



Innovative Special Project of National Significance (SPNS): Fusing Part A, B, C, & D Data for *MyCareContinuum* Dashboard and Empowering Consumers with an Award-Winning Low-Health-Literacy Patient Portal

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Disclosures

The City of Paterson, Department of Human Services, New York Presbyterian Hospital and New Solutions, Inc. have no financial interest to disclose.

Jesse Thomas works as Project Director for RDE System Support Group, LLC.

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Learning Objectives

At the conclusion of this activity, the participant will be able to:

- 1. Recognize how a paradigm of fusing disparate data sources across funding silos can enhance quality improvement.
- 2. Describe how to replicate and adapt strategies and tools to implement novel approaches to impacting the outcomes along the HIV Care Continuum.
- 3. Identify, analyze and evaluate the pitfalls and benefits of implementing health information exchange, including the adoption of federal Office of the National Coordinator (ONC) standards.





Introduction



Coordinating systems through eHIE







Introduction

City of Paterson Department of Health and Human Resources Ryan White Grants Division

- In existence since 1994
- Services located across two counties and concentrated in the epicenters of Paterson, Passaic and Hackensack
- **Ryan White Programs and Providers**
 - 16 Ryan White Part A
 - 4 Minority AIDS Initiative (MAI)
 - **8** 6 HOPWA sub-recipients





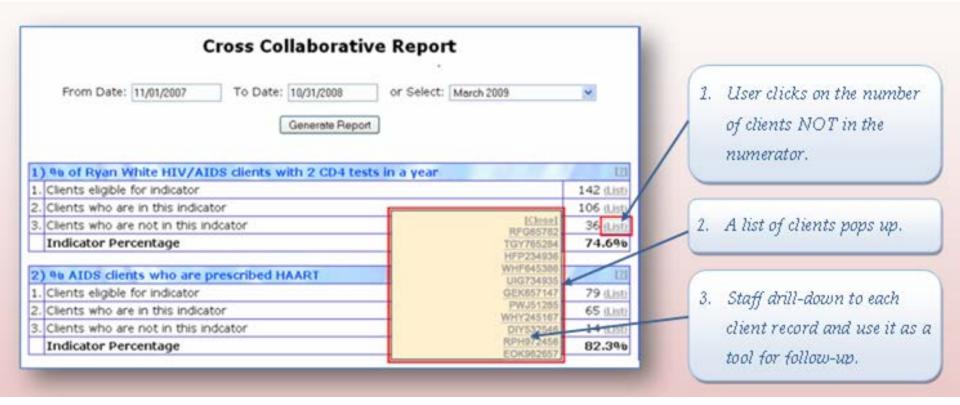
Our Story

Building on SPNS Electronic Exchange of Health Information - Networks of Care

Using Data to Impact Process and Health
Outcomes



eCOMPAS Interactive Quality Reporting



NATIONAL

Agency Alerts

Search Bulk/Group Referrals Outreach Useful Links Tracker QM (799)

Alerts | Alert Subscriptions | Journaling

Summary of Current Alerts

Click on each alert for details.

Туре	Upcoming Alerts	Past-Due Alerts	Recommendation			
CD4 test not performed [?] within past three months	<u>0</u>	<u>160</u>	Consider scheduling or following-up to conduct CD4 test			
VL test not performed within[?] past three months	<u>0</u>	<u>164</u>	Consider scheduling or following-up to conduct a VL test			
No medical appointment in [?] the past three months	N/A	<u>168</u>	Consider scheduling or following-up to ensure medical appointment			
CD4 results less than 200 [?] but status has not changed to AIDS	N/A	7	Review records and ensure the HIV Status is correct. It may need to be changed to AIDS.			
No TB/TST conducted within [?] 12 months of the last TB/TST	N/A	122	Consider scheduling or following-up to conduct TB/TST			
Active clients who have not [?] received any services in the past 6 months	N/A	178	Review client records and try to reconnect them to services or mark as inactive.			

All recommendations assume that you first ensure that the data (e.g., CD4 test date and value) has been entered into eCOMPAS.



If you wish to suggest a new alert click here

Agency Alerts Drilldown

Search Bulk/Group Referrals Outreach Useful Links Tracker QM

Alerts | Alert Subscriptions | Journaling

Summary of Current Alerts

Click on each alert for details.

Туре	Upcoming Alerts	Past-Due Alerts	Recommendation		
CD4 test not performed [3] within past three mo ADM304231	<u>0</u> [Clo	160 	Consider scheduling or following-up to conduct CD4 test		
VL test not performe AFF234074 AGM689 0			Consider scheduling or following-up to conduct a VL test		
No medical appointmed AKF681401 the past three month APM000418			Consider scheduling or following-up to ensure medical appointment		
CD4 results less than but status has not dispersional AVM764014 BDF733019 BPF911810			Review records and ensure the HIV Status is correct. It may need to be changed to AIDS.		
No TB/TST conducted CBM923618 12 months of the las CMF470719 CNM530706			Consider scheduling or following-up to conduct TB/TST		
Active clients who have received any services 6 months CPF258630 CSF864031 DCM728809 DCM815425	ed any services CSF864031 DCM728809		Review client records and try to reconnect them to services or mark as inactive.		

