



Robert Reinhard, public/global health consultant

68 Yukon Street San Francisco, CA 94114

Tel 415 570-1010

rjreinhard@gmail.com

April 11, 2009

Centers for Medicare and Medicaid Services (CMS)

7500 Security Boulevard

Baltimore, MD 21244

Attn: William Larson, MA

william.larson@cms.hhs.gov

RE: National Coverage Decision ((NCD) for Screening for the Human Immunodeficiency Virus (HIV) Infection (CAG-00409N) – and Potential Additional “Formal Request for an NCD, Track #1”

To CMS:

I. Summary and Request.

Thank you for accepting public input for the NCD to add coverage for Screening for the Human Immunodeficiency Virus (HIV) Infection. These comments, **on behalf of Community HIV/AIDS Mobilization Project (CHAMP), the AIDS Vaccine Advocacy Coalition (AVAC) and myself**, support the terms of the proposed coverage as recommended by the USPSTF.¹ The scope is “reasonable and necessary,” and appropriate for these Medicare entitled individuals. These comments also request wider coverage than CMS has initially proposed consistent with recommendations made by the Centers for Disease Control (CDC).

By operation of law and the collection of evidence and data by the USPSTF when it adopted its Grade A recommendations,² the announced NCD meets the terms of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) (Public Law 110-275). Under those terms, the NCD would apply to all adolescents and

¹U.S. Preventive Services Task Force Screening for HIV. Release Date: July 2005, amended, 2007. <http://www.ahrq.gov/CLINIC/uspstf/uspshivi.htm>

² [Recommendation Statement](#) (PDF File, 153 KB) [Screening for HIV in Adolescents and Adults: Review of the Evidence](#) (PDF File, 876 KB) [Screening for HIV in Adolescents and Adults: Evidence Synthesis](#) (PDF File Download, 1.6 MB) [Focused Update](#), April 2007 (PDF File, 190 KB) [Prenatal Screening for HIV: Review of the Evidence](#) (PDF File, 763 KB;) [Screening for HIV in Pregnant Women: Evidence Synthesis](#) (PDF File Download)

adults at increased risk for HIV infection and to all pregnant women.³ The NCD does not elaborate on the details of the screening. Please clarify that it allows for both costs of HIV testing and ancillary counseling, referral and followup and that reasonable opt-out, privacy and confidentiality mechanisms, consistent with federal and state requirements, are in place for those who choose not to be tested or those with positive test results.

But we also request that CMS amend its NCD to include HIV screening coverage for all individuals between 13 and 64 years of age regardless of recognized risk factors, as recommended by the CDC and a wide range of medical authorities. CMS has authority to broaden the scope of this announced NCD under its own terms of comment and/or using CMS's other standard procedures for coverage decisions.⁴ CMS is not limited in this immediate review to the substantiation allowed under MIPPA. If the request can be accommodated within CAG-00409N, please expand the coverage as supported in the analysis below. If not, please accept this submittal as a Track#1 Formal Request for an NCD to provide coverage for HIV screening and testing for all individuals between 13-64 under Medicare Part B.

³ USPSTF describes persons considered at increased risk as follows:

A person is considered at increased risk for HIV infection (and thus should be offered HIV testing) if he or she reports 1 or more individual risk factors or receives health care in a high-prevalence or high-risk clinical setting.

Individual risk for HIV infection is assessed through a careful patient history. Those at increased risk (as determined by prevalence rates) include: men who have had sex with men after 1975; men and women having unprotected sex with multiple partners; past or present injection drug users; men and women who exchange sex for money or drugs or have sex partners who do; individuals whose past or present sex partners were HIV-infected, bisexual, or injection drug users; persons being treated for sexually transmitted diseases (STDs); and persons with a history of blood transfusion between 1978 and 1985. Persons who request an HIV test despite reporting no individual risk factors may also be considered at increased risk, since this group is likely to include individuals not willing to disclose high risk behaviors.

