National Measures for Infectious Disease Screening

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Screening: Why

Screening Rationale

- Condition can be diagnosed before symptoms develop
- Can be detected by reliable, inexpensive, and noninvasive tests
- Infected patients have huge medical benefits if treatment started early
- Transmission to other in community can be stopped if treatment started early

Screening

- Testing all persons within a certain patient profile, regardless of risk
- Supplements, does not replace risk-based testing
- Common examples include newborns, prenatal patients, elderly

5 national measures tracked by CRS

- Prenatal HIV screening (GPRA)
- HIV Screening 13-64 y.o.
- Annual chalmydia screening young women
- HIV screen of STD+ patients
- HCV screen of baby boomers (new)

Measure 1:
Prenatal HIV Screening

Prenatal HIV Screening

- Prevention of Mother to Child transmission
- Rapid tests for women with no prenatal care who present at term
- UCSF perinatal hotline available

Measure 2
HIV screening 13-64 year olds

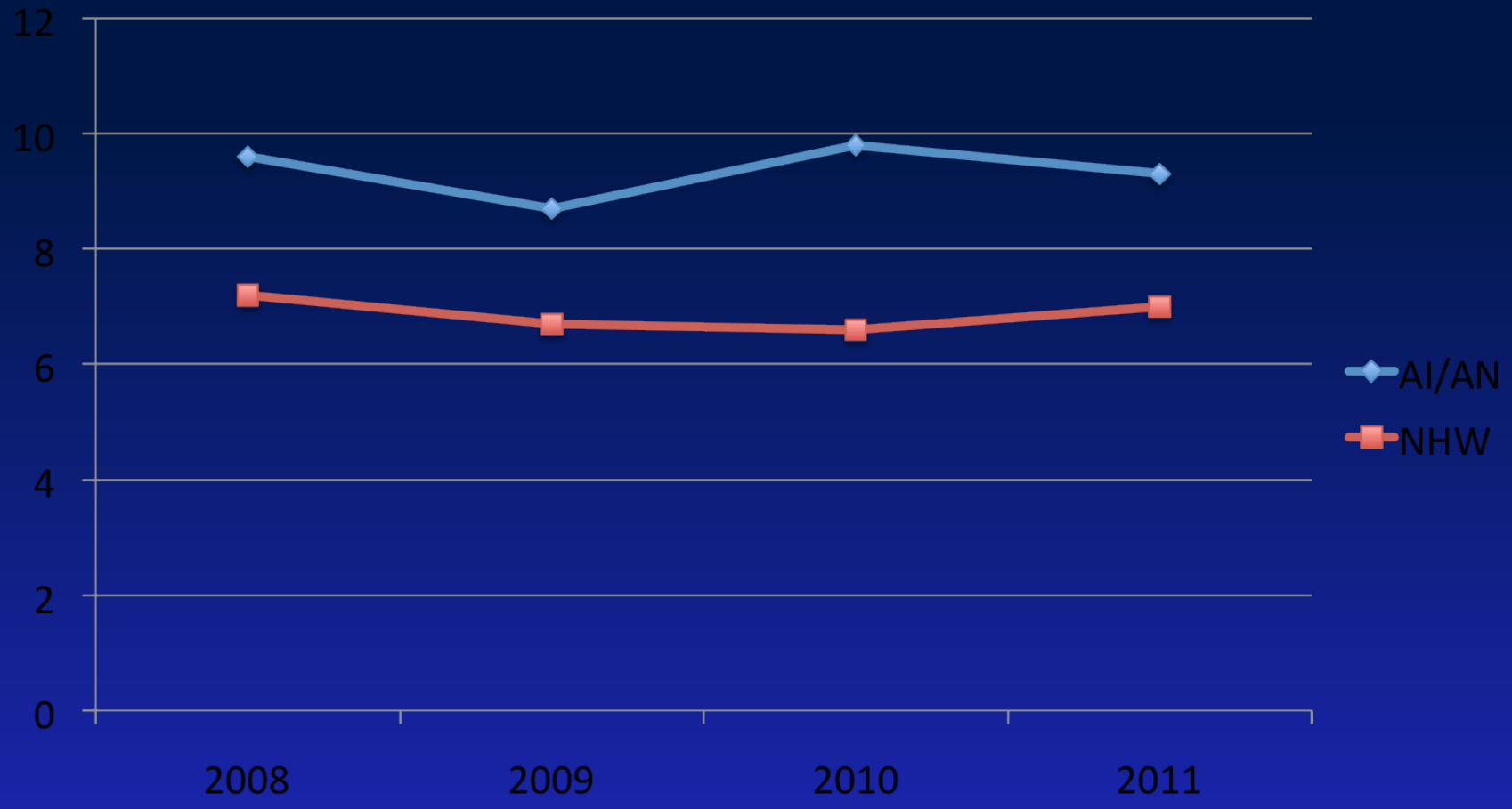
HIV Screening: We Already Do it

- 1996: all blood donors
- 2001: all prenatal patients
- 2006: all persons 13-64 (at least one routine screen, repeat based on local epidemiology and/or risk factors)

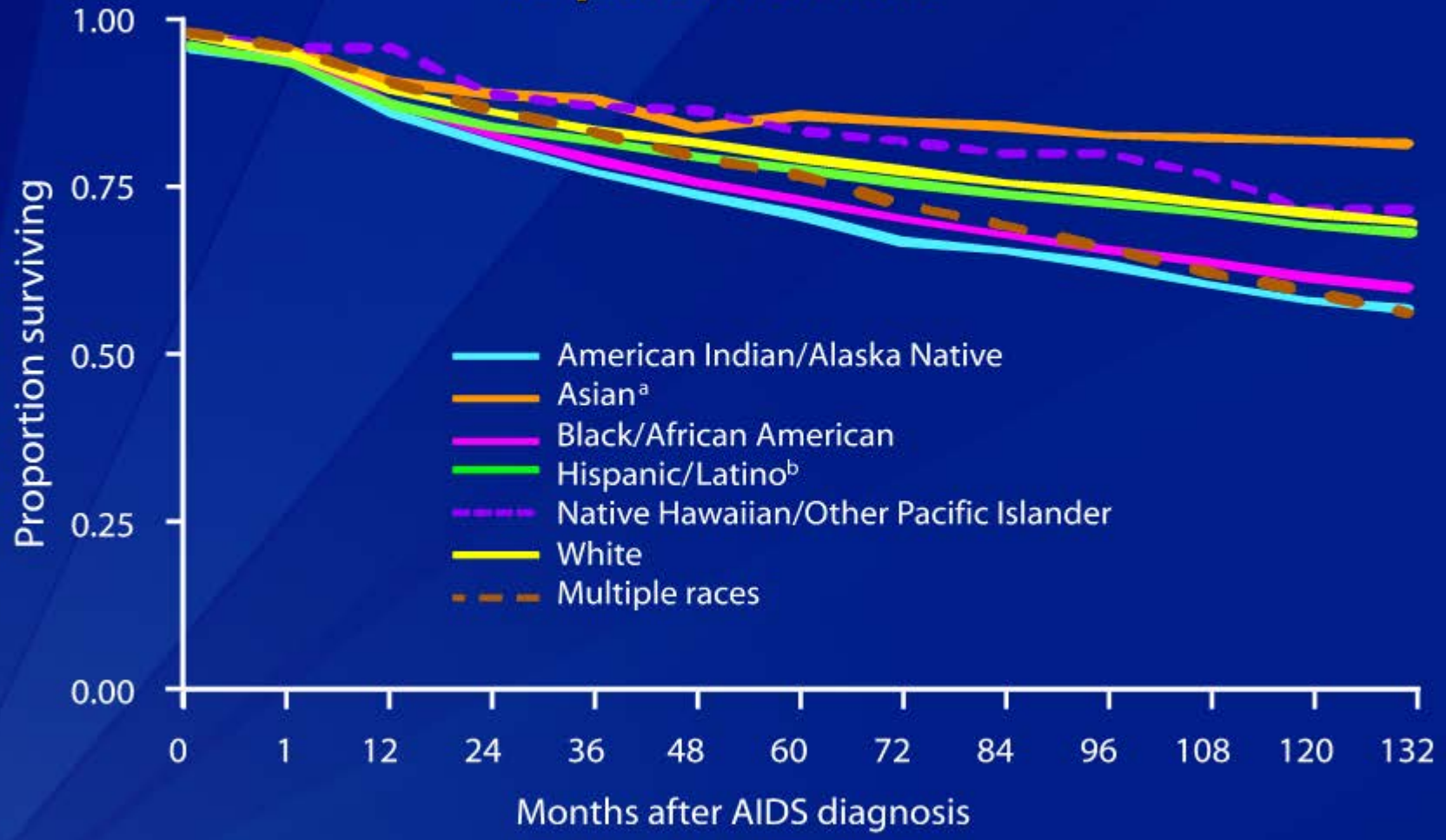
HIV Screening, con't

- Use local data on HIV, STIs, as needed
- Some sites have changed age ranges
- Some sites have gone to a 5 year screening interval

