C.H.A.I.N 2014-1
BRIEF REPORT

CHAIN New York City and Tri-County: Trends over time from published reports

---

Laura McAllister-Hollod

Mary Irvine

Peter Messeri

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

02/27/14
HRSA Grant # H89 HA 00015

INTRODUCTION

The Community Health Advisory & Information Network (CHAIN) is a prospective study of representative samples of persons living with HIV/AIDS (PLWHA) in New York City (NYC) and the Tri-County (TC) region of Westchester, Rockland and Putnam Counties. Major interview topic areas include socio-demographic characteristics, comorbid conditions, risk behaviors, and health and social services need and utilization.

The CHAIN study provides an opportunity for policy-makers and program planners to evaluate trends over time in the experience of PLWHA in these two distinct geographic regions. This report concentrates on inter-regional comparison with respect to need and service use for a broad range of health and social services. This document draws upon findings from previously released CHAIN reports that have covered both regions. It highlights key areas where over-time trends for the CHAIN cohorts from the two regions have differed or converged.

Approximately every two years, a CHAIN report presents, for key, measurable service areas, the proportion of participants experiencing need and the proportion (among those in need) who have a service gap as measured by absence or inadequate service utilization. Need is measured based on objective criteria (taking into account individual attributes such as health status and behavior), perceived/self-reported service need, and (for some service categories) actual use of services.

METHODS

We reviewed CHAIN reports published to the NYC HIV Planning Council website (http://nyhiv.org/data_chain.html) covering the years 2001–2013. Specifically, we selected reports that covered topic areas addressed for the similars time period for both the NYC and Tri-County cohorts, either in a single report or as separate reports for each cohort. For a complete list of reports reviewed, see Appendix 1. For each topic area, we summarize trends over time for both NYC and Tri-County. Themes are in blue font for NYC; red for Tri-County. For service needs and gaps, we plot over time the proportion in each cohort demonstrating service need and the proportion with service gap among those in need.

SERVICE NEEDS[1] *(2002-2013 for NYC; 2001-2013 for TC)*

- At the time of baseline interviews, from 2001 to 2002, the, top 3 needs were identical for both regions: comprehensive (social work-based) case management (CM), antiretroviral (ARV) treatment adherence, and alcohol or drug (AOD) treatment
  - Except for CM in TC[2,], the need for these services have declined in recent years
- Currently (2011-2013), the three highest needs for NYC are food services, nutrition counseling, and rental assistance[3]; for TC they are rental assistance, food services and mental health (MH) services

SERVICE GAPS: INADEQUATE SERVICE UTILIZATION AMONG THOSE IN NEED
(2002-2013 for NYC; 2001-2013 for TC)

	NYC[4]	TC[4]
Baseline (2001-2002) top 4 gaps	ARV treatment adherence, AOD treatment, comprehensive CM, MH	AOD treatment, transportation, MH, rental assistance
Current (2011-2013) top 4 gaps	Medical CM, permanent housing, nutrition counseling, comprehensive CM	Nutrition counseling, AOD treatment, permanent housing, standard of HIV medical care
Pre-2008 trends[5]	Service gaps mostly decreased • Increased only in permanent housing	Service gaps mostly decreased steadily • Largest decreases: transportation, permanent housing • Increased only in MH
2008 and later trends[5]	Decreased for almost all categories • Increased only in: standard of HIV medical care, AOD treatment, transportation	Initially decreased for almost all categories • Increase only in: standard of HIV medical care

	NYC[4]	TC[4]
Current high need, low utilization	Standard of HIV medical care, nutrition counseling, food services	Standard of HIV medical care, medical CM, nutrition counseling
Current low need, low utilization	Home care, medical CM, AOD treatment, transportation, permanent housing	Home care, AOD treatment, permanent housing

For all CHAIN service need and gap definitions from the latest report (2013), see Appendix II.

TOBACCO USE *(2002-2011 for NYC; 2001-2012 for TC)*

- Smoking prevalence for the 2010-2012 is high for both NYC (50%) and TC (60%)
    - Since baseline interviews, prevalence has declined more in NYC than in TC
- Currently, in both NYC and TC:
    - >75% of smokers reported that their primary care physician (PCP) advised them to quit smoking
    - ~50% of smokers received some assistance from their PCP to quit smoking
    - Both of these proportions have been rising steadily in recent years

INSURANCE STATUS *(2008-2009 to 2010-2011)*

- For both NYC and TC: almost 100% have insurance coverage
    - Medicaid: 90% NYC; 70% TC
    - Medicare: 25% NYC; 20% TC
    - ADAP/ADAP+: 5-6% NYC; 25% TC
- Trends in type of insurance coverage have been relatively stable in recent years
    - Medicaid/Medicare Managed Care has increased (NYC from 14% to 36%; TC from 6% to 15%)
- Few reported needing a medical procedure in past 6 months not covered by their insurance plan

