

HIV Quality of Comprehensive Care and Effectiveness Monitoring

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QUALITY Definition

- “Quality is the degree to which health services for individuals and populations *increase the likelihood of desired health outcomes* and are consistent with current professional knowledge.”

Institute of Medicine, HRSA



What are *our* goals?

- To *provide access to care and excellent care*
- To support activities and provide resources for *measuring performance and examining the processes or systems* that are tied to the delivery of that care
- *Improve processes and improve care.*

Sources of Professional Standards

- ❑ State & National Guidelines: HIVQUAL
- ❑ Health Resources Services Administration (HRSA)
- ❑ Joint Commission for Accreditation of Hospitals (JCAHO)
- ❑ Institute for Healthcare Improvement (IHI)
- ❑ NY State Dept. of Health's AIDS Institute



What is the infrastructure?

- Process improvement coordinator - RN position
- Core Team
- Home Team
 - Create Annual Plan and Selection of Indicators
 - Identification and Implementation of Project Cycles
 - Creation of PDSAs
 - Evaluating and Reporting to Stakeholders
 - Systematize, if possible, the changes
- Information Systems
- Community Advisory Board
- Quality Improvement Team from hospital



PDSA Cycle

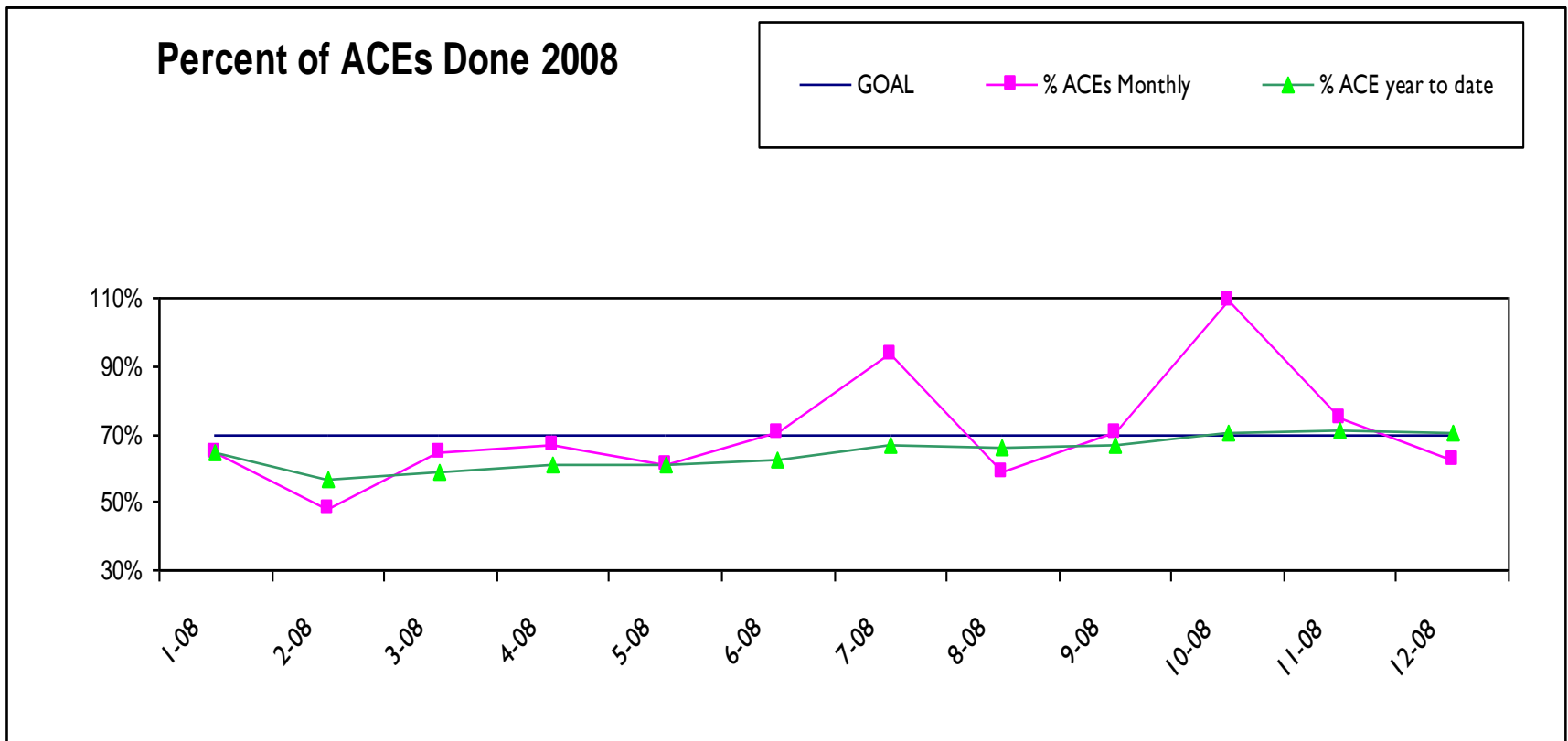
- Plan
- Do
- Study
- Act – on a small scale



