

# Ethnicity and Health Literacy: A Survey on Primary Health Care Knowledge

Ceara Cunningham

PhD Student  
Community Health Sciences  
University of Calgary

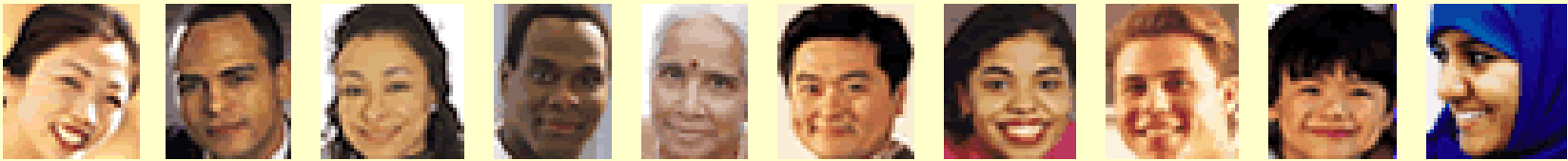


UNIVERSITY OF  
CALGARY

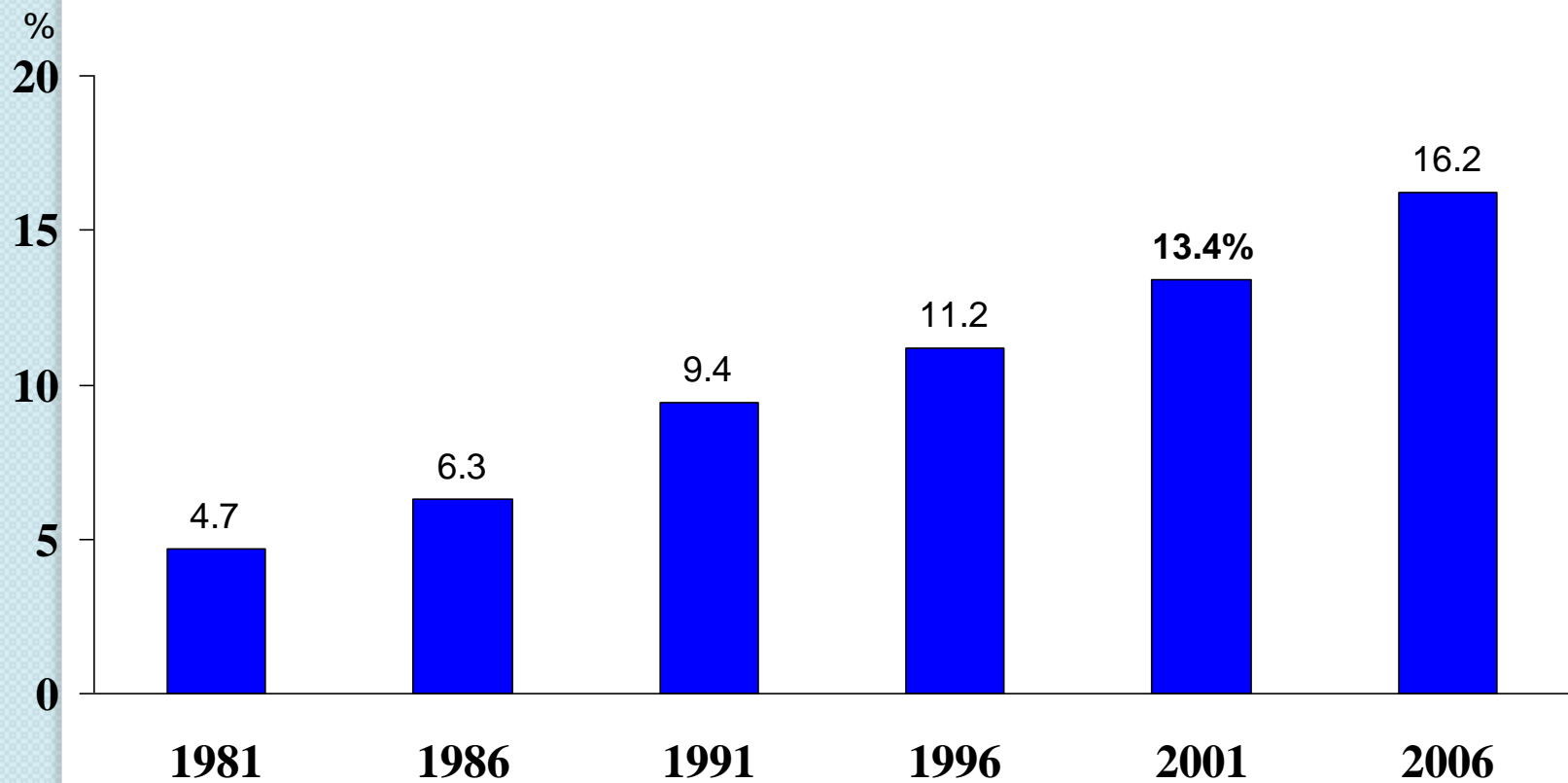
# Health Literacy



- Encompasses the ability to access and navigate the healthcare system ensuring maximum utilization
- Ability to promote and maintain health across a variety of settings and across life span
- In 2007, the majority of adult Canadians (60%) lacked the capacity to understand and obtain the necessary skills to manage their health adequately.



