Is language at medical visit or at home a good proxy for country of birth?

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Background

Country of birth is important for tuberculosis surveillance and clinical decision-support, but is often missing in electronic medical records (EMRs).

Objective

Evaluate whether language spoken at medical visit or at home were reasonable proxies for country of birth among Californians.

Methods

Data Source: 2014-2017 California Health Interview Survey, limited to persons 18+ (n=82,758). We calculated survey proportions and 95% confidence intervals (CI).

Language at medical visit was defined as language spoken by doctor at last medical visit and excluded those who had difficulty communicating with their doctor (<5%) or without a medical visit in last two years. We analyzed countries of birth with the most TB cases in California.

Results

96%

of adults with a medical visit in a non-English language were born outside the U.S. (CI: 96-97).

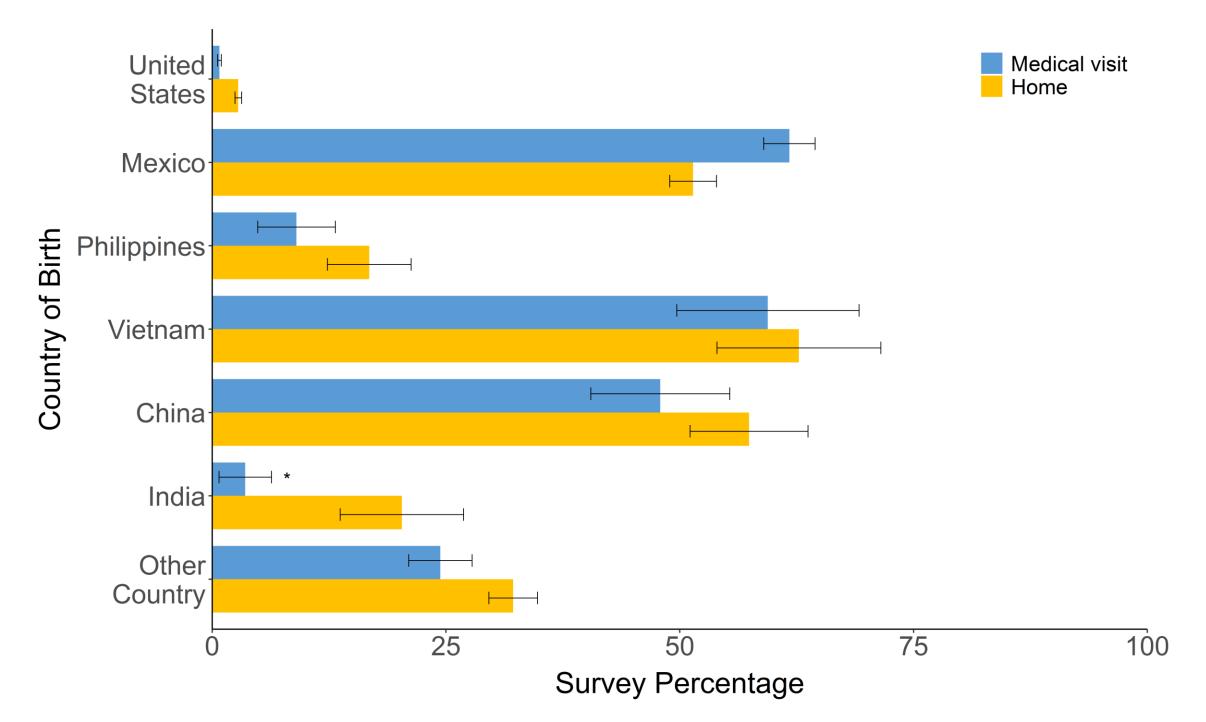
Consistent across languages.

42%

of adults born outside the U.S. had a medical visit in a non-English language (CI: 40-44).

Varied by country of birth.

Non-English language spoken at medical visit or at home† by country of birth, California 2014-2017



[†] Non-English language at home defined as no English spoken at home.

Limitations

- Language at medical visit and language at home may be different that preferred language noted in the EMR.
- Survey respondents assumed to representative of target population.

Conclusions

- 1. Non-English language at medical visit is an excellent proxy for non-U.S. birth, but will identify only half of all non-U.S.-born persons.
- 2. Preferred language as noted in EMRs may be suitable as a starting point for identifying high-risk subgroups.
- 3. EMRs need to be modified to collect country of birth data, without which a large portion of high-risk subgroups could be missed.



^{*} Estimate has a relative standard error >30% and is statistically unstable; Interpret with caution.