FOOD INSECURITY *(2008-2010)*

- Food insecurity: 42% in both NYC and TC
- 80% NYC and 62% TC participated in SNAP
- 55% NYC and 58% TC received: (1) meals provided in a group setting, (2) prepared meals delivered to the home, (3) food voucher or grocery bag from a food pantry, or (4) some other help with food or meals
- NYC less likely to have received food pantry bags than participate in a meal program; it was the reverse in TC

HAART ADHERENCE *(2001-2009)*[6]

- 98% of participants had insurance (inc. ADAP) to cover cost of medication
- Consistently, ~75% reported HAART use and 50% adherent HAART use
    - Only 26% adherent to HAART at every interview; 49% reported not taking HAART at one or more interviews
- Effects of age, gender and ethnicity on ART effectiveness were weaker in NYC than in TC
- The lowest proportions of adherent HAART use were found among participants with:
    - NYC: recent homelessness (38%), recent substance use (38%), no comprehensive primary care (PC) (46%)
    - TC: unstable housing (39%), recent substance use (40%), no comprehensive PC (42%)

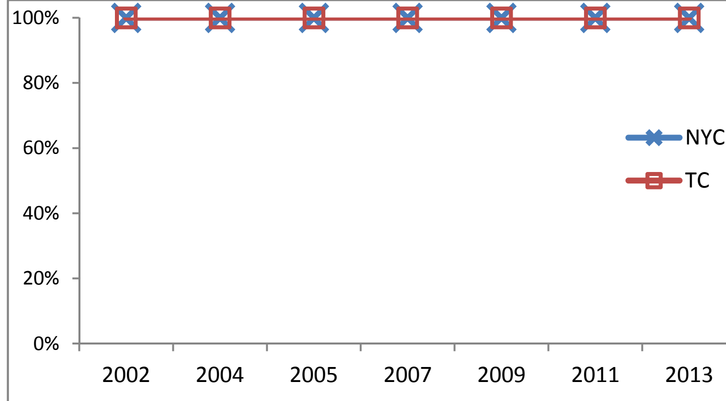
COMORBID CONDITIONS *(2002 cohort for NYC; cross-sectional look at 2001cohort for TC)*

- Patterns and rates of chronic diseases and other comorbidities were similar for NYC and TC

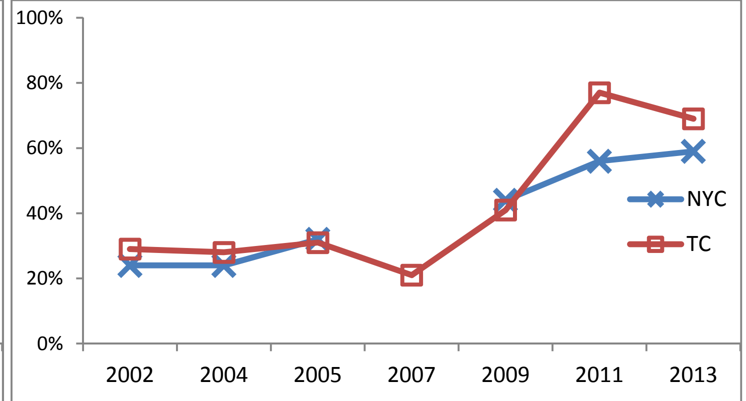
1. For definitions of service needs and gaps (inadequate utilization) access reports at: http://nyhiv.org/data_chain.html.
2. For TC, a new definition was applied for CM need in 2009, by which 100% of PLWHA meet the criteria.
3. Highest needs excluding those currently defined as a need for all PLWHA: nutrition counseling, medical CM and comprehensive CM for TC, and standard of HIV medical care for both NYC and TC.
4. TC data are depicted in red font; NYC data in blue font.
5. Definitions of service need and utilization changed slightly throughout, with more significant changes occurring in 2009.
6. Included persons completing at least 5 interviews during that time.

Standard of HIV Medical Care[1]