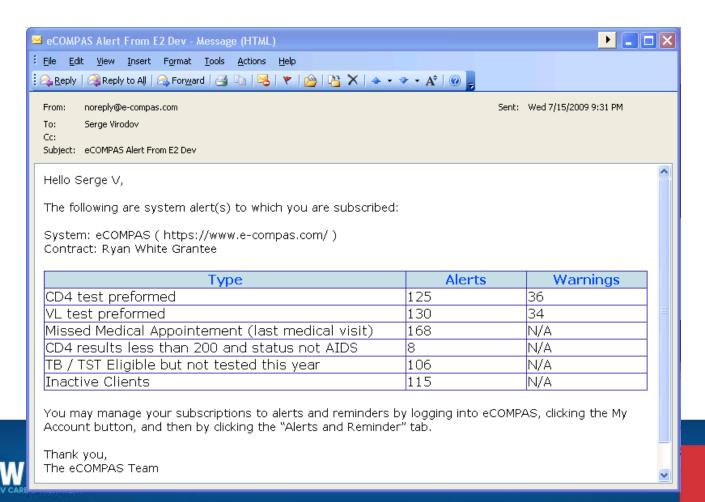


Email Alerts

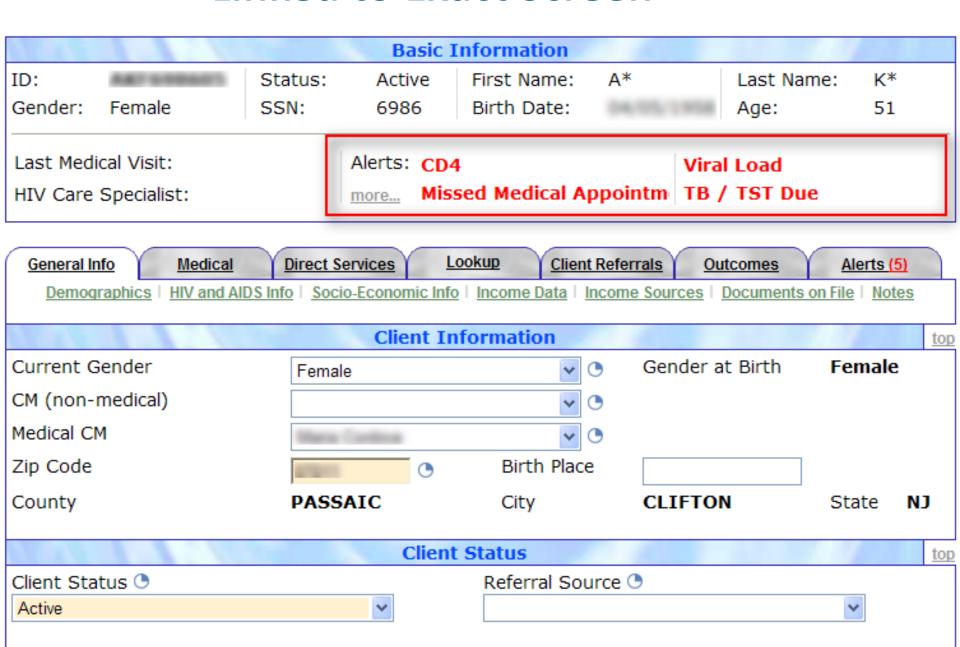
Proactive, regular, push notification

NATIONAL

Supervisors are more likely to read email

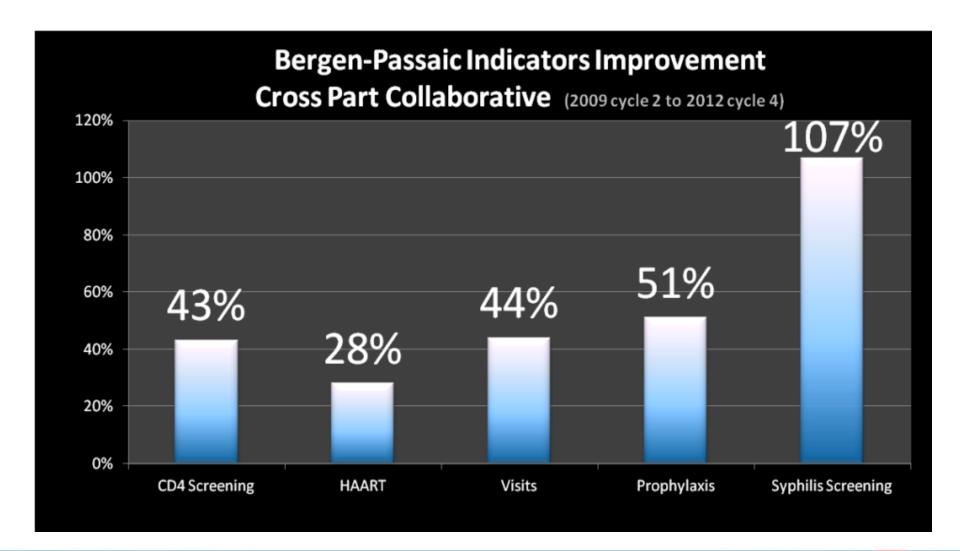


Linked to Exact Screen

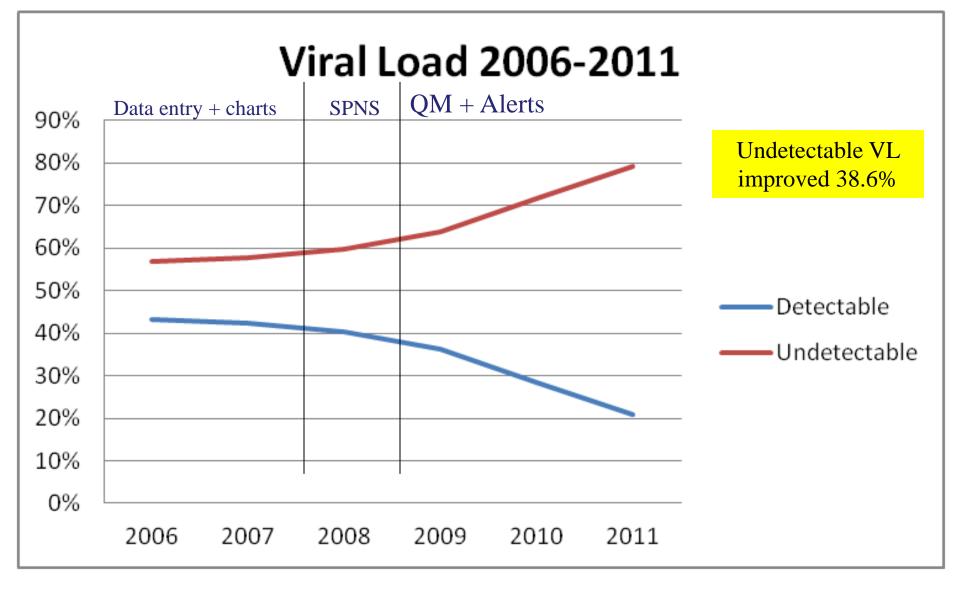


Outcomes









2006-2007 prior to SPNS, all medical patients



Electronic health information technology as a tool for improving quality of care and health outcomes for HIV/AIDS patients

Patrida H. Virga ≥ Bongguk Jin ≥ Jesse Thomas ≥ Sergey Virodov

- ► Health information technology (HIT) is shown to benefit quality of care for HIV/AIDS patients.
- ▶ An easy-to-use system responsive to users' needs effectively facilitates rigorous application of quality improvement methods.
- ► HIT can lead to improved health outcomes for HIV/AIDS patients.

Abstract

This paper presents research on the interplay of health information technology (HIT), quality improvement and progression of health status. The purpose of the research was to determine whether electronic exchange of health information impacts quality of care and, by extension, health outcomes of patients with HIV/AIDS. The research was supported as a demonstration project under the Information Technology Networks of Care Initiative sporsored by the U.S. Health Resources and Services Administration, HIV/AIDS Bureau, Special Projects of National Significance (SPNS). The City of Paterson, New Jersey, Department of Health and Human Services administered the project as the grant recipient, secured and managed through the City of Paterson's Ryan White Part A Program of Bergen and Passaic Counties.

We implemented a web-based health information support system, e2, to facilitate rigorous Methods quality improvement activities associated with care and treatment of HIV/AIDS patients. We used \$2 to monitor patient care in the clinic setting. We observed five quality and two health status indicators