Use of National Standards to Monitor HIV Care and Treatment in a High Prevalence City – Washington, DC

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THE DC COHORT
Advancing HIV Care and Treatment in the District of Columbia

BACKGROUND

- The U.S. Department of Health and Human Services (DHHS) has identified a set of 7 core indicators for monitoring the provision of HIV prevention, care and treatment services.
- The U.S. Institute of Medicine (IOM) has also defined 9 standard measures to assess HIV-related core indicators and quality of care outcomes.
- With the availability of these measures, population-based outcomes related to HIV care and treatment can more easily be monitored.

OBJECTIVES

- To examine outcomes along the care continuum among a cohort of HIV-infected persons in care in Washington, DC.

METHODS

- DC COHORT
  - A longitudinal observational cohort study of HIV-infected persons receiving outpatient care at 13 clinics in Washington, DC
  - Data obtained through electronic medical record abstraction and limited manual data entry
  - As of 9/2013, longitudinal data available for 7 clinical sites
- ANALYSIS
  - Included data for participants enrolled between 1/2011 and 9/2013
  - Conducted descriptive analysis to describe proportions of participants meeting selected measures
    - 4 of 6 HHS measures
    - 6 of 9 IOM measures
  - Performed Chi-square tests to assess for differences with respect to race, age, sex, and HIV risk

RESULTS

US DHHS Measures

Table 1. U.S. DHHS Quality of Care Indicators among DC Cohort Participants

Measure	Definition	N(%)
Retention in medical care (n=1,677)	Number of HIV+ persons who had ≥1 HIV medical care visit in each 6-month period of the 24 month measurement period, with ≥ 60 days between the first medical visit in the prior 6 month period and the last medical visit in the subsequent 6-month period	650 (38.8)
ARV therapy among persons in HIV medical care (n=2,811)	Number of HIV+ persons who are prescribed ART in the 12-month measurement period	2,659 (94.6)
Viral load suppression among persons in care (n=2,811)	Number of HIV+ persons with a viral load <200 copies/mL at last test in the 12–month measurement period	1,915 (68.1)
Housing status at baseline (n=5,084)	Number of HIV+ persons who were homeless or unstably housed in the 12-month measurement period	565 (11.1)

IOM Measures

Table 2. IOM Core Indicators for HIV Care and Quality among DC Cohort Participants

Measure	Definition	N(%)
Proportion in continuous HIV care (n=3,997)	Proportion of HIV+ people who are in continuous care (≥2 routine HIV medical care visits in the preceding 12 months ≥ 3 months apart)	2,268 (56.7)
Regular CD4 testing for monitoring immune function (n=3,997)	Proportion of HIV+ people who received ≥2 CD4 tests in the preceding 12 months	1,721 (43.1)
Regular viral load monitoring for clinical progression (n=3,997)	Proportion of HIV+ people receiving ≥2 VL tests in 12 months since enrollment	1,761 (44.1)
Maintenance of immune function to reduce risk of OIs and cancer (n=2,268)	Proportion of HIV+ people in continuous care for ≥12 months and with a CD4+ cell count ≥350 cells/mm^3	1,805 (79.6)
Appropriate initiation of ART (n=1,580)	Proportion of HIV+ people with a measured CD4+ cell count <500 cells/mm^3 who are not on ART	40 (2.5)
Screening for sexually transmitted infections (n=5,084)		
GC	Screened ≥1 since enrollment	1,347 (26.5)
Chlamydia	Screened ≥1 since enrollment	1,344 (26.4)
Syphilis	Screened ≥1 in 12-month period	910 (17.9)

Figure 1. DHHS Measures Stratified by Selected Demographics

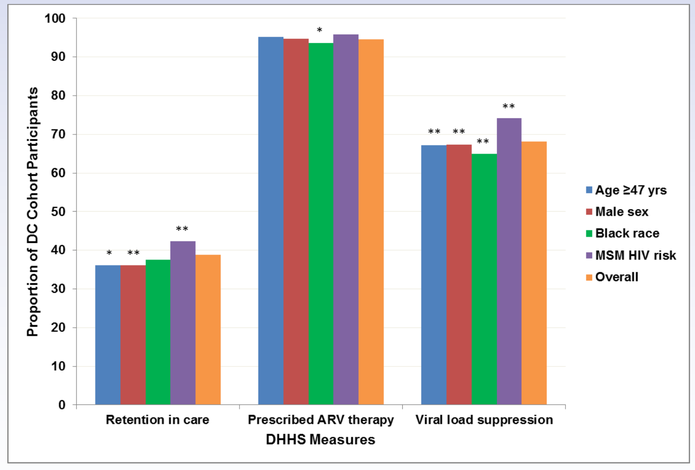
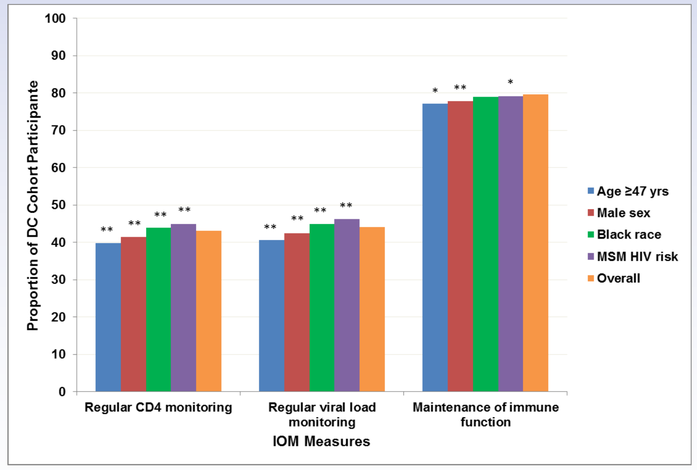


Figure 2. IOM Measures Stratified by Selected Demographics



***Statistically significant p <0.05; ** statistically significant p ≤0.001**
Proportions are those participants of each demographic who met the specific measure
Demographics: age ≥ 47 years vs. <47 years; male sex vs. female sex; black race vs. white, other, and unknown; MSM HIV risk vs. high risk heterosexual, MSM/IDU, IDU, other, and unknown

CONCLUSIONS

SUMMARY

- Retention in care was suboptimal, 39% and 57%, depending on the measure used.
- Monitoring of viral load and CD4 counts was modest, ranging from 43-44%.
- Most persons were appropriately prescribed ARVs.
- 68% of participants were virally suppressed and the majority (80%) of participants were able to maintain their immune function.
- Screening for sexually transmitted infections was not routinely performed.
- Most persons were stably housed.
- Significantly higher proportions of those with MSM HIV risk were retained, virally suppressed, and receiving regular monitoring compared with those in other risk groups.
- Significantly lower proportions of blacks were prescribed ARVs and virally suppressed compared with those of other races.

LIMITATIONS

- Data are only reflective of people who were previously diagnosed and linked to care, thus we can not measure the first parts of the care continuum in this population.
- Only reflects persons consenting to be in Cohort, although only 9.4% of approached patients have refused to participate.

DISCUSSION

- Data provide preliminary baseline measurements for monitoring quality of care indicators.
- Standardized goals for each measure should be established at the clinic, local, and national level.
- Further longitudinal and multivariate analyses will assist in identifying areas for improvement in the quality of HIV clinical care.

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