





Practice & Quality Improvement

How do Registries, Population Health, and Quality Metrics affect residency education and Patient Care?

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Or...

From raking leaves to managing a forrest

...the journey begins









Health Sciences District

Lakewood

Inpatient facilities

Level I Trauma Center

86K+

clinics 7 Community 4 Kemployees 625 medical staff

1,348

nursing staff

3,428

births ED visits 1,395

Trauma admissions

30K+

myTruHealth patient portal accounts

11,153

Surgical cases

490K+

Outpatient visits

22,602

Acute admissions



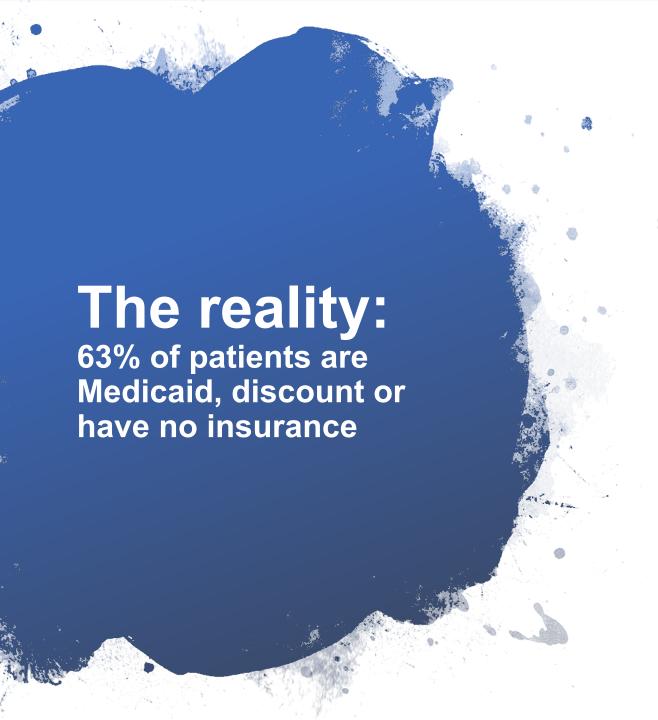
Behavioral Health

University Health

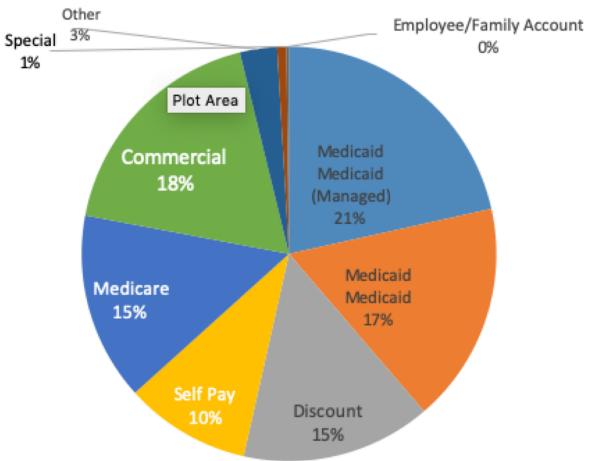
As the regional SafetyNet organization we average >\$100M in uncompensated care annually over the last 10 years







Financial Plan Distribution





1

Describe our dashboard

2

Review our methods

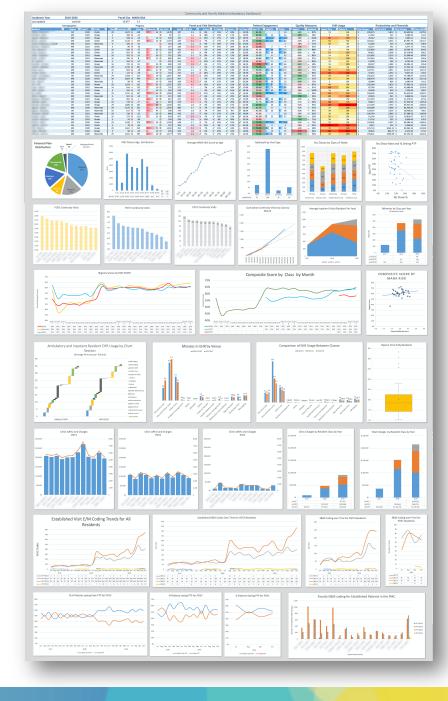
3

Discuss impact

FMC Dashboard

2019

Constantly Changing



Numerical Table

Data Visualization













"Internal" sources of the data

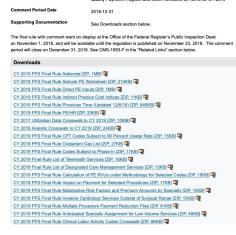
Millennium and Rev Cycle





"External" Data sources

HealthIntent, Cerner Advance, CMS, local patient satisfaction database



So Why?

