

*Tri-County CHAIN Presentation*

---

Service Gaps &  
Key Health Measures

---

**SUMMARY FINDINGS**

Presented to the Tri-County Title I  
Health Committee  
24 March 2004

David Abramson  
Barbara Bennet  
Tasha Stehling

Columbia University  
Mailman School of Public Health  
In collaboration with Medical and Health  
Research Association of New York,  
the NYC Department of Health and Mental  
Hygiene, the Westchester Department of  
Health, and the NY  
Health & Human Services  
HIV Planning Council

**DRAFT!!!!!!**

---

HRSA Contract H89 HA 0015-13

---



**C.H.A.I.N. REPORT**

## ACKNOWLEDGMENTS

A Technical Review Team (TRT) provides oversight for the CHAIN Project. In addition to Peter Messeri, PhD, David Abramson, and Angela Aidala, PhD, of Columbia University’s Mailman School of Public Health, TRT members include Mary Ann Chiasson, DrPH, MHRA (chair); Kenneth Butler, PWA Advisory Group; Susan Forlenza, MD MPH, NYCDOHMH; Robert Cordero, Office of AIDS Policy Coordination; JoAnn Hilger, NYCDOHMH; Julie Lehane, PhD, Westchester County DOH; and Jennifer Nelson, MHRA.

The data presented in these summary tables are drawn from 398 respondents from the Tri-County CHAIN Cohort, which was recruited from 2001-2002, and from follow-up interviews with 315 of 348 eligible respondents in 2003, a 91% cohort retention rate. Participants were drawn from a random sample of HIV-positive clients at 28 health and social service agencies in the Tri-County region, representing virtually all providers in the public system of HIV care in the area. The CHAIN cohort thus represents a reasonably representative “slice” of HIV-positive adults in the public system of care in Tri-County. These preliminary summary tables are drawn from several longer reports that are presently in production – *Report 2003\_1 – Service Gaps*, and *CHAIN Report 2003\_7 – Strategic Plan Progress Indicators*.

All of the measures of needs, service gaps, and progress indicators will be analyzed by subgroups and subpopulations, including: gender, race/ethnicity, age group, geographic area, HIV risk behavior, and year of diagnosis.

This research was supported by grant number H89 HA 0015-13 from the US Health Resources and Services Administration (HRSA), HIV/AIDS Bureau with the supported of the HIV Health and Human Services Planning Council, through the New York City Department of Health and Mental Hygiene and the Medical and Health Research Association of New York City, Inc. Its contents are solely the responsibility of the researchers and do not necessarily represent the official views of the U.S. Health Resources and Services Administration, the City of New York, or the Medical and Health Research Association of New York.

**Table 1. Analysis of Sample Attrition: Baseline (Wave 1) to Follow-up (Wave 2)**

Characteristic	Interviewed at Wave 1	Interviewed at Wave 2	Ineligible at Wave 2	Not Interviewed at Wave 2
	<b>398</b>	<b>315</b>	<b>50</b>	<b>33</b>
<b>Gender *</b>				
<i>Men</i>	51%	48%	68%	52%
<i>Women</i>	49%	52%	32%	48%
<b>Age**</b>				
<i>20-34</i>	11%	10%	8%	27%
<i>35-49</i>	61%	64%	56%	46%
<i>50+</i>	28%	26%	36%	27%
<b>Race/Ethnicity</b>				
<i>White</i>	21%	21%	26%	18%
<i>Black</i>	50%	52%	52%	52%
<i>Latino</i>	28%	26%	26%	30%
<i>Other</i>	2%	1%	2%	0%
<b>Housing Status **</b>				
<i>Stable</i>	82%	85%	68%	76%
<i>Double</i>	9%	8 %	12%	18%
<i>Unstable</i>	8%	7 %	20%	6 %
<b>Location **</b>				
<i>Urban Westchester</i>	54%	56%	46%	39%
<i>Suburban West/Putnam</i>	28%	29%	28%	21%
<i>Rockland</i>	18%	15%	26%	39%

\* p &lt; .05

\*\* p &lt; .01

\*\*\* p &lt; .001

Note: Respondents were classified as ineligible in between the baseline (Wave 1) and follow-up (Wave 2) interviews for the following reasons: death (22), moved from area (26), mentally unable to participate in study (1), discovered to be HIV-negative (1).