New cases of HIV, rates per 100,000 2008-2011

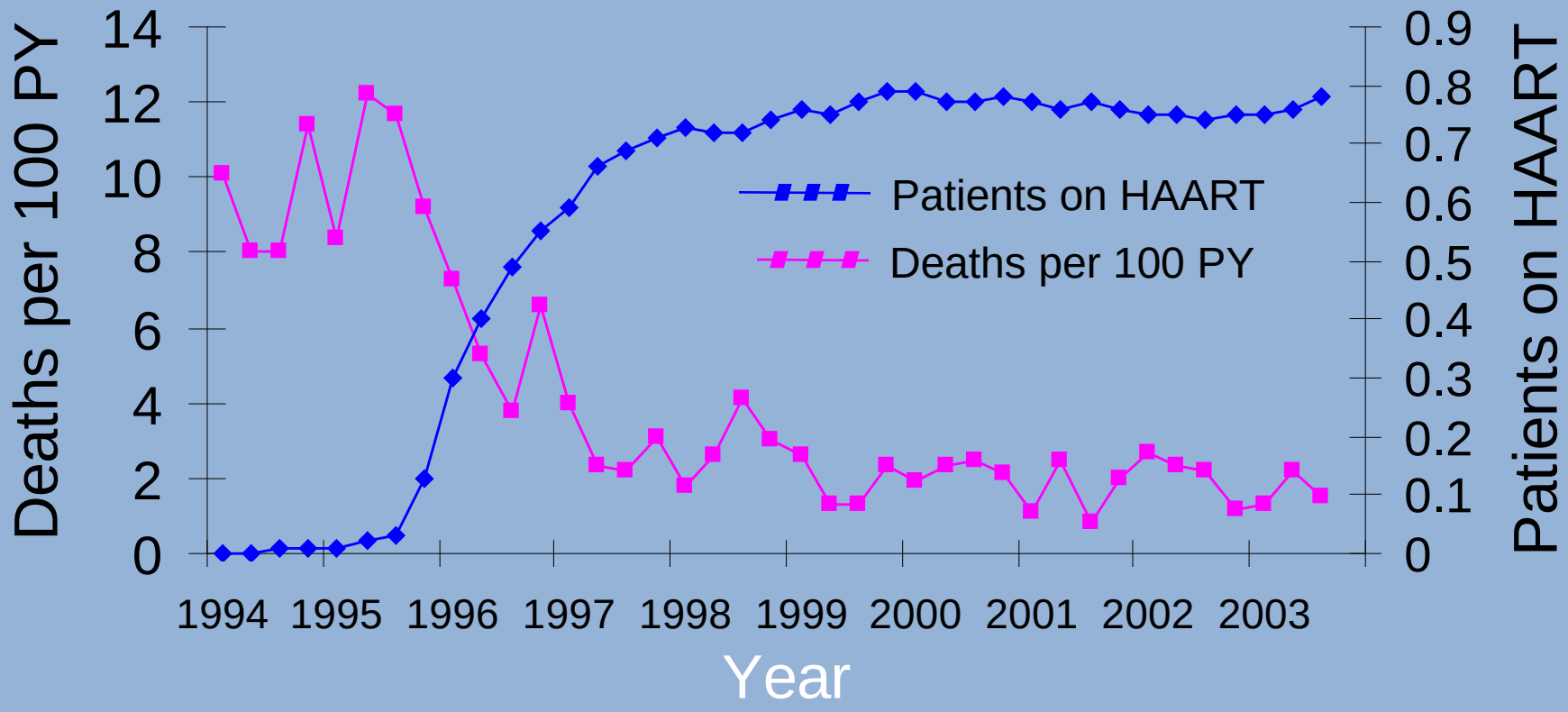


Survival after an AIDS Diagnosis during 1998–2005, by Months Survived and Race/Ethnicity— United States and Dependent Areas



Note. Data exclude persons whose month of diagnosis or month of death is unknown.
[a] Includes Asian/Pacific Islander legacy cases.
[b] Hispanics/Latinos can be of any race.

1. Treatment Is Effective



Mortality and HAART Use Over Time
HIV Outpatient Study, CDC, 1994-2003

Screening: HIV vs Cervical Cancer

	HIV	Cervical CA
Annual new cases	56,300	11,270
Deaths	15,564	4,070

Case Study 1

- Female, 35 y.o., mother of 5, in 15 year monogamous relationship
- Complained of persistent headache, generalized weakness
- Recent asthma and diabetes diagnosis
- Labs show elevated glucose

Case Study (con't)

- Over next 6 months patient had 10 more visits
- Persistent headache, weakness
- ER multiple times, clinic visits, external hospital overnight admission
- Workups revealed nothing notable

Case Study (con't)

- Patient diagnosis:
  - Pain seeking behavior
  - Depression
  - Non-compliant with medical recommendations

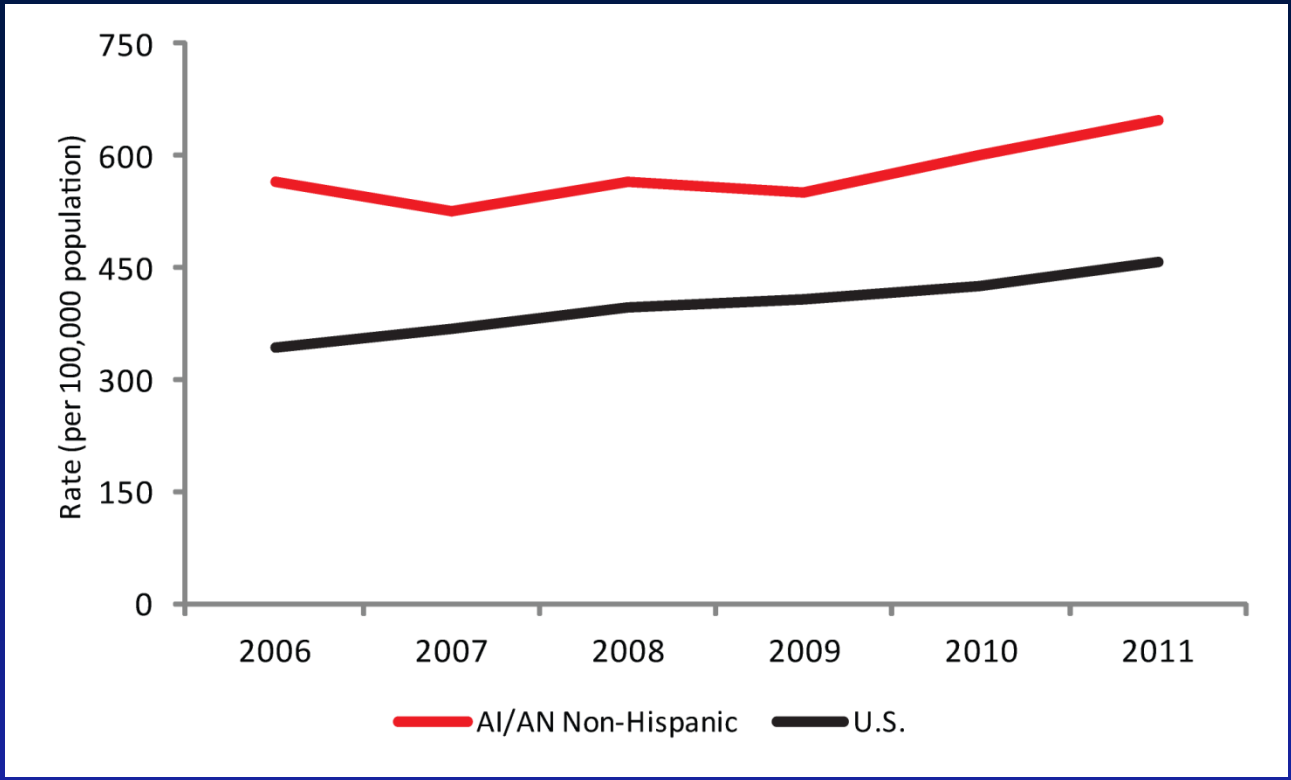
Case Study (con't)