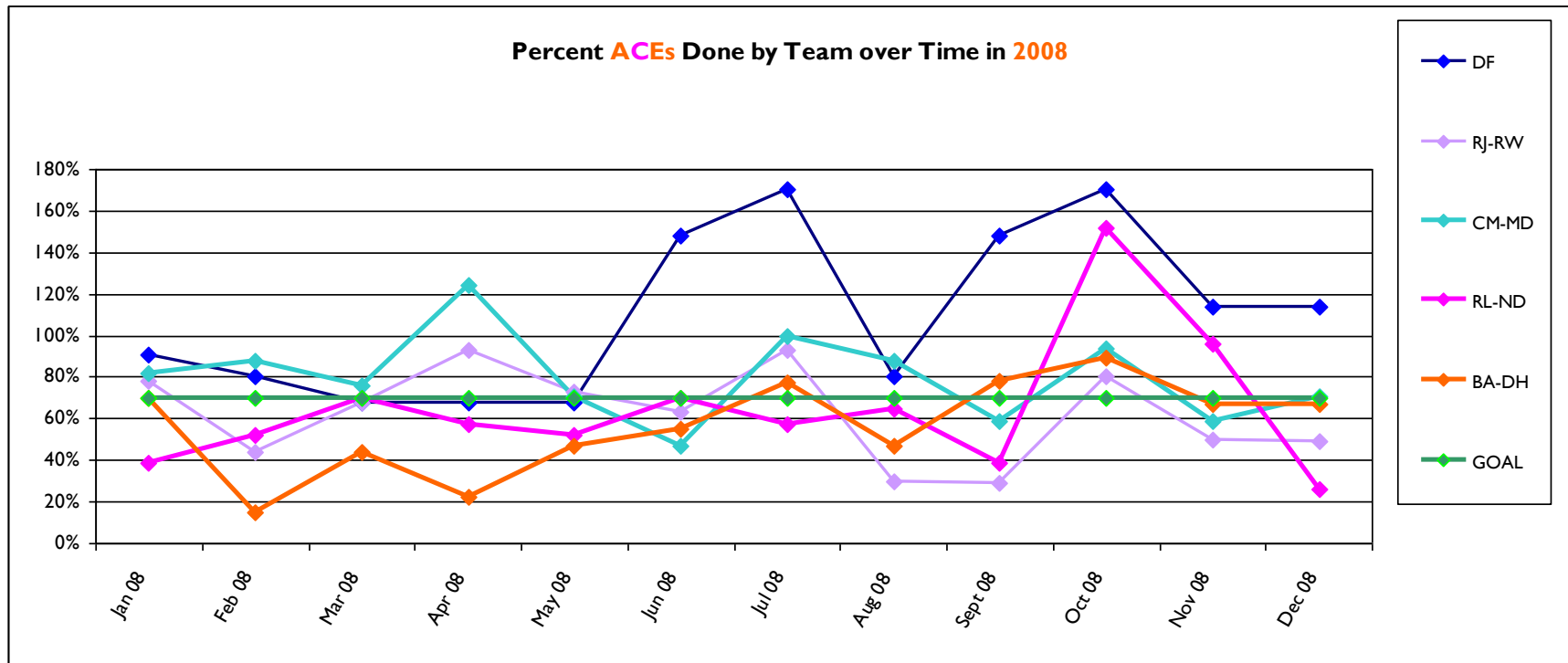
2008 DHIV MED Goals

- **70% of patients will receive comprehensive annual exam (ACE)**
- 70% of patients discharged from hospital will keep appointment with primary provider within 30 days
- 70% of patients on HIV medication will have viral load <400
- 50% patients will have comprehensive mental health screening
- 60% of women patients will have Pap

