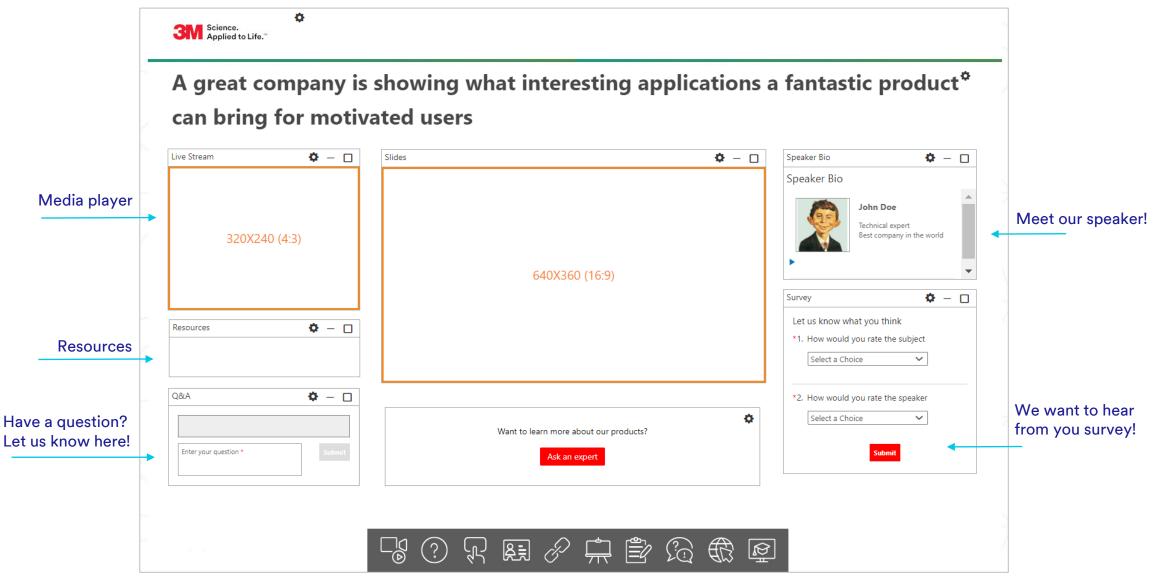
On24 for a better webinar experience!



Menu Bar



3M's approach to providing payer solutions across the continuum of health care



Housekeeping

- On24 Webinar Platform for a better user experience!
- Use Google Chrome and close out of VPN/multiple tabs
- Check speaker settings and refresh if you are having audio issues
- Ability to move engagement sections
- Ask questions!
- Engagement tools and CC available
- Check the resources section
- Complete the survey

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3M team introductions and agenda

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Overview of 3M client experience

2. Facility payment and quality grouper application

3. Population health grouper application in value-based care

4. Bundled program analytics

5. NEW 3M[™] Ambulatory Potentially Preventable Complications

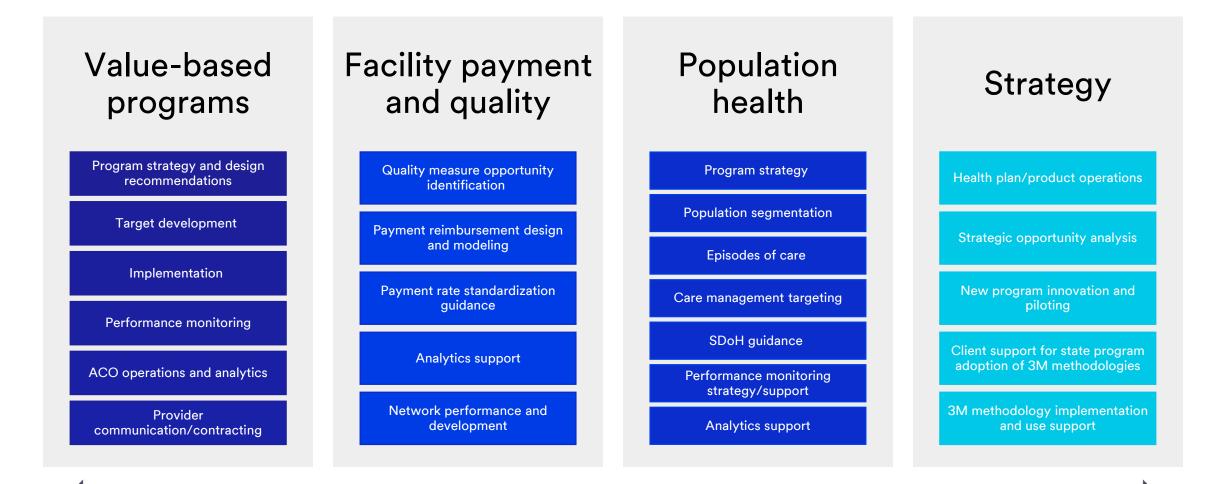


The 3M client experience





Methodology consulting: areas of expertise



Integrating 3M's Grouper Methodologies



3M clinical classification methodologies

	31	M patient classification methodol	ogies
Hea	th care for insight, risk adjustment and payment	Applicability	Notes
	3M™ All Patient Refined Diagnosis Related Groups (APR DRGs)	Inpatient admission	Includes four severity of illness subclasses
	3M™ Enhanced Ambulatory Patient Groups (EAPGs)	Ambulatory visit	Hospital outpatient, ambulatory surgical center and other clinics
	3M™ Clinical Risk Groups (CRGs)	Population health	Person health status
	3M™ Patient-focused Episodes (PFEs)	Episode of care	Includes hospital, professional, pharmacy and other
	3M™ International Refined DRG (IR-DRGs)	Inpatient admission, ambulatory visit	Applicable outside U.S.
	Functional Status Groups (FSGs)	Population health	Included within 3M CRGs
		A 10 1 410.	
Pub	ic reporting, payment adjustment and quality improvement	Applicability	Notes
Publ	ac reporting, payment adjustment and quality improvement 3M™ Potentially Preventable Complications (PPCs)*	Applicability Inpatient hospital care	Notes Complications and adverse events during inpatient admissions.
Publ			Complications and adverse events during inpatient admissions.
Publ	3M™ Potentially Preventable Complications (PPCs)*3M™ Ambulatory Potentially Preventable Complications	Inpatient hospital care	Complications and adverse events during inpatient admissions.
Publ	3M™ Potentially Preventable Complications (PPCs)* 3M™ Ambulatory Potentially Preventable Complications (AM-PPCs)*	Inpatient hospital care Elective outpatient procedures Inpatient hospital care, population	Complications and adverse events during inpatient admissions. Complications and adverse events following elective outpatient procedures
Publ	3M™ Potentially Preventable Complications (PPCs)* 3M™ Ambulatory Potentially Preventable Complications (AM-PPCs)* 3M™ Potentially Preventable Readmissions (PPRs)*	Inpatient hospital care Elective outpatient procedures Inpatient hospital care, population health	Complications and adverse events during inpatient admissions. Complications and adverse events following elective outpatient procedures Includes PPR ED: Potentially Preventable Revisits to the ED
Publ	3M™ Potentially Preventable Complications (PPCs)* 3M™ Ambulatory Potentially Preventable Complications (AM-PPCs)* 3M™ Potentially Preventable Readmissions (PPRs)* 3M™ Potentially Preventable Admissions (PPAs)* 3M™ Potentially Preventable Emergency Department Visits	Inpatient hospital care Elective outpatient procedures Inpatient hospital care, population health Population health	Complications and adverse events during inpatient admissions. Complications and adverse events following elective outpatient procedures Includes PPR ED: Potentially Preventable Revisits to the ED Included as part of 3M PFEs