- Seven months after onset of symptom, patient referred to external neurologist consult

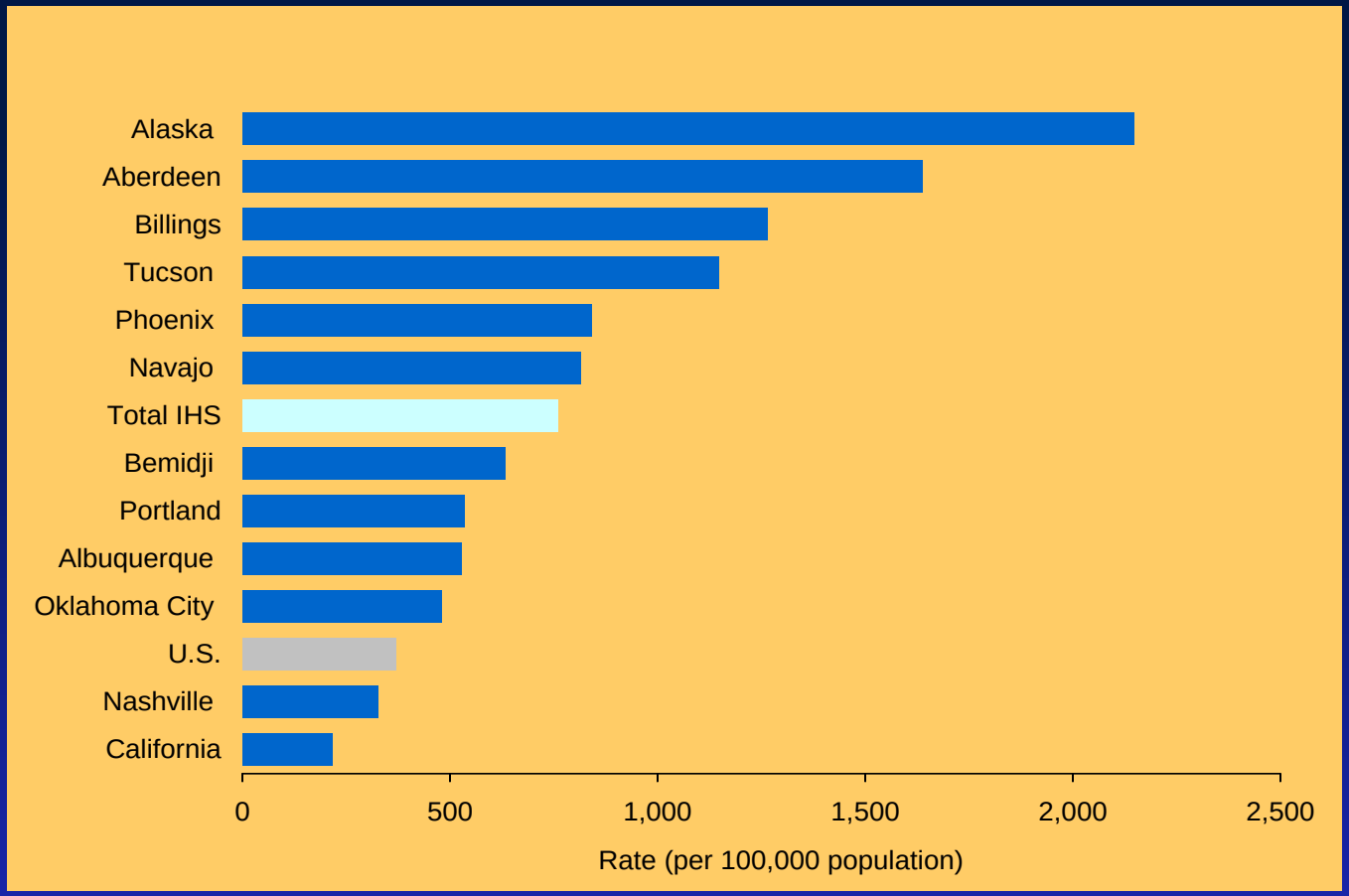
- Diagnosis from neurologist
  - Cryptococcal meningitis resulting from AIDS

Measure 3
Annual Chlamydia Screen

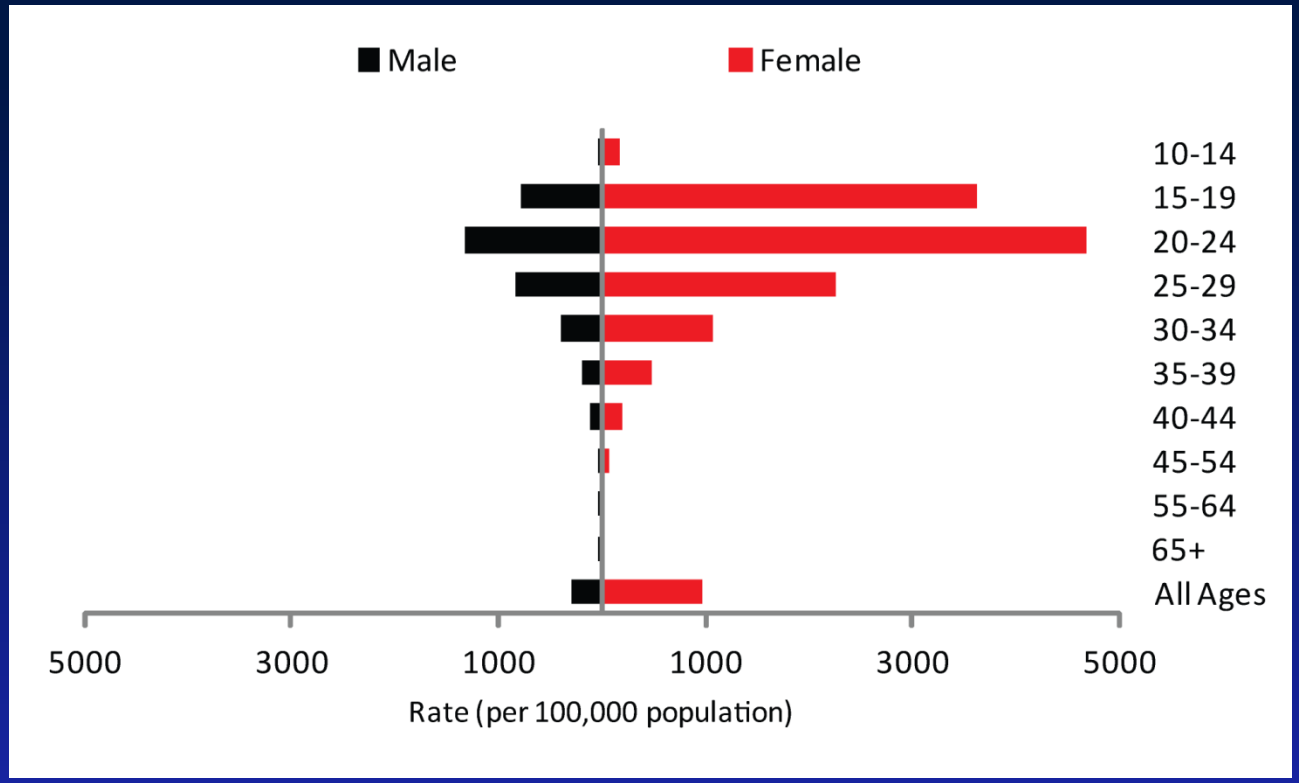
Total Chlamydia Rates, AI/AN Non-Hispanic and U.S., 2006-2011



Chlamydia Rates among AI/AN by IHS Area, 2007



Chlamydia Rates by Sex and Age, AI/AN Non-Hispanic, 2011



Chlamydia Screening, 1 of 2

- All sexually active women 25 and under screened annually
- Recommended by CDC
- Grade “A” recommendation from USPTF
- Some sites and Areas have amended screening age range based on STD data

