



# Migration information from core HIV Surveillance

# POPULATION-based data available (in flat file person view format)

- Residence at HIV diagnosis
- Residence at AIDS diagnosis
- Current residence
- Residence at death
  
- In reality a new residence could be entered at any point (with every new lab, for example) but lab data do not typically come with residence data
- Recently we've experienced labs without full address data overwriting good address data

# Issues (1)

- Residence is dynamic
- Residence may be unconfirmed or unconfirmable
- Residence changes may be made between, after, and before each point it is collected in surveillance (HIV/AIDS/Current/Death)
- For states with local jurisdictions, labs with addresses may go to the state and not the local or vice-versa

# Issues (2)

- Laboratory tracking systems are in flux and incomplete
- Locally we are still working with:
  - Lab tracking (King County ?& State)
  - Lab Tracker (State)
  - eHARS labs (State & local)

# Supplementary data available

- LOOC & CAPP investigations started 2012
- NOTICE: investigated people who appeared to be out of care (investigations 2007-2011)
  - 5 years of increasingly comprehensive investigations
  - Nearly 3,000 people with no care > 12 months investigates
- State Lab tracking
- State Lab tracker

# Findings from Notice (1)

- 8,586 people presumed living at end of 2010
  - Not known to have died/left at serial points 2007-2010
- 2,898 (34%) with  $\geq 1$  year no labs 2006-2010
  - 1,563 (54%) relocations among the 2,948
    - 1,333 out of state (85%)
    - 230 out of the county, within the state (15%)
  - 200 (7%) deaths
  - 963 (33%) remained in King County
    - 82 --or 9% of 963--without evidence of care
  - 172 (6%) unknown location & care status

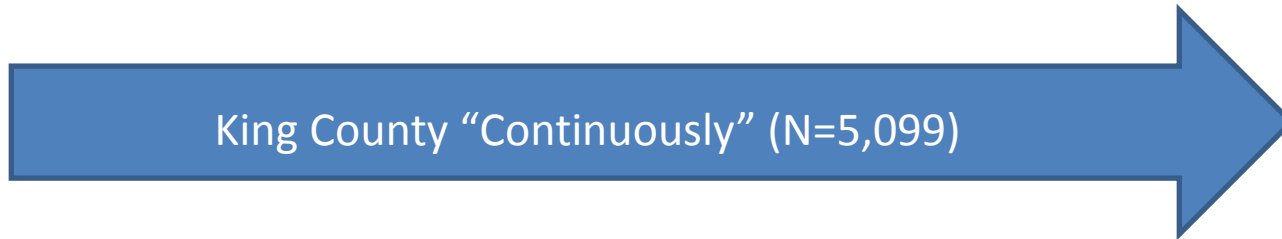
# Findings from Notice (2)

- Can provide snapshot of PLWHA December 2010
- Period prevalent cohort of people in King County Surveillance system and no care 12 mo+ 2006-2010
- What about people in King County briefly (not at HIV, AIDS, or “current address”)?

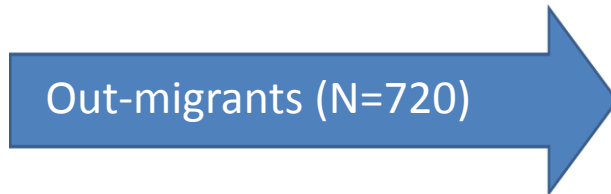


Of 8,386 PLWH/A 12/31/10 including NOTICE investigations (no care 12 mo+ 2006-2010)

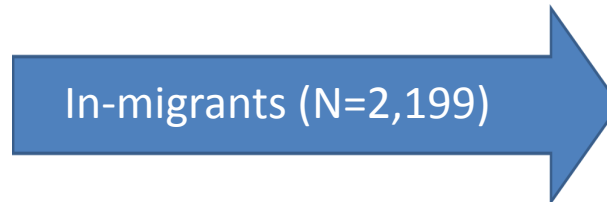
King County "Continuously" (N=5,099)



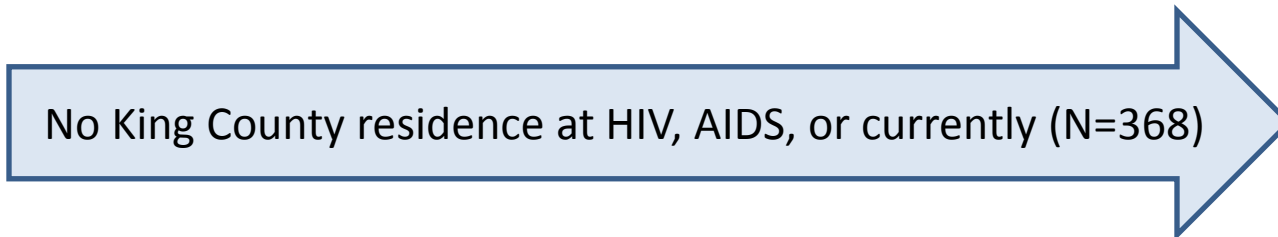
Out-migrants (N=720)



