

President's Council of Advisors on Science and Technology (PCAST) Advancing Nutrition Workshop

Session 1: Equity Challenges

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Outline

Diversity in Clinical Practice and the Nutritional Science Research Workforce

Current and Future Job Trends and Demands in Nutritional Sciences

Upset the Setup: Reduce and Eventually Eliminate Structural and Systemic Barriers

Disclaimer

*This presentation for the PCAST Advancing Nutrition Workshop was prepared by me, Dr. Karyn Onyeneho, in my personal capacity. The opinions expressed in this presentation are my own and do not reflect the views of the National Institutes of Health, the Department of Health and Human Services, or the United States government.

Diversity in Clinical Practice and the Nutritional Science Research Workforce

- A diverse and inclusive nutritional science workforce, including research and clinical practice, is an imperative
- Encourages research innovation and new advances in clinical practice from unique perspectives
- Generates high yields from development of tailored, culturally-conscious evidence-based nutrition approaches
 - e.g., nutritional guidelines leading to improved nutrition metrics, inclusive data collection, and groundbreaking scientific and medical discoveries
- Aligns with the fifth pillar of the White House Conference on Hunger, Nutrition, and Health to **enhance nutrition and food security research** for various populations/sub-populations in the United States
- Informs nutrition and food security policies on issues of equity, access, and disparities
- Produces returns from investments in research and development spurring future innovation capabilities and competitiveness
- Necessitates research opportunities to be undertaken by racially, ethnically, and gender-minority diverse scientists

Diversity in Clinical Practice and the Nutritional Science Research Workforce cont'd



Charles R. Drew
(1904-1950)



Sophia B. Jones
(1857-1932)

Alice Ball
(1892-1916)



Bruce Ovbiagele
(1969-Present)



Timnit Gebru
(1983-Present)



Peter Tsai
(1952-Present)

Miguel Angel Ondetti
(1930-2004)



Lydia Villa-Komaroff
(1947-Present)



Omowunmi A. Sadik
(1964-Present)



George Washington Carver
(1864-1943)



Alexa Canady
(1950-Present)

Past and Present Diverse Groundbreaking Scientific Research Innovators

Why is Diversity in the Clinical and Nutrition Workforce Important?

healthline

Cultural Competence in Nutrition and Dietetics: What We Need to Know

What it is | Why it's important | When it's absent | How to improve



Heart Attack and Stroke Symptoms

Published: April 23, 2021

Food, culture and the secret ingredient to address lack of diversity in nutrition field

By Michael Merschel, American Heart Association News



CPE Monthly: Health Inequities and Disparities in Food and Nutrition
By Cassie Vanderwall, PhD, RDN, CDCES, CPT, FAND
Today's Dietitian
Vol. 24 No. 8 P. 44

Dietitians can be agents of change.

Suggested CDR Performance Indicators 1.7.2, 1.7.4, 2.1.1, 12.1.1
CPE Level 2



Nutrition interventions addressing structural racism: a scoping review

Published online by Cambridge University Press: 13 January 2022

Matthew Greene , Bailey Houghtaling, Claire Sadeghzadeh, Molly De Marco, De'Jerra Bryant, Randa Morgan and Denise Holston



About | Publications | Meetings & Education | Membership | Advocacy & Science Policy | Foundation | Trust in Nutrition Science

Research Designs to Account for Diversity and Inclusiveness and Impact Food Guidance Policy

March 11, 2022
12:30 - 2:00 PM EST

Food & Nutrition Understanding and Promoting Nutrition and Health Equity

September 11, 2020 | Cordiallis Msora-Kasago



All News | Students | Faculty & Staff | Alumni & Friends | Athletics | Events | 90x30 | News Archive

More Lehman News

Is the Med Diet Serving Up Systemic Racism? Lehman Professor Breaks Down Inequities of Popular Nutrition Advice