Need for service

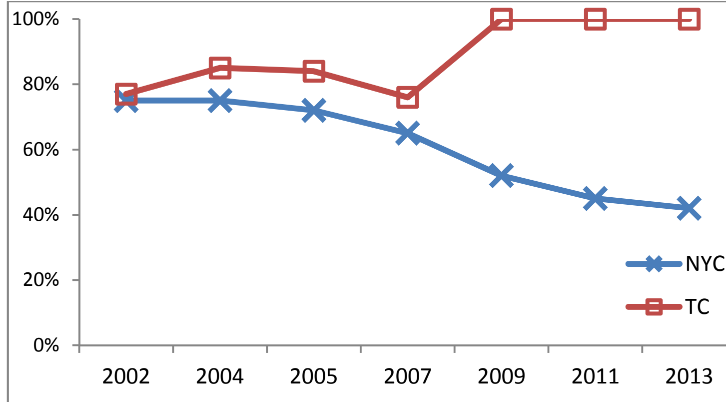


Service gap, among those in need

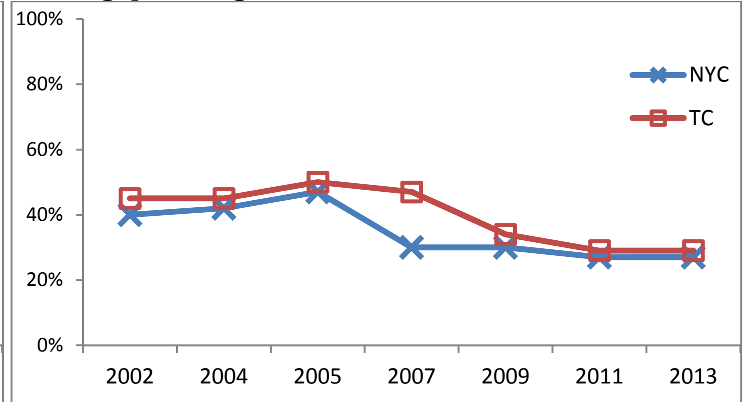


Comprehensive Case Management[2]

Need for service

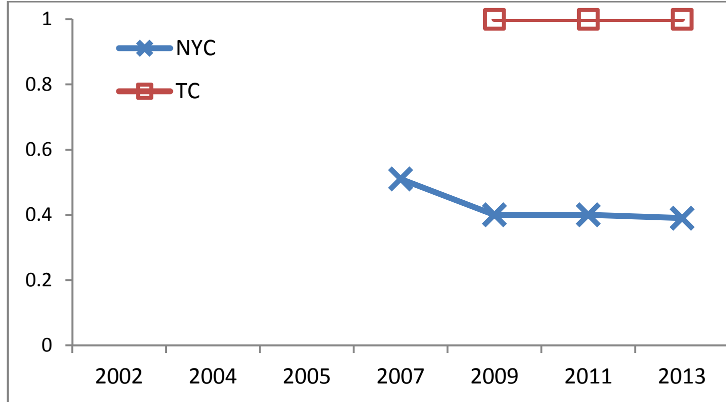


Service gap, among those in need

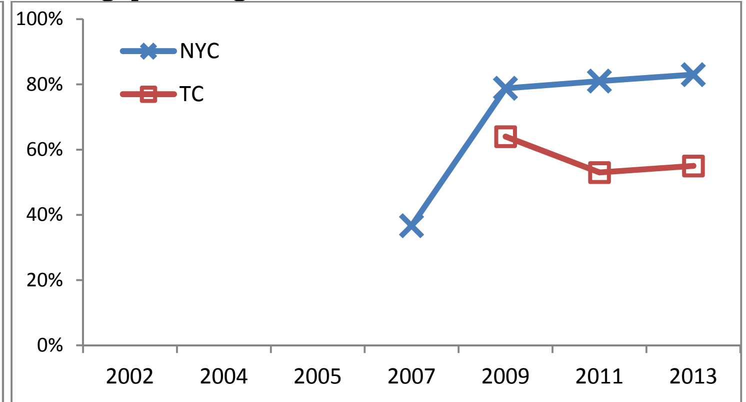


Medical Case Management[3]

Need for service

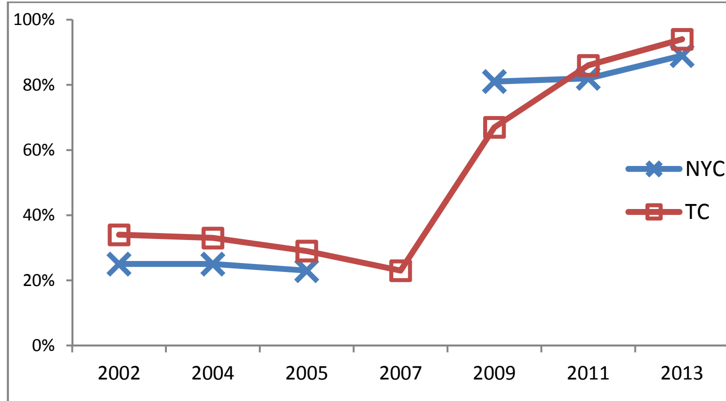


Service gap, among those in need

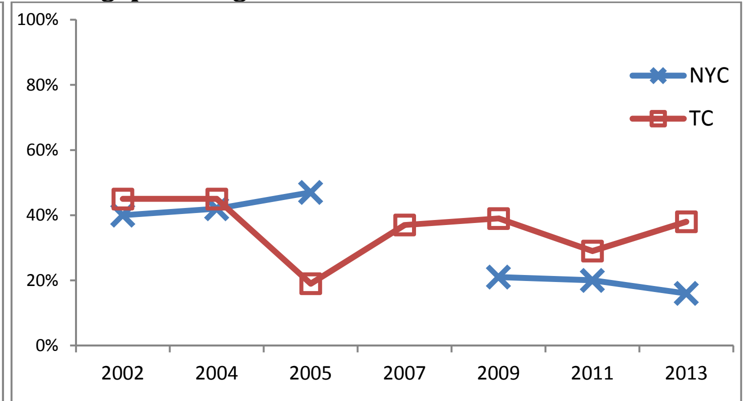


Rental Assistance[4]