relating to the care of 263 HIV/AIDS medical patients at three HIV/AIDS medical clinics from 2008 to 2010. The quality indicators conformed to HIV/AIDS Bureau (HAB) Groups 1 and 2 definitions of two or more CD4T-cell counts performed in the measurement year, AIDS patients prescribed HAART, two or more medical visits in the measurement year, PCP prophylaxis administered to AIDS patients with CD4T-cell counts < 200, and adults screened for syphilis within the measurement year. CD4 T-cell count and viral load suppression indicators were used as health status indicators. Frequency analysis and logistic



(from left to richt) Denise Coba, Pat Virga, Jesse Thomas, Millie Izquierdo, Jimease Green, Maria Cordova, Doug Mendez, Pricilla Moschella, Jerry Dillao, Elle McHamara, Larry Rodgers, Blanca Roman, Anthony Fazzinga, Sandra Murillo, Maryann Collins, Irene Panagiotis, Serge Virodov, Chantia Douglas, Kathy Lebron



SPNS 2014 Program Goal

Create a coordinated regional system of HIV/AIDS medical services, joining outreach, HIV testing, early intervention and HIV medical providers to ensure that all individuals at risk for HIV have access to HIV testing, timely disclosure of test results, and rapid linkage to medical care, access to ARV therapy and sustained viral suppression.



Objectives

- Construct the Regional (RWHAP) and Local HIV Care Continuum as an interactive Continuum that allows the user to view any sub-section desired.
- Import data from NJ-DHSTS (Part B) into eCOMPAS
- Import data from St. Joseph's Hospital and Medical Center HIV Services (Part A, C and D) into eCOMPAS

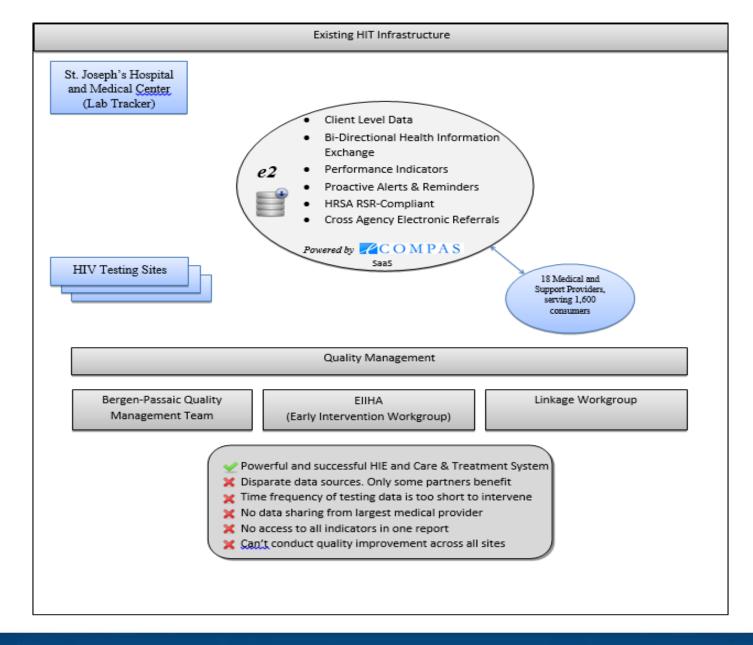


Project Components

Project Components of The Bergen-Passaic MyCareContinuum SPNS Project	HIV Care Continuum Stage A. Diagnosis A. D								
1. eHIE	Х	Х	Х	X	Х				
2. MyCareContinuum Dashboard	X	Х	Х	Х	Х				
3. eP-TAS	X	Х							
4. Low Health Literacy Patient Portal			Х		Х				
5. MyCareContinuum Collaboratives	Х	Х	Х	Х	Х				

