

**THE PHYSICIAN PIPELINE:  
WORKFORCE PATTERNS OF  
PRACTICING PHYSICIAN  
GRADUATES OF  
UNIVERSITY OF  
CALIFORNIA PREMEDICAL  
POST-BACCALAUREATE  
PROGRAMS**

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AAMC Physician Workforce Conference**

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## BACKGROUND:

- Demographics of US physicians do not reflect overall US population
- Physicians from racial/ethnic groups underrepresented in medicine (UIM) play key role in caring for underserved populations
- Premedical post-baccalaureate programs are key element in UIM physician pipeline

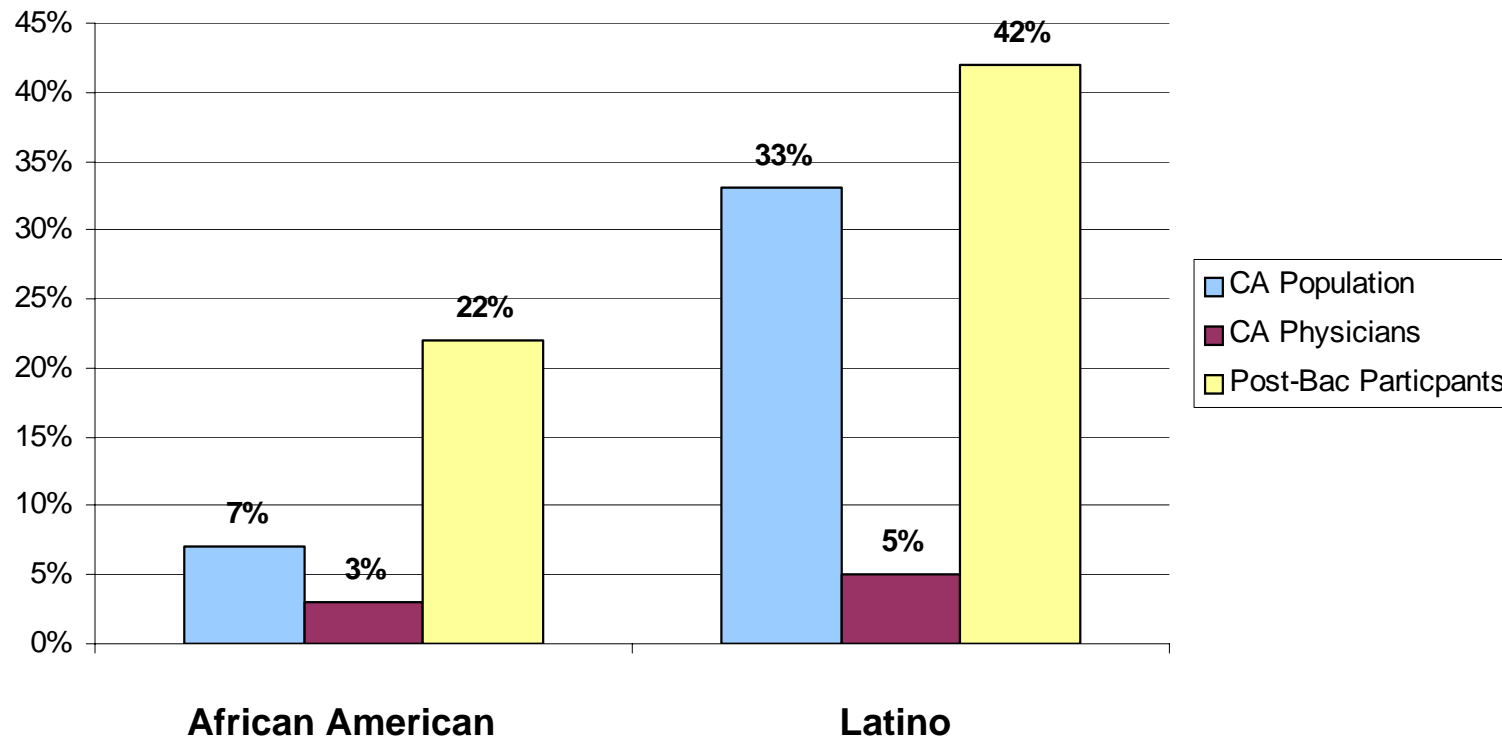


# UNIVERSITY OF CALIFORNIA POST-BACCALAUREATE PROGRAMS

- Began in 1986 at UC Irvine
- Target educationally and financially disadvantaged applicants
- 7 independently run post-baccalaureate programs (UC Davis, UC Irvine, UC Los Angeles, UCLA/Drew, UC Riverside, UC San Francisco, UC San Diego)
- 986 graduates
- Previous research has shown UCPB alumni success in achieving medical school admission