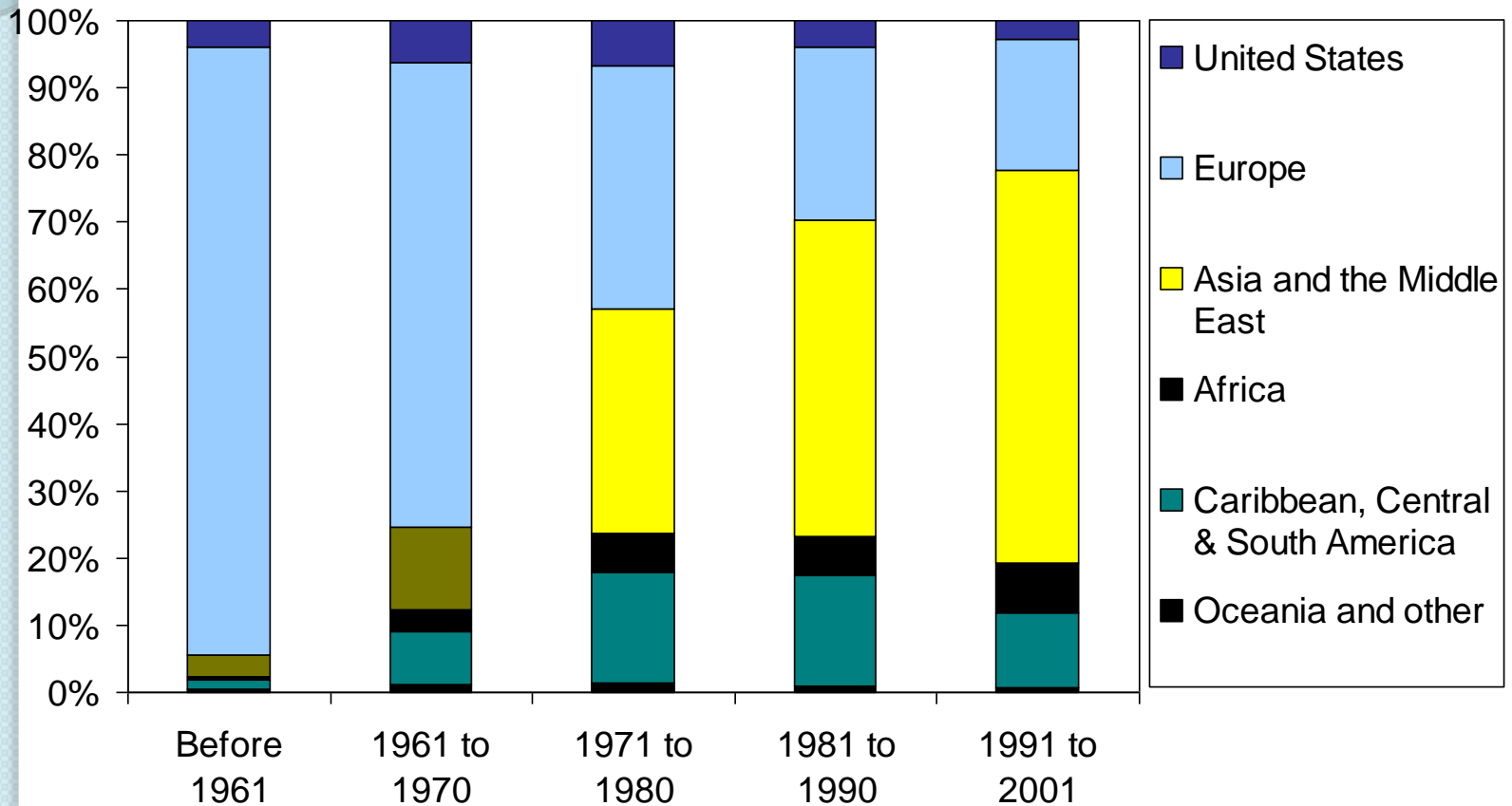
## Visible minorities made up 16.2%



Statistics  
Canada

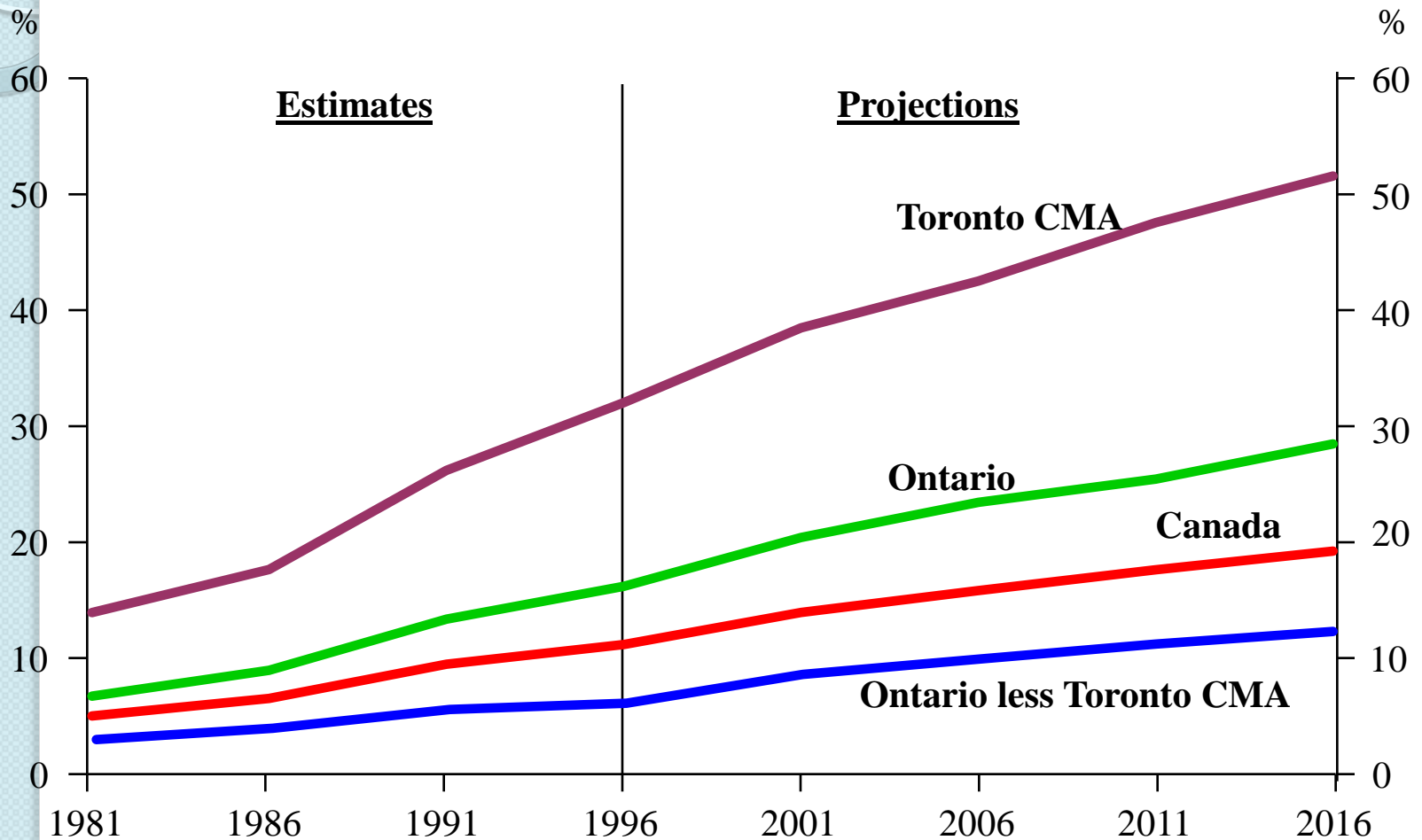
Statistique  
Canada

# Immigrants coming to Canada are increasingly from Asia and the Middle East

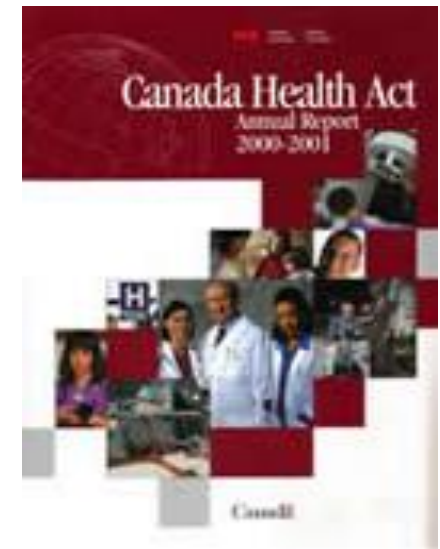


# Future Estimates...

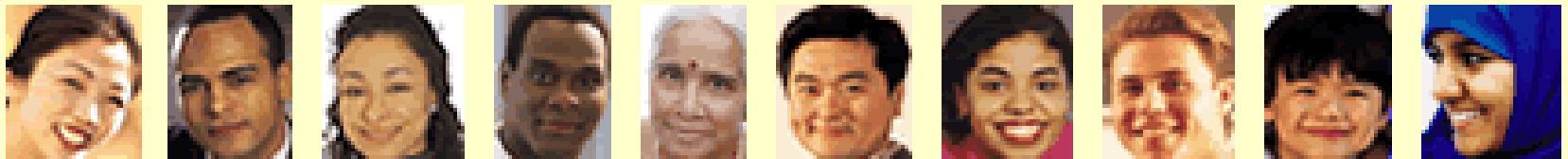
## Visible minority populations will grow



# Canada Health Act

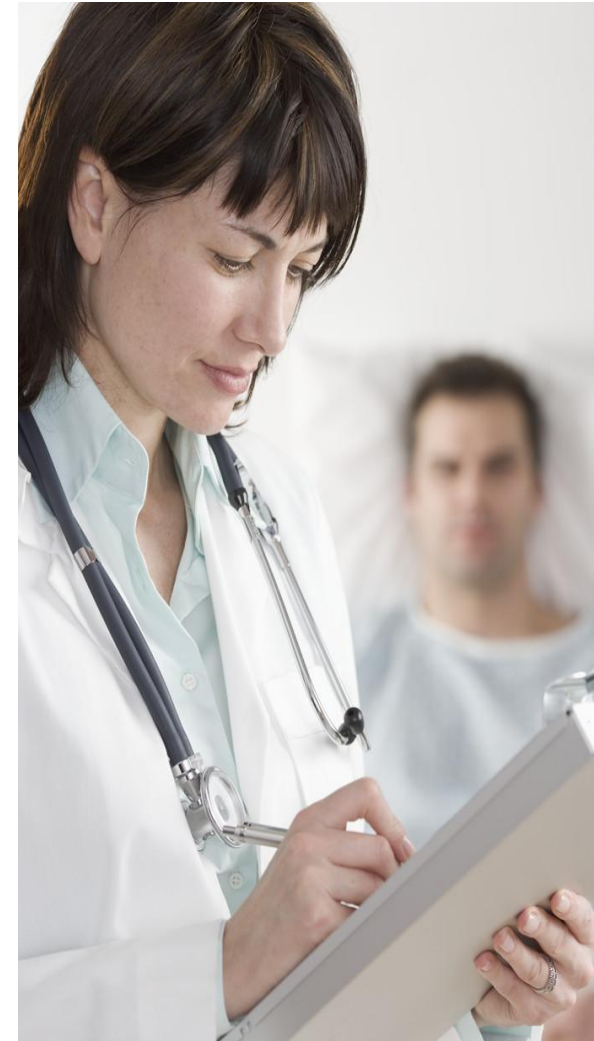


To ensure that all residents of Canada have reasonable access to medically necessary insured services without direct charges.



# Primary Health Care (PHC)

- Serves as the primary entry point into the healthcare system in Canada
- Familiarity of the healthcare system is an important factor for healthcare services utilization
- In 2012, one in eight Canadians reported visiting emergency departments for a condition perceived as being treatable by their primary healthcare provider



# Primary Health Care and Ethnicity

- Studies have shown the following differ across ethnic groups in regards to knowledge of PHC services:
  - ❑ Variations in the use of preventative services such as cervical cancer screening, prostate exam, cholesterol measurement and vaccinations
  - ❑ Under-utilization of family physicians in regards to acute, emergent and ambulatory services





# Reasons for variations?

- Educational attainment
- Limited English proficiency
- Health literacy
- Cultural views
- Health insurance coverage
- Poor patient-provider interactions
- Familiarity with Canadian healthcare system because many ethnic population immigrated from countries without primary healthcare



# Research Objective



- To conduct a telephone survey to investigate knowledge and awareness regarding primary healthcare services among Chinese, Indian and Caucasian residents in Calgary, Alberta.

