Issues in Scale up: *Chlamydia screening*

Stuart M. Berman, MD, ScM
Division of STD Prevention
Centers for Disease Control & Prevention

Disclaimer: The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention.

Why is chlamydia screening a topic in a session about racial disparities?

There are major racial disparities in risk of chlamydia

Largest Racial Disparities in Notifiable Diseases in the U.S., 2002*

	Black		White		Black/ White
	No.	Rate**	No.	Rate**	Rate Ratio
Gonorrhea	198,221	570.4	46,781	23.6	24.2
Malaria	634	1.8	321	0.2	9.0
Chlamydia	280,075	805.9	178,802	90.2	8.9
Syphilis (P&S)	3,268	9.4	2190	1.1	8.5
Shigellosis	5,838	16.8	2,190	1.1	4.2

* MMWR, January 14, 2005

** rate per 100,000

Chlamydia prevalence, by risk characteristic, by race, 15-24 year old females, FP clinics, Missouri*

	White		Black	
	N	%	*N*	%
All	28,675	4.0	3,048	9.0
15-17 yr	6,489	3.7	587	13.1
18-21	14,808	4.1	1,510	9.9
22-24	7,378	2.4	951	4.9
New Ptner: N	23,291	2.8	2,391	7.8
Y	1,325	6.1	428	12.4

**Einwalter et al Perspectives on sexual and reproductive health, 2005*

Chlamydia prevalence, by risk characteristic, by race, 15-24 year old females, FP clinics, Missouri*

	White		Black	
	N	%	*N*	%
All	28,675	4.0	3,048	9.0
15-17 yr	6,489	3.7	587	13.1
18-21	14,808	4.1	1,510	9.9
22-24	7,378	2.4	951	4.9
New Ptner: N	23,291	2.8	2,391	7.8
Y	1,325	6.1	428	12.4

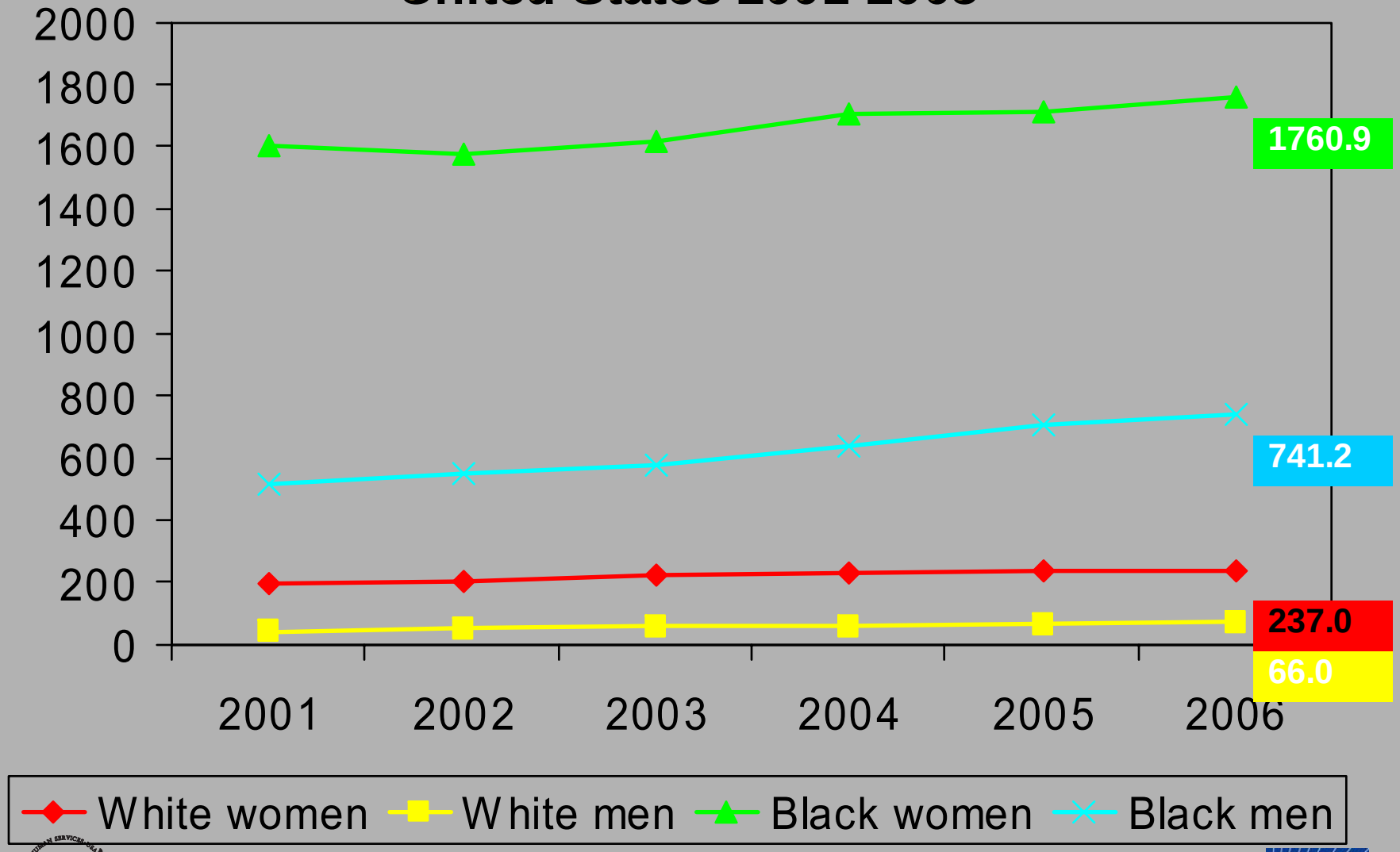
**Einwalter et al Perspectives on sexual and reproductive health, 2005*