**Table 2. Measuring Needs & Service Gaps – Definitions**

<b>Service</b>	<b>NEED</b>	<b>SERVICE GAP</b>
<b>HEALTH</b>		
Comprehensive medical care	Positive HIV serostatus	Primary HIV medical provider does not provide ALL of the following: (1) Routine check-ups, well visits, vaccinations, (2) Source of health advice, (3) 24-hour access for medical emergencies
Patient/Provider communication	Positive HIV serostatus	Patient doesn't know t-cell or viral load, OR says current doctor "could do a better job explaining my treatment options to me"
Treatment adherence	On antiretroviral medications	Among non-adherent, not receiving treatment adherence services
Antiretroviral therapy	T-cell less than 200	Not on antiretroviral combination therapy
<b>CASE MANAGEMENT</b>		
CM: Comprehensive care model	(1) Current drug user OR (2) very low mental health score OR (3) recent episode of unstable housing OR (4) experienced a barrier to medical or social service because didn't know where to go, couldn't get child care, couldn't get transportation, or couldn't afford care or (5) says there's not enough money in the household for rent, utilities, food, or clothing	Among those with a need, no CM developed a care plan, assisted in getting or referring client to social services, or helped fill out forms for benefits or entitlements in past 6 months
CM: Counseling model	(1) Scored very low on mental health score OR (2) current drug user OR (3) practiced unsafe sex in past 6 months	Among those with a need, no CM counseled client regarding personal life, drug or alcohol problems, practicing safer sex, or periodically checked up on client in past 6 months
<b>HOUSING</b>		
Financial Housing Services	(1) Fairly often or very often not enough \$\$\$ for rent, OR (2) reported that s/he needed help with eviction, paying rent, or maintaining rental subsidy	No housing service received, OR client not living in specialized AIDS housing
Permanent Housing Services	(1) At least one episode of unstable housing or doubled-up in past 6 months, OR (2) reported that s/he needed help related to homelessness, critical need to move, physical access issues, poor housing quality, or dangerous neighborhood	No housing service received, OR client not living in specialized AIDS housing

Service	NEED	SERVICE GAP
<b>MENTAL HEALTH</b>		
Professional Mental Health	Scored very low on a mental health score (Mental component summary (MCS) $\leq$ 37.0)	Respondent did not report receipt of professional MH service (psychiatrist, psychologist, therapist, therapeutic social worker) in prior 6 months
Supportive Mental Health	Scored above 37.0 on mental health score AND (1) reported a need for help with emotional or psychological problems OR (2) felt counseling regarding sexuality and sexual issues was considerably or extremely important OR (3) strongly disagreed that “most of the time I am in firm control of my feelings and behavior”	Respondent did not report receipt of supportive MH service (support groups, clergy, case managers, peer workers) in prior 6 months
<b>ALCOHOL OR DRUGS</b>		
AOD	(1) Current drug or heavy alcohol user OR (2) client said that treatment or further treatment is “considerably” or “extremely” important	No reported therapeutic or self-help AOD treatment in prior 6 months
<b>TRANSPORTATION</b>		
Transportation Services	(1) Delayed or didn’t get med or soc svce because couldn’t get transportation, OR (2) reported that s/he needed help or assistance with transportation in prior 6 months	No reported transportation service in prior 6 months