Chlamydia screening, 2 of 2

- Females screened due to greater risk of long term sequelae. Some IHS sites screen males at sports physicals.
- Expedited partner therapy has shown to be significant in reducing re-infection in literature and in IHS (Taylor, et. al)
- Follow up testing recommended due to high risk of re-infection

Measure 4

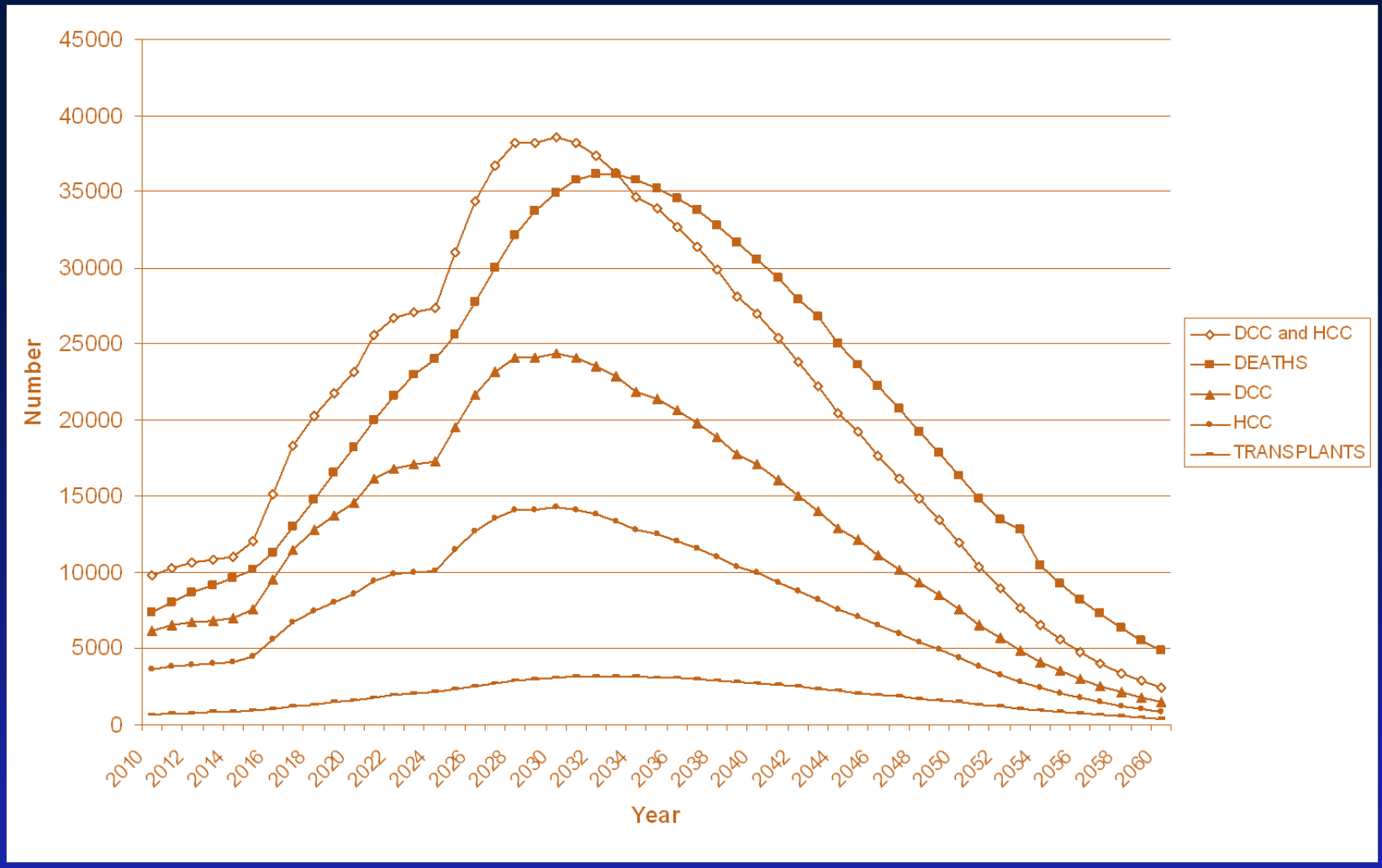
HIV screen of patients with STD

HIV/STD screen of STD patients

- If patient diagnosed with chlamydia, gonorrhea, or syphilis, patient should be tested for HIV within 60 days

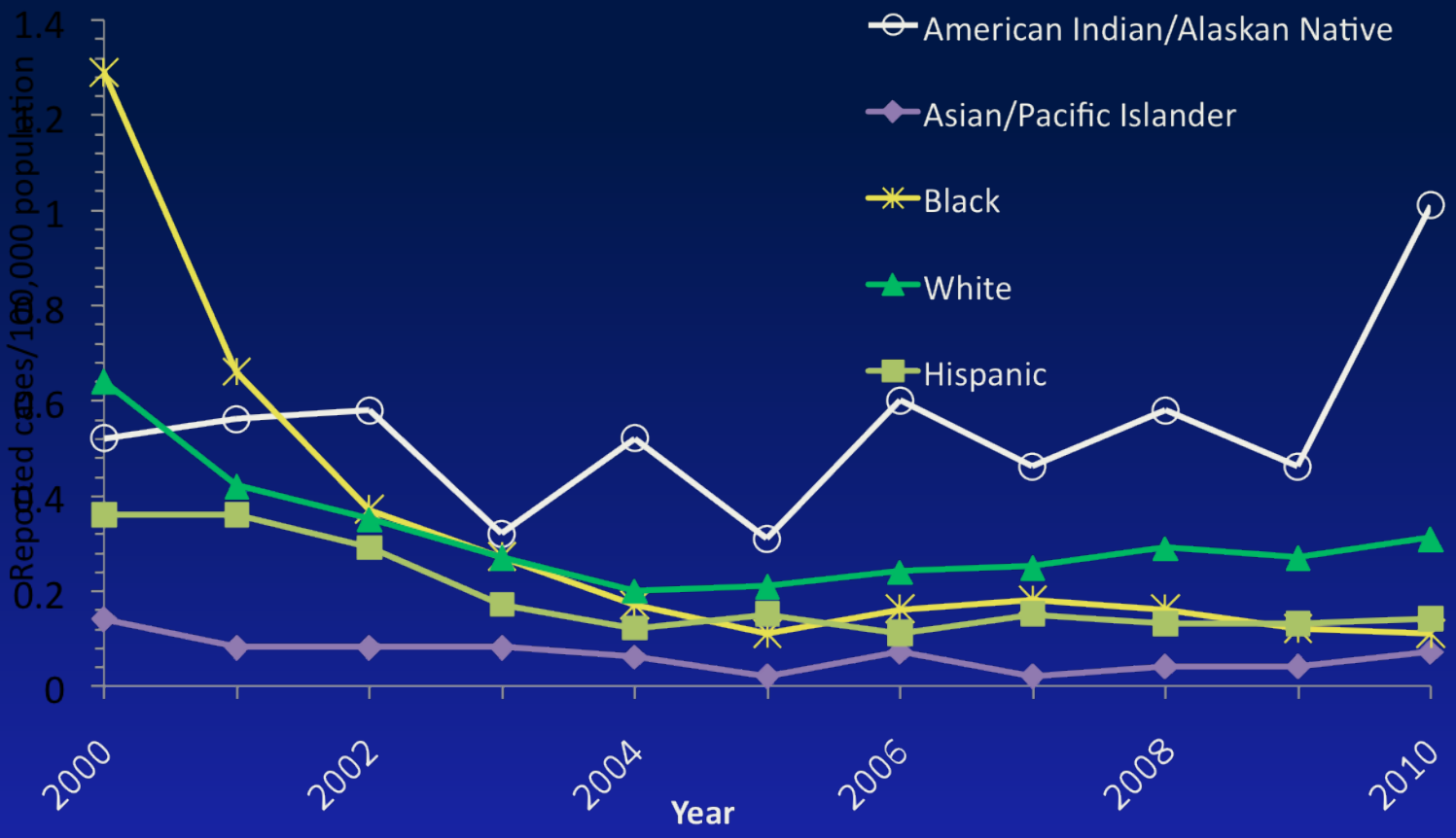
Measure 4: HCV screening of baby boomers

Forecasted Annual Incident Cases of Decompensated Cirrhosis (DCC), Hepatocellular Carcinoma (HCC), Liver Transplants, and Deaths Associated with Persons with Chronic Hepatitis C Infection and No Liver Cirrhosis in the United States in 2005



Rein, DB, Wittenborn, JS, Weinbaum, CM Sabin, M, Smith, BD, Lesesne, SB. Forecasting the Mortality and Morbidity Associated with Prevalent Cases of Pre-Cirrhotic Chronic Hepatitis C Infections in the United States. Journal of Digestive Liver Diseases 2010.

