



**HIV TAC TEAM**

# **Electronic Health Records, Session #2**

## **Community of Practice**

Presenter: Heather Budd, The Massachusetts League  
of Community Health Centers

26 April 2016

# Disclaimer

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# Community of Practice Webinars for Partnership for Care (P4C) Projects

## Webinar 2:

### Identifying Data and Reports Needed for Quality Improvement

*In Care Systems and  
Accountability for Performance  
Outcomes Supporting P4C Goals*



Massachusetts League  
of Community Health Centers

# Background

## Partnerships for Care (P4C)

- Expand the provision of HIV prevention and care services within communities most impacted by HIV and better serve people living with HIV (PLWH), especially racial/ethnic minorities.
- Improve collaboration and leverage expertise among HRSA-funded health centers and CDC-funded state health departments.
- Support health center workforce development, infrastructure development, HIV service delivery across the HIV care continuum, and the development of sustainable partnerships with state health departments.

*This funding is supported by the Affordable Care Act and the Secretary's Minority AIDS Initiative Fund.*



# **MEASURE AND REPORTING TOOLS**

# Assembling the Team: Roles & Responsibilities

*A cross-functional team is critical to the success of the project to ensure quality of data capture, accuracy, extraction and measure results. **Data is not just an IT project.***

Team Roles	Team Member Responsibilities
Executive Sponsor	Leadership level sponsor for project Helps to acquire appropriate resources for program as needed
Population Management Lead	Responsible for population management at macro level Review of health home data
Network Admin/DBA	Provide access to Health Center network & EHR systems Population health management Connectivity & Performance support
EHR/HIT Expert	Identify EHR templates for data element capture Identify EHR tables for Orders, Labs, etc. Review patient population along with QI/Clinical team members
QI Specialist	Identify all data capture workflows Complete Lookup/mapping categorization Execute Data Validation Chart Audits where needed Review values for accuracies and investigates discrepancies
Provider Representative	Identify all data capture workflows Identify PHI data capture location & criteria Support QI Specialist in Data Validation Audits where needed Provide feedback on accuracy of data
Clinical Support	Identify all data capture workflows Identify PHI data capture location & criteria Support QI Specialist in Data Validation Audits Provide feedback on accuracy of data

# Three Layers of Data Quality

































# **EXTERNAL REPORTING**



# P4C Measure Scorecards

		Measure		Result
		HC1.1 HIV Testing Lifetime	Getting test done.	18.6 %
		HC1.2 HIV Testing at Medical Visit Reporting Period	Getting test done. Getting test done by non med staff.	8.7 %
		HC1.3 HIV Testing at Non-Medical Visit Reporting Period	Confirming with second test and entering the diagnosis correctly.	0.1 %
		HC2.1 New HIV Diagnoses	Getting test done.	0.3 %
		HC2.2 New HIV Diagnoses 90 Day Offset	Visit for HIV care shortly after Dx.	0.3 %
		HC3.1 New HIV Diagnoses w/ Follow-up	Documenting risk reduction counseling.	83.5 %
		HC4.1 New HIV Diagnoses w/ Risk Reduction	Screening for other STDs.	0.0 %
		HC4.2 New HIV Diagnoses w/ STD Screen		11.3 %
		HC6.1 HIV Patients w/ ART Meds	Medications are recognized as ARTs.	68.6 %
		HC5.1 Retention in Care	2 HIV visits >60 days apart within the year.	59.8 %
		HC8.1 HIV Medical Care	1 HIV visit within the year.	97.3 %
		HC8.2 HIV Positive Patients	Documenting the Dx.	1.1 %
		HC7.1 Viral Load < 200		30.1 %
		HC7.2 Viral Load < 75	Ensure data is being captured properly- results in logs vs. not.	28.2 %



