

Population Health Management Infrastructure

William Pagano MD, MPH
SVP of Clinical Operations

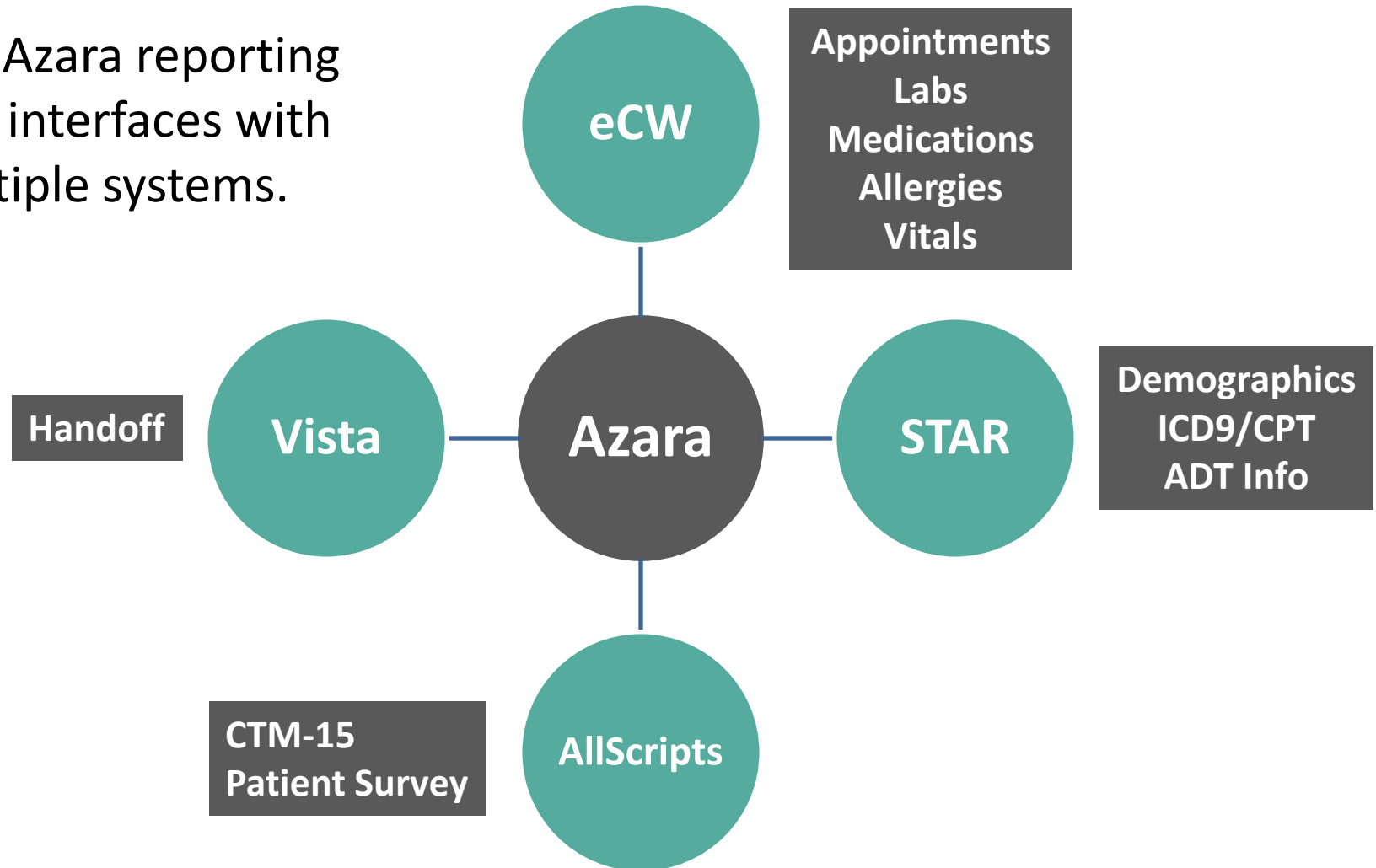
Doreen Colella RN, MSN
AVP of Quality



**Lutheran
HealthCare™**

Interfaces

- The Azara reporting tool interfaces with multiple systems.



UDS

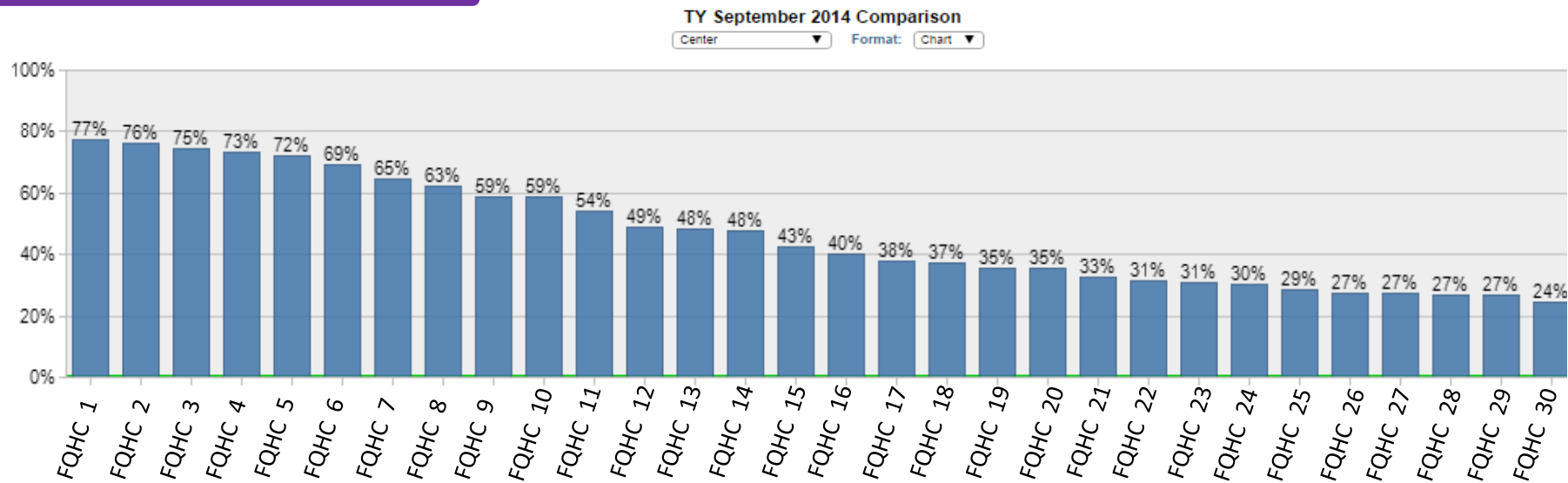
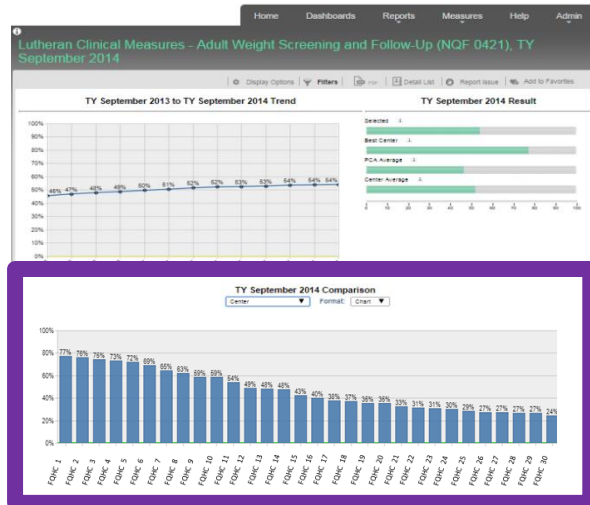
Reports	Measures	Help	Admin
Meaningful Use	▶	ion	
UDS 2014	▶	Tables 3a & 3b	
PCMH	▶	Table 4	
CHCANYS Projects	▶	Table 6a	
Lutheran Reports	▶	Table 6b - Sections A & B	
Custom Scorecards	▶	Table 6b - Sections C thru M	
Meaningful Use Legacy	▶	Table 7 - Birthweight	
Clinical Registries	▶	Table 7 - Hypertension BP	
Clinical Operations	▶	Table 7 - Diabetes A1c	

