

HHSC DSRIP Statewide Learning Collaborative 2019

HIT and Population Health

***Craig Kovacevich, MA**, Associate Vice President, The University of Texas Medical Branch at Galveston*

- ***Brett Moran, MD**, Associate Chief Medical Officer and Chief Medical Information Officer, Parkland Health & Hospital System*
- ***Mysti Schott, MD**, Associate Professor of Medicine and CMIO (interim), UT Health San Antonio*



TECHNICAL ASSISTANCE:
*HEALTH INFORMATION TECHNOLOGY
AND POPULATION HEALTH*

THE TRANSFORMATION CONTINUES...



MODERATOR:

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COMMUNITY & POPULATION HEALTH
THE UNIVERSITY OF TEXAS
MEDICAL BRANCH AT GALVESTON
(UTMB HEALTH)*

PANELISTS:

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SESSION TALKING POINTS

- Data Journey from 1115 Waiver Initiatives (DSRIP) to Population Health Strategy
 - Projects to System-Wide Transformation
- Importance of Health Information Technology (HIT) to Sustainable Population Health Management
 - Identifying Needs
 - Planning for Implementation
 - Overcoming Challenges and Recognizing Opportunities
 - Measuring Outcomes and Showcasing Key Results

ORGANIZATIONAL CASE STUDIES

- **Parkland Health & Hospital System**
- **The University of Texas Health Science Center at San Antonio**
- **The University of Texas Medical Branch AT Galveston (UTMB Health)**

UTMB'S HEALTH INFORMATION STRATEGY

- Identify System Needs and Facilitate Organizational Collaboration
- Engage Community Partners (Local HIE, LHDs, FQHCs, etc.)
- Develop a Standalone Analytical Tool (UTMB Discover)
 - Refreshes daily
 - Utilizes multiple attribution models in order to filter all the way to the patient level
 - Freezes data at the end of the year for an auditable “snapshot”
- Educate and Refine
 - DSRIP build is relied on by other areas of the hospital
 - Population Health at UTMB will now follow this model going forward

UTMB'S DISCOVER APPLICATION

UTMB Health Population Metrics Measures Compound Measures Performance Provider Patients Today Call List atherndo

UTMB Discover

UTMB Health Population Metrics

Executive Sponsor: Gulshan Sharma, MD, MPH, FCCP
Vice President, Chief Medical & Clinical Innovation Officer
Sealy & Smith Distinguished Chair in Internal Medicine
Professor & Director, Division of Pulmonary Critical Care and Sleep Medicine

Subject Matter Experts: Susan Seidensticker, BSIE, MSHAI, CPHQ, CSSBB, PMP, Dir. Community & Pop Health
Andrew T. Herndon, MHA, CSSGB, Senior Business Manager, Community & Pop Health

Version: 2.1.0 Last Reload: Aug 12, 2019 10:19 AM utmbdiscover@utmb.edu

SELECT A MEASURE

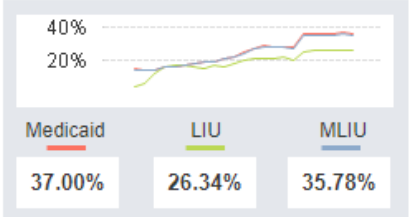
Clear Select Bookmark Select Report More

UTMB DISCOVER **UTMB Health Population Metrics**
Measures
Compound Measures
Performance
Provider
Patients
Today
Call List
atherdo

Filters: ExpiredFLG: N • Patient Coverage Group: LIU, Medicaid • MeasureReportingYearNBR: 2019 • Snapshot Coverage: LIU, Medicaid • Measure Name: Diabetes: Foot Exam • Measure Group: A1 | Chronic

↑ Diabetes: Foot Exam (A1-112)