# Methods

- Cross-sectional telephone survey using random sampling method
- Sampling frame designed based on surnames found in the Calgary telephone directory
  - ✓ Validated list of surnames used to identify individuals of Chinese and Indian descent
- Survey conducted in: English, Cantonese, Mandarin, Hindi, Urdu or Punjabi

# Inclusion Criteria

- 18 years of age or older
- Permanent resident or citizen of Canada on or before January 1, 2010
- Self-identify as being of Chinese, Indian, or White descent
- Speak English, Cantonese, Mandarin, Hindi, Urdu or Punjabi

# Questionnaire: knowledge assessment

- 1) Literature synthesis to identify key components of PHC knowledge
- 2) Qualitative interviews with healthcare professionals including family physicians, nurses and managers involved in PHC to pilot draft questionnaire
- 3) Revised draft based on feedback and conducted member check with individuals
- 4) Result- 16 item questionnaire to assess respondents knowledge of PHC services
- 5) Responses included: Yes, No, Don't Know

# PHC Questions

PHC Question	Responses
Does a family doctor specialize on one body part or system (like the heart)?	a) Yes b) No c) Don't know
In general, do you need a referral from your family doctor to see a specialist?	a) Yes b) No c) Don't know
Do family doctors teach patients about cervical cancer screening (PAP smears) in their clinics?	a) Yes b) No c) Don't know
Do family doctors offer any male specific health care, such as a prostate exam in their clinics?	a) Yes b) No c) Don't know
Should you see your family doctor before you travel to countries with health risks, like Africa?	a) Yes b) No c) Don't know

# Response rates- Ethnic Group

## *N of Individuals Contacted*

<b>Chinese</b> <b>(661)</b>	<b>Indian</b> <b>(545)</b>	<b>White</b> <b>(512)</b>
--------------------------------	-------------------------------	------------------------------

## *N of Individuals Participating*

<b>Chinese</b> <b>(454)</b>	<b>Indian</b> <b>(334)</b>	<b>White</b> <b>(357)</b>
--------------------------------	-------------------------------	------------------------------

## *N of Individuals Completed Questionnaire*

<b>Chinese</b> <b>(301)</b> <b>68.7%</b>	<b>Indian</b> <b>(248)</b> <b>61.3%</b>	<b>White</b> <b>(254)</b> <b>69.7%</b>
--	---	--

**RR= 66.6%**

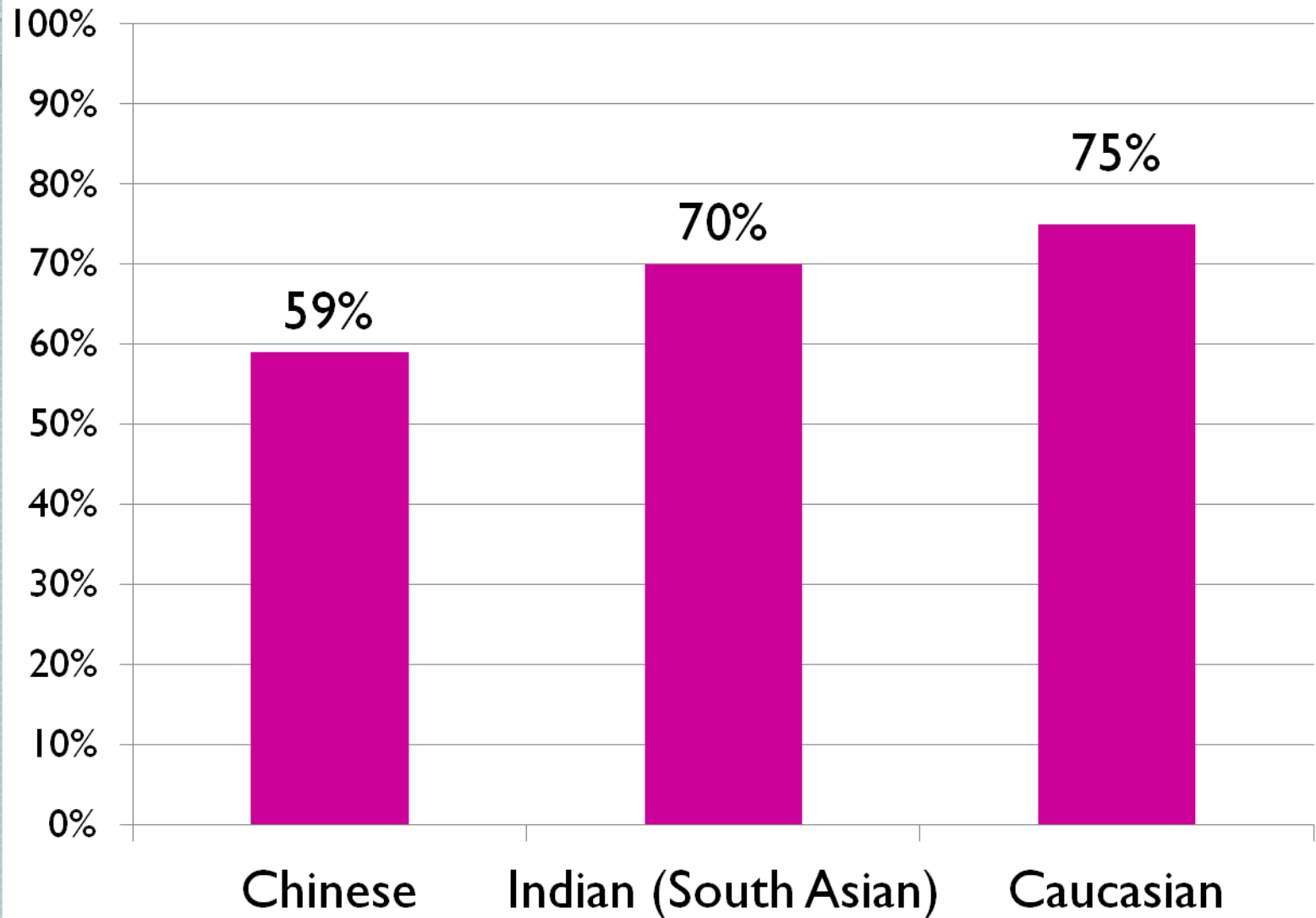
# Respondent Characteristics

<b>Variable</b>	<b>CHINESE N (% of 301)</b>	<b>INDIAN N (% of 248)</b>	<b>WHITE N (% of 254)</b>
Males	118 (39.2)	118 (47.6)	103 (50.3)
Age (35-64)	181 (60.1)	147 (60.1)	117 (46.1)
Income (> 70,000)	111 (52.6)	105 (60.0)	120 (52.9)
Immigrated to Canada	259 (86.0)	226 (91.1)	44 (17.3)
English as primary language	54 (17.9)	45 (18.1)	245 (97.0)



