Prevalence of Chronic Disease Conditions, Quality of Life and Medical Care Utilization in a Cohort of Persons Living with HIV/AIDS

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Presenter Disclosures

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I Have no relationships to disclose

Background

As a consequence of increased life expectancy and complications from HIV medication , people living with HIV/AIDS are increasingly vulnerable to a broad spectrum of nonHIV co-morbidities.

This study presents data on the health consequences and medical care utilization associated with chronic conditions experienced by participants in the CHAIN study, a cohort of persons living with HIV/AIDS residing in New York City and the Tri-County region to the north of the City.

Study Questions

- What is the lifetime prevalence of selected nonHIV chronic conditions in the CHAIN cohort?
- How does the CHAIN cohort's experience with chronic conditions compare with a nonHIV population of similar age, gender and ethnic composition?
- What is the impact of increasing numbers of chronic conditions on impaired physical and mental health?
- How much of the utilization of medical care services might be attributable to management of nonHIV chronic conditions?

Methodology

- The CHAIN Study has conducted over 150 evaluation studies for the NYC EMA's Part A HIV Health and Human Services Planning Council since 1996.
- Data for CHAIN are collected through recruitment of representative cohorts of PLWH/A.
  - -- NYC I (1994-2002, n=968)
  - -- NYC II (2002-present, n=693+)
  - -- Tri-County : Westchester, Rockland and Putnam Counties (2001-2007, n=510)
  - --Tri-County Repeated Cross Section (2008-present, n=360 per two-year cycle)
- In-person comprehensive (2-3hr) interview every 12 mos – over 6,000 interviews.
- Strong community support – 80-90% interview rate
- Cohort composition closely tracks surveillance data/ RW client data.

Methodology

For this study, data are pooled from the first four rounds of interviews with:

- **Tri-County : 1,261 interviews with 472 participants Completed between 2001 and 2007**
- **New York City 2002 cohort: 1,968 with 672 participants completed between 2002 and 2008.**

Chronic Condition Measures

- Self reported information on 9 chronic conditions was collected for CHAIN cohort members at all four rounds of interviews.
- Cohort members were asked “Has a doctor ever told you that you had any of the following conditions” asthma, hypertension, heart problems, diabetes, arthritis/ rheumatism, high cholesterol, chronic sinusitis, hepatitis, cervical abnormalities (for women).

Chronic Condition Measures

- At each interview, we ascertained whether participants were currently experiencing problems with each condition and whether they were receiving medical care for the condition.
- The major outcome variable for this study is a summary measure of health burden--the total number of lifetime conditions.

Quality of Life and Medical Care Outcomes

- Quality of life, physical and mental health status: SF-12 Physical and Mental Health Component Summary Scales
- Health care utilization, self reports of in last six months:
  - Outpatient visits
  - ER visits
  - Number of inpatient nights

Covariates

- Age
- Gender
- Ethnicity
- Drug Use
- Smoking Status
- Education
- HIV Health
- CHAIN Cohort
- Household Income below Poverty line