**Table 3. Measuring Needs & Service Gaps – Comparing Tri-County & NYC**

Service	Tri-County				NYC			
	NEED		SERVICE GAP		NEED		SERVICE GAP	
	Number with need	Proportion of Full Cohort (n=398) with Need	Among those with Need, the Number with a Service Gap	Proportion of those with Need Experiencing Service Gap	Number with Need	Proportion of Full Cohort (n=622) with Need	Among those with Need, the Number with a Service Gap	Proportion of those with Need Experiencing Service Gap
<b>HEALTH</b>								
Comprehensive medical care	398	<b>100%</b>	115	<b>29%</b>	622	<b>100%</b>	148	<b>24%</b>
Patient/ Provider communication	398	<b>100%</b>	186	<b>47%</b>	622	<b>100%</b>	235	<b>38%</b>
Treatment adherence	275	<b>69%</b>	38	<b>14%</b>	440	<b>71%</b>	82	<b>19%</b>
Antiretroviral therapy	65	<b>16%</b>	15	<b>23%</b>	127	<b>20%</b>	35	<b>28%</b>
<b>CASE MANAGEMENT</b>								
CM: Social work model	307	<b>77%</b>	137	<b>45%</b>	466	<b>75%</b>	186	<b>40%</b>
CM: Counseling model	180	<b>45%</b>	72	<b>40%</b>	348	<b>56%</b>	134	<b>39%</b>
<b>HOUSING</b>								
Financial Housing Services	135	<b>34%</b>	74	<b>55%</b>	156	<b>25%</b>	50	<b>32%</b>
Permanent Housing Services	70	<b>18%</b>	27	<b>39%</b>	126	<b>20%</b>	37	<b>29%</b>
<b>MENTAL HEALTH</b>								
Professional Mental Health	131	<b>33%</b>	74	<b>55%</b>	233	<b>37%</b>	147	<b>63%</b>
Supportive Mental Health	70	<b>18%</b>	45	<b>64%</b>	85	<b>14%</b>	29	<b>34%</b>
<b>ALCOHOL OR DRUGS</b>								
AOD	252	<b>63%</b>	190	<b>76%</b>	440	<b>71%</b>	309	<b>70%</b>
<b>TRANSPORTATION</b>								
Transportation Services	128	<b>32%</b>	85	<b>67%</b>	132	<b>21%</b>	101	<b>77%</b>

**Table 4. Measuring Needs & Service Gaps – Comparing Waves 1 & 2**

Service	Tri-County Wave 1 (2001-2002)				Tri-County Wave 2 (2003)			
	NEED		SERVICE GAP		NEED		SERVICE GAP	
	Number with need	Proportion of Full Cohort (n=398) with Need	Among those with Need, the Number with a Service Gap	Proportion of those with Need Experiencing Service Gap	Number with Need	Proportion of Full Cohort (n=315) with Need	Among those with Need, the Number with a Service Gap	Proportion of those with Need Experiencing Service Gap
<b>HEALTH</b>								
Comprehensive medical care	398	100%	115	29%	315	100%	89	28%
Patient/ Provider communication	398	100%	186	47%	315	100%	167	53%
Treatment adherence	275	69%	38	14%	238	76%	34	14%
Antiretroviral therapy	65	16%	15	23%	52	17%	8	15%
<b>CASE MANAGEMENT</b>								
CM: Social work model	307	77%	137	45%	269	85%	120	45%
CM: Counseling model	180	45%	72	40%	163	52%	76	47%
<b>HOUSING</b>								
Financial Housing Services	135	34%	74	55%	105	33%	56	53%
Permanent Housing Services	70	18%	27	39%	71	23%	41	58%
<b>MENTAL HEALTH</b>								
Professional Mental Health	131	33%	74	55%	114	36%	77	68%
Supportive Mental Health	70	18%	45	64%	60	19%	36	60%
<b>ALCOHOL OR DRUGS</b>								
AOD	252	63%	190	76%	183	58%	132	72%
<b>TRANSPORTATION</b>								
Transportation Services	128	32%	85	67%	139	44%	115	83%