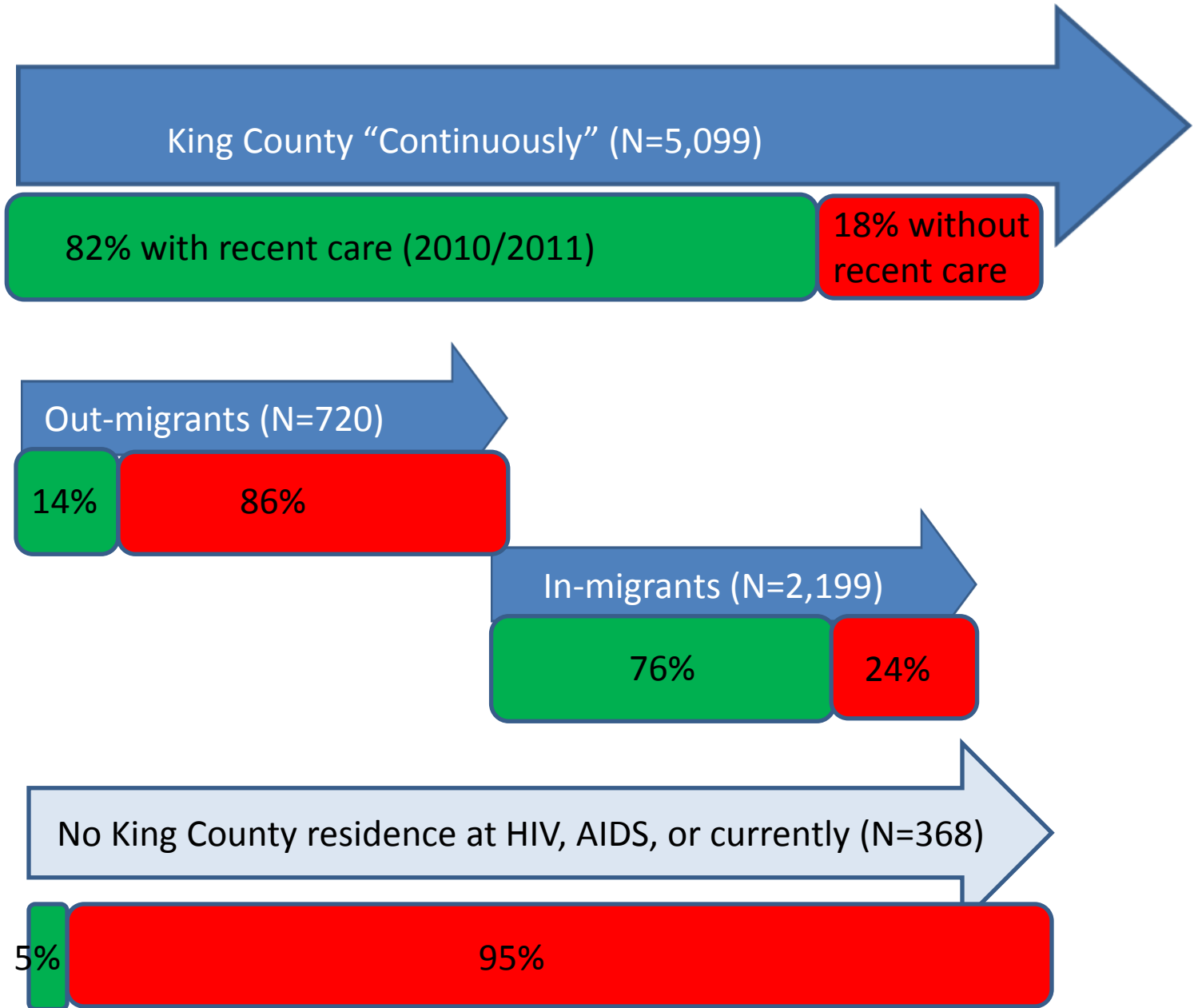
In-migrants (N=2,199)



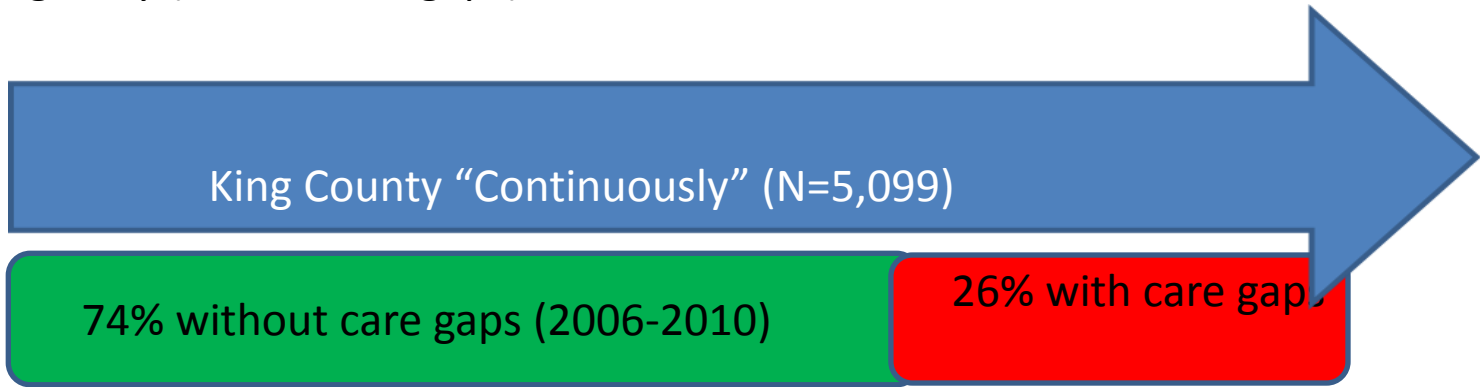
No King County residence at HIV, AIDS, or currently (N=368)