There is good evidence of increased yield from routine HIV screening of persons who report no individual risk factors but are seen in high-risk or high-prevalence clinical settings. High-risk settings include STD clinics, correctional facilities, homeless shelters, tuberculosis clinics, clinics serving men who have sex with men, and adolescent health clinics with a high prevalence of STDs. High-prevalence settings are defined by the Centers for Disease Control and Prevention (CDC) as those known to have a 1% or greater prevalence of infection among the patient population being served. Where possible, clinicians should consider the prevalence of HIV infection or the risk characteristics of the population they serve in determining an appropriate screening strategy. Data are currently lacking to guide clinical decisions about the optimal frequency of HIV screening.

⁴ 64 Fed. Reg. 22619, April 27, 1999; 68 Fed. Reg. 55637, September 26, 2003; and Factors CMS Considers in Opening a National Coverage Determination, April 11, 2006 https://www.cms.hhs.gov/mcd/ncpc_view_document.asp?id=6

II. Analysis for an Expanded NCD for HIV Screening to All individuals Between 13-64 Years of Age.

A. Contrasts Between USPSTF and CMS Methods.

When the USPSTF considered its current Grade A recommendations, it also reviewed other data and studies applicable to expanded recommendations in line with the CDC's. The result was that USPSTF issued a "Grade C" response for other individuals, using the grade definitions in place at the time (pre-May, 2007), i.e. it made *no recommendation for or against* for other populations addressed by CDC. A grade C recommendation means that USPSTF "*found at least fair evidence that [the service] can improve health outcomes;*"⁵ but not evidence to make a positive recommendation. While operation of MIPPA on its own is nearly sufficient for CMS to cover Grade A and B recommendations, *the absence of a Grade A or B recommendation does not prevent CMS from covering the service by other criteria.*

We know that CMS appreciates the different purposes and criteria for approval that exist between a USPSTF advisory recommendation and an NCD. The USPSTF explains:

Primary care clinicians are the principal audience for U.S. Preventive Services Task Force (USPSTF) recommendations. Task Force recommendations also have informed recommendations developed by professional societies and the coverage policies of many health plans and insurers.⁶

USPSTF describes itself as follows:

The mission of the USPSTF is to evaluate the benefits of individual services based on age, gender, and risk factors for disease; make recommendations about which preventive services should be incorporated routinely into primary medical care and for which populations; and identify a research agenda for clinical preventive care.⁷

The advice of the USPSTF may be accepted or modified by others. Operation of MIPPA can boost CMS NCD determinations based on Grades A and B when that statutory mechanism is available. But a Grade C advisory view, on the other hand, which finds "*at least fair evidence that HIV screening can improve health outcomes*" deserves further CMS consideration in light of new data USPSTF had not considered

⁵ USPSTF. Grade Definitions Prior to May 2007

<http://www.ahrq.gov/CLINIC/uspstf/gradespre.htm#crec> ; USPSTF has since revised its grade definitions but accomplished its HIV screening grades under the pre-May, 2007 guidelines.

⁶ <http://www.ahrq.gov/clinic/uspstfix.htm> at "Questions and Answers #8"

⁷ <http://www.ahrq.gov/clinic/uspstfab.htm>

or which has been updated since that time. More information is now available supporting an expanded NCD consistent with CDC recommendations.

A preventive measure may be reasonable and necessary for CMS coverage even if the evidence does not meet the separate conditions USPSTF uses for its conclusions. CMS uses different criteria than USPSTF for issuing a positive approval. For example, unlike USPSTF, CMS states:

Cost effectiveness is not a factor CMS considers in making NCDs. In other words, the cost of a particular technology is not relevant in the determination of whether the technology improves health outcomes or should be covered for the Medicare population through an NCD.⁸

B. Other Expert Evaluations of Recommended HIV Screening.

With appreciation for the USPSTF's efforts to fulfill its mission of advising primary care physicians broadly on the scope of HIV screening, its views are not those of leading infectious disease authoritative practitioners and HIV experts focused on improved health outcomes. On January 20, 2009, the American College of Physicians and HIV Medicine Association (ACP and HIVMA), published a review and assessment of HIV screening and adopted guidance for testing of all patients.⁹ The ACP engaged in a thorough discussion of the USPSTF's evaluation, its strengths and weaknesses, and developed sufficient responses to the Grade C conclusions to allow CMS to proceed with an expanded NCD. Rather than repeat the ACP discussion, the report is attached here in full and its content incorporated.

