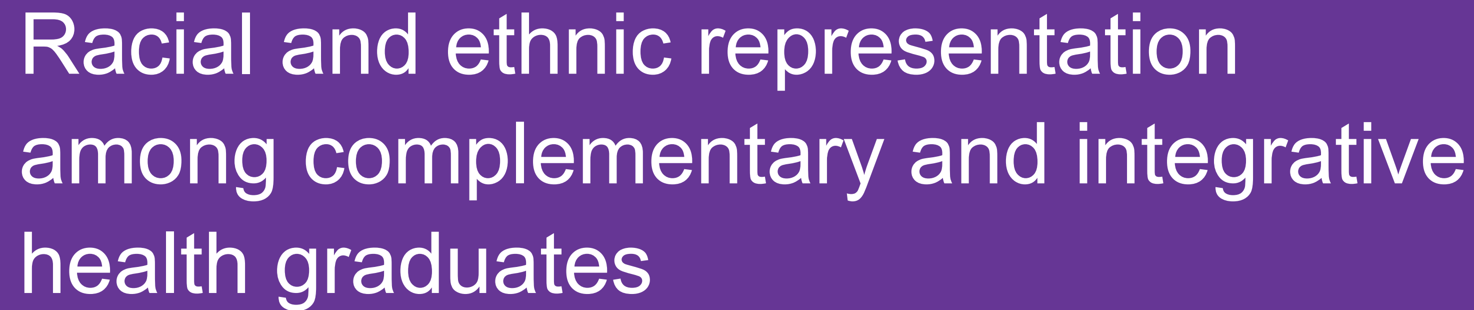

Racial and ethnic representation among complementary and integrative health graduates

Research Across Complementary and Integrative Health Institutions (REACH) Center

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Acknowledgements

Co-authors: Nipher Malika, Patricia Herman, Ian Coulter

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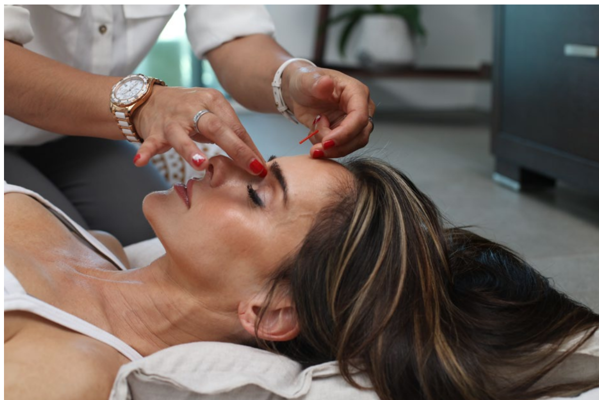
No conflicts of interest to declare.

Background: Why does racial and ethnic diversity among CIH providers matter?

- CIH jobs are good jobs*
    - High satisfaction among providers
- CIH care is good care!
    - Popular among patients
    - Growing evidence base for its effectiveness
    - May be even *more* beneficial for patients of color
- CIH care may not be equally accessible for all populations
    - White patients are overrepresented among CIH patients

*Research in progress to examine working conditions

- There are disproportionately fewer Black, Latino and American Indian/Native American conventional medical providers compared to the overall US population
- Grey literature suggests similar situation among CIH providers
- A study of representative data for all 5 licensed CIH professions is needed
- Data from graduates of CIH training professions offer a useful sample



Research questions:

1. How are racial/ethnic groups distributed across CIH graduates?

2. How does this compare to conventional medicine graduates?

Methods

- Design

  Biennial cross-sections for # graduates from CIH training programs based on racial/ethnic categorization

- Data

  Integrated Postsecondary Education Data System (IPEDS), 2009-2021.

  Information comes from all higher ed institutions that receive federal support

  - n=31,006 unique graduating cohorts from CIH and non-CIH academic programs

IPEDS Integrated Postsecondary Education Data System

- CIH programs included
    1) Acupuncturists
    2) Doctors of chiropractic (DC)
    3) Direct entry midwifery (DEMs)
    4) Naturopathic doctors (NDs)
    5) Massage therapists (MT) – in some analyses only, due to high n

- Conventional programs included
    1) Medical doctor
    2) Osteopathic medicine/Osteopathy
    3) Registered nursing
    4) Physical therapy

- Analysis

Level of analysis = Program at a specific institution
For some analysis, individual graduates

Calculated proportion of graduates who identify as:
    Latino, American Indian or Alaska Native, Asian,
    Black, Native Hawaiian or Pacific Islander, White
    Two or more races, Race or ethnicity unknown

Average across all programs

Compare averages in CIH professions to conventional medicine and to overall US population (2019 American Communities Survey, adults 20-35 years). T-tests.