# UNIVERSITY OF CALIFORNIA POST-BACCALAUREATE PROGRAMS: CA POPULATION, PHYSICIAN AND UCPB DEMOGRAPHICS



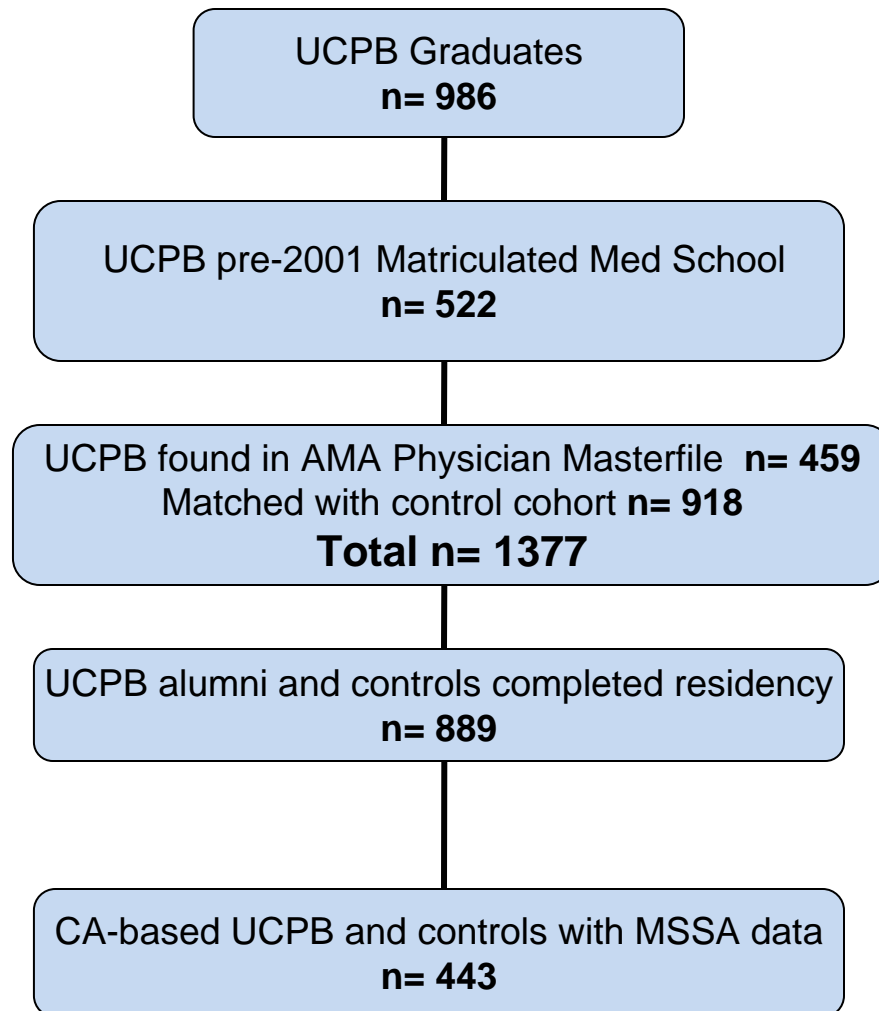
## RESEARCH QUESTION:

Compared with a group of control physicians, are University of California post-baccalaureate program alumni more likely to:

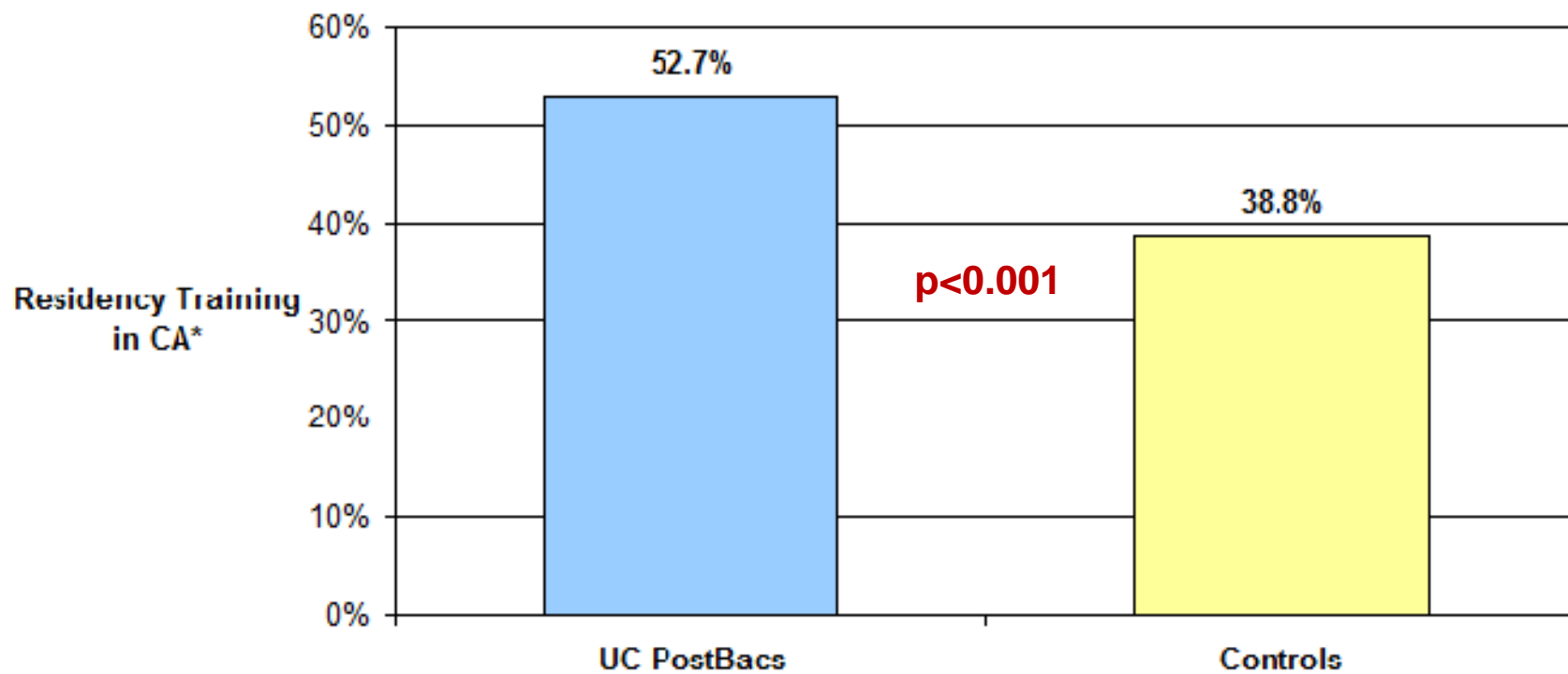
- Complete residency in California?
- Practice medicine in California after completing training?
- Go into primary care fields?
- Practice in underserved areas?



