

Health Workforce Challenges During the COVID-19 Crisis: Lessons from the United States

Canadian Institute for Health Information
February 8, 2021

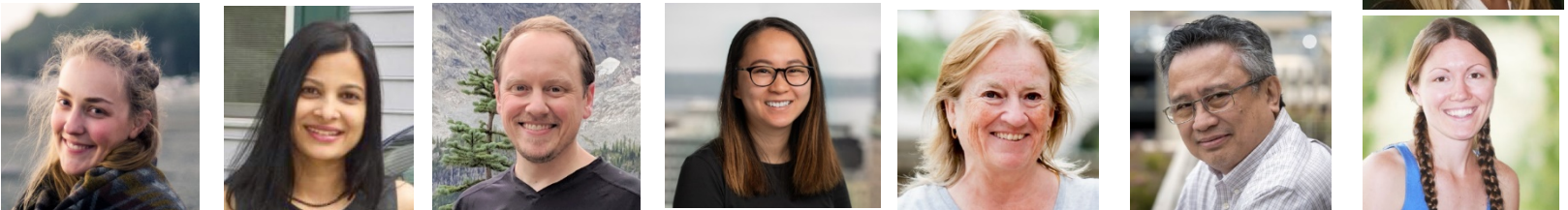
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Director, Center for Health Workforce Studies
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University of Washington School of Medicine



UW Center for Health Workforce Studies

- Established in the Department of Family Medicine in School of Medicine in 1998
- Conducts health workforce research to inform health workforce planners and policy makers
- Supported by multiple grants/contracts including two center grants from the Health Resources and Services Administration with focus on:
 - 1) Allied health workforce
 - 2) Health equity & workforce diversity



Other US Federally-Funded HWRCs

- [UCSF Health Workforce Research Center on Long-Term Care](#)
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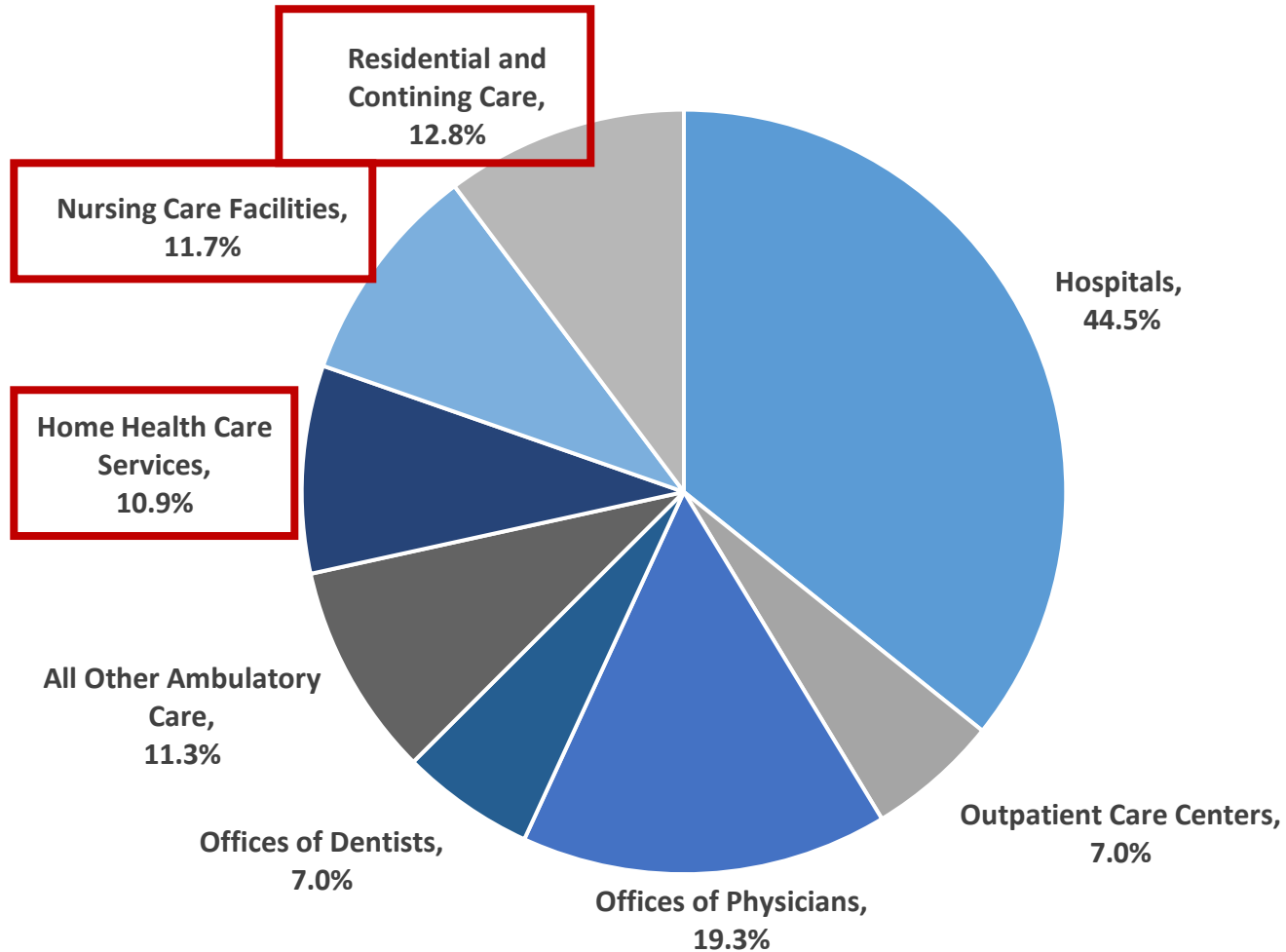
Agenda