Need for service

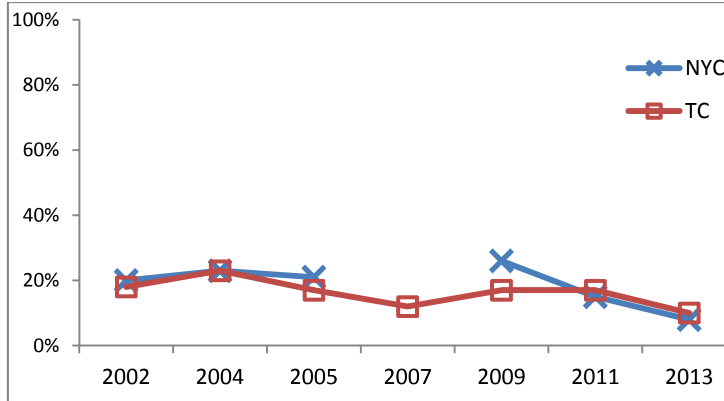


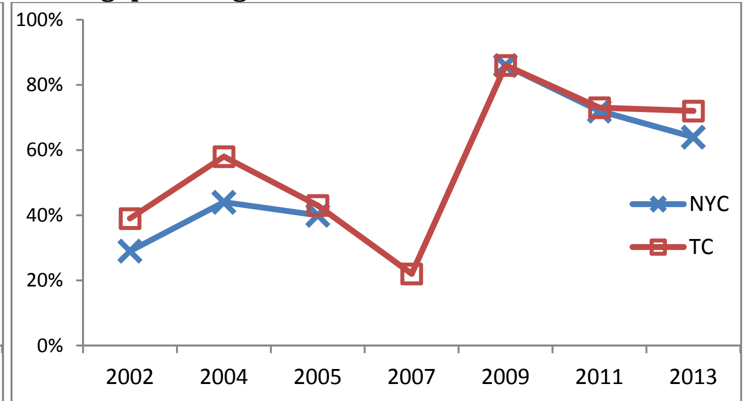
Service gap, among those in need



Permanent Housing

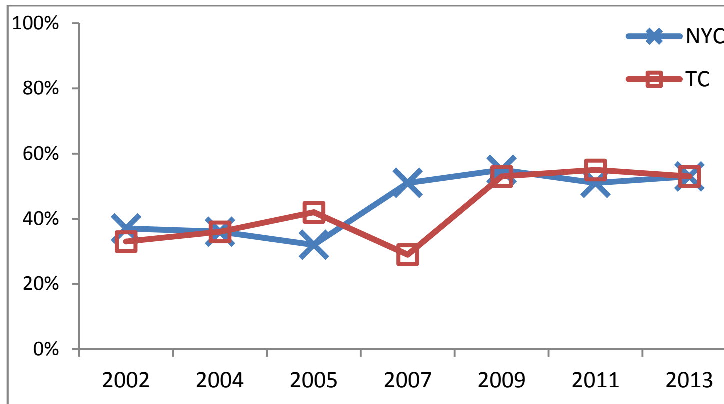
Need for service | **Service gap, among those in need**

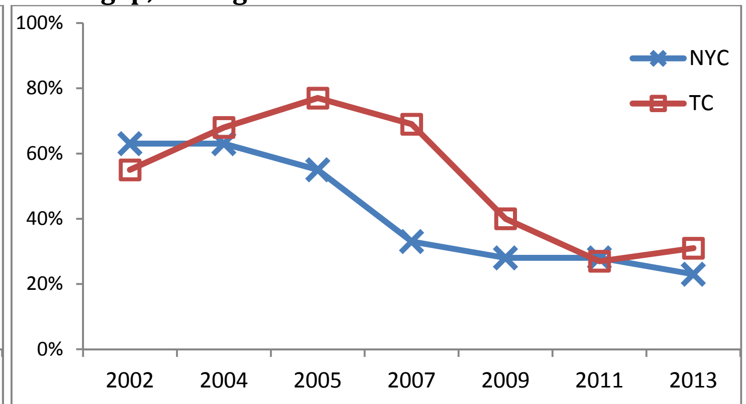




Mental Health Services[5]