Figure 4.4. Incidence of acute hepatitis C, by race/ethnicity — United States, 2000–2010



Source: National Notifiable Diseases Surveillance System (NNDSS)

Forecasting HCV Morbidity and Mortality

- Of 2.7 M HCV infected persons in primary care
  - 1.47 M will develop cirrhosis
  - 350,000 will develop liver cancer
  - 897,000 will die from HCV-related complications

Rein, DB, Wittenborn, JS, Weinbaum, CM Sabin, M, Smith, BD, Lesesne, SB. Forecasting the Mortality and Morbidity Associated with Prevalent Cases of Pre-Cirrhotic Chronic Hepatitis C Infections in the United States. *Journal of Digestive Liver Diseases* 2010.

HCV screening recommendation

- All persons born 1945-1965, once only
- In addition to current risk-based testing

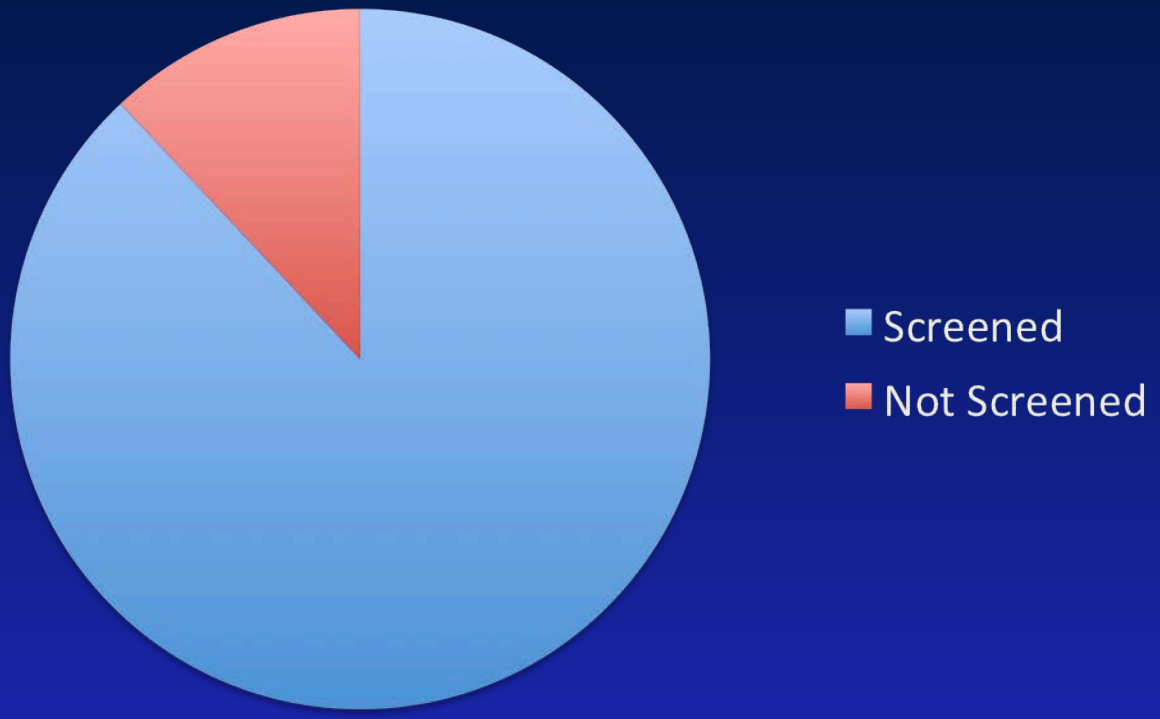
Screening: Current rates and Best Practices

Prenatal HIV Screening: Rates

- Increase from 53% in 2005 to >85% in 2012
- Only GPRA measure to far exceed 2020 goals

Prenatal HIV Screening

11,400 screened of 12,800 eligible



IHS doing an excellent job

Prenatal HIV Screening: How

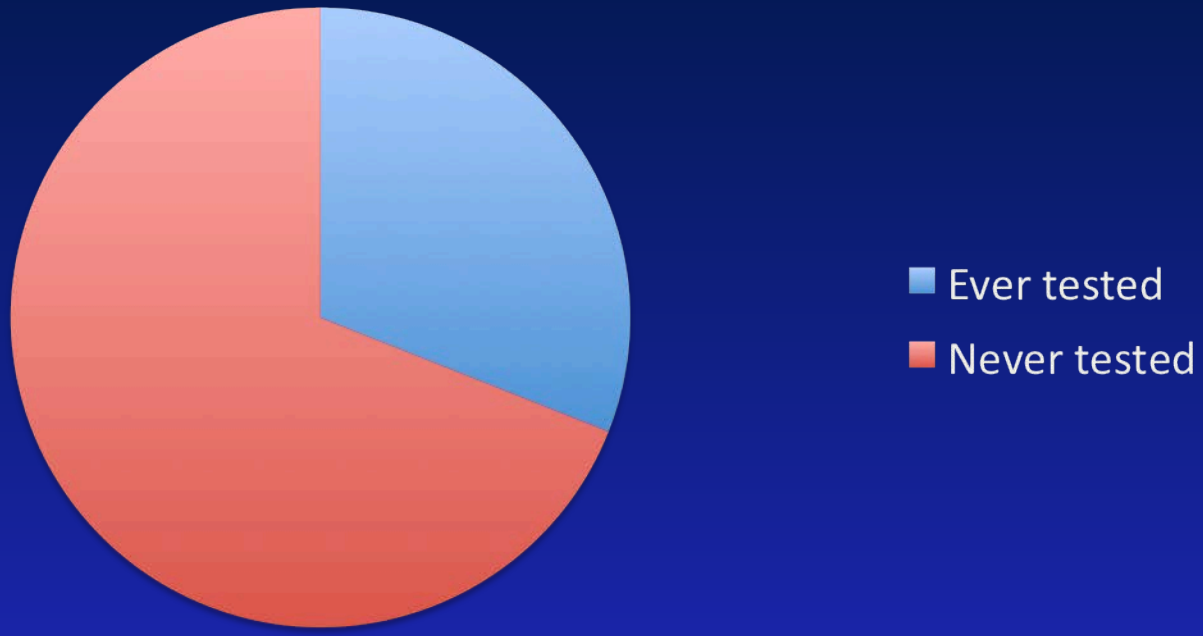
- Bundled into existing prenatal labs, 'automatic' test not an extra one
- HIV test delegated away from provider
- Considered routine and important by patients AND clinicians