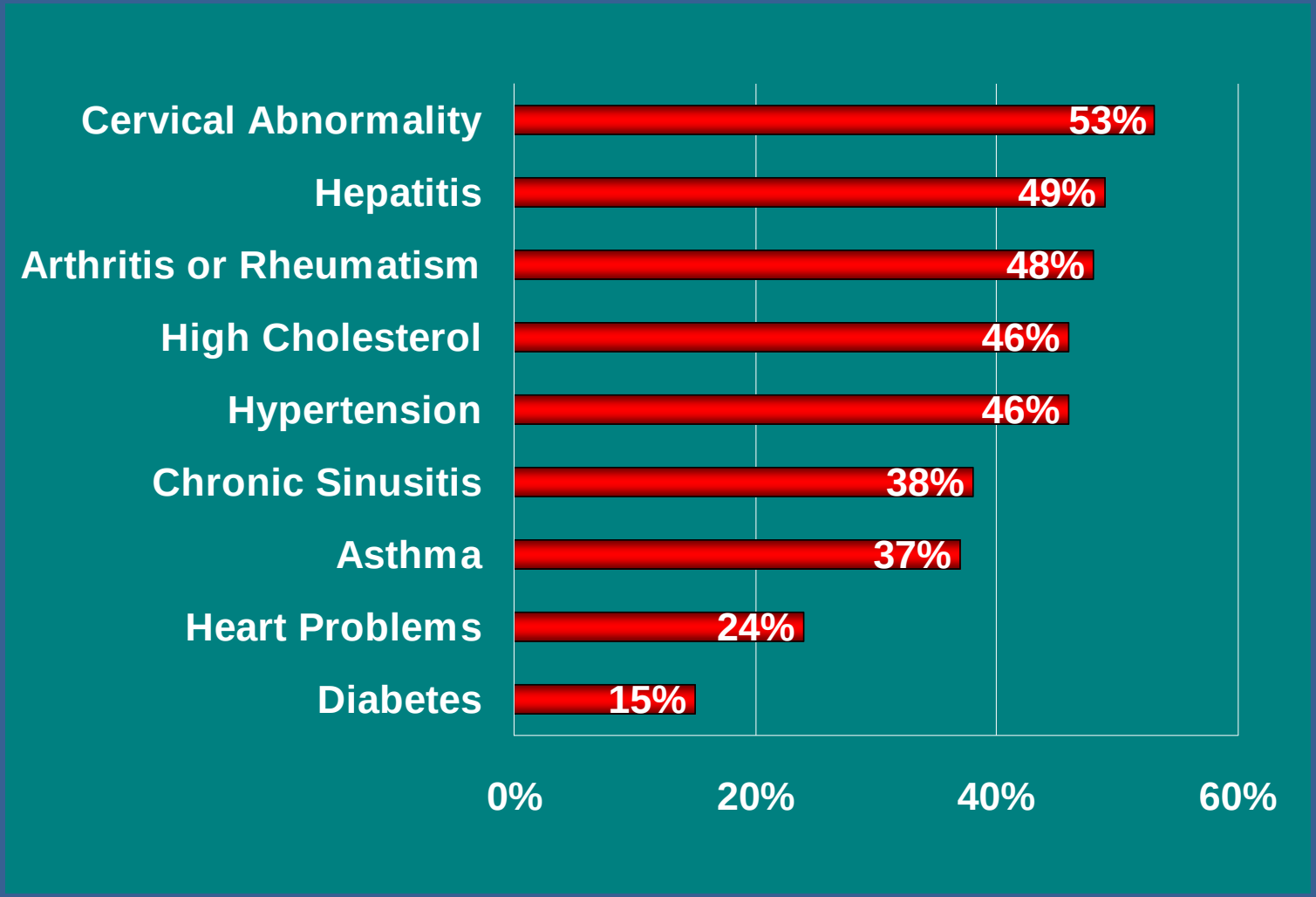
CHAIN Cohort Selected Demographic (N=999)

Age	<35	26%
	35-49	45%
	50+	29%
Gender	Female	43%
	Male	57%
Ethnicity	White	13%
	Black	52%
	Hispanic	33%
Education	High School +	64%

CHAIN Cohort Health Status (N=999)

