

NY Presbyterian Hospital's Facility Level Care Cascade: Development, Presentation, QI Use, and Next Steps

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Why Build a Care Cascade?

- Assess progress in HIV care, identify gaps in care, and drive efforts to improve care in a variety of populations¹
- Address institutional gaps in real-time as opposed to using claims data
- Coordinate cross-institutional and regional response to gaps in care

¹NYS DOH AIDS Institute

Cascade Design

- NYP HIV screening rate: 19% (105,772 patients ever screened out of 569,165 total patients seen in prior 24 months)
- Institutional cascade universe of patients: seen at NYP in past 24 months and ever diagnosed HIV+ (N=5,377)
- Housed in Tableau, with capability to view data graphically and create individualized visualizations
- Ability to click to drill down to table data for individual patients, with fields including:
 - Demographics
 - Location/date and provider at last NYP visit
 - Primary care data (if applicable)
 - Recent ED & Inpatient Utilization
 - Viral load and CD4 Data

Measure Definitions

Measure	Time Period	Definition
HIV+ Caseload*	Prior 24 months	Any HIV confirmatory test positive <u>or</u> ICD9 & ICD10 codes c/w HIV infection in either billing or EMR
Engaged in Care†	Prior 12 months	HIV+ with primary care visit
Retained in Care†	Prior 12 months	HIV+ with primary visit in each 6 month period
Retained in Care†	Prior 24 months	HIV+ with primary visit in each 6 month period
Prescribed ART†	Prior 12 months	HIV+ with any record of ARV in EMR
Virally Suppressed†	Prior 12 months	HIV+ and most recent viral load test drawn in the past year <200 copies/ml