Measure
Screening for Clinical Depression and Follow-Up Plan
Adult Weight Screening and Follow-Up (UDS)
Asthma Pharmacological Treatment (UDS)
CAD Lipid Therapy (UDS)
Weight Assessment and Counseling for Children and Adolescents (UDS)
Childhood Immunizations (UDS)
Colorectal Cancer Screening (UDS)
New HIV Cases With Timely Follow Up (UDS)
HIV and Pregnant (UDS)
Hypertension BP < 140/90 (UDS)
IVD Use of Aspirin (UDS)
Pap Tests (UDS)
Prenatal Care (UDS)
Tobacco Use Assessment and Cessation (UDS)

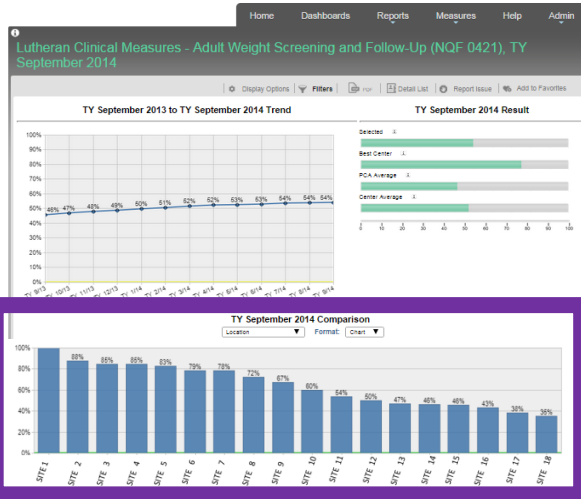
- Yearly submission of performance of core metrics is required of all grantees of HRSA primary care programs.

UDS

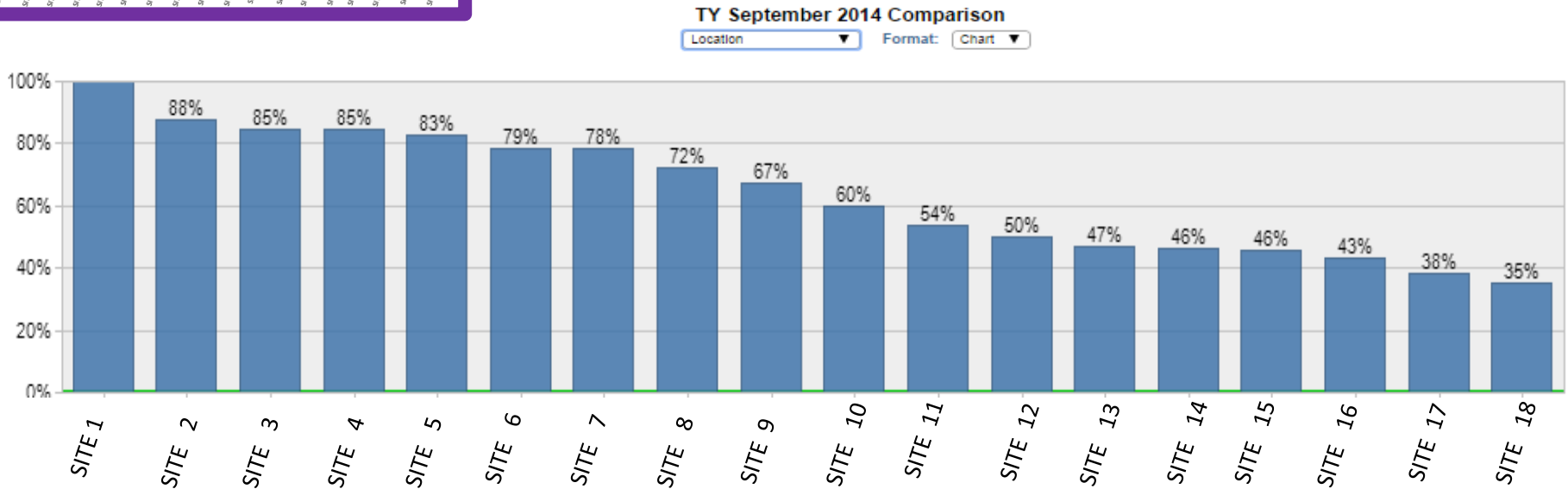
- The Azara tool facilitates comparison among all participating FQHCs.