Aug 12, 2019 ◀ Historical | Current ▶

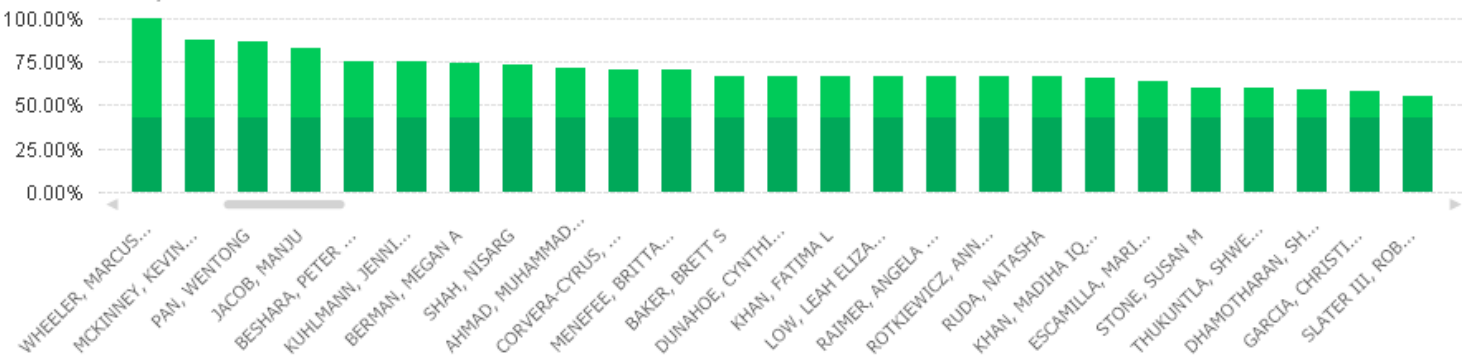


Current Rate:
35.78%

Target Rates:

- 100% ● 42.44%
- 75% ● 40.84%
- 50% ● 39.24%
- 25% ● 37.64%

Sort by: Measured Rate



Select Columns ▼

Measure Name	Value/Patient		Measured vs Target Rate				Achievement	2017 Baseline	100% Target Rate	Measured Rate	Numerator	Denominator	Measured vs. Target Rate	Patients to Goal	Patients to Next Target	Total Opportu...	Previous Year Rate
	0%	25%	50%	75%	100%												
A1 Chronic Diabetes Care	0%	25%	50%	75%	100%												
• Diabetes: BP Control (A1-207)	<div style="width: 75%; height: 10px; background-color: #0070c0;"></div>					100%	73.58%	75.45%	77.19%	1,770	2,293	1.74%	-39	-39	523	73.52%	
• Diabetes: Foot Exam (A1-112)	<div style="width: 36.05%; height: 10px; background-color: #0070c0;"></div>					0%	36.05%	42.44%	35.78%	815	2,278	-6.66%	152	43	1,463	43.08%	
• Diabetes: HbA1c Poor Control (A1-115)	<div style="width: 40.57%; height: 10px; background-color: #0070c0;"></div>					50%	40.57%	38.33%	39.08%	896	2,293	-0.74%	-17	-4	896	35.78%	
• Diabetes: HbA1c testing (C1-113)	<div style="width: 79.58%; height: 10px; background-color: #0070c0;"></div>					0%	79.58%	83.97%	80.11%	1,837	2,293	-3.86%	89	13	456	84.17%	
• ED Visits Diabetes (A1-508)	<div style="width: 46.12%; height: 10px; background-color: #0070c0;"></div>					100%	46.12%	41.51%	27.93%	1,033	3,699	13.58%	503	503	628	40.37%	
• PQI 93 Diabetes Composite (A1-500)	<div style="width: 16.09%; height: 10px; background-color: #0070c0;"></div>					100%	16.09%	14.48%	8.87%	328	3,699	5.61%	208	208	246	13.70%	

APPLY FILTERS

UTMB Health Population Metrics | Measures | Compound Measures | Performance | Provider | Patients | Today | Call List | atherndo

Measure Group: LIU, Medicaid • MeasureReportingYearNBR: 2019 • Snapshot Coverage: LIU, Medicaid • Measure Name: Diabetes: Foot Exam • Measure Group: A1 | Chronic

Aug 12, 2019 | Historical | Current

Sort by: Measured Rate

12)