**Table 5. Measuring Needs & Service Gaps – Subgroup Differences at Wave 1\***

Service	NEED	SERVICE GAP
	Groups significantly more likely to experience a need	Groups significantly more likely to experience a service gap
<b>HEALTH</b>		
Comprehensive medical care		– Whites & Latinos
Patient/Provider communication		– Women
Treatment adherence	– Men – Blacks & Latinos	
Antiretroviral therapy	– Men – Blacks & Latinos	
<b>CASE MANAGEMENT</b>		
CM: Social work model	– Women – Problem drug users – MSM who were problem drug users	– Men
CM: Counseling model	– Women – Latinos – Problem drug users – MSM who were problem drug users	
<b>HOUSING</b>		
Financial Housing Services	– Women	
Permanent Housing Services	– Women	
<b>MENTAL HEALTH</b>		
Professional Mental Health	– Women – Latinos	– Urban Westchester and Rockland
Supportive Mental Health	– Men	
<b>ALCOHOL OR DRUGS</b>		
AOD	– Latinos and Blacks	– MSM – Heterosexual HIV risk behavior – Urban Westchester and Rockland
<b>TRANSPORTATION</b>		
Transportation Services	– Women – Heterosexual HIV risk	

\* Note: These data represent statistical tests for subgroup differences by gender, race/ethnicity, HIV risk behavior, and geographic area. “Problem drug users” are defined as individuals who have used cocaine, crack, or heroin three or more times a week for a month or more, or who have ever injected drugs, or who meet the CAGE criteria for heavy drinking.

**Table 6. Factors Associated with Health Service Gaps: A Multivariate Analysis**

<i>Factors most significantly associated with...</i>			
<b>Reporting a comprehensive medical care service gap</b>	<b>Reporting a provider/patient communication service gap</b>	<b>Reporting a treatment adherence service gap</b>	<b>Reporting an antiretroviral therapy service gap</b>
<ul style="list-style-type: none"> <li>– Current drug users</li> <li>– Blacks LESS likely than whites</li> <li>– On Medicaid LESS likely than other insurance</li> </ul>	<ul style="list-style-type: none"> <li>– Living in Rockland</li> <li>– Recent unstable housing</li> <li>– Primary medical care in CHC or Clinic LESS likely that medical care in other settings</li> </ul>	<i>None significant</i>	<i>None significant</i>

*Note: This analysis considered the following potential factors for each outcome – gender, age, race/ethnicity, HIV risk category, geographic area, drug use history, unstable housing, recent opportunistic infection, Medicaid insurance coverage, type of medical provider (CHC/Clinic or Hospital-based)*

**Table 7. T-cell Analysis – Cohort & Interview Round Comparison**

	<b>NYC II</b>	<b>Tri-County W1</b>	<b>Tri-County W2</b>
<i>dates</i>	2002-2004	2001-2002	2003
<i>n</i>	622	398	315
<i>Number who don't know t-cell count</i>	24	46	52
<i>Proportion who don't know t-cell count</i>	<b>4%</b>	<b>12%</b>	<b>17%</b>

**Table 8. T-Cell Analysis – Sociodemographic Differences (row percentages)**

Data from Tri-County CHAIN Wave 2	n	Knows T-Cell	Doesn't know T-Cell
<i>FULL COHORT</i>	315	83%	17%
<i>Men</i>	153	86%	14%
<i>Women</i>	162	81%	19%
<i>White</i>	63	90%	10%
<i>Black*</i>	157	78%	22%
<i>Latino</i>	87	87%	13%
<i>MSM</i>	50	94%	6%
<i>Problem drug use (PDU)</i>	129	82%	18%
<i>MSM+PDU</i>	14	86%	14%
<i>Heterosexual</i>	122	80%	20%
<i>Urban Westchester</i>	180	80%	20%
<i>Suburban Westchester/Putnam</i>	85	91%	9%
<i>Rockland</i>	45	82%	18%
<i>Never used drugs</i>	93	86%	14%
<i>Former drug user</i>	178	84%	16%
<i>Current drug user</i>	44	77%	23%
<i>Stably housed</i>	282	84%	16%
<i>Recent unstable housing/doubled-up</i>	33	79%	21%
<i>Greater than HS education</i>	190	87%	13%
<i>Less than HS education*</i>	125	78%	22%
<i>Less than \$10k household income</i>	159	81%	19%
<i>\$10k - \$25k household income</i>	98	87%	13%
<i>Greater than \$25k household income</i>	54	91%	9%
<i>Primary MD spends enough time with client</i>	280	85%	15%
<i>Primary MD does not spend enough time with client*</i>	33	70%	30%
<i>Client very satisfied with primary MD</i>	268	85%	15%
<i>Client less than satisfied with primary MD</i>	45	76%	24%
<i>Recent in-patient use</i>	59	81%	19%
<i>No recent in-patient use</i>	256	84%	16%
<i>Agrees that "monitoring health primarily MD's concern"</i>	125	79%	21%