© Thursday, March 25, 2021



Our Work

Academy Strategic Plan

Inclusion, Diversity, Equity and Access

Opportunities to Collaborate

Professional Development and Publications

Public Policy Priorities

Home > About Us > Our Work > Inclusion, Diversity, Equity and Access

Inclusion, Diversity, Equity and Access

The Academy encourages inclusion, diversity, equity and access (IDEA) by striving to recognize, respect and include differences in ability, age, creed, culture, ethnicity, gender, gender identity, political affiliation, race, religion, sexual orientation, size, and socioeconomic characteristics in the nutrition and dietetics profession.

eat right PRO RESEARCH COMMENTARY

The Need to Incorporate Diversity, Equity, and Inclusion: Reflections from a National Initiative Measuring Fruit and Vegetable Intake

Carmen Byler Shanks, PhD, RDN, Courtney A. Parks, PhD, Betty Izumi, PhD, MPH, RDN, Lauri Anders, PhD, JD, MPH, Amy L. Yaroch, PhD

ARTICLE INFORMATION
Article history:
Submitted 21 August 2021
Accepted 14 January 2022

Health Promotion International

JOURNAL ARTICLE

Addressing inequities in healthy eating

Sharon Friel , Libby Hattersley, Laura Ford, Kerryn O'Rourke

Health Promotion International, Volume 30, Issue suppl_2, September 2015, Pages ii77–

ii88, <https://doi.org/10.1093/heapro/dav073>

Published: 28 September 2015

SCIENCE FRIDAY



BOOKS

How Racism Shapes Our Perception Of Healthy Food

In her new book, Priya Fielding-Singh writes about how race, culture, and media complicate what we choose to eat.

by Priya Fielding-Singh, on November 19, 2021

HARVARD MEDICAL SCHOOL PRIMARY CARE REVIEW



The Unique Implications of Diversifying Dietetics

March 10th, 2021

ANNUAL REVIEWS

Publications A-Z

Journal Information

Home / Annual Review of Public Health / Volume 40, 2019 / Williams, pp 105-125

Racism and Health: Evidence and Needed Research

Annual Review of Public Health

Vol. 40:105-125 (Volume publication date April 2019)
First published as a Review in Advance on January 2, 2019
<https://doi.org/10.1146/annurev-publhealth-040218-043750>

Diversity in Clinical Practice and the Nutritional Science Research Workforce cont'd

Aligns with PCAST Recommendations:

- **Recommendation 1:** Create and implement a long-term Federal strategy on nutrition and health
 - Develop a 5-year coordinated plan to strengthen federal nutrition research, encompassing fundamental, clinical, public health, food and agricultural, and translational scientific research
- **Recommendation 2:** Provide equitable access to the benefits of nutrition research
 - Create a coordinated, concerted effort to diversify the nutrition science and dietetics workforce
- **Recommendation 3:** Strengthen the Interagency Committee on Human Nutrition Research
 - Ensure adequate funding for nutrition efforts with the greatest potential to reduce rates of diet-related chronic disease)