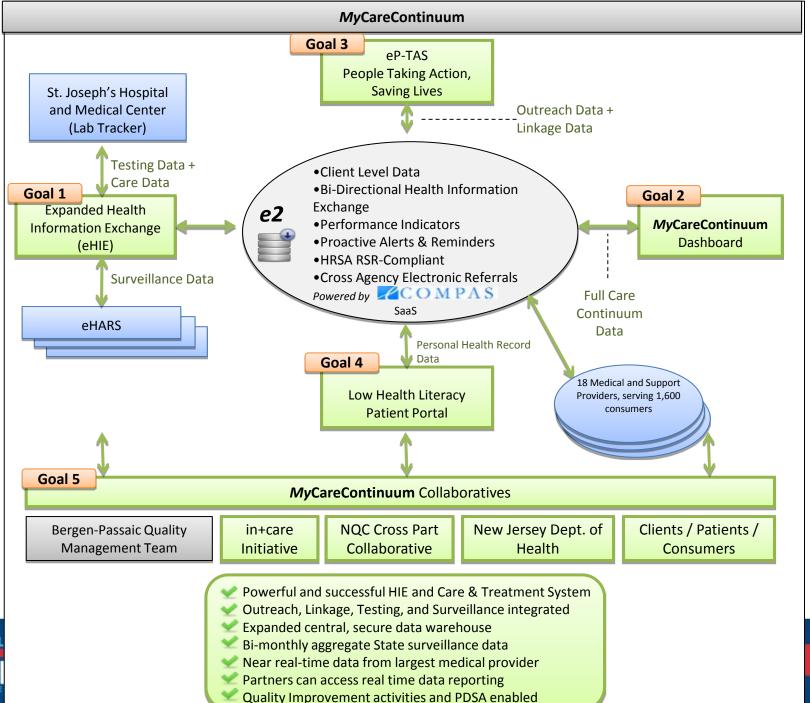




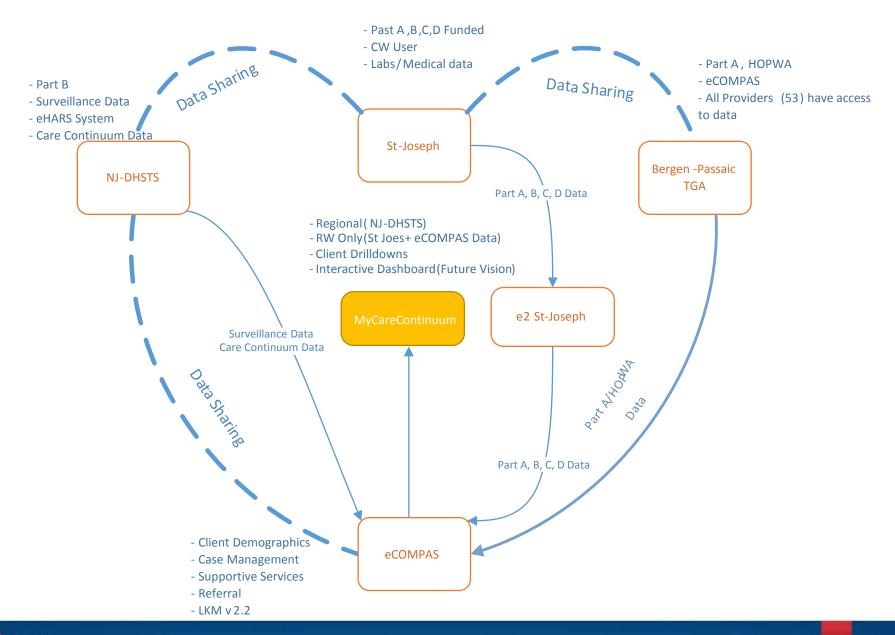












Goal 1: eHIE – Part C/D provider data import



Objectives

- Import data from St. Joseph's Hospital & Medical Center HIV Services (Part A, B,C and D) into eCOMPAS
- Construct the Ryan White HIV Care Continuum for the MyCareContinuum Dashboard
- Reduce double data entry

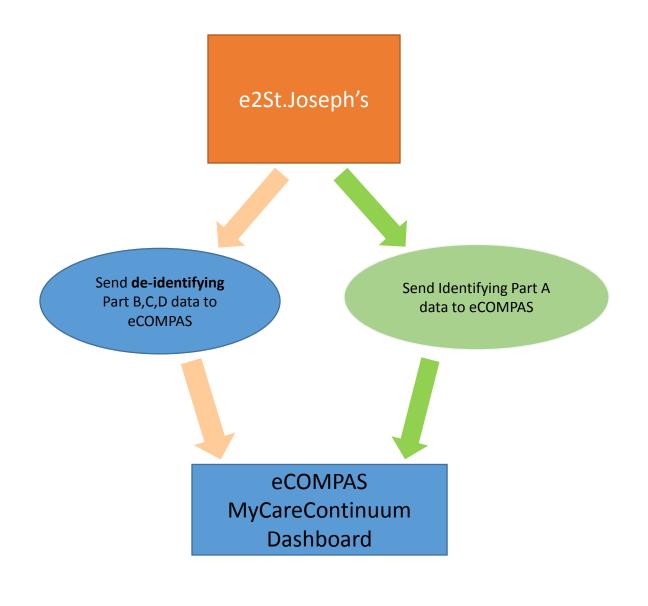


Hi!

HIE

eHIE







Barriers and mitigation

Challenges

- Data exchange delayed St. Joseph had their biggest move the hospital has ever seen.
- St. Joseph's data system
 (Aviga) was discontinued.