# METHODOLOGY FLOWCHART



# RESULTS: RESIDENCY LOCATION

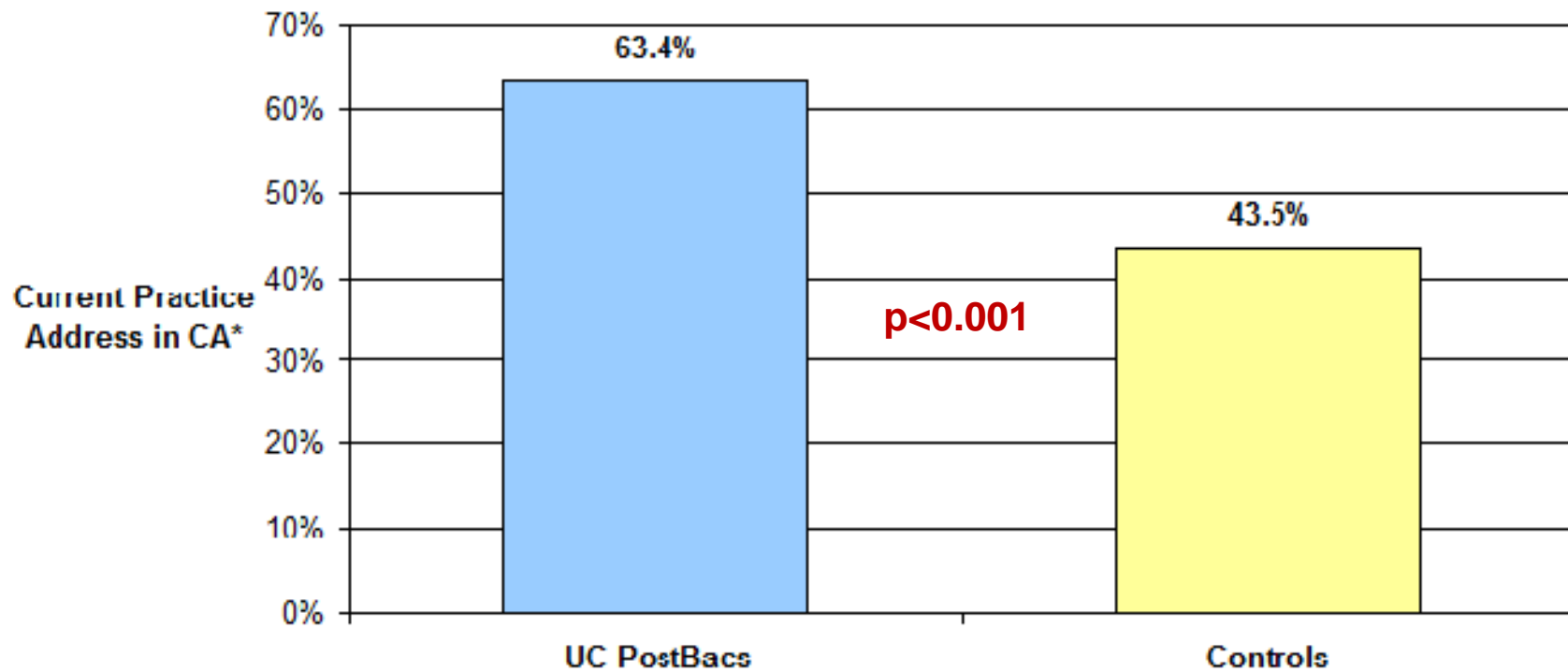


N=1377

\*Includes physicians still in residency training



# RESULTS: CURRENT PRACTICE LOCATION\*

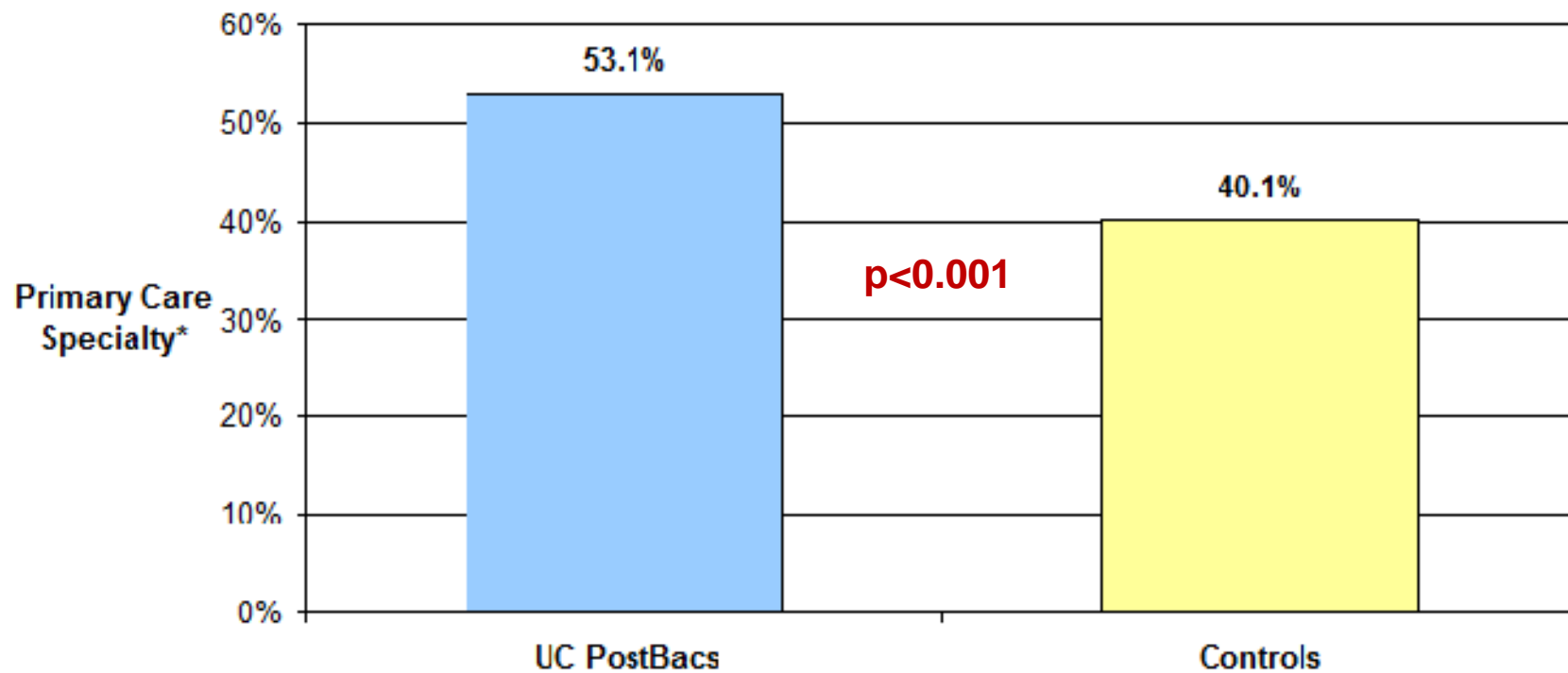


N=889

\*Excludes 488 physicians still in residency training