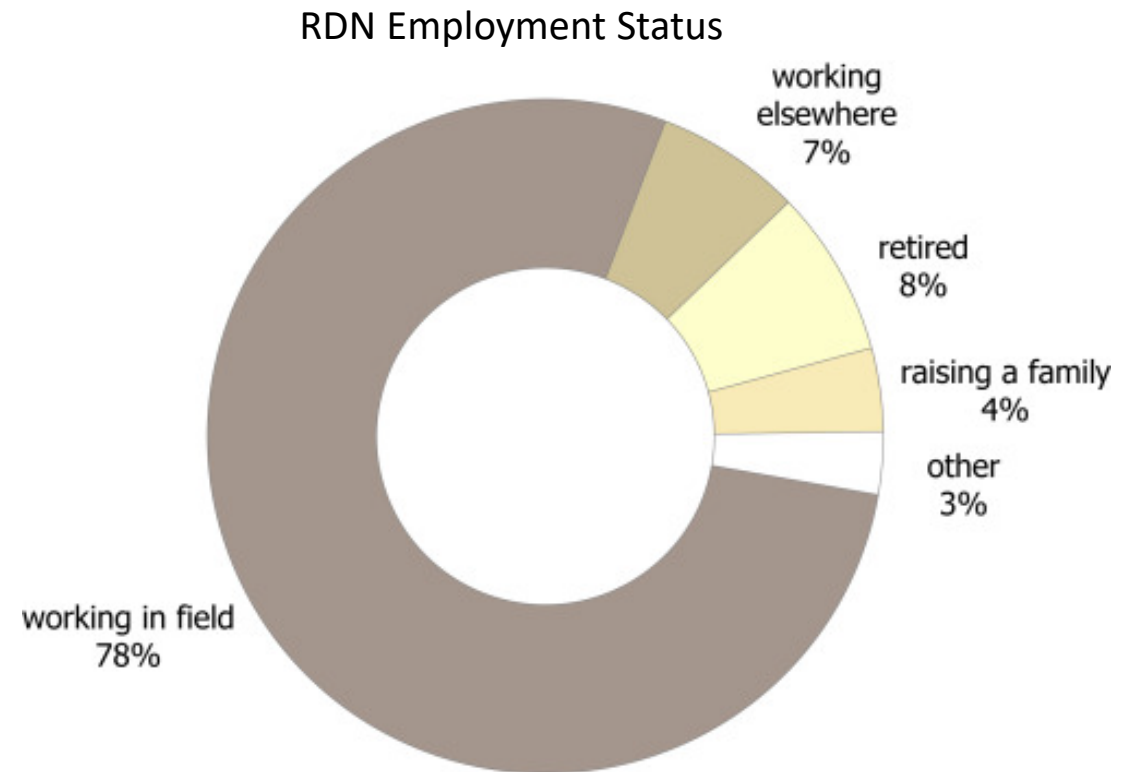
Academy of Nutrition and Dietetics and the Commission on Dietetic Registration 2020 Needs Satisfaction Survey

Survey Findings: Demographics

- 93% of registered dietitian nutritionists (RDN) are female
- 82% of RDNs are White
- 46 is the median age
- Overall, 46% hold advanced nutrition/dietetics-related degree

Survey Findings: Employment Status

- 4 in 5 RDNs (78%) work in a nutrition/dietetics-related position
- 7% of RDNs work in some other area
- Very little has changed since 2004
- Since 2016 survey:
 - RDNs up ~9,000
 - Nutrition and dietetics technicians remained same
 - Uncredentialed persons up more than 2,000
 - **Number of students dropped by more than 6,000**



BLUF

- Nutrition and dietetics is one of the health-related fields most challenged with diversity in the US
- Paucity of BIPOC and other major racial and ethnic minorities in the nutritional science research and clinical workforce prompts ongoing efforts addressing diversity, equity, and inclusion at a national level
- Must build and support a robust racially and ethnically diverse nutritional science research and clinical workforce representative of the changing US demography
- Diversity is imperative—over the next decade and beyond, the US population is projected to become more racially and ethnically diverse through 2045 (and beyond)



American Society for Nutrition
Excellence in Nutrition Research and Practice

There must be **Federal efforts to recruit and nurture wide representation to the field of nutrition research** so that the next generation of nutrition scientists more closely resembles the US population, and the **research topics and solutions are more equitable and diverse.** Ensuring diversity, equity, and inclusion at all levels of the nutrition research continuum, from trainees, scientists, workforce, subjects in specific research projects, and the population served by research translation, should be a priority.