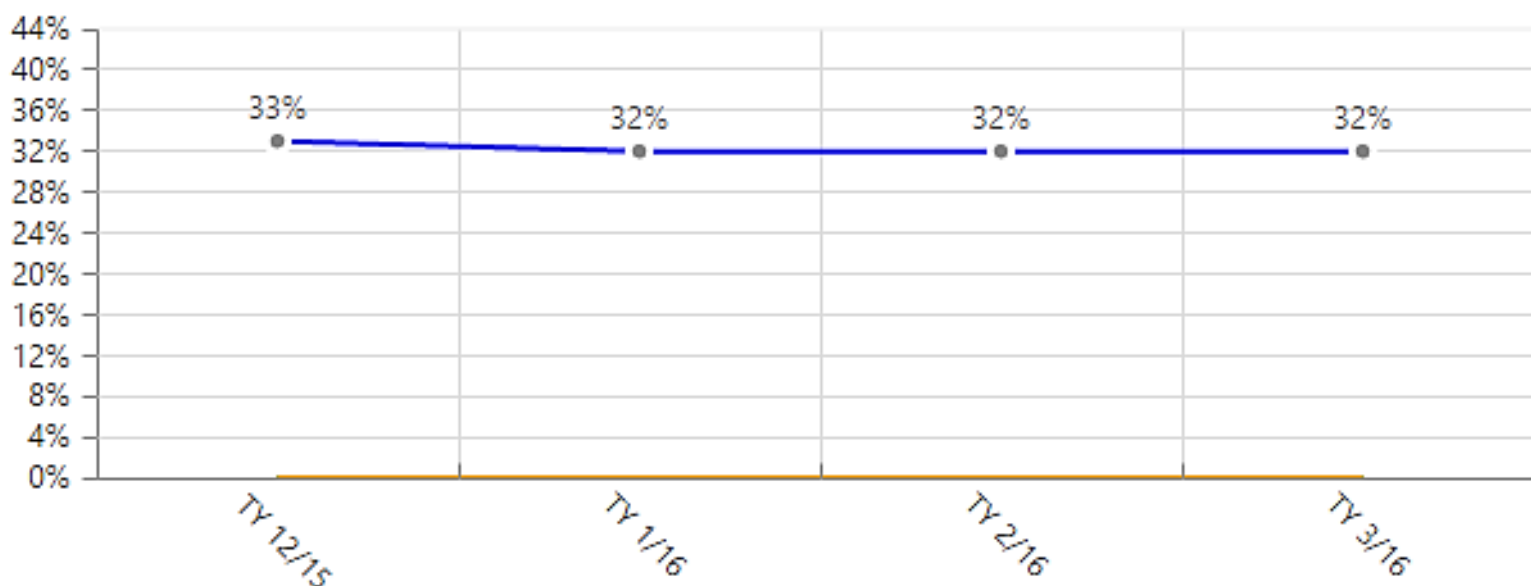
# **MEASURE ANALYSIS REPORTS AND DATA VALIDATION**

# Analyze Your Performance Like a Sleuth

Viral Load <200 Measure: Trailing Year Health Center Performance Trend Line

View: [Measure Analyzer](#) [Detail List](#)

TY December 2015 to TY March 2016 Trend



# Consider Time Increments' Impact on Data

HC7.1 Viral Load < 200 

Period Type	Period Start	Period End
Month ▼	December 2015 ▼	March 2016 ▼

- View data monthly rather than by year or trailing year to give the data more life- less smoother to see:
  - Is there seasonality to the challenge?
  - Has there been a steady decline or sudden?
  - When did the decline begin?

# Viral Load Data Challenges

## Labs

- LOINC vs. order name
- Standardizing lab results to calculate result based measures

## Results

- Log Copies vs. Standard Numeric results
- Ensuring a reporting system can differentiate which results are logs compared to standard will enable the system to make consistent meaning of the results, and calculate measures correctly.

$$\log 5623 = 3.74997$$

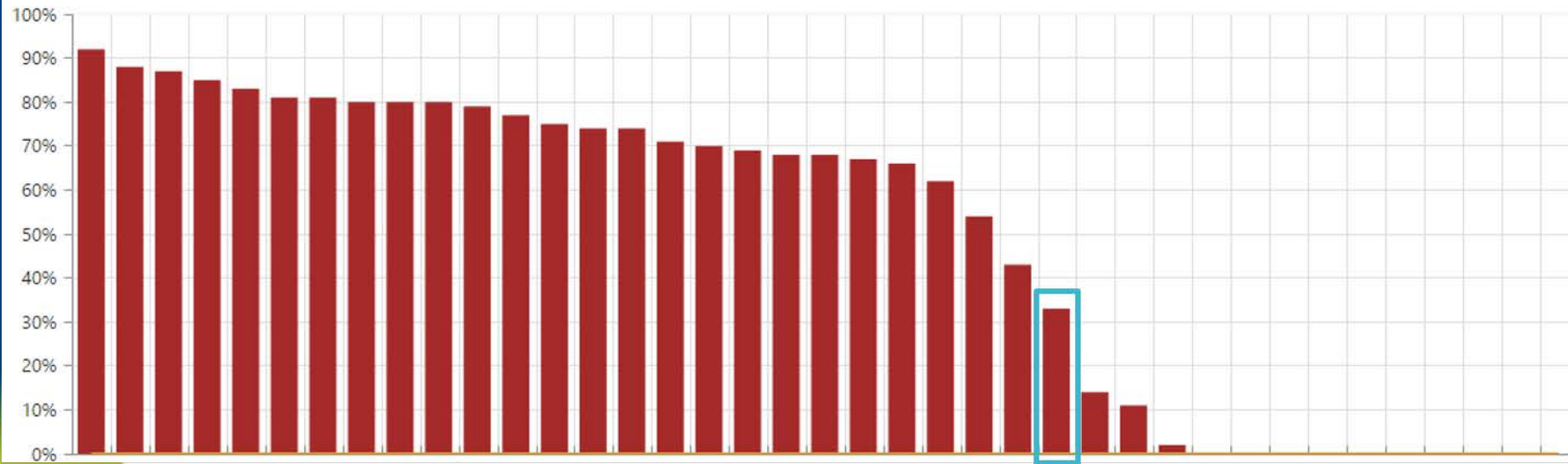
$$\text{This means } 10^{3.74997} = 5623$$