\* Statistically significant difference within groups

**Table 9. HAART Analysis – Geographic Comparison (among people initially diagnosed prior to 1998 and who have EVER had an AIDS diagnosis)**

	Urban Westchester	Suburban Westchester/Putnam	Rockland	NYC
<b>Population characteristics</b>				
<i>Total population, 2000</i>	289,744	771,158	286,757	8,008,178
<i>Total #PLWA, 2000</i>	966	1,147	353	48,145
<i>AIDS case rate (per 100k pop)</i>	333.40	148.74	123.10	601.19
<b>CHAIN Cohort</b>				
<i>n</i>	115	63	31	619
Proportion not on HAART	50%	52%	29%	46%
Proportion on HAART	<b>50%</b>	<b>48%</b>	<b>71%</b>	<b>54%</b>

**Table 10. HAART Uptake, by Individual Characteristics (among people initially diagnosed prior to 1998 and who have EVER had an AIDS diagnosis)**

	Tri-County (2001 - 2002)	NYC (2002 - 2004)
<i>n</i>	209	619
<i>Men</i>	58%	55%
<i>Women</i>	47%	54%
<i>White</i>	66%	60%
<i>Black</i>	44%	55%
<i>Latino</i>	54%	50%
<i>Household income &lt;\$10k</i>	52%	54%
<i>Household income &gt;\$10k</i>	52%	56%
<i>Greater than HS education</i>	57%	53%
<i>Less than HS education</i>	45%	55%
<i>On Medicaid</i>	52%	54%
<i>On other insurance</i>	53%	54%
<i>20-34 years old</i>	56%	42%
<i>35-49 years old</i>	49%	56%
<i>50+ years old</i>	58%	54%

**Strategic Plan: HEALTH Work Group Objectives**  
**CHAIN Performance Measures, last updated March 23, 2004**

<b>Obj #</b>	<b>Objective</b>	<b>Progress Indicator</b>	<b>% of Baseline NYC CHAIN cohort with Positive Indicator (1998-2001), n=652</b>	<b>% of New NYC CHAIN cohort with Positive Indicator (2002-2003), n=562</b>	<b>% of Tri-County CHAIN baseline with Positive Indicator (2001-2002), n=398</b>	<b>% of Tri-County CHAIN follow-up with Positive Indicator (2003), n=315</b>
1A-1	PLWHA will have improved survival and health outcomes	Self-reported health status score is at or above national average for "good health"	<b>48%</b>	<b>51%</b>	<b>45%</b>	<b>41%</b>
1A-2	PLWHA will have improved survival and health outcomes	Self-reported CD4 count is greater than 500 cells/mm <sup>3</sup>	<b>34%</b>	<b>34%</b>	<b>33%</b>	<b>30%</b>
1B	Persons who receive health services will adhere to treatment	Self-reported adherence to HIV medications	<b>67%</b>	<b>72%</b>	<b>63%</b>	<b>66%</b>
2A	PLWHA will remain connected to services once in the care continuum	Reported same primary doctor as of last interview or within past year	<b>69%</b>	<b>76%*</b>	<b>na</b>	<b>na</b>
3A-1	PLWHA in care will receive services that meet or exceed AI quality standards	Reported medical care that met minimal preferred practice guidelines	<b>71%</b>	<b>74%</b>	<b>68%</b>	<b>75%</b>
3A-2	PLWHA in care will receive services that meet or exceed AI quality standards	Primary medical provider is available for well-visits, available for health advice, and available 24 hours/day	<b>75%</b>	<b>77%</b>	<b>72%</b>	<b>72%</b>
3B	PLWHA report health-related quality of life as good or better	Self-reported health is "good," "very good," or "excellent"	<b>66%</b>	<b>65%</b>	<b>67%</b>	<b>61%</b>