Chlamydia prevalence, by risk characteristic, by race, 15-24 year old females, FP clinics, Missouri*

	White		Black	
	N	%	*N*	%
All	28,675	4.0	3,048	9.0
15-17 yr	6,489	3.7	587	13.1
18-21	14,808	4.1	1,510	9.9
22-24	7,378	2.4	951	4.9
New Ptner: N	23,291	2.8	2,391	7.8
Y	1,325	6.1	428	12.4

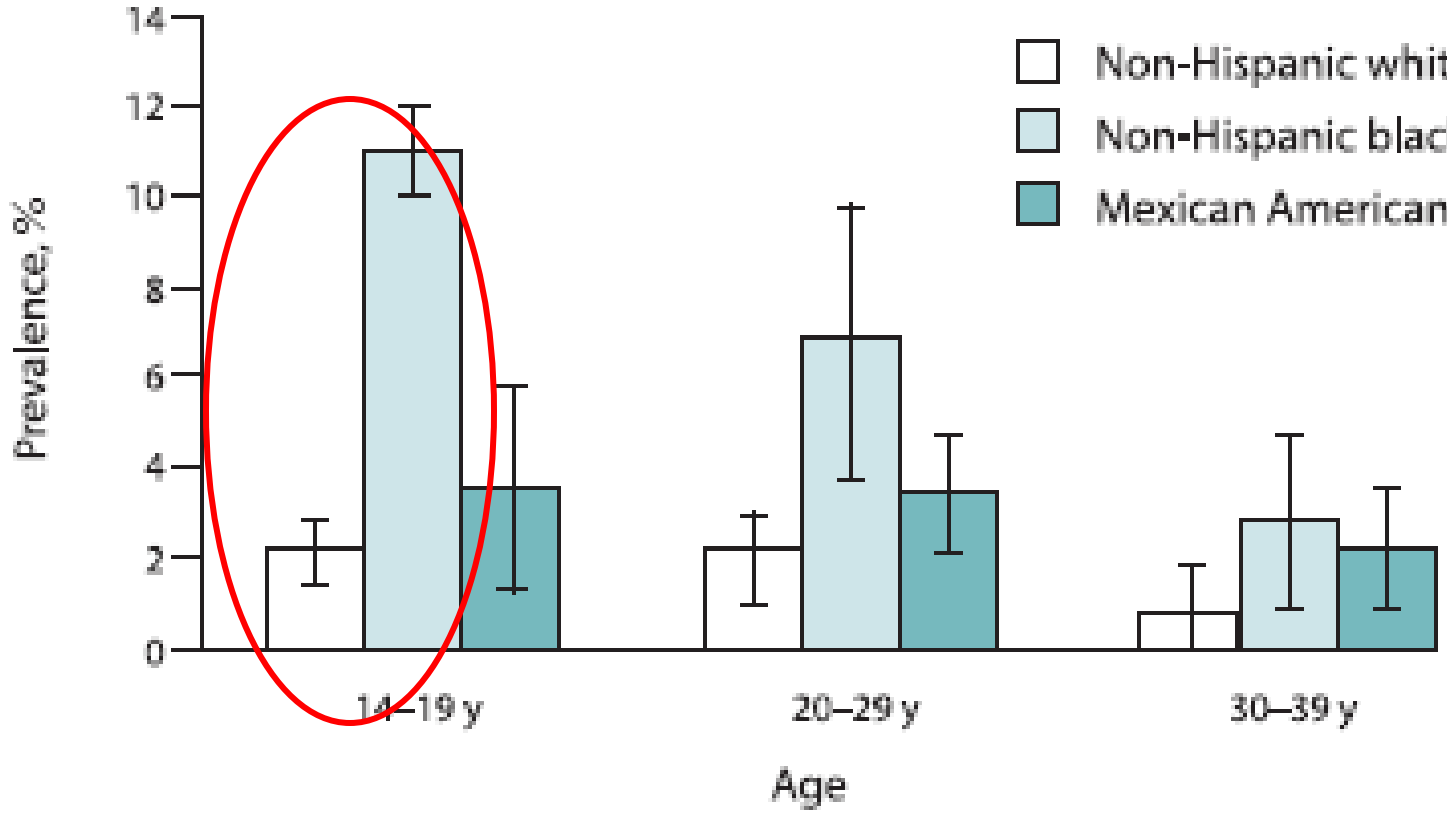
**Einwalter et al Perspectives on sexual and reproductive health, 2005*