Last month the HIV Medicine Association, organized dozens of stakeholders comprised of leading clinicians, HIV/AIDS service providers, people living with HIV/AIDS, program administrators, public health officials, researchers, and concerned citizens to promote a nine point testing plan to "Integrate routine, voluntary testing in healthcare settings as a critical preventive and linkage-to-care service in any national health care reform plan," to add such routine screening to Medicare's program of preventive services and to encourage Medicaid programs to do so also.¹⁰ HIVMA is the professional home for more than 3,600 physicians,

⁸ CMS, Guidance. Factors CMS Considers in Opening a National Coverage Determination, April 11, 2006.

⁹ Screening for HIV in Health Care Settings: A Guidance Statement From the American College of Physicians and HIV Medicine Association
[Amir Qaseem, MD, PhD, MHA; Vincenza Snow, MD; Paul Shekelle, MD; Robert Hopkins, Jr., MD; and Douglas K. Owens, MD, MS, for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians*](#)

Annals of Int Med. 20 January 2009 | Volume 150 Issue 2 | Pages 125-131
<http://www.annals.org/cgi/reprint/150/2/125.pdf>

¹⁰ Take Action to Promote Knowledge of HIV Serostatus and Early Access to HIV Care and Treatment: A Plan for Implementing Routine HIV Testing in the U.S.
<http://www.hivma.org/Content.aspx?id=12804> The recent in-process list of

scientists and other health care professionals dedicated to the field of HIV/AIDS, nested within the Infectious Diseases Society of America (IDSA).

These supplemental expert opinions provide knowledge-based wide consensus that a full universal testing program is reasonable and necessary for CMS purposes.

C. Supplemental Data Favoring Routine HIV Screening.

Further data collection since 2007 also answers the USPSTF identified set of issues that prevented it from assigning a “better” grade to its HIV screening recommendations. USPSTF was concerned with:

- Gaps in the research regarding uncertainties about the acceptability of routine voluntary screening in low-risk persons;
- The yield of targeted versus universal screening and optimal methods of risk assessment in low-risk settings;
- Cost effectiveness of universal screening in low-risk, low-prevalence ($\leq 0.3\%$) settings remains uncertain because cost estimates may be sensitive to transmission benefits
- The impact on test uptake and follow-up of abbreviated or streamlined counseling methods and newer testing or sampling methods;
- The effects of screening on HIV transmission rates.
- In addition, future cost-effectiveness analyses should include estimates of long-term harmful cardiovascular effects of HAART, which appear to increase over time.

Newer published studies show that routine, broad or universal testing (along with counseling and other service) is feasible, acceptable to patients in a variety of settings and clinics (including for low risk persons or for low prevalence areas) and implementable by physicians and staff. Attached to these comments as an appendix is an annotated bibliography of selected studies issued since the time USPSTF reached its earlier Grade C conclusions. These studies support the expanded coverage. The USPSTF concern with adverse effects of HAART is misplaced since every study of HAART shows significant survival and benefit outcome for those who are suitable for treatment; prompt testing insures those individuals do not delay treatment in harmful ways. (USPSTF cost effectiveness concerns do not play an equivalent role in CMS’s NCD evaluations and do not affect this coverage decision.)