$$\text{Mental check: } 10^3 = 1,000 \text{ and } 10^4 = 10,000.$$

# Compare Your Performance with Peers

March 2016 Comparison

Grouping Center

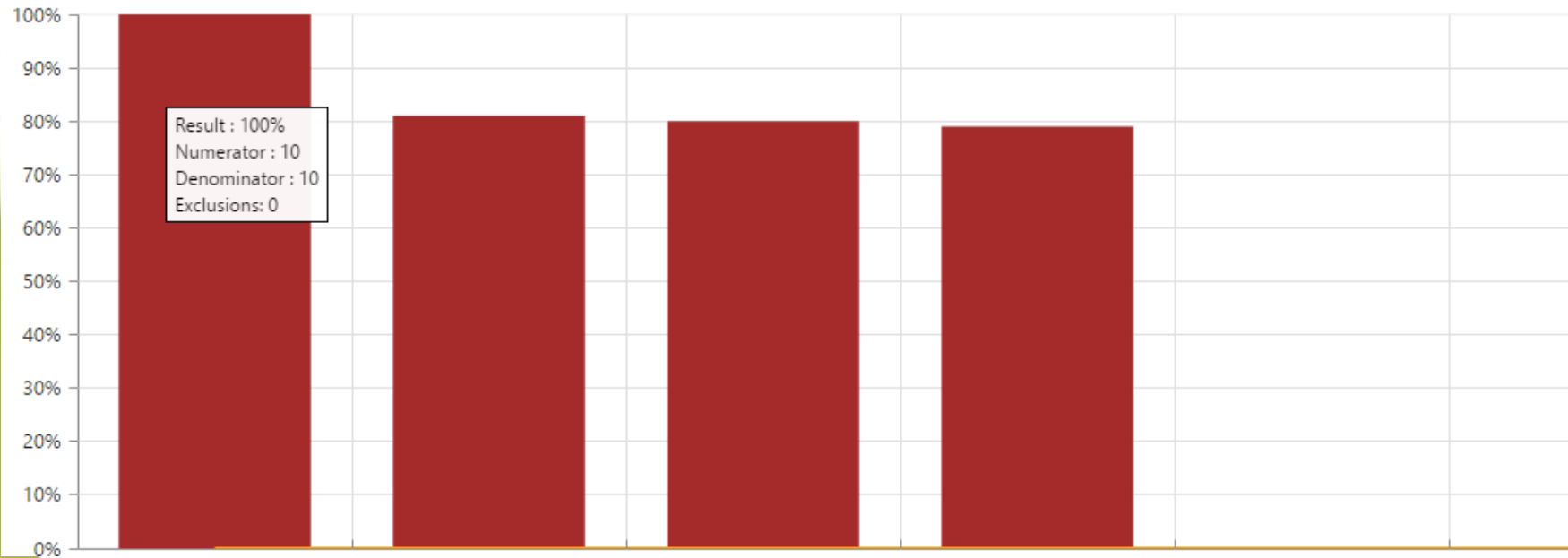


# Compare Your Locations

Consider the services offered, staffing model, layout, resources and patient population in case it may impact the results.