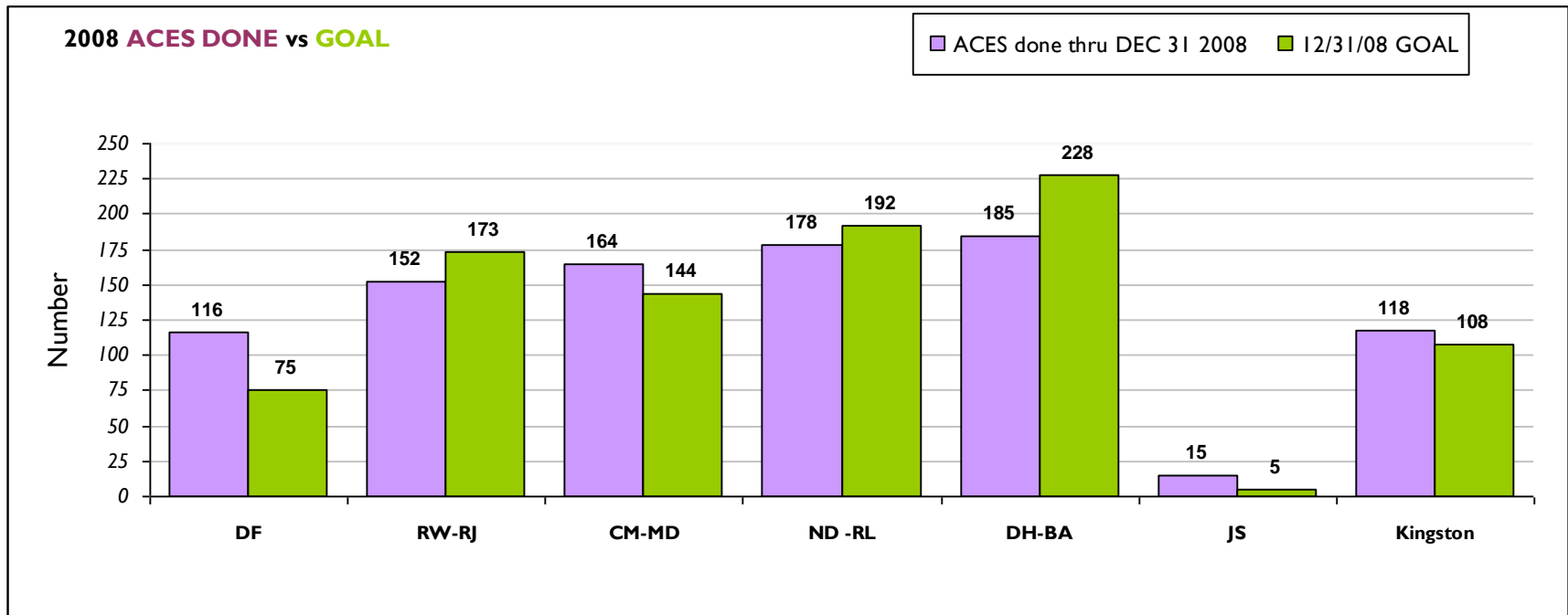
ACEs - ALL TEAMS 2008



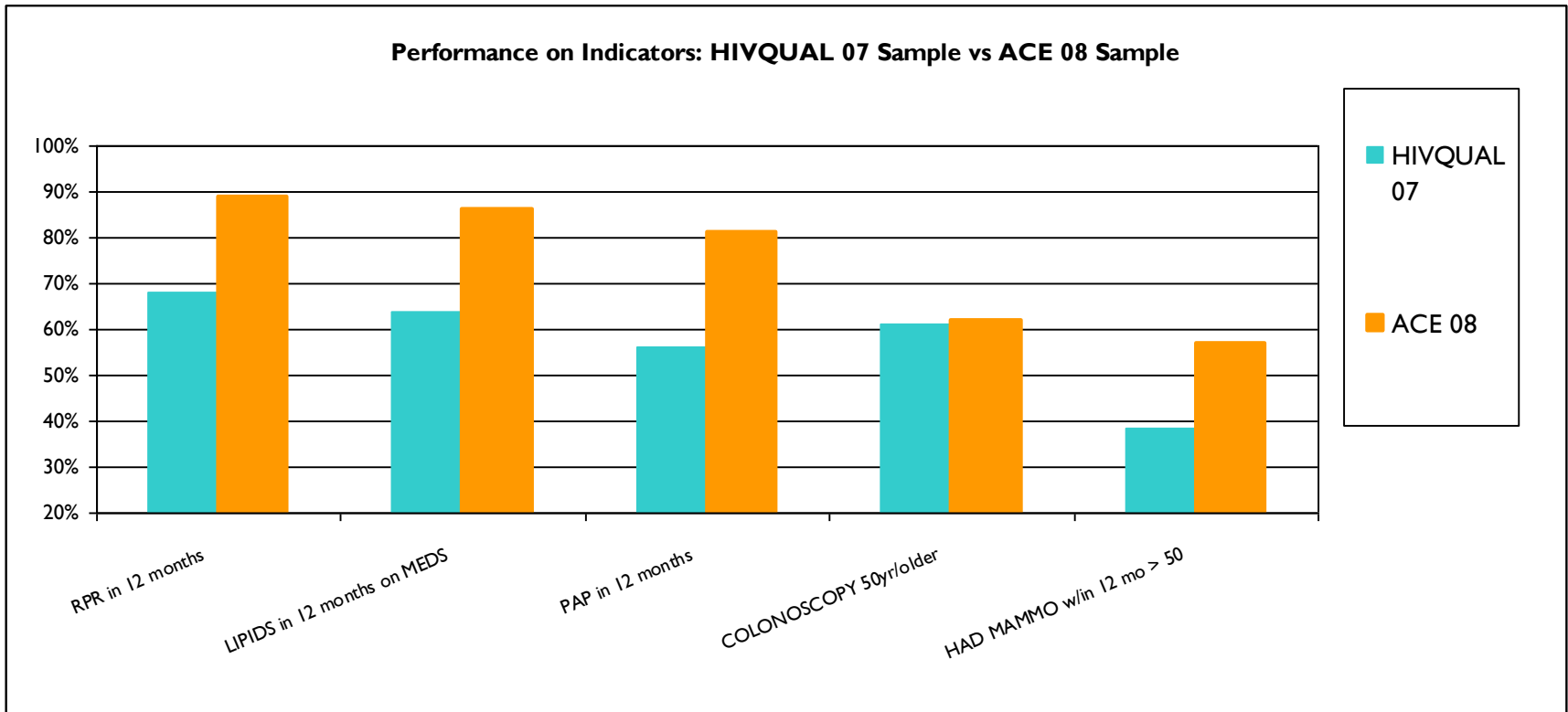
Team Performance 2008



Progress toward 2008 Goal by Team



WHY the ACE?



HIVQUAL New York: 2007 Data

**NYS Quality of Care Advisory Committee
December 11, 2008 (updated February 25, 2009)**



HIVQUAL Indicators: 21 Total

- Clinical visits
- HIV specialist care
- ARV therapy management
- Adherence assessment
- HIV monitoring (CD4 and viral load)
- Lipid screening
- Gyn exam and Pap smear
- PCP prophylaxis
- STD screening
- TB screening
- HCV screening and treatment
- Dental care
- Substance Abuse screening
- Tobacco use screening
- Mental health screening
- Prevention education
- Baseline HIV resistance testing
- Anorectal exam
- Anal Pap
- Health literacy/communication
- Mammogram



New York State AIDS Institute Data

- Special thanks to Dr. Bruce Agins

- Clemens Steinbock

Analytic Sample Demographics

Review Period	Jan. 1- Dec. 31, 2007
Number of Eligible Patients (pt with ≥ 1 Visit per 6 month period)	N=11131 patients
Number of Eligible New Patients (New Patients in Trimesters 1 or 2 who had ≥ 1 Visit per 6 month period)	761 (6.8%)

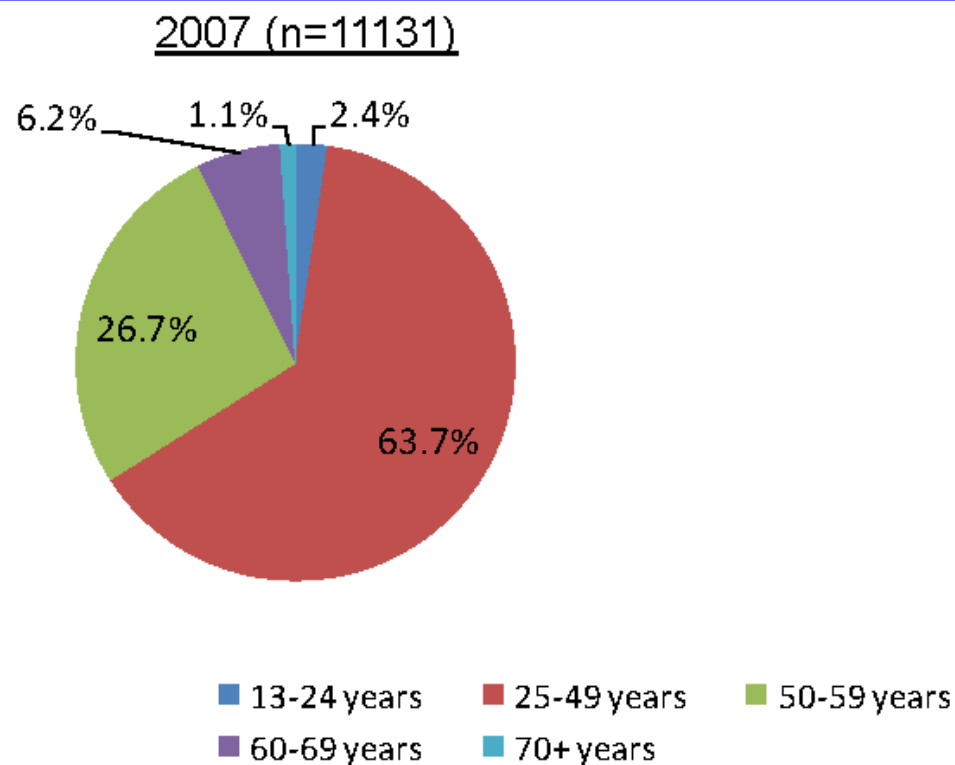


Analytic Sample Demographics: Setting in which patients received care

	Jan 1 – Dec 31, 2007
<u>CLINICS: Community Health Center, Health Dept Clinic, Drug Treatment Center</u>	48.6% (5411)
<u>HOSPITALS, including Designated AIDS Centers</u>	51.4% (5720)

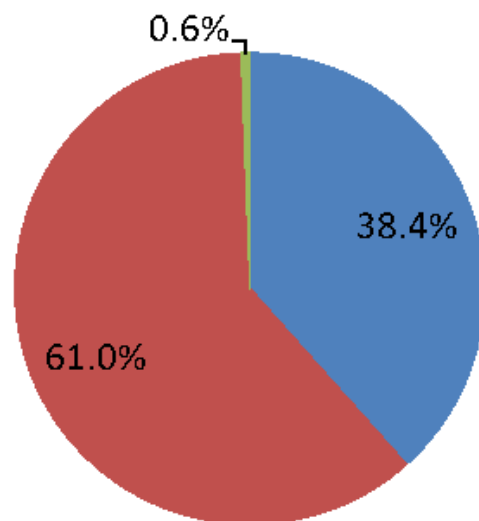


Analytic Sample Demographics: Age



Analytic Sample Demographics: Gender

2007 (n=11131)