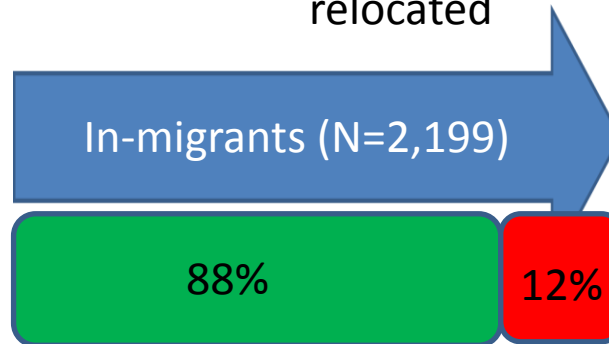
# Recent Care Status (2011 & first half 2012)



# NOTICE Eligibility (Due to care gaps)



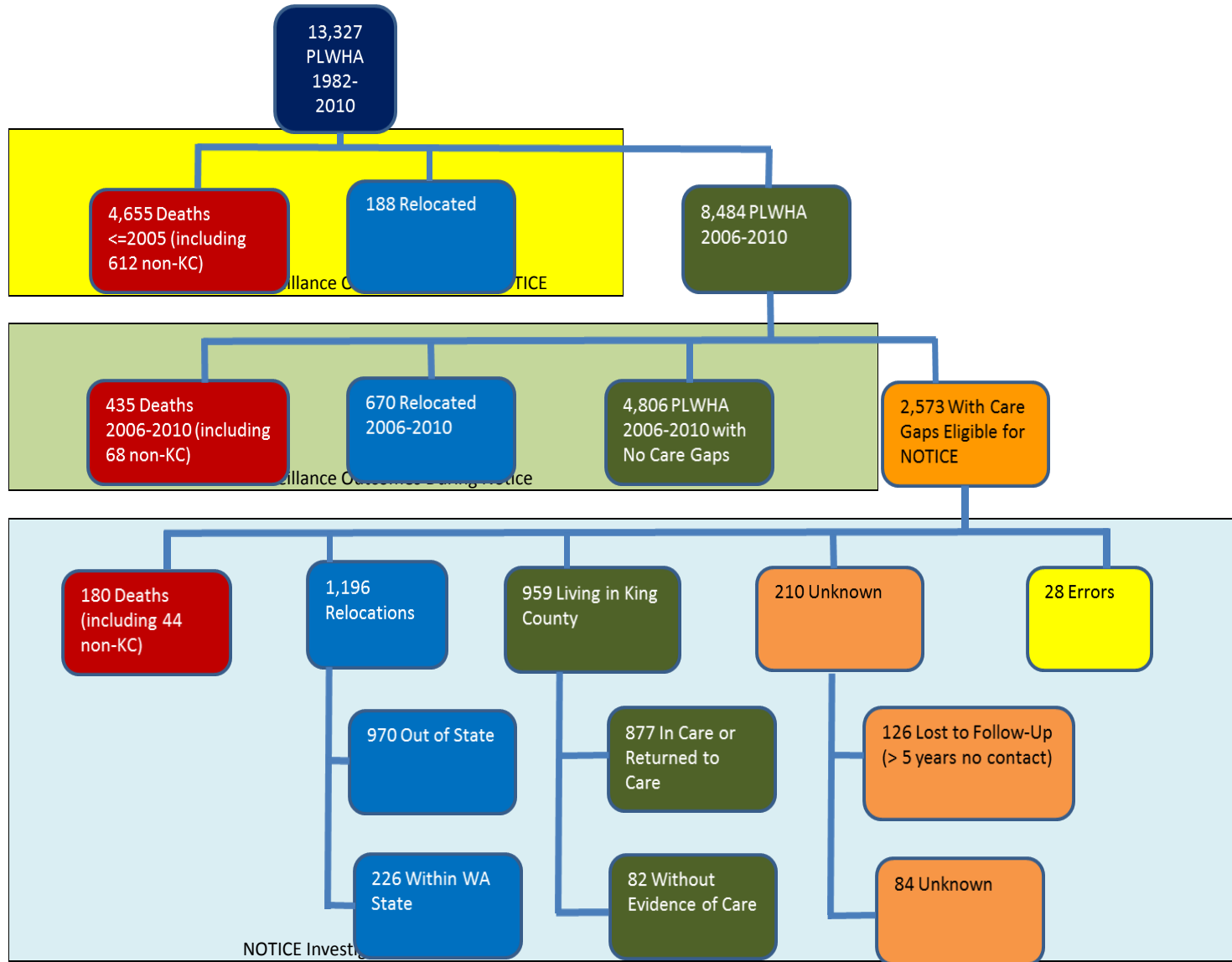
One-third (32%) with gaps may have relocated



Half with gaps (48%) may have relocated

8% continuous residents and 5% in-migrants may have out-migrated

Figure 1. Cumulative reports of people living with HIV/AIDS (PLWHA) to HIV/AIDS surveillance and disposition as of 12/31/2010 in King County, Washington State, USA