Prenatal HIV screening

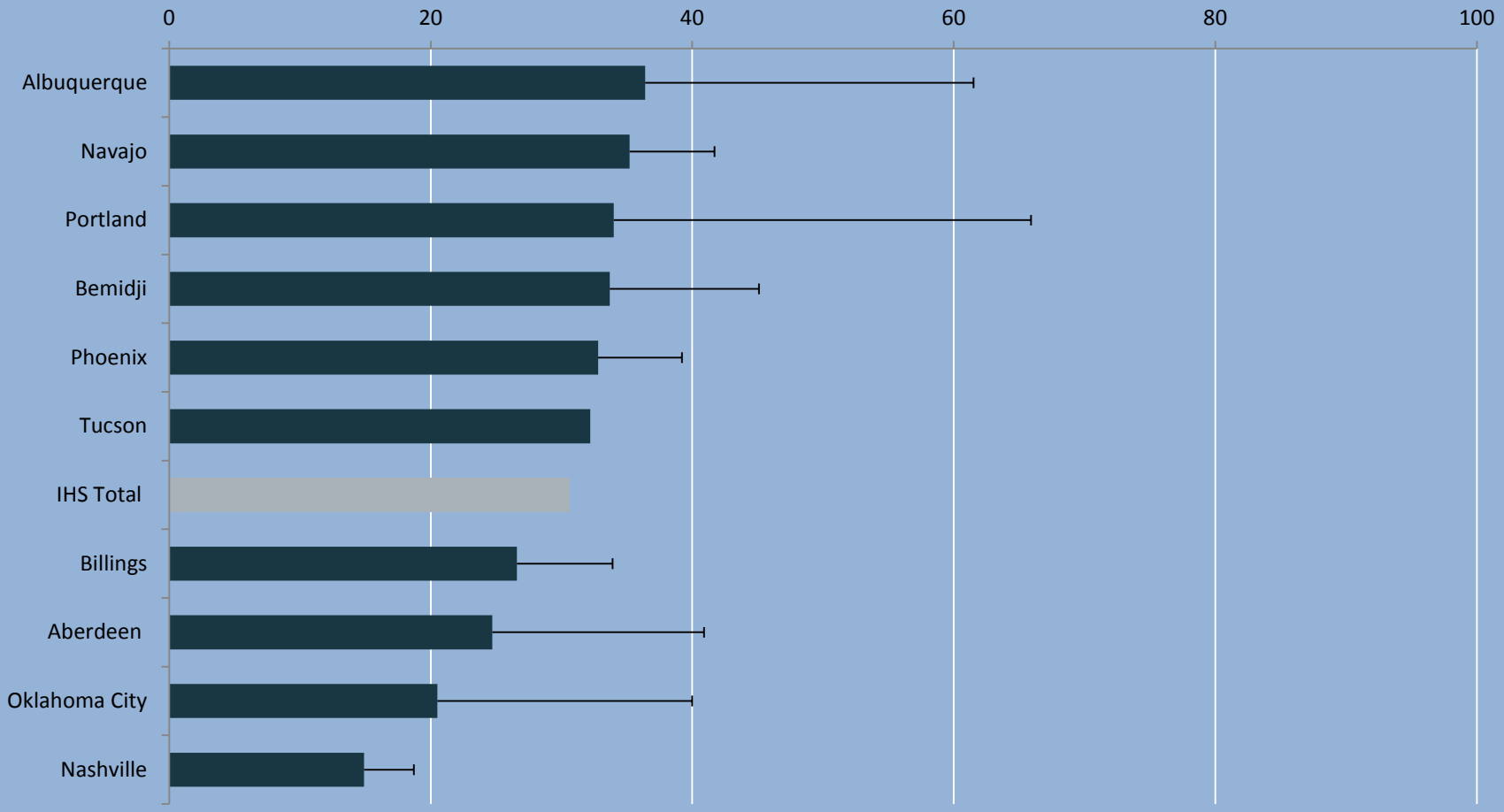
- Smaller clinics that refer out for all OB care must do HIV test themselves or enter historical data

HIV Screening 13-64

- Cumulative through GPRA year 2012:
  14,000 of 466,000 eligible patients ever tested



IHS HIV “ever” screening rate among persons 13 – 64, 2012

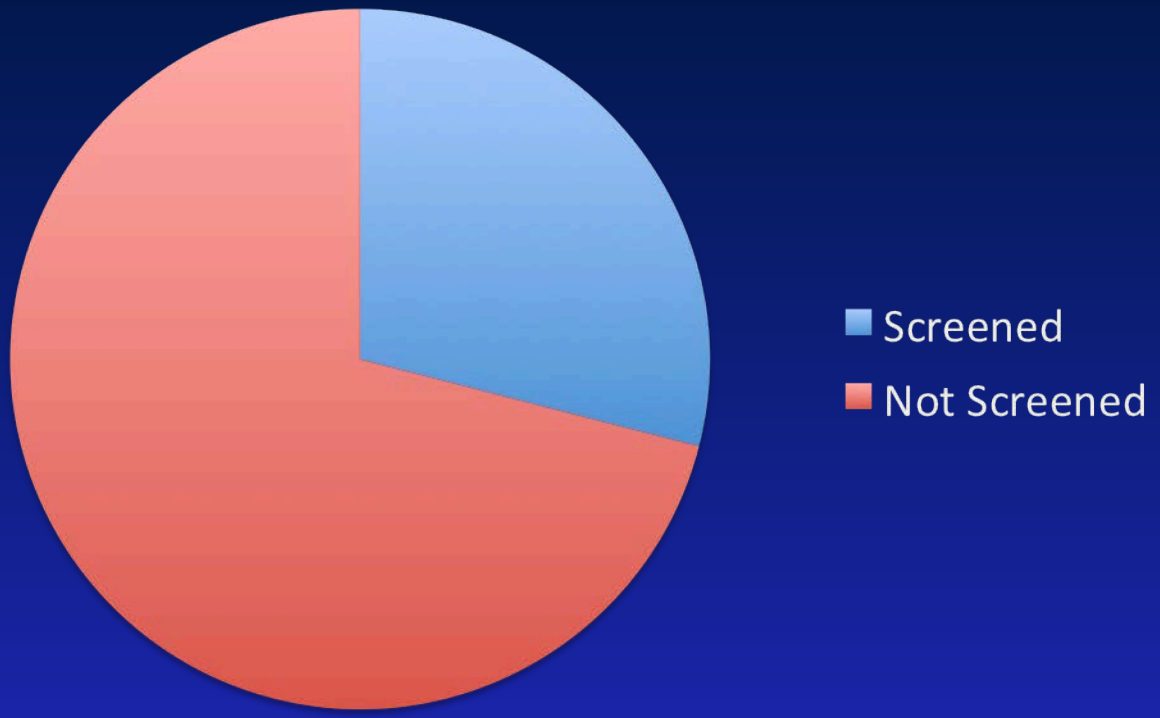


HIV Screening 13-64

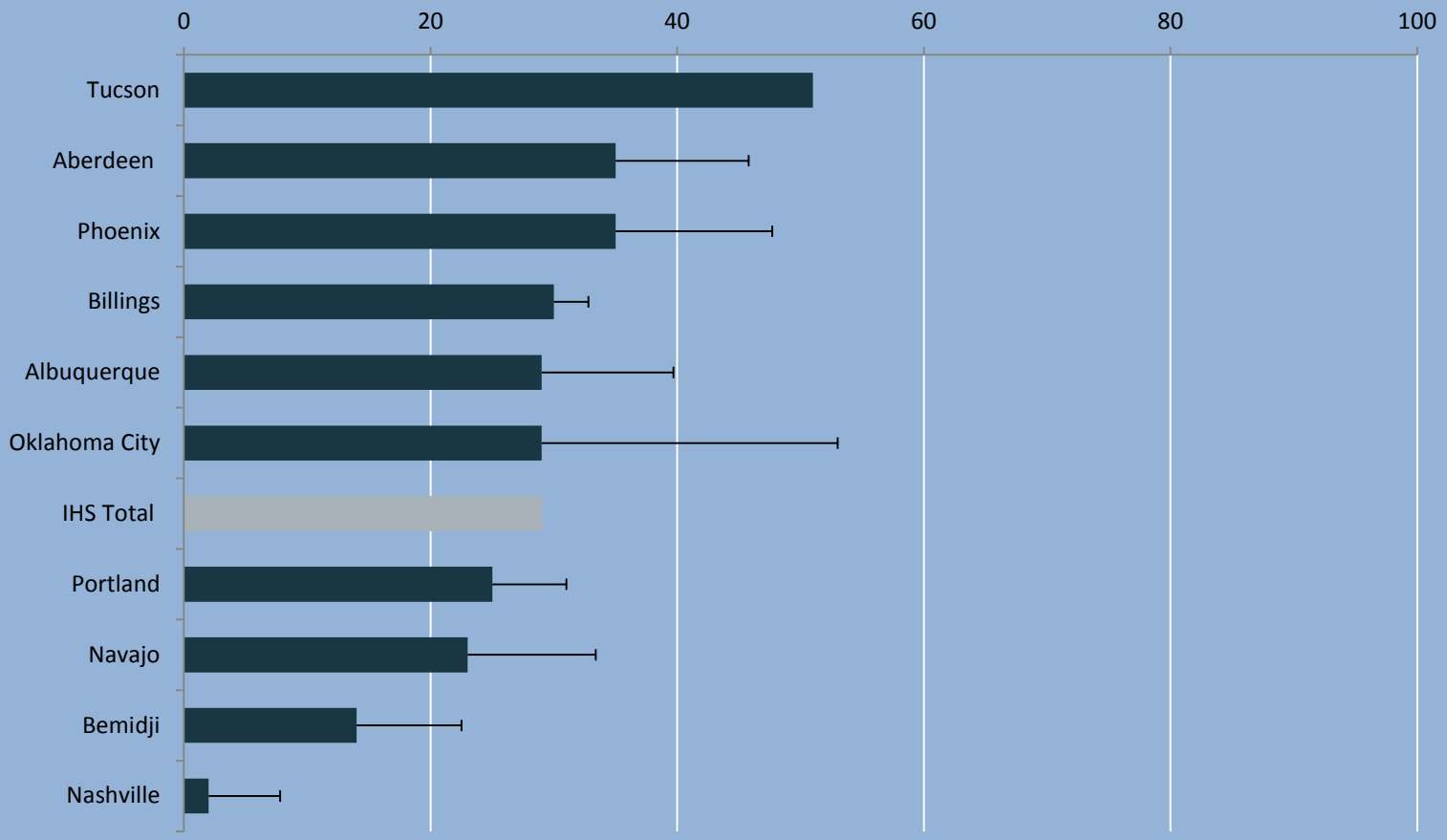
- Ensure staff comfortable offering HIV test
- Training on-site can be provided
- Ensure clear HIV+ follow up and linkage to care