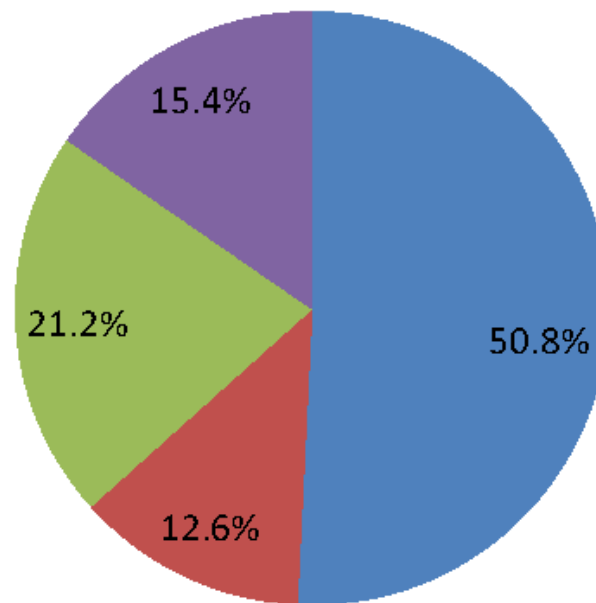
■ Female ■ Male ■ Transgender



67 transgendered patients in 2007: 57 M-to-F, 1 F-to-M, 9 not specified.

Analytic Sample Demographics: HIV Risk

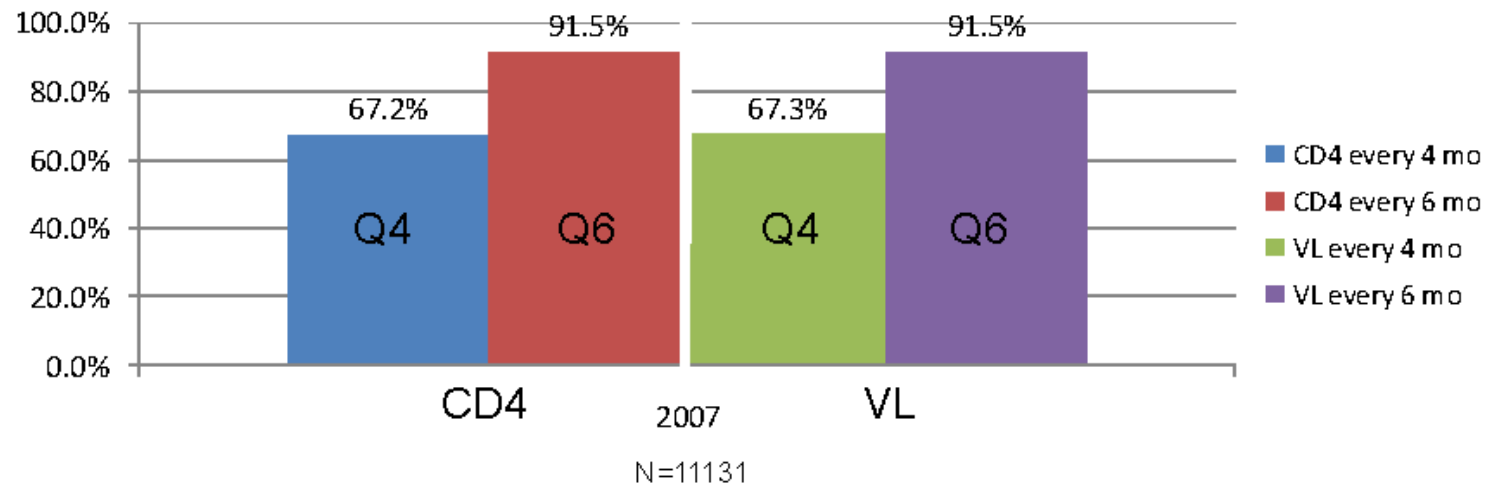
2007 (n=11131)



■ Heterosexual ■ IDU ■ MSM ■ Other



VL and CD4 count monitoring



TB Screening

- TB screen in last 24 months for patients with no prior TB or PPD(+)
 - Eligible population: 82.5% (7284/8830) in 2007
- 75.8% (5518/7284) of eligible patients had a TB screen done and read in 2006 or 2007 (3.2% positive)



GYN Care

Pelvic exam in review period

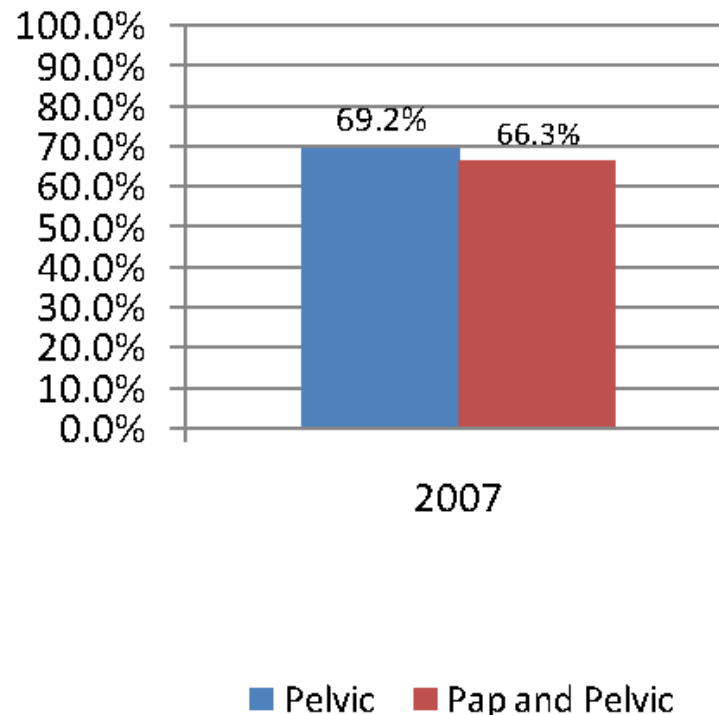
4270 eligible patients

69% (2956) of women had a pelvic exam

96% (2833) of women with a pelvic exam also had a Pap smear

–**24.5% (694) abnormal**

–Of whom, **89.5% (621) referred for follow-up**



Patients on HAART by Lowest CD4 in Review Year

CD4 Threshold	% of Patients with CD4 below Threshold	% of These Patients Who Were on HAART
500	68.7% (7650/11131)	86.4% (6607/7650)
350	45.9% (5104/11131)	89.4% (4565/5104)
200	21.2% (2356/11131)	93.9% (2212/2356)



ARV MANAGEMENT INDICATOR

STABLE

VL

- UNDETECTABLE.
- DROPPED BY ≥ 1 LOG SINCE LAST 4-MONTH REVIEW.
- INCREASED BY < 3 X FROM LOWEST VALUE IN LAST 12-MONTHS AND PROVIDER DEEMS PATIENT CLINICALLY STABLE IN RECORD.