UDS

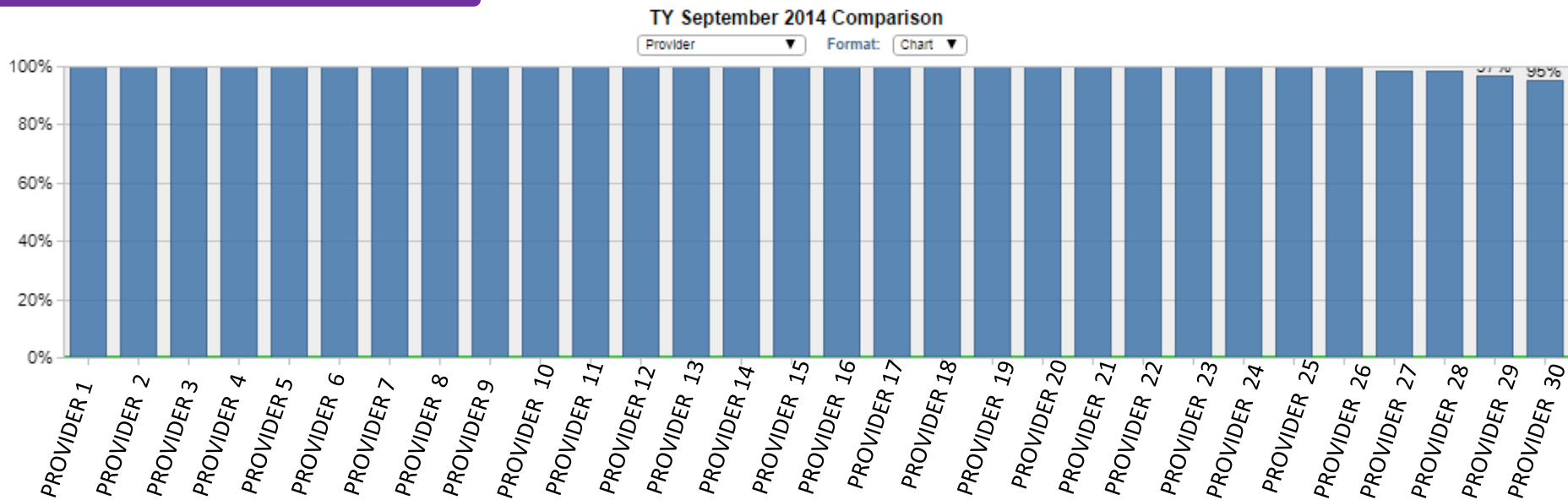
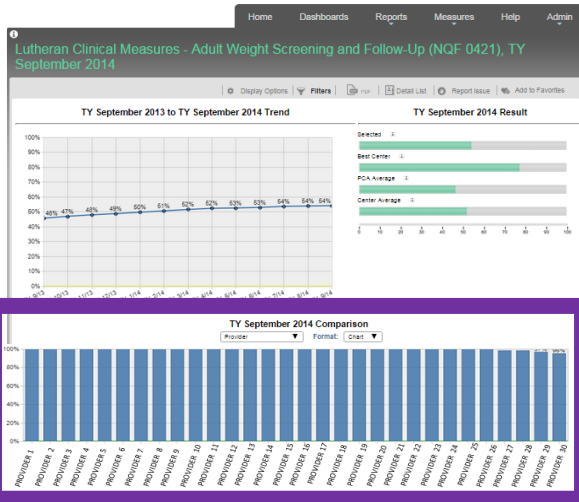


- As well as comparison among all LFHC centers



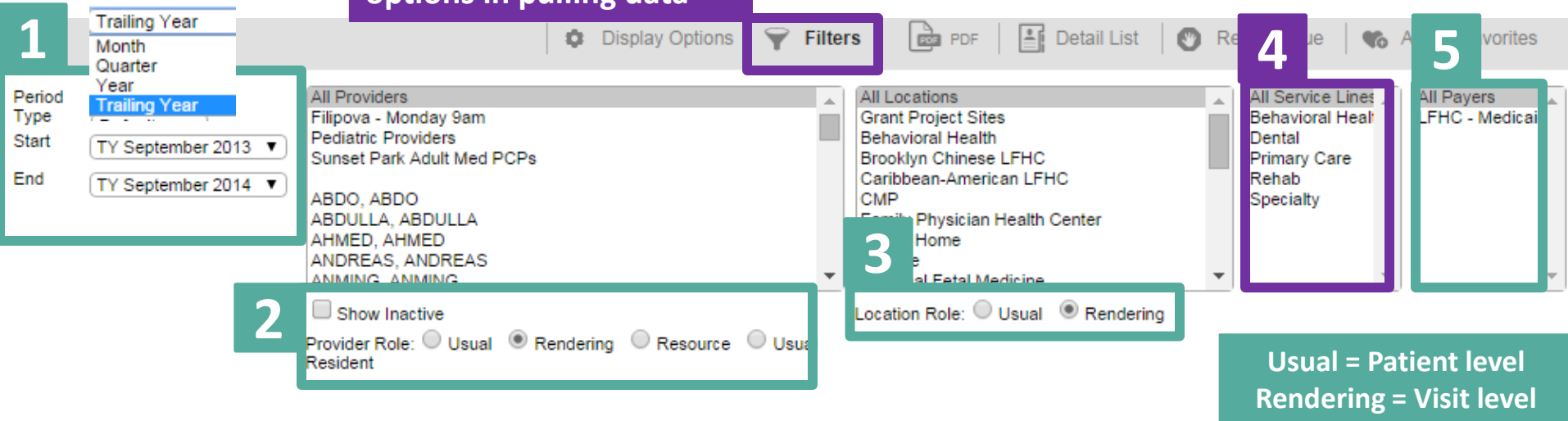
UDS

- And the ability to drill down to individual providers at each site and export patient-specific data to Excel



Filters and Service Lines

Filters allow for multiple options in pulling data



1 Trailing Year
Month
Quarter
Year
Trailing Year
Period Type
Start TY September 2013
End TY September 2014

2 Show Inactive
Provider Role: Usual Rendering Resource Usual Resident

3 Location Role: Usual Rendering

4 All Service Lines
Behavioral Health
Dental
Primary Care
Rehab
Specialty

5 All Payers
LFHC - Medical

Usual = Patient level
Rendering = Visit level

1. Flexibility of data extraction time interval
2. Pull data based on PCP(s) or appointment provider(s)
3. Select location based where the visit took place
4. Filter data for patients seen in Primary Care
5. Filter data based on payer mix

Clinical Measures

[Home](#)
[Dashboards](#)
[Reports](#)
[Measures](#)
[Help](#)
[Admin](#)

Lutheran Reports - Clinical Measures, TY September 2014

Filters | PDF | EXCEL | Report Issue | Add to Favorites

Measure	Target	Result	Numerator	Denominator	Exclusions
Tobacco Use Assessment (NQF 0028a)		81%	33,960	41,889	0
Tobacco Use Cessation (NQF 0028b)		79%	7,951	10,123	0
Diabetes Eye Exam (NQF 0055)		27%	1,837	6,896	100
Diabetes Foot Exam (NQF 0056)		49%	3,326	6,896	101
Diabetes LDL Tested (NQF 0064)		57%	3,860	6,896	73
Diabetes LDL < 100 (NQF 0064)		28%	1,924	6,896	90
Adult Weight Screening and Follow-Up (NQF 0421)		54%	26,765	51,473	1,990

Copyright (c) Azara Healthcare
version 3.11.21188

- Expansion of the UDS metrics utilizing NQF-endorsed measure criteria, which also align with CMS Meaningful Use measures.

