

## LEVERAGING LESSONS LEARNED FROM MEDICARE'S BUNDLED PAYMENT PROGRAM

**Kelly C. Price**  
Director  
DataGen Group  
A HANYS Solutions  
Company

**Jonathan W Pearce,**  
CPA, FHFMA  
Principal  
Singletrack  
Analytics, LLC



## LESSONS TO LEARN FROM YOUR DATA

What's your  
financial exposure,  
and for which  
providers (Who's in  
my game)?

What's your  
financial risk for the  
selected episodes,  
and in total?

Where are my  
greatest cost-saving  
opportunities?

How should I  
structure my  
contracts?

## FINANCIAL EXPOSURE

## FINANCIAL EXPOSURE

	EpisodeCount	SumPmtAmt	AvgEpisodeCost
190 - Chronic obstructive pulmonary disease w MCC	35	\$837,683	\$23,934
191 - Chronic obstructive pulmonary disease w CC	24	\$552,850	\$23,035
192 - Chronic obstructive pulmonary disease w/o CC/MCC	25	\$302,752	\$12,110
202 - Bronchitis & asthma w CC/MCC	8	\$155,789	\$19,474
203 - Bronchitis & asthma w/o CC/MCC	7	\$41,788	\$5,970
231 - Coronary bypass w PTCA w MCC	3	\$210,050	\$70,017
232 - Coronary bypass w PTCA w/o MCC	1	\$52,154	\$52,154
233 - Coronary bypass w cardiac cath w MCC	5	\$432,735	\$86,547
234 - Coronary bypass w cardiac cath w/o MCC	4	\$231,459	\$57,865
235 - Coronary bypass w/o cardiac cath w MCC	8	\$642,185	\$80,273
236 - Coronary bypass w/o cardiac cath w/o MCC	14	\$565,898	\$40,421
291 - Heart failure & shock w MCC	30	\$1,127,129	\$37,904
292 - Heart failure & shock w CC	111	\$2,729,519	\$24,590
293 - Heart failure & shock w/o CC/MCC	24	\$360,842	\$15,035
466 - Revision of hip or knee replacement w MCC	2	\$100,088	\$50,044
467 - Revision of hip or knee replacement w CC	32	\$1,402,573	\$43,830
468 - Revision of hip or knee replacement w/o CC/MCC	25	\$817,656	\$32,706
469 - Major joint replacement or reattachment of lower extremity w MCC	30	\$1,617,021	\$53,901
470 - Major joint replacement or reattachment of lower extremity w/o MCC	434	\$13,137,488	\$30,732
<b>Grand Total</b>	<b>822</b>	<b>\$25,527,670</b>	<b>\$31,056</b>

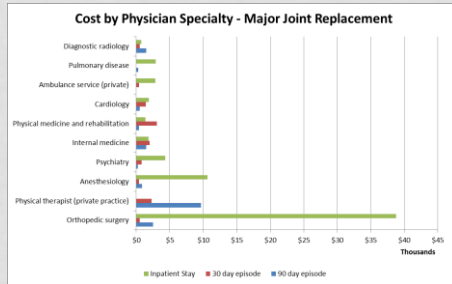
## AREAS OF FINANCIAL EXPOSURE

	EpisodeCount	SumPmtAmt	AvgEpisodeCost
470 - Major joint replacement or reattachment of lower extremity w/o MCC	434	\$13,137,488	\$30,732
292 - Heart failure & shock w CC	111	\$2,729,519	\$24,590
469 - Major joint replacement or reattachment of lower extremity w MCC	30	\$1,617,021	\$53,901
467 - Revision of hip or knee replacement w CC	32	\$1,402,573	\$43,830
291 - Heart failure & shock w MCC	30	\$1,127,129	\$37,904
190 - Chronic obstructive pulmonary disease w MCC	35	\$837,683	\$23,934
468 - Revision of hip or knee replacement w/o CC/MCC	25	\$817,656	\$32,706
235 - Coronary bypass w/o cardiac cath w MCC	8	\$642,185	\$80,273
236 - Coronary bypass w/o cardiac cath w/o MCC	14	\$565,898	\$40,421
191 - Chronic obstructive pulmonary disease w CC	24	\$552,850	\$23,035
233 - Coronary bypass w cardiac cath w MCC	5	\$432,735	\$86,547
293 - Heart failure & shock w/o CC/MCC	24	\$360,842	\$15,035
192 - Chronic obstructive pulmonary disease w/o CC/MCC	25	\$302,752	\$12,110
234 - Coronary bypass w cardiac cath w/o MCC	4	\$231,459	\$57,865
231 - Coronary bypass w PTCA w MCC	3	\$210,050	\$70,017
202 - Bronchitis & asthma w CC/MCC	8	\$155,789	\$19,474
466 - Revision of hip or knee replacement w MCC	2	\$100,088	\$50,044
232 - Coronary bypass w PTCA w/o MCC	1	\$52,154	\$52,154
203 - Bronchitis & asthma w/o CC/MCC	7	\$41,788	\$5,970
<b>Grand Total</b>	<b>822</b>	<b>\$25,527,670</b>	<b>\$31,056</b>

