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| **Author, Year** | **Study design** | **Location/setting/high or low prevalence population (based on 0.1% prevalence rate)** | **Study timeframe** | **Comparison groups** | **Baseline population characteristics** | **Eligibility criteria** | **Exclusion criteria** |
| Haukoos et al, 201068 | Quasi-experiment with sequential time samples (cohort study) | Large urban ED (Denver) where rapid HIV testing (Uni-Gold Recombigen) performed as opt-out x 3 months vs. diagnostic (physician-directed) testing x 4 months over 2 years (3 cycles each); local estimated HIV prevalence, 0.7% | April 15, 2007 to April 15, 2009 | Opt-out vs. diagnostic (physician-directed) timeframes | During opt-out phase: mean age, 36 years; 56% male; 40% white, 37% Hispanic, 14% black During diagnostic phase: mean age, 36 years; 57% male; 41% white, 37% Hispanic, 14% black | All ED patients ages ≥16 years and capable of providing consent for emergency mediare care | If unable to provide consent for HIV testing; detainees/prisoners; seeking care after sexual assault; seeking care after occupational exposure; self-identified as HIV-infected; left ED prior to being placed in treatment room |
| White et al, 201173 | Cohort study | Pre-post evaluation of opt-in vs. opt-out testing implementation on screening rates and acceptance of rapid oral HIV screening in an ED in Oakland, California  | February 1, 2007 to January 31, 2008 | Opt-in period: screening offered by providers (February 1, 2007–July 31, 2007; n=23,236) vs. opt-out period: screening offered by registration staff (Aug 1, 2007–January 31, 2007; n=26,757) | Demographic data available only for patients offered teting: Opt-in phase (n=6479): Mean age, 39 years (SD, 13); 53% male; 43% black, 27% Hispanic, 15% white Opt-out phase: Mean age, 42 years (SD, 14); 45% female, 45% black, 26% Hispanic, 15% white | Ages ≥15 years; medically stable; ablet to consent for HIV testing (opt-in phase) or complete general consent (opt-in and opt-out phase) | Patients requiring immediate medical evaluation or if staff deemed patient "too ill" |

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| **Author, Year** | **Number screened/ acceptibility** | **Adverse events** | **Linkage to care** | **CD4 count at HIV diagnosis** | **Quality rating** | **Funding source** |
| Haukoos et al, 201068 | During opt-out phase: 6702/28,043 eligible patients (24%) screened During diagnostic phase: 243/29,925 eligible patients (0.8%) tested | Across both phases, 6/7656 tests performed were false-positive tests (0.08%). PPV, 82.4% | During opt-out phase: 30/31 (96.8%) of preliminary positives attended at least 1 appt in HIV clinic During diagnostic phase: 5/5 (100%) of preliminary positives attended initial HIV clinic visit | During opt-out phase: median CD4 count was 0.069 x 109 cells/L (IQR, 0.017–0.430 x 109) During diagnostic phase: median CD4 count was 0.013 x 109 cells/L (IQR, 0.011–0.015 x 109; p=0.02). Of 15 confirmed HIV infections identified during opt-out testing, 9 (60% [95% CI, 32%–84%]) had an initial CD4 count <0.200 x 109 cells/L whereas all 4 confirmed HIV infections (100% [95% CI, 40%–100%]) has an initial CD4 count <0.200 x 109 cells/L | Fair | CDC, AHRQ |
| White et al, 201173 | Opt-in phase: 6479/23,236 eligible (62.9%) offered screening; 4061/6479 (62.7%) accepted screening Opt-out phase: 20,280/26,757 (75.8%) offered screening; 6273/20,280 (30.9%) accepted screening | 11/21(52.4%) false-positive preliminary rapid tests; all occurred during first 2 months of study (opt-in phase); cause unknown | 75% of opt-in and 77% of opt-out newly diagnosed cases linked to care within 90 days of diagnosis | Universal opt-in screening offered by ED triage nurses and providers vs. universal opt-out screening offered by ED front desk registration staff: mean CD4 count of 0.415 x 109 cells/L (SD, 0.237) in 8 new confirmed HIV infections (0.2% prevalence) vs. 0.307 x 109 cells/L (SD, 0.274) in 21 new confirmed HIV infections (0.4% prevalence) 25% of opt-in and 48% of opt-out newly diagnosed patients had CD4 count <0.200 x 109 cells/L | Fair | CDC  |

AHRQ = Agency for Healthcare Research and Quality; CDC = Centers for Disease Control and Prevention; CI = confidence interval; ED = emergency department; IQR = interquartile range; PPV = positive predictive value.