Dashboard

Filters allow options in pulling data at

- network level
- site level
- provider(s) specific
- resident(s) specific
- location(s) specific
- service line


Home

Measures


Help

Admin

Lutheran Reports - Dashboard, Q3 2014

 Filters

 PDF

 Report Issue

Patients

Total Patients	39,140	
w/ Asthma	3,429	9%
w/ Diabetes	4,058	10%
w/ HTN	6,707	17%

Resident Continuity

Total Visits	3,119	
Resident Continuity	1,439	46%
Team Continuity	1,718	55%

Adult Smoking

Total Patients	22,848	
Smoking Status	19,222	84%
Smokers	5,525	24%
Smoking Cessation	4,456	81%

Diabetes A1c Results

Total Patients	3,993	
A1c < 7	1,613	40%
A1c >= 7 & < 8	712	18%
A1c >= 8 & <= 9	474	12%
A1c > 9	579	15%
No A1c Result	615	15%

Diabetes LDL Results

Total Patients	3,993	
LDL < 100	1,473	37%
LDL < 130	864	22%
LDL >= 130	513	13%
No LDL Result	1,143	29%

HTN BP Results

Total Patients	6,707	
BP < 140/90	4,694	70%
BP >= 140/90	1,919	29%
No BP Recorded	94	1%

Diabetes Foot Exam PDSA



Adult Medicine PDSA (Plan - Do - Study - Act)



Indicator for Improvement:	Increased number of foot exams on diabetic patients
Problem Statement:	Low compliance rate on diabetic foot exams: 30% in December 2013

Preceptor	Residents	QI Support
Dr. Olga Filipova, MD	Dr. Andrew Ciancimino, MD Dr. Edris Alderwish, MD Dr. Hemal Bhatt, MD	Doreen Colella Kerianne Neu Regina Zilber Sadia Choudhury
Potential Challenges:		How we plan to address challenges:
1. Lack of documentation in structured fields		1. Educate the residents with documentation screenshots. 2. Direct mentoring/supervision from preceptor
2. Foot exams are not consistently part of physical exam		1. Patient reminders 2. Provider reminders 3. Monthly faculty meetings (all IM doctors, nurses, & administration) 4. CPCI statistics distribution to providers
3. Patient refusal to get foot exam (noncompliant patients)		Provide patient education

What Happened?

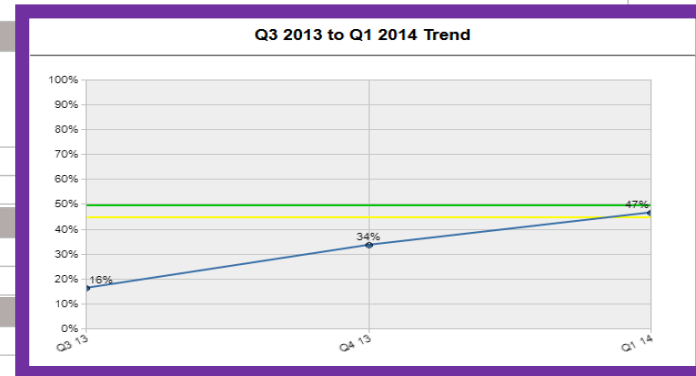
- Utilized previsit planning and identified patients with missing foot exams. Discussed in morning huddles. MAs would provide patients, who were missing foot exams, with the red foot cards to give to providers. MAs would instruct patients to take their socks/shoes off when they see the provider
- Provided education to providers so they can perform proper foot exams and document in appropriate structured fields
- Diabetic foot exam compliance increased from 30% (115/379) in December 2013 to 46% (165/358) in February 2014

What data will you need to collect to show the strategy is working?

- CPCI
- Pre visit planning report

Next Steps/Potential Next PDSA's

- Educate residents about importance of diabetic foot exams and how to perform proper foot exams
- Continuous monitoring of proper documentation at the time of the visit
- Provision of each primary care provider and PCP to have personalized date about their performance



- Azara data facilitates pre- and post-PDSA data analysis.
- PDSA results documented in PBWorks online collaborative platform.
- Teams document asynchronously, set reminders, and leave feedback.

PDSA Projects



- “Lessons learned” were shared at multiple forums.
- Other PDSA projects currently underway include:
 - Tobacco Cessation
 - Diabetics with LDL < 100

Case Management

Goal

- Better patient outcomes
- Improved patient experience
- Reduced health care cost

Staff

- 15 care managers
- 2 nurse case manager
- 2 social work case manager
- 4 community health workers
- Embedded at 8 LFHC sites



Staff Roles

Care Managers

- Pre-Visit planning and hospital admission and discharge follow-up.
- Ongoing Care Management that aims to motivate patients to make lifestyle changes to improve health outcomes.
- Address unmet social service needs that impact on treatment compliance.