# RESULTS: CURRENT PRACTICE SPECIALTY\*

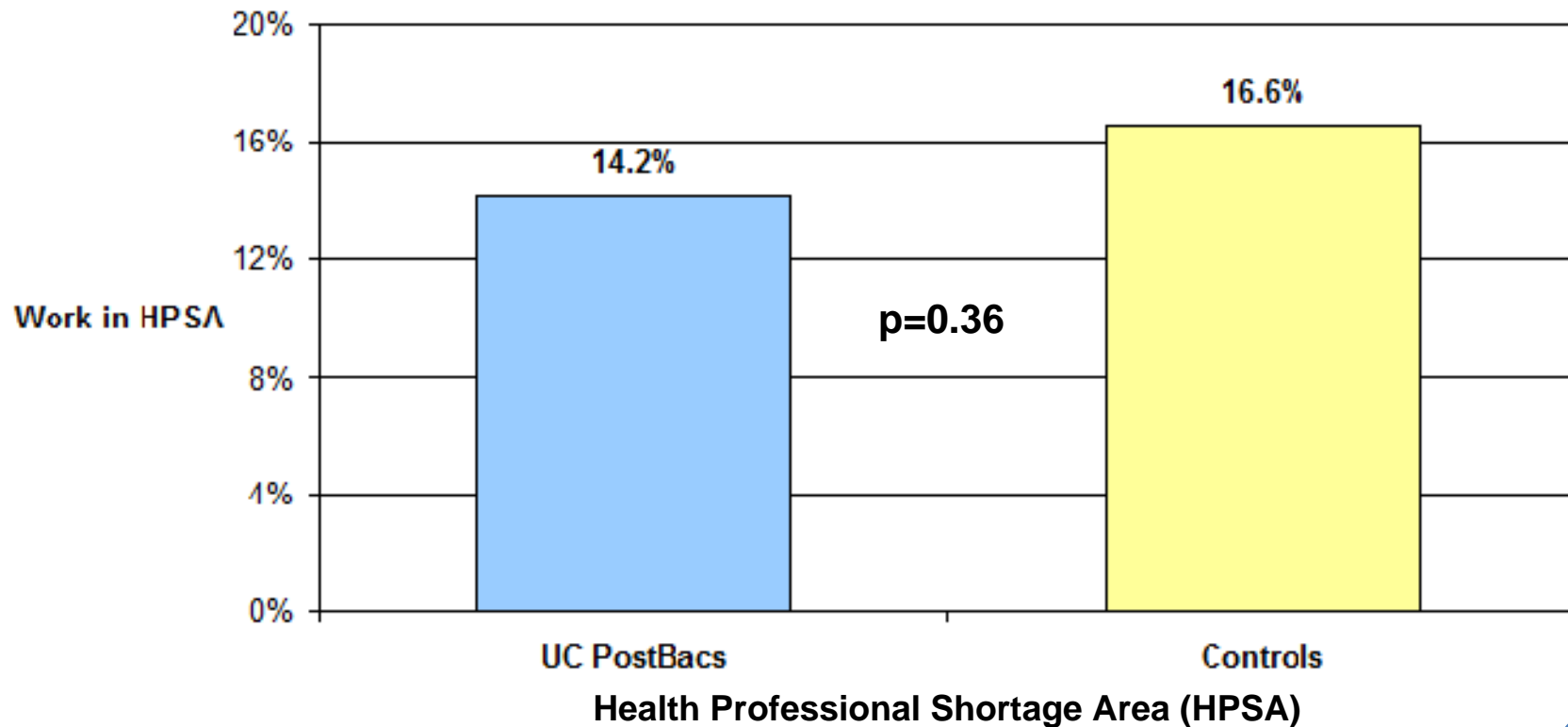


N=889

\*Primary Care Specialties: General Internal Medicine, Family Medicine, General Pediatrics, Adolescent Medicine, Geriatrics  
Excludes 488 physicians still in residency training