Annual Chlamydia Screening 2012

- 15,000 screens of 50,000 eligible



IHS chlamydia screening coverage among sexually active women ≤25 by Area, 2012

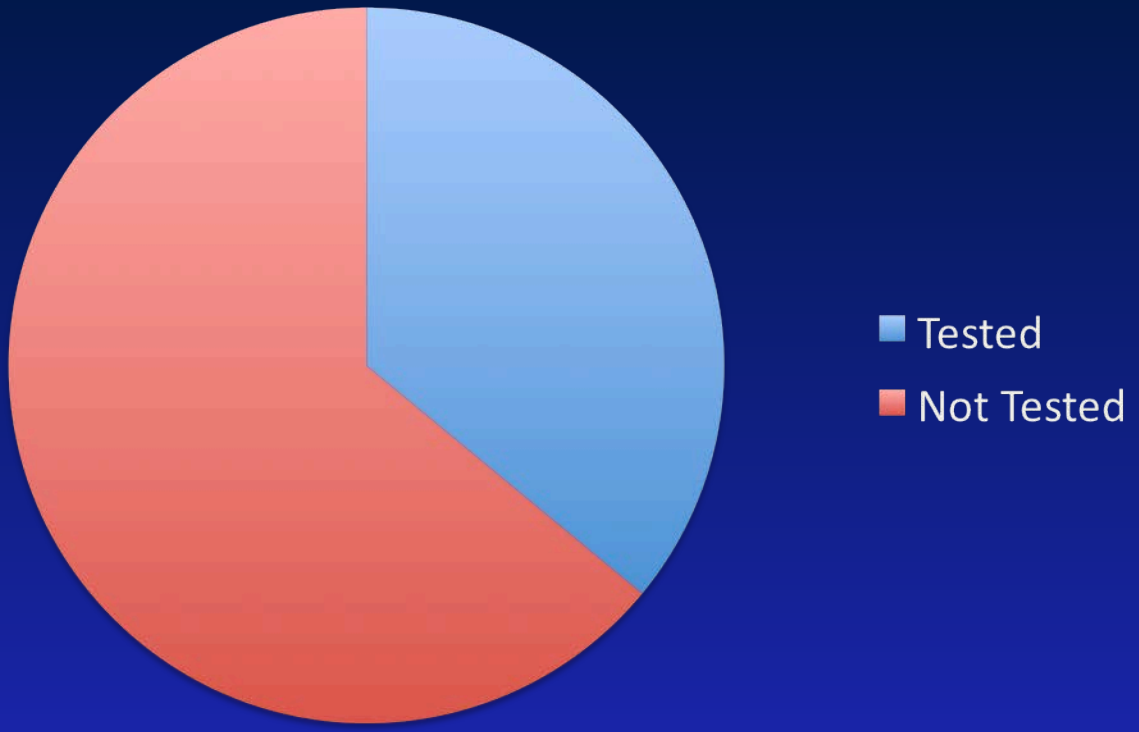


Chlamydia Screening

- Audit showed most unscreened women had many medical visits while overdue
- Most women had a visit that included a urine test
- Need to better identify women overdue for screening
- Prenatal patients chlamydia screening excellent

HIV Screening of STD+ patients 2012

- 2,700 of 7,700 STD+ patients tested



HIV screening rate among STD+

- National rate: 36%

Huge variation

- Lowest: 3% , highest 75%

HIV Screening of STD+ patients

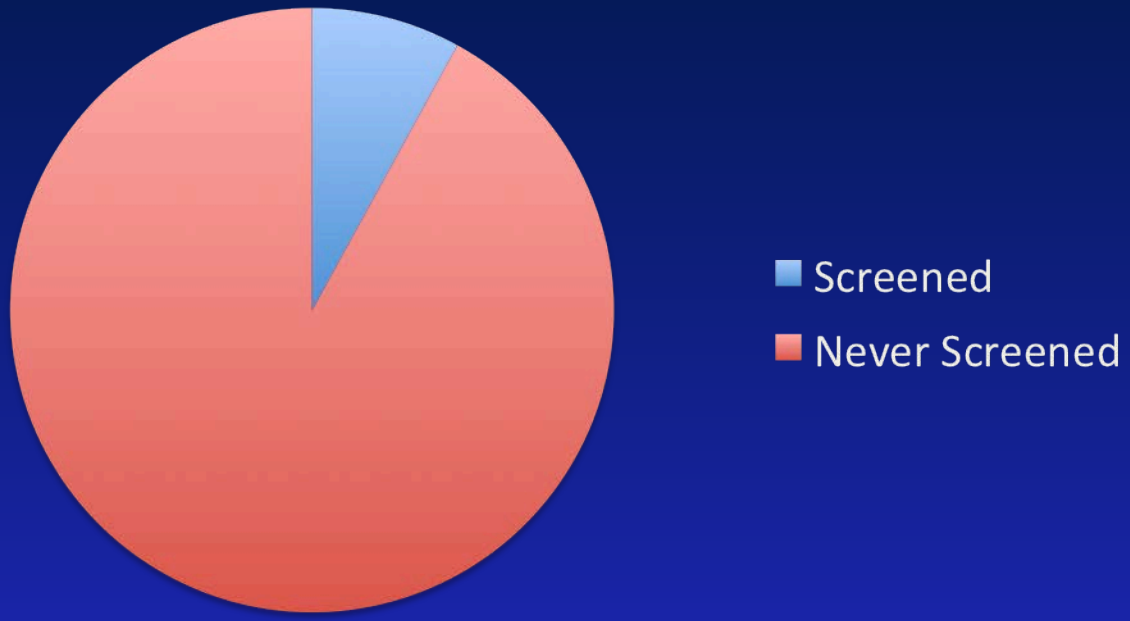
Chart Audit

- Most non-screened STD patients were
  - Females with chlamydia (>90%)
  - Not screened for HIV and syphilis (>90%)

Complete screening significantly higher in prenatal patients

HCV screening baby boomers

Cumulative through 2012, 10,000 ever screened of 127,000 eligible



HCV Screening

- Many new drugs in pipeline
- Existing IHS HCV group for persons to observe, learn, or do case presentations
- Via telemedicine includes CEs
- HCV commission to examine issues of access, clinical capacity, cost issues

All measures: Best Practices in IHS

- Use of standing protocols
- Delegation of screening away from provider
- Bundling as part of routine care
- Use of clinical reminders
- Get your own data! Huge motivator: most sites with low rates do not know they are low.