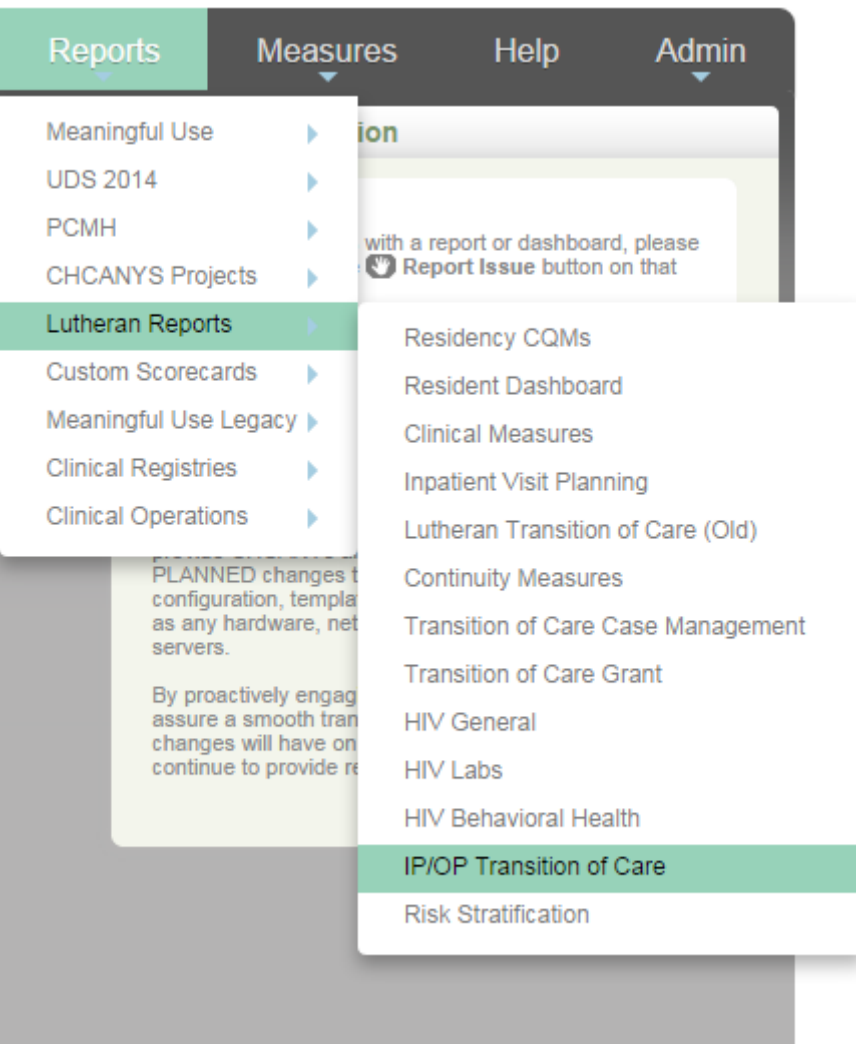
Nurse and Social Work Case Managers

- Engage patients with complex medical conditions and/or psychiatric disorders
- Address functional deficits that impact on the patient's ability to care for self and participate in treatment.

Community Health Workers

- Case Management's "Feet on the Street" or Emergency Response Team
- Accompany patients to medical, behavioral health, chemical dependency or other social service appointments
- Locate community resources
- Provide intimate knowledge of cultural dynamics

IP/OP Transition of Care Report: Admitted Patients



Inpatient CM

- Identifies high risk patient hospital admissions
- Ensures 48h follow-up appt. with PCP

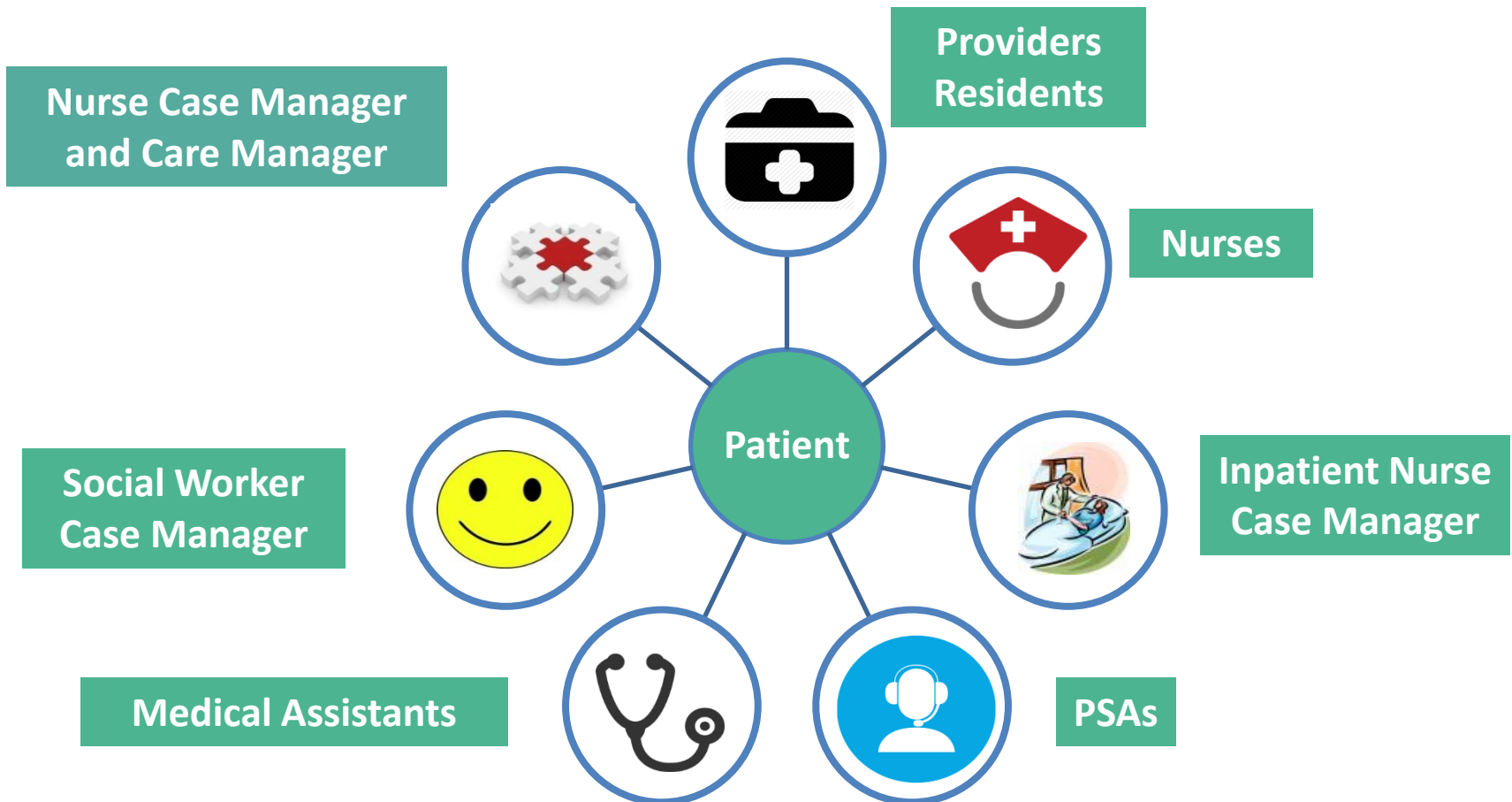
Outpatient CM

- Notifies FHC care team at the huddle and via email/EHR
- Care team reviews cases and identifies avoidable hospitalizations
- Referral for ongoing CM determined