# RESULTS: PRACTICE IN HEALTH PROFESSIONAL SHORTAGE AREA\*

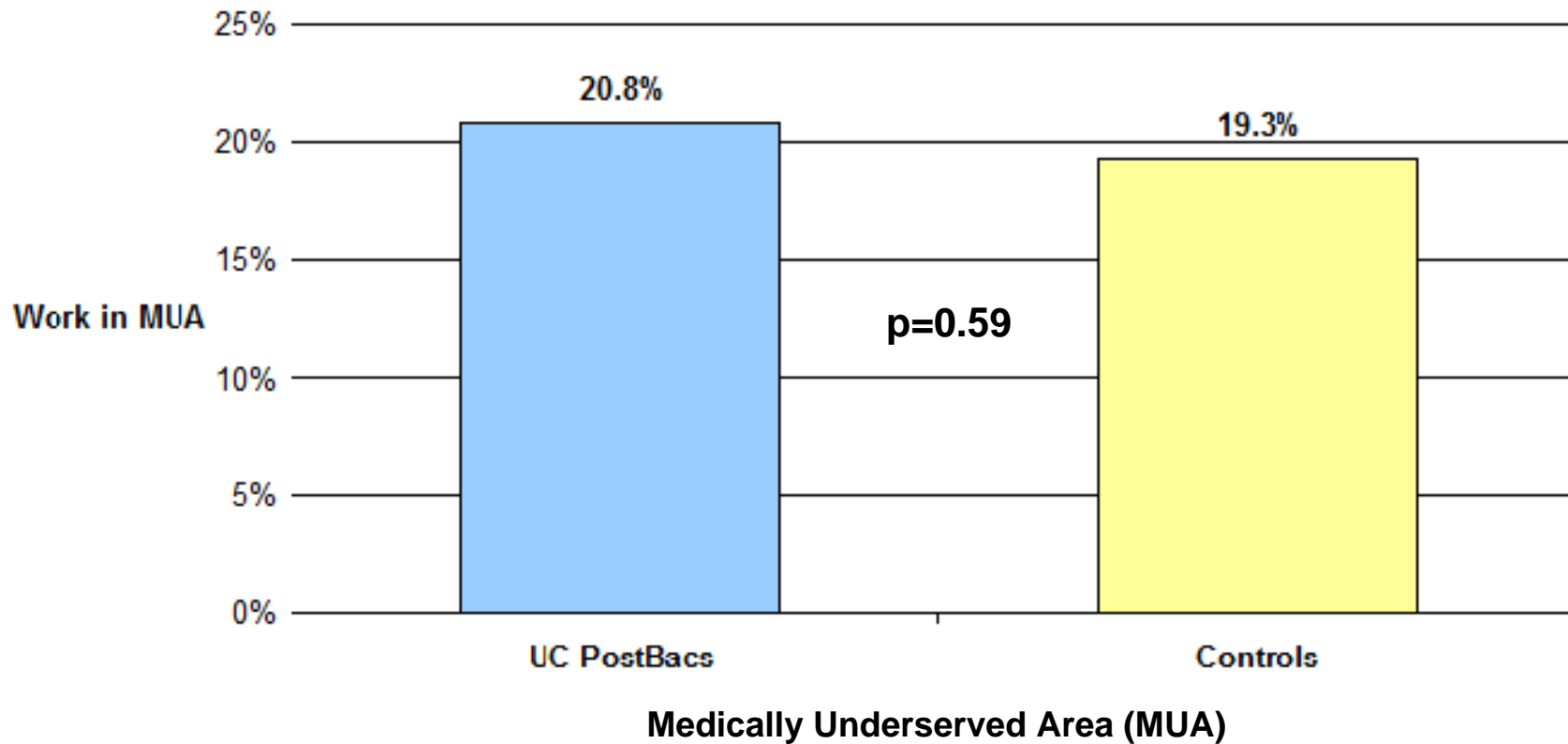


N=889\*

\*Excludes 488 physicians still in residency training



# RESULTS: PRACTICE IN MEDICALLY UNDERSERVED AREA\*

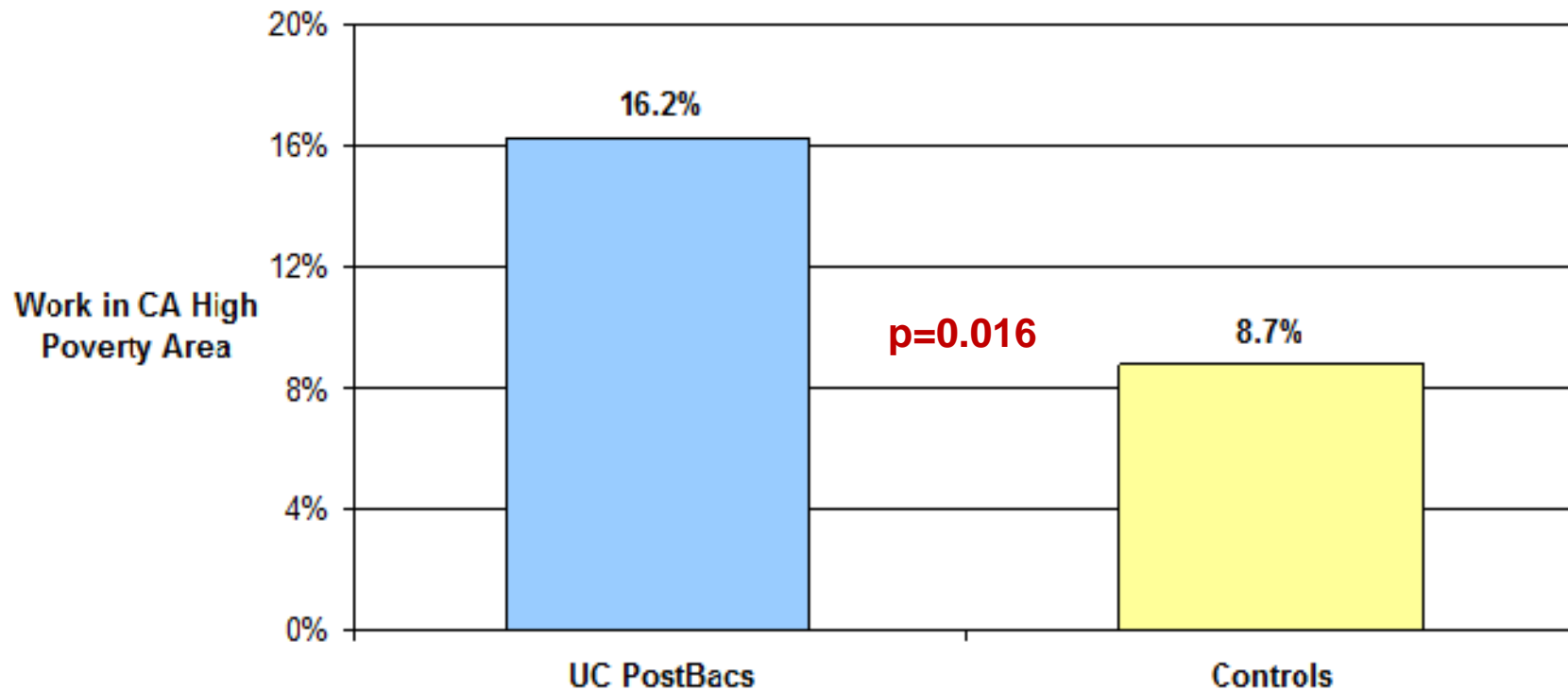


N=889\*

\*Excludes 488 physicians still in residency training



# RESULTS: PRACTICE IN CALIFORNIA HIGH POVERTY AREA\*



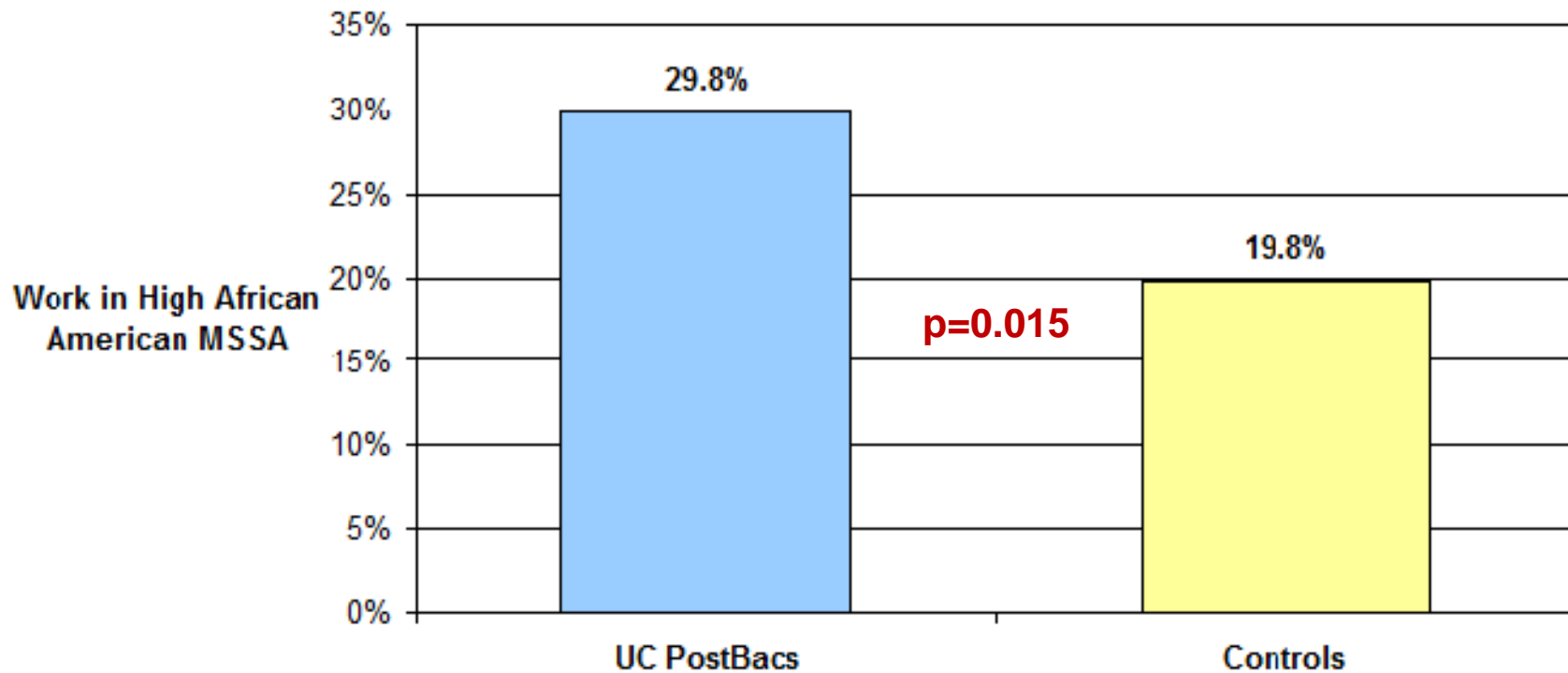