Chlamydia – Rates by Race and Sex: United States 2001-2005*



* 2006 data are preliminary (as of July 27, 2007)

Prevalence of *C. trachomatis* by age, race/ethnicity in NHANES, 1999-2002 *



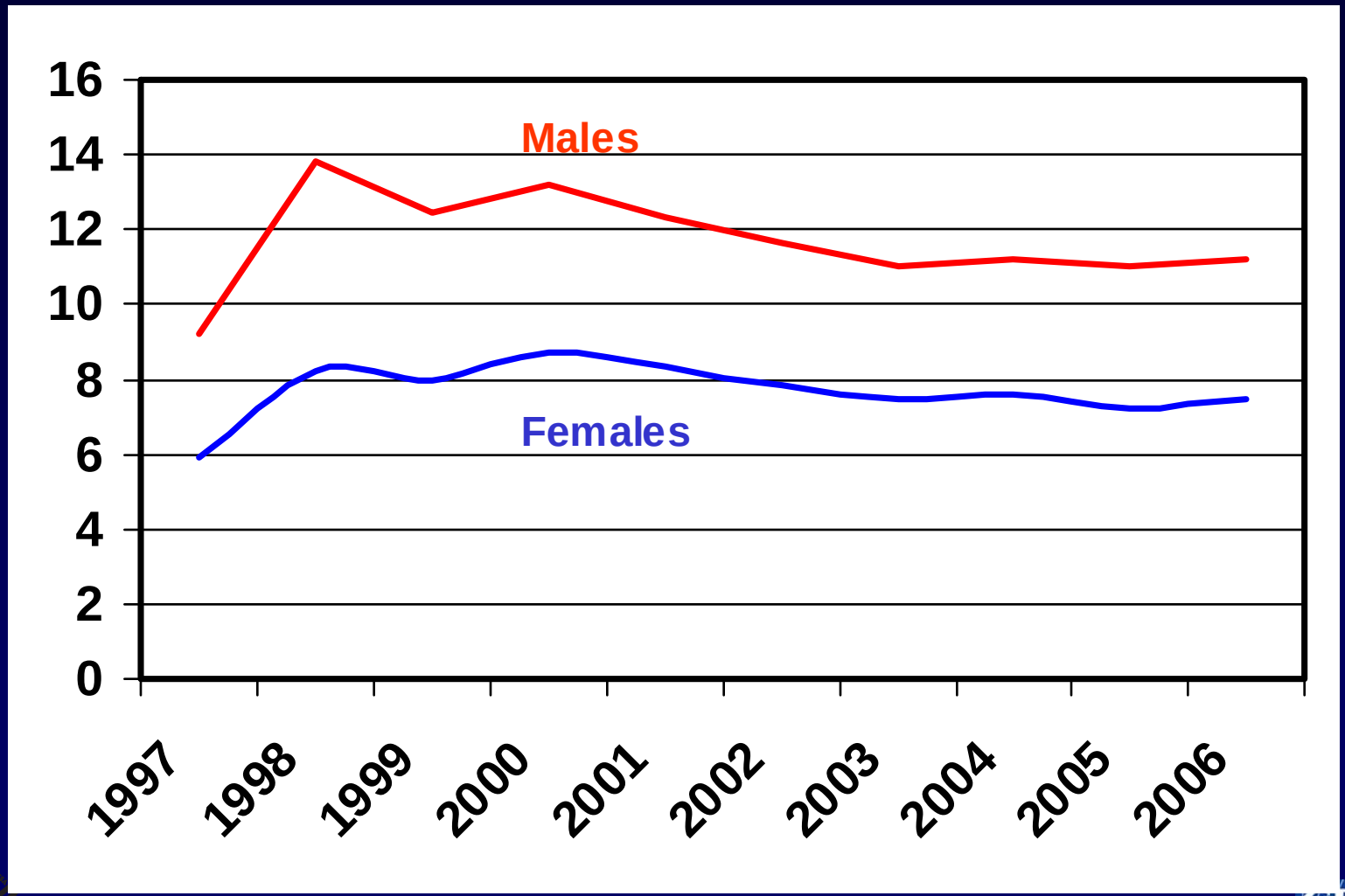
** Datta, Annals of Int Med 2007*

Chlamydia & Racial Disparities

- Major racial disparity associated with Chlamydia -- must be addressed
- Other outcomes:
  - Pelvic Inflammatory Disease:
    - *"In ambulatory and hospitalized settings, black women had rates of diagnosis of disease that were 2 to 3 times the rate in white women."*

Sutton et al "Trends in pelvic inflammatory disease discharges and ambulatory visits, United States, 1985-2001", Sexually Transmitted Diseases 2005.

Black:White Rate Ratio for Chlamydia
United States, 1997-2006



Addressing Chlamydia: *Screening Coverage*

Question:

- To what extent is chlamydia screening being provided to African-American women?
- Only available data are indirect

Screening Coverage

- Infertility Prevention Project:
  - 2004:
    - 65% tests performed among 15-24 yr white women
    - 20% among 15-24 yr black women
    - US 2000 census: of 15-24 yr old women, 15% black, 69% white
    - *So Black women are more likely than the general population to be screened by this program – in which coverage can be up to 70% for those with an annual or initial visit*
- Title X clinics 2006:
  - Approx 21% clients black
  - 20-24 yr females: 41% tested for chlamydia
  - *More evidence that black women are tested more frequently than the general population*

Coverage: HEDIS

HEDIS (Health Employer Data Information Set)