Current and Future Job Trends and Demands in Nutritional Sciences



U.S. BUREAU OF LABOR STATISTICS

2021 Occupational Employment Trends

- White Dietitians/Nutritionists: 74%
- Black: 13%
- Hispanic: 10%
- Asian: 6 %
- American Indian: 0.5%
- Even less for other BIPOC communities
- Women: 92.2%
- **More is needed to achieve equity in the clinical and nutritional science research workforce.**

Projections

- 7.9% growth 2022-2032, faster than the national average

The 10-year national dietitian/nutrition workforce is projected to grow

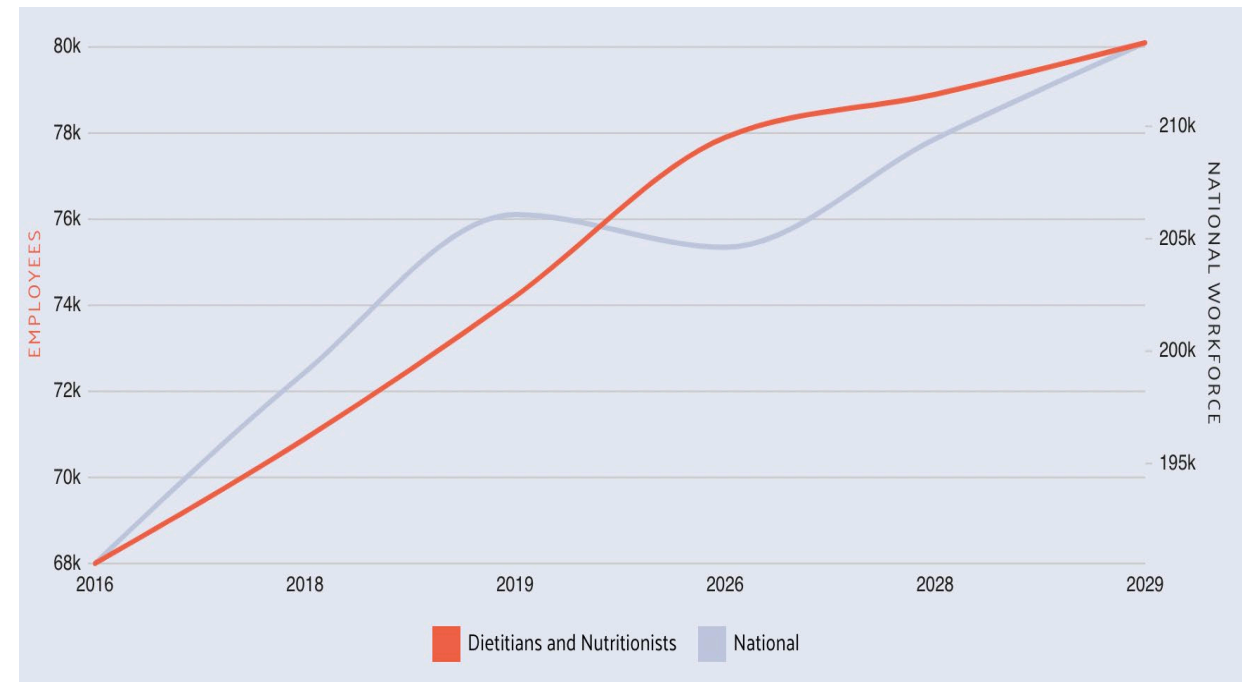


Figure 2. Projections on job growth for Dietitians and Nutritionists from the Bureau of Labor Statistics. Source: <https://datausa.io/profile/soc/dietitians-nutritionists#growth>

Current and Future Job Trends and Demands in Nutritional Sciences cont'd

Reality: Becoming a nutritionist/dietitian is an uphill battle for many BIPOC communities.

“The education currently required to become a dietitian is inequitable”, says Teresa Turner, MS, RD, a Maryland-based dietitian who served as Chair of the Diversity and Inclusion Committee at the Academy of Nutrition and Dietetics from 2018 to 2020.

The long-standing wealth gap between BIPOC (especially Black people) and White people, due to systemic and structural racism, makes higher education harder to access and pay for. Besides having to take out student loans for the undergraduate and soon-to-be required masters degree, students themselves bear the cost of the mandatory internship required for RD and RDN certification.