Following the recommendations of the CDC, ACP, HIVMA and others will mitigate current barriers to testing under various state laws, influence other providers, reduce general stigma about testing that discourages individuals from coming forward or that encourages denial/misreporting of risk behaviors, and reduce the incidence of late diagnosis affecting treatment outcomes. Routine testing will also

stakeholder endorsements is at
<http://www.hivma.org/WorkArea/showcontent.aspx?id=13330>

provide significant opportunities for implementation of current and prospective biomedical and behavioral HIV prevention methods.

For all these reasons and because the coverage meets criteria for approval, please expand the NCD beyond what has been proposed to cover all individuals between 13-64 years of age. In the alternative, please initiate a supplemental NCD for comment consistent with this letter. Please contact me with any questions you may have. (tel: 415-570-1010; email: rjreinhard@gmail.com). Thank you for considering this material.

Sincerely,

A handwritten signature in cursive script that reads "Robert Reinhard".

Robert Reinhard, public/global health consultant

And on behalf of:

Community HIV/AIDS Mobilization Project (CHAMP)

<http://www.champnetwork.org/>

AIDS Vaccine Advocacy Coalition <http://www.avac.org>

w/appendix and attachment

BIBLIOGRAPHIC APPENDIX OF STUDIES PUBLISHED AFTER USPSTF'S RECOMMENDATIONS:

1: AIDS Patient Care STDS. 2009 Mar 12. [Epub ahead of print] [LinkOut](#)

A Routine HIV Screening Program in a South Carolina Community Health Center in an Area of Low HIV Prevalence.

Weis KE, Liese AD, Hussey J, Coleman J, Powell P, Gibson JJ, Duffus WA.

Abstract In 2006, the Centers for Disease Control and Prevention published guidelines for routine HIV screening in healthcare settings. Feasibility studies have demonstrated that screening is effective in high-volume, urban settings, but there are no data for smaller, more rural settings. The main objective of this study was to describe a routine HIV screening program at a community health center in South Carolina serving both urban and rural populations. Margaret J. Weston Community Health Center implemented routine HIV screening using rapid tests at its three locations on December 1, 2006. All individuals utilizing this center over the age of 13 years were screened for HIV unless they opted out. Nurses completed a survey about their experiences with the program. chi(2) tests and logistic regression models were used to analyze the data. In the first 8 months, among 985 eligible visits, 574 (58%) resulted in the patient being screened. The most common reason for refusal was "doesn't think s/he is at risk." Acceptance rates differed significantly by location ($p = 0.01$), from 62% in the urban site to 47% in the rural site. Other significant predictors of accepting HIV testing were race/ethnicity, age, and method of payment. Three hundred twenty-four (58%) individuals who were tested reported no history of being previously tested for HIV infection. Participation in the screening program was perceived favorably by nurses. This pilot project in a South Carolina community health center demonstrates that implementation of routine HIV screening is acceptable in small healthcare settings.

2: Public Health Rep. 2008 Jul-Aug;123(4):494-503.

http://www.ncbi.nlm.nih.gov/sites/entrez?Cmd=ShowLinkOut&Db=pubmed&TermToSearch=18763412&ordinalpos=2&itool=Email.EmailReport.Pubmed_ReportSelector.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus

Scope of rapid HIV testing in urban U.S. hospitals.

Bogart LM, Howerton D, Lange J, Becker K, Setodji CM, Asch SM.

OBJECTIVE: The present study examined the scope of rapid human immunodeficiency virus (HIV) testing in urban U.S. hospitals. METHODS: In a multistage national probability sample, 12 primary metropolitan statistical areas (three per region) were sampled randomly, with weights proportionate to acquired immunodeficiency syndrome (AIDS) populations. All 671 eligible hospitals within

areas were selected. Laboratory staff from 584 hospitals (87%) were interviewed by telephone in 2005. RESULTS: About 52% reported rapid HIV test availability (50% in occupational health, 29% in labor and delivery, and 13% in emergency department/urgent care), and 86% of hospitals offering rapid tests processed them in the laboratory. In multivariate models, rapid test availability was more likely in hospitals serving more patients, and located in high-poverty, high-AIDS prevalence areas, and in the South or Midwest vs. West. It was less likely in hospitals serving areas with large percentages of people who were black/African American or Hispanic/Latino ($p < 0.05$). CONCLUSIONS: Rapid HIV testing is increasing across urban U.S. hospitals, primarily for occupational exposure and in hospitals with greater resources and need. To achieve routine HIV screening, policies should encourage greater breadth of diffusion of rapid testing at the point of care, especially in smaller facilities, the West, and communities with racial/ethnic diversity.