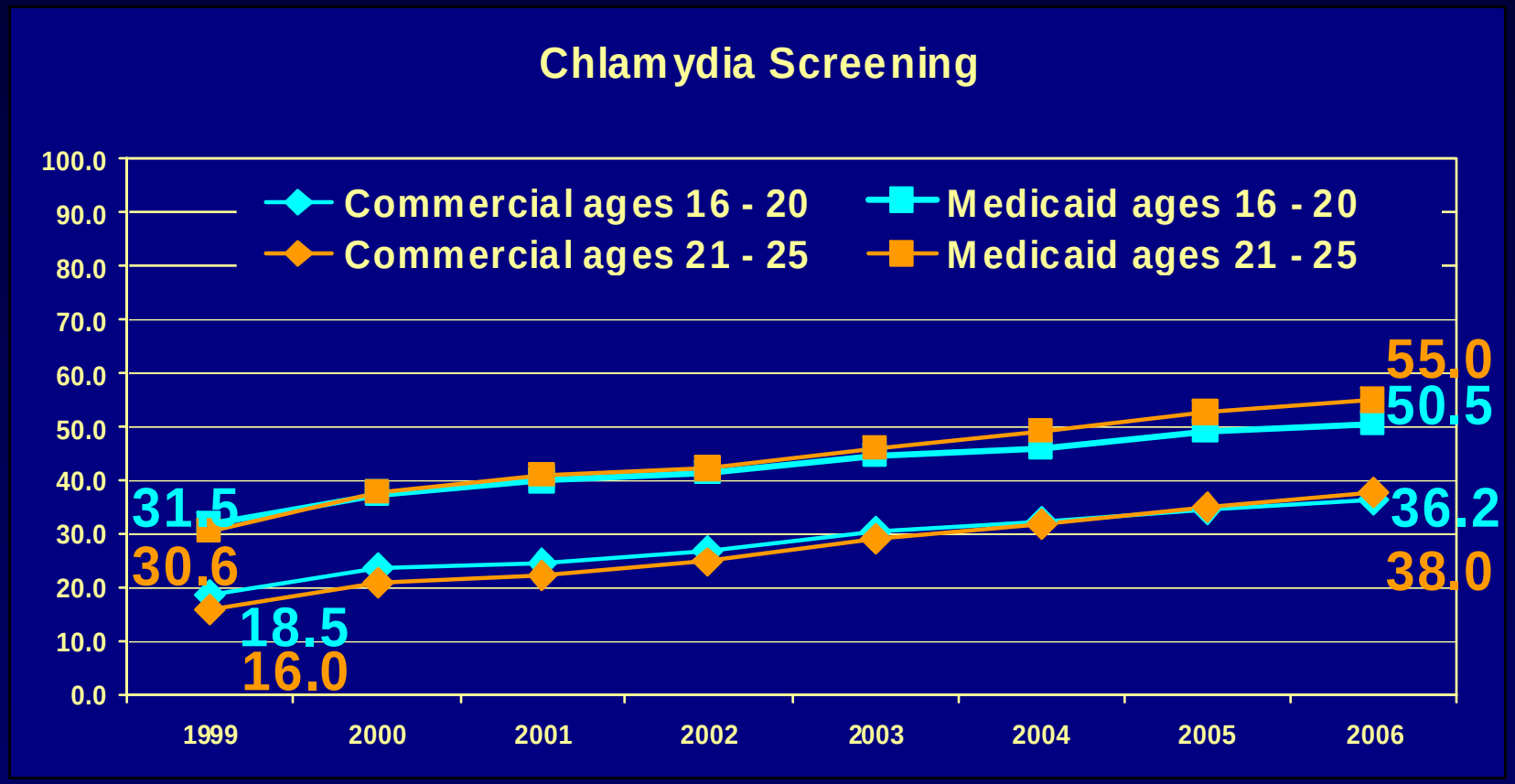
-for “health plans”: (a sort of report card on the “managed care” segment of the health care industry

Definition:

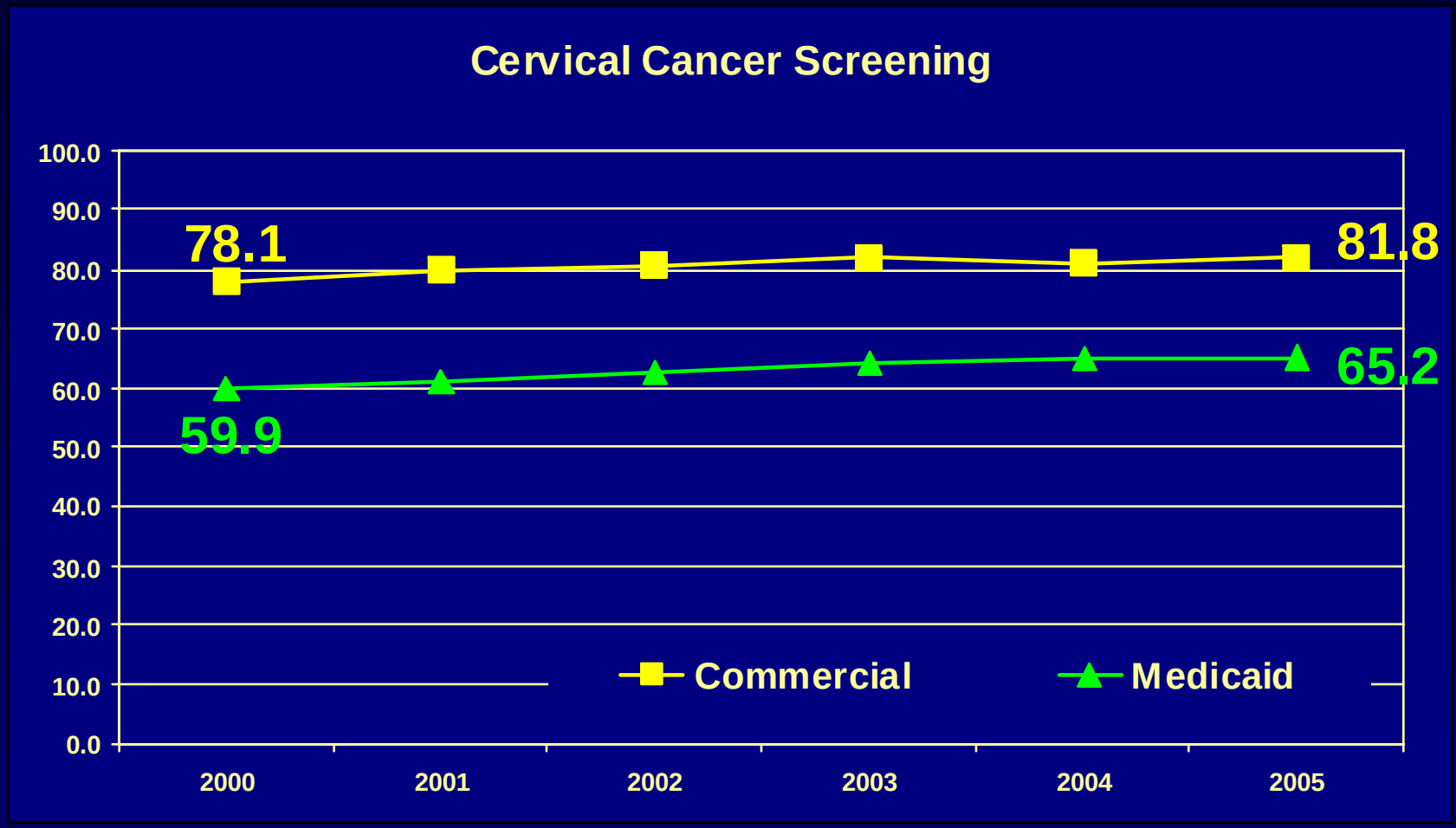
-% sexually active females 15-25 years, in coverage for full year, who have been tested for chlamydia.

HEDIS reports are divided into “commercial” plans and “medicaid” plans.

HEDIS National averages 1999 - 2006



HEDIS National averages 2000 - 2005



HEDIS Measures 2000-2004

	Commercial					Medicaid				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Adolescent Immunization	37%	44%	50%	59%	63%	29%	37%	43%	52%	57%
Breast cancer screening	74%	75%	75%	75%	73%	55%	55%	56%	56%	54%
Cervical cancer screening	78%	80%	81%	82%	81%	60%	61%	62%	64%	65%
Childhood immunization (2 yo)	67%	68%	69%	74%	76%	56%	59%	58%	62%	65%
Colorectal cancer screening *				47%	49%				50%	53%
Chlamydia screening										
16 - 20 yo	24%	25%	27%	30%	33%	37%	40%	41%	44%	46%
21 - 26 yo	21%	22%	25%	29%	32%	38%	41%	42%	46%	49%