March 2016 Comparison

Grouping Location ▼



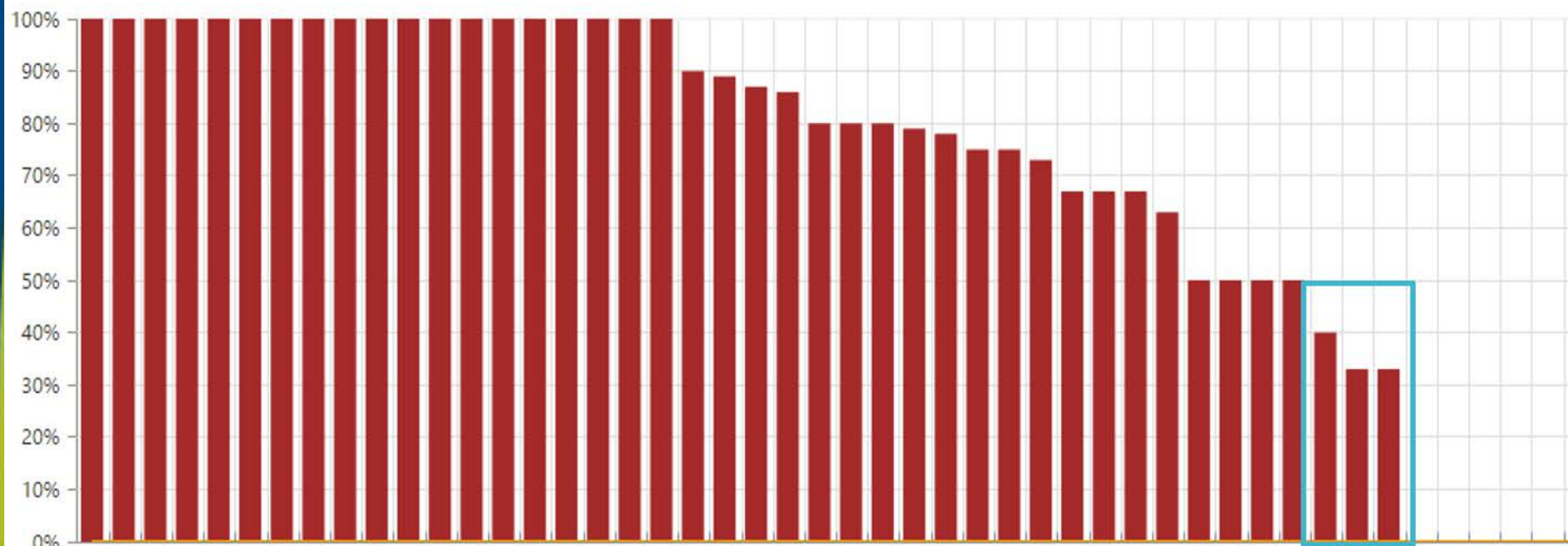
# Compare Your Providers

Data management: Are there a few providers ordering a Viral Load test that is not coming back with a result that's captured by a reporting tool? If so, fix the reports.

Quality Improvement: Look to harvest best practices from the providers at 100% or other high score.

