



Epidemiological Characterization and Linkage to Care of Newly-Diagnosed, HIV-positive persons at an urban hospital in Washington, DC

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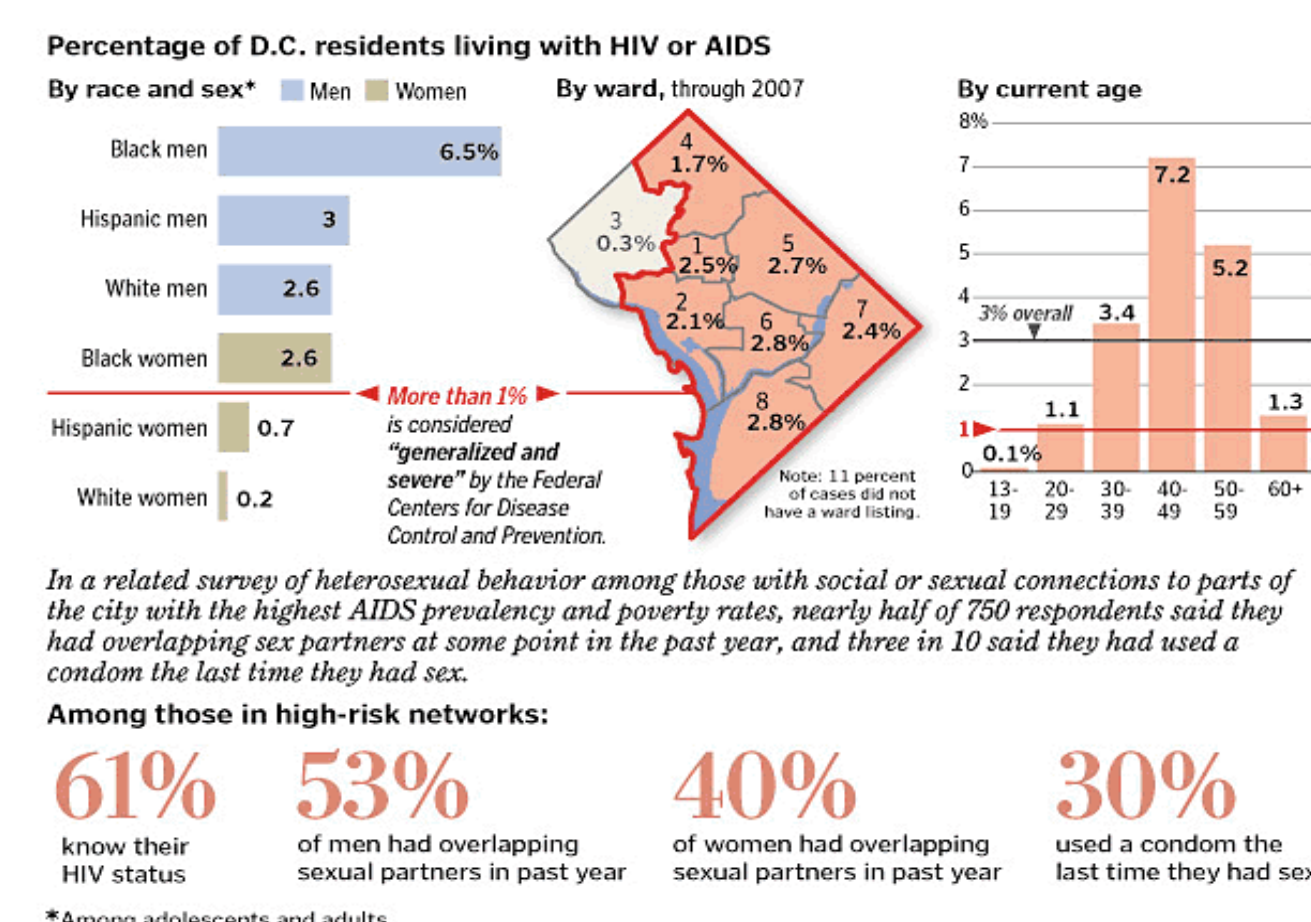
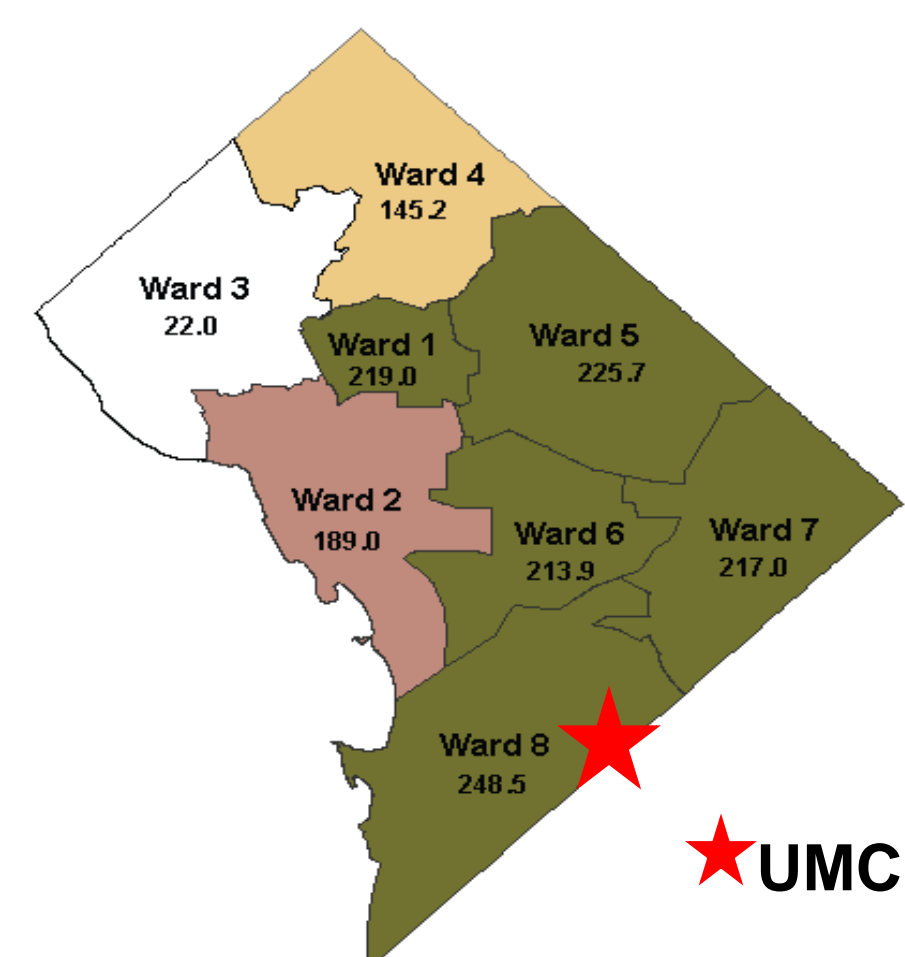
Background