- Setting the Stage: Pre-COVID Health Workforce Characteristics and Trends
- Seeing the Now: Health Workforce Challenges during COVID
- Planning Ahead: Policy Options to Strengthen the Current and Future Health Workforce

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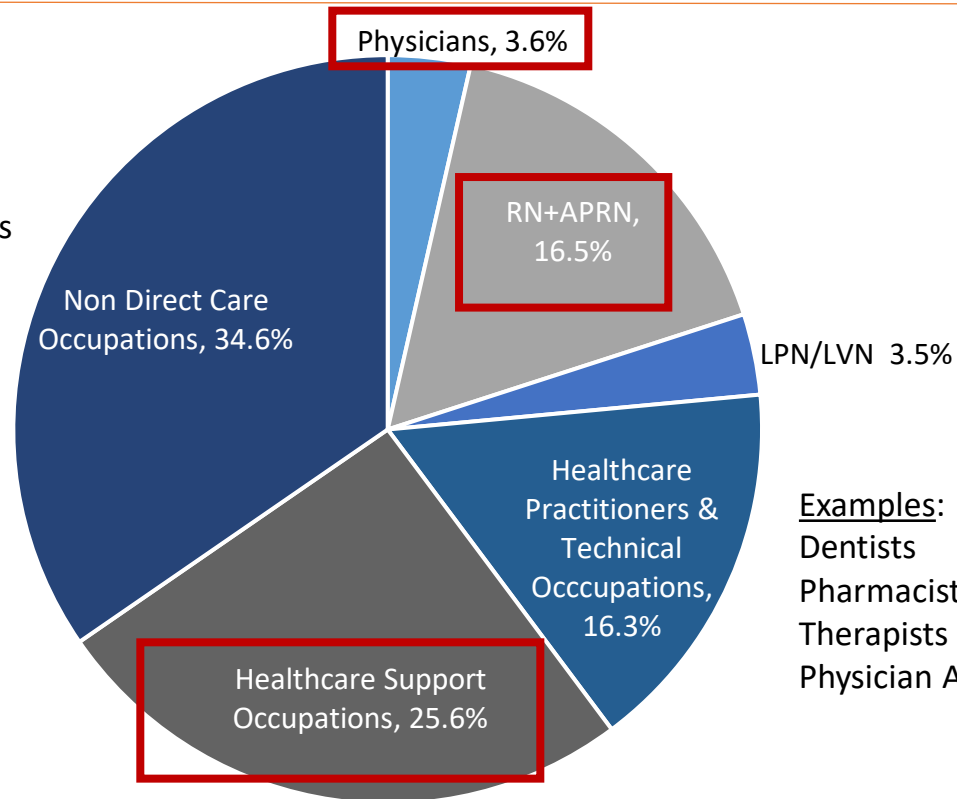
Sectors within US Health Care Industry, 2019 (n=17,054,890)



Occupations within US Health Care Industry, 2019 (n=17,054,890)

Examples:

Community Health Workers
Social Workers
Administrative/Financial/
Management
Grounds/Maintenance
Food Preparation



Examples:

Dentists
Pharmacists
Therapists
Physician Assistants

Examples:

Nursing Assistants
Home Health Aides
Home/Personal Care Aides

Medical Assistants
Pharmacy Aides
Dental Assistants
OT/PT Assistants

Average Education by Health Care Sector

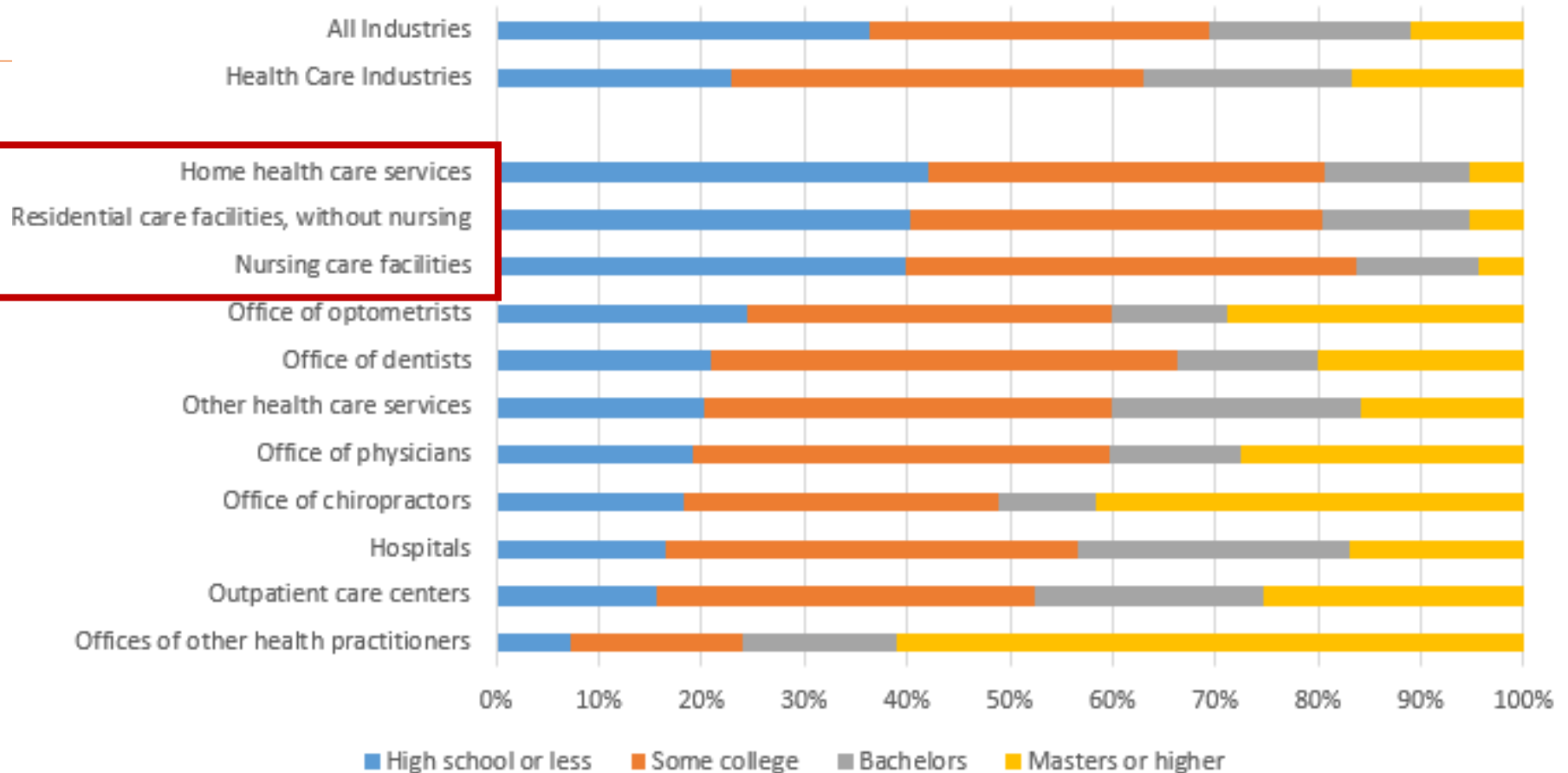


FIGURE 3 Selected Demographic and Socioeconomic Profile of Health Care Workers by Sector

	Female	Not Born as US Citizen
All Industries	47.2%	17.3%
Health Care Industries	77.4%	16.0%
Office of physicians	78.1%	14.6%
Office of dentists	82.0%	15.7%
Office of chiropractors	66.3%	11.4%
Office of optometrists	76.2%	8.6%
Offices of other health practitioners	73.2%	10.8%
Outpatient care centers	77.1%	13.1%
Home health care services	88.4%	23.3%
Other health care services	69.5%	16.3%
Hospitals	75.7%	16.8%
Nursing care facilities	85.3%	15.3%
Residential care facilities, without nursing	73.1%	16.6%

Source: Authors calculation from data and sample weights extracted from [Ruggles et al. 2010](#).