Original Reasons

Understand practice profile
Track resident experience
Submit ACGME reports
Know our patients
Increase transparency

More Recent Objectives

Better educate residents for value-based care

Improve workflows

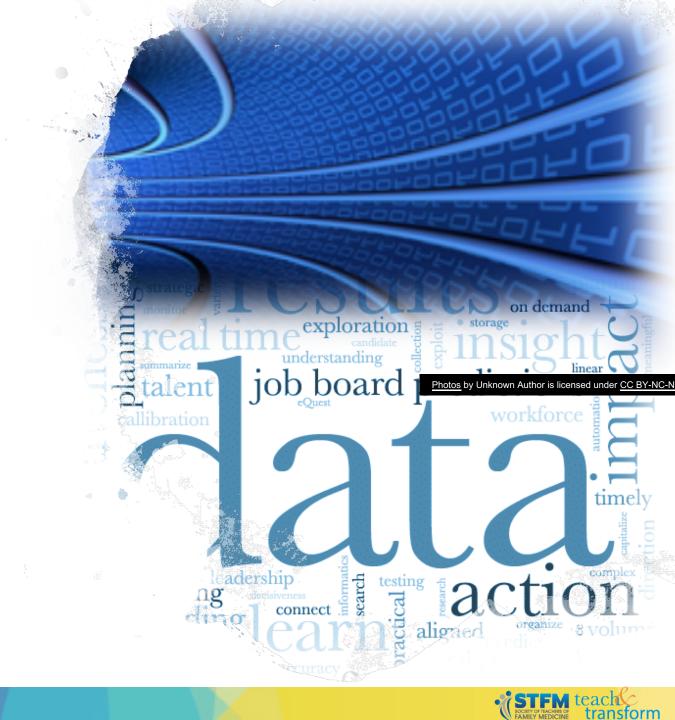
Close care gaps

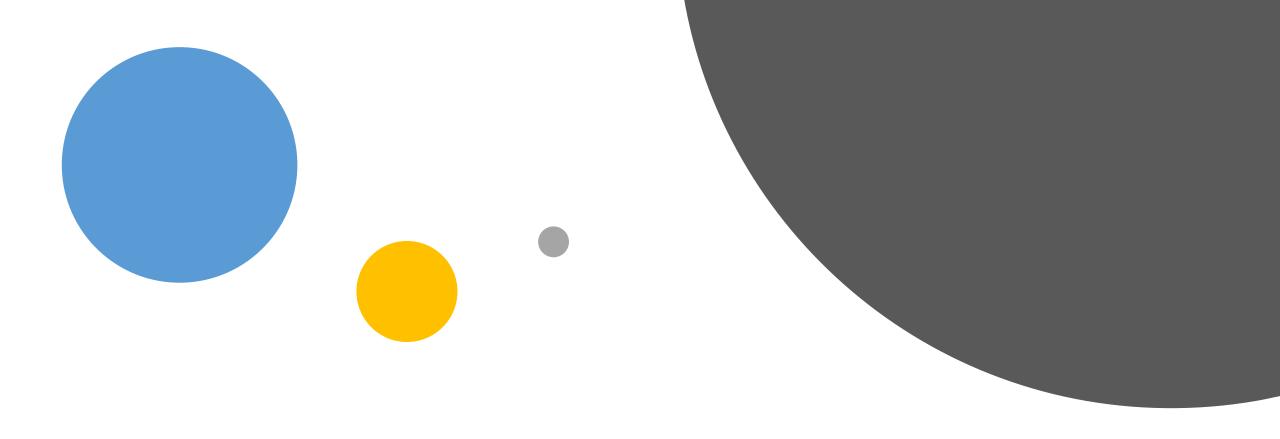
Shifts focus from individual to group

Leaves > Trees

Increase interest and reduce animosity towards EHRs

Prepare residents for data driven world





The Dashboard

November 2019 Version



Numerical Section Details

Community and Family Medicine Residency Dashboard

Academic Year	2019-2020				Panel Size M	1ARA Risk					,	,			,											
Last Updated	10/2/19				12,077	3.1																				
	Demographics			Progress				Panel and Visit Distribution					Patient Engagement Quality Measure				/ Measures	EHR	Usage	Productivity and Financials						
Resident	-↑ Degree ▼	ClassOf	PCMH V	Block ▼ C	ontinuity V	Status	Deliveries	Inpt Visits	Panel N	Pt Risk	▼ % Ne	w 🔽 % Pe	diatri	% Seniors	No Show %	Saw PTP	Msg2Pts	PtMsg V	Registry	▼ MedRec% ▼	Pajama Time	Pajama %	Total Charges 🔽 Total w	RVU Clinic C	harges 🔽 Cl	linic wRVU
	DO	2020	Chiefs	29	1,610 🏠	366	5	1,478		2.5	× 8%			√ 18%	- 22.5%	64.3%		13	64%	△ 87%	15	6%	\$ 209,475	5,812 \$	92,639.95	2,570.5
	MD	2022	Royals	3	68 🖟	-73		© 87	14	2.2	× 189	4	18%	√ 13%	√ 13.2%	63.6%	23	21	68%	→ 58%	7	3%	\$ 11,584	321 \$	5,486.95	152.3
	MD	2022	Royals	3	88 🖟	-53	1	200	155	3.5	× 229	4	15%	√ 35%	- 19.3%	40.2%	140	133	58%	100%	151	15%	\$ 45,542	1,264 \$	7,681.01	213.1
	MD	2020	Chiefs	29	1,479 💠	235	5	2 💿 1,193	449	3.4	× 7%	4	17%	√ 16%	- 22.2%	70.3%	103	84	61%	▼ 67%	56	5%	\$ 203,012	5,633 \$	87,997.75	2,441.7
	MD	2022	Mavericks	3	98 🔱	-43		© 163	178	2.3	× 9%	4	17%	√ 16%	- 24.5%	19.4%		1	58%	→ 71%	58	4%	\$ 15,282	424 \$	7,457.93	206.9
	MD	2022	Chiefs	3	66 🔱	-75			186	3.3	× 189	4 :	11%	√ 24%	× 31.8%	22.6%	2	4	52%	→ 62%	3	1%	\$ 16,271	451 \$	5,377.75	149.2
	DO	2021	Chiefs	16	600 🖟	-92		729		4.0	₹ 6%	4	14%	√ 18%	√ 16.1%	42.3%	99	75	65%	~ 88%	13	4%	\$ 107,828	2,992 \$	29,703.79	824.2
	MD	2021	Chiefs	16	602 🐺	-90		7 (0) 587	397	2.6	× 8%			√ 13%	_ 20.8%	45.1%	60	88	60%	▼ 9%	63	12%	\$ 86,821	2,409 \$	33,518.89	930.1
	DO	2021	Royals	16	633 🦺	-59		701		2.1	× 8%			√ 18%	√ 16.2%	54.9%	8	12	60%	△ 82%	14	6%	\$ 116,002	3,219 \$	31,648.46	878.2
	MD	2021	Mavericks	16	665 🔱	-27	3	890	461	3.6	₹ 6%			√ 15%	√ 16.4%	49.8%	73	65	62%	<u></u> 97%	57	11%	\$ 107,959	2,996 \$	34,079.65	945.6
	DO	2022	Mavericks	3	85 🦊	-56		© 201	215	4.3	× 149			√ 15%	√ 14.1%	32.8%	8	6	54%	△ 89%	18	6%	\$ 13,099	363 \$	6,761.30	187.6
	DO	2021	Royals	16	659 🦺	-33		838	319	3.8	₹ 5%			√ 19%	- 25.4%	0.5%	63	66	66%	▽ 58%	15	10%	\$ 89,507	2,484 \$	34,085.42	945.8
	MD	2020	Mavericks	29	1,629 🏠	385		9 0 1,175		2.5	1 5%			√ 17%	√ 14.4%	72.2%	8	14	56%	→ 11%	36	4%	\$ 209,663	5,818 \$	77,352.16	2,146.3
	MD	2021	Chiefs	16	607 🎝	-85		756	405	2.2	₹ 6%			√ 15%	19.4%	56.5%	68	76	66%	▼ 72%	89	11%	\$ 102,731	2,851 \$	36,613.56	1,015.9