Facility payment and quality grouper application

3M APR DRG and EAPG groupers

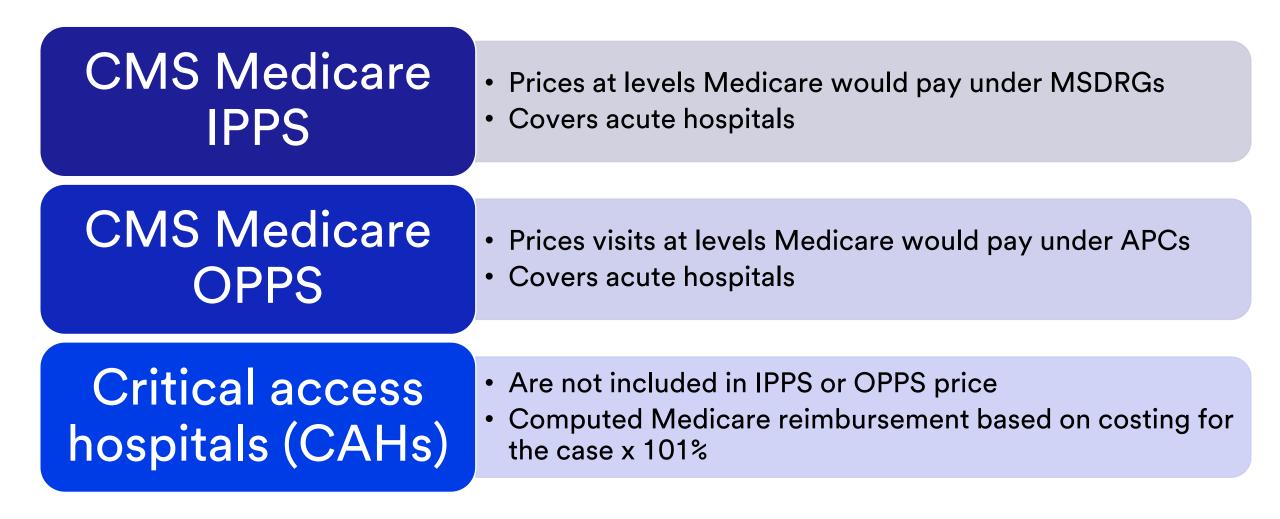
Supports stabilization of inpatient and outpatient payment variation

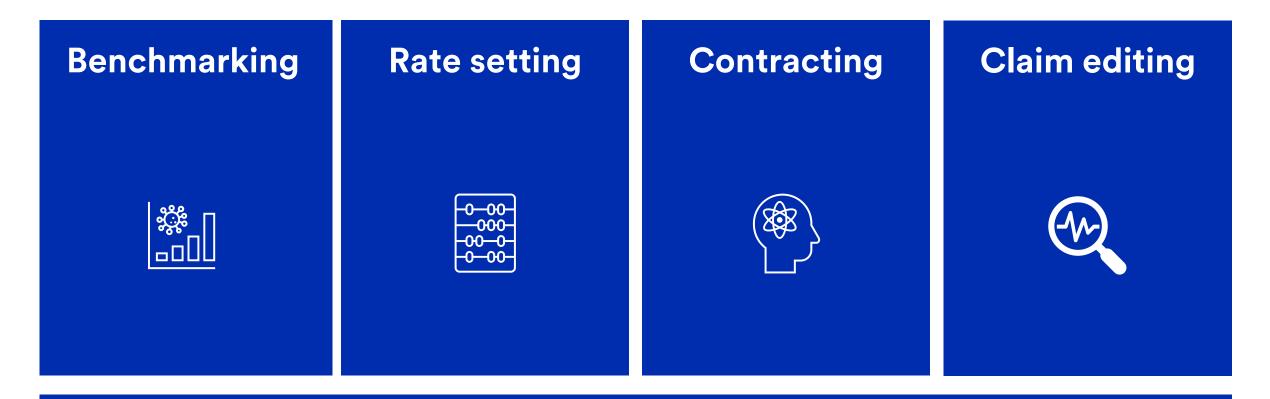
Provides options for refined payment processing and editing

Pushes value-based care programs in rewarding quality and efficiency



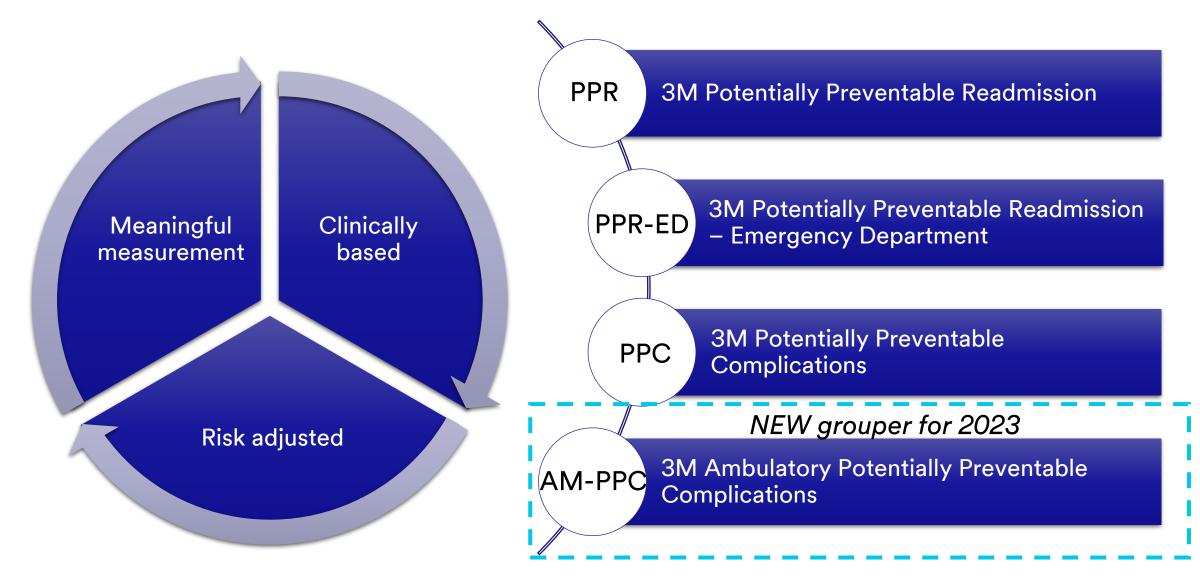
Medicare pricing modeling



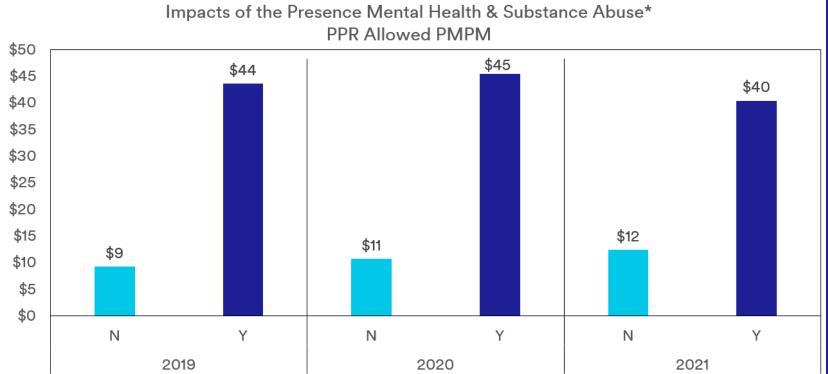


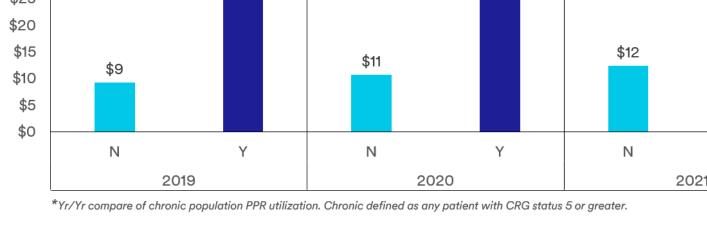
Analytical support

3M approach to facility programs



Impacts of mental health on payment







Targeted approach to improvement



Leverage behavioral health services



Data Source: Demo Commercial Data 3/2019-2/2020, claims paid through 5/31/2020.

