Evaluating the Number and Proportion of Out of Jurisdiction HIV/AIDS Cases Receiving Care in San Francisco, CA

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BACKGROUND

- The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act funds the care and treatment of low-income, uninsured and underinsured people living with HIV/AIDS.
- Funding is allocated to local jurisdictions according to a formula that includes the number of HIV/AIDS cases diagnosed in that jurisdiction.
- However, as people live longer with HIV/AIDS, the likelihood of seeking care in a place other than the residence at diagnosis increases.
- Migration into and out of jurisdictions affects the burden on the health care system without adjustment to the CARE Act funding allocation.

METHODS

- Routine HIV/AIDS core surveillance assigns case ownership by residence at diagnosis.
- HIV/AIDS cases currently receiving care in San Francisco (SF) but who were residing elsewhere at time of diagnosis are considered out of jurisdiction cases (OOJ).
- We electronically linked two clinical datasets of patients who received HIV care in SF from January-April 2011 to the HIV/AIDS case registry to determine the proportion of these patients who were OOJ and estimate in migration to SF.
- Data from two sources were linked to the HIV/AIDS case registry:
  1. Data from the 21 medical facilities participating in the Medical Monitoring Project (MMP), a supplemental surveillance project of adult patients receiving outpatient HIV care in SF. Patients from one MMP facility could not be matched to the HIV/AIDS case registry because patient names from this site were not provided.
  2. Mandatorily reported electronic CD4 and HIV viral load laboratory records from all persons tested at any clinical site in SF between January-April 2011.

RESULTS

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<th>OOJ cases</th>
<th>SF cases</th>
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<tbody>
<tr>
<td>25.3%</td>
<td>68.8%</td>
<td></td>
</tr>
<tr>
<td>0.8% other</td>
<td>73.9%</td>
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Figure 1: Case ownership proportions from linkage of patients receiving care at SF MMP provider sites to SF HIV/AIDS case registry. Of the 6,159 patients sampled from MMP provider sites, 25.3% percent (n=1,557) were determined to be OOJ. 73.9% (n=4,551) were SF cases and 0.8% (n=51) were HIV negative, not enough information for investigation, or no medical chart available for investigation.

<table>
<thead>
<tr>
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<th>OOJ cases</th>
<th>SF cases</th>
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<tbody>
<tr>
<td>21.0%</td>
<td>68.8%</td>
<td></td>
</tr>
<tr>
<td>10.2% other</td>
<td>73.9%</td>
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Figure 2: Case ownership proportions from linkage of cases from reported laboratory tests to SF HIV/AIDS case registry. Of the 11,008 cases from the laboratory database, 21% (n=2,316) were determined to be OOJ. 68.8% (n=7,571) were SF cases and 10.2% (n=1,121) were HIV negative, not enough information for investigation, or no medical chart available for investigation.

CONCLUSIONS

- Both data sources yielded similar estimates of the proportion of OOJ HIV/AIDS cases receiving HIV related health care in SF.
- Based on these findings, approximately 25% of the cases who receive HIV-related care in SF are not counted as cases in the formula to determine CARE funds for SF.
- These findings highlight the degree to which using the residence at time of HIV/AIDS diagnosis may misrepresent the true number of persons in need of care because of in-migration.
- However, this estimate does not include persons who were SF residents at the time of HIV/AIDS diagnosis but later moved away from SF.
- The recently developed Enhanced HIV/AIDS Reporting System (eHARS) used by HIV surveillance jurisdictions may be used to track changes in residence of persons reported with HIV/AIDS.
- Efforts to evaluate the ability of eHARS to provide an updated accurate estimate of persons receiving HIV care in any jurisdiction, taking into account both in- and out-migration, should be undertaken and, if acceptable, used to more equitably allocate CARE funds.