Racial/Ethnic Distribution by Health Care Sector

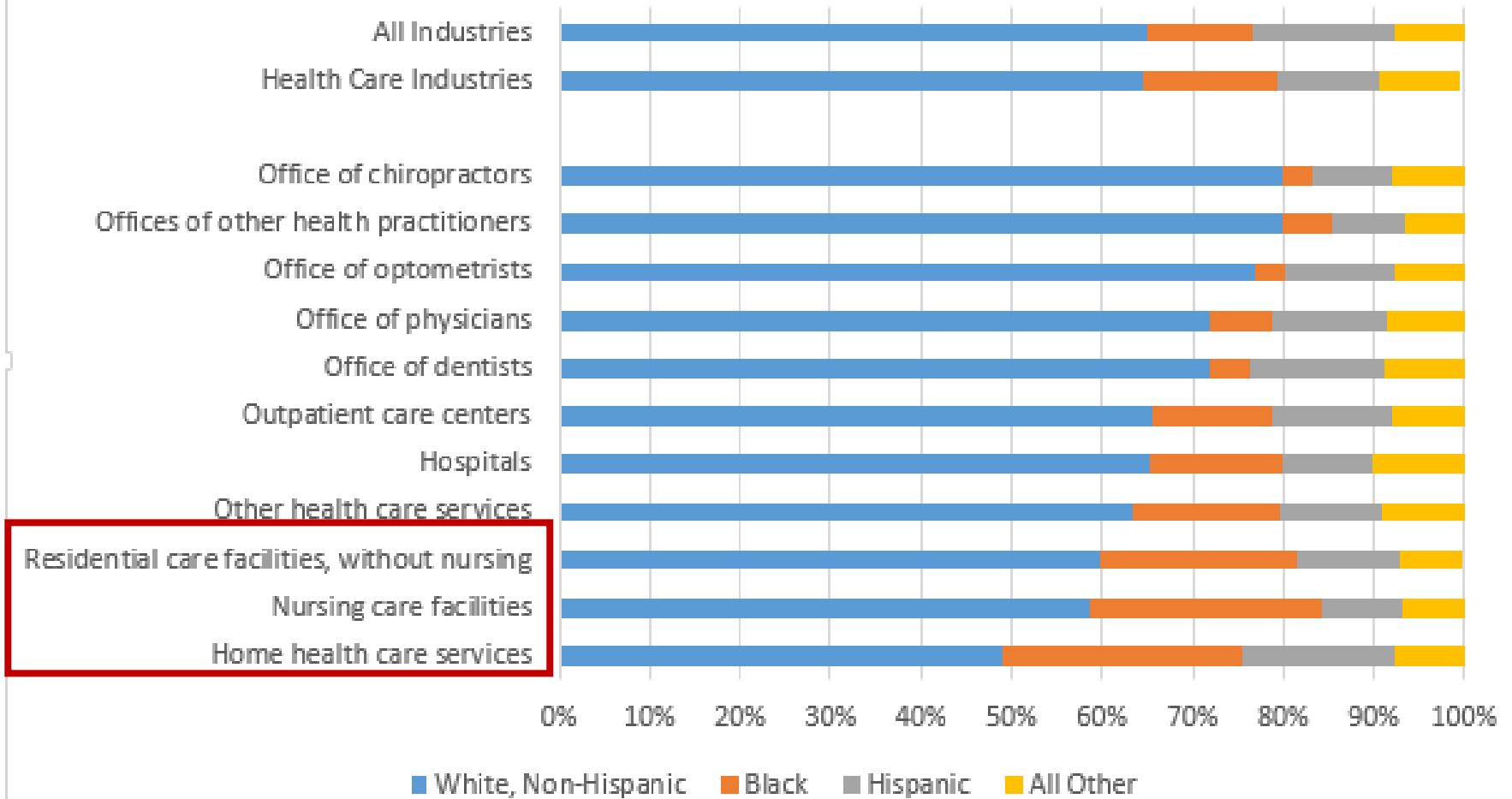
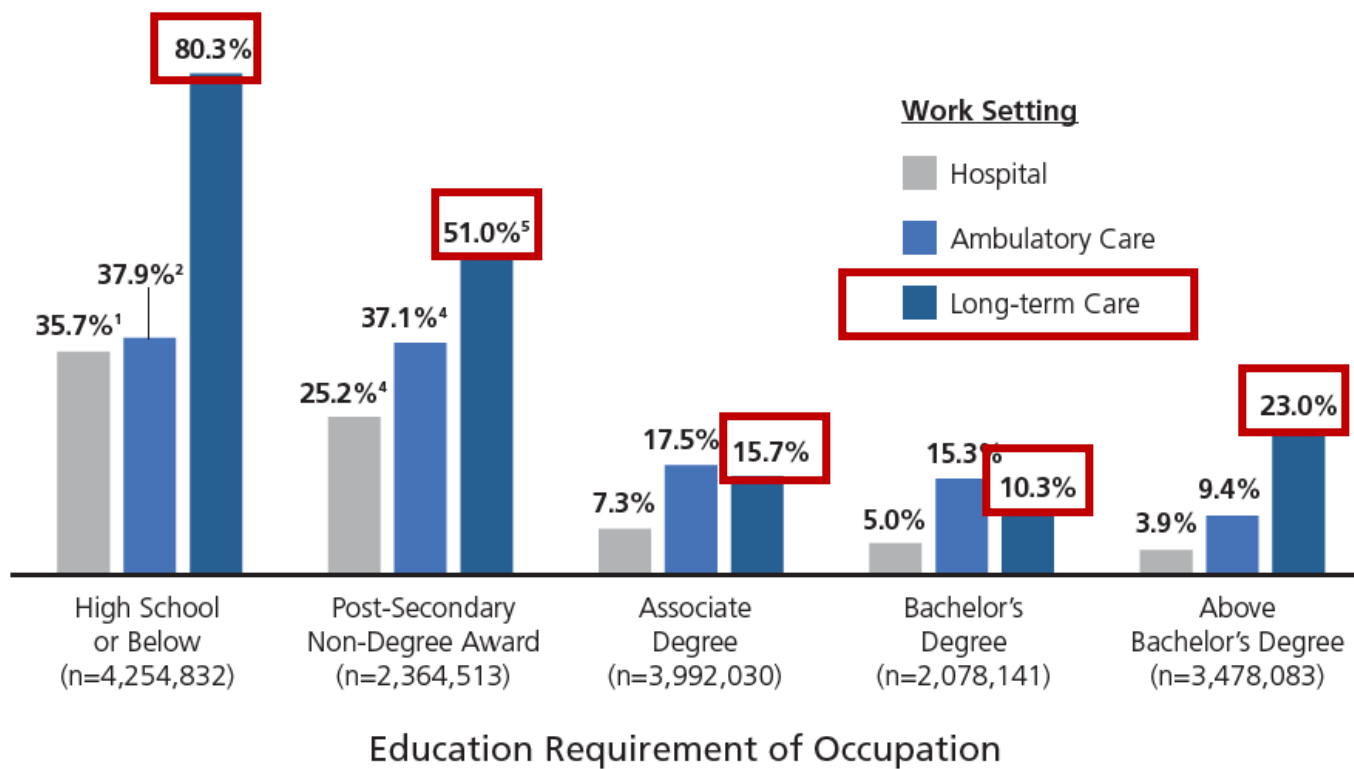