PPC network hospital profile

% Differ	ence from expected acro	xpected across three network hospitals	
Network hospitals	Hospital A	Hospital B	Hospital C
Candidate cases	4,494	3,522	3,856
Observed case count	633	405	530
Expected case count	642	345	563
% Difference from expected	-1.41%	17.39%	-5.86%

% Diff. from expected Hospital B k	by PPC Group
PPC group	% Difference
Infectious complications	17.85%
Perioperative complications	2.45%
Malfunctions, reactions, etc.	1.15%

% Diff. from expected Hospital B b	y complication
PPC	% Difference
Clostridium Difficile Colitis	45.12%
Septicemia and severe infections	4.52%
Gastrointestinal complications	2.75%

Data is for illustrative purposes only and does not come from a specific data source.



Population health / VBC grouper application

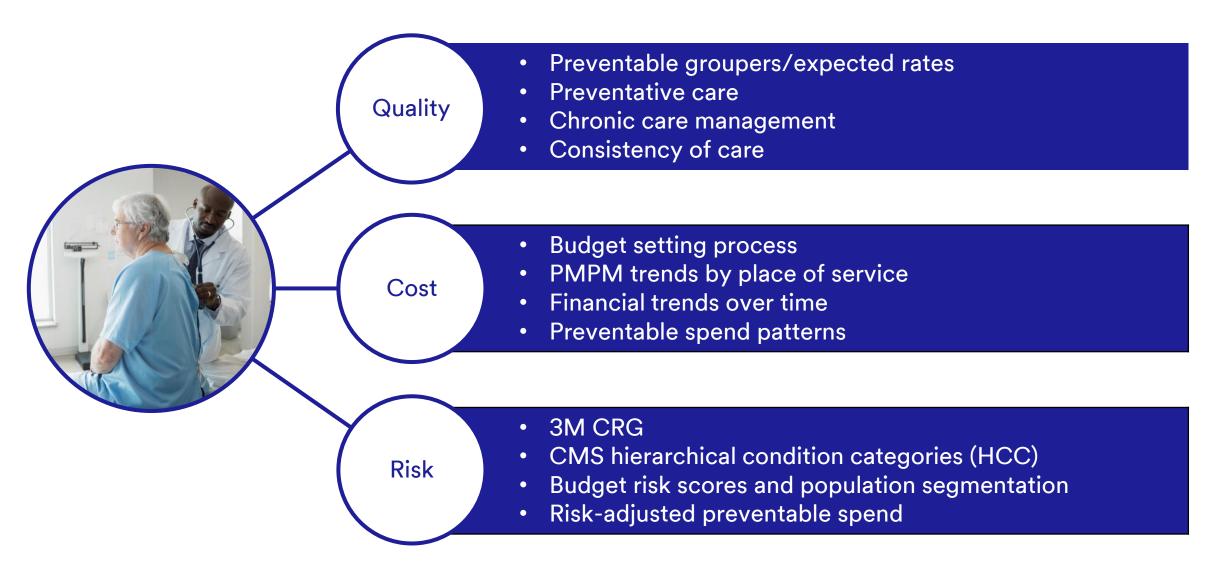
The foundation for value-based care



"Uncontrolled variation is the enemy of quality." -W. Edwards Deming



The foundation for value-based care





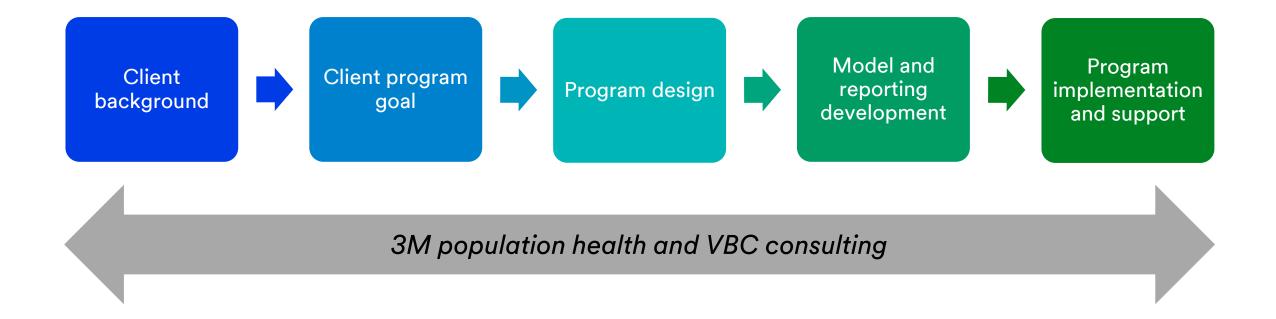


Based on our client's value-based program goals, our team advises on various types of alternative payment models



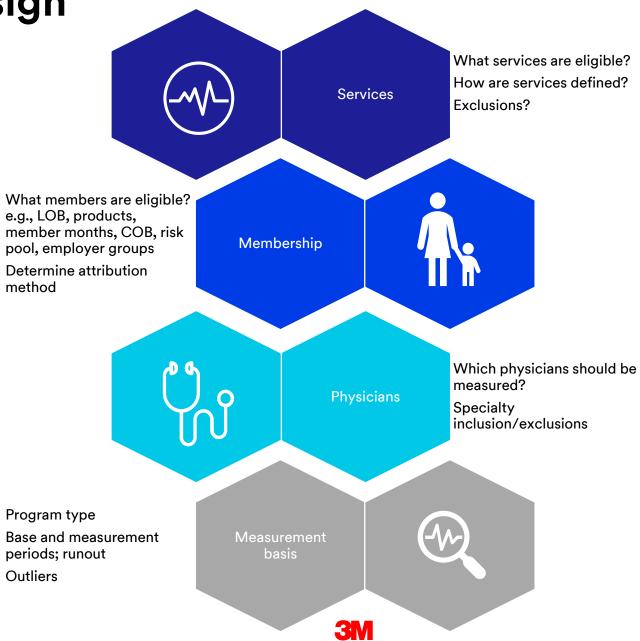


Foundation of population health and VBC program design



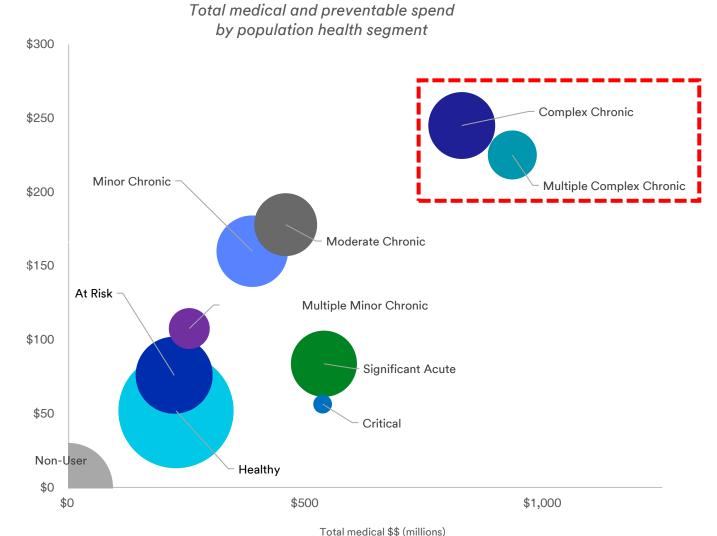


Program design



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Risk stratification and segmentation



Data is for illustrative purposes only and does not come from a specific data source.