	MD	2022	Chiefs	3	101 🖟	-40		5 🔘 154	222	2.9	× 109			√ 16%	√ 18.5%	38.5%	33	32	55%	△ 86%	214	26%	\$ 37,231	1,033 \$	9,027.43	250.5
	DO	2020	Mavericks	29	1,522 🎓	278		0 0 1,391	395	3.3	× 159		11%	₹ 24%	√ 15.8%	69.7%	14	37	69%	<u></u> 91%	39	7%	\$ 192,220	5,334 \$	75,789.87	2,103.0
	MD	2020	Chiefs	29	1,639 🏠	395		3 Ø 1,310	467	3.3	1 4%			√ 19%	√ 16.8%	72.2%	78	54	67%	→ 37%	69	9%	\$ 200,479	5,563 \$	92,685.36	2,571.8
	MD	2022	Mavericks	3	63 👃	-78		206	168	4.1	₹ 6%			√ 18%	19.5%	23.3%	36	32	64%	▼ 72%	2	0%	\$ 30,046	834 \$	5,087.64	141.2
	DO	2020	Royals	29	1,555 👚			2 0 1,335	392	4.0	× 149			√ 16%	15.9%	72.9%	97	70	55%	A 87%	64	9%	\$ 202,184	5,610 \$	77,663.54	2,155.0
	MD	2021	Mavericks	16	752 🖒	60		733	527	2.7	1 5%			√ 18%	√ 17.9%	58.3%	72	99	60%	△ 97%	143	8%	\$ 87,748	2,435 \$	42,989.96	1,192.9
	DO MD	2022	Chiefs	29	88 🖟	-53		182	239	2.4 4.2	1 4%			16%	19.8%	30.1%	63	65 182	58%	<u></u> 100%	19	4%	\$ 29,499	819 \$	7,232.69	200.7 2,569.7
	MD	2020 2022	Royals Mavericks	29	1,694 🏠	450 -63	_	5 Ø 1,388	529 200	3.2	× 229		14%	√ 16% √ 20%	✓ 13.6% — 19.9%	69.3% 14.6%	191	182	61% 72%	△ 96% △ 94%	123 102	13%	\$ 228,409 \$ 29,595	6,338 \$	92,610.04 5,848.06	162.3
	MD	2022	Royals	16	611 🖟	-81		813	431	3.4	× 6%		29%	√ 20%	√ 15.4%	44.1%	46	63	61%	▼ 70%	102	2%	\$ 29,595	821 \$ 3,206 \$	31,476.91	873.4
-	DO	2021	Royals	16	695 🖟	3		664	378	3.5	× 6%			√ 20%	× 26.8%	51.7%	69	53	61%	▼ 64%	138	11%	\$ 93,813	2,603 \$	37,329.30	1,035.8
	DO	2021	Royals	29	1,624 🎓	380		1,428	461	2.8	✓ 6%		19%	√ 14%	× 26.8%	69.6%	24	28	61%	95%	210	33%	\$ 272,200	7,553 \$	85,947.85	2,384.9
-	MD	2020	Mavericks	29	1,525 👚	281		1,420	480	2.7	× 7%			√ 17%	× 31.1%	62.7%	8	4	62%	→ 47%	37	14%	\$ 204,289	5,669 \$	85,562.95	2,374.2
	DO	2021	Mavericks	16	590 🖟	-102		5 0 598	370	2.8	× 7%			₹ 9%	19.5%	41.7%	26	38	61%	→ 85%	34	9%	\$ 120,324	3,339 \$	28,438.81	789.1
	DO	2021	Mavericks	16	696 🖟	4		886	345	3.0	₹ 6%		18%	√ 14%	√ 12.8%	42.9%		15	59%	~ 61%	33	8%	\$ 106,793	2,963 \$	37,589.50	1,043.0
	MD	2021	Chiefs	16	534 🖟	-158		918	427	3.4	× 7%			√ 13%	√ 16.8%	41.2%	22	57	64%	▼ 26%	50	5%	\$ 91,100	2,528 \$	29,814.07	827.3
-	DO	2022	Royals	3	85 🖟			© 138	236	2.9	× 149			✓ 31%	√ 19.0%	30.9%			71%	71%	30	3%	\$ 11,716	325 \$	6,936.09	192.5
	MD	2020	Chiefs	29	1,437 💠	193	5	1,199	548	2.7	× 8%			√ 16%	√ 15.3%	72.9%	145	138	61%	→ 70%	21	3%	\$ 194,495	5,397 \$	89,588.16	2,485.9
-	DO	2022	Chiefs	3	55 🖟	-86		O 191	185	2.9	× 139			√ 15%	23.6%	12.9%	4	2	58%	△ 91%	342	28%	\$ 8,011	222 \$	3,966.82	110.1
	MD	2020	Royals	29	1,497 🏠	253	7	0 0 1,360	452	3.3	× 7%			✓ 18%	19.9%	74.0%	50	53	61%	→ 58%	74	15%	\$ 225,718	6263.13 \$	83,064.36	2,304.8
-	DO	2022	Royals	3	89 🎝	-52		226	109	1.8	₹ 6%			√ 10%	- 19.1%	11.8%	13	11	37%	△ 84%	244	31%	\$ 30,445	844.77 \$	6,276.93	174.2
	MD	2020	Mavericks	29	1,541 🎓			0 0 1,377	503	3.4	₹ 6%			19%	- 21.1%	70.2%	91	45	67%	△ 90%	40	10%	\$ 195,641	5428.59 \$	87,231.92	2,420.5
																										1