Universe of patients = seen at NYP in past 24 months and ever diagnosed HIV+

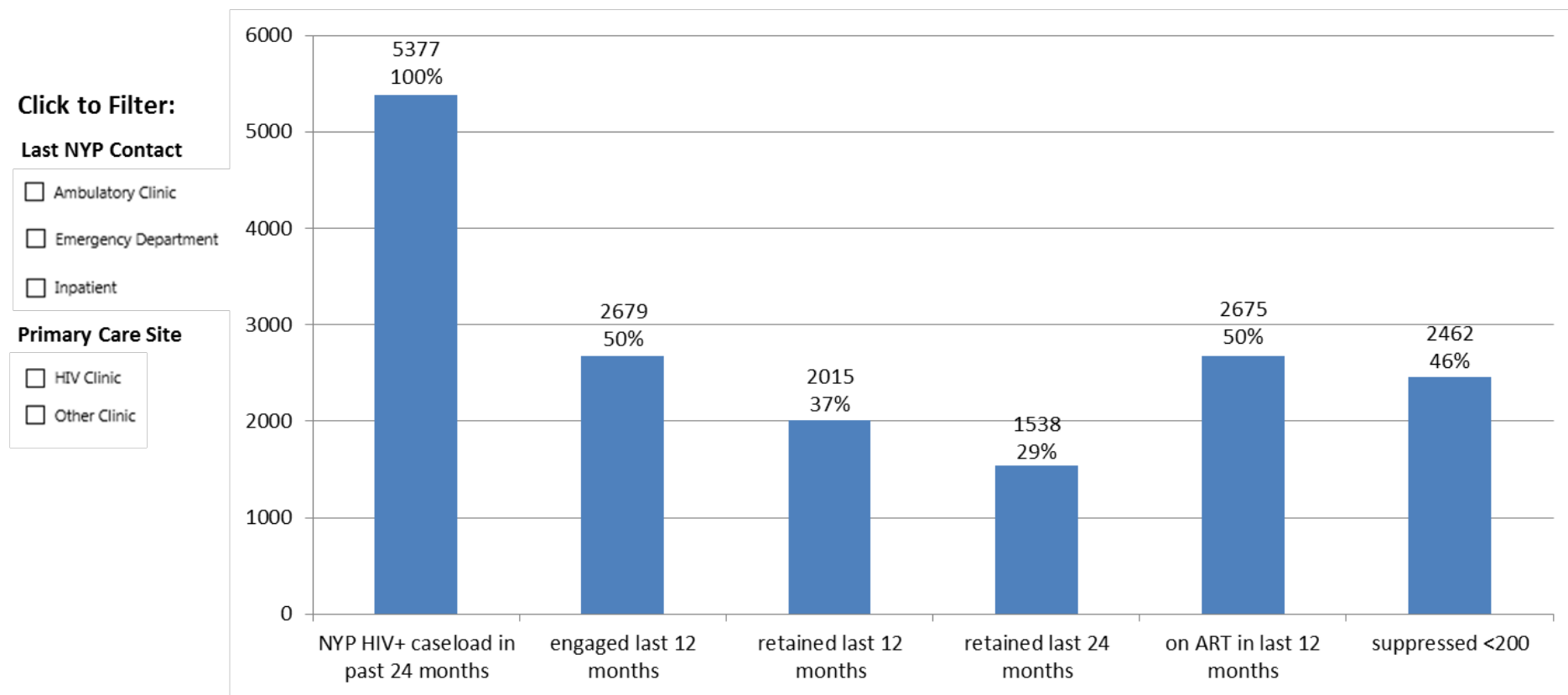
All lab and visit data is NYP only

*NYP

†NYS DOH

NYP Institutional Care Cascade

Inclusion Criteria: seen at NYP from 7/19/2014-7/19/2016 (24 months), ever diagnosed HIV+



NYP HIV Clinic Care Cascade

Inclusion Criteria: seen at NYP from 7/19/2014-7/19/2016 (24 months), ever diagnosed HIV+, most recent ambulatory visit at an NYP HIV clinic

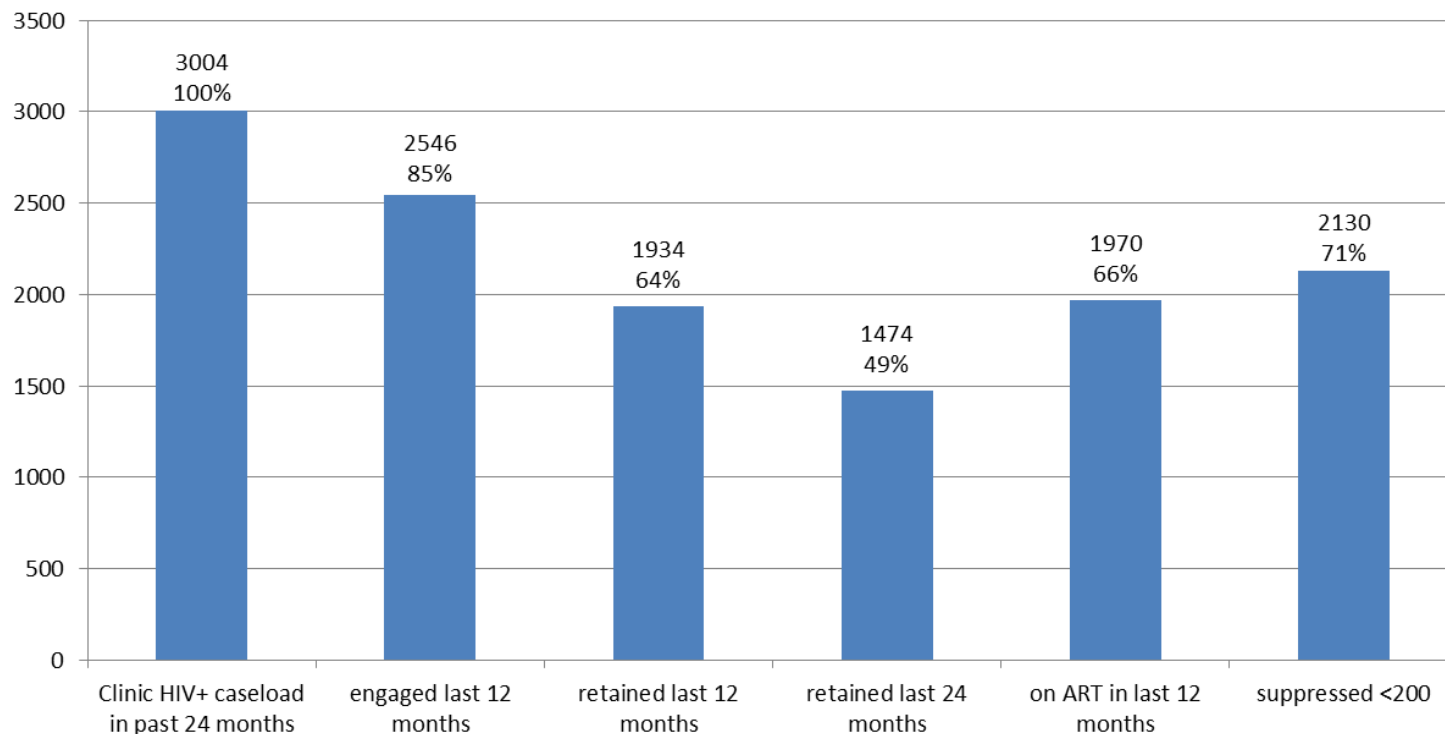
Click to Filter:

Last NYP Contact

- ☐ Ambulatory Clinic
- ☐ Emergency Department
- ☐ Inpatient

Primary Care Site

- ☒ HIV Clinic
- ☐ Other Clinic



Data Drilldown

Last_Name	First_Name	DOB	Age	Sex	Race	Ethnicity	HPhone	Primary_Insurance	PCMH_Primary	Last_Primary_Visit_Provider	Last_Primary_Visit_Dtm	Last_NYP_Campus_Location	Last_NYP_Clinic
SMITH	JOHN	5/25/1958	58	F	WHITE	H	(917)521-9349	LOCAL 1199	NULL	NULL	NULL	REF	NULL
DOE	JANE	5/4/1939	77	M	WHITE	N	(917)613-0413	MEDICARE	NULL	NULL	NULL	ACN	HP
SMITH	JOHN	8/24/1983	32	F	WHITE	N	(347)726-1407	AETNA (EL PASO,TX)	NULL	NULL	NULL	REF	NULL
DOE	JANE	12/22/1951	64	M	WHITE	N	(201)348-8268	EMPIRE HEALTHCHOICE ASSURANCE,	NULL	NULL	NULL	REF	NULL
SMITH	JANE	12/23/1981	34	F	UNKNOWN	U	(646)838-8976	HEALTHPLUS AMERIGROUP	NULL	NULL	NULL	Milstein	Milstein
DOE	JOHN	7/22/1965	50	F	UNKNOWN	U	(212)283-3392	SELF-PAY	NULL	NULL	NULL	Milstein	Milstein
SMITH	JANE	8/30/1934	81	F	BLACK/AFRICAN AMERICAN	N	(718)991-7344	MEDICARE	NULL	NULL	NULL	REF	NULL
DOE	JOHN	8/20/1992	23	F	WHITE	H	(212)942-2372	HEALTH FIRST	NULL	NULL	NULL	ACN	Broadway
SMITH	JANE	6/24/1962	54	M	UNKNOWN	U	(646)314-3249	AFFINITY HLTH PLAN - MCAID	HP6	MATTHEW SCHERER	10/22/2015	Milstein	Milstein
DOE	JOHN	4/22/1976	40	F	UNKNOWN	U	(347)257-2065	EMPIRE BC HEALTHPLUS MCD	Farrell	ANITA SOFTNESS	5/31/2016	ACN	Farrell
BROWN	LUCY	7/10/1947	69	M	UNKNOWN	U	(212)927-3184	HEALTHFIRST 65/MHI MCR	NULL	NULL	NULL	Milstein	Milstein
SMITH	ROBERT	3/27/1979	37	F	DECLINED	U	(917)838-1157	CIGNA HEALTH CARE	NULL	NULL	NULL	NYHL	NULL
DOE	JANE	7/26/1995	20	F	UNKNOWN	U	(917)865-2970	HEALTH FIRST	NULL	NULL	NULL	Milstein	Milstein
BROWN	JOHN	10/16/1955	60	M	OTHER NOT DESCRIBED	U	(201)463-0888	EMPIRE BC PPO NYC/NYS EMP	NULL	NULL	NULL	NYHL	NULL
SMITH	LUCY	11/23/1977	38	F	UNKNOWN	U	(973)356-2157	HEALTH FIRST	NULL	NULL	NULL	ACN	Broadway
DOE	ROBERT	12/24/1995	20	F	UNKNOWN	U	(917)592-1803	HEALTHFIRST NY MCD	NULL	NULL	NULL	ACN	Audubon
SMITH	JANE	1/26/1985	31	F	OTHER NOT DESCRIBED	H	(347)364-3910	NATIONAL BENEFIT FUND 1199	Washington Heights	MARY CABICO	8/7/2015	ACN	Washington Heights
DOE	JOHN	10/31/1981	34	F	WHITE	U	(412)680-9579	AETNA HMO/POS/EPO	NULL	NULL	NULL	NYHL	NULL
BROWN	LUCY	5/9/1944	72	M	WHITE	HO	(646)882-4762	MEDICARE	NULL	NULL	NULL	REF	NULL
SMITH	ROBERT	1/1/1982	34	M	UNKNOWN	U	(212)999-9999	SELF-PAY	NULL	NULL	NULL	Milstein	Milstein
DOE	JANE	10/16/1987	28	F	UNKNOWN	H	(929)213-2956	YOUNG ADULT/YOUNG MALE	NULL	NULL	NULL	ACN	Audubon
BROWN	JOHN	11/25/1984	31	F	UNKNOWN	H	(646)715-5615	AETNA (EL PASO,TX)	NULL	NULL	NULL	B05C	NULL
SMITH	LUCY	7/21/1989	26	F	UNKNOWN	U	(347)995-8274	FIDELIS MGD CARE MCD	NULL	NULL	NULL	Milstein	Milstein
DOE	ROBERT	9/5/1960	55	F	DECLINED	N	(212)877-0742	OXFORD	NULL	NULL	NULL	NYHL	NULL
BROWN	JANE	10/1/1989	26	M	UNKNOWN	U	(718)708-3264	SELF-PAY	NULL	NULL	NULL	Allen	Allen
SMITH	JOHN	3/2/1986	30	F	UNKNOWN	HO	(999)999-9999	AMERICHoice BY UNITEDHEALTHCAR	NULL	NULL	NULL	ACN	Audubon
DOE	LUCY	10/3/1990	25	F	BLACK/AFRICAN AMERICAN	H	(646)891-0086	HEALTHPLUS AMERIGROUP	NULL	NULL	NULL	ACN	Washington Heights
BROWN	ROBERT	10/26/1992	23	F	WHITE	H	(646)645-3974	FIDELIS MGD CARE MCD	NULL	NULL	NULL	Allen	Allen
SMITH	JANE	2/22/1949	67	M	WHITE	U	(914)471-1535	MEDICARE	NULL	NULL	NULL	Milstein	Milstein
DOE	JOHN	3/5/1987	29	F	BLACK/AFRICAN AMERICAN	N	(917)501-1640	HIP WESTCHESTER	NULL	NULL	NULL	ACN	Audubon
BROWN	LUCY	9/16/1987	28	F	WHITE	H	(347)605-8344	MEDICAID	NULL	NULL	NULL	ACN	Audubon
SMITH	ROBERT	3/30/1977	39	M	UNKNOWN	U	(646)730-9128	SELF-PAY	NULL	NULL	NULL	Milstein	Milstein
DOE	JANE	9/11/1974	41	F	WHITE	N	(646)320-8053	UNITED HEALTHCARE	NULL	NULL	NULL	REF	NULL
BROWN	JOHN	6/23/1990	26	F	UNKNOWN	U	(929)431-8293	HIP COMP MCAID	NULL	NULL	NULL	Allen	Allen