FIGURE 3 Selected Demographic and Socioeconomic Profile of Health Care Workers by Sector

	Unemployed	At or below the 100% poverty threshold
All Industries	9.3%	9.9%
Health Care Industries	4.8%	6.8%
Office of physicians	4.7%	4.2%
Office of dentists	4.4%	4.4%
Office of chiropractors	5.7%	6.8%
Office of optometrists	4.3%	4.6%
Offices of other health practitioners	3.5%	4.7%
Outpatient care centers	4.2%	5.5%
Home health care services	9.2%	20.3%
Other health care services	5.3%	5.8%
Hospitals	2.8%	3.5%
Nursing care facilities	7.2%	12.8%
Residential care facilities, without nursing	7.2%	12.6%

Source: Authors calculation from data and sample weights extracted from [Ruggles et al. 2010](#).

Figure 6: Percentage of Healthcare Workers Relying on One or More State/Federal Assistance Programs by Education Requirement and Work Setting

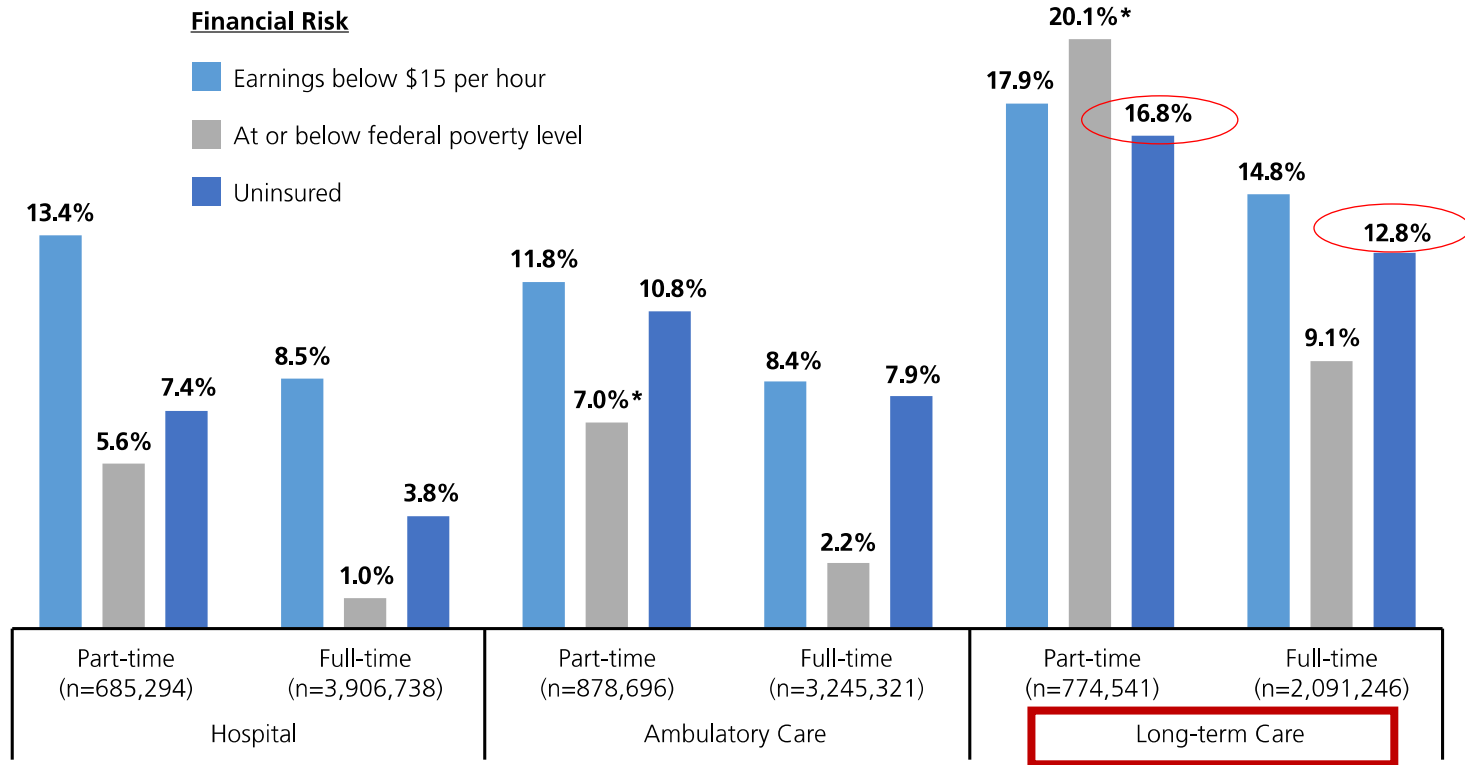


Significant differences at $p \leq 0.001$ between: ¹ high school or below versus associate's and above bachelor's degrees; ² high school or below versus associate's, bachelor's, and above bachelor's degrees; ³ high school or below versus post-secondary non-degree award, associate's, bachelor's, and above bachelor's degrees; ⁴ post-secondary non-degree award versus associate's, bachelor's, and above bachelor's degrees; ⁵ post-secondary non-degree award versus associate's and bachelor's degrees

Note: Social Assistance Programs include Medicaid, Supplemental Nutrition Assistance Program, and Earned Income Tax Credit

Source: Author calculation of data extracted from Sarah Flood, Miriam King, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 4.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2015.

Figure 7: Percentage of Part- versus Full-Time Healthcare Workers at Financial Risk among Those Employed in Occupations Requiring Bachelor's Degree or Below by Work Setting



*Significant differences at $p \leq 0.001$ between part-time versus full-time by financial risk category conducted using unpaired two sample t-test

Note: Financial risk defined as individuals earning below \$15 per hour, being at or below the poverty level, or being uninsured

Health Workforce Characteristic Summary

- Many occupations in health care with wide range of educational requirements
 - Most health care occupations require a bachelor's degree or less (low- to middle-skill jobs)
- Female dominated field and relatively diverse, particularly in long-term care sector
- Individuals in low-skilled jobs, mostly concentrated in long-term care, experience high unemployment, low pay and few benefits

Pre-COVID: Long-Term Care Jobs Projected as Fastest Growing, 2019 to 2029

OCCUPATION	GROWTH RATE, 2019-29	2019 MEDIAN PAY
Wind turbine service technicians	61%	\$52,910 per year
Nurse practitioners	52%	\$109,820 per year
Solar photovoltaic installers	51%	\$44,890 per year
Occupational therapy assistants	35%	\$61,510 per year
Statisticians	35%	\$91,160 per year
Home health and personal care aides	34%	\$25,280 per year
Physical therapist assistants	33%	\$58,790 per year
Medical and health services managers	32%	\$100,980 per year
Physician assistants	31%	\$112,260 per year
Information security analysts	31%	\$99,730 per year

Pre-COVID Headlines on Health Care Job Demand

timesunion

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From hospital to home, health care in 2019 will just keep growing