Preliminary Results

Table 1. Complementary and integrative health degree programs, 2009-2021 (biennial)

CIH degree programs	**n (%)**
Doctor of Chiropractic	115 (2%)
Acupuncture	483 (7%)
Traditional Chinese/Asian Medicine and Chinese Herbology	154 (2%)
Naturopathic Medicine	44 (1%)
Direct Entry Midwifery	68 (1%)
Massage Therapy	5,955 (87%)
Total	*6,819 (100%)*

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Table 2. Conventional medical programs, 2009-2021 (biennial)

Conventional medical programs	**n (%)**
Registered nurse	19,749 (85%)
Medical doctor	1,002 (4%)
Osteopathic medicine/osteopathy	169 (1%)
Physical therapy	2,445 (10%)
Total	*23,365*

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Table 3. Racial/ethnic proportions within CIH professions (2009-2021)

CIH profession	Hispanic/ Latino	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White	Two or more races
Doctor of chiropractic	0.07*↓	0.01	0.07	0.04*↓	0.01*↓	0.67*↑	0.02
Acupuncture	0.06*↓	<0.01	0.25*↑	0.03*↓	0.01*↑	0.52	0.02
Traditional Chinese/Asian medicine and Chinese herbology	0.05*↓	0.01	0.21*↑	0.03*↓	<0.01	0.61*↑	<0.01
Naturopathic medicine	0.20*↓	0.01	0.07	0.06*↓	<0.01	0.54	0.03
Direct entry midwifery	0.04*↓	0.01	0.01*↓	0.03*↓	<0.01	0.74*↑	0.03
Massage therapy	0.16*↓	0.01*↑	0.03*↓	0.14	<0.01*↑	0.58*↑	0.02

*p<0.05 for two-sided t-tests comparing to percent in overall US population from American Communities Survey.
↓percentage here is significantly lower than in US population
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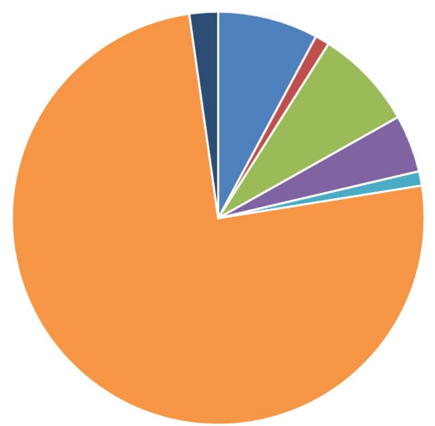
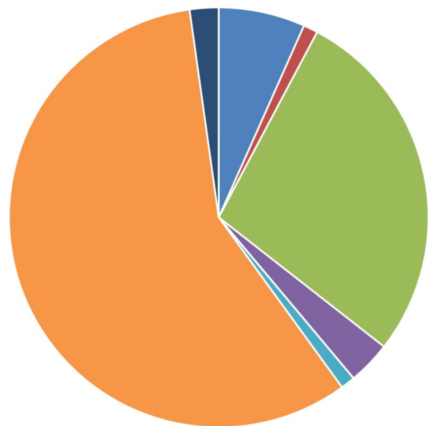
Comparisons not made for “two or more races.”

