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Rapid HIV Testing in Large Urban Jails

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Abstract

HIV prevalence is higher in jails than in the community, yet many jails do not conduct HIV testing. Jails in Baltimore, Maryland; Philadelphia, Pennsylvania; and the District of Columbia have implemented innovative rapid HIV testing programs. We have summarized the results of these programs, including the numbers of persons tested, rapid and confirmatory HIV test results, and numbers of persons newly diagnosed with HIV. We have described facilitators and challenges of implementation. These programs confirmed that rapid HIV testing in jails was feasible and identified undiagnosed HIV infection. Challenges included limited space to provide confidential rapid HIV testing and rapid turnover of detainees. Implementation required collaboration between local governments, health agencies, and correctional institutions. These programs serve as models for expanding rapid HIV testing in jails.

Incarcerated populations are at increased risk for HIV infection compared with community populations.[1–3] This risk is attributable to multiple factors, including substance use, poverty, mental illness, and racial and health disparities.[4,5] In 2006, the Centers for Disease Control and Prevention (CDC) recommended that routine HIV testing be expanded in medical settings and in correctional facilities as part of the initial medical evaluation of inmates.[6]

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Contributors
C. G. Beckwith originated the report and supervised the writing of the article. A. Nunn, S. Baucom, A. Getachew, A. Akinwumi, B. Herdman, P. DiBartolo, S. Spencer, D. Brown, H. Lesansky, and I. Kuo participated in drafting and revising the article. A. Akinwumi also reported data relevant to the Baltimore, MD, program. B. Herdman and P. DiBartolo also reported data relevant to the Philadelphia, PA, program. H. Lesansky also reported data relevant to the District of Columbia program.

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Human Participant Protection
No institutional review board approval was necessary because this was a programmatic evaluation of HIV testing. HIV testing was conducted at each institution according to local regulations.

Jails, as opposed to prisons, may briefly incarcerate persons before they return to the community. A recent analysis of urban jails identified a median length of stay of less than 15 days for most inmates.[7] Rapid turnover of the jailed population, overcrowding, and limited resources create logistical barriers to HIV screening in jails. However, rapid HIV testing has created an opportunity to offer HIV screening to persons cycling through jails, and previous studies have reported the feasibility of rapid HIV testing in this setting.[8–12] Rapid HIV testing is conducted with either a blood specimen obtained by finger stick or venipuncture or an oral fluid specimen obtained by a swab. Rapid test results are available in approximately 20 minutes and need to be confirmed with a Western blot assay.

Until recently, HIV testing in jails was rare. Over the past several years, large urban jails in Baltimore, Maryland; Philadelphia, Pennsylvania; and the District of Columbia have developed and implemented rapid HIV testing programs.

We have summarized the rapid HIV testing experiences in these correctional facilities. We present rapid HIV testing results for a 12-month period during 2008 and 2009, including the proportion of persons completing rapid HIV testing, results of rapid and confirmatory testing, and number of persons with new HIV diagnoses. The experiences of these programs offer important lessons for other jail facilities interested in expanding HIV testing services consistent with CDC recommendations.

PROGRAM DESCRIPTIONS

The Baltimore Department of Corrections, in collaboration with the Maryland Department of Health and Mental Hygiene and the CDC, began a rapid HIV testing program in jail facilities in 2008. The AIDS Activities Coordinating Office of the Philadelphia Department of Public Health and the Philadelphia Prison System collaborated to initiate a rapid HIV testing program in 2007. The District of Columbia Department of Corrections teamed up with the District of Columbia Department of Health and local community HIV providers to start a rapid HIV testing program in 2006. All programs used either nurses or trained counselors to conduct rapid HIV testing, and all provided pretest educational materials.

Consent for HIV testing was not uniform across the sites because Baltimore used verbal consent, Philadelphia required written consent consistent with state law at the time, and the District of Columbia did not require separate consent prior to HIV testing.

All programs conducted routine voluntary opt-out rapid HIV testing with the OraQuick Advance HIV 1/2 assay (OraSure Technologies, Inc, Bethlehem, PA). The Philadelphia and District of Columbia sites used an oral fluid specimen obtained during the initial medical examination conducted on jail entrance. The Baltimore site used a blood specimen obtained on incarceration days 3 to 4 at the time of mandatory syphilis testing.

The Baltimore and District of Columbia facilities returned rapid test results to detainees at the time of testing. The Philadelphia facilities returned rapid test results 72 hours after testing in conjunction with a medical visit for tuberculosis testing, although result delivery was expedited for persons with reactive rapid tests. All persons with reactive rapid tests were referred for confirmatory testing, and results were available within 7 to 10 days. All 3 jail systems referred detainees with confirmed HIV infection to jail-based HIV providers, used discharge planning services for infected detainees being released to the community, and provided a 30-day supply of HIV medications on release.

Background data on the facilities and the results of the rapid HIV testing programs for 1 year are presented in Table 1. Detainees with confirmed infection were considered to have new diagnoses if no jail record of a previous positive test result existed and if the detainee

did not report previous HIV infection. New diagnoses reported by the facilities were not verified with local HIV surveillance data, so some of these persons may have previously received a diagnosis in the community. Facilities estimated the proportion of HIV-infected detainees who successfully linked to community HIV care after release from jail through communication with community HIV treatment providers and linkage programs.