**High Poverty MSSA is in top quintile for percentage of population with income < 200% of federal poverty level**

**N=443\***

\*Excludes 691 non-CA physicians and 243 CA physicians still in residency training



# RESULTS: PRACTICE IN CALIFORNIA HIGH AFRICAN AMERICAN MSSA



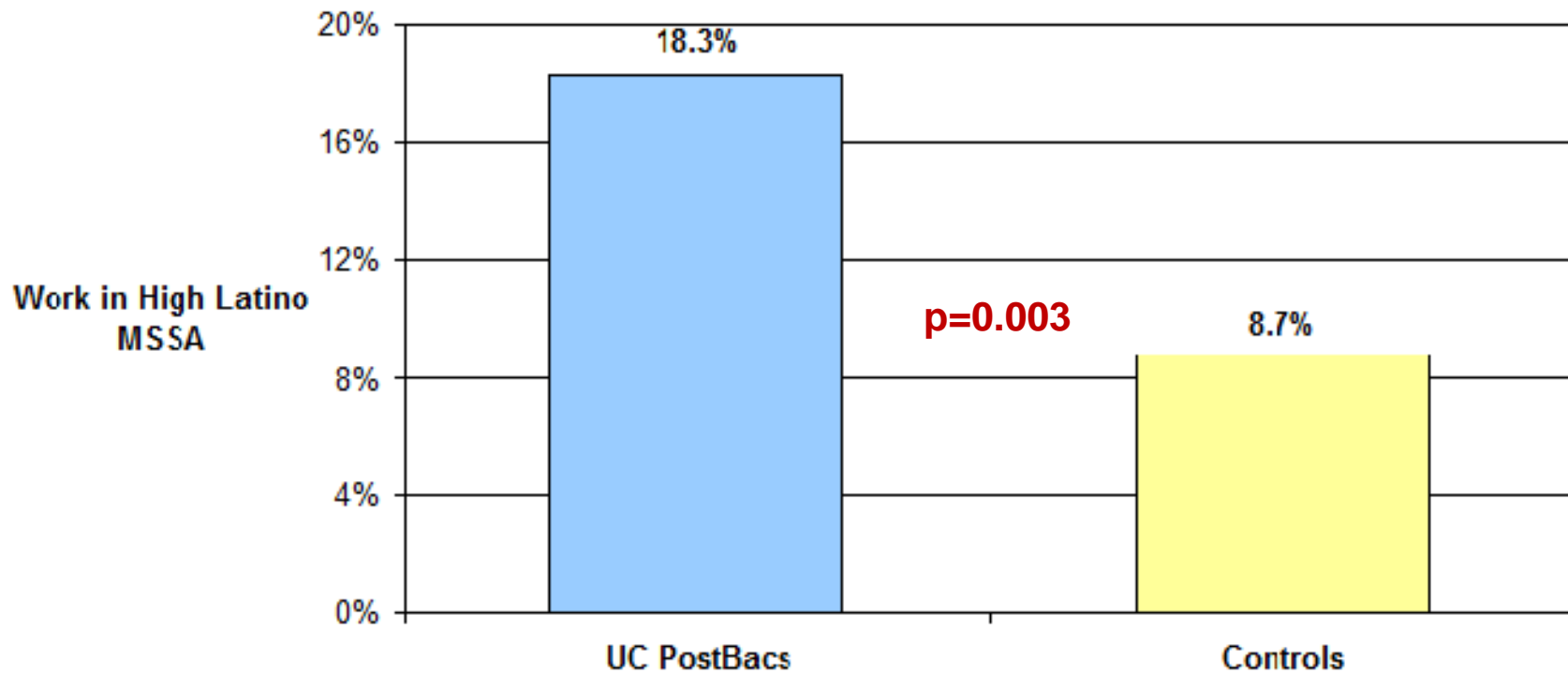
**High African American MSSA is in top quintile for percentage of population that is African American**