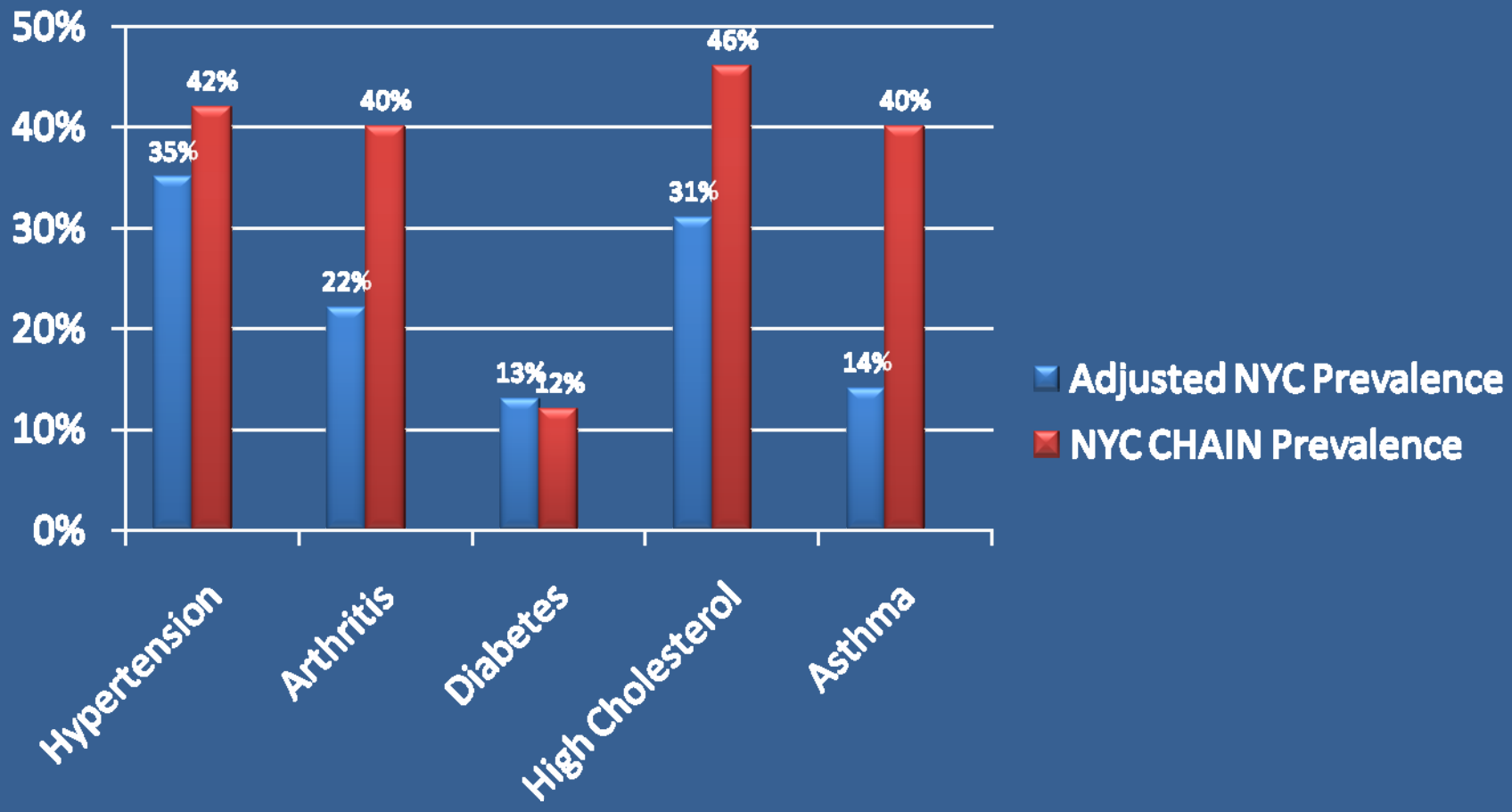
Physical Health Status		
	Mean(SD)	42.9 (10.7)
Mental Health Status		
	Mean(SD)	42.9(12.1)
Year of HIV Dx	1973-1989	24%
	1990-1995	42%
	1996-2000	28%
	2001-	6%
TCell Count	0-200	23%
	201-500	43%
	500+	34%

Lifetime Prevalence of nonHIV Chronic Conditions



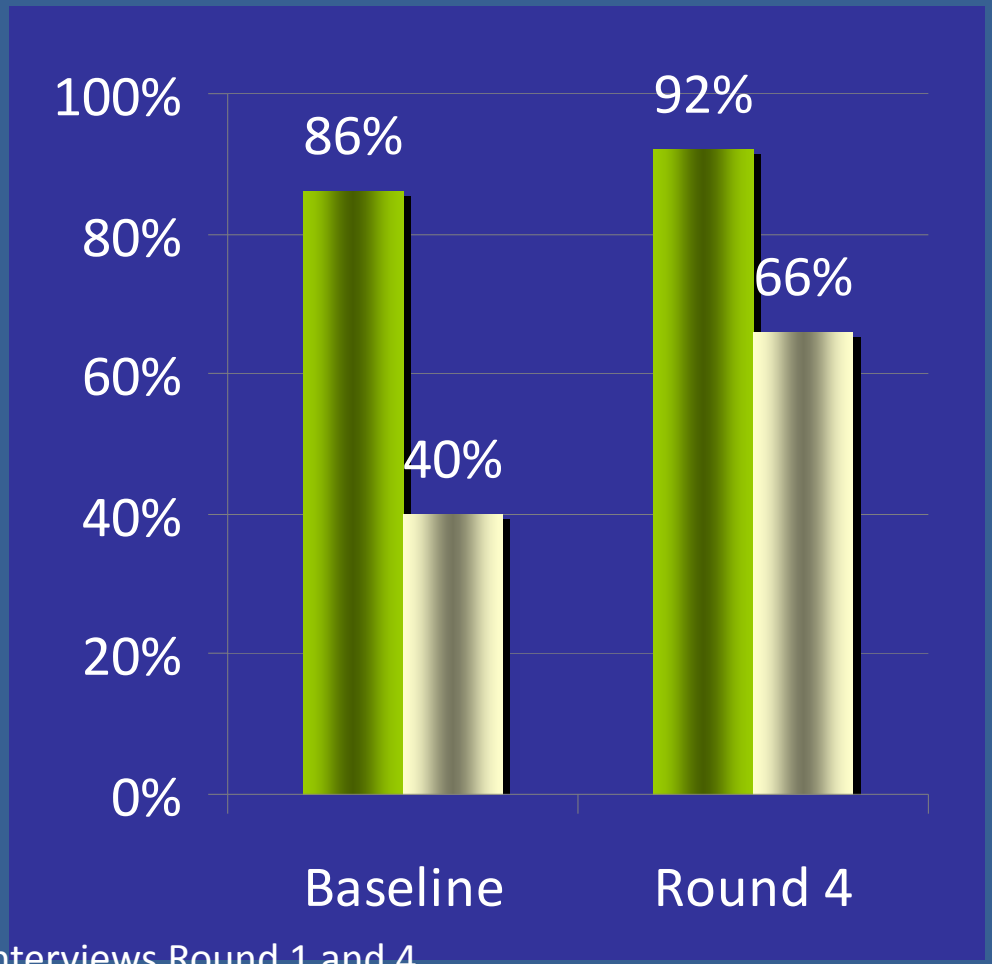
Source: Round 4 CHAIN Interviews, 2006-2008