Figure 1. Racial/ethnic proportions within CIH professions (2009-2021)

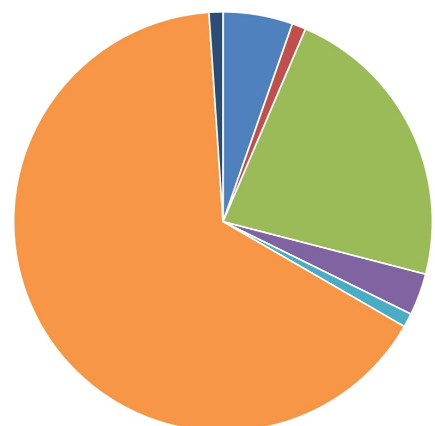
Doctor of Chiropractic



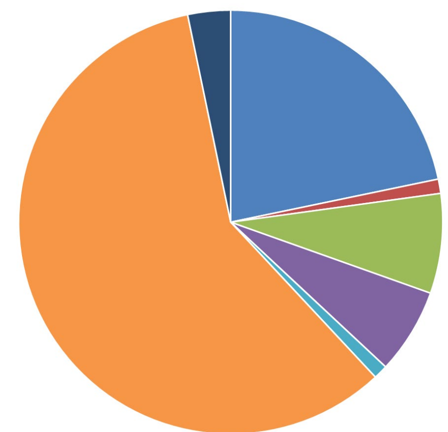
Acupuncture



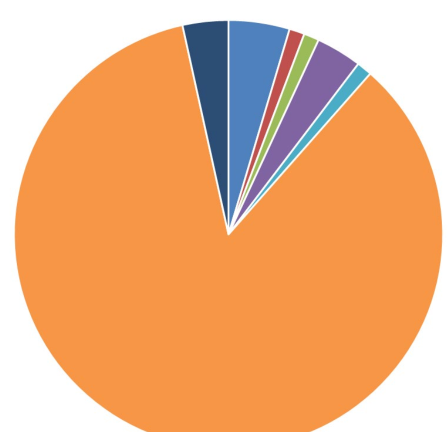
Traditional Chinese or Asian Medicine, Chinese Herbology



