HIV testing at visits to physician offices in the United States, 2009-2010
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Background
- HIV testing is an important activity of the National HIV/AIDS Strategy
- Routine opt-out HIV testing recommended
- CDC (2006): Persons aged 13 – 64 years
- USPSTF (2013): Persons aged 15 – 65 years
- Currently, 14% of persons living with HIV are unaware of their infection
- Many persons are diagnosed with HIV infection at a late stage

Objectives
- To estimate the frequency of HIV testing at visits to U.S. physician offices, and to identify missed opportunities for testing

Methods
- We analyzed data from the National Ambulatory Medical Care Survey (NAMCS) to estimate the mean annual number of visits made by persons aged 13-64 years to U.S. physician offices with an HIV test in 2009-2010
- NAMCS data were used to generate nationally representative estimates of HIV testing at visits
- Sampling frame included non-federally employed office-based physicians
- Multistage probability sampling design
- Procedures allowed weighting of samples for the probability of selection and nonresponse
- Survey conducted by medical record abstraction for each sampled visit using a Patient Record form
- In 2009, a checkbox for an HIV test was added to the Diagnostics/Screenings Services section of the Patient Record form
- Frequency of visits with HIV testing were compared by categories of
  - Demographic characteristics
  - Visit characteristics

Results

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Visits</th>
<th>Visits with HIV test</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Total</td>
<td>606,952,270</td>
<td>4,209,790</td>
<td>0.7</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>229,846,340</td>
<td>1,323,970</td>
<td>0.6</td>
</tr>
<tr>
<td>Female</td>
<td>377,105,930</td>
<td>2,885,820</td>
<td>0.8</td>
</tr>
<tr>
<td>Race and ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White non-Hispanic</td>
<td>443,524,850</td>
<td>2,056,850</td>
<td>0.5</td>
</tr>
<tr>
<td>Black non-Hispanic</td>
<td>72,122,400</td>
<td>1,200,200</td>
<td>1.7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>65,031,260</td>
<td>780,260</td>
<td>1.2</td>
</tr>
<tr>
<td>Other*</td>
<td>26,273,760</td>
<td>172,480</td>
<td>0.7</td>
</tr>
<tr>
<td>Urban classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>309,500,200</td>
<td>2,838,580</td>
<td>0.9</td>
</tr>
<tr>
<td>Rural/ non-urban</td>
<td>280,702,200</td>
<td>1,181,510</td>
<td>0.4</td>
</tr>
<tr>
<td>Insurance type</td>
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<td></td>
<td></td>
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<tr>
<td>Private</td>
<td>419,315,830</td>
<td>2,685,200</td>
<td>0.6</td>
</tr>
<tr>
<td>Medicaid</td>
<td>65,083,620</td>
<td>876,520</td>
<td>1.3</td>
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<tr>
<td>Uninsured</td>
<td>36,847,100</td>
<td>198,880</td>
<td>0.5</td>
</tr>
<tr>
<td>Other*</td>
<td>6,726,804</td>
<td>254,940</td>
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<tr>
<td>Office setting</td>
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<td>0.066</td>
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</tr>
<tr>
<td>Community health center</td>
<td>17,213,850</td>
<td>203,650</td>
<td>1.2</td>
</tr>
<tr>
<td>Other</td>
<td>589,738,420</td>
<td>4,006,140</td>
<td>0.7</td>
</tr>
</tbody>
</table>

- * Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native
- ** Medicare, Workman’s compensation, other

Summary
- Overall, HIV testing was performed at a mean annual 4.2 million visits to U.S. physicians
  - 0.7% of all visits

- HIV testing rates were comparable at visits made by men and women
  - Men: 0.6% of visits
  - Women: 0.8% of visits

- HIV testing was performed more often at visits by persons who were
  - Aged 20-29 years: 2.4% of visits
  - Non-white: 1.2% – 1.7% of visits
  - Urban residents: 0.9% of visits
  - Medicaid beneficiaries: 1.4% of visits

- During visits to physician offices, HIV testing was infrequently performed at visits
  - To a primary care physicians: 1.1% of visits
  - For preventive care: 2.1% of visits
  - With a venipuncture for other blood testing: 2.4% of visits

Conclusions
- Although more than 4 million HIV tests were performed at visits to U.S. physician offices, many testing opportunities were missed
  - Preventive visits
  - Visits with a blood draw
  - USPSTF upgraded HIV testing to an “A” grade in 2013
  - HIV testing provided without a patient copay or deductible, as a provision of the Affordable Care Act

  - Interventions are needed
    - To increase provider awareness of HIV testing recommendations
    - To develop and implement structural interventions to ensure recommended HIV testing

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