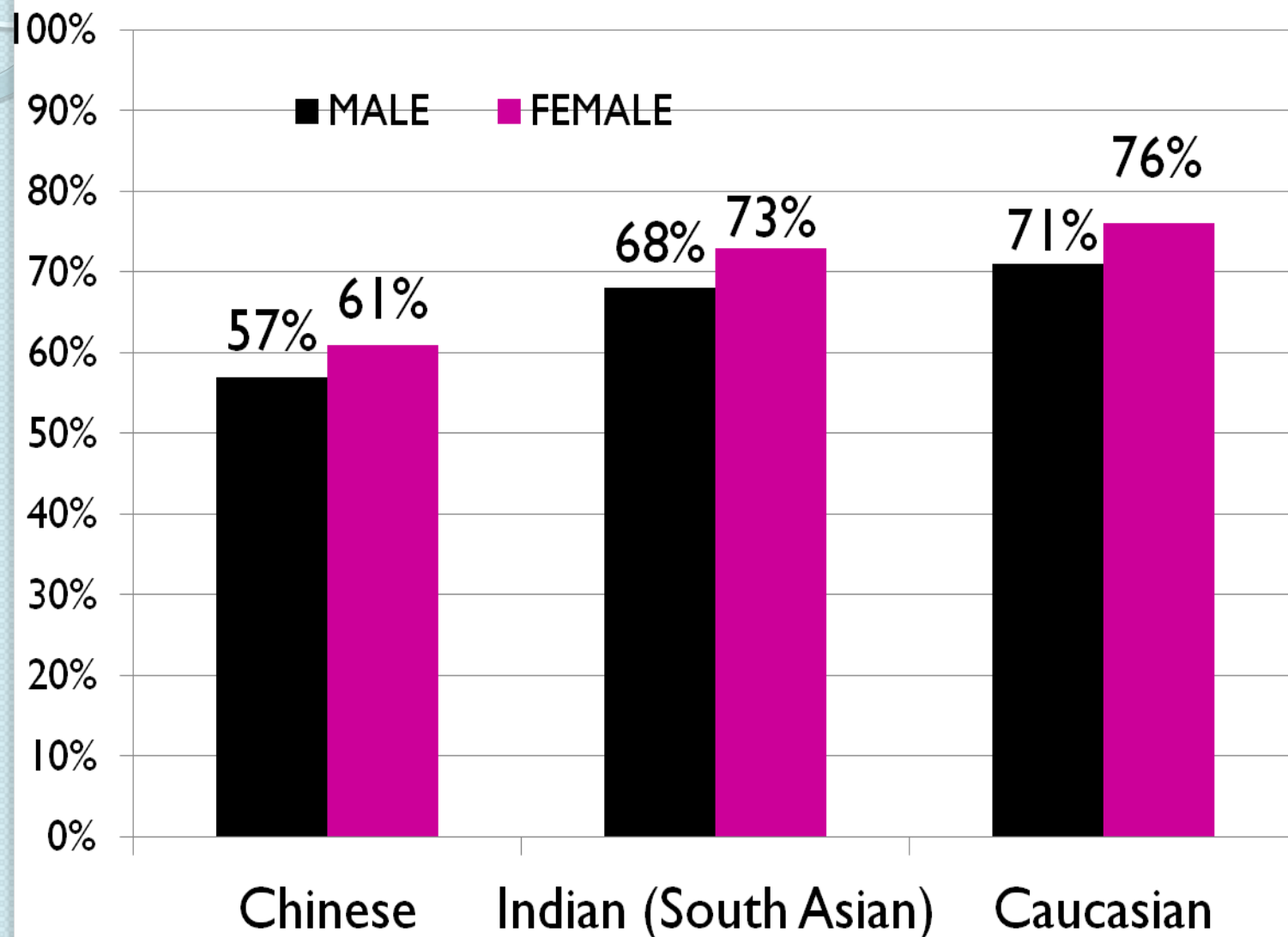
# Overall total score correct responses By Ethnicity (%)

$P < 0.05$



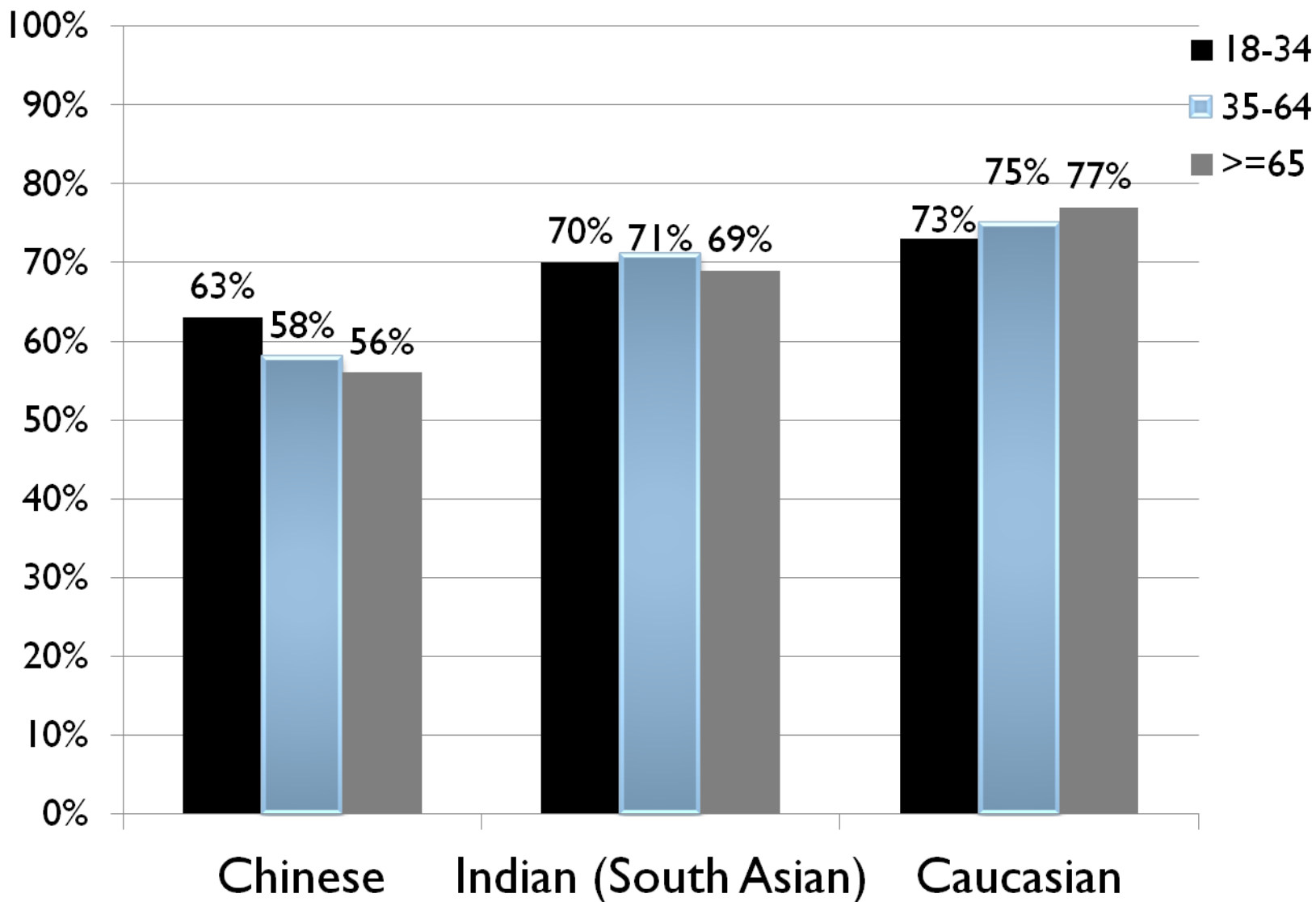
# Overall total score correct responses By Sex (%)