March 2016 Comparison

Grouping

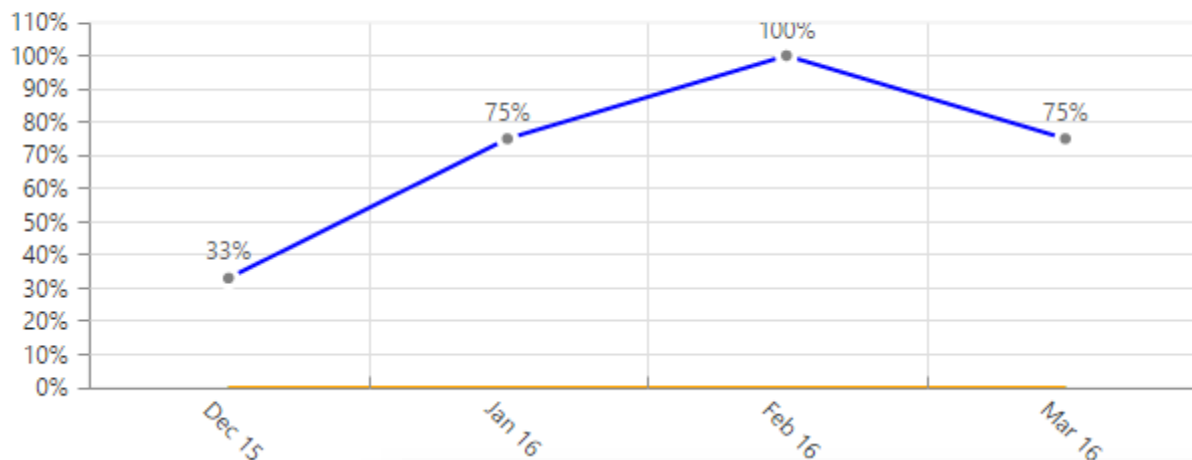




# Investigate Individual Providers' Trends

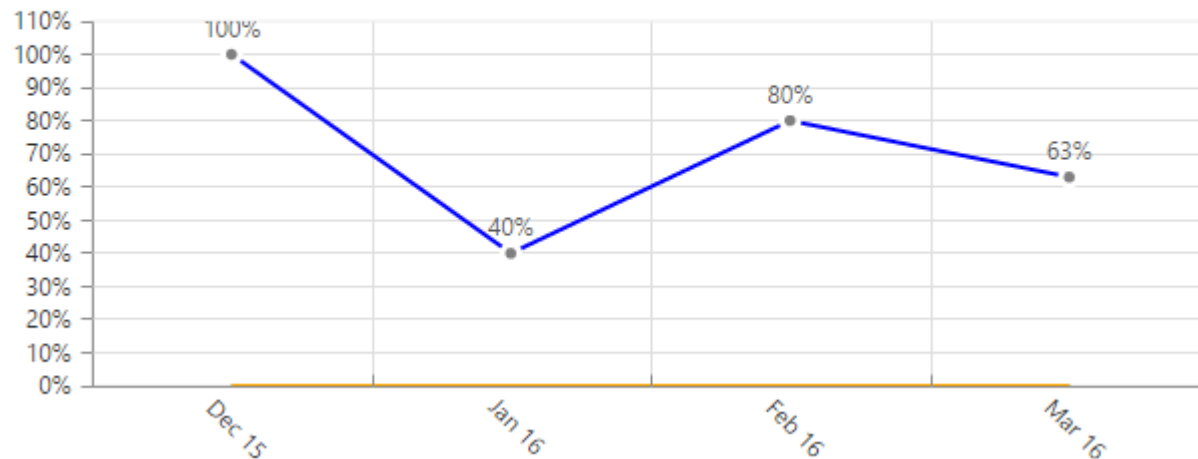
1

December 2015 to March 2016 Trend



2

December 2015 to March 2016 Trend



# Hypothesize Interventions for Improvement

- Plan a PDSA Cycle based on the findings of your analysis.
- Do the intervention, possibly with a small set of provider teams.
- Study your results via data and collect feedback.
- Act: Determine if intervention should stay in place, be altered, or test a new intervention if you encountered failure.

# Generate Detail List

1. Click on the Detail List hyperlink to see patients associated with the measure in the period selected.
2. Compare data in the EHR on a select group of patients. Look closely at the Viral load result format.

Period Type
Period Start
Period End
Centers
Providers
Trailing Year
TY December 2015
TY December 2015
William F. Ryan C...
Baxter, Daniel
Update

View: Measure Analyzer **Detail List**

Filter Bar Options

Numerator	Viral Load Date	Viral Load Absolute	Viral Load Log Copies	Viral Load Result	Viral Load Type	HN
N	12/22/2015	776	2.89	2.892	Viral Load (Log Copies)	
N	3/10/2016	380	2.58	2.580	Viral Load (Log Copies)	
N						
Y	2/29/2016	194	2.29	<20	Viral Load (Log Copies)	
Y	3/7/2016	194	2.29	<20	Viral Load (Log Copies)	
Y	3/7/2016	70	1.85	1.845	Viral Load (Log Copies)	
Y	1/24/2016	0	0	<1.30 Not Detected	Viral Load (Log Copies)	
Y	2/8/2016	194	2.29	<20	Viral Load (Log Copies)	

# Make A Validation Spreadsheet to Chart Findings

Name	MRN	Denominator	Numerator	Viral Load Date	Viral Load Absolute	Viral Load Log Copies	Viral Load Result	Viral Load Type	HIV Diagnosis	Diagnosis Code	Pass/Fail	Comments

Name	MRN	Denominator	Numerator	Viral Load Date	Viral Load Absolute	Viral Load Log Copies	Viral Load Result	Viral Load Type	HIV Diagnosis	Diagnosis Code	Pass/Fail	Comments
Mouse, M	234212	Y	N								F	EHR shows viral load done on 2/12/16.

Communicate findings to your vendor or internal report writing team.



# **REGISTRIES FOR POPULATION MANAGEMENT**

# HIV Behavioral Health Registry Needs

HIV Diagnosis	Diagnosis Code	Depression Screen	Depression Screen Result	Depression Screen Type	Violence Screening	Tobacco Status Date
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1/9/2011	042	1/10/2016	0	PHQ-2 Depression Screen		5/19/2015

Tobacco Status Result	Tobacco Cessation	Anxiety Screen	PTSD Screen	Cognitive Function Assessment	Sleeping Habits Assessment	Appetite Assessment	Psychosocial Assessment
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
R			5/19/2015	5/19/2015	5/19/2015	9/15/2015	

# HIV General Data Registry Needs

HIV Diagnosis	Diagnosis Code	BP Date	BP Systolic	BP Diastolic	Ophthalmology Referral	Med Reconciliation	Last Physical	Rectal Exam

Rectal Exam	Colonoscopy	Mammogram	HTN	Last Flu	FLU Ct	Last PCV	PCV Ct	PCP Prophylaxis Meds

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Rectal Exam	Colonoscopy	Mammogram	HTN	Last Flu	FLU Ct	Last PCV	PCV Ct	PCP Prophylaxis Meds

# HIV Lab Registry Needs

Most Recent CD4 Dt	Most Recent Cd4	Min Cd4	Min CD4 Dt	Tuberculosis Date	Tuberculosis Result	PAP Date	PAP	Viral Load Date	Viral Load Absolute	Viral Load Log Copies	Viral Load Result	Viral Load Type	Anogenital HPV	Baseline Resistance Test
1/7/2016	650	281	7/25/2014	10/2/2015	Negative			1/7/2016	0	0	<20	Viral Load		

1. Population Management: Use registries for outreach to patients who need to come back in for visits, screenings, tests, medications etc.
2. Care Management: Sort Ascending or Descending on results like labs to assess the patient's health and need for intervention.





# **HIV DATA AT THE POINT OF CARE**

# Looking Out for Patient Care

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Facilitates **more efficient** pre-visit planning for *preventative and chronic care, all in one report.*

- Displays **only** relevant and actionable items to help teams prepare for visits.
- Displays active diagnoses and relevant risk factors.
- Alerts indicate whether particular clinical parameters, labs or screenings are (a) missing, (b) overdue or (C) out of range.
- Alerts are configurable for the center, not user.

