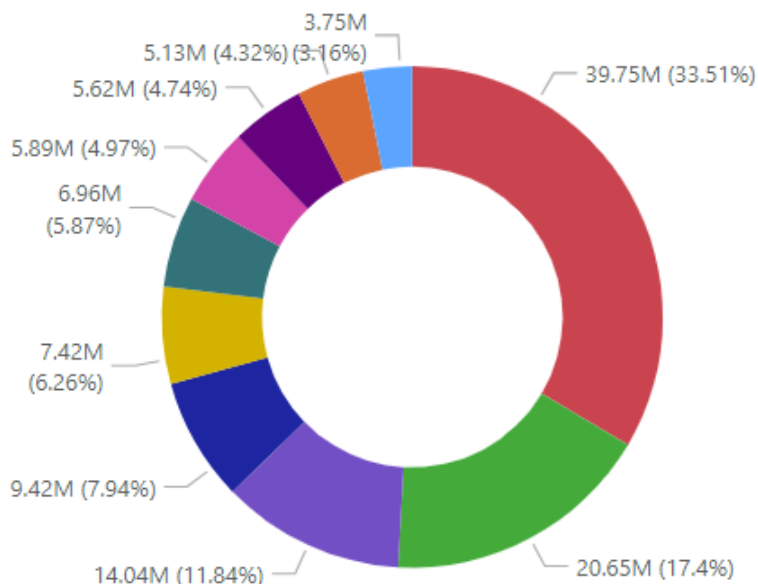


DRGs contributing to average payment increase due to individual DRG average payment change

Top 10 DRGs

DRG_Code&Desc

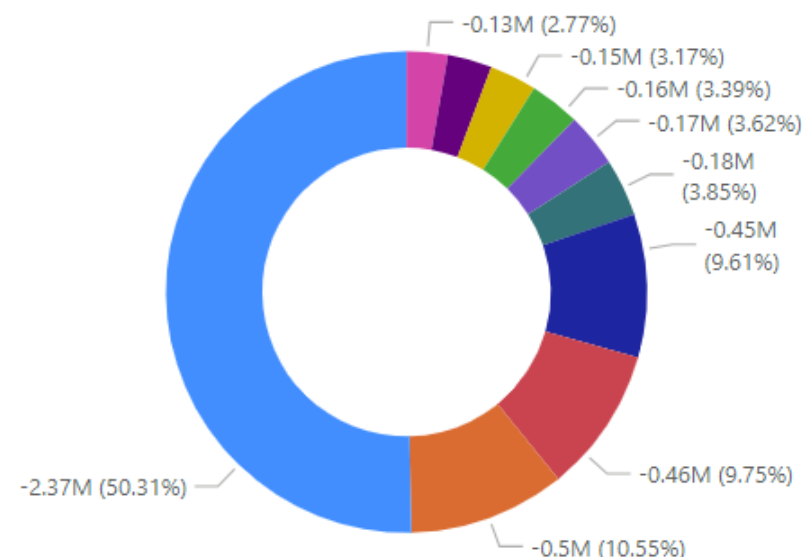
- 177- RESPIRATORY INFECTIONS A...
- 871- SEPTICEMIA OR SEVERE SEP...
- 3- ECMO OR TRACHEOSTOMY WI...
- 207- RESPIRATORY SYSTEM DIAG...
- 4- TRACHEOSTOMY WITH MV >9...
- 870- SEPTICEMIA OR SEVERE SEP...
- 291- HEART FAILURE AND SHOCK...
- 25- CRANIOTOMY AND ENDOVA...
- 219- CARDIAC VALVE AND OTHE...
- 813- COAGULATION DISORDERS



Bottom 10 DRGs

DRG_Code&Desc

- 442- DISORDERS OF LIVE...
- 389- GASTROINTESTINAL...
- 5- LIVER TRANSPLANT W...
- 856- POSTOPERATIVE OR ...
- 459- SPINAL FUSION EXC...
- 82- TRAUMATIC STUPOR ...
- 215- OTHER HEART ASSIS...
- 673- OTHER KIDNEY AND...
- 229- OTHER CARDIOTHO...
- 16- AUTOLOGOUS BONE ...





Acquisition Decisions

- Medicare reimbursement rate setting process ensures covering the costs that "reasonably efficient providers would incur in furnishing high-quality care" (Medpac, 2019).
- Higher average Medicare reimbursement rates imply there has been a change in the costs as indicated above.
- When Hospitals optimize their service mix within their DRGs to deliver high-reimbursing services, efficiently manage resources, enhance quality of care, they improve the patient outcomes.
- Hospitals benefit from an improved negotiation power when dealing with various stakeholders, including hospital agents and payers.



Acquisition Decisions

- Hospitals with better negotiation power attract and retain skilled healthcare professionals aiding to boost their brand value
- Better standing in the community helps these hospitals attract Medicare beneficiaries when combined with the fact that 60% of the change in overall average payment was induced by change in individual average DRG payment.
- This means increased revenue and increased profit margin if these hospitals efficiently manage their resources.
- Acquiring hospitals in MA could be a good opportunity to explore.



REFERENCES

- Medical Payment Advisory Commission. (March, 2019). Report to the Congress: Medicare Payment Policy.

<https://www.medpac.gov/document/march-2019-report-to-the-congress-medicare-payment-policy/>



Thank You