Notes and Tips on Cascade Development:

- Development of measure definitions – from group consensus based on examining state and city cascades and other state measure definitions (e.g. eHIVQUAL; HRSA)
- Working with IT department
 - Include IT in development discussions from the very beginning – important to know what is possible from a data perspective before getting too far into the process
 - Importance of checking in regularly after examining each iteration of the data, as sometimes there is miscommunication about what data is needed and how to extract it
- Start graphing rough versions of the data early in the process – this makes it easier to see patterns as well as data errors
- Need tight collaboration from many roles in the institution in order to develop accurate cascade and generate interest – e.g. data coordinator, program coordinator, analytics, medical providers, etc.

Lessons Learned

- Interventions will be difficult without integration of institutional cascades through health exchange (e.g. Healthix)
- Data incomplete and inaccurate unless proven otherwise:
 - Fragmented IT systems
 - Extraction from multiple data sources
 - Field types
 - Maintaining updated data dictionary and lab/diagnostic codes
- DON'T WAIT FOR PERFECTION – act on the patients you know about right away

Next Steps before Facility Wide Implementation

- Refine measure parameters and extraction process to improve data accuracy
- Determine best ways of presenting cascade information, both graphically and in table form
- Consult key stakeholders, such as patients, providers, care coordinators, and administrators
- Ensure use of the cascade is in line with institutional and legal guidelines
- Develop workflows based on identified gaps in care

Closing the Gaps

- Pilot interventions to close gaps in HIV Clinic first
 - Notification of all positive HIV test results at NYP to facilitate linkage of newly diagnosed patients
 - Working with navigators in ED and inpatient for real time linkage of PLWH not engaged in care
 - Development of care plans for virally unsuppressed patients in multidisciplinary care teams
- Take lessons learned from pilot to help inform institution wide interventions to close gaps

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