Use as an efficient clinical management tool, where **success on measures is a by-product** of use.

- Visit planning alerts based on national standards (UDS, MU, HEDIS) and *set to the strictest standard* where conflicts exist among them.
- Focus on a single goal.

# Visit Planning Report

*Combines Registry & Preventative Care Alerts, by Provider, ordered by appointment, in one report.*

— Cranston, Bill

2 Scheduled Appointment(s)

[Export this Provider to PDF](#)

1:25 PM | Friday, September 11, 2015

Visit Reason: Well Child Visit

Gomez, Jose MRN: 780239	DOB: 11/23/2006 Age: 9	Gender: M Risk Level: <b>Moderate</b>	Phone: 522-113-5837 Language: Spanish	PCP: Cranston, Bill
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Diagnoses	Alert	Message	Most Recent Date	Most Recent Result
Asthma	Nutritional Counseling	Missing		
	Physical Activity Counseling	Missing		
Risk Factors	BMI Percentile	Overdue	8/15/2014	90
OBS	Asthma Severity	Overdue	8/15/2014	

3:45 PM | Friday, September 11, 2015

Visit Reason: Headaches

Perkins, Sonja MRN: 5112866	DOB: 3/18/1962 Age: 53	Gender: F Risk Level: <b>High</b>	Phone: 522-788-5001 Language: English	PCP: Gunther, Eric
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Diagnoses	Alert	Message	Most Recent Date	Most Recent Result
DM, HTN, DEP, COPD	Mammogram	Missing		
	Pap Smear	Missing		
Risk Factors	A1c	Overdue	8/15/2014	10.2
SAD, SMIP	BP	Result out of Range	8/15/2014	150/95
	Eye Exam	Missing		
	Flu	Missing		
	Tobacco Status	Missing		
	LDL	Overdue	5/15/2013	90.1

Demo Data

# Sample Patient Alerts

Name	Description
Adult Weight Screening	Alert will trigger if patient has not had a BMI in the past year, or if most recent BMI was < 18 or >= 25 for patients < 65 yrs old, or if most recent BMI was < 22 or >= 30 for patients >= 65 yrs old. This alert is not editable.
Asthma Severity	Alert will trigger if Asthma Severity has not occurred in the last {configurable- stock is 36500} days. Alert only applies to patients >= 0 yrs old and <= 85 yrs old. Patient must have NQF 0047 Asthma Diagnosis. Ages and gender are configurable.
Asthma Control	Alert will trigger if a patient with an active diagnosis of Asthma, with Persistent severity, does not have an active Asthma Control Drug listed in the medication list. Alert only applies to patient >= 0 years old and <= 85 years old. Ages and gender are configurable.
BMI	Alert will trigger if BMI has not occurred in the last 365 days. Alert only applies to patients >= 18 yrs old and <= 150 yrs old. Ages and gender are configurable.
BMI Percentile	Alert will trigger if BMI Percentile has not occurred in the last {configurable- stock is 365} days. Alert only applies to patients >= 2 yrs old and <= 17 yrs old. Ages and gender are configurable.
BP	Alert will trigger if Blood Pressure has not occurred in the last 365 days, or if numeric_1 value is >= {configurable stock is 140} and numeric_2 value is >= {configurable - stock is 90}. Alert only applies to patients and <= 85 yrs old. Patient must have Diabetes or Hypertension or IVD or AMI or CABG or PCI. Ages and gender are configurable.
Chlamydia Screening	Alert will trigger if Chlamydia Screen has not occurred in the last Alert will trigger if Chlamydia Screen has not occurred in the last {configurable- stock is 365} days. Alert only applies to Female patient >= 16 years old. Ages and gender are configurable.
Colorectal Cancer Screening	Alert will trigger if patient has not had a colonoscopy in past 10 years, flexible sigmoidoscopy in past 5 years, or FOBT/FIT in past year, for patients >= 50 yrs old and <= 75 years old. This alert is not editable.
Dental Visit	Alert will trigger if Dental Access has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 0 yrs old and <= 150 yrs old. Ages and gender are configurable.
Depression Screening	Alert will trigger if Standardized Depression Screen has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 18 yrs old and <= 150 yrs old. Patient must not have EP 0418 Exclusion. Ages and gender are configurable.
Diabetes A1c	Alert will trigger if A1c has not occurred in the last {configurable - stock is 180} days, or if numeric_1 value is >= {configurable - stock is 7}. Alert only applies to patients >= 0 yrs old and <= 85 yrs old. Patient must have Diabetes. Ages and gender are configurable.
Diabetes Eye Exam	Alert will trigger if Eye Exam has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 0 yrs old and <= 85 yrs old. Patient must have Diabetes. Ages and gender also configurable.
Diabetes Foot Exam	Alert will trigger if Foot Exam has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 0 yrs old and <= 85 yrs old. Patient must have Diabetes. Ages and gender also configurable.
Diabetes Nephropathy Screening	Alert will trigger if Nephropathy Screening has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 0 yrs old and <= 85 yrs old. Patient must have Diabetes. Ages and gender also configurable.
Flu	Alert will trigger if Flu has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 1 yrs old and <= 85 yrs old. Ages and gender also configurable.