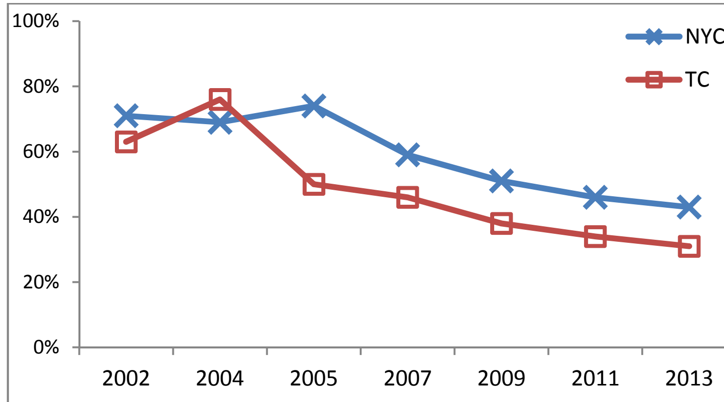
Need for service | **Service gap, among those in need**

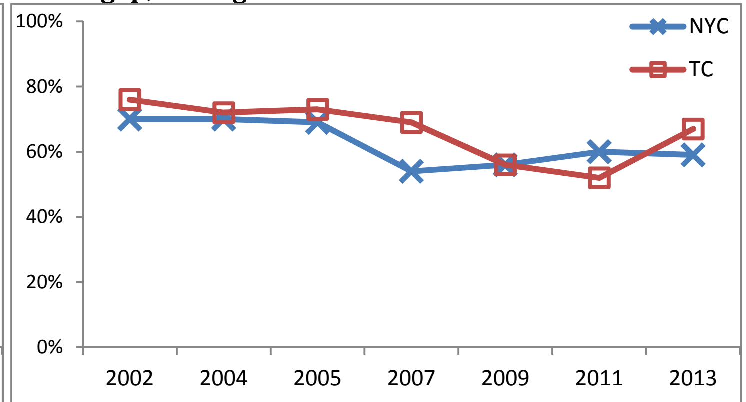




Alcohol or Drug Treatment[6]

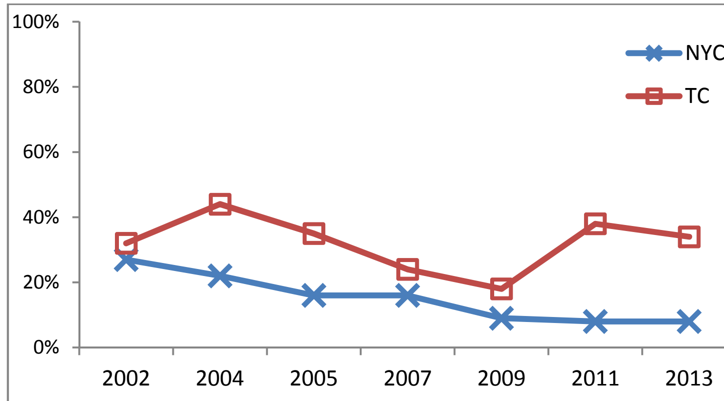
Need for service | **Service gap, among those in need**

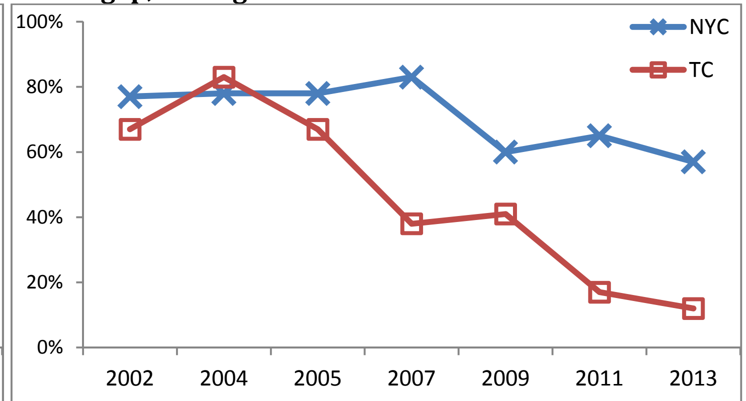




Transportation[7]

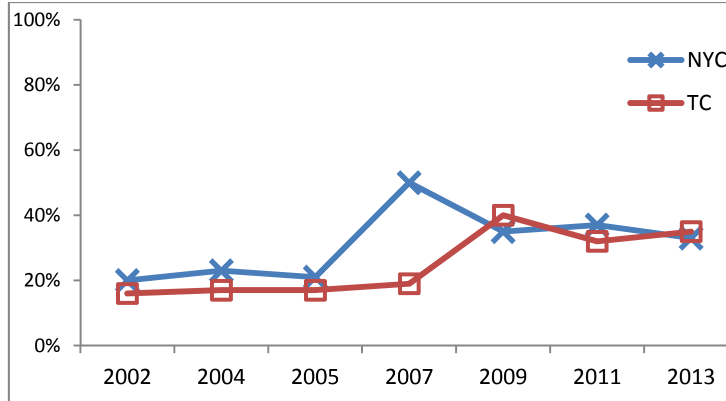
Need for service | **Service gap, among those in need**