UNSTABLE

- VL INCREASING BY MORE THAN 1 LOG AND > 1000 IN LAST 4-MONTH REVIEW.
- CD4 DROPPING BY 50% SINCE LAST 4 MONTH REVIEW.
- PROVIDER DEEMS PATIENT CLINICALLY UNSTABLE IN RECORD.

LATE STAGE

- PROVIDER DOCUMENTS PATIENT HAS RUN OUT OF THERAPEUTIC OPTIONS.
- PATIENT DOCUMENTED TO BE END STAGE WITHIN LAST 12-MONTHS.

APPROPRIATE MANAGEMENT

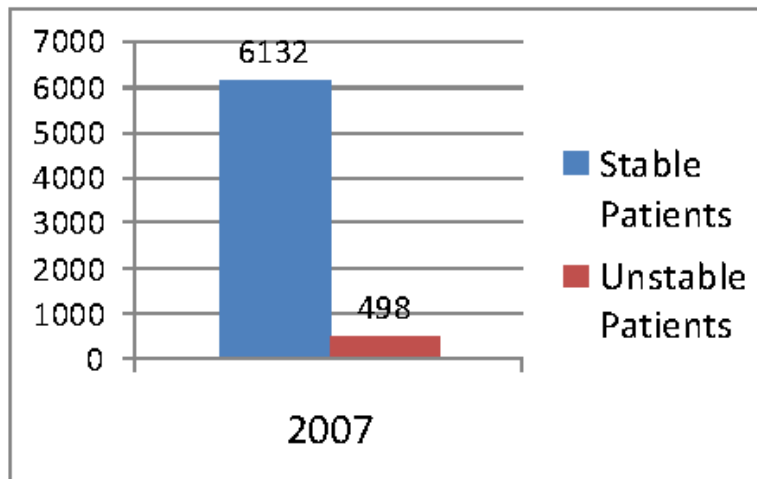
- VL EVERY 4-MONTHS.

- CHANGE THERAPY AND VL IN 8 WKS.
- WRITTEN JUSTIFICATION TO NOT CHANGE THERAPY.
- DISCONTINUE THERAPY WITH DOCUMENTED CLINICAL FOLLOW-UP PLAN.

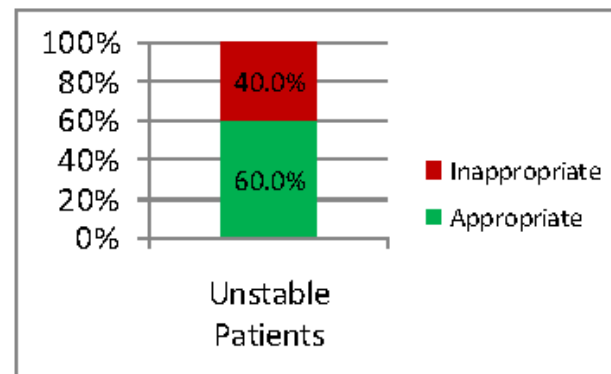
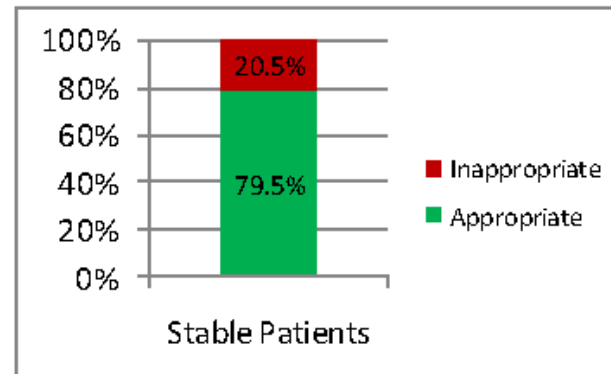
- CLINICAL FOLLOW-UP VISIT DOCUMENTED FOR EVERY 4-MONTHS.



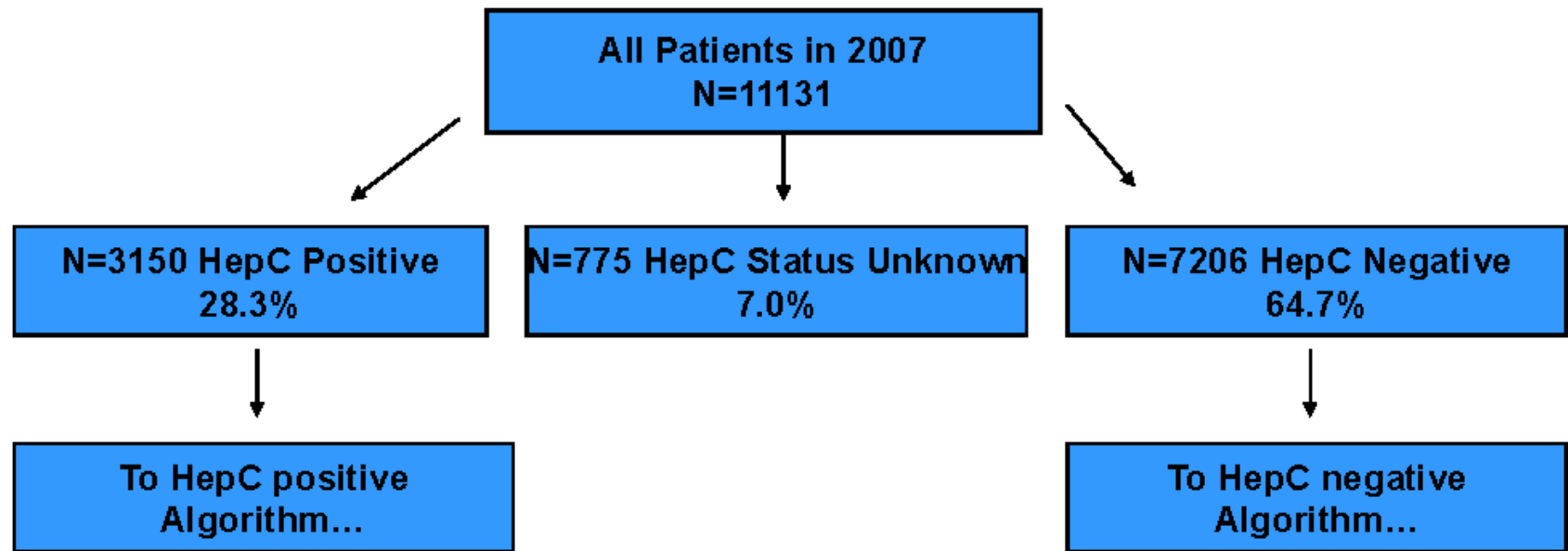
Management throughout Review Period* of Always Stable and Always Unstable Patients