NYC CHAIN and NYC Lifetime Prevalence* for Selected Chronic Conditions



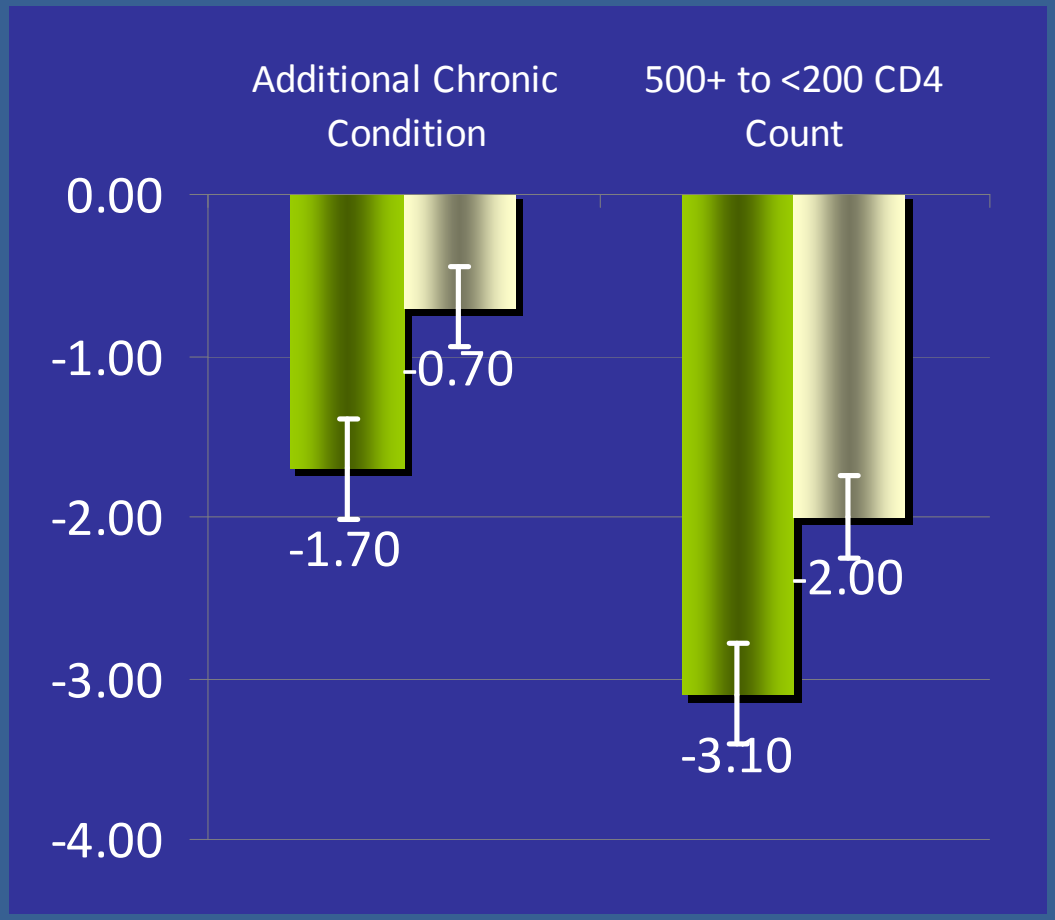
*NYC prevalence adjusted to match the age, gender and ethnic composition of the NYC CHAIN cohort.
Source: CHAIN Report 2007-4.: Table 4