Upset the Setup: Reduce and Eventually Eliminate Structural and Systemic Barriers

- Systems and structures that drive these widespread factors have transformed over time from “blatant Jim Crow racism to a more subtle laissez-faire racism
- Permeates inequities and prejudices in nutrition science research, clinical practice, and healthcare
- Continues to limit research advances and equitable health services provided to and available for underrepresented communities
- Tackling nutrition equity challenges through systemic and structural approaches
 - How do we intentionally upset the set up to reach the reform needed?
 - What systemic and structural approaches are needed to reduce and eventually eliminate barriers?

Upset the Setup: Reduce and Eventually Eliminate Structural and Systemic Barriers cont'd

- Need to be aware of all intricacies of discrimination leading to dismantling structural and systemic forms of racism, bias, bigotry
- Accept varying perspective that challenge or reject non-inclusivity in nutrition science research
- Eliminate perpetual behaviors that exist within individuals and institutions
- The integration of diversity, equity, and inclusion (DEI) in the nutrition research and clinical require the institution of frameworks, strategies, policies, and systems that systematically dismantle the structures that drive racial and ethnic disparities

Other Systemic and Structural Barriers

Story of Teresa Turner, Former Chair of the Diversity and Inclusion Committee at the Academy

- Most professors and internship preceptors are White, which impacts how people are educated and trained
- In the curriculum, 'cultural' foods are taught separately, giving the impression that it is other
- US wealth gap between BIPOCs and Whites (due to systemic racism) make education harder to access and pay for
- Significant for degree seekers pursuing nutrition science careers since they pay to enter an RD internship programs

Healthcare leaders, lawmakers, and regulators should ensure there is a national priority involving DEI

- Systematically diversify clinical practice and the nutrition workforce through strategic approaches:
 - Establish enterprise-level partnerships between healthcare centers, academic institutions, and governmental entities
 - Invest in evidence-based approaches towards eliminating scientific and STEM career transition barriers
 - Develop scalable programs that promote inclusion of underrepresented racial and ethnic minority groups in research, including DEI training programs across various disciplines at every echelon

Diversify University-level Nutrition Education Programs

- Develop curricula that aim to inform (both minority and non-minority) individuals and communities about structural barriers to healthful eating as well as policy, systems, and environmental change interventions

Calls to Action

- 1. Greatest return on Federal investment in nutrition research will come from building and supporting a robust diverse research enterprise**
- 2. Develop research funding opportunities targeting diverse research institutions and racially and ethnically diverse scientists (including first-generation scientists and gender minorities):**
 - Fellowship, institutional, and independent career funding opportunities
 - Outreach and recruitment of diverse scientists to apply for funding opportunities
 - Continued engagement with diverse scientists highlighting their scientific contributions
- 3. Institutions (e.g., academic, industry, government, non-profits) must develop pipelines for:**
 - Research funding opportunities
 - Real-world high-impact experiential learning opportunities
 - Employment and career advancement opportunities
 - Access to internship and micro-internship programs
 - Outreach targeting HBCU, MSI, Tribal, and majority-minority institutions

In Summary

Critical Needs

- **Build and support racially, ethnically, and gender-minority clinical and nutrition research workforces** in academia, industry, government, and non-profits by enforcing frameworks, strategies, policies, laws, and systems centered on DEI
 - Enforced by legislators, policymakers, regulators, research funders, institutional leaders
 - Diversifying hiring is one way to create a more inclusive nutrition clinical and research workforce
- **Structurally and strategically reduce (and eventually eradicate) positions of persons, policies, and systems that enable barriers to DEI integration and sustainability in the clinical and nutrition workforce**
- **Develop and implement a national strategic strategy** that aims to implement, investigate, analyze, reform (as needed), evaluate (ongoingly), and sustain DEI in clinical and nutrition research workforces
 - Including sanctions when DEI goals are not being/have not been fulfilled

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