Search

Measure Year: 2017 2018 2019 | Expired: Y N

Patient Coverage Group

- ADC-ORTHO FACULTY
- ADC-STARK DIAB/ENDO
- ADC CARDIOLOGY FACULTY
- ADC CBC FAM MED POB1
- ADC FAMILY MEDICINE
- ADC GENERAL SURGERY
- ADC INTERNAL MED (CBC)
- ADC NEUROLOGY
- ADC PEDIATRIC (CBC)
- ADC PLASTIC SURGERY
- ADC PULMONARY CLINIC
- ADC SURGERY FACULTY
- ADC SURGERY GU
- ADC THORACIC SURGERY
- ADC VASCULAR SURGERY
- ADC WOMEN'S HEALTH
- ADULT ALLRGY FAC-PCP
- ADULT RHEUM GROUP-PCP
- ALV-BRAZ CNTY FAM MED
- ALV-BRAZORIA PRIMARY
- ALV-CARDIOLOGY FACULTY
- ALV-FAMILY MED-HWY 6
- ALV-NEUROLOGY
- ALV-ORTHO FACULTY
- ALV-PEDI PSYCHIATRY
- ALV-PEDIATRICS-HWY 6

Measured vs Target Rate	Achievement	2017 Baseline	100% Target Rate	Measured Rate	Numerator	Denominator	Measured vs. Target Rate	Patients to Goal	Patients to Next Target	Total Opportu...	Previous Year Rate
75% 50% 75% 100%	100% ●●●●●	73.58%	75.45%	77.19%	1,770	2,293	1.74%	-39	-39	523	73.52%
25% 50% 75% 100%	0% ●●●●●	36.05%	42.44%	35.78%	815	2,278	-6.66%	152	43	1,463	43.08%
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25% 50% 75% 100%	100% ●●●●●	16.09%	14.48%	8.87%	328	3,699	5.61%	208	208	246	13.70%

Attributed Billing Provider

EXPORT THE PATIENT CALL LIST

UTMB Health Population Metrics | Measures | Compound Measures | Performance | Provider | Patients | Today | **Call List** | atherndo

Filters: ExpiredFLG: N • Patient Coverage Group: LIU, Medicaid • MeasureReportingYearNBR: 2019 • Snapshot Coverage: LIU, Medicaid • Measure Name: Diabetes: Foot Exam • Measure Group: A1 | Chronic

Select Columns | [Toggle Patients w/ Opportunities](#)

Call List (1,463 Patient Opportunities)