PPEs

Spend on potentially preventable events (including admissions, ED visits, readmissions, etc.) can be reduced in more complex population with more adequate patient coordination



CRGs

Segment the population by complexity to identify the subset of members with the highest spend on potentially preventable events.



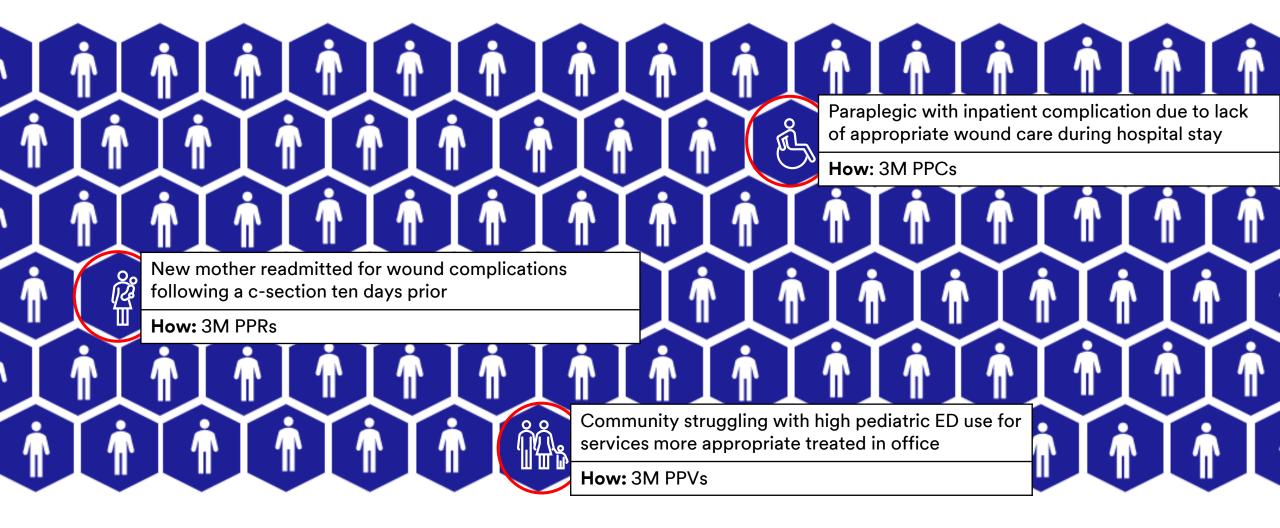
Reporting and analytics

Care management reporting, designing effective reporting for provider data sharing, drilling into to drivers of healthcare spend

Total PPE \$\$ (millions)

Harnessing potentially preventable events

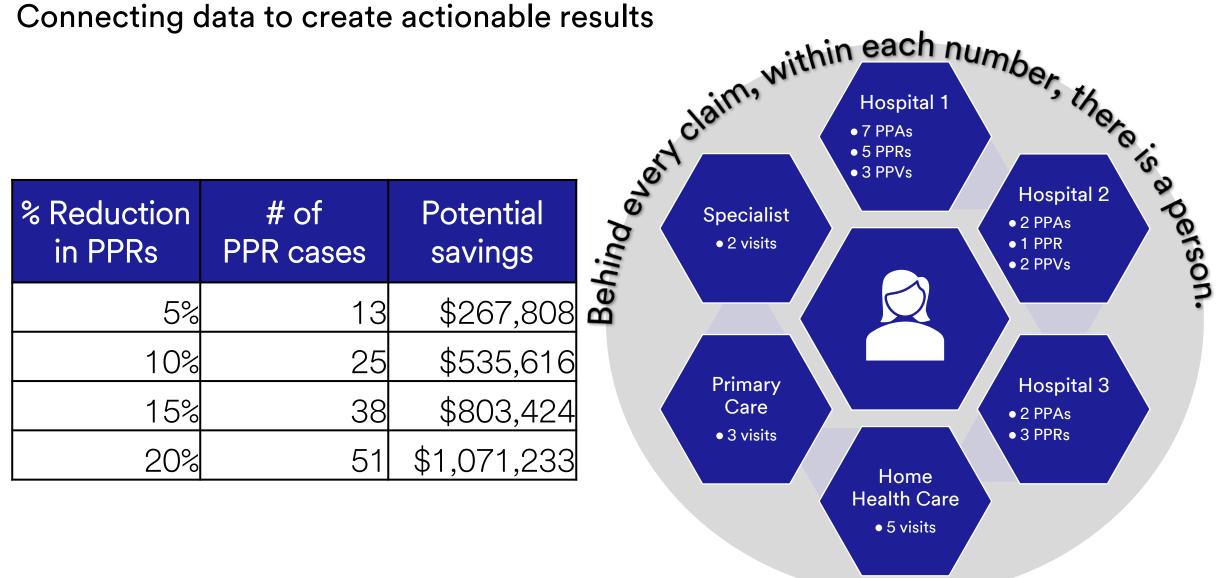
Identifying the most vulnerable patients and improving population health strategy





Supporting payers and providers in population health

Connecting data to create actionable results



3M

Analyzing drivers of utilization

3M[™] Potentially Preventable Events



Disease cohort

- CRGs (e.g., Primary EDC)
- Specialist ordering Patterns
- RX utilization/adherence



Geography

- Rural vs. urban
- Regional differences



Population trends

- Age group patterns
- Gender patterns
- Seasonal ordering Patterns

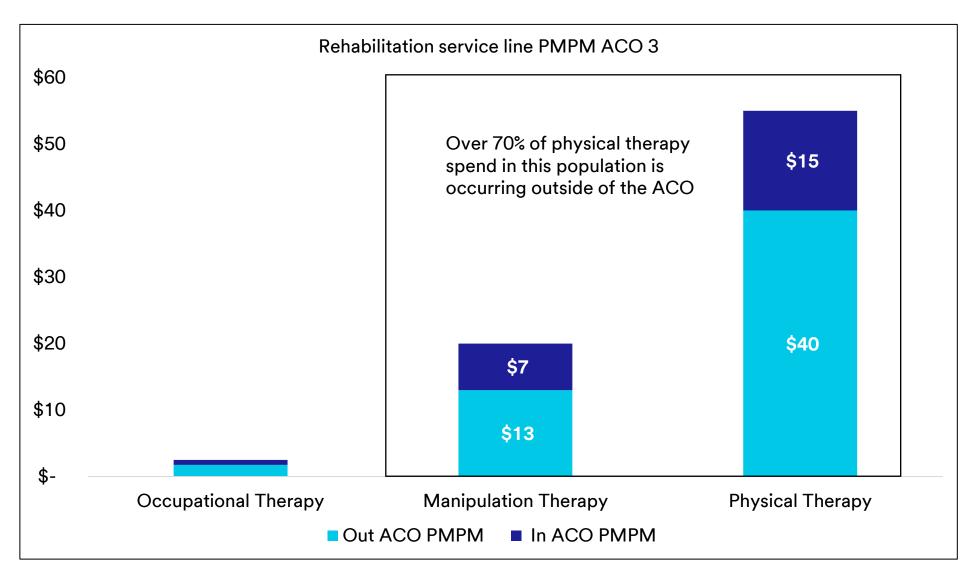


Quality of care

- Medical policies
- Outflow
- Overuse



PPS analysis using 3M EAPGs in rehabilitation service line



Data is for illustrative purposes only and does not come from a specific data source.