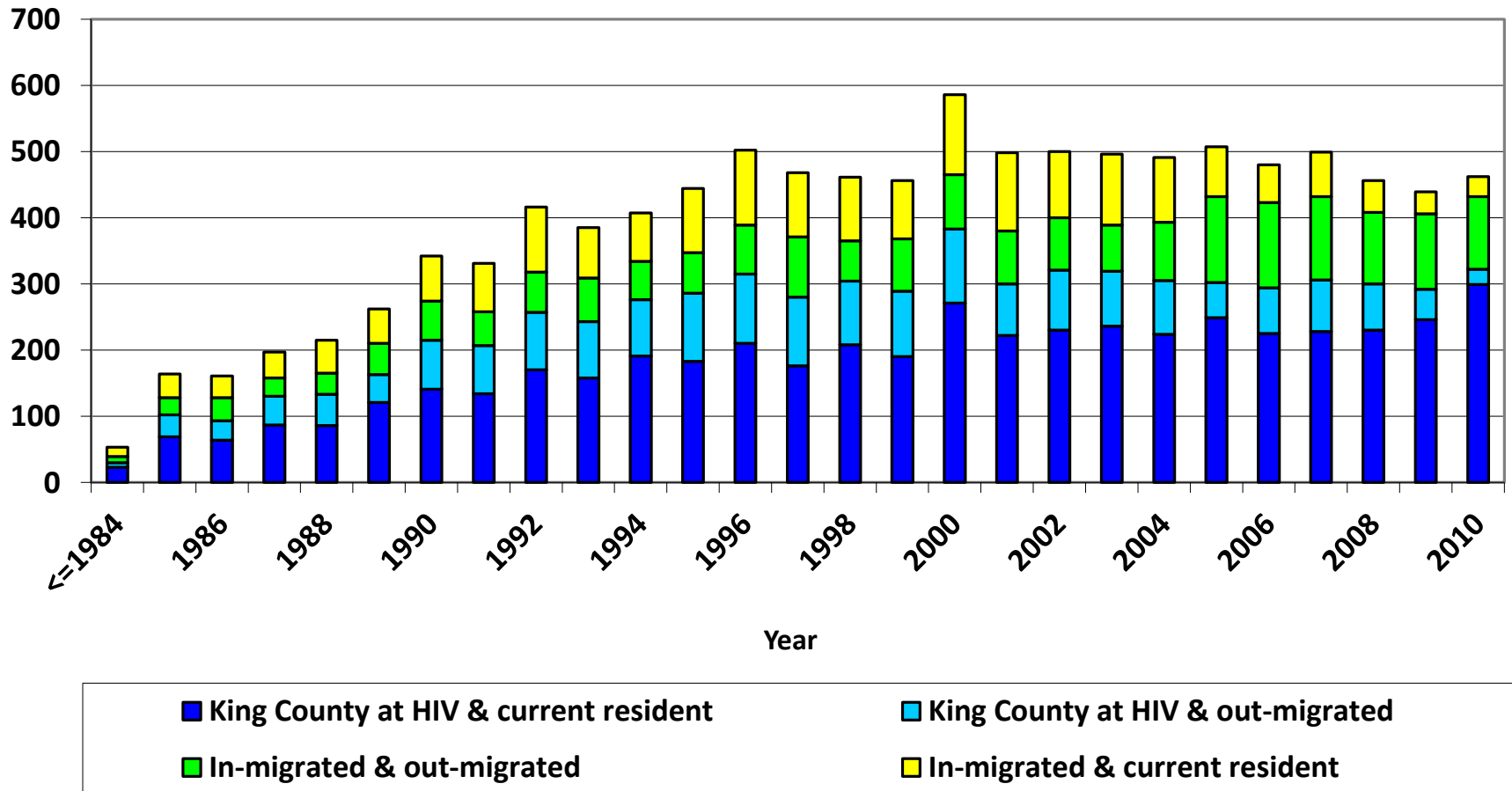


# Problems in NOTICE analyses

- Outmigration may have been detected by other means attributed to NOTICE
- Not fully using document-based addresses available in eHARS
- Individuals without KC residence at HIV, AIDS, or currently should probably not have been eligible

# Migration by year of HIV diagnosis

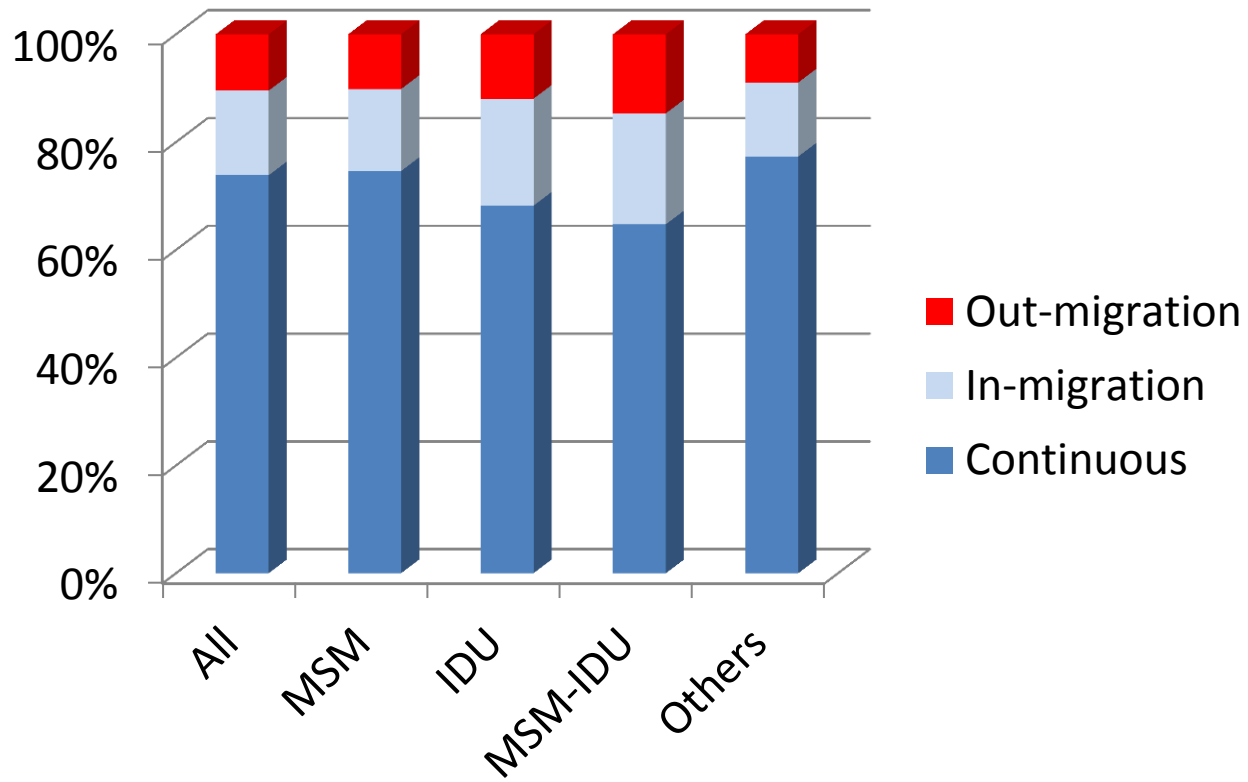
Fig. 3: Number of people living with HIV/AIDS as of 12/31/2010 by diagnosis year and in & out-migration status, King County, Washington State, 2006 - 2010