Despite advances since the early epidemic in HIV diagnostics and therapeutics, the prevalence of newly-diagnosed HIV cases in the US is unabated for the last several years. In addition, despite availability of tolerable treatment for HIV and access to medications, many newly-diagnosed patients either disengage or default from treatment. Data for newly-diagnosed patients are needed nationally to understand: 1. the demographics, 2. Behavioral factors and 3. initial disease severity.

Similar data are needed in Washington DC where HIV rates are estimated to be the highest in the US. The District's epidemic is geographically diverse but the highest rates are in Ward 8 in Southeast Washington, DC (Figures 1 and 2). To assist in addressing this disparity, United Medical Center (UMC), the sole hospital in Ward 8, established an HIV testing and linkage to care program to identify and provide access to care for HIV-positive patients diagnosed during a hospital visit.

We describe the population of newly-diagnosed persons who were identified through our hospital-based routine screening program and linked to care in 2011.

Figure 1: HIV Rates by Ward, Washington DC, 2008

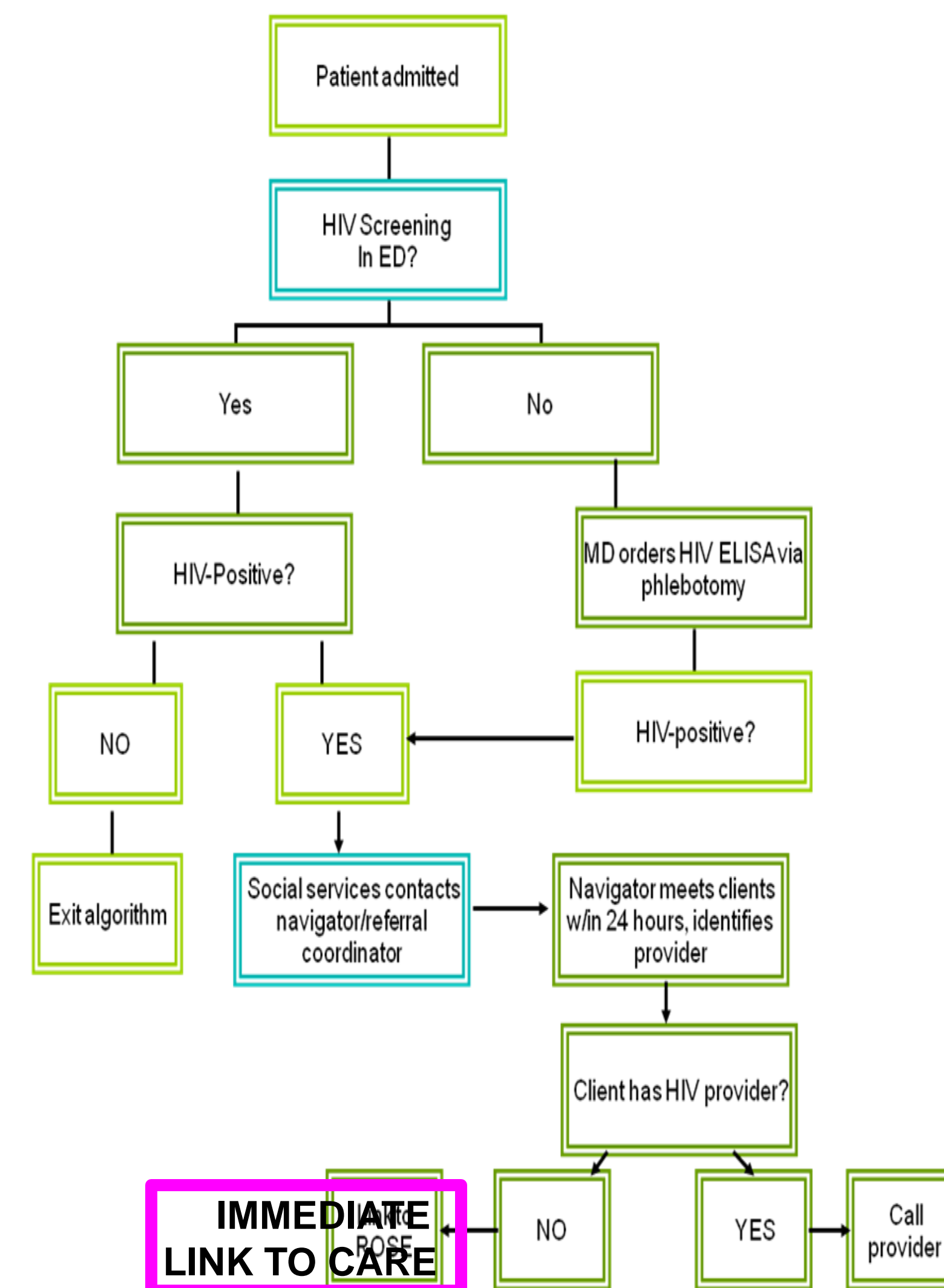


Source: DC Department of Health, HIV/AIDS Administration

Methods

- A patient navigator was hired and linkage protocol was established via collaboration among the infectious disease center, emergency department, hospitalists, nursing and social work leadership. (Figure 3).
- A linkage was defined as an immediate, personal escort to the infectious diseases center.
- A database was established and populated prospectively from clinical charts with demographic, clinical and socio-behavioral data.
- Data were analyzed to characterize the population and assess trends in clinical presentation and behavioral risk factors.

Figure 3. UMC Client Navigation Algorithm



Results

195 patients were identified in 2011. Of these, 119 (76%) were linked for HIV care. Epidemiological, behavioral and clinical characteristics of newly-diagnosed are shown in Tables 1, 2 and 3, respectively. Of 76 unlinked persons, 65% left the emergency department before the navigator arrived, 12% met the navigator but refused linkage. The remaining 23% revealed a previously known diagnosis and reported being in care.

Results (cont'd)

Table 1. Epidemiological Characteristics of Newly-Diagnosed, 2011, N=119

| Characteristic | N (%) |
|----------------------|------------------|
| Age median (range) | 31 (range 22-78) |
| Black Race | 118 (99) |
