A top-down view of various medical supplies on a light blue surface. On the left, there are two pairs of surgical scissors, several metal probes or scalpels, and two round containers. In the center, there is a clear plastic IV drip chamber. On the right, there is a black stethoscope, a pair of glasses, and a white smartphone displaying the time 08:15. At the bottom, a person's hand is visible holding a clipboard.

Broadening the pipeline:

*Offering evidenced based information literacy
instruction to high school health sciences
magnet programs in underserved areas*



Overview

AN OPPORTUNITY

- Health sciences magnet programs in US
- Barriers to health sciences education & careers
- Introduction to concepts in clinical search strategies
- Location of high quality clinical research

3,164

TOTAL NUMBER OF MAGNET PROGRAMS IN 2017

Magnet Program - A special school or program designed to attract students of different racial/ethnic backgrounds for the purpose of reducing, preventing, or eliminating racial isolation (50 percent or more minority enrollment); and/or to provide an academic or social focus on a particular theme (e.g., science/mathematics, performing arts, gifted/talented, or foreign language).

Statistic and definition provided by the National Center for Education Statistics

55.6%

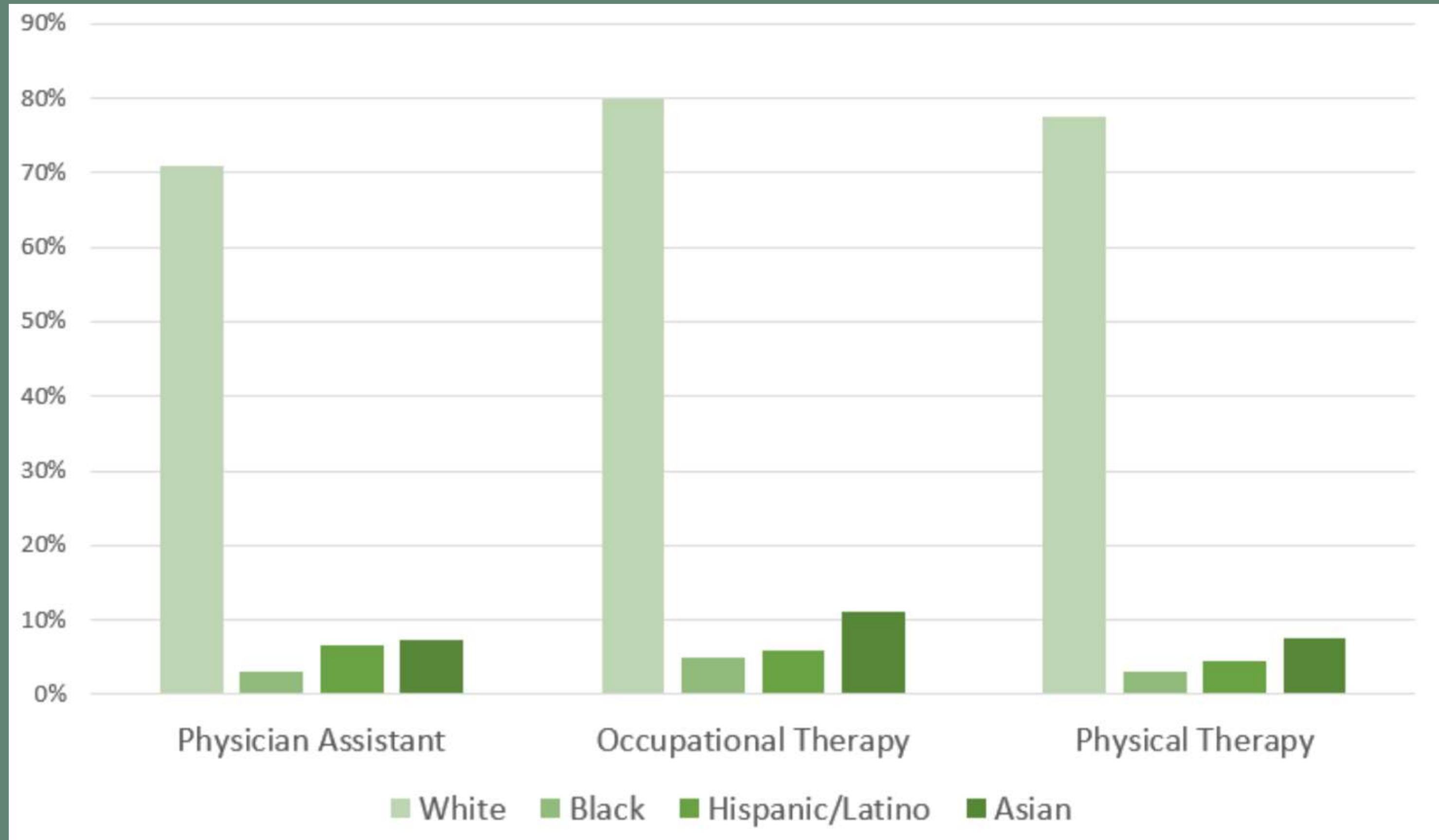
WHITE US MEDICAL
SCHOOL GRADUATES
2018

5.7% &
5.4%

BLACK &
HISPANIC/LATINO US
MEDICAL SCHOOL
GRADUATES 2018

*Sources: Liaison Committee on Medical Education Part II Survey;
American Academy of Medical Colleges Data Warehouse: Student,
Student Records System; American Medical Colleges Application
Service; American Medical Colleges, Applicant Matriculation File*

Other Health Sciences Professions 2016



Broaden the Pipeline

LACK OF AWARENESS OF HEALTH SCIENCES RESOURCES

Limited librarian access

Location of OA clinical
research

Limited knowledge of
building a search strategy



SEARCH STRATEGIES & OPEN ACCESS

PICOT

Boolean

Synonyms

OA



INCREASED ABILITY TO LOCATE HIGH QUALITY RESEARCH

Students expressed
increased confidence

Introduction to college level
expectations of research

Building a Search Strategy



FILTERS

Use all that apply



SYNONYMS

Broaden your search for hidden gems



PICOT

Extract the elements from your clinical question



BOOLEAN & SPECIAL CHARACTERS

Create a search string and apply it to databases

PICOT Activity

In a 65 year old black woman does the administration of pain medication at time of surgical incision reduce the need for pain medication twenty-four hours after surgery?