Providing insight to drive clinical decision making

Medication adherence reporting

Asthma medication adhere example				
Provider practice	# of Asthma members	% RX adherence	PPV count	PPV PKPY
ovider A	157	75%	15	96
ovider B	210	90%	10	48
ovider C	180	84%	11	61

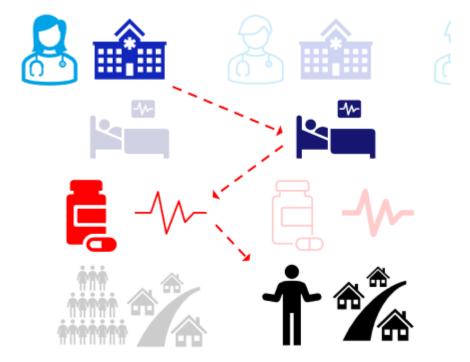
Data is for illustrative purposes only and does not come from a specific data source.

Bundled program analytics

Episodes are a critical tool that can be used to identify and measure <u>sources of variation</u> that impact cost, quality and outcomes.

Episodes promote:

- Transparency and communication
- Performance improvement
- Coordinated, whole person care
- Better patient-experience





Case study: Maternal care

3M PFEs capture a holistic patientcentered view across the entire continuum of maternal care.

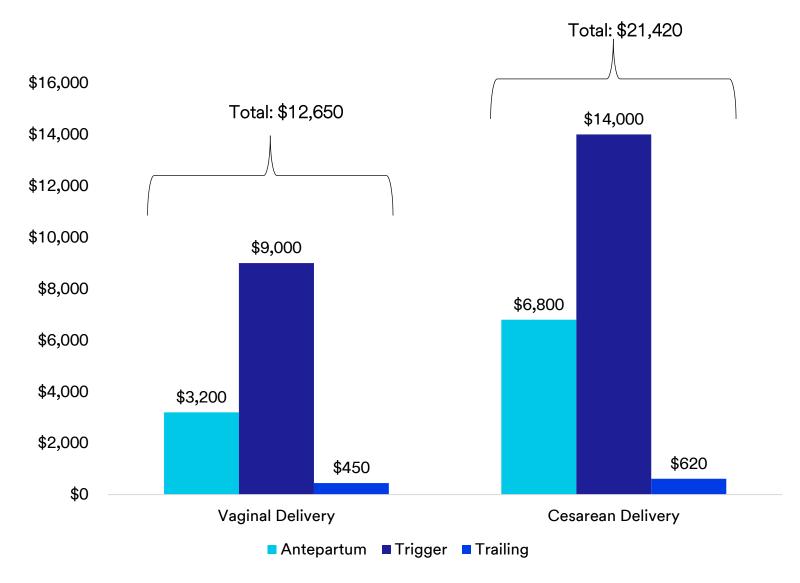




First instance of pregnancy episode Diagnostic category (EDC)



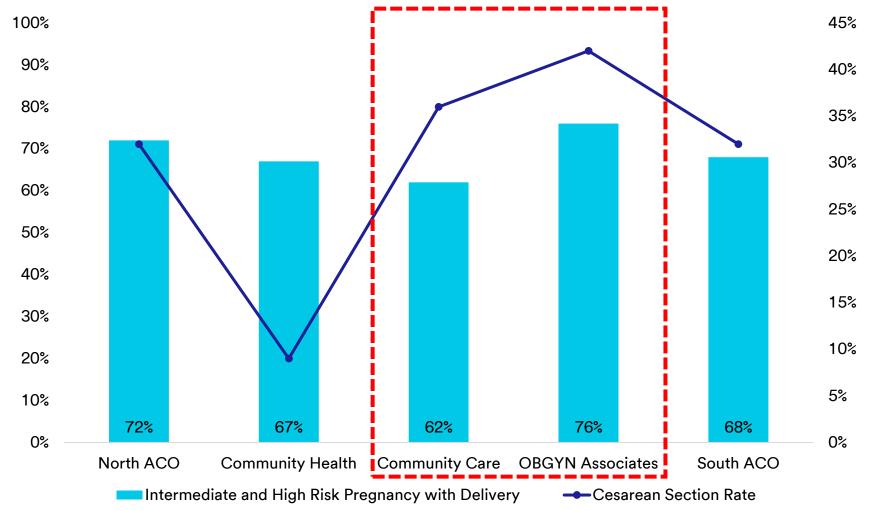
Event profile of allowed amount by episode window





Cesarean rates compared to patient acuity

Community care has the second highest cesarean rate but the lowest % of high/intermediate risk pregnancies.





3M AM-PPCs

Current opportunities and challenges



Ambulatory care is one of the fastest growing and a higher margin segment in healthcare industry '



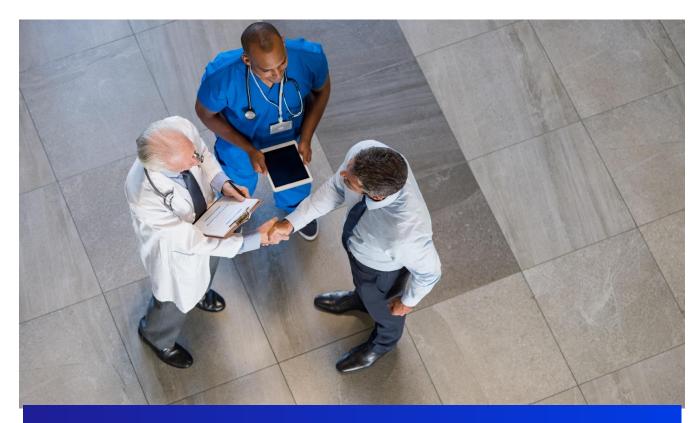
70% procedures performed in outpatient settings²



Limited outcomes/safety quality measurement systems



Impact of patient safety has multiple costs, "complications are the strongest indicator of costs"³



Source: 1 <u>Walking out of the hospital | McKinsey</u>

² July 2017 report from the Centers for Medicare & Medicaid Services (CMS) <u>3 The Impact of Complications on Costs of Major Surgical Proce...</u> : Annals of Surgery (lww.com)

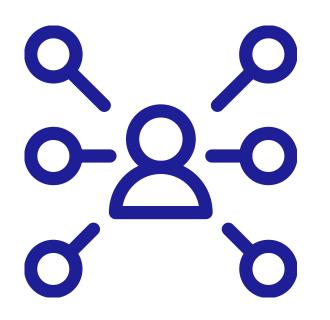




Harmful events (e.g., accidental laceration) or negative outcomes (e.g., sepsis) that develop after an <u>elective</u> <u>procedure</u> was performed in the <u>ambulatory care setting</u> and that may result from processes of care and treatment rather than from natural progression of an underlying illness and are therefore potentially preventable.