# Back to core surveillance

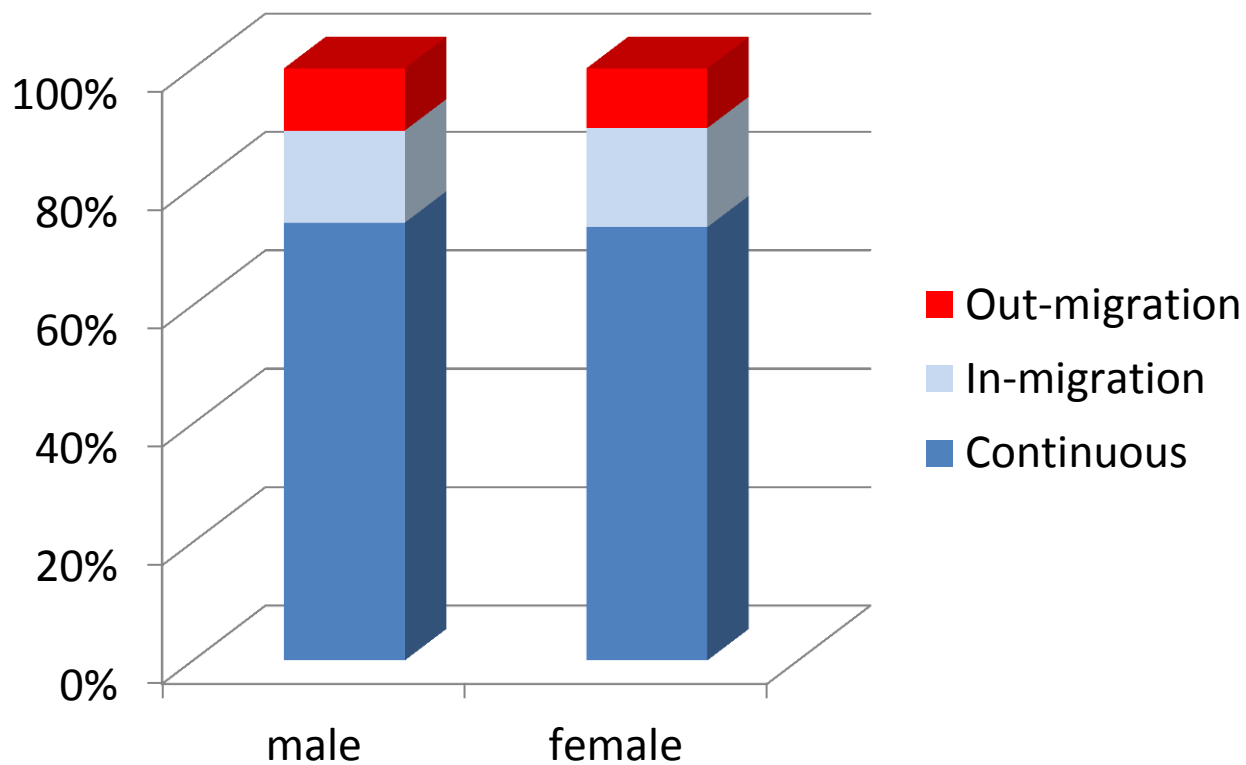
- Examine period prevalent HIV cases 2006-2010
- This period selected due to NOTICE investigations likely capturing outmigration
- Require a lab in lab tracking 2006-2010 OR an HIV diagnosis 2006-2010 to get a 5 year prevalent cohort
- Lab in 2010 overwrote outmigration