P=<0.05



# Overall total score correct responses By age group (%)

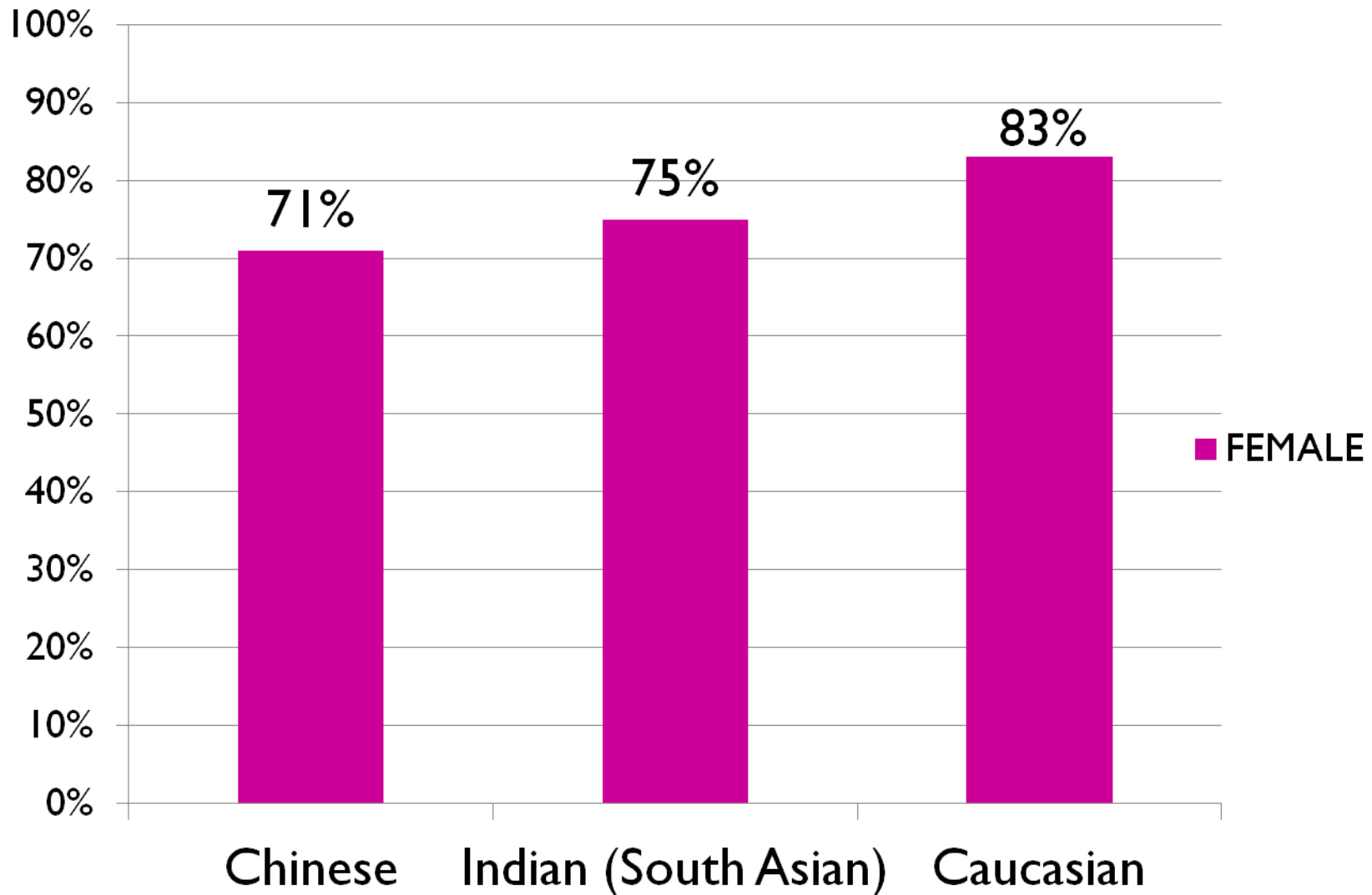
P=>0.05



# Correct response: Cervical Cancer Screening