Scope of rapid HIV testing in private nonprofit urban community health settings in the United States. [Am J Public Health. 2008]

Provider-related Barriers to Rapid HIV Testing in U.S. Urban Non-profit Community Clinics, Community-based Organizations (CBOs) and Hospitals. [AIDS Behav. 2008]

3: An Med Interna. 2008 Mar;25(3):155.

[How useful is the routine HIV screening?]

[Article in Spanish]

Chocarro Martínez A, González López A, García García I, Aleixos Zuriaga M.

4. Ann Emerg Med. 2008 Mar;51(3):303-9, 309.e1

Patient Acceptance of Rapid HIV Testing Practices in an Urban Emergency

Department: Assessment of the 2006 CDC Recommendations for HIV

Screening in Health Care Settings Presented in part at the 2007 National HIV Prevention Conference, December 2007, Atlanta, GA.

Jason S. Haukoos, MD, MSc Emily Hopkins, MSPH, Richard L. Byyny, MD, MSc, Denver Emergency Department HIV Testing Study Group

Study objective

The Centers for Disease Control and Prevention (CDC) recently released revised recommendations for HIV testing in health care settings, calling for the performance of nontargeted opt-out HIV screening, the integration of informed consent for HIV testing into the general consent for medical care, and the uncoupling of prevention counseling and testing. It is unclear, however, whether patients will understand opt-out screening or be satisfied with integration of the consent for HIV testing into the general medical consent or the uncoupling of counseling from testing. The objective

of this study is to evaluate patients' acceptance of the CDC's revised recommendations in an urban emergency department (ED).

Methods

This was a cross-sectional survey study performed in the ED of an urban, public safety net hospital. The approximate annual ED census is 55,000 patients, and an approximate undiagnosed HIV seroprevalence ranges from 0.7% to 2.2%. A standardized survey instrument was developed and piloted and was then implemented with trained research assistants. Adult patients who were awake, alert, and agreed to participate in the study were included.

Results

During the 3-month study period, 529 patients were enrolled. The median age was 38 years (interquartile range 27 to 49 years; range 18 to 87 years), 57% were men, 48% were white, 28% were Hispanic, 18% were black, and 6% represented another race or ethnicity. When patients were asked whether they would have been tested had opt-out methodology been used, 81% (95% confidence interval [CI] 77% to 84%) would have agreed to be tested. When asked whether they would have been tested had opt-in methodology been used, there was no difference (absolute difference 0%; 95% CI -5% to 4%). However, explanation of opt-out screening was required for 11% (95% CI 8% to 14%), whereas explanation of opt-in screening was required for only 2% (95% CI 1% to 4%) (absolute difference 9%; 95% CI 5% to 11%). When asked whether the patient's physician recommended an HIV test during the ED visit, 93% (95% CI 91% to 95%) would have agreed to be tested. When asked whether consent for HIV testing should be separate from consent for general emergency medical care, 50% (95% CI 46% to 54%) agreed. When asked whether counseling was necessary before performing an HIV test, 34% (95% CI 30% to 38%) agreed, and when asked whether counseling was necessary after receiving a negative HIV test result, 35% (95% CI 31% to 40%) agreed.