# Continuous residence, in migration & out migration as of 12/2010 core HIV King County By Transmission category

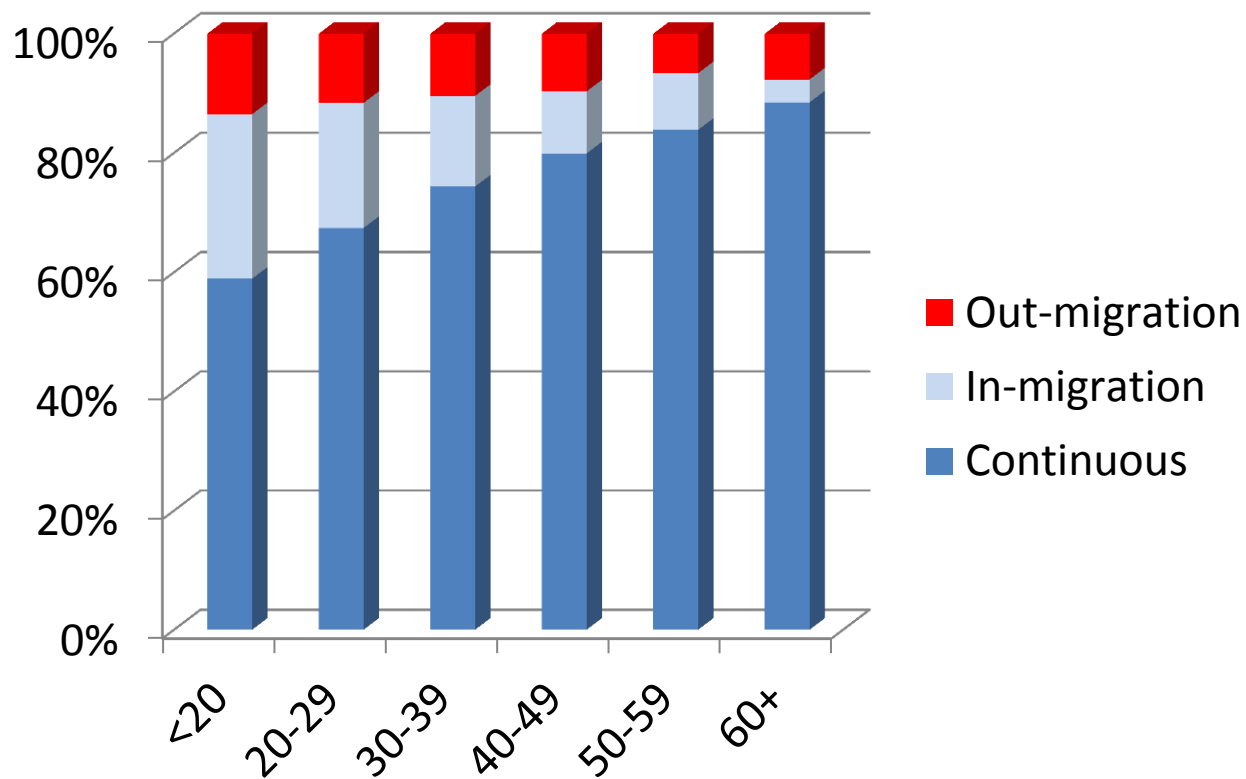




# Continuous residence, in migration & out migration as of 12/2010 core HIV King County By Gender

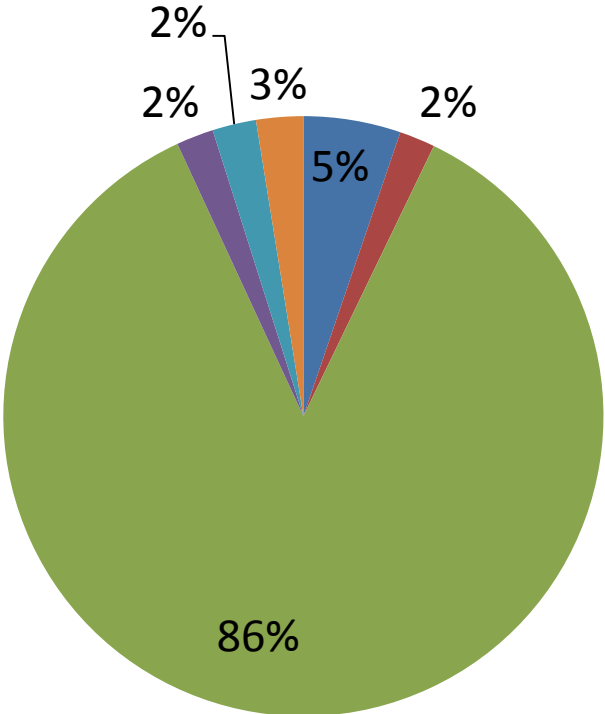


