

Association between immigration status & cervical cancer screening: systematic review & meta-analysis

Syeda Kinza Rizvi¹, Ruth Diaz¹, Dr. Doreen Rabi¹, Dr. James Dickinson^{1,2}

Department of Community Health Sciences¹ & Family Medicine², University of Calgary

Background

- In developed countries, much invasive cervical cancer, & the highest mortality rates, occur in women who never had a Pap test.
- Immigrants appear less likely to have been screened for cervical cancer than non-immigrants.
- Education, marital status, income, primary care provider characteristics, acculturation, and women's knowledge and beliefs about cervical cancer screening seem to be associated with low levels of screening among immigrants.

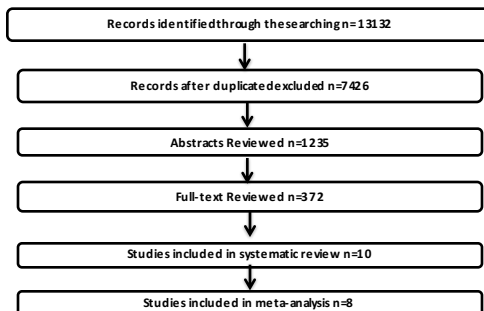
Research Question

What is the association between immigration and ever having cervical cancer screening in developed countries?

Method

- The search used guidelines of the Center for Reviews and Dissemination (CRD)
- Data was extracted using the 2009 PRISMA checklist
- The Newcastle-Ottawa Quality Assessment Scale was used for confounding and quality assessment.
- The odds ratio (OR) was used as the measure of association.

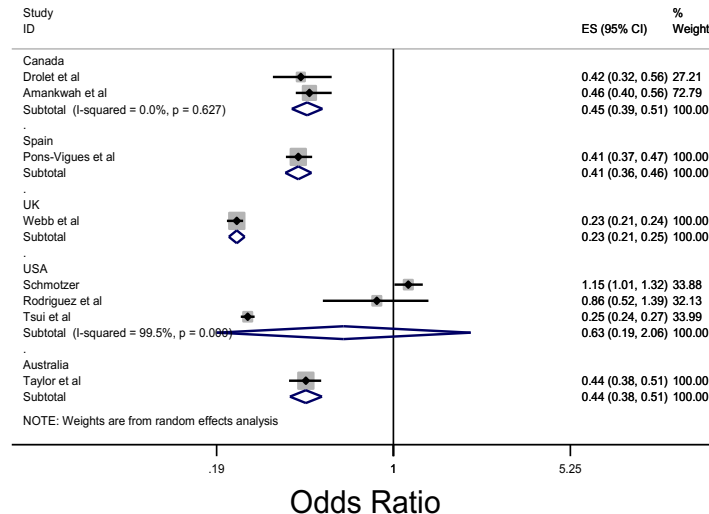
Figure 1: PRISMA Flowchart of included studies



Results

Figure 2: Forest plot of the association between immigration status and cervical cancer screening, stratified by country where the study was conducted

- Immigrants are less than half as likely to have ever been screened as non-immigrants in Canada, Spain, and Australia. In UK, the ratio is worse and in the USA, the trend was similar but not significant.



Conclusion

- A significant association was found between immigration status and cervical cancer screening in developed countries
- Efforts to increase cervical cancer screening should focus on newly arrived immigrants, immigrants with low levels of education, with low household annual income, and particularly from Asian background.
- Improving access to care is important to increase cervical screening practices among immigrant populations.

Future Research

- Stratified analysis on factors that influence screening practices between immigrants and non-immigrants.
- Association of measure and confounders should be clearly reported
- Uniform definition to classify immigration status will provide trend over years since immigration
- Distinguish between immigrants who have never been screened in their lifetime or since immigration to help understand if barriers are beliefs & cultural norms, or accessibility and policies to screening

Discussion

- Immigration status could mask the relationship between demographic characteristics & screening practices
- Cost of Pap test is not related to screening practices
- Comparing immigrants vs. native born within a single ethnic group can be misleading
- Data reporting issues included: immigration status not defined, confounders not accounted for, measures of association or data to calculate it were not provided