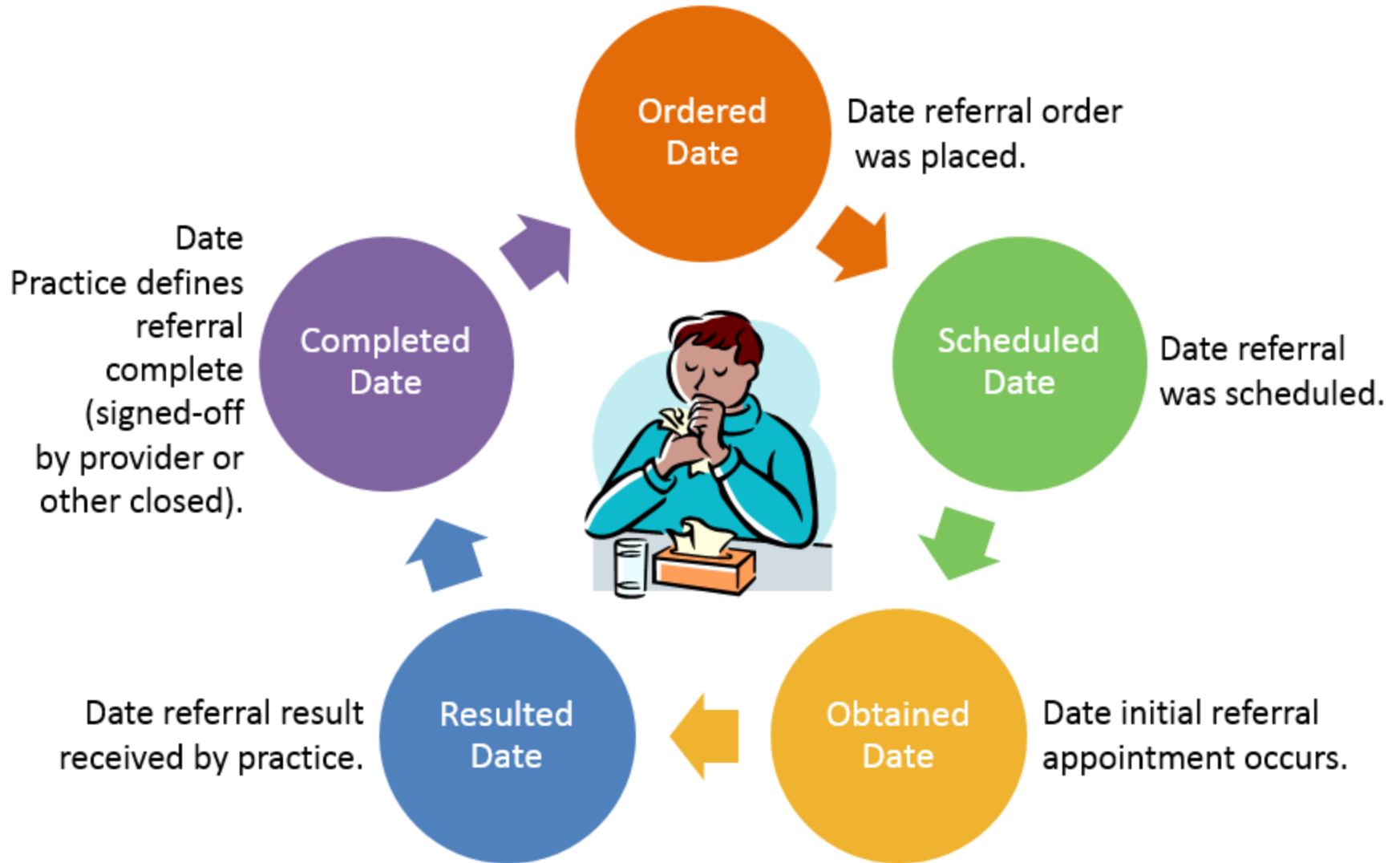
# Sample Patient Alerts (cont)