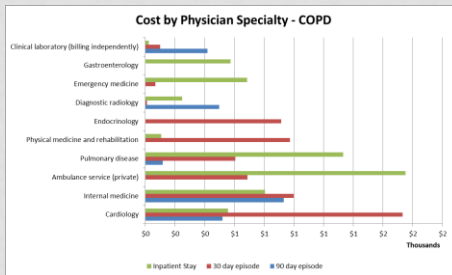
## COSTS PER EPISODE

	EpisodeCount	SumPmtAmt	AvgEpisodeCost
470 - Major joint replacement or reattachment of lower extremity w/o MCC	460	\$14,534,090	\$31,256
292 - Heart failure & shock w CC	114	\$2,861,986	\$25,105
469 - Major joint replacement or reattachment of lower extremity w MCC	36	\$1,950,928	\$54,192
467 - Revision of hip or knee replacement w CC	39	\$1,714,190	\$43,954
291 - Heart failure & shock w MCC	48	\$1,684,090	\$35,085
190 - Chronic obstructive pulmonary disease w MCC	37	\$1,143,435	\$30,904
468 - Revision of hip or knee replacement w/o CC/MCC	27	\$838,448	\$31,054
235 - Coronary bypass w/o cardiac cath w MCC	10	\$779,680	\$77,968
191 - Chronic obstructive pulmonary disease w CC	26	\$617,291	\$23,742
293 - Heart failure & shock w/o CC/MCC	30	\$543,596	\$18,118
236 - Coronary bypass w/o cardiac cath w/o MCC	13	\$527,191	\$40,553
233 - Coronary bypass w cardiac cath w MCC	6	\$456,480	\$76,081
202 - Bronchitis & asthma w CC/MCC	13	\$349,304	\$26,870
466 - Revision of hip or knee replacement w MCC	4	\$207,195	\$51,799
192 - Chronic obstructive pulmonary disease w/o CC/MCC	20	\$253,530	\$12,677
231 - Coronary bypass w PTCA w MCC	3	\$210,050	\$70,017
234 - Coronary bypass w cardiac cath w/o MCC	3	\$200,217	\$66,739
232 - Coronary bypass w PTCA w/o MCC	1	\$52,286	\$52,286
203 - Bronchitis & asthma w/o CC/MCC	6	\$35,046	\$5,841
<b>Grand Total</b>	<b>901</b>	<b>\$29,019,059</b>	<b>\$32,208</b>

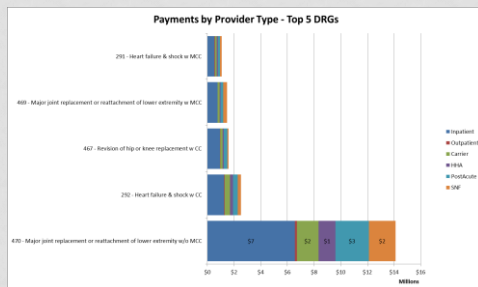
## TOP 10 PHYSICIAN SPECIALTIES



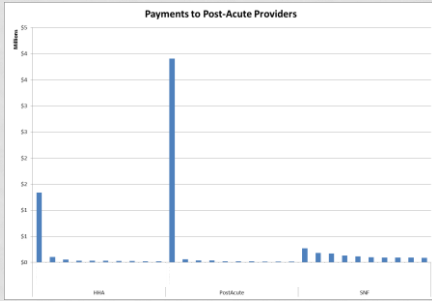
## TOP 10 PHYSICIAN SPECIALTIES



## FINANCIAL EXPOSURE BY PROVIDER TYPE



## FINANCIAL EXPOSURE BY POST-ACUTE PROVIDER




---

---

---

---

---

---

---

---

## REGIONAL VARIATION

AMI

	Manhattan	Newark-White Plains
Readmission	38%	45%
HHA	31%	17%
SNF	28%	35%
Inpatient Rehab	2%	1%

Major Joint – Lower Extremity

	Manhattan	Newark-White Plains
Readmission	14%	11%
HHA	14%	50%
SNF	41%	1%
Inpatient Rehab	32%	23%