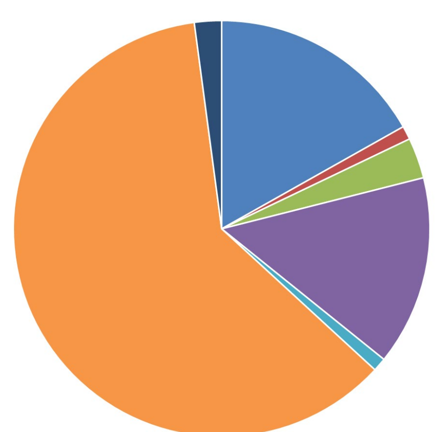
Naturopathic Medicine



Direct Entry Midwifery



Massage Therapy



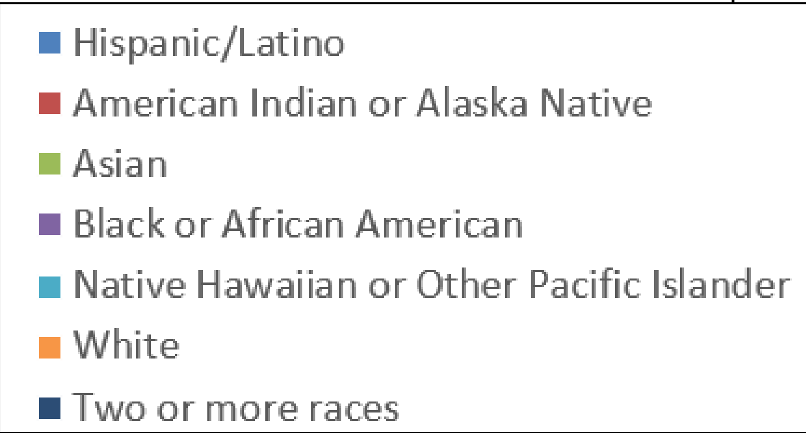


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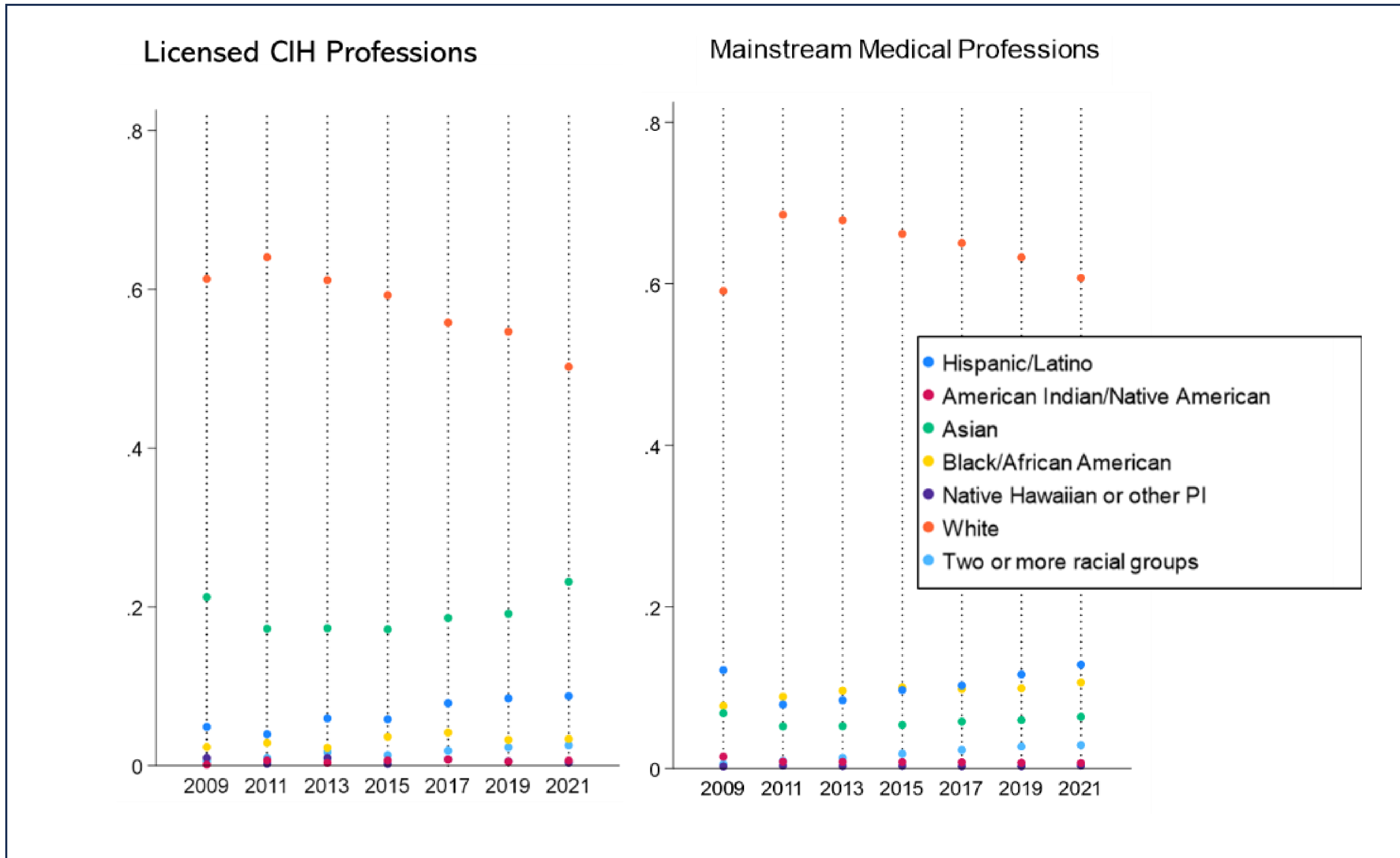
Figure 1. Proportion of program completion by race/ethnicity, (2009-2021)



Discussion

- Racial and ethnic diversity among CIH professional graduates does not mirror the overall US population.

- Diversity in CIH has improved slightly overtime, is not markedly better or worse than it is in conventional medicine.

- CIH training programs should continue building, strengthening pathway programs and retention.
- Programs may consider cross-profession collaboration to advance shared diversity goals (e.g., MT as gateway to DC?)
- See poster by Nipher Malika for qualitative findings about how CIH institutions are connecting with communities

Thank you!

Please reach out with questions or comments.