List Inclusion ...	HRN	Attributed L...	Patient Full Na...	Gender	Language	Home Phone	Other Commu...	Other Commu...	MyChart Status	Number of Oppor...	Opportunities List	Last Follow Up	Upcoming App...	Upcoming Appointments
5/2/2019		TEX-FAM HLTH-FMC-LOWRY		Female	English		Mobile		Pending Activation	1	Diabetes: Foot Exam	-	05/01/2020; 08/15/2019	Follow-Up Visit; Follow-Up Visit
5/2/2019		ADC CBC FAM MED POB1		Female	English		Mobile		Pending Activation	0	-	-	02/24/2020; 10/11/2019; 11/07/2019; 11/08/2019	Follow-Up Visit; Follow-Up Visit; Follow-Up Visit; Follow-Up Visit
5/2/2019		BEA-RMCHP (195N 11TH)		Female	Spanish		Mobile		Pending Activation	0	-	-	-	-
5/2/2019		ALV-FAMILY MED-HWY 6		Female	English		Mobile		Pending Activation	0	-	-	11/04/2019	Follow-Up Visit
5/2/2019		OBYN FAC PRACTICE-UHC		Female	English		-		Pending Activation	1	Diabetes: Foot Exam	-	-	-
5/2/2019		PEA-RMCHP		Female	Spanish		Mobile		Pending Activation	1	Diabetes: BP Control; Diabetes: Foot Exam; Diabetes: HbA1c Poor Control; Diabetes: HbA1c testing	-	-	-
5/2/2019		BEA-RMCHP (195N 11TH)		Female	English		Mobile		Activated	1	Diabetes: Foot Exam	-	08/15/2019; 09/12/2019; 10/10/2019; 11/07/2019;...	ULTRASOUND 30; ULTRASOUND 30; ULTRASOUND 30; ULTRASOUND 30;...
5/2/2019		GAL-IM DANIELS TM-PCP		Male	English		-		Activated	1	Diabetes: BP Control; Diabetes: Foot Exam; Diabetes: HbA1c Poor Control	10/12/2018 - Care Management	-	-
5/2/2019		TEX-RMCHP-TEXAS AVE		Female	English		Mobile		Pending Activation	1	Diabetes: Foot Exam; Diabetes: HbA1c Poor Control; Diabetes: HbA1c testing	-	-	-
5/2/2019		LEA-VTC IM REMMERS TM		Female	English		Mobile		Activated	1	Diabetes: Foot Exam; Diabetes: HbA1c Poor Control	10/17/2017 - Influenza; 01/02/2017 - Breast Cancer Screening; 10/04/2014 - General	09/23/2019; 10/22/2019	Follow-Up Visit; Vas Lab Study; Vas Lab Study; Follow-Up Visit
5/2/2019		ALV-FAMILY MED-HWY 6		Female	English		Mobile		Activated	0	-	-	08/14/2019; 08/19/2019; 09/09/2019	Follow-Up Visit; Established Gynecology Problem;...
3/22/2019		ADC-STARK DIAB/ENDO		Female	English		Mobile		Activated	0	-	-	03/11/2020; 08/13/2019; 08/15/2019; 10/04/2019	FOLLOW-UP #5; FOLLOW-UP #5; Follow-Up Visit; ESTABLISHED WELL/PRE...
3/22/2019		TEX-FAM HLTH-FMC-LOWRY		Female	English		-		Pending Activation	1	Diabetes: BP Control; Diabetes: Foot Exam	-	05/26/2020; 08/12/2019	Follow-Up Visit; Follow-Up Visit
3/22/2019		ANG-RMCHP		Female	Spanish		-		Pending Activation	1	Diabetes: Foot Exam; Diabetes: HbA1c Poor Control; Diabetes: HbA1c testing	08/04/2017 - Care Management	-	-
3/22/2019		ADC INTERNAL		Male	English		-		Inactivated	1	Diabetes: Foot Exam; Diabetes: HbA1c Poor Control;	-	-	-



Improving Waiver Outcomes: Real Time with a Registry

September 5, 2019

Brett Moran, MD

Chief Medical Information Officer

Associate Chief Medical Officer

Professor of Internal Medicine



- Version 1:
 - PDF reports emailed out to leaders who then emailed downstream to their directors, then to managers, etc...
 - Reports contained EVERY patient in the waiver for EVERY clinic for EVERY metric
 - Managers and their staff would then cull through the reports to find patients from their clinics with needs relevant to their clinic operations
 - Managers would then either:
 - Have nurses reach out to the patients via telephone encounter to address the need
 - Alert clinic care teams when the patients came in for care the next visit for “just in time” addressing of the care gaps

- Issues:
 - Time consuming
 - Disorganized
 - Difficult to operationalize
 - Not integrated within the EHR