---

---

---

---

---

---

---

---

## POPULATION RISK

---

---

---

---

---

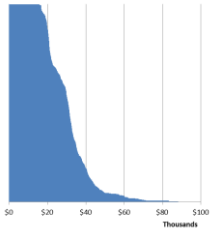
---

---

---

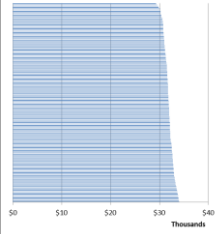
## POPULATION RISK

Cost per Individual Episode -  
DRG 470



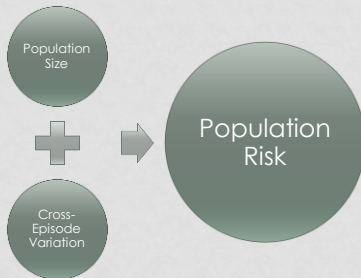
Not normally distributed

Average Episode Cost for  
Population of 200 Episodes



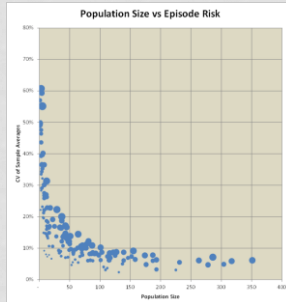
Normally distributed

## POPULATION RISK FACTORS



## POPULATION RISK FACTORS

- Population size vs. coefficient of variation of sample averages
- Bubble size is CV of episode cost



## CALCULATING MAXIMUM EXPECTED LOSS

DRG	470
Average Population Episode Cost	\$ 31,904
Std Dev of Episode Cost	\$ 985
Coefficient of Variation	3%
2 SD Low Avg Pmt	\$ 29,933
2 SD High Avg Pmt	\$ 33,874
Our case count	225
Total Revenue	\$ 7,178,154
Max loss (97.5%)	\$ 443,369

---

---

---

---

---

---

---

---

## OPPORTUNITY

---

---

---

---

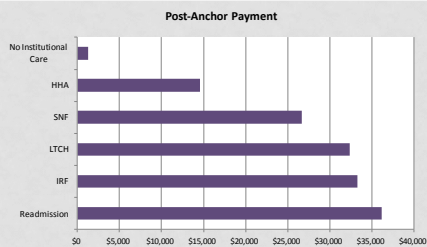
---

---

---

---

## FIRST POST-ANCHOR SITE OF CARE




---

---

---

---

---

---

---

---

## WHERE ARE MY GREATEST COST-SAVING OPPORTUNITIES?

Row Labels	EpisodeReadmitRate
190 - Chronic obstructive pulmonary disease w MCC	38 %
191 - Chronic obstructive pulmonary disease w CC	29 %
192 - Chronic obstructive pulmonary disease w/o CC/MCC	25 %
202 - Bronchitis & asthma w CC/MCC	25 %
231 - Coronary bypass w PTCA w MCC	33 %
232 - Coronary bypass w PTCA w/o MCC	100 %
233 - Coronary bypass w cardiac cath w MCC	25 %
234 - Coronary bypass w cardiac cath w/o MCC	67 %
235 - Coronary bypass w/o cardiac cath w MCC	44 %
236 - Coronary bypass w/o cardiac cath w/o MCC	8 %
291 - Heart failure & shock w MCC	44 %
292 - Heart failure & shock w CC	36 %
293 - Heart failure & shock w/o CC/MCC	37 %
466 - Revision of hip or knee replacement w MCC	50 %
467 - Revision of hip or knee replacement w CC	33 %
468 - Revision of hip or knee replacement w/o CC/MCC	17 %
469 - Major joint replacement or reattachment of lower extremity w MCC	21 %
470 - Major joint replacement or reattachment of lower extremity w/o MCC	12 %
<b>Grand Total</b>	<b>22 %</b>

---

---

---

---

---

---

---

---

---

---

## TOP READMIT DRGS FOR TOP INDEX DRGS

Row Labels	ReadmitCount
<b>291 - Heart failure &amp; shock w MCC</b>	<b>10</b>
292 - Heart failure & shock w CC	3
291 - Heart failure & shock w MCC	3
871 - Septicemia or severe sepsis w/o MV 96+ hours w MCC	2
280 - Acute myocardial infarction, discharged alive w MCC	2
<b>470 - Major joint replacement or reattachment of lower extremity w/o MCC</b>	<b>23</b>
560 - Aftercare, musculoskeletal system & connective tissue w CC	3
392 - Esophagitis, gastroent & misc digest disorders w/o MCC	3
812 - Red blood cell disorders w/o MCC	3
470 - Major joint replacement or reattachment of lower extremity w/o MCC	2
291 - Heart failure & shock w MCC	2
176 - Pulmonary embolism w/o MCC	2
863 - Postoperative & post-traumatic infections w/o MCC	2
310 - Cardiac arrhythmia & conduction disorders w/o CC/MCC	2
057 - Degenerative nervous system disorders w/o MCC	2
312 - Syncope & collapse	2
<b>Grand Total</b>	<b>33</b>