Conclusion

A large proportion of ED patients appear willing to be screened for HIV infection in accordance with the CDC's revised recommendations for HIV testing in health care settings. Similar proportions were willing to be tested when opt-out or opt-in screening strategies were used; however, a significantly greater proportion required explanation of opt-out screening

[http://www.annemergmed.com/article/S0196-0644\(07\)01737-4/fulltext](http://www.annemergmed.com/article/S0196-0644(07)01737-4/fulltext)

5: AIDS Patient Care STDS. 2008 Mar;22(3):205-12. [LinkOut](#)
Patients' attitudes about rapid oral HIV screening in an urban, free dental

clinic.

Dietz CA, Ablah E, Reznik D, Robbins DK.

The 2006 Centers for Disease Control recommendations for routine HIV screening in all health care settings could include dental clinics an important testing venue. However, little is known about patients' attitudes regarding the routine use of rapid oral HIV screening at an urban free dental clinic. This pilot study seeks to evaluate the patient perspective on rapid HIV screening in this setting. In June 2007, patients at a free dental clinic in Kansas City, Missouri, were provided an attitude assessment survey prior to their dental visit. This dental clinic serves a diverse patient population consisting of approximately 37% white, 47% black, 6% Hispanic, 4% Asian, and 1% Native American uninsured patients. Results were analyzed for acceptance of testing and potential barriers. Of the 150 respondents, 73% reported they would be willing to take a free rapid HIV screening test during their dental visit. Overall, 91% of Hispanics, 79% of Caucasians, and 73% of African American patients reported they would be willing to be screened. Patients with a history of multiple prior screening tests for HIV were more likely to agree to oral rapid HIV screening in the dental clinic. The majority (62%) reported that it did not matter who provided them with the screening result, although some (37%) preferred their dentist above any other provider. Low self-perception of risk (37%) and having already received screening elsewhere (24%) were the main reasons for not accepting a free, rapid HIV screening. Overall, dental clinic patients widely accepted the offer of rapid oral HIV screening. Rapid HIV screening in the dental clinic setting is a viable option to increase the number of individuals who know their HIV status.

6: J Acquir Immune Defic Syndr. 2007 Dec 1;46(4):395-401.

Comment in:

[J Acquir Immune Defic Syndr. 2007 Dec 1;46\(4\):381-3.](#)

Routine HIV screening in the emergency department using the new US Centers for Disease Control and Prevention Guidelines: results from a high-prevalence area.

Brown J, Shesser R, Simon G, Bahn M, Czarnogorski M, Kuo I, Magnus M, Sikka N.

BACKGROUND: In 2006, the US Centers for Disease Control and Prevention (CDC) released new recommendations for routine HIV testing. Among these were recommendations that emergency departments (EDs) offer routine opt-out HIV screening to their patients. We established a screening program implementing these recommendations at an urban university hospital ED in Washington, DC. We report the results of this program. **METHODS:** During a 3-month period, ED patients being treated for a wide range of conditions were approached by trained HIV screeners and offered point-of-care rapid HIV testing. Patients with positive results were referred to hospital or community resources for confirmatory testing and treatment. **RESULTS:** During the program period, 14,986 patients were treated in the ED and 4151 (27.6%) were offered HIV screening. The mean patient age was 37.5 years; 48.5% were black, 39.0% were non-Hispanic white, 4.1% were Hispanic, 1.7% were

Asian, and 6.7% responded as being other race. A total of 56.1% were female, and most lived within the Washington, DC metropolitan area. Of the patients offered HIV screening, 2476 (59.7%) accepted the test. Of the 26 patients with a preliminary positive screen, 13 were lost to follow-up, 9 were confirmed positive by Western blot, and 4 were confirmed negative by Western blot. Eight of the 9 patients with confirmed HIV infection were successfully linked to follow-up care. **CONCLUSIONS:** The implementation of the CDC recommendations establishing routine opt-out HIV screening programs in EDs is feasible. Further efforts to establish routine ED HIV testing are therefore warranted.

7: Expert Rev Anti Infect Ther. 2007 Aug;5(4):581-9.

Beyond the end of exceptionalism: integrating HIV testing into routine medical care and HIV prevention.