Demographics

Resident Degree Class **PCMH**

Progress

Current Block Continuity Visits Continuity Status **Panel**

Size % New % Peds % Seniors Engagement

No Show Rate **Continuity Rate** Portal Use

Pt Satisfaction ...coming soon

EHR Use Quality

Pajama Time

Overall Registry Score

Med Rec

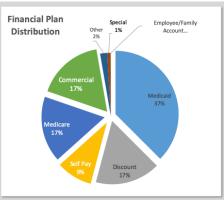
Productivity

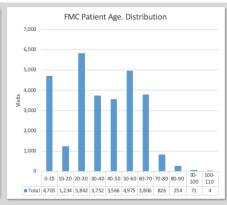
Total Charges wRVUs Clinic Charges wRVUs

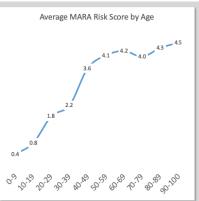


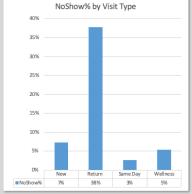
Data Visualization

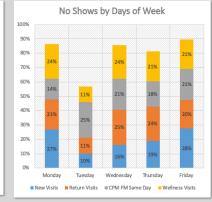
Practice Description

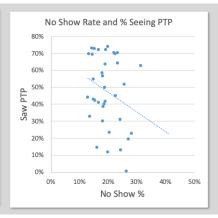






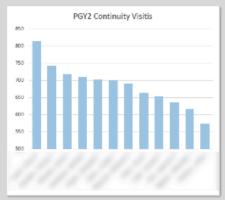


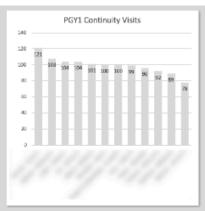


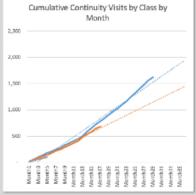


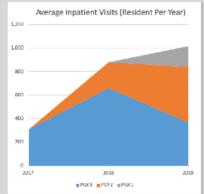
Resident Progress







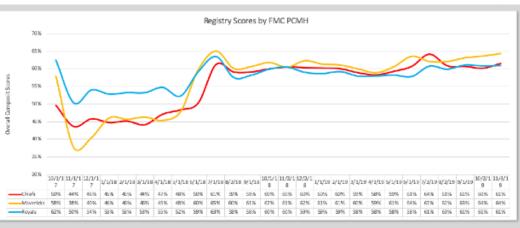


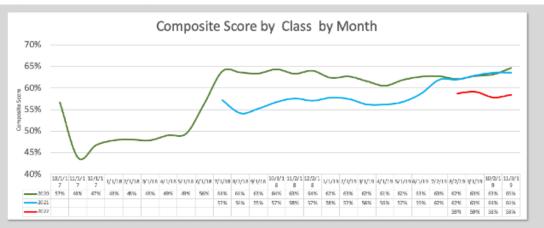


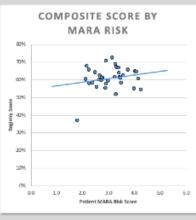


Data Visualization

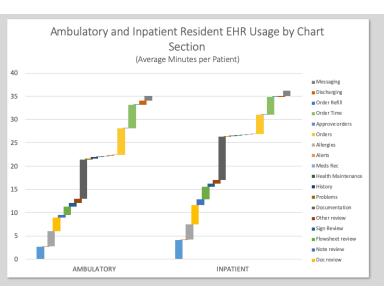
Registry and Quality Measures

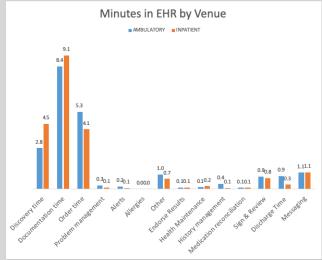


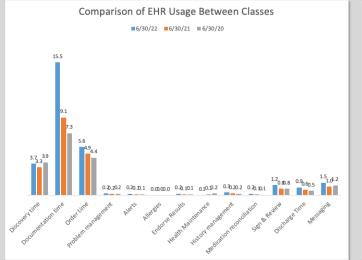


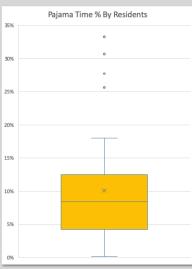


EHR Utilization and Patterns









Data Visualization

Charges, wRVU's, E&M Coding Patterns





Making It All Real

How to get residents interested, involved, egaged, and getting the "BIG" picture



1

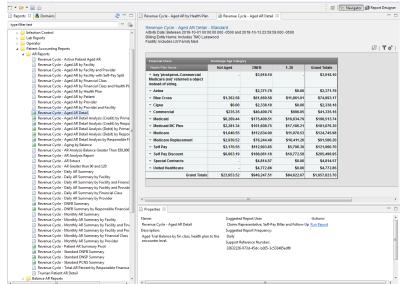
Open up Access to Reports, Registries and Management Dashboards 2

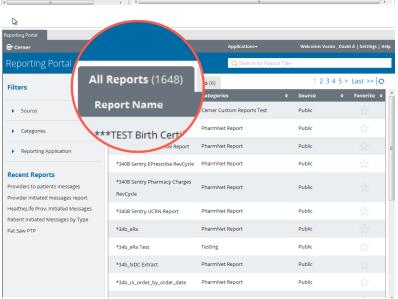
Integrate Population Health and Quality Measures into Rotations, Clinics and Clinic Visits 3

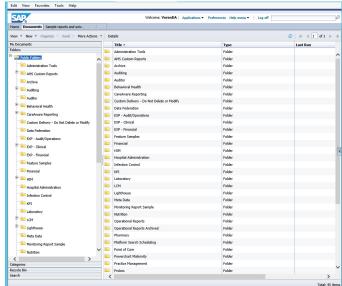
Help residents connect the dots and start to think proactively