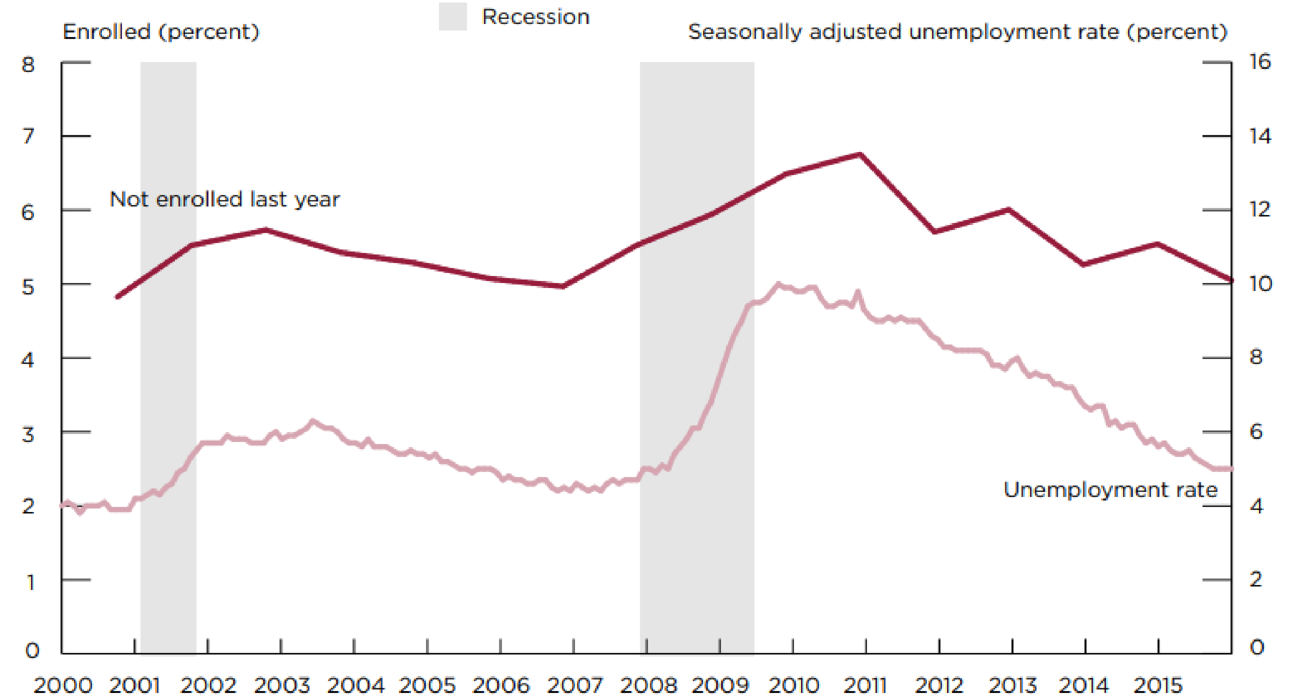
Margaret Whitley, mwhitley@rand.org

Additional slides

Why the bump in enrollment 2009 – 2011?

It's likely connected to the overall increase in enrollment due to the Great Recession.