 Team was deciding on a new data system.
- St. Joseph's had to migrate historic data to the new data system selected – CAREWare
- Staff was new to CAREWare and had a learning curve.
- Approvals and confidentiality agreement.
- Matching algorithms

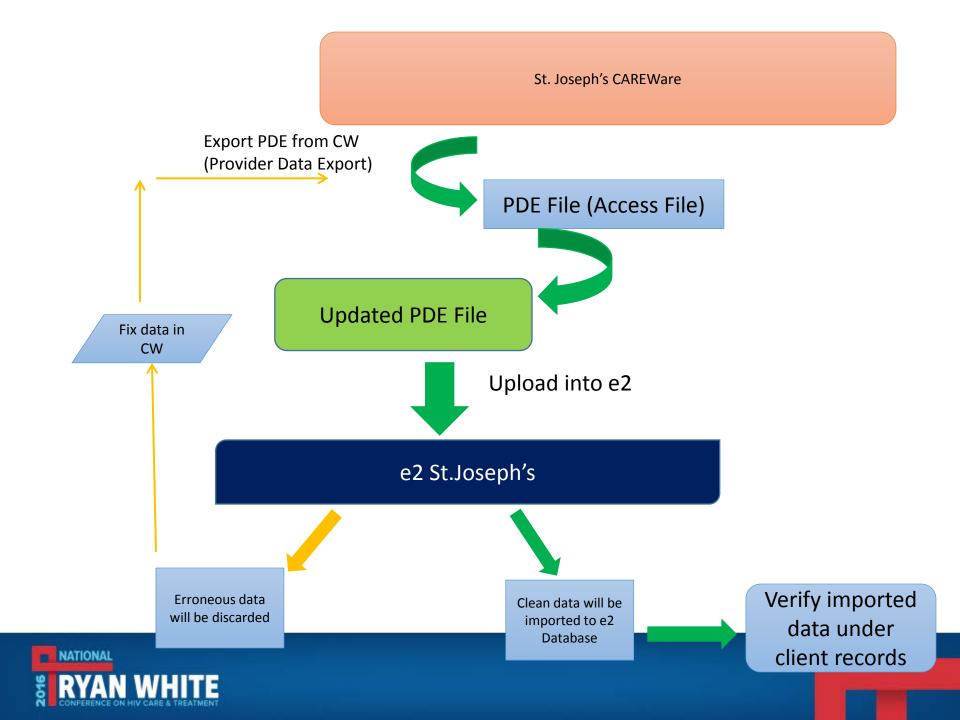
Mitigation

- SPNS team requested sample data sets from St. Joseph's as a first step.
- SPNS team is flexible on format, detail and timeframes.
- Care Continuum dashboard prototype built from aggregate data in parallel.
- Current status: Re-use
 eCOMPAS model System's
 CAREWare Data import using
 PDE (Provider Data Export)
- Proposed a win-win idea to import data into a intermediary site.

Success

- For the first time, RWHAP
 Part B provider agrees to
 explore sharing CLD with Part A Grantee.
- Collaboration with St.
 Joseph's data team to receive sample client level data.
- With PDE data import, prevent Part A double data entry.
- Data sharing and data import design.
- Sample CW file received.





Current Status and Next Steps

- Meetings/webinars between SPNS team and St. Joseph's team to finalize PDE template and final specifications.
- Data import design has been shared with St. Joseph's team.
- RDE will give St. Joseph's team access to e2Virginia's demo site
- Once specs are final and agreements in place, implementation will begin and prototype will be deployed for alpha testing



Benefits to the TGA

- Expanded central, secure data warehouse
- Construct the MyCareContinuum Dashboard
- Allows broader analysis of Care Continuum indicators
- Supports planning, quality care and collaboration
- Supports coordination across the TGA in accordance with the Integrated Prevention and Care Plan
- Improve Patient Outcomes



Benefits to St. Joseph's

- Reduce double data entry
- Access to Part A Quality Program
- Potential cross part reports



eHIE- Data Import from NJ-DHSTS (eHARS)



Objectives

- Construct the Regional HIV Care Continuum in accordance with SPNS objectives, i.e. an interactive Continuum that allows the user to view any subsection desired.
- Institute a bi-directional data exchange between eCOMPAS and eHARS.
- Focus limited resources on clients who are truly out of care
- Successful collaboration with NJ-DHSTS



Barriers and Mitigation

Challenges

- Coordinating with NJDHSTS to receive client level eHARS data.
- Client matching between eCOMPAS and eHARS.
- Establishing Data Exchange Agreement.
- Reviewing protocols and confidentiality policy.
- NJDHSTS requirement to perform client matches before data exchange.
- City of Paterson not compatible with NJDHSTS requirements for full client match

Mitigation

- SPNS team engaged in multiple conference calls with key data personnel.
- SPNS team proposed a matching algorithm using common elements between eHARS and eCOMPAS.
- Proposed a win-win idea to send Part A data to the State for matching and eHARS supplementation.
- Pilot test for 100 clients
- Use random Reference ID to identify matching clients to comply with client confidentiality.
- Expanding eCOMPAS to have the ability to capture full first and last names using advanced encryption model (LKMv2.1 -Local Key Model)

Success

- For the first time, NJ-DHSTS agrees to collaborate on Data Exchange.
- SPNS team continue to collaborate with NJ-DHSTS with the intention to succeed.
- If eHARS is missing data, the data exchange will help NJ-DHSTS complete eHARS data.
- eCOMPAS users can enter and track full first and last names with advanced encryption model (LKMv2.1 -Local Key Model)

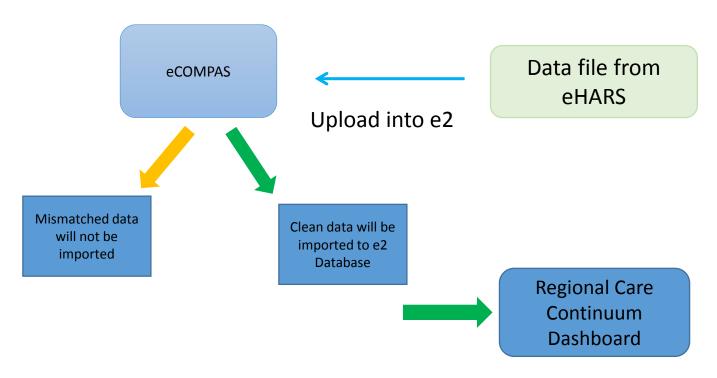


Coordinating with NJ-DHSTS to receive client level eHARS data.