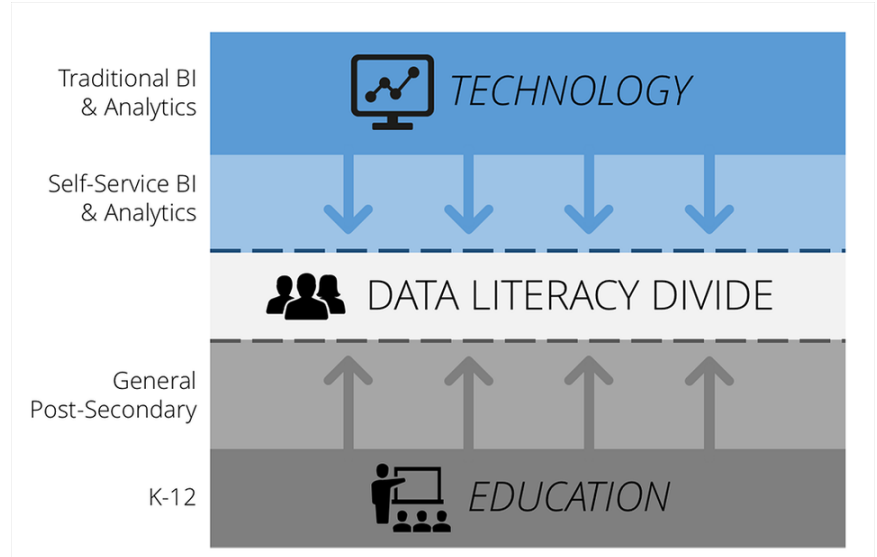
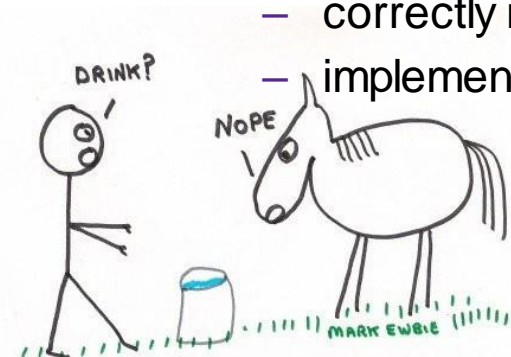
- Version 2:
 - Excel Reports generated and sent out to leaders and directors which were easily filterable to the clinic and metric to better allow them to address the needs in manners that fit their operations
 - Take ~24 hours to run all 40 metrics
 - Cannot run concurrently as many utilize the same tables, etc...

- Issues:
 - Not integrated within the EHR
 - Still time consuming to generate the reports
 - Time consuming to effect actions on the filtered reports

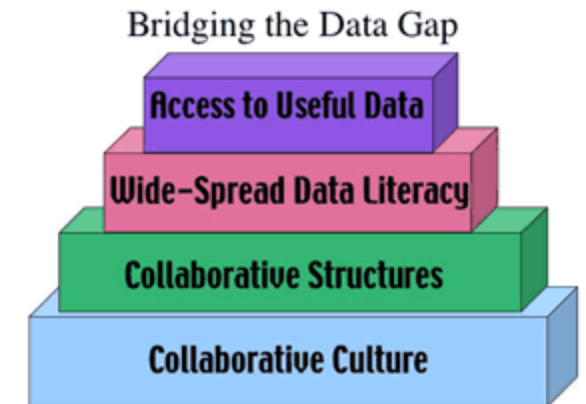


A Sidebar: Data, Meaningful Data, and Actionable Data

- Arthur Benjamin
 - In his 2009 TED Talk, mathematician Arthur Benjamin advocated it's time for mathematics curriculum to shift from analog to digital, and for **statistics and probability** to replace *calculus* at the top of the mathematics pyramid.
- How well are all of us and our clinical and operational teams prepared to use statistics and data analysis to drive the “waiver need”?
- If we lead the clinical care teams to data, do they have the training to:
 - appropriately utilize the tools?
 - correctly interpret the data?
 - implement the right actions based on them?



Why Companies Must Close The Data Literacy Divide; Brent Dykes, [Forbes](#), March 9, 2017



Nancy Love, Bridging the Data Gap, [MSPnet](#); Feb, 2004



- Registry
 - Definition: An information system for registering metadata (*Wikipedia)
 - Theory: If we produce and collect the data in the EHR, why not aggregate it within a registry to allow for more easy and rapid access and allow for more robust conduits within the rest of the EHR?
 - Uses:
 - Dashboards
 - Discrete flags for deficits
 - Decision support
 - At-elbow reporting for care teams and clinics
 - Benefits:
 - More real-time data
 - Integrated within the EHR



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Waiver Bundle and/or Metric Owners:

- Who are the patients deficient in my metric? What clinics/areas?
- I want to bulk message them. I want to bulk enter orders to address this deficit.