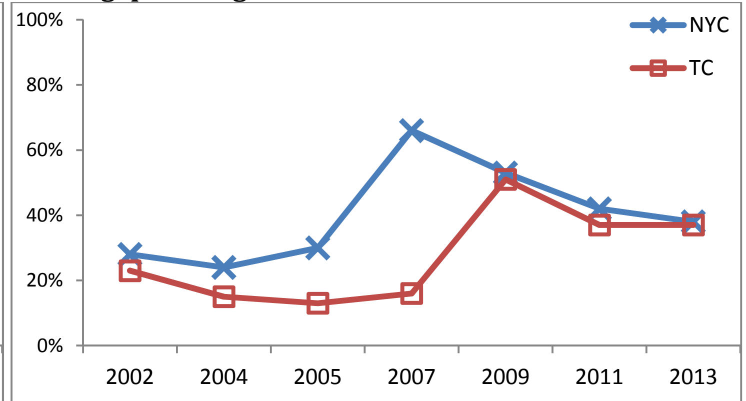


Antiretroviral (ARV) Treatment Support[8]

Need for service

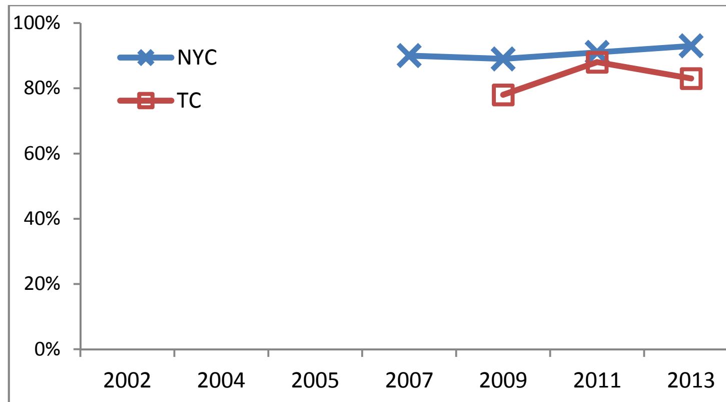


Service gap, among those in need

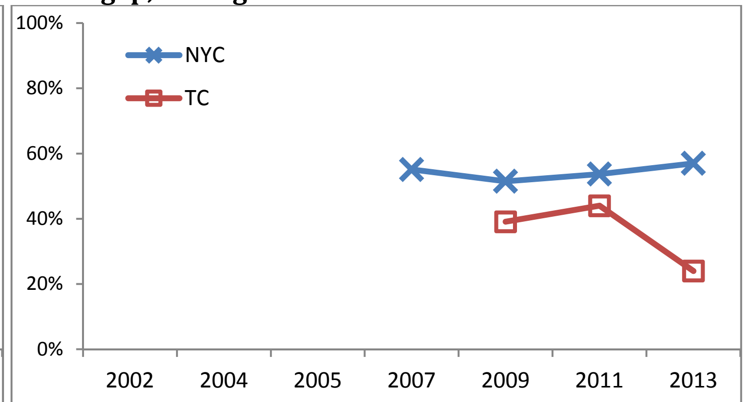


Food Services

Need for service

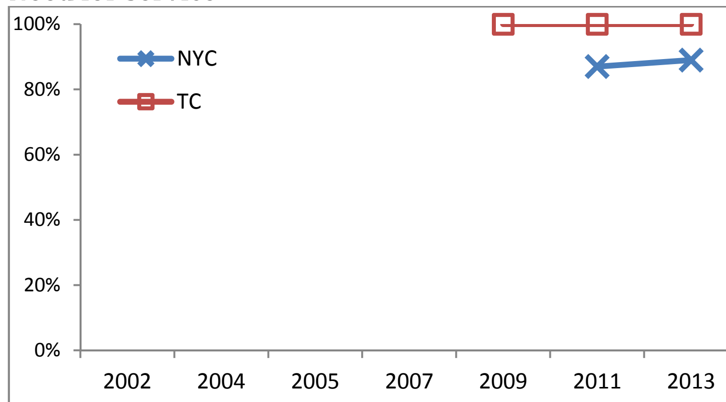


Service gap, among those in need

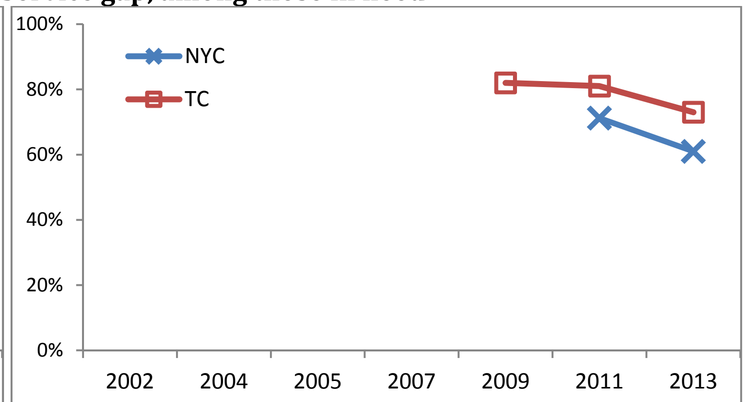


Nutrition Counseling[9]