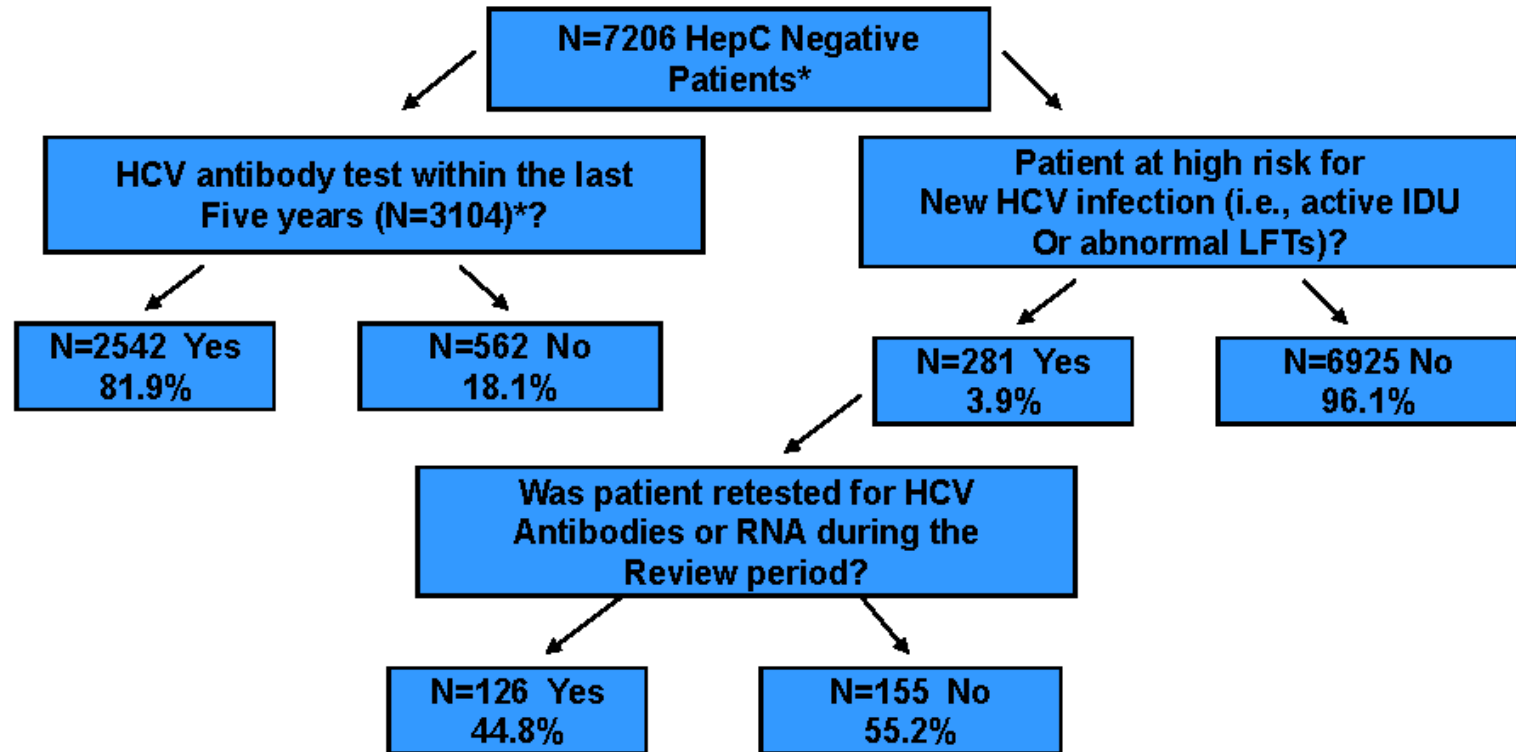
*Appropriate management includes a clinical visit in all eligible trimesters



Hepatitis C Management



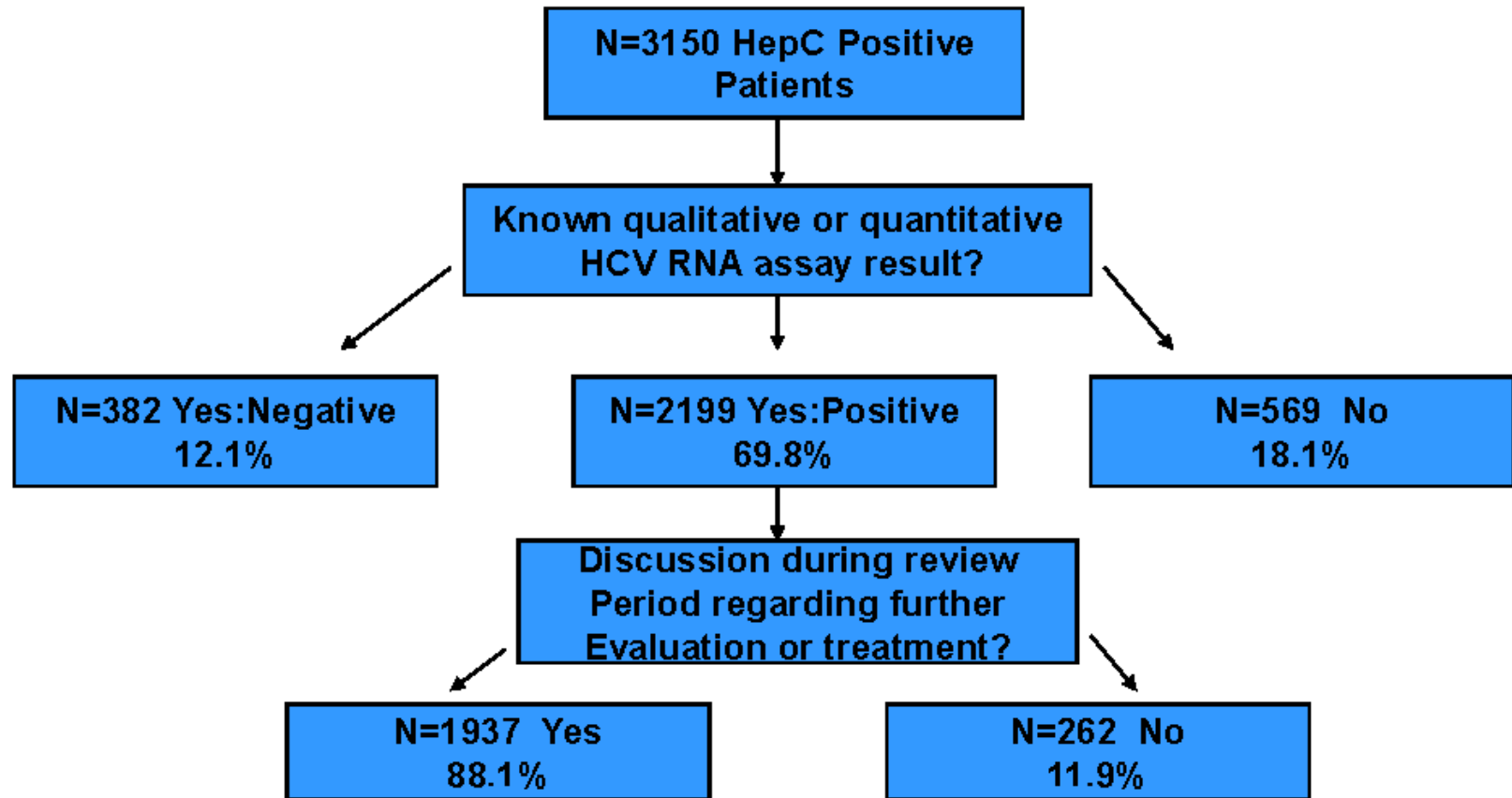
Hepatitis C Management – Hepatitis C Negative Patients