- [Copyrighted Image Removed]



- What patients are coming in today or this week who have waiver deficits?

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- System or Clinic Level:
 - Major reports at the system level for each waiver metric
 - Local reports to identify needs of patients coming in that day or the next day
 - Local reports to identify specific “buckets” of gaps in their specific clinic population that can be approached in a pop health manner through:
 - Bulk messaging and bulk ordering
 - Pop Health team outreach (care managers, navigators, nurses, etc...)
 - Multi-provider Schedule: Add Icon/flag to identify patients w/care gaps
 - SlicerDicer tool



- Patient Level:
 - Alerts to care team:
 - Passive:
 - Flag in Header/Storyboard or passive best practice alert in the navigator
 - Close chart validation points to flag if trying to close a chart and the care gap remains
 - Print groups to display current waiver-related deficits for the patient
 - Active:
 - Pop-up alert upon opening chart
 - Order entry alert—notify providers of gaps when they are ready to enter orders
 - Smartforms—single standard location for addressing waiver-related needs
 - Smartlinks in templated notes



- Clear, consistent expectations and definitions from stakeholders as to HOW they want the data to be presented to them
 - Global
 - Patient-centric
 - Metric-centric
 - Clinic-centric

- Synchronizing the reports—clarity, vs. datalink vs. specific tables being accessed by each

- Getting IT and CI teams to work together and even IT teams within themselves (Reporting vs. Ambulatory vs. Nursing Informatics, etc...)

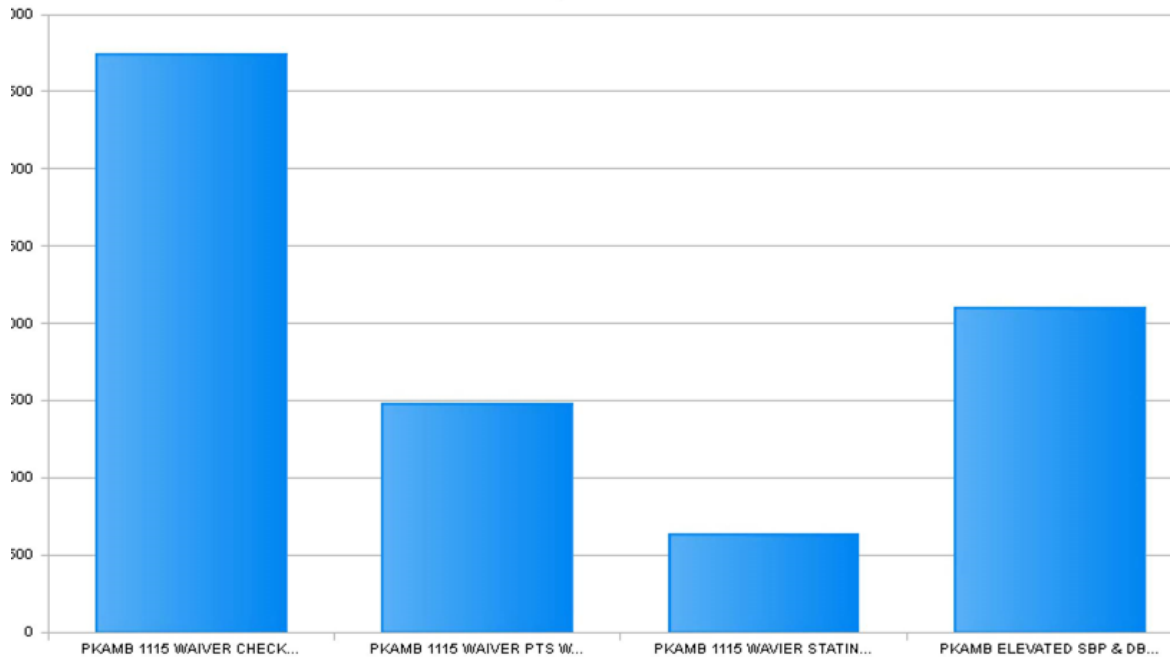
- Make plain language naming logic:
 - “A1-112 Numerator not met” vs. “Patients Missing Diabetic Foot Exam Documentation”