Logic to developing 3M AM-PPCs



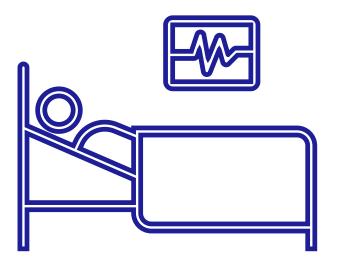
93 procedure groups

2900 procedures with a risk for a complication Started anatomically Risk / complexity grouping Clinical procedure risk hierarchy Service line Chained – 30 days Examples: Colonoscopies, upper GI endoscopy, cataracts, arthroscopies, biopsies



Logic to developing 3M AM-PPCs

35 complication groups



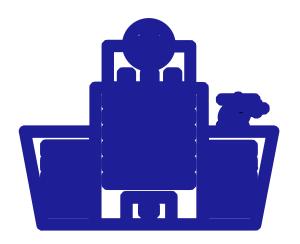
~1500 unique complications Complications plausibly related to procedure Timing limits

Examples: Sepsis, UTI, bleeding, wound dehiscence, infection



Logic to developing 3M AM-PPCs

Four complication types



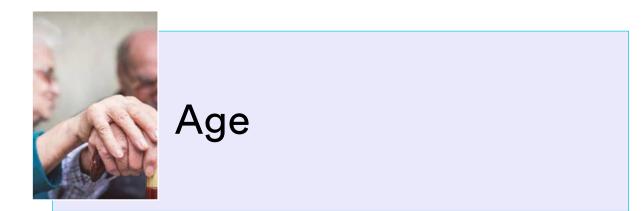
Type 1 AM-PPC found in emergency department
Type 2 AM-PPC found POA on inpatient admission
Type 3 AM-PPC found in outpatient encounter
Type 4 complication is an inpatient claim that contains an ambulatory

procedure resulting in a complication and inpatient admission- 72 hour rule

Medicare and national benchmarks (ED and IP only)



3M AM-PPC: Risk adjustment approach First at procedure level





Disability status



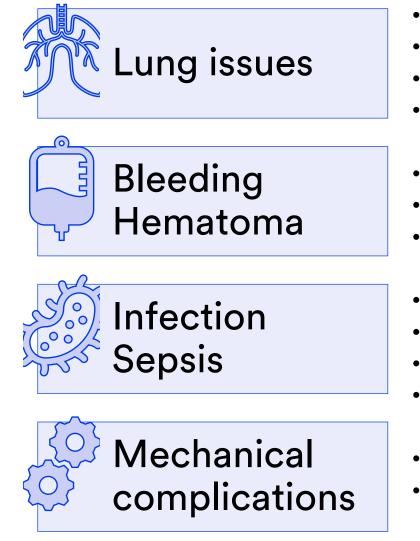




Correlated with chronic conditions



Samples of complications



- Pneumonia and Other lung infections
- Aspiration Pneumonia
- Pulmonary Embolism
- Other pulmonary and chest complications
- Post-Hemorrhagic and other Acute Anemia
- Other Hemorrhage and Hematoma
- Venous Thrombosis
- Septicemia and severe infections
- CLABSI, UTI
- Infection, inflam. compl. of devices, implants or grafts
- (Specific examples: Cardiac, vascular. GU, GI, eye, musculoskeletal)
- Mechanical compl. of device, implant and graft
- (Specific examples: Cardiac, vascular, GU, GI, eye, musculoskeletal)



Sample procedure directed complications

- 101 Post-procedural infections of eye and adnexa
- 102 Post-procedural complications of eye and adnexa
- 110 Pulmonary/cardiovascular Hemorrhage and hematoma
- 112 Genitourinary/abdominal Hemorrhage and Hematoma
- 114 Musculoskeletal Hemorrhage and Hematoma
- 120 GI and Hepatobiliary Mechanical compl. of device, implant or graft
- 121 GU and Hepatobiliary Infect., inflam compl. of devices, implants or grafts
- 122 Genitourinary Mechanical compl. of device, implant or graft
- 123 Vascular Mechanical compl. of device, implant or graft
- 124 Vascular Infection, inflam. compl. of devices, implants or grafts
- 125 Cardiac Infection, inflam. compl. of devices, implants or grafts
- 126 Cardiac Mechanical compl. of device, implant or graft



Top 20 PSGs 3M AM-PPC rates 19/20 Medicare FFS HOPD

PSG	Description	At-Risk procedures	ED complications	IP complications	AM-PPC rate
70	Upper Gastrointestinal Endoscopy Procedures	1,438,611	7,594	23,019	1.9%
85	Lower Gastrointestinal Endoscopy Procedures	1,168,141	6,102	9,290	1.2%
99	Spine Injection Procedures	1,150,443	2,546	7,017	0.7%
53	Coronary Angiography Procedures	564,725	2,214	9,184	1.8%
103	Routine Cataract Procedures	487,922	114	938	0.2%
91	Lower Genitourinary Procedures	480,719	10,122	11,535	3.9%
84	Colonoscopy Screening Procedures	301,792	696	901	0.4%
60	Dialysis Shunt Procedures	253,216	7,285	11,456	6.7%
74	Upper Airway Endoscopy Procedures	252,147	1,161	3,079	1.5%
55	Pacemaker/AICD Procedures	248,479	2,932	4,716	2.8%
61	Periph Vasc Access - Tunn PICC w Pump or Port	226,955	1,274	7,908	3.8%
39	Breast Biopsy and Localization Procedures	219,378	409	588	0.2%
13	Knee Arthroplasty Procedures	218,660	2,544	3,719	2.6%
56	Percut.Transluminal Coronary Angioplasty (PTCA)	218,434	1,624	3,779	2.3%
34	Facial and ENT Procedures	190,112	1,255	1,312	1.1%
94	Upper Genitourinary Stent & Guidewire Procedures	174,908	5,619	9,664	7.6%
44	Female Genital System Procedures	160,185	3,208	2,031	2.8%
43	Male Genital System Procedures	158,095	5,934	4,793	6.1%
48	Inguinal and Hydrocele Hernia Procedures	156,426	2,048	1,765	2.1%
63	Perip Vasc - Percutan Transluminal Angioplasty	129,983	1,873	5,038	4.7%



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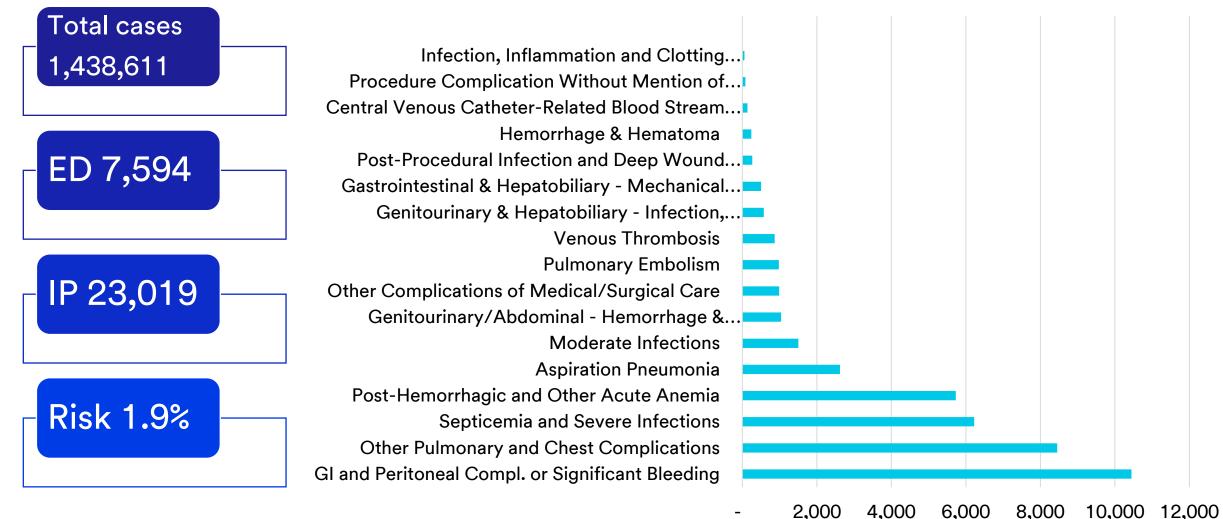
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Data by procedure subgroup (PSG) 70 Upper GI Endoscopy Medicare HOPD 19/20