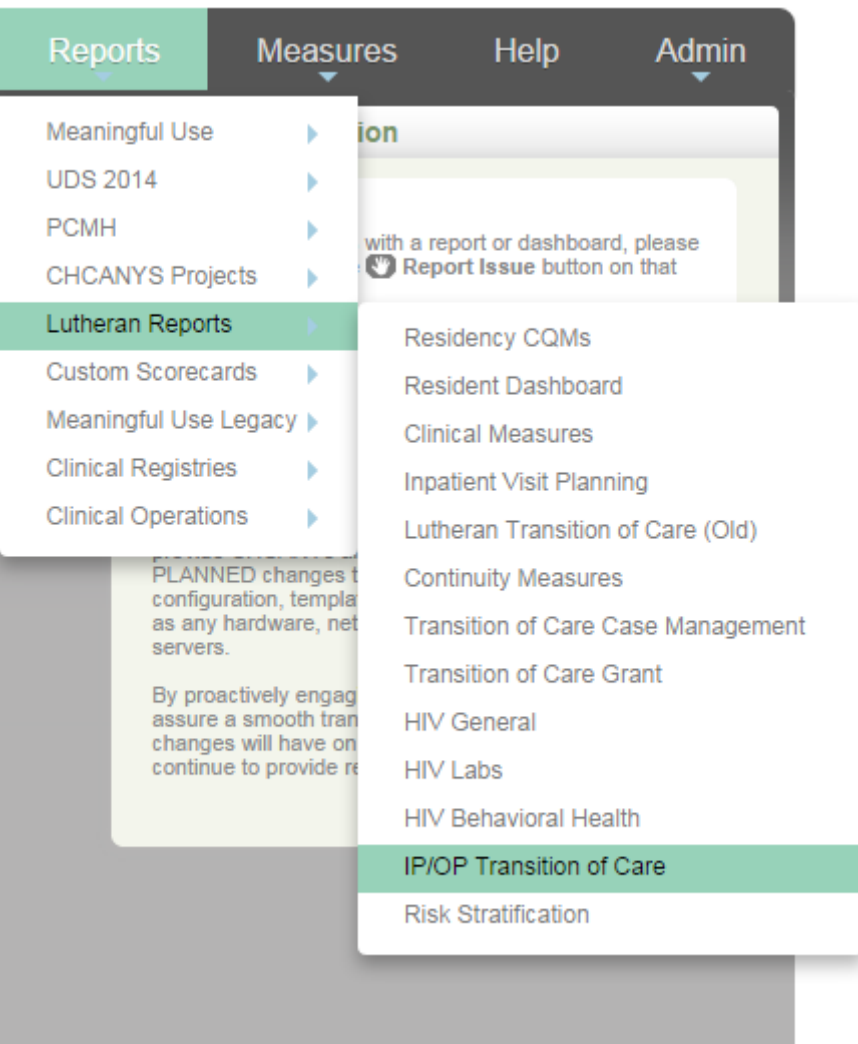


Care Team

Morning Huddles



IP/OP Transition of Care Report: Discharged Patients



Case Management

- Completes 24h follow-up call
- Administers the CTM-15 survey
- Confirms medical appointment
- Addresses transportation needs
- Alerts patient service coordinator if health concerns reported
- Deploys community health worker if assistance required

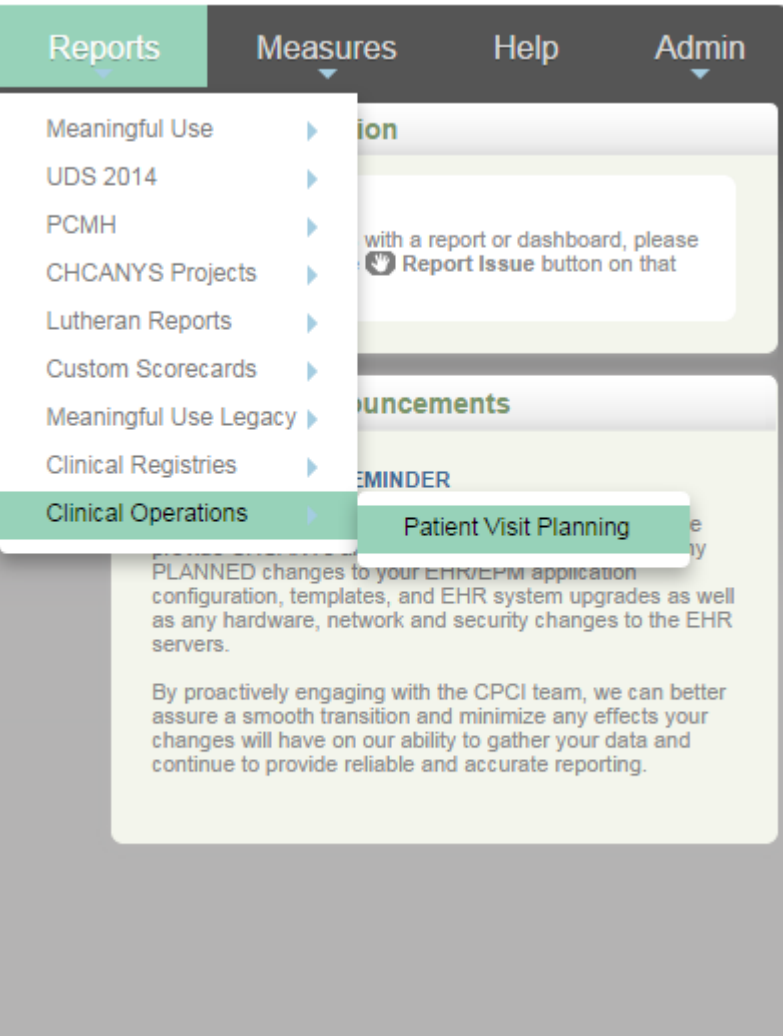
Hospital Admissions/Discharge Reports

- Period
- Most Recent E/D Admission
 - Most Recent E/D Discharge
 - Most Recent I/P Admission
 - Most Recent I/P Discharge