Need for service



Service gap, among those in need



1. By definition, all participants meet need for standard of HIV medical care.
2. In 2009, TC changed definition for comprehensive case management such that all participants meet need.
3. TC defines all participants as meeting need for comprehensive medical case management.
4. Definition for permanent housing need changed between 2005 ("At least one episode of unstable housing or doubled-up in past 6 months, OR reported that s/he needed help related to homelessness, critical need to move, physical access issues, poor housing quality, or dangerous neighborhood) and 2011 ("Homelessness, temporary doubling up, or temporary/transitional housing for one or more days during the last 6 months").
5. Definition for rental assistance need expanded in 2009 to include receipt of related services, for both NYC and TC.
6. Definition for mental health services need expanded in 2009 to include receipt of related services, for both NYC and TC.
7. Definition for alcohol or drug treatment need expanded in 2009 to include receipt of related services, for both NYC and TC.
8. Definition for transportation need expanded in 2009 to include receipt of related services, for both NYC and TC.
9. In 2009, definition for ARV treatment support need changed to reflect changing ARV treatment guidelines.
10. According to TC definition, all participants meet need for nutritional counseling.

For all CHAIN service need and gap definitions from the latest report (2011), see Appendix II.

APPENDIX 1. CHAIN reports reviewed for this report.

Service Needs/Gaps

Abramson D. CHAIN 2003-1 Report: Service Gaps and Utilization in the Continuum of Care, Tri-County. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%202003-1b%20Report_TC_Service%20Gaps%20and%20Utilization%20in%20the%20Continuum%20of%20Care.pdf.

Abramson D, Berk S. CHAIN 2005-5 Report: Service Gaps Update – A 3-Wave Analysis, Tri-County. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%202005-5%20Report_TC_Service%20Gaps%20Update-%20A%203%20Wave%20Analysis.pdf.

Lee G, Messeri P. CHAIN 2007-3 Report: Service Needs and Gaps: Wave 4 Update in Tri-County. Accessed at http://nyhiv.org/pdfs/chain/CHAIN-2007-3b-Report_TC_Service-Needs-Gaps-Wave-4-Update-in-Tri-County.pdf.

Yomogida M, Messeri P, Irvine M. CHAIN 2011-1b Report: Service Needs and Utilization Tri-County 2009-2011. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%202011-1b%20Service_Needs_and_Utilization_Report_TC_Sep2012_Correction.pdf.

Abramson D. CHAIN 2004-1 Report: Service Gaps and Utilization in the Continuum of Care in New York City. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%202004-1%20Report_Service%20Gaps%20and%20Utilization%20in%20the%20Continuum%20of%20Care%20in%20New%20York%20City.pdf.

Abramson D, Lee G. CHAIN 2005-3 Report: Service Gaps and Service Utilization in New York City: Wave 2 Update. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%202005-3a%20Report_Service%20Gaps%20and%20Service%20Utilization%20in%20New%20York%20City_%20Wave%202%20Update.pdf.

Messeri P, Yomogida M. CHAIN 2008-1a Report: Service Needs and Utilization in New York City Round 5 Interviews: 2008-2009. Accessed at http://nyhiv.org/pdfs/chain/CHAIN_2008-1a_Service_Needs_and_Utilization_Report_NYC_2_Final_12-14-2010.pdf.

Yomogida M, Messeri P, Irvine M. CHAIN 2011-1a Report: Service Needs and Utilization New York City Round 6 Interviews: 2009-2011. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%202011-1a%20Service_Needs_and_Utilization_Report_NYC.pdf.

Unpublished 2013 Service Needs and Utilization Report data were also used.

Tobacco Use

Messeri P, Vardy Y. CHAIN 2012-9 Report: Tobacco Use, Cessation and Medical Provider Intervention. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%20Report%202012-9%20Tobacco%20Use.pdf.

Insurance Status

Messeri P, Yim A. CHAIN 2011-1 Brief Report: Insurance Coverage 2008–2011. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%20Brief%20Report%202011%20insurance%20coverage%20%20final.pdf.

Food Insecurity

Aidala A, Yomogida M. CHAIN Fact Sheet: HIV/AIDS, Food and Nutrition Service Needs. Accessed at http://nyhiv.org/pdfs/chain/Food%20Need%20Medical%20Care_factsheet%20v8.pdf.