PSG 70 Upper GI Endoscopy Complications





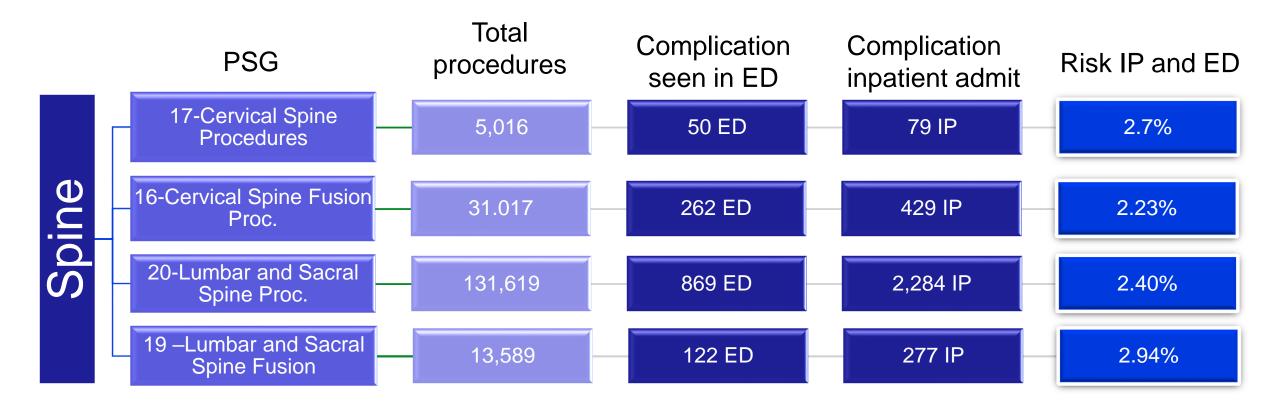
Data by facility/ provider : Gastroenterology complications Medicare HOPD 19/20

Gastroenterology complications





Data by service line and PSG Medicare FFS 19/20



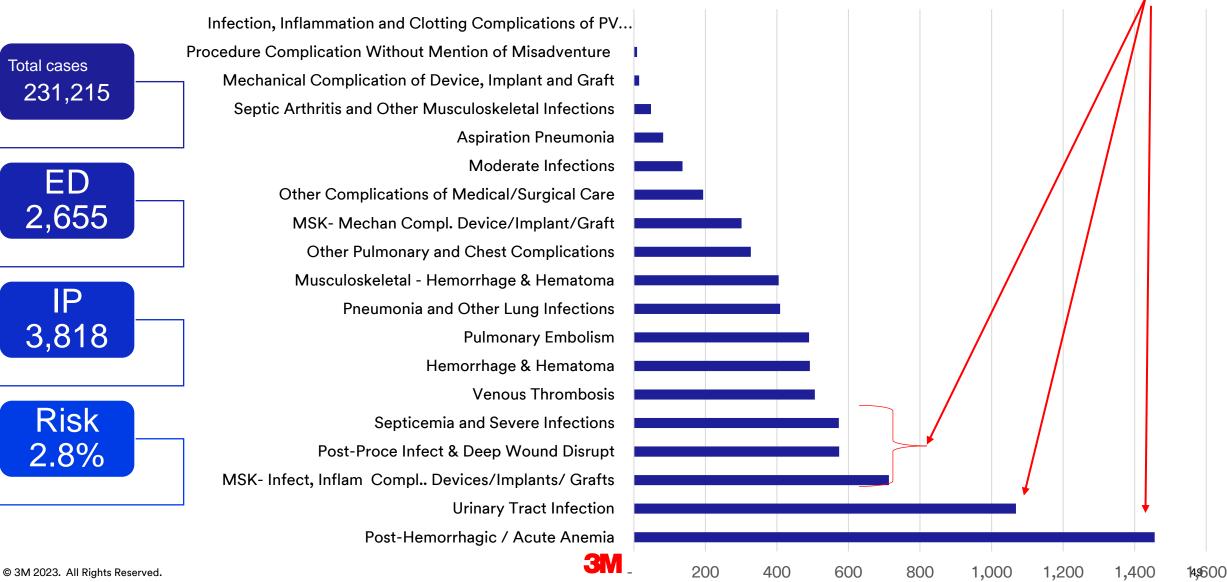


Top 10 service line ortho PSGs (Medicare FFS 19/20)

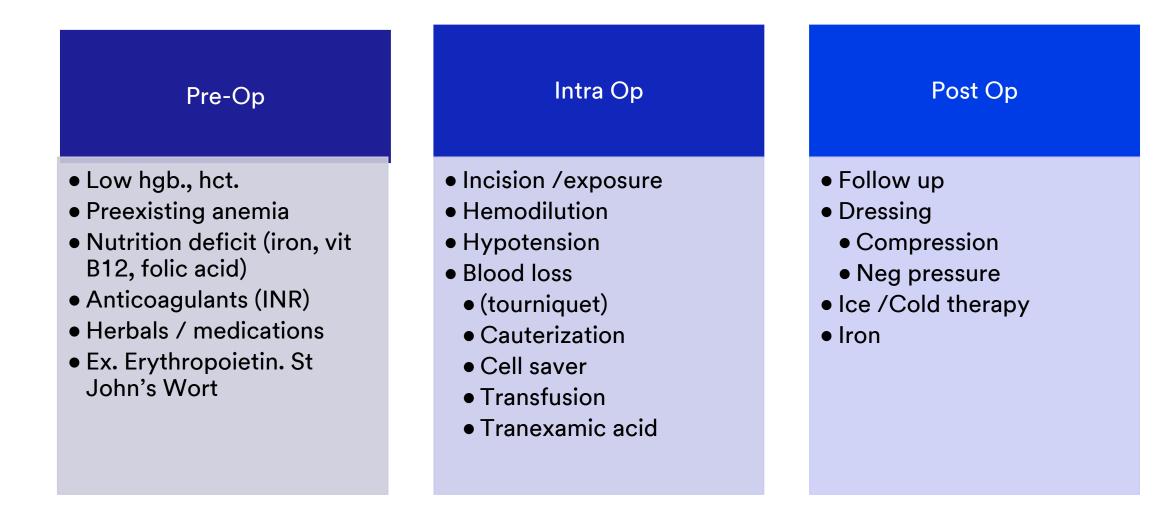
						ED & IP	Compl
PSG	PSG_Description	Cases	ED counts	IP counts	OP counts	counts	Rate
13	Total Knee Arthroplasty Procedures	231,215	2,655	3,818	2,231	6,473	2.80%
26	Foot (Mid/Fore) Procedures	135,317	837	2,547	2,872	3,384	2.50%
20	Lumbar and Sacral Spine Procedures	131,619	869	2,284	929	3,153	2.40%
1	Shoulder and Elbow Arthroscopy Procedures	97,128	241	343	325	584	0.60%
3	Knee Arthroscopy Procedures	96,584	448	384	538	832	0.86%
27	Foot (Hind/Ankle) and Lower Leg Procedures	78,641	515	1,250	1,101	1,765	2.24%
11	Primary Hip Arthroplasty Procedures	64,118	693	1,247	535	1,940	3.03%
24	Open Shoulder Procedures	47,509	258	427	349	685	1.44%
16	Cervical Spine Fusion Procedures	31,017	262	429	137	691	2.23%
2	Hand and Wrist Arthroscopy Procedures	25,825	41	62	99	103	0.40%
22	Thoracic Spine Procedures	24,719	225	663	408	888	3.59%