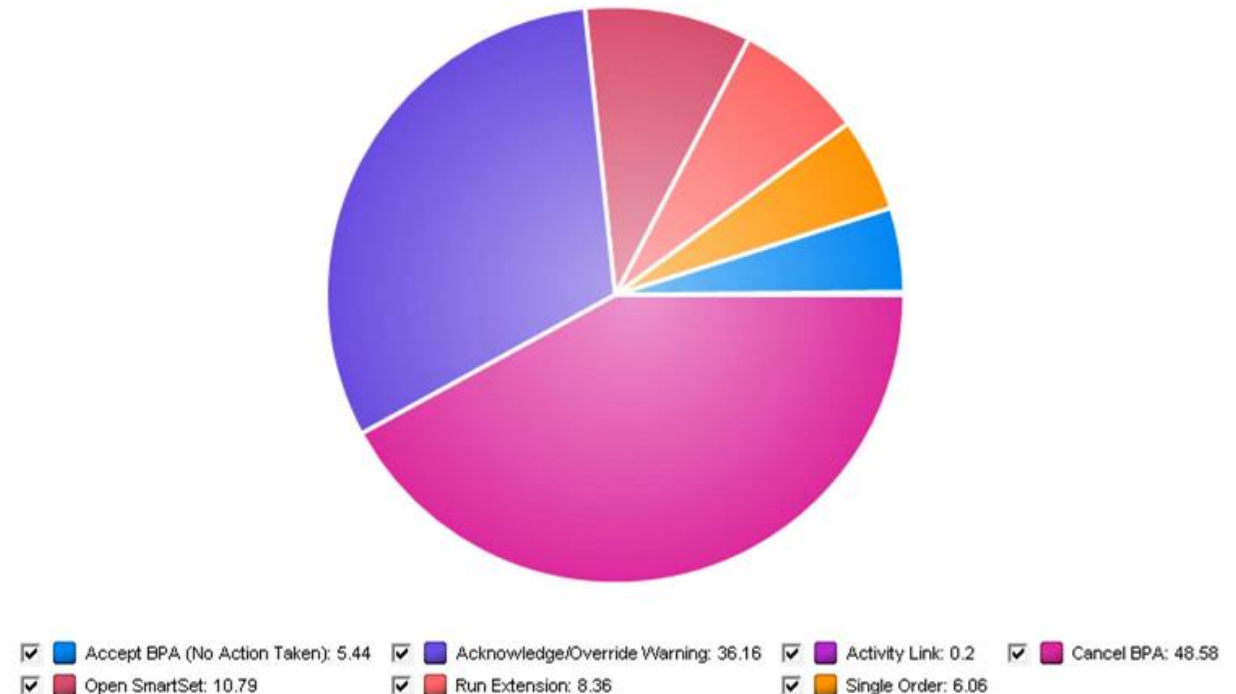
Struggles/Issues:

- Current state expects clinic staff to run individual reports for each metric
- Creates convoluted and redundant workflow
- Lack of “just in time” accurate information led to poor decisions on our part regarding CDS