Consumer preference, payment reform pushes care outside the hospital walls

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ANALYSIS

HEALTHCARE JOB GROWTH, DEMAND EXPECTED TO REMAIN STRONG THROUGH 2019

BY JOHN COMMINS | JANUARY 29, 2019

MEDPAGE TODAY®

Public Health & Policy > General Professional Issues

Healthcare Job Growth Outpaces Nearly Every Sector in 2018

— Healthcare created 346,000 new jobs last year, up from 284,000 in 2017

by John Commins, HealthLeaders Media

January 13, 2019

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Pre-COVID Headlines Pointing to Trouble

Health & Science

The disabled and the elderly are facing a big problem: Not enough aides

The Washington Post
Democracy Dies in Darkness

Forbes

7,265 views | Apr 18, 2018, 02:05pm

The Shortage Of Home Care Workers: Worse Than You Think

 **Home Health Care News**

STAFFING

Caregiver Shortage Could Mean 7.8 Million Unfilled Jobs By 2026

By **Bailey Bryant** | January 28, 2019

Industry and Occupation Transitions, 2003-2013

Industry	Entry from what industry?	Most common occupation of entrants	Exit to what industry?
Home Health Care Services	14% Hospitals 14% Nursing care facilities	42% Nursing, psych & home health aides 23% Personal care aides	33% Out of labor force 18% Unemployed
Nursing Care Facilities	18% Hospitals 12% Leisure & hospitality	37% Nursing, psych & home health aides 10% Registered nurses	27% Out of labor force 19% Unemployed
Residential Care Services	14% Leisure & hospitality 8% Out of labor force	21% Personal care aides 13% Food preparation	25% Out of labor force 16% Unemployed

Source: Frogner BK and Spetz J (2015). "Entry and Exit of Workers in Long-Term Care," UCSF Health Workforce Research Center Report. Available at: <http://healthworkforce.ucsf.edu/publication/entry-and-exit-workers-long-term-care>

Demographic Characteristics of Transition Groups, 2003-2013

Industry	% female	% white	% with child in HH under 5	% age 16-24 years	% age 55-64 years
Home Health Care Services					
Entrants	88%	49%	15%	14%	15%
Leavers	90%	54%	15%	11%	17%
Stayers	90%	51%	12%	7%	18%
Nursing Care Facilities					
Entrants	85%	59%	14%	23%	10%
Leavers	86%	58%	17%	21%	13%
Stayers	86%	60%	13%	13%	17%
Residential Care Services					
Entrants	73%	60%	11%	24%	10%
Leavers	73%	61%	12%	23%	13%
Stayers	71%	65%	12%	14%	16%

Source: Frogner BK and Spetz J (2015). "Entry and Exit of Workers in Long-Term Care," UCSF Health Workforce Research Center Report. Available at: <http://healthworkforce.ucsf.edu/publication/entry-and-exit-workers-long-term-care>

SES Characteristics of Transition Groups, 2003-2013

Industry	% not a citizen	% rural residence	% disabled	% below poverty	% full-time	Wages from past year
Home Health Care Services						
Entrants	10%	20%	4%	18%	74%	\$19,666
Leavers	9%	20%	10%	22%	59%	\$15,289
Stayers	11%	19%	4%	14%	66%	\$19,799
Nursing Care Facilities						
Entrants	8%	24%	2%	16%	75%	\$20,677
Leavers	7%	25%	8%	16%	72%	\$17,409
Stayers	8%	26%	2%	8%	78%	\$22,527
Residential Care Services						
Entrants	6%	17%	4%	14%	74%	\$19,517
Leavers	7%	17%	8%	13%	73%	\$16,123
Stayers	6%	19%	3%	5%	79%	\$21,203

Source: Frogner BK and Spetz J (2015). "Entry and Exit of Workers in Long-Term Care," UCSF Health Workforce Research Center Report. Available at: <http://healthworkforce.ucsf.edu/publication/entry-and-exit-workers-long-term-care>

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COVID Status in US as of 2/8/2021

- 328.2 million population
- 26.9 million COVID cases (~8% of population)
- 472,037 COVID deaths (~1.75% of cases)
- 42.4 million vaccines administered (~13% of population)
 - About 50/50 Pfizer and Moderna
- 9.5 million received 2 doses of vaccine (~22% of those administered)

Recent COVID Headlines on Health Workforce

NURSING HOMES

NY Nursing Homes Struggle With Severe Staffing Shortages Amid COVID Outbreaks



At least 1,700 residents with COVID-19 have died in nursing homes since Dec. 1, according to a state count that likely understates the number of fatalities, and federal records show at least 13 staff members at the state's 600 nursing homes have died in that same time as a result of the virus

Published January 26, 2021 • Updated on January 27, 2021 at 1:36 am



POLITICO

NEW YORK

New York undercounted nursing home deaths by as much 50 percent, report finds

The report adds a new layer to the criticism Democratic Gov. Andrew Cuomo has faced over the state's handling of Covid-19 in long-term care facilities.