Do weekly exercise sessions allow 40-45 year old women in perimenopause to maintain their weight loss better than biweekly exercise sessions?

In a 16-year-old white male soccer player with acute, 1st-degree, lateral ankle sprain, does ultrasound work or electrical stimulation do a better job of reducing edema and pain?

CLINICAL QUESTION

Assigned to groups

The Well-Built, Patient-Oriented Clinical Question

Question Components	PICOT Elements
P – Patient or Population Describe the most important characteristics of the patient. (e.g., age, disease/condition, gender)	
I – Intervention; Prognostic Factor; Exposure Describe the main intervention. (e.g., drug or other treatment, diagnostic/screening test)	
C – Comparison (if appropriate) Describe the main alternative being considered. (e.g., placebo, standard therapy, no treatment, the gold standard)	
O – Outcome Describe what you're trying to accomplish, measure, improve, affect. (e.g., reduced mortality or morbidity, improved memory, accurate and timely diagnosis)	
T – Time Frame (if appropriate) Describe the time given for the intervention or the ages of the study group (e.g., within three months, time hospitalized, 24 hours after surgery)	
The well-built clinical question:	

Search Strategy Development

	Primary search term	Synonym 1	Synonym 2
P			
I			
C			
O			
T			

Article Title/Year and Reason Selected

WORKSHEET

Extract search elements

Laminated Flashcards & Activity

OR

AND



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PubMed comprises more than 29 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.



Centers for Disease Control and Prevention

CDC 24/7: Saving Lives, Protecting People™



INTERNATIONAL
STANDARD
SERIAL
NUMBER

INTERNATIONAL CENTRE

SEARCH
OPEN ACCESS
RESOURCES

 **Dimensions**

Dimensions is a linked research knowledge system that re-imagines discovery and access to research. Developed by Digital Science in collaboration with over 100 leading research organizations around the world, Dimensions brings together grants, publications, citations, alternative metrics, clinical trials, patents and policy documents to deliver a platform that enables users to find and access the most relevant information faster, analyze the academic and broader outcomes of research, and gather insights to inform future strategy. For more information about the product have a look at our support site or visit

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