# Continuous residence, in migration & out migration as of 12/2010 core HIV King County By Age

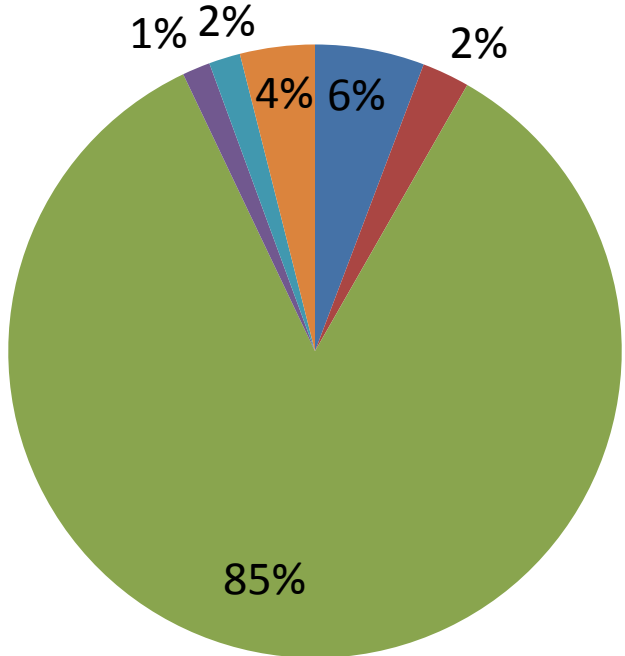


# Birthplace

**In migrants**



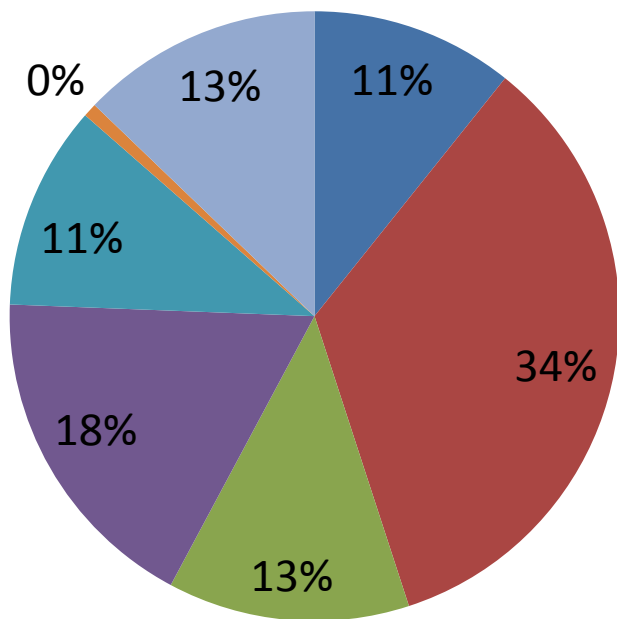
**KC at HIV**



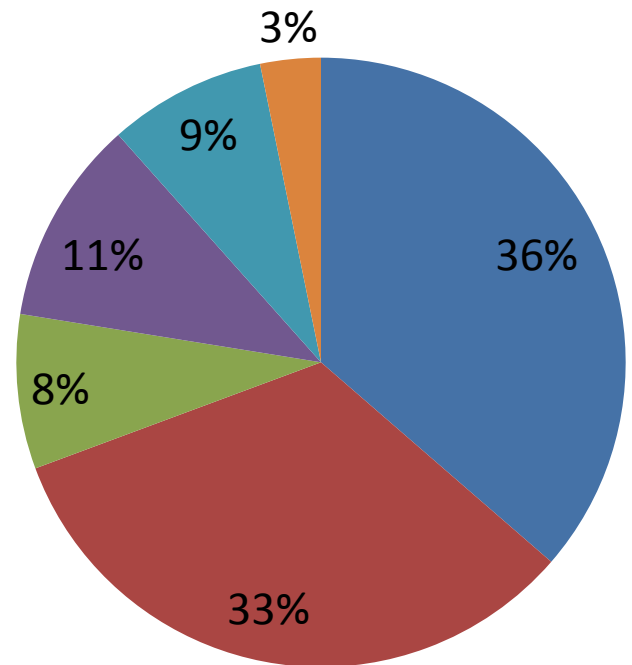
- Africa
- Asia
- Americas
- Central Am
- Other
- Unk