* new measure in 2003

2006 Regional Averages: HEDIS

Region	Commercial	Medicaid
New England	44.4	56.2
Pacific	42.8	54.7
Middle Atlantic	39.2	48.4
South Atlantic	38.6	54.9
Mountain	38.1	*46.5*
East North Central	34.1	57.6
West North Central	32.4	51.1
South Central	*31.9*	53.3

Chlamydia screening: HEDIS

- Clients in Medicaid MCO's more likely to be screened for chlamydia than are clients in commercial plans – different than for (most) other services
  - *Regarding screening for women in MCO's: coverage likely to be at least as good – and probably better -- for minority women as for the general population*
- Greater opportunity for improvement among commercial plans:
  - *What will be the effect on the chlamydial racial disparity if with greater awareness, there is greater increase in CT screening among commercial plans than among medicaid plans?*

Chlamydia screening: *Provider characteristics**

- Random sample of 1600 physicians in Pennsylvania
- 7-page questionnaire about STD practices
- Among physicians who perform gynecologic exams:

  Proportion that would screen asymptomatic sexually active teenage women for chlamydia
- Practice type mattered:
  - Solo: 18%; Group: 32%; Clinic 60%
- Specialty mattered (ObGyn>Peds>FamPrac>Int Med)
- Gender mattered (F: 43%; M: 24%), but not race of MD
- But race of clients mattered:
  - % Blacks in practice: $\leq$ 20% $\rightarrow$ 25% would screen

    > 20% $\rightarrow$ 54% would screen
- *With greater emphasis on screening, how will practice change?*

*Cook et al, Journal of Adolescent Health 2001

CT Screening among women <= 25 yrs: Practices among California clinicians*

Nurse Practitioners (n=895)

Characteristic	%	Adjusted OR* (95% CI)
Practice setting		
Private	63.8	Referent
HMO†	81.6	2.28 (1.34 to 3.88)
Public	89.9	4.70 (2.90 to 7.61)
Other‡	79.8	2.15 (1.35 to 3.43)

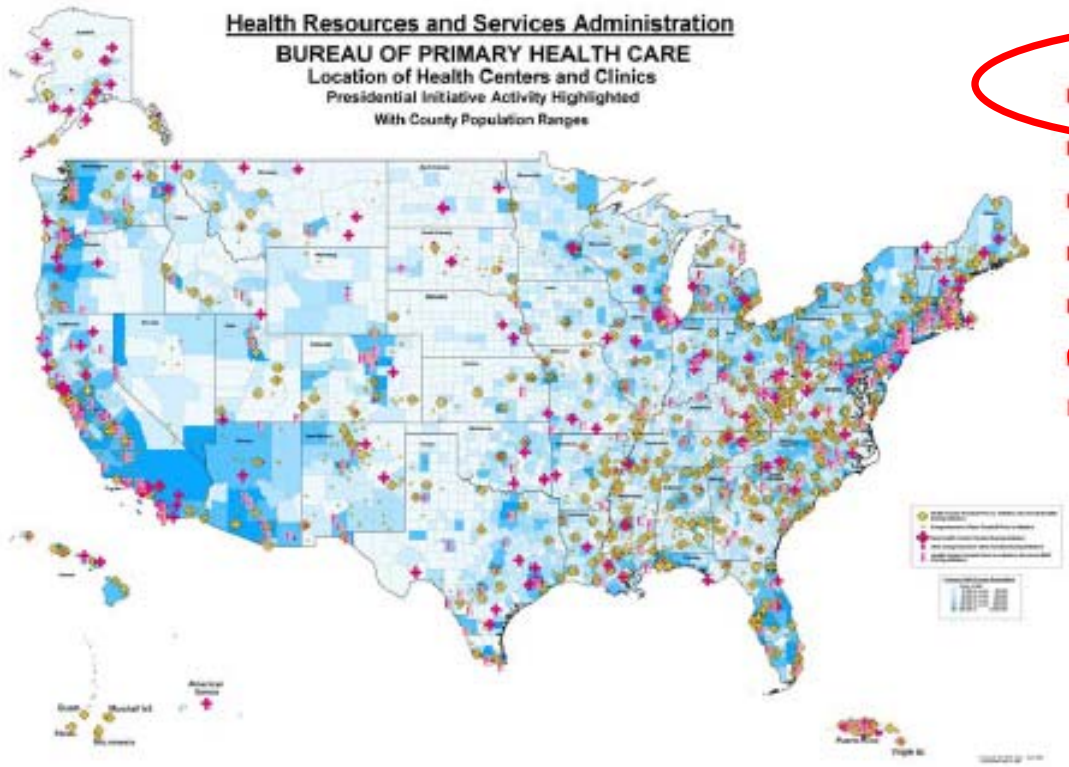
Primary Care Physicians (n=708)