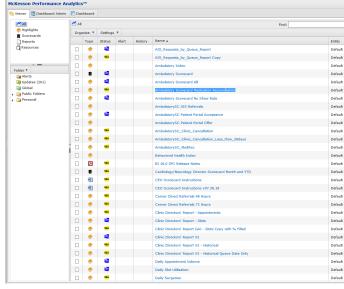
Methodology

Step 1: Transparency







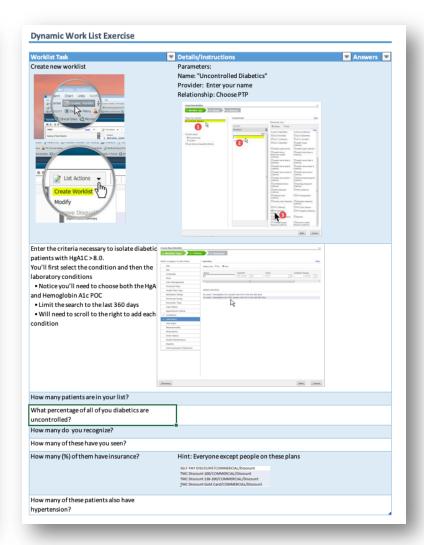




Step 2: Curriculum

Assignments on their own panel patients



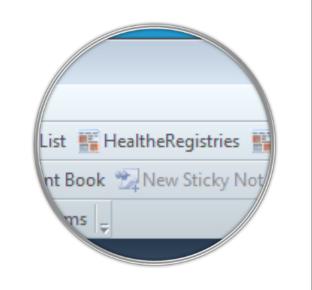


Step 3: Reinforcement

Data is a click or two away ...
Huddles
Checkouts

Task Edit View Patient Chart Links Notifications Navigation Help

| Home | Message Center | Dynamic Worklist | Patient List |

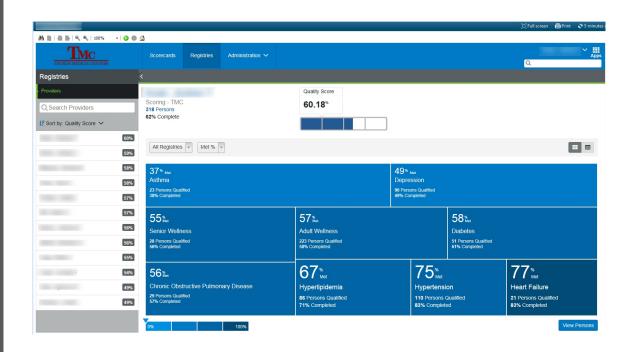


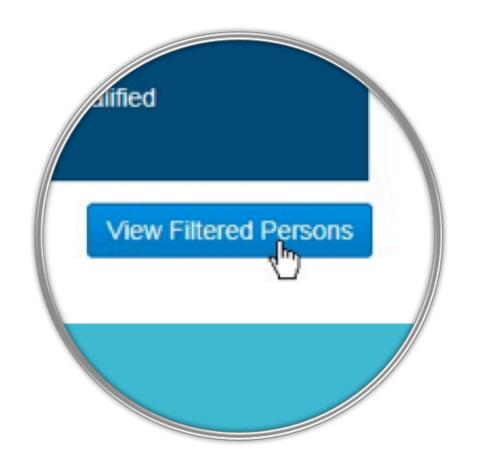


