Using secondary data to identify HIV/AIDS cases and evaluate completeness of case reporting in San Francisco, California

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**BACKGROUND**
- Active surveillance is the main method of HIV/AIDS case ascertainment in San Francisco (SF).
- Potential HIV/AIDS cases are identified from mandatorily reported electronic and paper laboratory reports.
- Surveillance staff then review medical charts to investigate potential cases.
- Cases are also identified through passive reporting, review of death certificates, from validation studies and reports from other health departments.
- We utilized a dataset of patients participating in the Medical Monitoring Project (MMP), a HIV/AIDS supplemental surveillance project of patients receiving HIV care in SF, as a secondary source for HIV/AIDS case ascertainment and to calculate completeness of case reporting.

**METHODS**
- Of the 22 participating SF MMP facilities, 21 provided a list of all patients seen for HIV care between January-April 2011.
- One facility did not provide patient identifiers and these patients were excluded.
- An unduplicated dataset of MMP patients was matched to the HIV/AIDS case registry in SF.
- Patients that did not match the SF HIV/AIDS registry were subsequently checked to determine if they matched cases in other California jurisdictions or out of state cases.
- Surveillance staff investigated all patients that did not match any SF cases or out of jurisdiction cases (OOJ).
- Completeness of reporting was calculated and defined as the number of matched cases divided by the total of matched cases plus newly identified cases.
- New cases included both new SF HIV/AIDS cases and existing OOJ cases seen in SF but not previously identified by SF.

**RESULTS**
- There were 6,159 unique patients seen in SF between January-April 2011 at the 21 participating MMP facilities.
- Eighty patients did not match the SF HIV/AIDS case registry or any existing OOJ cases and were further investigated:
  - 4 new SF HIV/AIDS cases were reported.
  - 30 patients matched OOJ cases not previously identified in SF.
  - 30 patients matched existing SF cases who had alias name or date of birth.
  - 12 patients were HIV-negative.
  - 4 patients were not able to be investigated by surveillance field staff due to no medical chart or no access to medical chart.
- The overall completeness of reporting was 99%.

**CONCLUSIONS**
- Using this secondary data source was a simple and effective way to evaluate completeness of case reporting and identify HIV/AIDS cases not yet identified through routine surveillance activities.
- We also were able to update alias information for existing SF cases and track existing OOJ cases that are seen in SF for HIV care.
- Although the completeness of reporting was high, we were able to evaluate why these case reports were missed and determine approaches to improve HIV/AIDS case reporting.

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**Figure 1: Flow diagram depicting the process of utilizing MMP patient lists for HIV/AIDS case ascertainment.**

- Unique Patients seen in SF for HIV care from January 1 - April 30, 2011
  - Match to SF HIV case registry
  - No match to SF
  - Check CA State Case Registry for existing CA OOJ* case
  - Field staff investigation by chart review
  - Possible match to existing SF case
  - Did not match CDC
  - Possible match to OOS* cases
  - Field staff investigation by chart review
  - Field staff investigation as potential new SF case by chart review
  - Call matching State to investigate as potential match to existing OOS case
- CA OOJ (Out of Jurisdiction): cases who had a residence at time of HIV/AIDS diagnosis in a California county outside of SF.
- OOS (Out of State): cases who had a residence at time of HIV/AIDS diagnosis in a state other than California.