 **Filters** |
  PDF |
  EXCEL |
  Report Issue |
  Add to Favorites

Name	MRN	Age	Last Encounter	Next Appt	Medication Reconciliation	Risk	Last ED Admission	Last ED Discharge	ED Discharge Disp	Last IP Admission	Readmission	IP Adm Ct	Last IP Discharge	IP Discharge Disp
LUT														
Brooklyn Chinese LFHC														
[REDACTED]	[REDACTED]	52	12/13/2011		11/16/2011	High	8/22/2014	8/22/2014	60	9/20/2014	False	3	9/24/2014	01
[REDACTED]	[REDACTED]	39	5/12/2009		5/12/2009	Low				9/25/2014	False	1	9/29/2014	01
[REDACTED]	[REDACTED]	72	8/4/2014	10/2/2014	8/4/2014	Low				8/5/2014	False	1	9/30/2014	01
[REDACTED]	[REDACTED]	53	9/26/2014		7/15/2014	Moderate				9/26/2014	False	1	9/26/2014	01
Caribbean-American LFHC														
[REDACTED]	[REDACTED]	65				Low	4/1/2014	4/1/2014	60	9/19/2014	False	7	9/21/2014	01
[REDACTED]	[REDACTED]	50	6/6/2014			Moderate				9/12/2014	False	2	9/26/2014	03
[REDACTED]	[REDACTED]	66	9/16/2014	10/2/2014	9/16/2014	High	5/4/2013	5/4/2013	60	9/19/2014	True	2	9/30/2014	06
[REDACTED]	[REDACTED]	78				High				9/29/2014	True	3	9/26/2014	01
[REDACTED]	[REDACTED]	56	8/15/2014		7/11/2014	Moderate				9/24/2014	False	1	9/26/2014	01
Family Physician LFHC														
[REDACTED]	[REDACTED]	58				Low	1/9/2014	1/9/2014	60	9/16/2014	False	3	9/26/2014	01

Pre-Visit Planning



The screenshot shows a software interface with a navigation menu. The menu items are: Reports, Measures, Help, and Admin. Under 'Reports', there is a sub-menu with the following items: Meaningful Use, UDS 2014, PCMH, CHCANYS Projects, Lutheran Reports, Custom Scorecards, Meaningful Use Legacy, Clinical Registries, and Clinical Operations. The 'Clinical Operations' item is highlighted in green. A sub-menu for 'Clinical Operations' is open, showing 'Patient Visit Planning' as the selected item, also highlighted in green. Below the navigation menu, there is a notification area with the following text: 'PLANNED changes to your EHR/EMR application configuration, templates, and EHR system upgrades as well as any hardware, network and security changes to the EHR servers. By proactively engaging with the CPCI team, we can better assure a smooth transition and minimize any effects your changes will have on our ability to gather your data and continue to provide reliable and accurate reporting.'

Case Management

- Outreaches 24 hours prior to appt.
- Confirms or reschedules appt.
- Reviews outstanding labs and prompts patient to complete
- Addresses barriers to appointment compliance, i.e. travel
- Posts high risk alerts


Pre-Visit Planning Report

Thursday, October 02, 2014

10:15 AM	██████████	Low Risk	M, 3	INTERPRETER NOT NEED	PCP: PAIK, JOON Prim. Loc.: Sunset Park 5610 Children's Health Risk Factors:
MRN:	██████████				
	<u>Alert Type</u> Flu	<u>Message</u> Missing	<u>Most Recent Date</u>	<u>Most Recent Result</u>	
10:15 AM	██████████	High Risk	F, 67	AM SIGN LANG INTRPR	PCP: OO, MYA MYA Prim. Loc.: Sunset Park Family Health Center Adult Medicine Risk Factors: SMIP
MRN:	██████████	Asthma Depression			
	<u>Alert Type</u> Mammogram Asthma Severity Depression Screening E/D Admission Flu	<u>Message</u> Overdue Missing Overdue Occurrence Overdue	<u>Most Recent Date</u> 10/15/2010 7/10/2012 9/17/2014 11/1/2010	<u>Most Recent Result</u>	
10:45 AM	██████████	Moderate Risk	M, 62	SPANISH INTERPRETER	PCP: LEFF, JOHN Prim. Loc.: Needs Update Risk Factors:
MRN:	██████████	Hypertension			
	<u>Alert Type</u> Depression Screening BP LDL Flu	<u>Message</u> Overdue Overdue Overdue Overdue	<u>Most Recent Date</u> 9/15/2010 9/15/2010 7/21/2010 12/5/2008	<u>Most Recent Result</u> 154/94 85.00	
11:30 AM	██████████	Moderate Risk	F, 75	INTERPRETER NOT NEED	PCP: EL ATAT, ALI Prim. Loc.: Sunset Park Family Health Center Adult Medicine Risk Factors: OBS SMIP
MRN:	██████████	Asthma Hypertension Depression			
	<u>Alert Type</u> Asthma Severity Depression Screening BP LDL Flu	<u>Message</u> Missing Overdue Result out of range Overdue Missing	<u>Most Recent Date</u> 11/6/2012 9/29/2014 4/3/2013	<u>Most Recent Result</u> 157/66 139.00	

EHR-eCW Alerts

TEST, APPLE, 48 Y, F Sel Info Hub



5800 3RD AVE
BROOKLYN, NY
H: 718-999-5555
DOB: 05/23/1965
JGARDENHIRE@LMC

eHX Status: OK

Allergies

Billing Alert

Wt: 08/12/13: 220 lbs.

Appt(L): 08/22/13(P)

Appt(N): 09/18/13(AD)

PCP: LEFF, JOHN

Language: SPANISH

Inst: MEDICAID

Acc Bal: \$0.00

Guar: APPLE TEST

Ref: LEFF, JOHN

CLICK TO EDIT

LMC LAB 2011/11/01

SECURE NOTES

ADV DIRECTIVE

Information given (08/03/2011)

Medical Summary | OB Summary | CDSS | Alerts | Labs | DI | Procedures | Growth Chart | Immunization | Encounters | Patient Docs | Flowsheets | Notes | Patient External Documents

SF
Default
Enc << 09/18/2013 Deb >>

Patient: TEST, APPLE PALTROW FHC **DOB:** 05/23/1965 **Age:** 48 Y **Sex:** Female

Phone: 718-999-5555 **Primary Insurance:** MEDICAID **Payer ID:** 0

Address: 5800 3RD AVE, C/O PETER LOPEZ, BROOKLYN, NY-11220

Lab Req No: 404857.6755580 **Chart No:** 0001003941

Provider: AMBIKA DEB, MD **Pcp:** JOHN LEFF **Encounter Date:** 09/18/2013

Appointment Facility: Charles H. Gay

Subjective:

Chief Complaint(s):

patient due for point of care testing.

HPI:

Pre-Visit Planning

Alert Type	Message	Most Recent Date	Most Recent Result
BP	Result out of range	8/2/2013	158/84
LDL	Overdue	6/22/2011	25
Flu	Missing.		