**N=443\***

\*Excludes 691 non-CA physicians and 243 CA physicians still in residency training



# RESULTS: PRACTICE IN CALIFORNIA HIGH LATINO MSSA



**High Latino MSSA is in top quintile for  
percentage of population that is Latino**

**N=443\***

\*Excludes 691 non-CA physicians and 243 CA physicians still in residency training



## LIMITATIONS:

- Accuracy of AMA Physician Masterfile data
- Difficulty tracking some UCPB graduates
- Unable to assess workforce patterns of DO and IMG alums who do not appear in AMA Masterfile
- Lack of SES data for UCPB and controls
- Lack of race/ethnicity data for controls
- Unknown pre-medical school state of residency of controls



## CONCLUSIONS:

### Nationally

- UCPB alumni are more likely to go into primary care
- UCPB are not more likely to work in HPSAs and MUAs

### California

- UCPB are more likely to train and practice in California
- UCPB are more likely than controls to work in high poverty and high minority areas



## CONCLUSIONS:

- UCPB alumni fill a critical need in providing healthcare to California's underserved and vulnerable populations
- UCPB programs are a successful model for public programs bringing more women, UIM and economically disadvantaged into medicine and should be emulated and expanded



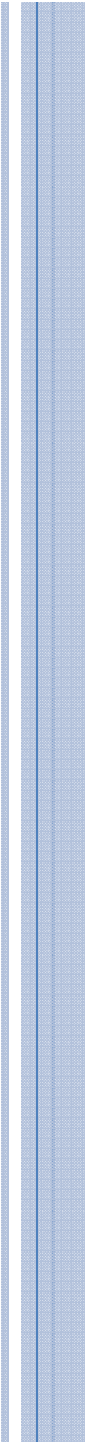
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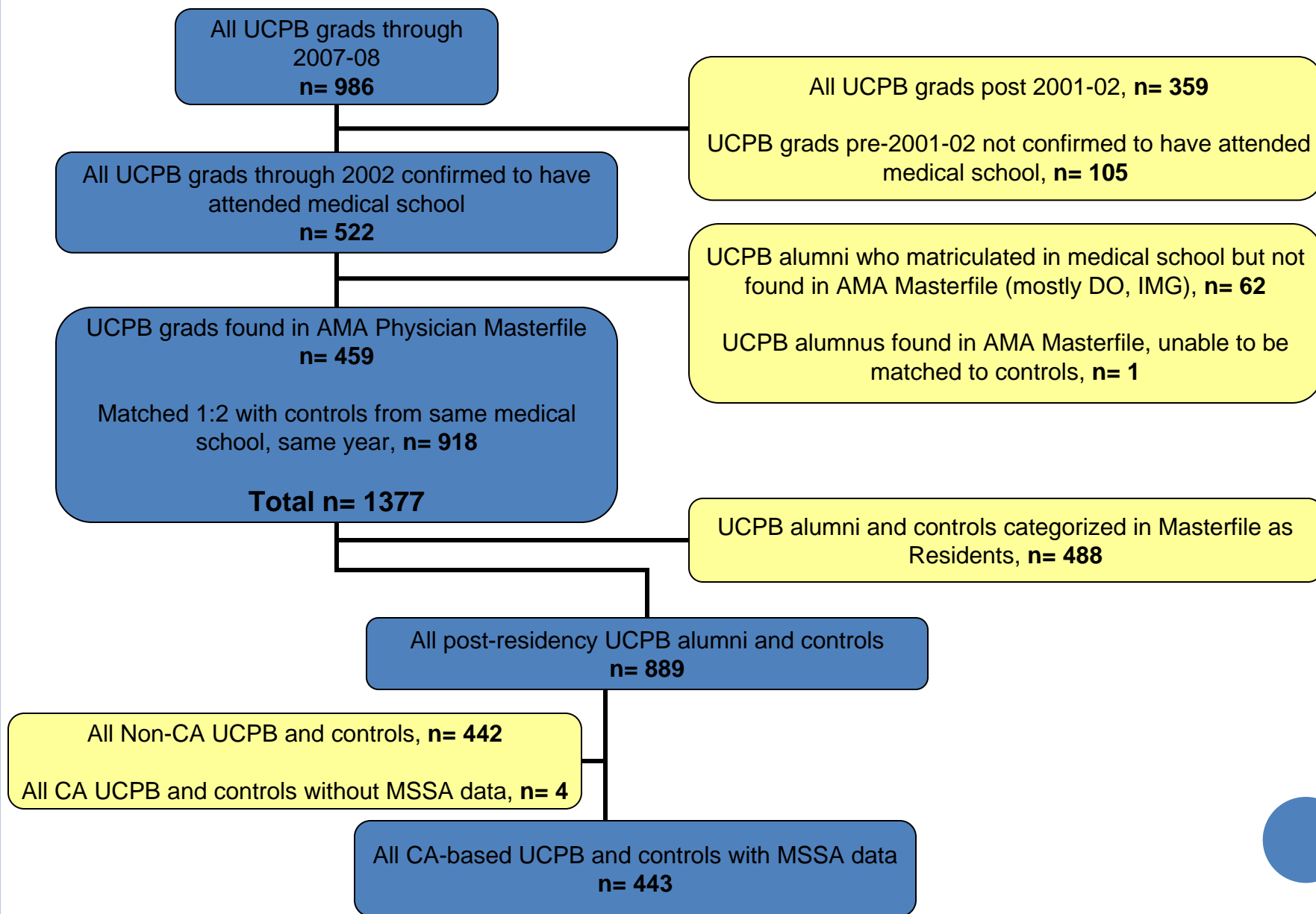
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# DATA ANALYSIS FLOWCHART