* Question only asked for C/D-funded sites

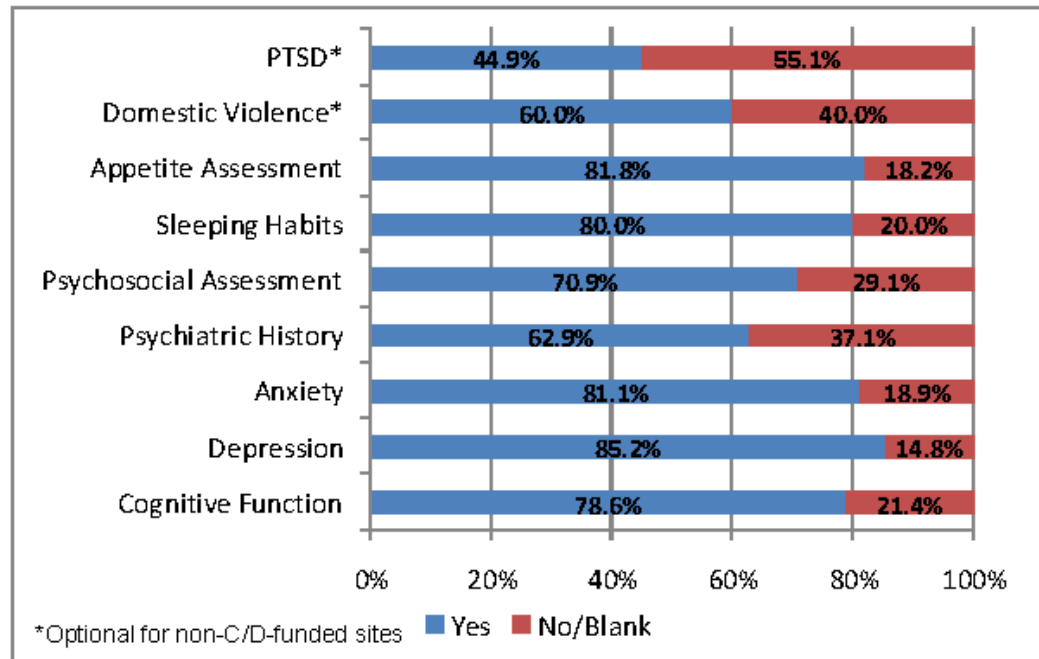


Hepatitis C Management – Hepatitis C Positive Patients



Components of Mental Health Screen

11131 eligible patients in 2007



- 53.4% (5941/11131) of patients were screened with all 7 required NYS mental health components
- 91.3% (10159/11131) of patients were screened for at least one mental health component
 - Of these patients, a MH need was identified in 32.9% (3341/10159)
 - Among these patients with any need identified, 43.3% (1448/3341) were already receiving MH care
 - Among those not in care, 82.4% (1560/1893) were referred for MH care



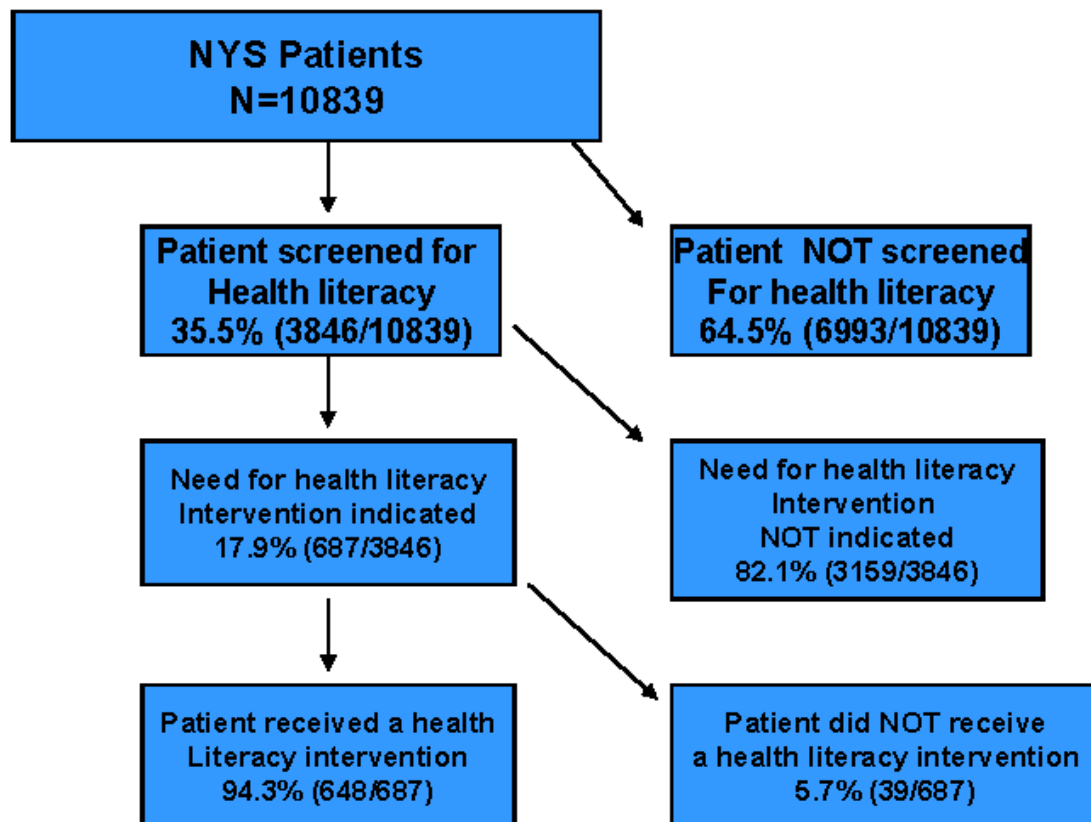
Substance Use Screening Excluding Drug Treatment Centers