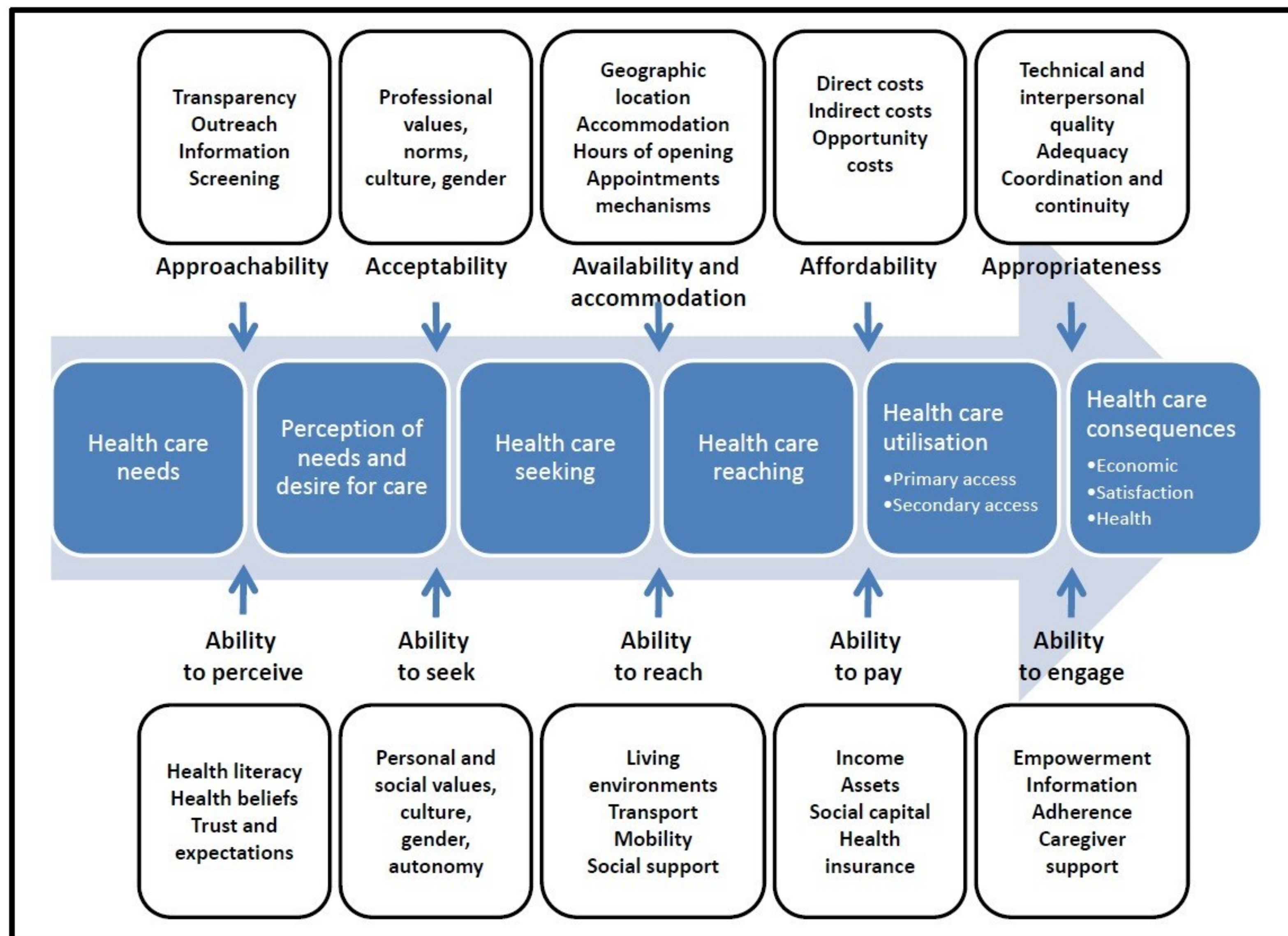
Schmidt, E. P. (2018). Postsecondary Enrollment before, during, and since the Great Recession. Population Characteristics. Current Population Reports. P20-580. US Census Bureau.



Why does racial and ethnic diversity among healthcare providers matter?

- Better healthcare for underserved populations
  - Better access
  - Better quality care
- Equitable access to good jobs

A conceptual framework of access to health care



Levesque, J. F., Harris, M. F., & Russell, G. (2013). Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *International journal for equity in health*, *12*, 1-9.

Table 3. Students graduating from CIH programs, by race/ethnicity (2009-2021)

Racial/ethnic groups	Students, n, CIH programs, **Excluding MT**	Students, %, average across CIH programs, **Excluding MT**	Students, n, CIH programs, **Including MT**	Students, %, average across CIH programs, **Including MT**
Hispanic/Latino	2,277	0.07	27,632	0.15
American Indian or Alaska Native	203	0.01	1,185	0.01
Asian	4,350	0.19	10,862	0.05
Black or African American	1,214	0.03	20,010	0.12
Native Hawaiian or Other Pacific Islander	213	0.01	686	<0.01
White	1,9703	0.57	87,183	0.58
Two or more races	609	0.02	3,849	0.02
Race and ethnicity unknown	1,770	0.05	10,224	0.05

Table 3. Students completing programs, by race/ethnicity (2009-2021)

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Two or more races	609	0.02	3,849	0.02
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Table 1s. Complementary and integrative health degree programs by year, 2009-2021 (biennial)

Programs in Licensed CIH Professions (excludes MT)	**n (%)**
2009	106 (12%)
2011	115 (13%)
2013	120 (14%)
2015	122 (14%)
2017	133 (15%)
2019	131 (15%)
2021	137 (16%)
Total	*864 (100%)*