Unique Patient

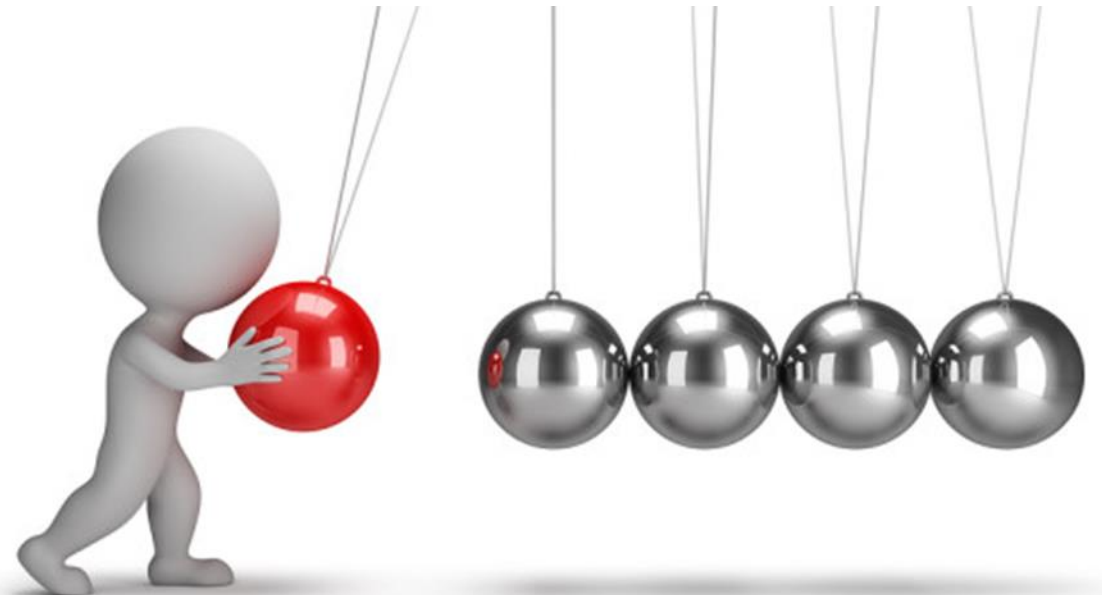


Follow Up Actions





- Complete operationalizing all the reports associated with the metrics, but coming out of the registry, which will allow for more timely, abbreviated, and rapid reports
- Work to incorporate flags to identify patients with waiver-related needs—either individually or as a single flag—to more readily be able to visually cue off the chart and take correct actions in the right context for the right patient at the right time.
- Standardize the process for the “efferent” arm of the waiver
 - Similar look and feel to each alert
 - Similar place
 - Similar action options or opt out options
 - One place
 - Consistent
 - Less intrusive





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- SDoH—Social Determinants of Health
- Have begun discretely capturing SDoH as of August
- Studying co-occurrence of SDoH deficiencies with Waiver needs
 - Are there higher correlations between any particular items?
 - Are there significant impacts by addressing any particular SDoH items related to waiver needs? Vice versa?



Capturing Data from Outside Parkland:

- Begin looking discretely at results from OUTSIDE the organization and have them incorporated such that decision support can be satisfied by these tests
 - Pilot of 5 labs and expanding from the pilot after working out bugs
- Began by looking at pulling in results from sister organizations and capture them discretely to display in the EHR and satisfy care gaps or trigger needs as appropriate
 - Struggles in that LOINC is too vague and have to manually map each.
 - Struggles in that each organization has their own naming/numbering system





- Improve efficiency such that we can run reports nightly and eventually hourly
- Create “omnibus” report or aggregator—ideally create discrete flag for each metric
- Standardize decision support within the EHR that looks at ALL the metrics and flags if ANY are deficient
- Finalize implementation: If one clicks on the flag, it would then display a print group that would display all the care gaps that the patient is deficient in
- Create standardized procedure for addressing care gaps (80/20)
 - E.g. smart form in the encounter navigator
 - Go there ANYTIME a patient has a care gap need and fill out the appropriate area

UT HEALTH SAN ANTONIO'S STRATEGY

- Ambulatory only organization – utilized local regional health information exchange (HIE) called HASA for hospitalization data
- Defined workflows – clinics developed with IT and socialized
- Created a DSRIP registry and subregistries within our EHR (Epic)
- Dashboards at provider, clinic and organization level
 - Drill down reports for gaps at each level
 - Access patient's chart and perform outreach directly from report
 - Pre and Post Visit reports for in-reach gap closure and monitoring
- Used this framework for Value Based Care contracts and entire population

ORGANIZATION LEVEL DASHBOARD

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ORGANIZATION LEVEL DASHBOARD – DRILL DOWN

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PROVIDER LEVEL DASHBOARD

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PROVIDER LEVEL REPORT

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PROVIDER LEVEL REPORT

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ADDITIONAL COMMUNICATION TOOLS

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