- 100 clients pilot is complete
 - Full match between eCOMPAS and eHARS
- SPNS team and NJ-DHSTS continue to identify mutual benefits of client level data exchange and care continuum
- Consensus and agreement
- Data exchange design

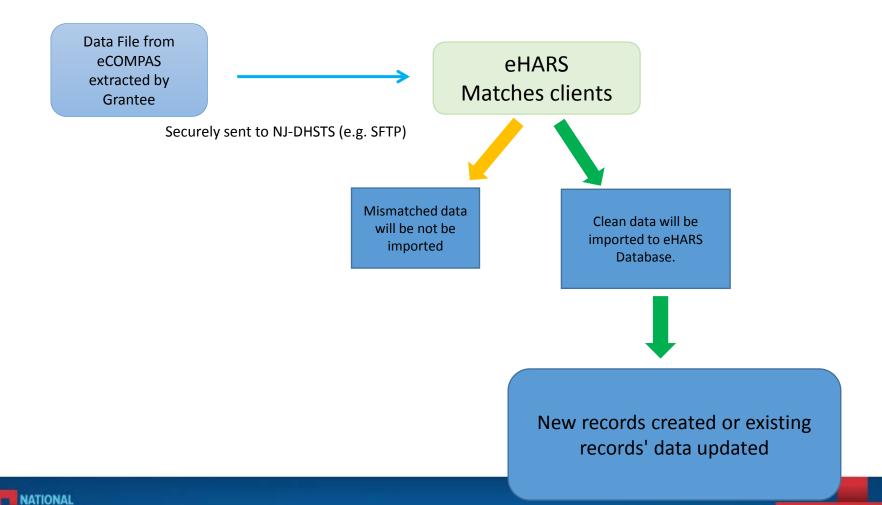


Data Exchange TGA's Perspective





Data Exchange NJ-DHSTS' Perspective



Benefits to the TGA

- Expanded central, secure data warehouse
- Construct the MyCareContinnum Dashboard
- Track Out of Care Patients using the Data from eHARS



Benefits to NJ-DHSTS

- Expand eHARS data sources
- Facilitate an Out of Care list
- Replicate Data Exchange model with other EMA/TGAs.

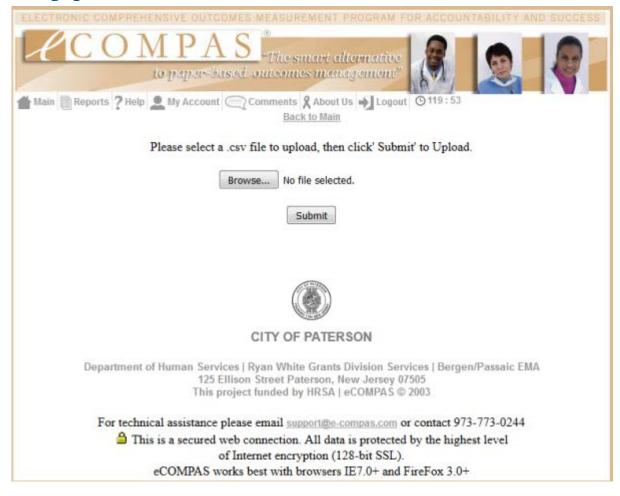


Current Status and Next Steps

- Data agreement executed.
- 100 pilot records delivered to NJ-DHSTS and all records match.
- Decision point Further collaboration under discussion.
- LKMv2.1 implementation in eCOMPAS in progress.



Prototype





Paterson eCOMPAS LKMv2

Link to file

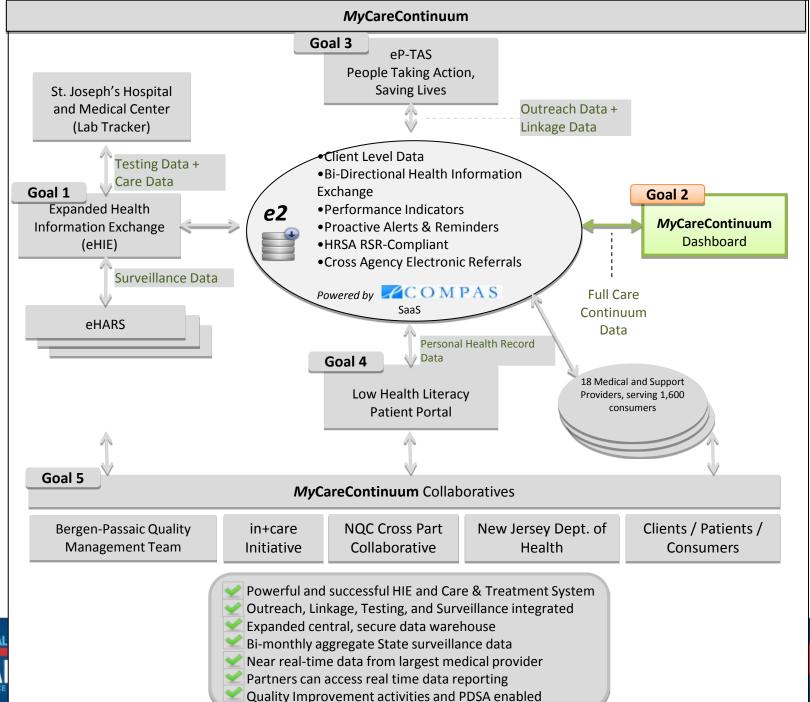




Goal 2: MyCareContinuum Dashboard









Objective

- Construct the HIV Care Continuum from testing and treatment data specific to the Bergen-Passaic TGA
- Provide a tool to coordinate and improve quality of HIV actions leading to optimal viral load suppression
- Provide break-down and drill-down capabilities to enhance analysis, planning, quality improvement and decision-making