Complications of PSG 13 Total Knee Arthroplasty Medicare FFS 19/20

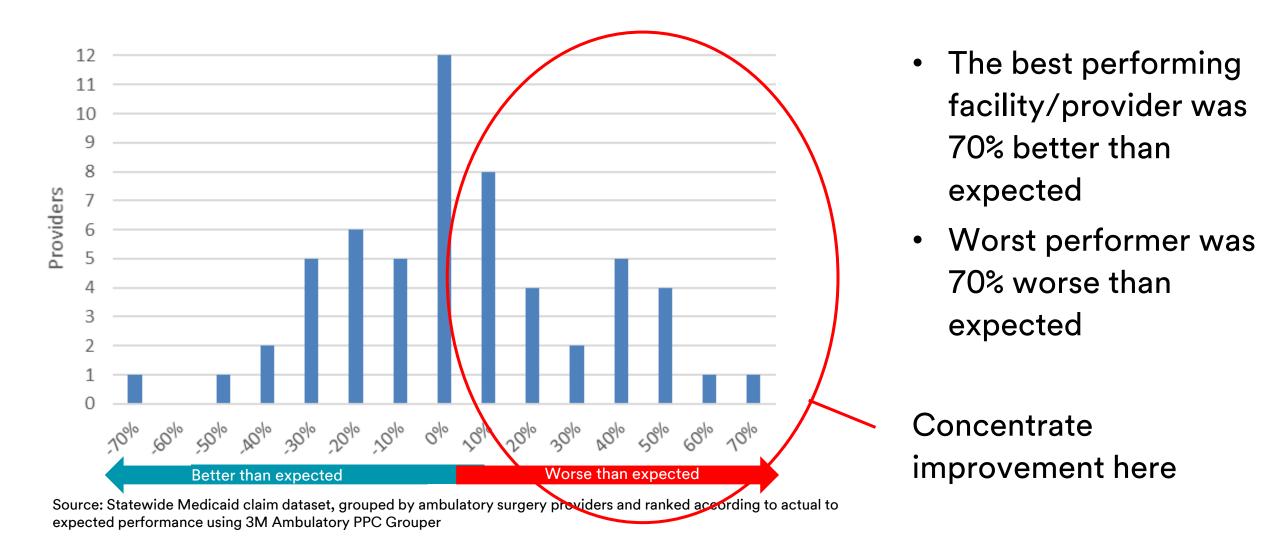


Prevention: Post Hemorrhagic Anemia/ Acute Anemia Best practice examples



3M

Driving network performance by site of service (state level)





Performance across health systems

3M AM-PPCs (demo system data)

	At-risk cases	Expected rate	Actual rate	Actual/ expected
Hospital Network	33,042	913	920	1.01
	Main HOPD	Regional hospital 1	Regional hospital 2	ASC
AM-PPC at-risk cases	16,795	4,118	5,446	6,683
Expected rate	428	133	159	193
Actual rate	430	144	191	155
Actual/ expected	1.00	1.08	1.20	.80

*Data is for illustrative purposes only. © 3M 2023. All Rights Reserved.



Network scorecard example

			Location of AM-PPC		
Facility	At-risk cases	ED*	Inpatient*	Ambulatory	Actual/ expected*
Provider/ facility 1	4,739	35	31	117	1.24
Provider/ facility 2	3,631	21	22	70	1.45
Provider/ facility 3	2,374	14	16	48	0.99
Provider/ facility 4	2,029	15	14	63	0.77
Provider/ facility 5	1,428	12	8	17	1.20
Provider/ facility 6	1,358	7	5	21	1.25
Provider/ facility 7	1,237	5	8	25	1.46
Facility/ provider network	16,796	109	104	361	1.24

*Data is for illustrative purposes only.

*Only inpatient & ED claims are included in benchmarks.



State level data by service line conservative costs of complication Medicare FFS 19/20

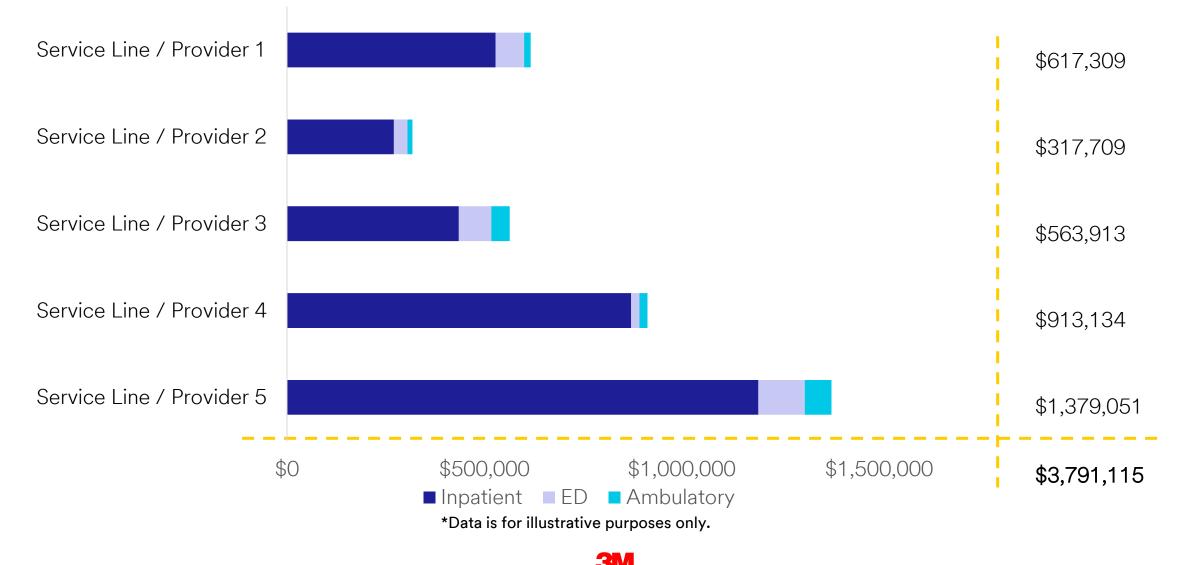
Service Line	At Risk Cases	IP/ED Complications	Estimated Complication Cost
Urology	21,306	1,144	\$3,675,100
Gastroenterology	51,412	965	\$3,100,063
Interventional Radiology	10,508	722	\$2,319,425
Cardiology	15,769	439	\$1,410,288
General Surgery	7,896	300	\$963,750
Pulmonology	3,878	152	\$488,300
Orthopedic Surgery	5,746	138	\$443,325
Vascular Surgery	2,085	92	\$295,550
Pain Management	7,627	48	\$154,200
Spine Surgery	1,033	27	\$86,738
Facial, Ear, Nose, and Throat Surgery	1,566	15	\$48,188
Gynecology	608	0	\$0
Hand and Wrist Surgery	648	0	\$0
Ophthalmology Surgery	2,240	0	\$0
Total	132,322	4,042	\$12,984,925

• Cost estimates are based on our standard series reports under QOPM available at

• <u>https://www.3mhiscer.com/3m-research-and-commentary/</u>.



Financial analysis of potential associated savings



Summary

3M AM-PPCs use cases:

- Promoting patient safety in the outpatient setting
- Address the growing need for ambulatory procedure standards of care
- Foundation for value-based care
- Illuminate areas for performance improvement



Check out the resources and complete the survey!

Thank you