HAART Adherence

Messeri P, Sorgi A. CHAIN 2011-4 Brief Report: Determinants of HAART Use and Adherence. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%20Brief%20Report%202011%20-4%20determinants%20of%20HAART%20adherence(2)_DOHMH%20final.pdf.

Comorbid Conditions

Messeri P, Lee G, Berk S. Prevalence of Chronic Diseases and Comorbid Conditions in the CHAIN Cohort of PLWHA. Accessed at http://nyhiv.org/pdfs/chain/CHAIN%202007-4%20Report_Prevalence%20of%20Chronic%20Diseases%20Comorbid%20Conditions%20PLWHA.pdf.

APPENDIX II. CHAIN definitions for service need and gap, as of 2013 report (unpublished as of 2/27/14)

Service Area	Need	Gap defined as not meeting the following definition of adequate utilization
Standard of HIV Medical Care	Positive HIV serostatus	Six or more of the following services or procedures: (1) HIV medical provider visit (in last four months), (2) physical examination, (3) blood test, (4) CD4 test, (5) dental care, (6) screening for ART adherence, (7) screening for risky sexual behavior, and (8) screening for substance abuse (where 2-8 are in the last six months)
Comprehensive Case Management	**NYC:** (1) Poor mental health function [Mental Component Summary (MCS)≤37.0] OR (2) an inpatient, emergency room or mobile unit visit for psychiatric or mental health reason in the last six months OR (3) heavy or problem drinking during the past six months OR (4) cocaine, crack, or heroin use during past year OR (5) homelessness or unstable housing in the last six months **TC:** Positive HIV serostatus	One or more of the following services from a case manager in the last six months: (1) care plan development or revision for dealing with needs OR (2) referrals for social services OR (3) help filling out forms for benefits or entitlements
Medical Case Management	**NYC:** (1) No HIV primary care in the last six months OR (2) cessation of care or no appointments for six or more months since the last interview OR (3) more than one missed appointment in the past six months OR (4) no CD4 or VL test in the past six months OR (5) above problems at prior rounds and case management with referrals to specific medical services in the past six months **TC:** Positive HIV serostatus	Help from a case manager with access or referrals to medical services during the last six months
Rental Assistance	Current residence in stable housing AND (1) difficulty paying rent in the past 6 months OR (2) eviction risk and insufficient income to secure housing (FMR>50% of income) OR (3) current receipt of rental assistance (including living in public housing) OR (4) insufficient money for rent in much of the past 6 months OR (5) rent contribution over 50% of income	Rental assistance (including living in public housing) during the past 6 months
Permanent Housing	Homelessness, temporary doubling up, or temporary/transitional housing for one or more days during the last 6 months	(1) Housing assistance or rental assistance during the past 6 months, (2) reported resolution of problems AND (3) current residence in stable housing
Mental Health Services	(1) Low mental health function MCS≤37.0) OR (2) an inpatient, emergency room or mobile unit visit for psychiatric or mental health reason in the last six months OR (3) counseling from a mental health care professional or clinical social worker in the last six months.	Counseling from a mental health care professional or clinical social worker in the last six months
Alcohol or Drug Treatment	(1) Cocaine, crack or heroin use during the past year OR (2) heavy or problem drinking during the past six months OR (3) report that receiving drug or alcohol	Any form of treatment for alcohol or drug use in last six months

Service Area	Need	Gap defined as not meeting the following definition of adequate utilization
	treatment was "considerably" or "extremely" important OR (4) any form of treatment for alcohol or drug use in last six months	
Transportation	(1) Report of need for transportation assistance OR (2) report that a lack of transportation resulted in delayed or missed medical or social services in the past six months	Transportation services in the last six months
Antiretroviral (ARV) Treatment Support	(1) CD4 Count< 350 & not on ARV OR (2) incomplete adherence to ARV meds OR (3) adherence to ARV meds with support services	Support services for taking ARVs from professional providers in the last six months
Food Services	(1) Not enough money in the household for food once in a while to very often in the last six months OR (2) a period without anything to eat in the last 30 days OR (3) receipt of food stamps OR (4) limited or no access to a kitchen OR (5) participation in a meal delivery program	One or more of the following services in the last six months: (1) Meals provided in a group setting, (2) prepared meals delivered to home, (3) food voucher or food from a food pantry
Nutritional Counseling	**NYC:** (1) Low (≤18.5) or High (≥25.0) BMI OR (2) any history of diagnosis with nutritionsensitive chronic illnesses (hypertension, heart problems, diabetes, high cholesterol, kidney disease, wasting syndrome, diarrhea for a month or more) OR (3) current pregnancy **TC:** Positive HIV serostatus	One-on-one food and nutrition counseling in the last six months