Constructing the HIV Care Continuum

- General requirements
- Indicators and definitions
- Data harvesting
- Demographic variables
- Interactive prototypes



Two HIV Care Continua

- Regional utilizes eHARS data from NJ-DHSTS Office of Epidemiology
- RWHAP utilizes eCOMPAS data from the Part A and Part C/D databases

Each has its own data set, definitions, limitations and challenges



Definitions and Data Sources

Regional HIV Care Continuum

- HIV Diagnosed: PLWH diagnosed in Bergen or Passaic County as of 12/31/2014; excludes deceased and persons no longer living in NJ. Source: NJ-DHSTS eHARS Surveillance System.
- Linked to Care: Received least one CD4, VL test or medical visit in 12 months ending 12/31/2014. Source: NJ-DHSTS eHARS Surveillance System.
- Retained in Care: Received two or more medical visits, CD4 or VL test at 60 days apart in 12 months ending 12/31/2014. Source: NJ-DHSTS eHARS Surveillance System.
- ARV Therapy: Numerator = Patients in Bergen-Passaic RWHAP clinics prescribed ARV in CY 2014 as recorded in patient medical record; includes St. Joseph's Comprehensive Care Center. Denominator = Total patients enrolled in RHWAP clinics from 2010 to 2014. Excludes deceased patients. Source: eCOMPAS information system; NJ-Cross Part Collaborative (NJ-CPC) bi-monthly reports for St. Joseph's Comprehensive Care Center.
- Viral Load Suppression: Patients with <200mL achieved at last measurement in CY 2014. Source: NJ-DHSTS eHARS Surveillance System.
- Age cohorts13-18, 19-24, 55-64, 65+ are estimated based on 2010 eHARS and 2014 NJ-CPC summarized reports.

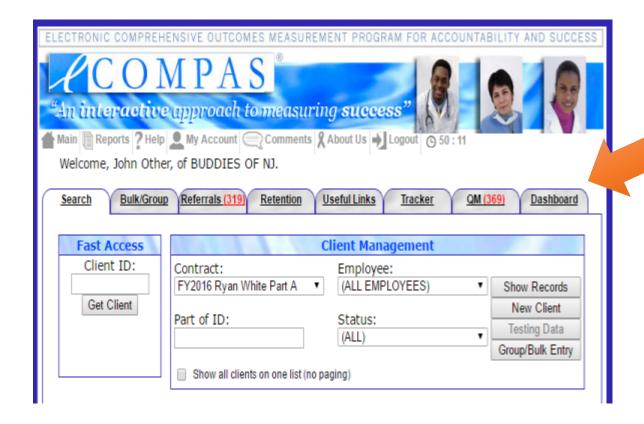
RWHAP HIV Care Continuum

- HIV Diagnosed: PLWH enrolled in RWHAP since 2010. Source: eCOMPAS information system; NJ-Cross Part Collaborative (NJ-CPC) bimonthly report for St. Joseph's Comprehensive Care Center.
- Linked to Care: Received least one CD4, VL test or medical visit in 12 months ending 12/31/2014. Source: eCOMPAS information system; NJ-Cross Part Collaborative (NJ-CPC) bi-monthly report for St. Joseph's Comprehensive Care Center.
- Retained in Care: Received two or more medical visits, CD4 or VL test at 60 days apart in 12 months ending 12/31/2014. Source: eCOMPAS information system; NJ-Cross Part Collaborative (NJ-CPC) bi-monthly report for St. Joseph's Comprehensive Care Center.
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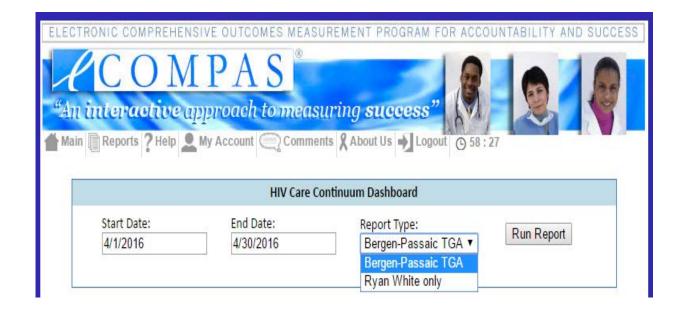