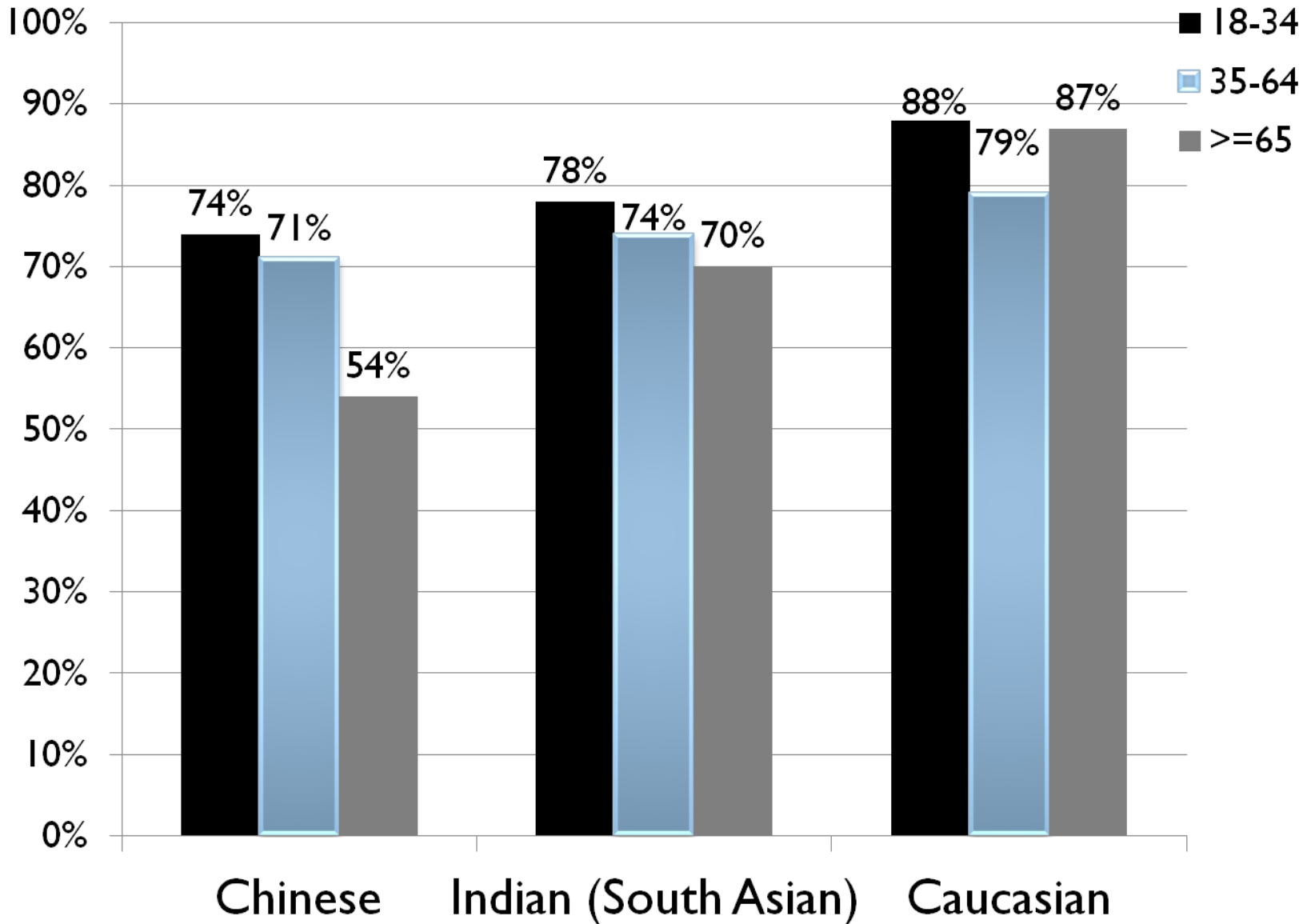
Sex: Females (%)

P=>0.05



# Correct response: Cervical Cancer Screening

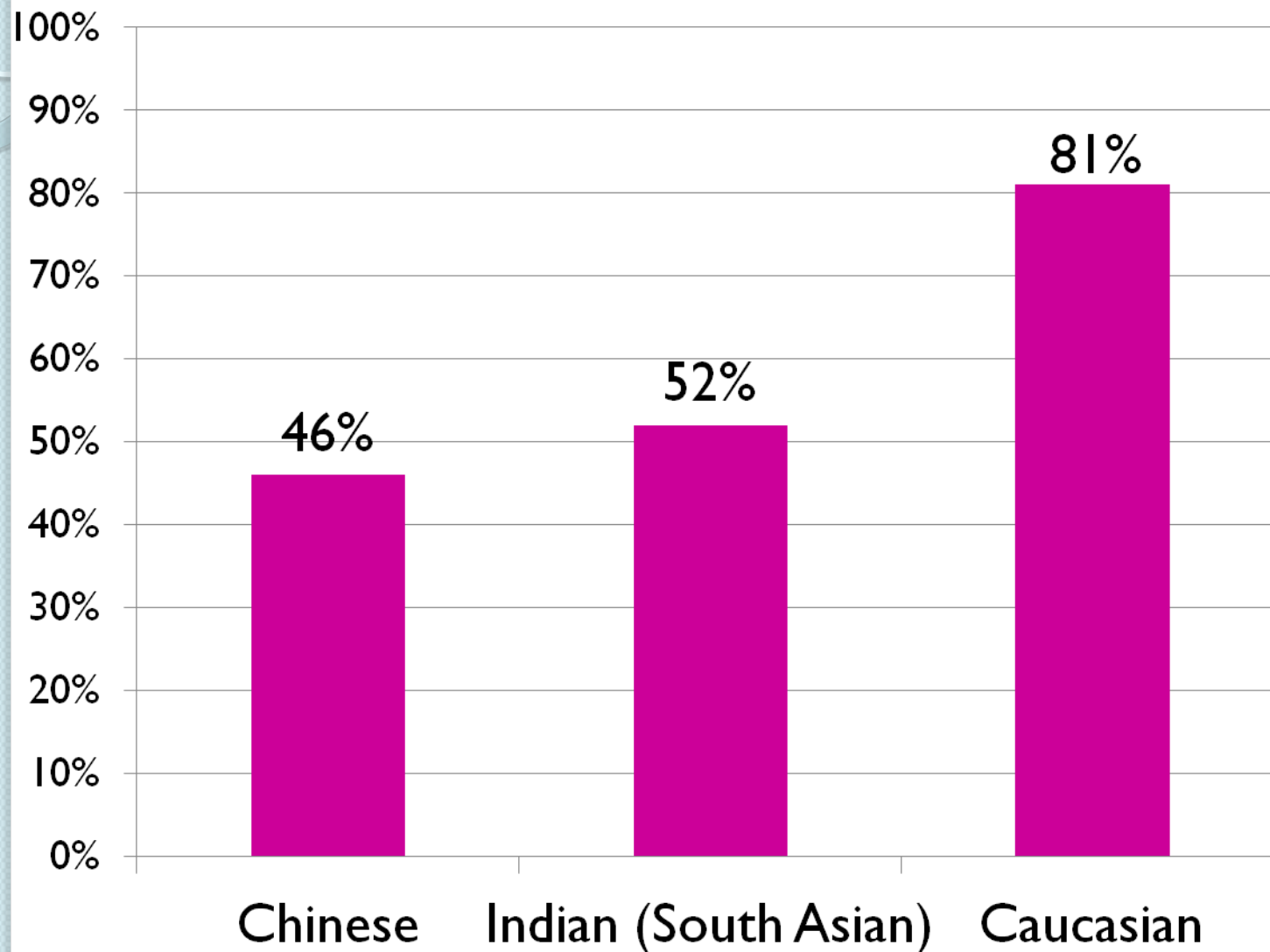
## Sex: Females, By Age (%)