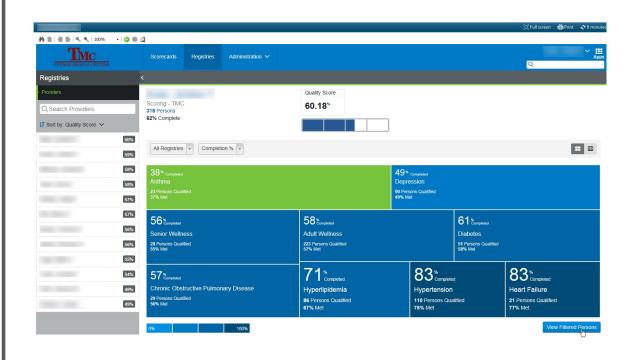
On which registries are my patients?

Essence of Population Health – Where's the trees?









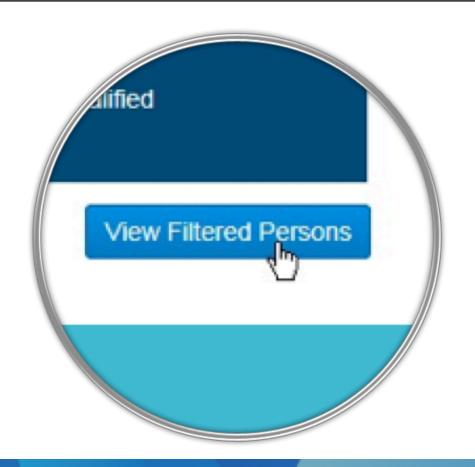
Which part of the forrest needs attention?

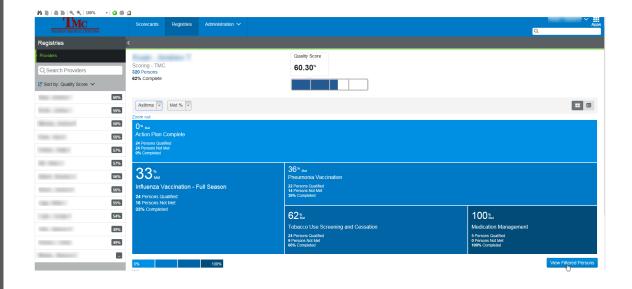
... and which trees need help?

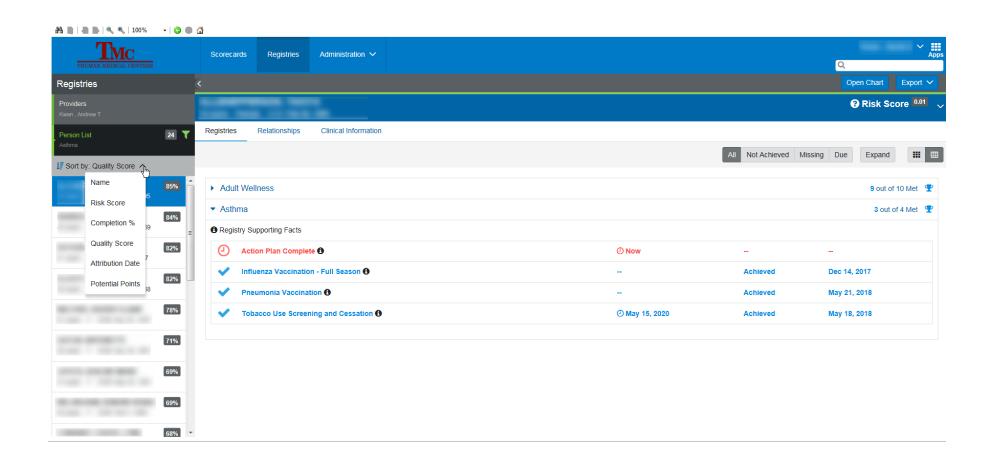


Which patients?

Which trees?





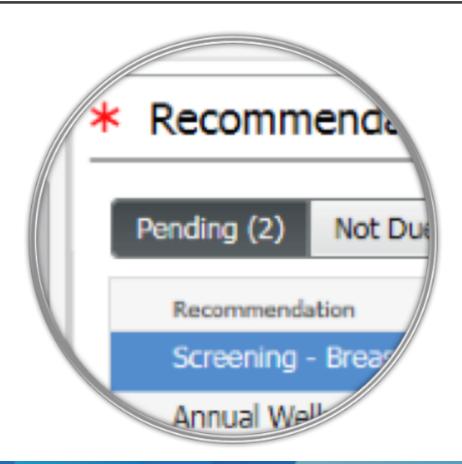


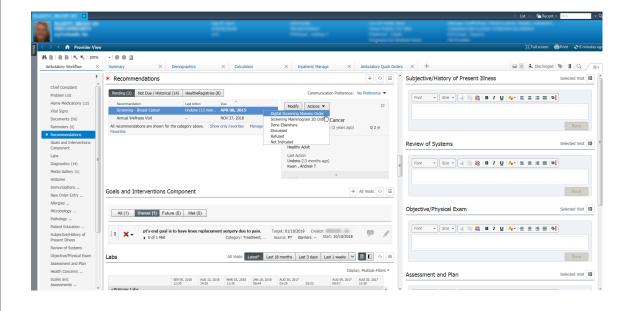
What's wrong with the patient?