Demo

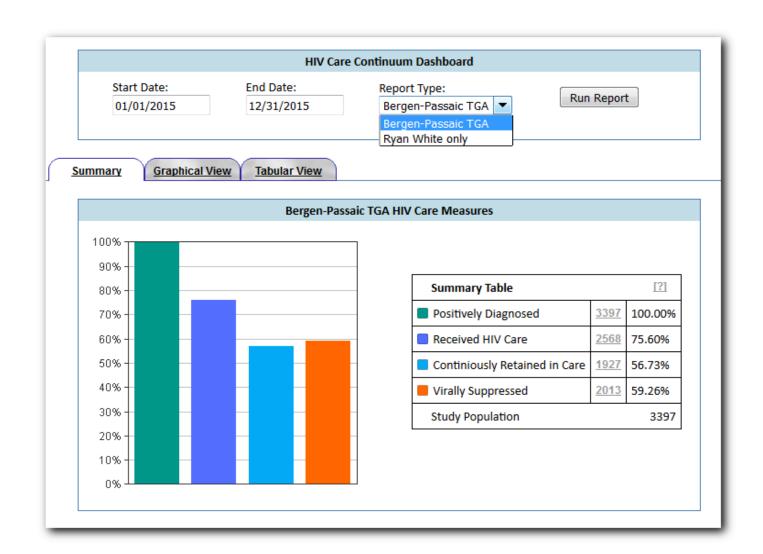
















Summary | Graphical View | Tabular View

Bergen-Passaic TGA HIV Care Measures: by Race/Ethnicity

	Diagnosed		Linked to Care		Retained in Care		ARV Therapy		VL Suppressed	
Black	1602	36.67%	<u>956</u>	59.68%	<u>666</u>	41.57%	<u>577</u>	56.35%	<u>545</u>	34.02%
Latino	<u>1534</u>	35.11%	903	58.87%	<u>648</u>	42.24%	<u>509</u>	76.89%	<u>620</u>	40.42%
Other	<u>84</u>	1.92%	<u>52</u>	61.90%	<u>30</u>	35.71%	8	66.67%	<u>32</u>	38.10%
White	1149	26.30%	<u>773</u>	67.28%	<u>473</u>	41.17%	<u>143</u>	48.31%	<u>552</u>	48.04%

×

	Summary	uppressed		
0-12	In (Bossived HIV Core)	0.00%		
13-24	In (Received HIV Care)	20.00%		
25-34	dummy1234 dummy1234 dummy1234 dummy1234	35.68%		
35-44	<u>dummy1234 dummy1234 dummy1234 dummy1234 dummy1234</u>	34.92%		
45-54	<u>dummy1234</u> <u>dummy1234</u> <u>dummy1234</u> <u>dummy1234</u> <u>dummy1234</u>	38.29%		
55 and older	[1004 36.71% 1047 65.27% 1/39 46.07% 393 89.52% 73	46.76%		

Bergen-Passaic TGA HIV Care Measures: by Gender

	Diagnosed		Linked to Care		Retained in Care		ARV Therapy		VL Suppressed	
Female	<u>1481</u>	33.90%	946	63.88%	<u>680</u>	45.91%	<u>490</u>	58.54%	<u>627</u>	42.34%
Male	2888	66.10%	<u>1738</u>	60.18%	<u>1137</u>	39.37%	<u>747</u>	65.47%	1122	38.85%



Benefits

- Truly innovative tool to help providers assess the continuum
- Data available from all the testing sites within the region and outside the Part A network
- HIV Positive clients identified in and outside Part A network
- Date of first medical visit available to determine if clients are in care anywhere within the State
- Medication data available to determine ART in RWHAP network
- Viral load data will help identify clients who are Virally Suppressed



Barriers and mitigation

Challenges

- Data Transfer through eHIE (expanded Health Information Exchange)
- Specifications
- Data consistencies across disparate databases at the small area

Mitigation

- Draft specifications built based on samples from NJ/NY Care Continuum models and Continuum of HIV Care Guidance for Local Analyses
- Mock-ups built based on the draft specs
- Functional prototype built with aggregate data in parallel while eHIE is in progress
- Data analysis and design

Success

- SPNS team was able to get a head start and were able to develop prototype of the dashboard.
- First prototype built with current summarized data
- Prototype demonstrated to Providers and Consumers at the Quarterly Quality Management Meeting on 4/18/2016.
- Valuable feedback from the QM meeting gathered and reviewed by SPNS team.
- 2015 aggregate data harvested and prototype update



Current Status and Next Steps

- Demonstrated the prototype to consumers and providers at the Quarterly Quality Management meeting on 4/18/2016
- Demonstrated the prototype to consumers and providers at Integrated Prevention and Care Planning Workshop on 8/17/2016
- Valuable discussion and feedback collected
- Next steps: Enhancements to the prototype
- Interactive dashboard



Bergen-Passaic Quality Management Team Studying the HIV Care Continuum



Feedback from Consumers and Providers





Feedback from Consumers and Providers

Agency	Name	Please list your top favorite features from today's demonstration and how it can help you provide better service, better oversight, save time, improve data quality, etc.	Please list any creative or constructive ideas you have to make today's new features better to meet your needs in serving your clients or managing your program. How they would help you?	Additional Comments or Questions:
Paterson Counseling Center	Rosalijn Liebholder	Stimulating to view health and tools assessing literacy. The new addition to the eCOMPAS adds very good information. The correlation of office visits to suppression of HIV was intriguing. The discussion of the two medical visits being skewed), the switch between Medical and Plyan White was interesting. The concept of the patient portal on eCOMPAS and explanation was very good. Consumers input and ideas are interesting and the discussion was stimulating (about meeting today). Liked the health literacy improvement idea to educate patients in insurance literacy, health literacy, meeting the client where they are at.	Can develop a survey of questions to ascertain health improvement literacy. Tools (TOFLA) and further discussion would help case managers/providers/clinicians. Clients seem to grasp the Oppression scale asaily. To improve medical treatment compliance by continuing to reach out, understand the client, continue to be persistent, contacting the client, continue providing excellent services medical, mental health, case management. To continue to provide a supportive and caring stance with patients. To provide education and prevention services to the client.	N/A
CAPCO	Linda	Patient Portal. Health Insurance Literacy.	Do Outreach find out why clients are falling out of care, try to come up with a plan to get them back in care and stay.	N/A
Hackensack University Medical Center	Irene Panagiotis	N/A	Need ability to use referral tab to enter referrals to outside of RW agencies.	N/A







Thank You!



Contact Us

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Thank you Mayor Jose "joey" Torres, Chief Elected Official Ryan White Program City of Paterson