# Correct response: Prostate Exam

## Sex: Males (%)

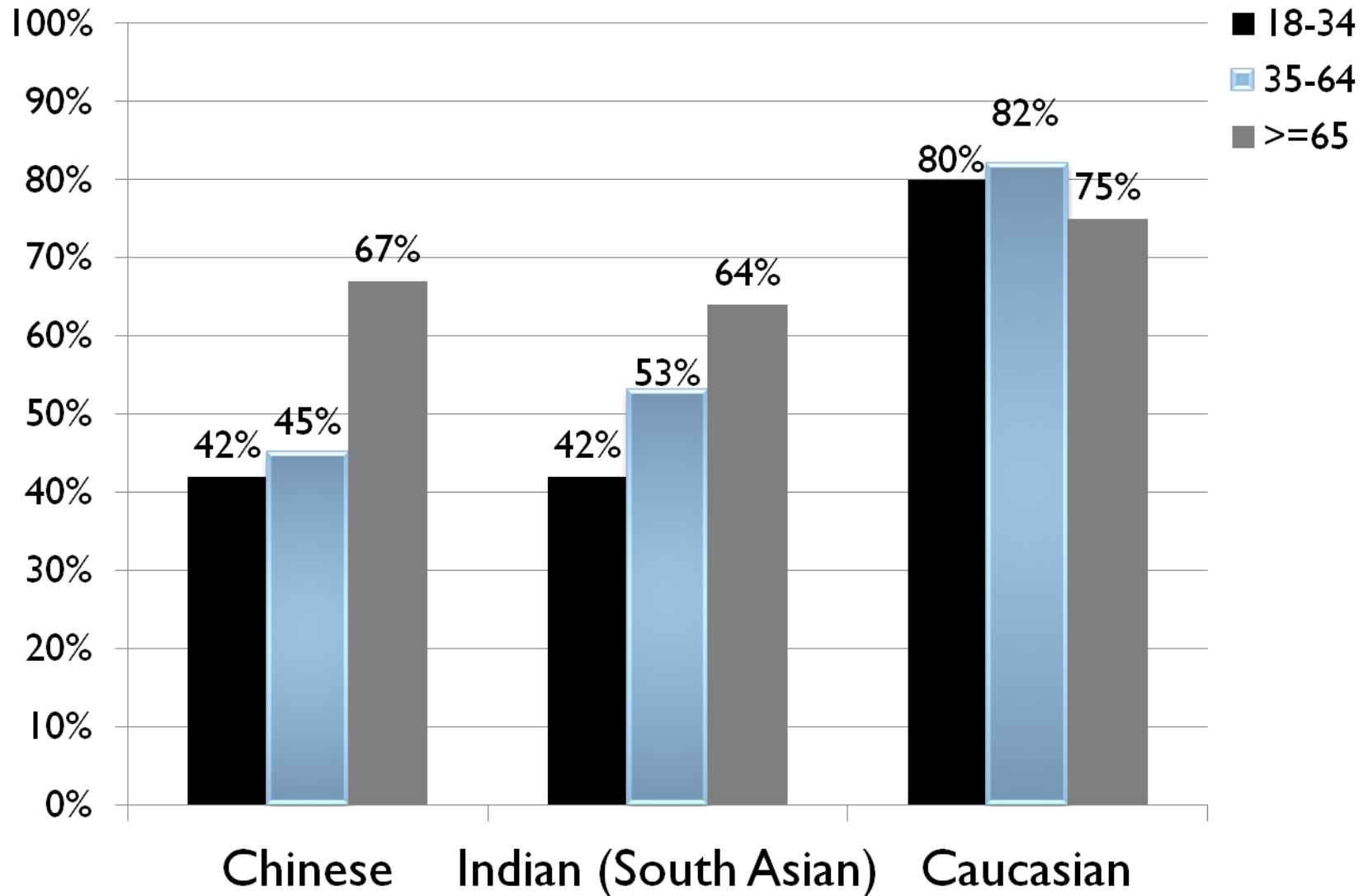
$P < 0.05$



# Correct response: Prostate Exam

## Sex: Males, By Age (%)

P=<0.05



# Conclusions

- Chinese ethnic group scored lower in overall total score (16 items) when compared to their Indian and Caucasian counterparts
- Among all 3 ethnic groups, females scored higher than their male counterparts in overall total score (16 items)
- Chinese and Indian males were less likely to know specific preventative services such as prostate screening were available from their family doctor



# Take home message!

- Preventative health services require further promotion of knowledge and awareness...
  - ✓ Cancer screening
  - ✓ Travel vaccinations
  - ✓ Immunizations

Screening services can reduce both morbidity and mortality within a population thereby reducing the burden of chronic disease on the healthcare system

# Limitations



- Recruitment method failed to include individuals whose telephone numbers were not listed in the directory or surname algorithm
- Individuals who could not speak English, Cantonese, Mandarin, Hindi, Punjabi or Urdu were not included in study
- Individuals from Chinese and Indian backgrounds had a greater level of understanding as language barrier was not an issue
- Findings may be limited due to self-report bias which occurs with survey usage

I would like to acknowledge my collaborators:

- Dr. Hude Quan
- Elizabeth Fragdely
- Lindsay Sykes
- Katie Lin, Amy Cheng, Muhammad Riaz

If you have any questions please contact Ceara  
Cunningham

[ctcunnin@ucalgary.ca](mailto:ctcunnin@ucalgary.ca)

(403) 210-9421