## METHODS:

- Practicing physician alumni of UC affiliated premedical postbaccalaureate programs identified in UC Office of the President database
- Sample limited to UCPB graduates through 2002 to best capture practicing physicians
- Using the American Medical Association physician masterfile, UCPB alumni were matched 1:2 with controls who graduated from the same medical school in the same year as each UCPB alumnus

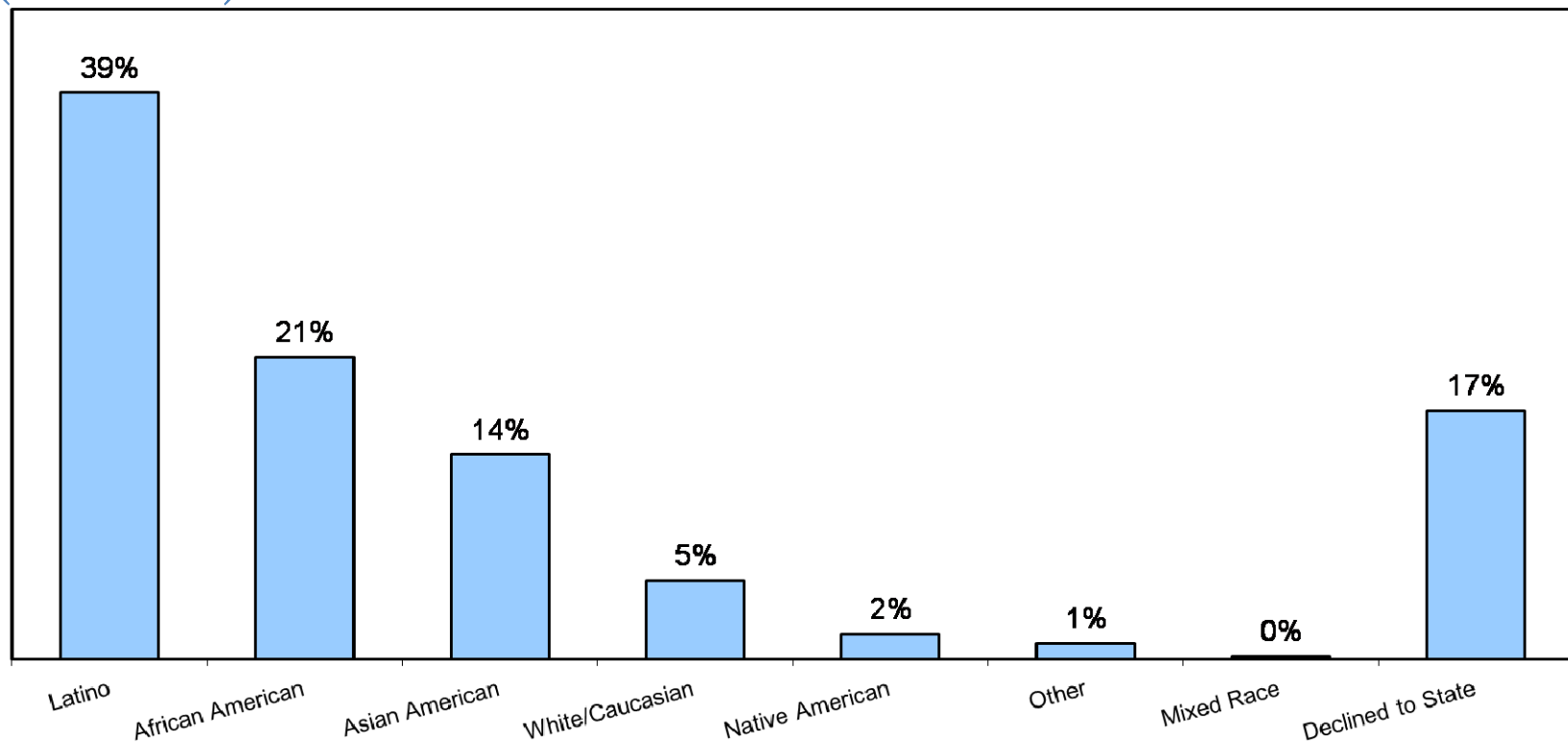


## METHODS:

- Data on residency location, practice specialty and current practice address obtained from AMA Physician Masterfile
- Physician practice zip codes matched to national data on Health Professional Shortage Areas (HPSA) and Medically Underserved Areas (MUA)
- California physician practice zip codes matched to state data on Medical Service Study Areas (MSSA)
- Outcomes for California physicians were confirmed with data from California Medical Board Physician Survey



# RESULTS: ETHNIC BREAKDOWN OF PRACTICING PHYSICIAN ALUMNI OF UC POSTBACCALAUREATE PROGRAMS (N=459)



# RESULTS: DEMOGRAPHICS OF PB ALUMNI AND CONTROLS

<b>Characteristic</b>	<b>Total (n=1377)</b>	<b>Control (n=918)</b>	<b>Postbac (n=459)</b>	<b>P-value</b>
<b>Gender, n (%)</b>				
Male	697 (50.6)	500 (54.5)	197 (42.9)	<0.001
Female	677 (49.2)	415 (45.2)	262 (57.1)	
Unknown	3 (0.2)	3 (0.3)	0 (0)	
<b>Age, n (%)</b>				
<35	575 (41.8)	411 (44.8)	164 (35.7)	<0.001
36-45	665 (48.3)	437 (47.6)	228 (49.7)	
>46	130 (9.4)	65 (7.1)	65 (14.2)	
Unknown	7 (0.5)	5 (0.5)	2 (0.4)	