Current Medication:

Medical History:

Allergies/Intolerance:

Gyn History:

OB History:

Surgical History:

Hospitalization:

Family History:

Social History:

ROS:

Overview | DRTL | History | CDSS | OS

TEST, APPLE 48 Y, F as of 09/13/2013

- Advance Directive
 - INFO Information given
- Problem List
 - 763.82 AB FTL HRT RT/RH DUR LAB
 - 401.9 HTN [Hypertension]
 - 300.4 Dysthymia
 - V58.30 WOUND DRESSING, NONSURGICAL, CHANGE OR REMOVAL
 - 365.00 Borderline glaucoma NOS
 - V62.89 PSYCHOLOGICAL STRESS NEC
 - 493.20 Asthma with COPD w/o mention of status asthmaticus or acute exacerbation Low Risk
 - 309.89 Homesickness
 - 309.81 Prolonged PTSD (Posttraumatic stress disorder)
 - 292.9 Nicotine related disorder, NOS Low Risk
 - 799.9 Deferred
 - 296.32 Moderate recurrent major depression
 - 296.00 Major depression NOS
 - 282.2 Anemia due to pentose phosphate pathway defect NOS
 - 588.1 Acquired nephrogenic diabetes insipidus
 - 009.1 Gastroenteritis NOS
 - V85.53 BMI PEDIATRIC 85 TO LESS THAN 95 PERCENTILE
 - 278.02 OVERWEIGHT BMI 85TH TO 94TH PERCENTILE Low Risk
 - 278.01 MORBID OBESITY (USE BMI FOR 2NDRY CODE) Low Risk
- Medication Summary

Print Fax Record Lock Details Scan Templates Claim Letters Ink

Current Risk Stratification

High

Patient has 1+ of 11 risk diagnoses
AND
2+ ED and/or IP visits in the past 6 months.

Moderate

Patient has 1+ of 11 risk diagnoses
AND
< 2+ ED and/or IP visits in the past 6 months.

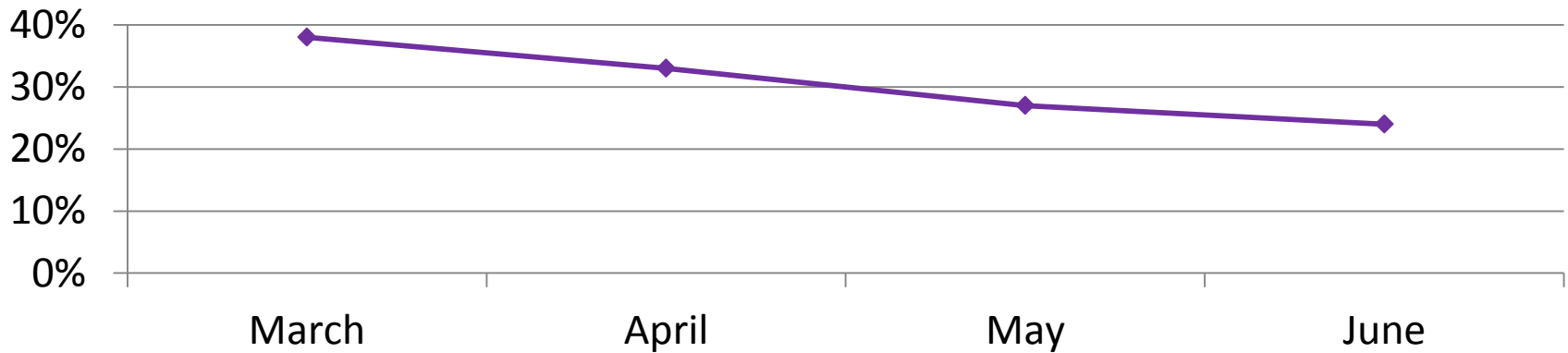
Low

Patient has none of 11 risk diagnoses.

11 Risk Diagnoses

- Asthma
- COPD
- Diabetes Mellitus
- Heart Failure
- Hypertension
- Obesity
- Alcohol Abuse
- Alcohol Dependency
- Drug Abuse
- Drug Dependence
- Severe Mental Illness

High-Risk Medicaid Readmissions



Month	Numerator	Denominator	Rate
March	42	112	37.5%
April	36	110	32.7%
May	23	84	27.0%
June	19	79	24.0%

Next Steps

- Develop and implement case management report card.
- Enhance risk stratification beyond current methodology.
- Auto-populate the risk alerts in providers' progress notes in eCW.
- Add admission and readmission alerts to admission, discharge and patient visit planning reports.
- Include pediatric and OB populations in Azara reporting tool.
- Develop HIV registry.

Expansion of HIV Registry

 **Filters** |
  PDF |
  EXCEL |
  Report Issue |
  Add to Favorites

Name	MRN	Age	Last Encounter	Next Appt	Risk	CD4 Test	CD4 Result	CD4 Low	Dental Referral	Ophthalmology Referral	Medications Reviewed	Pap Test	Viral Load Test	Viral Load Result
LUT														
Behavioral Health														
[REDACTED]	[REDACTED]	45	9/26/2014	10/8/2014	Moderate						9/26/2014			
[REDACTED]	[REDACTED]	34	9/26/2014	10/8/2014	Moderate	7/9/2014	1.91	1		10/16/2013	9/26/2014		7/1/2013	2.0
Caribbean-American LFHC														
[REDACTED]	[REDACTED]	63	9/24/2014	12/8/2014	Moderate	9/23/2014	32.00	1		9/19/2014	7/18/2014	7/8/2014	2/19/2013	
[REDACTED]	[REDACTED]	50	9/27/2014	10/1/2014	Moderate	4/29/2014	7.00	7			9/27/2014			
[REDACTED]	[REDACTED]	63	9/24/2014	10/13/2014	Moderate	6/20/2014	33.00	1		9/18/2013	9/24/2014	8/26/2014	6/30/2011	1.9
[REDACTED]	[REDACTED]	36	9/22/2014	10/3/2014	Low	11/7/2011	2.36	2		8/4/2012	9/22/2014	3/27/2014	6/17/2010	3.2
[REDACTED]	[REDACTED]	32	9/24/2014	10/22/2014	Moderate	9/9/2014	50.00	1		9/24/2014	9/12/2014	2/18/2013	10/15/2012	3.2
[REDACTED]	[REDACTED]	50	9/24/2014	10/2/2014	Moderate	7/12/2014	25.00	1			9/13/2014	5/29/2012	9/24/2012	
[REDACTED]	[REDACTED]	58	9/23/2014	10/7/2014	Moderate	9/23/2014	12.00	12			9/23/2014			
[REDACTED]	[REDACTED]	52	9/27/2014	10/2/2014	Low	7/12/2014	29.00	12			9/27/2014			

Enhancement includes additional fields and 5 measures