Finding out exactly what needs to be done – Care Gaps

Sharing with the patient

Incorporating care gap closure during visit with patients





Block end "MOB" Meetings



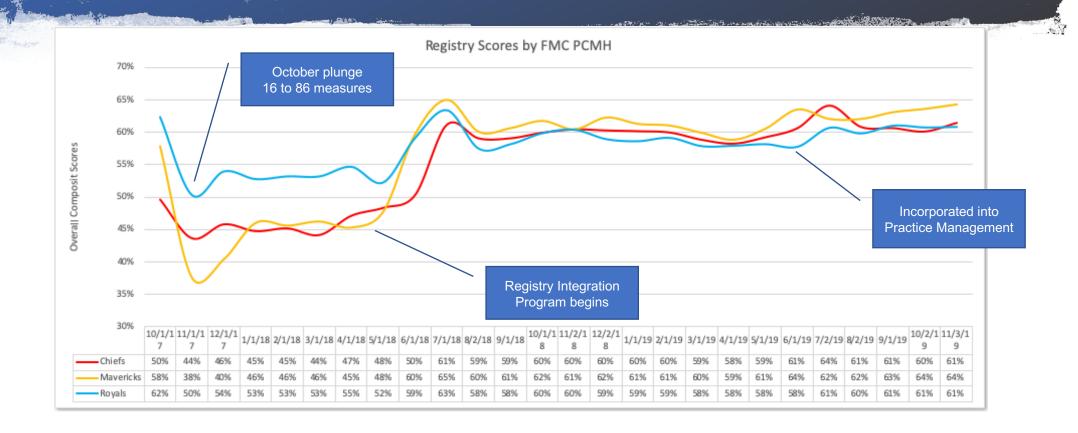
Making Ourselves Better

Occur ever 4 weeks
At rotation change
"Now for the numbers"
Highlight different data set
Encourage group think
Reinforce panel and population
management approaches

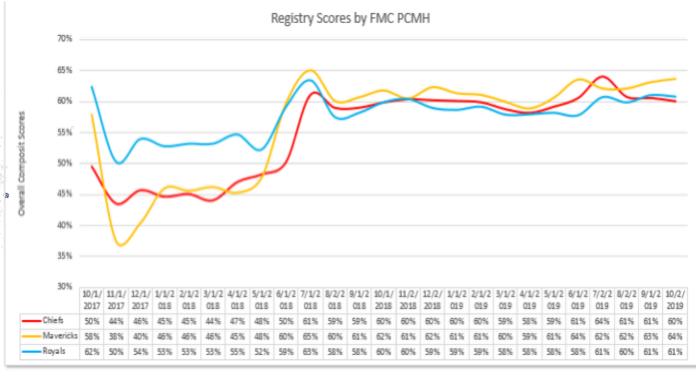
WHAT'S HAPPENING?