PRENATAL CARE:

FIRST PN VISIT:
CBC
1 HOUR GLUCOLA
HIV (INFORMED REFUSAL)
U/A AND URINE C&S
URINE GC & CHLAMYDIA
PRENATAL PROFILE (QUEST #15191):
- BLOOD TYPE
- RH FACTOR
- ANTIBODIES
- RUBELLA TITER
- RPR
- HBsAg

Pap done at first Dr. PN

EVERY VISIT:
U/A only if sx

16-20 WEEKS:
OFFER Quad-Test (MAFP)

28 WEEKS:
CBC
RPR
IF RH (-): ANTIBODY SCREEN
1 HOUR GLUCOLA ***
URINE CULTURE ***
URINE GC & CHLAMYDIA ***

35-36 WEEKS:
GROUP B STREP VAGINAL/RECTAL SWAB

POSTPARTUM CHECK:
HCT
PAP SMEAR
URINE GC & CHLAMYDIA
HCG**

*** **Send pt to lab prior to seeing provider**

WOMEN'S HEALTH:

WOMEN'S EXAM AGE 23-39:
PAP SMEAR (schedule prn)
LIPID PROFILE q 5 YEARS
GC/CHLAMYDIA
CBC, RPR, GLUCOSE, HIV Q 2yrs

WOMEN'S EXAM AGE 40-49:
PAP SMEAR (schedule prn)
MAMMOGRAM REFERRAL (q 2 years)
LIPID PROFILE q 5 YEARS
GC/CHLAMYDIA
RPR, GLUCOSE, HIV Q 2 yrs

WOMEN'S EXAM AGE 50-64:
PAP SMEAR (schedule prn)
MAMMOGRAM REFERRAL
LIPID PROFILE q 5 YEARS
GC/CHLAMYDIA
RPR, GLUCOSE, HIV q 2 yrs

WOMEN'S EXAM AGE 65+:
MAMMOGRAM REFERRAL
LIPID PROFILE q 5 YEARS
GLUCOSE

MEN'S HEALTH:

MEN'S EXAM AGE 23-39:
LIPID PROFILE q 5 YEARS
GC/CHLAMYDIA
RPR, GLUCOSE, HIV Q 2 yrs

MEN'S EXAM AGE 40-49:
LIPID PROFILE q 5 YEARS
GC/CHLAMYDIA
RPR, GLUCOSE, HIV Q 2 yrs

MEN'S EXAM AGE 50-64:
LIPID PROFILE q 5 YEARS
GC/CHLAMYDIA
RPR, GLUCOSE, HIV Q 2yrs

MEN'S EXAM AGE 65+:
LIPID PROFILE q 5 YEARS
GLUCOSE

WELL CHILD CHECKS:

10-14 DAYS:
PKU

9-15 MONTHS OLD:
HCT
Lead Screen (at 1 and < 2 yrs)

HEADSTART PHYSICAL:
HCT

SPORTS AND ADOLESCENT PHYSICAL EXAMS:
GC/CHLAMYDIA
RPR, HIV if over age 13yrs

DIABETES:

INITIAL VISIT AND ANNUALLY:
U/A, URINE MICROALBUMIN
CMP
LIPID PROFILE (Fasting preferable)
HEMOGLOBIN A1C ***
EKG (q 2 yrs)
CBC (only on Initial visit)

EACH VISIT q 3 MONTHS:
HEMOGLOBIN A1C ***

ACUTE ALCOHOL WITHDRAWAL / REHAB PX:

CMP (STAT)
Mg++ (STAT)
LIVER PROFILE (ASAP)
AMYLASE/LIPASE (ASAP)
U/A, HCG (ASAP)

ANNUAL:
- HEPATITIS PANEL,
- RPR, HIV
- GC/CHLAMYDIA
- PPD

*** **Send pt to lab prior to seeing provider**

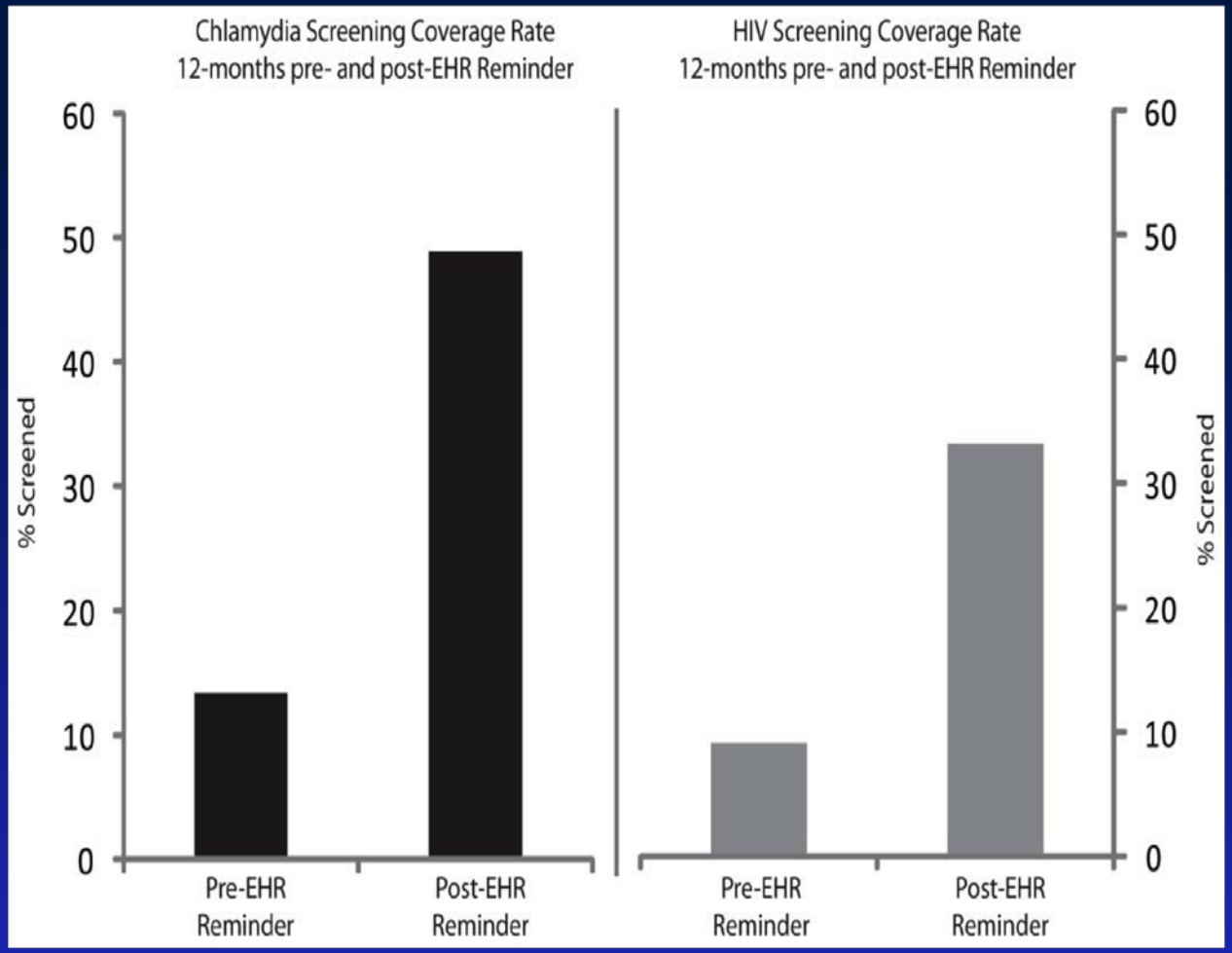
Reminders available :

- HIV screening
- Chlamydia Screening
- HCV screening

Deploying Reminders (AK site method)

1) Pilot test and refine with 1-2 doctors
2) Deploy reminder with all physicians
3) Allow doctors to see screening scores (iCare)
4) Engage nurses, NAs, pharmacists, etc. as much as possible to delegate screenings away from physicians
5) Each professional sees a subset of total reminder that they alone are responsible for

Clinical Reminder Impact,
POR Area Clinic



They Screened Positive! Now what?

Linkages to Care HIV

- HIV can be treated at primary care level

  -specialist support available as needed

  -telehealth options in IHS, ECHO program

  -poor referral options for patients due to long distances
  make IHS-based follow up important

Linkages to Care HCV

- HCV, few IHS sites now treating
  - Issues of clinical capacity, cost
  - Referral options limited, as with HIV
  - Telehealth available for treatment in primary care settings, to present cases or just observe, for Ces
  - Many new drugs in pipeline, interferon free regimens expected in 18 months

HIV, HCV in primary care

- Cost often addressed via patient assistance programs and federal programs
- Pharmacists can take strong role in management of medications, side effects

National HIV/AIDS Program

- Share policies and protocols from other IHS sites
- Assist site with clinical reminders
- Arrange on-site trainings for CMEs for HIV, STI, HCV related topics
- Get your Service Unit's screening rates
- Any question on screening/linkage to care

New IHS-CDC STD treatment protocols

- Updated to include drug resistance in STDs
- Includes referral sheets for providers, educational handout templates for patients

“If not us, who?

If not now, when?”

Rabbi Hillel

Contact us for any HIV/STI/HCV issues

- Brigg.Reilley@ihs.gov