---

---

---

---

---

---

---

---

---

---

## READMISSIONS DRIVE COSTS

	Without readmits		Episodes with a readmission	
	# Episodes	Total Episode Price	# Episodes	Total Episode Price
MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY W/O MCC	1,531	\$32,817	530	\$41,943

	Without readmits		Episodes with a readmission	
	# Episodes	Total Episode Price	# Episodes	Total Episode Price
ACUTE MYOCARDIAL INFARCTION, DISCHARGED ALIVE W MCC	289	\$24,637	305	\$50,569

---

---

---

---

---

---

---

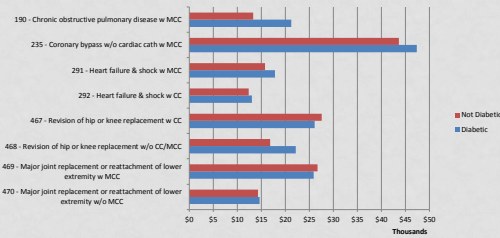
---

---

---

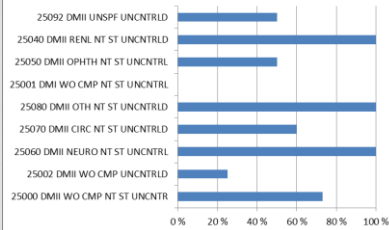
## COST OF CHRONIC CONDITIONS

Relative Costs of Diabetics and Non-Diabetics for Selected DRGs



## IDENTIFYING CHRONIC CONDITIONS

Percent of Diabetics Identified from Inpatient Claims - DRG 470



## DEAL STRUCTURE



## HOW SHOULD I STRUCTURE BUNDLED PAYMENT CONTRACTS?

### Episode trigger

- DRG
- Diagnosis

### Excluded services

- Build from ground up vs. carve from total
- Include by DRG/diagnosis vs. specialty

### Length

- 30 days
- 90 days

### Target computation

- Historical
- Cohort-based

### Outliers

- Limited risk
- Lost opportunity

## PRICING COMPARISONS

What components do I need to include in my price?      How does my price compare to benchmark?      Where am I different and why?

	Hospital				Referral Region			
	# of Episodes	Average Benchmark Episode Price	Average # Claims Per Episode	Average Benchmark Payment per Claim	# of Episodes	Average Benchmark Episode Price	Average # Claims Per Episode	Average Benchmark Payment per Claim
Initial Admission	354	\$31,480		\$12,047	9,576	\$32,598		\$11,586
Readmission			0.19	\$7,982			0.33	\$7,481
Inpatient Rehab			0.60	\$10,110			0.34	\$11,107
Home Health Care			0.87	\$3,084			0.67	\$2,949
SNF			0.45	\$6,700			0.99	\$6,654
LTCN			0.01	\$31,772			0.00	\$29,975
Physician Inpatient			20.63	\$149			25.97	\$129
Physician Non Inpatient			58.72	\$40			52.98	\$39
OPD Inpatient			0.01	\$241			0.08	\$195
OPD Non Inpatient			1.52	\$207			1.73	\$288
DME Inpatient			0.29	\$45			0.22	\$67
DME Non-inpatient			2.45	\$65			2.18	\$75

## ARE MY PAYMENT TARGETS CALCULATED CORRECTLY?

- Is your price based on **your own history** or some sort of **benchmark**?
- Benchmarks need to be properly adjusted for **regional variation** – Albany NY – Springfield MA HRR
- Have **changes to payments** been properly accounted for (RAC 1 day stays, DRG weight shifts, SNF RUGS III to RUGS IV)?
- End of period claims – **prorated** or not, how is proration handled?

## OTHER LESSONS

New issues and challenges – many alternatives

Data analysis is critical

Details matter

Teams are critical

- Clinical
- Admin
- Analytics
- Finance

Why should you participate?

- Understanding landscape
- Learning the game
- Use self-insured data

---

---

---

---

---

---

---

---

## CONTACT INFORMATION

Jonathan W. Pearce, CPA, FHFMA

Principal

Singletrack Analytics

jon@singletrackanalytics.com

856-762-0602

www.singletrackanalytics.com

Kelly Price

Director, DataGen Group

DataGen, a HANYS Solutions Company

kprice@hanys.org

518-431-7629

www.datagen.info

---

---

---

---

---

---

---

---