| Male | 62 (52) |
| Heterosexual | 86 (76) |
| Single | 98 (83) |
| Insurance Type | |
| Medicaid or Medicare | 106 (89) |
| Private | 10 (9) |
| Uninsured | 1 (1)* |
| Unemployed | 66 (56) |

+ Medicaid expansion initiated in 2011

Table 2. Behavioral Characteristics of Newly-Diagnosed Patients, N=119

| Behavioral Characteristic | N (%) |
|----------------------------------|---------|
| Smoker | 48 (40) |
| Mild to Moderate Alcohol Use | 61 (51) |
| Substance Use History (non-ETOH) | 45 (38) |
| Mental Illness (self-reported) | 23 (19) |
| Sexually Active | 64 (54) |
| Condom Usage Always | 25 (21) |
| STD at Diagnosis | 7 (6) |
| Syphilis | 6 (86)* |

*Except one, all syphilis cases in men

Table 3. Clinical Characteristics of Newly-Diagnosed Patients, N=119

| Clinical Characteristic | Value/percent |
|--|---------------------------------|
| Median CD4 at diagnosis (Range) | 245 (range 2-1614) |
| Male | 259 (2-1614) |
| Female | 266 (11-1201) |
| Median Viral load at Diagnosis (Range) | 139,270 (30-2x10 ⁶) |
| Male | 121,000 (30-2x10 ⁶) |
| Female | 86,702 (56-1x10 ⁶) |
| ≥1 Resistance Mutation | 13%** |
| Hepatitis B and/or C co-infection | 23% |

**Either M184 or K103

Conclusions

- The patient navigator model with immediate linkage to care is an effective linkage to care strategy
- The newly-diagnosed population identified was largely black, heterosexual, single and publically-insured.
- Despite knowledge of serostatus, the majority were sexually active and reported inconsistent condom usage
- The median CD4 count was low and the majority were treatment eligible at diagnosis suggesting District residents patronizing UMC either test late or represent missed opportunities for early diagnosis.
- The rates of ongoing alcohol and substance use were high and warrant intervention
- Sexual risk reduction and HIV prevention interventions are urgently warranted in this population

Discussion

Hospital-based screening programs are essential for identifying persons with HIV infection.

Immediate linkage to care is critical since many persons may be diagnosed in late stage disease and warrant treatment. An immediate linkage should involve a face-to-face meeting and escort to a care and treatment site.

Strategies and interventions are urgently needed to achieve earlier testing in this population

Longitudinal data are needed to assess the impact of one-to-one client navigation on treatment outcomes, engagement and retention in care

Acknowledgments

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