Smith R, Zetola NM, Klausner JD.

In September 2006, the US CDC issued new guidelines for HIV testing. These guidelines were designed not only to simplify and expand HIV testing but also to integrate testing into routine medical care in the USA. The nationwide implementation of these guidelines is currently facing several political and legal barriers. In this article, we examine the origins of current patient-driven and risk-based HIV testing in the USA and highlight shortcomings of this strategy. We then demonstrate how the changing HIV epidemic in the USA requires routine HIV screening at all points of contact in the medical system in order to control the HIV epidemic and how novel testing strategies could increase the yield of testing in these settings.

8: Dis Manag Advis. 2007 Feb;13(2):16-9, 13.[LinkOut](#)

Research underscores the value of routine HIV screening, but barriers remain.

HIV screening offers good value, but obstacles remain, That's the message of at least one new study that provides a solid foundation for new guidelines, recommending that HIV screening be integrated into routine care. However, huge obstacles--including lack of funding and legislative barriers--continue to stand in the way of the kind of broad screening practices that policy experts agree are needed.

9. J Med Screen 2009;16:29-32 doi:10.1258/jms.2009.008086

<http://jms.rsmjournals.com/cgi/content/abstract/16/1/29>

Comparison of emergency department HIV testing data with visit or patient as the unit of analysis

Michael S Lyons, Christopher J Lindsell, Dana L Raab, Andrew H Ruffner, Alexander T Trott, Carl J Fichtenbaum,

Objectives Outcomes in an episodic care setting like an emergency department (ED)

are traditionally evaluated in comparison with the number of visits as opposed to the number of unique patients, although patients commonly present to the ED multiple times. We examined the differences in HIV screening programme outcomes that would occur if the analysis were conducted at the patient-level, rather than the traditional visit-level. We hypothesized that while our ED-based HIV screening programme does test some patients repeatedly, the primary programme outcome of percent positive is not substantially altered by the unit of analysis.

Methods We reviewed the clinical database of an ED HIV screening programme at a large, urban, teaching hospital in the United States from 2003–2007. Data were analyzed descriptively. The main outcome measure was the rate of positive test results computed with either the visit or the patient as the unit of analysis.

Results HIV testing was provided at 9629 visits, representing 8450 unique patients. For patient-level analysis, the proportion of patients found to be positive was 0.91%. For visit-level analysis, the proportion of tests with positive results was 0.83%. Of the 910 patients with repeat testing, 7 (0.77%) were identified as positive at a repeat test. The median time between tests was 383 days (range 1–1742).

Conclusions Results changed little regardless of whether unique patients or unique visits were used as the unit of analysis. Any differences in positive rates were mitigated by the contribution of repeat testing to the identification of newly infected patients. Given these findings, and the difficulty of tracking repeat testing over time, visit-level analysis are appropriate for comparing programme outcomes when detailed modeling of epidemiology, cost, and/or outcomes is not required.

10. Am J Crit Care. 2009 Mar;18(2):96-9. [LinkOut](#)

Time for critical care to join the CDC's universal HIV screening initiative?

Morris PE.

11. Public Health Rep. 2008 Nov-Dec;123 Suppl 3:51-62.[LinkOut](#)

Comparing the costs of HIV screening strategies and technologies in health-care settings.

Farnham PG, Hutchinson AB, Sansom SL, Branson BM.

OBJECTIVES: In 2006, the Centers for Disease Control and Prevention (CDC) recommended routine human immunodeficiency virus (HIV) screening for people aged 13 to 64 years in all U.S. health-care settings. Earlier recommendations focused on those at high risk for HIV and included more extensive pretest counseling. HIV screening may also involve either rapid or conventional testing. The purpose of this research was to estimate the costs of these different testing procedures and the cost per HIV-infected patient correctly receiving test results in three health-care