Practice setting		
Private	36.3	Referent
HMO†	54.1	1.97 (1.18 to 3.27)
Public	69.3	3.98 (1.98 to 8.01)
Other‡	65.5	3.21 (1.60 to 6.44)

Will provider practice change with greater awareness?

**Guerry et al 2005*

Health Center Program – CY 2003



- 12.4 Million served
- 50.0 Million patient encounters
- 3,600 service sites
- 89.7% below 200% poverty
- 39.3% uninsured
- 63.8% racial/ethnic minority
- Serve all ages
  - 12.5 % 4 and under
  - 14.2 5-12 years
  - 20.0 13-24 years
  - 46.4 25-64
  - 7.1 65 and over

Department of Health and Human Services
HRSA
Health Resources and Services Administration

Other challenges: *Individual level*

- Lack of awareness
  - Sexually experienced 15-17 year olds (1999, Kaiser Family Foundation survey):
    - 14% could even name chlamydia when asked about STDs; 74% didn't know it is curable
  - Women in UK abortion/FP clinics (median age=24yr; n= 1378) only 50% heard of chlamydia
  - Household survey 12-17 yr olds (n=394) from low-income AA neighborhood (Trent et al 2006):
    - 74% thought young women ***did not*** have to worry about fertility problems (45% identified CT as a cause of future infertility)
    - *Adolescent girls are concerned about future fertility but do not seem to be aware of the role that STD have in fertility preservation – that development of such problems were beyond their control*

Other challenges: *Individual level*

Low perceived risk of STD among minority adolescent females:

- Interview among 411 adolescent Fs 14-19 yrs (from variety of clinics) -- Adjusting for a variety of factors*:

  (Kershaw et al, J Community Psychology 2003)

  - "African-American were 84% less likely to perceive themselves as susceptible to both pregnancy and STD than whites"
    - *Recent STD diagnosis did not increase likelihood of perceived susceptibility*
- UK: Focus groups to evaluate racial/ethnic differences in normative beliefs about sexual health among youth (black Caribbean, black African, white)

  (Connell et al STI 2004):

  - Bacterial STDs were not considered as a serious concern by youth of any ethnic group

Other challenges: *Structural level*

Health insurance an issue (data from AddHealth)*:

	Males			Females		
% with no Hlth Ins (lst yr):	W	B	H	W	B	H
	20.5%	24.6%	34.0%	15.5%	19.7%	20.0%

CT Prevalence by months with health insurance:**

	M (n=4473)	F (n= 4874)
0 Mos	6.49%	7.48%
12 Mos	3.24%	4.75%

***Relative differences consistent after adjustment for race an age*

** Geisler et al, Sexually Transmitted Diseases 2006*

Influences & opportunities in health care financing and delivery*

- Geographic location of clinics
  - *Lack of proximity a challenge*
- Insurance status and type:
  - *African-Amercian patients most often uninsured or underinsured – esp among young adults (19-29)*
- Provider payment rates:
  - *African-American patients often unable to meet co-payment or office visit fees*
- Linguistic and cultural competence
  - *Physicians may be uncomfortable communicating in language and/or jargon used by some African-American patients*

**Tyler-Hill, "Consultation to address STD disparities in African-American communities", 2007*

What to do?

Multiple levels:

- Target providers/ settings serving African-Americans -- assure even greater coverage (ptner Rx)
- Address individual issues
  - *Education/Awareness (social marketing?)*
- Engage the community (though not monolithic)
  - *Address availability / quality of services*
- Structural: identify important gaps in screening coverage that can be addressed
  - *Hopefully, health care reform will address issue of health insurance – important that new approaches address these difficiencies*