2007: n=10000 eligible

- 88.7% (8871) of patients had a substance use discussion
 - Of not screened, 16.6% had elevated IDU risk (IDU identified as primary HIV exposure risk and/or patient identified at baseline as having high risk of substance use)
 - Of those screened
 - 54.6% Never Users; 21.1% Past Users
 - 22.4% Current Users
 - 32.4% already in treatment
 - Of those not in treatment, 10.5% were referred for treatment



Health Literacy Screening* (2007 Pilot)



*No standardized definition of health literacy used in 2007

PCP Prophylaxis

- Percent of patients whose lowest CD4 count $< 200/\text{mm}^3$ * in review year who were on PCP prophylaxis
 - Eligible population: 16% (1828)

88% (1609) of eligible patients were on PCP prophylaxis

- 12% (219) were NOT on PCP prophylaxis
 - Of these 219 patients, 130 (59%) had a VL < 400 during the review period
- Facility Range: 0-100%

* And not > 200 for > 6 months



STD Screenings

STD Test	2007		
	Number eligible	Percent screened (n)	Clinic range
Syphilis (all patients)	11131	82% (9130)	2-100%
Gonorrhea (all women)	4270	62% (2638)	0-100%
Chlamydia (all women)	4270	62% (2629)	0-100%



Quantitative Adherence Assessment among Patients on ART

- 89% (6306/7089) of patients on ART during the review period were assessed for treatment adherence at least once during the review period
 - Range: 6-100%
- 63% (4160/6614) of patients on ART in all trimesters were assessed for treatment adherence in every trimester
 - Range: 0-100%



Lipid Screen

Lipid screen if on ART during review year

90% (6598 of 7305) had a lipid screen

- Range: 40-100%



Oral Health Exam

- Data received from 121 sites
- Dental exam during review year
 - 38% (2946 of 7739) of patients had a dental exam in the last 12 months
 - Clinic Range: 0-100%



Colonoscopy

Colon cancer screening (colonoscopy) during past 10 years for patients at least 50 years of age during review period

- 20% (424 of 2128) patients between 50 and 59 had a documented colonoscopy exam within the last 10 years

- Data received from 117 sites

Clinic Range: 0-100%

IQR: 4-29%

- 30% (165 of 559) patients 60 and above had a documented colonoscopy exam within the last 10 years

- Data received from 96 sites

- Clinic Range: 0-100%

- IQR: 0-50%



Tobacco Screening

Patients with documented screen for tobacco during review period (n=8388)

90% of patients were screened for tobacco use

- Range: 25-100%
- 48% (3636) were current users
- 88% (3052) of current smokers received counseling



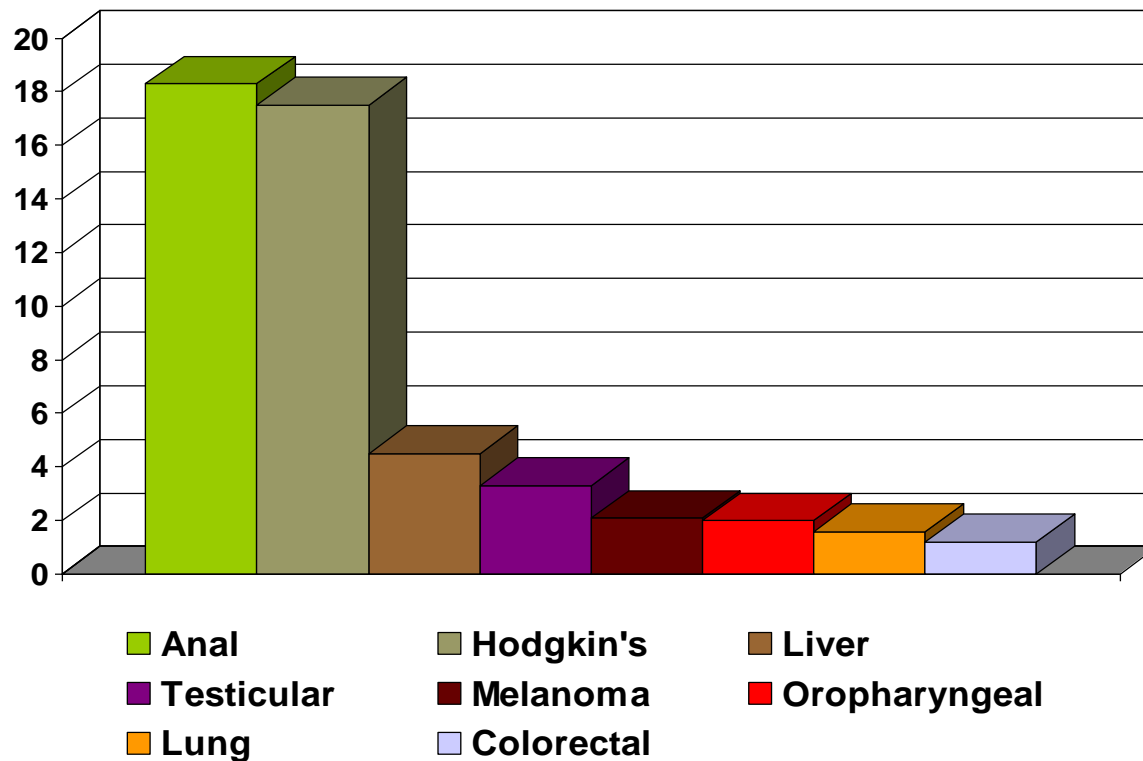
Pilot Indicator: Anorectal Exam/Anal PAP

- Anorectal Exam: 21% of patients (1470 of 7001)
 - Data from 106 sites
 - Range: 0-100%; IQR: 2-27%
- Anal PAP:
 - For Women with Abnormal Cervical PAP: 5% of Patients (22/461)
 - Data from 96 sites
 - Range: 0-100%
 - For MSM: 18% of patients (287/1638)
 - Data from 98 sites
 - Range: 0-100%



Incidence Rate Ratios of Non-AIDS Defining Malignancies

1992-2002



Incidence rate ratio
Standardized HIV:
Observed SEER

HOPS and
Adult/Adolescent
Spectrum of Disease
prospective cohorts

Patel P et al. Incidence of AIDS-defining and non-AIDS defining malignancies among HIV infected persons. CROI 2006

Pilot Indicator: Baseline Resistance Testing

- Baseline resistance test among patients who were ARV naïve at the beginning of the review period, had a VL > 1000 during the review period and were initiated on ART
- Clinic Performance Rate (Mean Score): 61%
 - 70 sites submitted data
 - 248 eligible patients
 - Range: 0-100%
 - IQR: 33-100%



Acknowledgements

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 - Chris Wells
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 - JSI Team:
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Conclusions

- Process improvement worth the effort
- Start small
- Ultimate goal: improve patient care and their overall wellness and survival

GRACIAS!