Percentage of CHAIN Cohort Reporting Any or 3 or More Chronic Conditions at Baseline and Round 4 Interviews



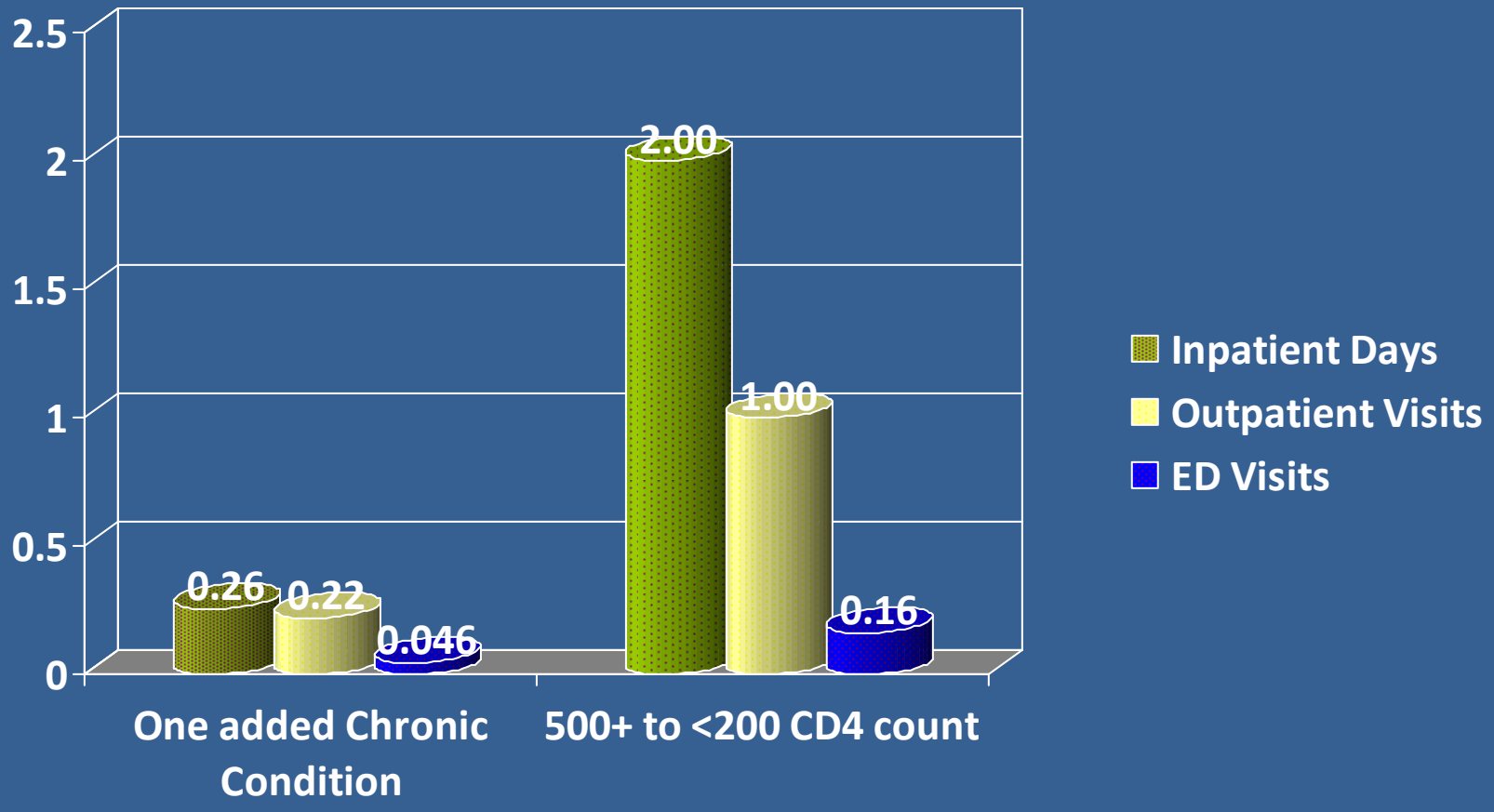
Source: CHAIN Interviews Round 1 and 4

Quality of Life and Chronic Conditions



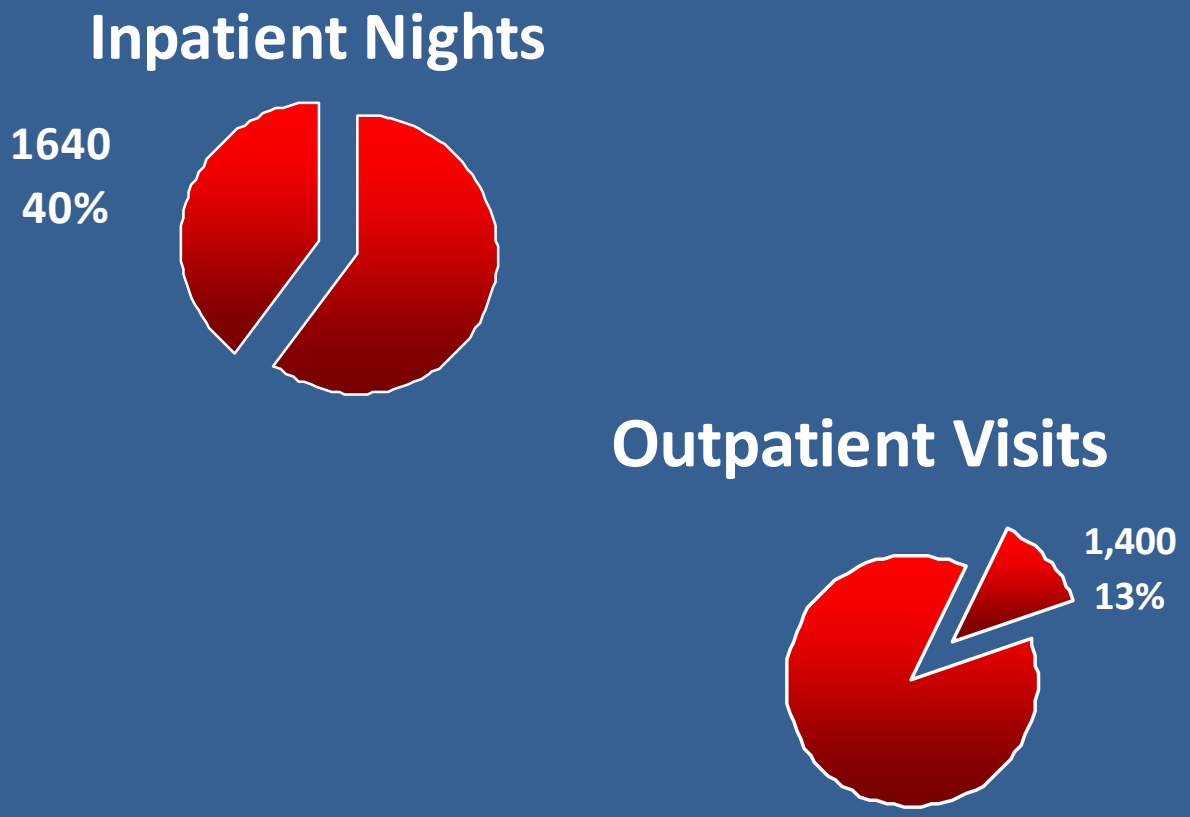
Average decline in physical and mental health status after adjustment for covariates

Chronic Conditions and Medical Care Use



Average decline in physical and mental health status after adjustment for covariates

Additional Days/Visits of Medical Services Attributable to Presence of NonHIV Chronic Conditions



Source: CHAIN Round 1 through 4 Interviews

Conclusions

- Co-morbid health conditions are ubiquitous among CHAIN cohort members.
- Cohort members are at increased risk for several common chronic conditions compared to the general populations of similar age, gender and ethnicity.
- Chronic conditions contribute to significant declines in both physical and mental well being of cohort members.
- Experiencing these conditions appears to increase substantially use of medical services.
  - A very large proportion of members who have these conditions, report current treatment at time of interviews.

Lessons Learned

- Although study findings confirm that individuals with increasing number of chronic conditions make more use of medical services, further research is needed for more precise assessment of how the increased medical utilization is related to the simultaneous medical management of HIV and these conditions.
- This study underscores that both professional and patient education must be guided by a chronic disease management model. Today it is the rule and not the exception that HIV/AIDS is but one of multiple lifelong chronic conditions that PLWH/A must live with and their medical providers must learn to treat in a coordinated manner.

Acknowledgement

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