In the Baltimore jail system, an estimated 13% (9268 of 72 000) of admitted persons were offered rapid HIV testing, of which 22% (2066 of 9268) accepted. Seven new HIV infections were identified, and the estimated rate of linkage to community care after release was 45%. In the Philadelphia jail system, 100% of the 39 181 inmates were offered rapid HIV testing; 69% (27 000 of 39 181) completed testing, and 75 new HIV infections were identified. Approximately 50% of the HIV-infected persons enrolled in a Philadelphia Department of Public Health–supported linkage program, and of those, 60% successfully linked to community care. In the District of Columbia, 89% (15 982 of 17 903) of the inmates were offered rapid HIV testing; 79% (12 546 of 15 982) completed testing, and 60 new HIV infections were identified. Linkage to community care was estimated to be between 33% and 48%.

EVALUATION

These large urban jail systems successfully implemented rapid HIV testing programs. Each program faced challenges, many specific to the jail setting. These challenges included the early release of detainees, which affected the proportion of inmates who completed testing and the proportion of detainees with positive rapid test results who completed confirmatory testing; obtaining adequate space in which to conduct rapid HIV testing in a confidential manner; and increased processing time of detainees when rapid HIV testing was done during the medical intake evaluation. The Baltimore site noted that perceived stigma related to HIV testing and delay of rapid HIV testing until days 3 to 4 of incarceration were factors in their relatively low uptake of rapid HIV testing.

Despite these challenges, all 3 rapid HIV testing programs continue and have been successful in identifying previously undiagnosed HIV. All sites referred HIV-infected detainees who remained incarcerated to HIV services within the facilities, providing access to antiretroviral treatment and discharge planning services. Although the perceived cost of HIV testing and the subsequent treatment of HIV infection is often cited as a barrier to HIV testing in jail, the costs of rapid HIV testing and caring for additional HIV-infected persons identified through these programs were successfully funded through the correctional and public health collaborations. A large proportion of individuals were not linked to community HIV care after release, suggesting that interventions to increase linkage to care are needed.

It is important to note that these programs offered rapid HIV testing in a voluntary manner, but jails and other correctional settings are a coercive environment by nature. HIV testing programs inside correctional facilities need to preserve the autonomy of the individual and the right to opt out of testing and must protect the confidentiality of medical information. The CDC has provided guidance on HIV testing in correctional facilities,[13] and when properly conducted, correctional facilities have the opportunity to provide access to HIV testing and treatment services to urban populations often marginalized from the health care system.

NEXT STEPS

These programs confirmed that rapid HIV testing in large jails is feasible. Further expansion of rapid HIV testing in jails is needed across the United States to identify persons with unrecognized infection and facilitate linkage to care and initiation of antiretroviral treatment.

Expanded HIV testing and treatment in the criminal justice system are now recognized as necessary components of the "seek, test, and treat" strategy to control the HIV epidemic.[14] These rapid HIV testing programs serve as models for the development, implementation, and expansion of routine opt-out HIV testing among incarcerated populations.

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KEY FINDINGS

- Despite barriers to implementation, all 3 jails successfully implemented and sustained rapid HIV testing programs.
- After rapid HIV testing began, the proportion of detainees completing HIV testing at each site increased by 6- to 7-fold.
- Rapid HIV testing programs identifi ed persons with previously unrecognized HIV infection.
- All 3 jail systems were able to provide care to HIV-infected persons who remained incarcerated.
- Interventions to increase linkage to community HIV care are needed.
- These jail systems successfully integrated the cost of rapid HIV testing and caring for additional HIV-infected persons identifi ed through the expanded testing into existing budgets and through resources provided by the Centers for Disease Control and Prevention.

TABLE 1

Rapid HIV Testing in Urban Jails During a 2-Month Period: Baltimore, MD; Philadelphia, PA; and District of Columbia; 2008 and 2009

	Baltimore	Philadelphia	District of Columbia
Background data			
Estimated proportion of jail detainees completing HIV testing prior to the rapid HIV testing program, %	0.4	10	12
Estimated HIV prevalence within jailed population, %	1–2	3–4	5–6
Estimated proportion of detainees released within 30 d, %	50	60	55
Rapid HIV testing program			
Dates of rapid HIV testing program data	May 2008–April 2009	2009	2009
Jail admissions	72 000	39 181	17 903
Detainees offered rapid HIV testing, no. (%)	9268 (13)	39 181 (100)	15 982 (89)
Rapid HIV testing completed, no. (%)	2066 (22)	27 000 (69)	12 546 (79)
Positive rapid HIV test results, no. (%)	42 (2.0)	156 (0.6)	106 (0.8)
Confirmatory test not completed, no. (%)	11 (26)	9 (6)	10 (9)
Confirmatory test completed, no. (%)	31 (74)	147 (94)	96 (91)
HIV infection confirmed, no. (%)	26 (84)	147 (100)	89 (93)
New HIV diagnosis, no. (%)	7 (23)	75 (51)	60 (63)
Completed rapid HIV testing with new HIV diagnosis, %	0.3	0.3	0.5