# Area of country (states of residence) for in- and out- migrants

## In migrants



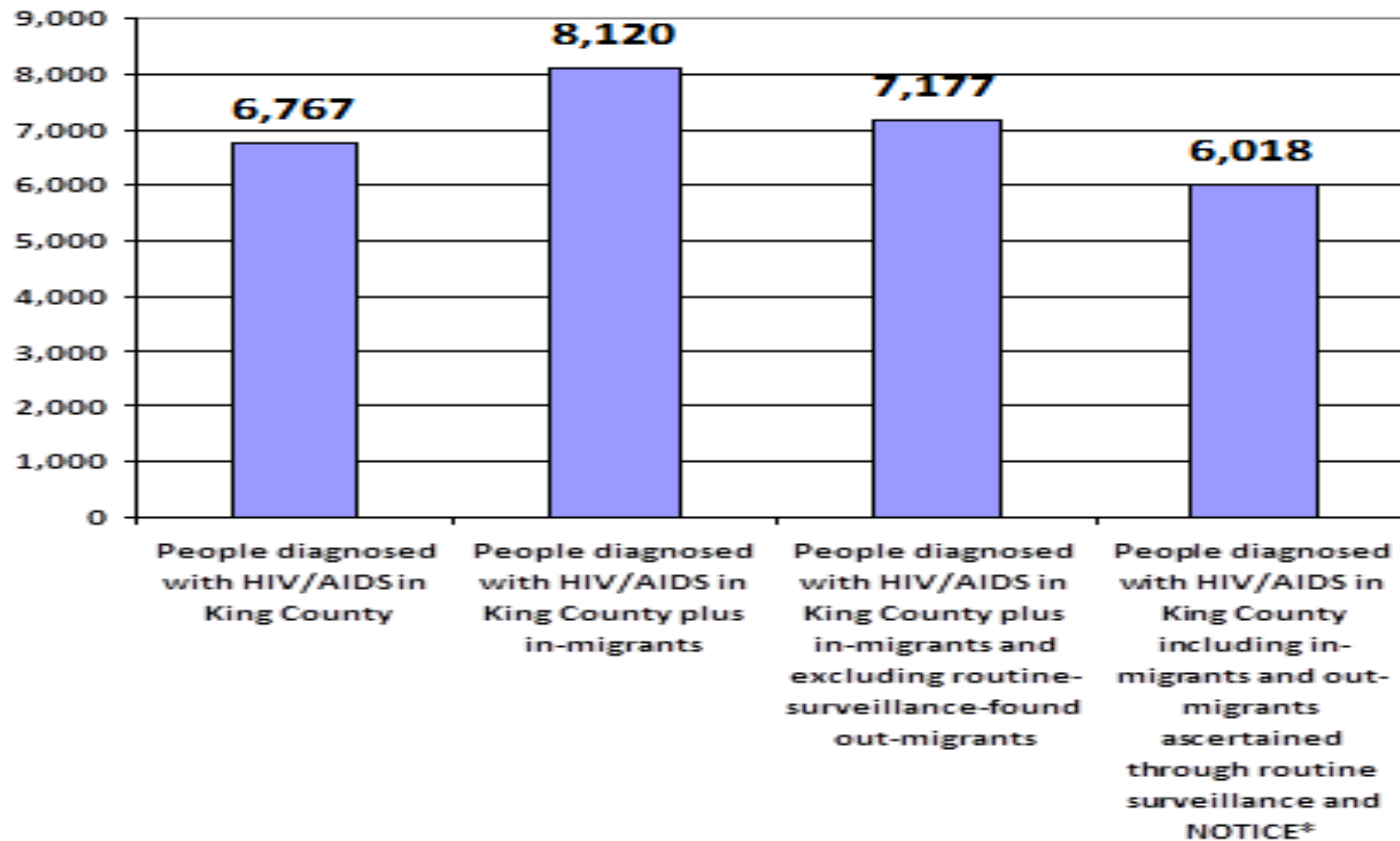
## Out migrants



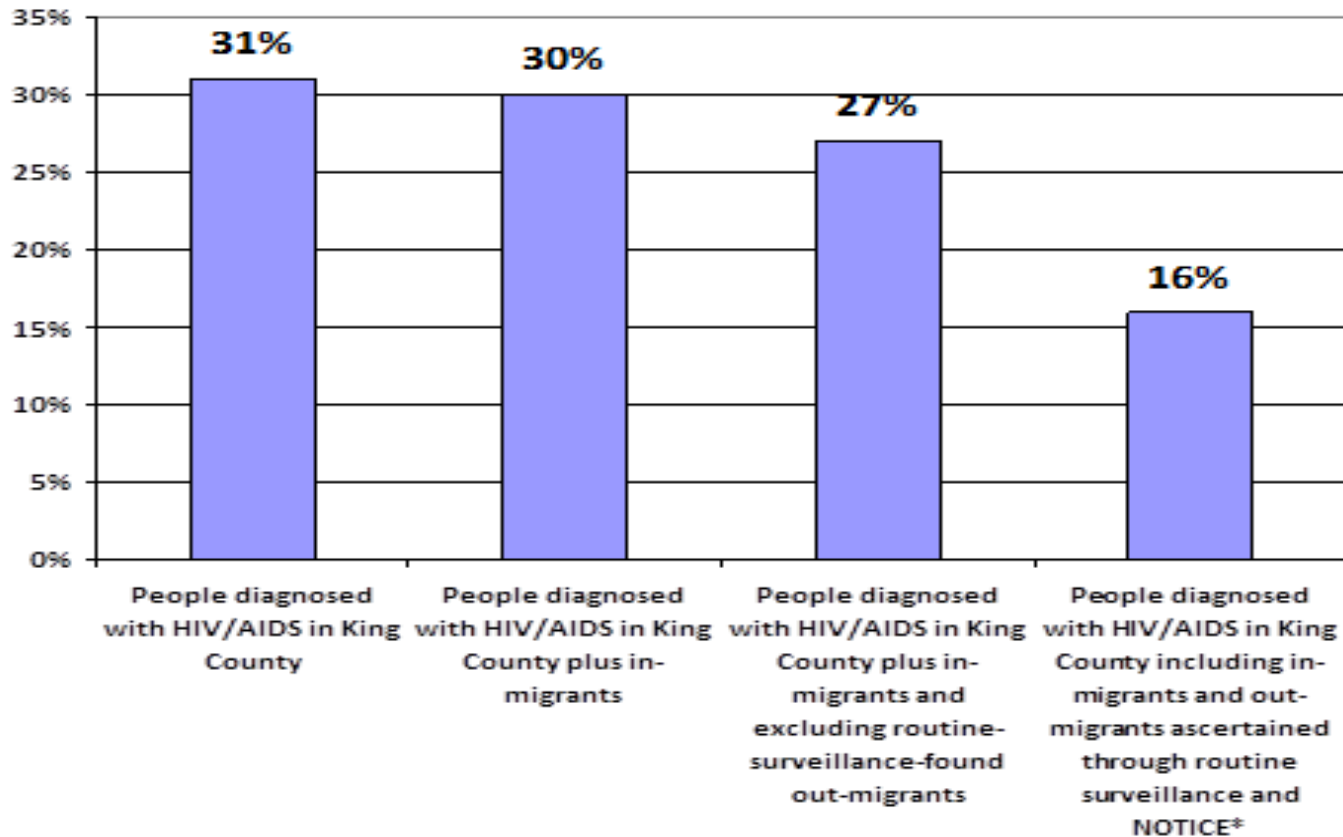
- Northwest
- Southwest
- Northeast
- Southeast
- Other USA
- Foreign country
- Unknown

Figure 2: Number of people living with HIV/AIDS (PLWHA) as of 12/31/2010 using different surveillance definitions and the proportion without reported HIV monitoring laboratory results in 2011; King County, Washington State, USA

**2a. People diagnosed with HIV/AIDS**



## 2b. Percent with no laboratory monitoring in 2011



\*NOTICE = Not In Care Evaluation where individuals with no reported CD4+lymphocyte or plasma viral load tests for 12 months or longer between 2006 and 2010 were investigated.

# Impact on Care Cascade?

- If in-migration or out-migration much larger than the other
- If residence at time of HIV alone is used and out-migrants (and deaths) still in the denominators of care, arv, and VL suppression
- Exclude transiently in jurisdiction?
- Can we estimate dates of out-migration (last lab)?