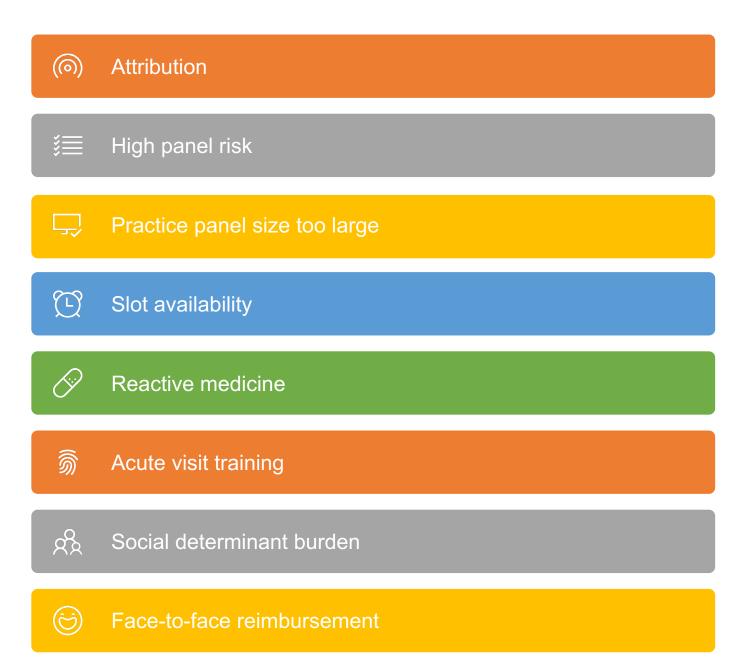
Population Health Registry Scores







Let me count the ways





Other Confounders

Require major changes in workflow

Issues that interfere with improved metrics

Solidify measure mapping

A few measures cannot be met in the system

Schedule templates

Reduced time for adult preventive visits Acute/reactive visit culture

Residency rotations

Continuity disruptions

Clinic architecture

Exam rooms inhibit patient engagement

Social Issues

Poverty

Time – many working 2 low paying jobs

Transportation

Cost of medication

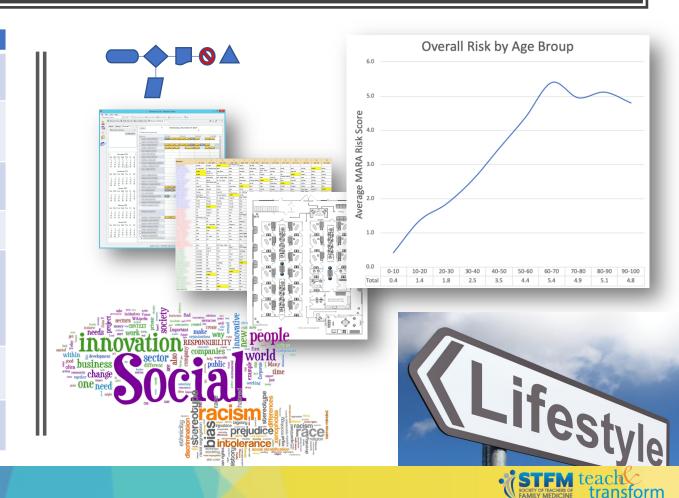
Co-pays

Age and Risk

Increasing age of our patients (Boomers) When do we stop measuring and age out?

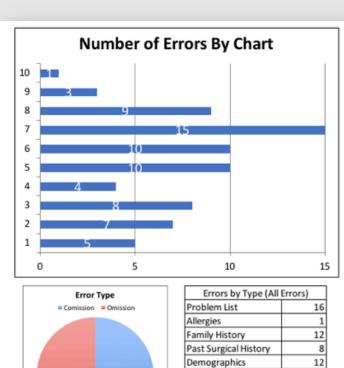
Patient participation and engagement

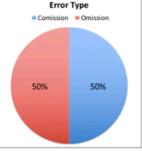
Lifestyles are impossible to change in a clinic setting



Reconciliaion Integrity Accuracy

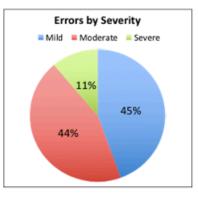
Missing in Action





Errors by Type (All Errors)					
Problem List	16				
Allergies	1				
Family History	12				
Past Surgical History	8				
Demographics	12				
Medications	12				
Social History	6				
Pregnancy History	3				
Immunizations	1				
Health Maintenance	1				

List o	f Severe Errors
Problem List	Inappropriately listed
Problem List	Rheumatoid Arthritis
Problem List	Inappropriately listed
Problem ust	Obstructive Sleep Apnea
Surgical History	Splenectomy not
Surgical History	documented
Suppleal History	Cardiac Catheterization
Surgical History	x2 not documented
Cocial History	Inappropriately listed as
Social History	a non-smoker
Family Mistage	Father had
Family History	Cholangiocarinoma
Consider I I II of the con-	Cesarean Section x3 not
Surgical History	listed
Family Wistons	Sister had Cervical
Family History	Cancer



What we must do

Banish our [physician] fixation with notes

Start paying attention to parts of the chart required for
automated measures ...doesn't matter now and will not in
2021

Connect resident activity with remuneration

Refocus medical education on lifestyle

Get rid of RVU based compensation

Go beyond encounter based system

Somehow change western culture

Learn how to teach doctors population management

Begin proactive rather than reactive scheduling

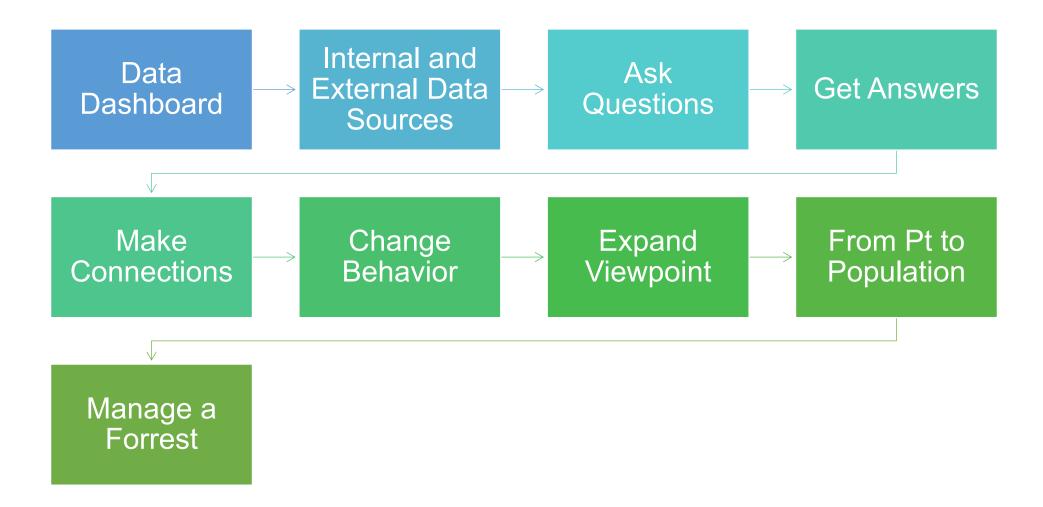
Break free from the "exam room" jail and get involved in our patient's lives





IN REVIEW

Summary





The Slog

Importance of value-based reimbursement education

Better, more relevant and evidence-based measures

EMR configurations that elevate measures and care gaps even more than we do now

Push registry measures to patient

Results can be disappointing for many reasons outside our control

Systems designed for reactive acute conditions ... not proactive management of diseases and lifestyles

We don't have "medicines" for social determinants that affect patient's ability to comply with measures

Need to build in reconciliation and validation of data in order to improve accuracy ... can't be done without the patient



Need to work the forest, not leaves