scenarios that illustrated these policy differences. **METHODS:** The study estimated the costs of rapid and conventional HIV testing in the following scenarios: (1) sexually transmitted disease (STD) clinic counseling and testing (CT), (2) STD clinic screening, and (3) emergency department (ED) screening. Costs were estimated from the provider perspective in 2006 dollars. A decision analytic model was developed to estimate the cost per HIV-infected patient notified of test results using the two testing procedures in the three scenarios. **RESULTS:** Although the complete rapid testing procedure was more expensive than conventional testing, the cost per HIV-infected patient receiving test results was lower for the rapid test compared with conventional testing in all scenarios. Per-patient costs of receiving results were lowest in the ED screening scenario and highest in the STD CT scenario. These costs were sensitive to changes in test costs, HIV prevalence, and return rates following conventional tests. **CONCLUSION:** HIV screening in general health-care settings is economically feasible, particularly with rapid tests that lower the cost of HIV-infected patients receiving their test results.

12. Clin Obstet Gynecol. 2008 Sep;51(3):507-17. [LinkOut](#)

Erratum in:

Clin Obstet Gynecol. 2008 Dec;51(4):815.

Testing women for human immunodeficiency virus infection: who, when, and how?

Clark J, Lampe MA, Jamieson DJ.

Obstetrician-gynecologists provide comprehensive primary and preventive care for women and are ideally suited to provide human immunodeficiency virus (HIV) screening for their patients. This paper provides a summary and rationale for the current recommendations for HIV testing among women in the United States, emphasizing recommendations from the Centers for Disease Control and Prevention and the American College of Obstetricians and Gynecologists [corrected] Who should receive HIV testing, when and how often testing should be conducted, and how testing should be offered are discussed. These recommendations are described separately for general populations (including nonpregnant women) and for pregnant women and their infants.

13. Ann Intern Med. 2008 Jun 17;148(12):889-903.[LinkOut](#)

Cost-effectiveness of HIV screening in patients older than 55 years of age.

Sanders GD, Bayoumi AM, Holodniy M, Owens DK.

BACKGROUND: Although HIV infection is more prevalent in people younger than age 45 years, a substantial number of infections occur in older persons. Recent guidelines recommend HIV screening in patients age 13 to 64 years. The cost-effectiveness of HIV screening in patients age 55 to 75 years is uncertain.

OBJECTIVE: To examine the costs and benefits of HIV screening in patients age 55 to

75 years. DESIGN: Markov model. DATA SOURCES: Derived from the literature. TARGET POPULATION: Patients age 55 to 75 years with unknown HIV status. TIME HORIZON: Lifetime. PERSPECTIVE: Societal. INTERVENTION: HIV screening program for patients age 55 to 75 years compared with current practice. OUTCOME MEASURES: Life-years, quality-adjusted life-years (QALYs), costs, and incremental cost-effectiveness. RESULTS OF BASE-CASE ANALYSIS: For a 65-year-old patient, HIV screening using traditional counseling costs \$55,440 per QALY compared with current practice when the prevalence of HIV was 0.5% and the patient did not have a sexual partner at risk. In sexually active patients, the incremental cost-effectiveness ratio was \$30,020 per QALY. At a prevalence of 0.1%, HIV screening cost less than \$60,000 per QALY for patients younger than age 75 years with a partner at risk if less costly streamlined counseling is used. RESULTS OF SENSITIVITY ANALYSIS: Cost-effectiveness of HIV screening depended on HIV prevalence, age of the patient, counseling costs, and whether the patient was sexually active. Sensitivity analyses with other variables did not change the results substantially. LIMITATIONS: The effects of age on the toxicity and efficacy of highly active antiretroviral therapy and death from AIDS were uncertain. Sensitivity analyses exploring these variables did not qualitatively affect the results. CONCLUSION: If the tested population has an HIV prevalence of 0.1% or greater, HIV screening in persons from age 55 to 75 years reaches conventional levels of cost-effectiveness when counseling is streamlined and if the screened patient has a partner at risk. Screening patients with advanced age for HIV is economically attractive in many circumstances.