Name	Description
Infant Well-Child Check (HEDIS W15)	Alert will trigger if patient has not had 6+ well child visits by 15 months. This alert is not editable.
Annual Well-Child Check (HEDIS W34)	Alert will trigger if a Well-Child Visit has not been coded with a CPT code within the last {configurable - stock is 365} days . Alert only applies to patients >= 3 yrs old and <= 6 yrs old. Ages are configurable so practices can use this to remind them about well-child checks needed for adolescents and young adults.
Hep C	Alert will trigger if a Hep C screen has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 18 yrs old. Ages and gender are configurable.
HIV Screening	Alert will trigger if HIV Screen has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 18 yrs old. Ages and gender also configurable.
LDL	Alert will trigger if LDL has not occurred in the last {configurable - stock is 365} days, or if numeric_1 value is >= {configurable - stock is 100}. Alert only applies to patients and <= 85 yrs old. Patient must have Diabetes or Hypertension. Ages, diagnoses, and gender are configurable.
Lipid Lowering Therapy	Alert will trigger for patients with an active diagnosis of CAD (including acute MI), and patient does not have an active prescription for a Statin drug on the medication list. Alert only applies to patients >=18 yrs old and <= 85 yrs old. Age, gender, and diagnoses are configurable.
Mammogram	Alert will trigger if Mammogram has not occurred in the last {configurable - stock is 365} days. Alert only applies to female patients >= 40 yrs old and <= 70 yrs old. Patient must not have a mastectomy or history of breast cancer. Ages and gender are configurable.
Most Recent BP Elevated (by request)	Alert will trigger if most recent BP result was 140/90 or greater. Alert only applies to patients >17 and <=100 yrs old. Patient must not already have Diabetes; Essential Hypertension; Hypertension; IVD, AMI, CABG, or PCI. Ages, gender, and diagnoses are configurable.
Nutritional Counseling	Alert will trigger if Nutritional Counseling has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 2 yrs old and <= 17 yrs old. Ages and gender are configurable.
Pap	Alert will trigger if Pap has not occurred in the last {configurable - stock is 1095} days. Alert only applies to female patients >= 24 yrs old and <= 65 yrs old. Patient must not have Hysterectomy. Ages and gender are configurable.
PCV	Alert will trigger if Pneumococcal immunization has not occurred in the last {configurable - stock is 36500} days. Alert only applies to patients >= 65 yrs old and <= 85 yrs old. Ages and gender are configurable.
Physical Activity Counseling	Alert will trigger if Physical Activity Counseling has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 2 yrs old and <= 17 yrs old. Ages and gender are configurable.
Prenatal Care	Alert will trigger if patient has been identified as pregnant but does not have trimester of entry to prenatal care and location (at health center or elsewhere) documented. This alert is not editable.
Tobacco Cessation	Alert will trigger if patient's most recent tobacco status in the past year was 'Y' and patient has not had tobacco cessation in the past year. This alert is not editable.
Tobacco Status	Alert will trigger if Most Recent Tobacco Status has not occurred in the last {configurable - stock is 365} days. Alert only applies to patients >= 18 yrs old and <= 150 yrs old. Ages and gender are configurable.



# **REFERRAL MANAGEMENT AND CARE COORDINATION**

# Typical Referral Process Steps



# Referral Log / Registry

Referrals - Referrals											
Page 1 of 117											
Filters PDF EXCEL Report Issue Add to Favorites											
Name	MRN	Type	Referring Provider	Referring Location	Referred To Provider	Referred To Location	Ordered Date	Scheduled Date	Obtained Date	Received Date	Completed Date
Brandes, Jeff	112345	Cardiology	Parks, R.	Sunset	Boyd, J	Park Slope	9/15/14	9/28/14	9/29/14	9/29/14	9/30/14
Brandes, Jeff	112345	Dental	Parks, R.	Sunset	Buzz, K	Dunster	9/15/14	9/25/14			
Brandes, Jeff	112345	Endocrine	Parks, R.	Sunset	Zang, L	Cables	9/15/14	9/20/14	9/20/14	9/22/14	9/22/14
Gunther, Eric	112345	BH	Sparks, K.	Ridge	Chou, R	Park Ridge	9/10/14	9/15/14	9/15/14	9/15/14	9/15/14
Smith, Robert	112345	Cardiology	Sparks, K.	Ridge	Boyd, J	Park Slope	9/06/14	9/15/14	9/15/14	9/15/14	9/15/14
Bar, Samuel	112345	Nutrition	Redding, R.	Sunset	Forg, F	Park Ridge	9/06/14	9/15/14			
Budd, Mary	112345	Vascular	Billets, C.	Sunset	Wilk, H	Cables	9/05/14				
Cote, David	112345	Oncology	Carsons, R.	Ridge	Wood, T	Cables	9/03/14	9/05/14	9/05/14	9/05/14	9/08/14
James, LeBron	112345	Cardiology	Parks, R.	Sunset	Boyd, J	Park Slope	9/01/14	9/15/14	9/15/14	9/15/14	9/15/14

*Use the data to understand which stage most referrals get caught in to help direct staffing, process, or advocacy changes.*



# Best Practices for Sharing Info with Other Agencies

- Dedicated HIV Care Coordinator staff members, if affordable, can be the best liaisons for care between the center medical and specialty teams, behavioral health, and other external agencies (like Health Departments) and medical facilities
- Any practices interested in sharing their approach?
  - Success or challenges

# Contact

*Good health. Right around the corner.*

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Massachusetts League  
*of Community Health Centers*



# Disclaimer

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