The New York Times

A Parallel Pandemic Hits Health Care Workers: Trauma and Exhaustion

Vaccines may be on the way, but many on the front-lines are burned out. Has the government done enough to help alleviate their stress?

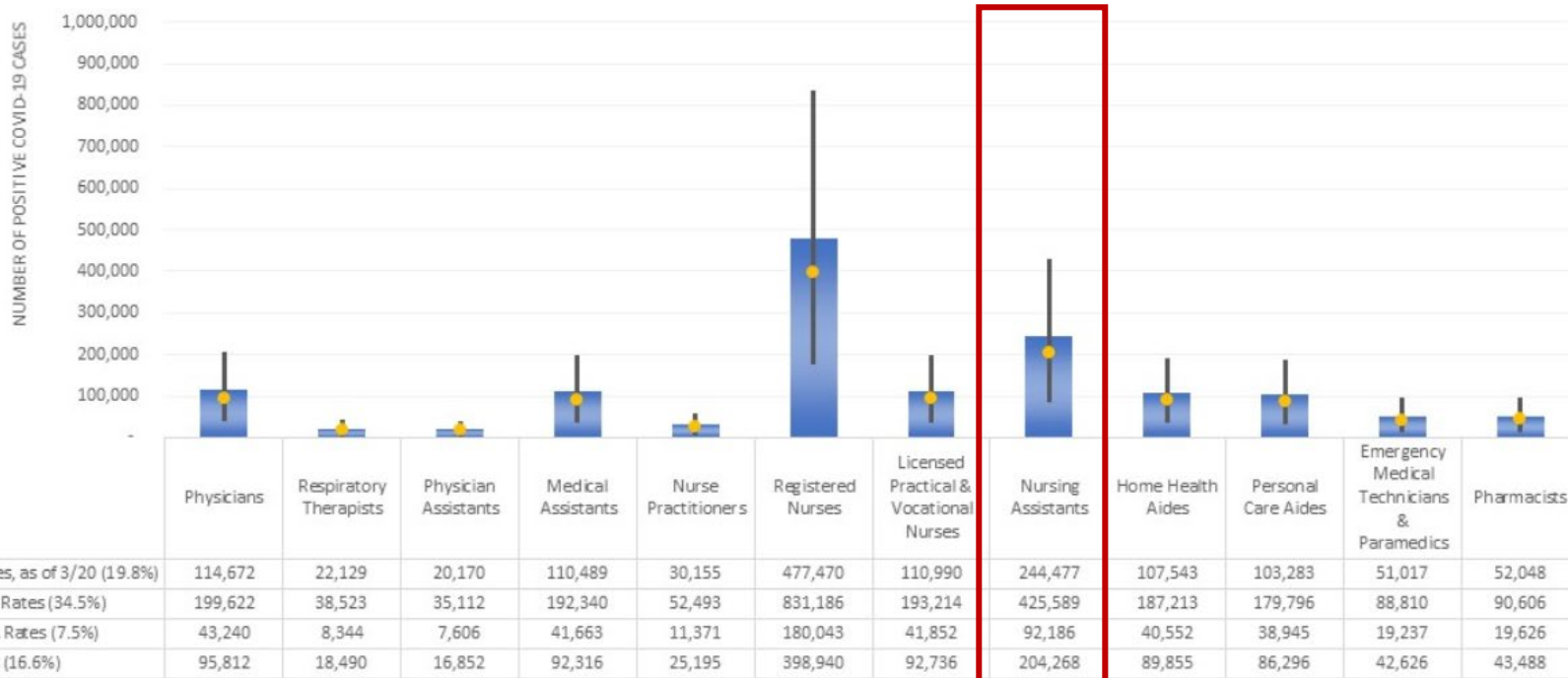
The Washington Post

Democracy Dies in Darkness

Nursing home workers now have the most dangerous jobs in America. They deserve better.



**Figure 3: Number of Positive COVID-19 Cases by Health Care Occupation Under Different Scenarios
Based on 3/30/20 Rates**



Sources: Occupational Employment Statistics [Data]. Bureau of Labor Statistics 2018 [cited 2020 Mar 23]; Available from <https://www.bls.gov/oes/current/oesrci.htm>; The COVID Tracking Project [Data]. 2020 [cited 2020 Mar 30]; Available from: <https://covidtracking.com/> Italy [Data]. Our World in Data 2020 [cited 2020 Mar 30]; Available from: <https://ourworldindata.org/covid-testing>

Challenge 1: Tracking Health Care Workers with COVID: Feb 2021

 Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

COVID Data Tracker

CDC | Updated: Feb 07 2021 12:27 PM



HEALTHCARE PERSONNEL CASES

397,196

HEALTHCARE PERSONNEL DEATHS

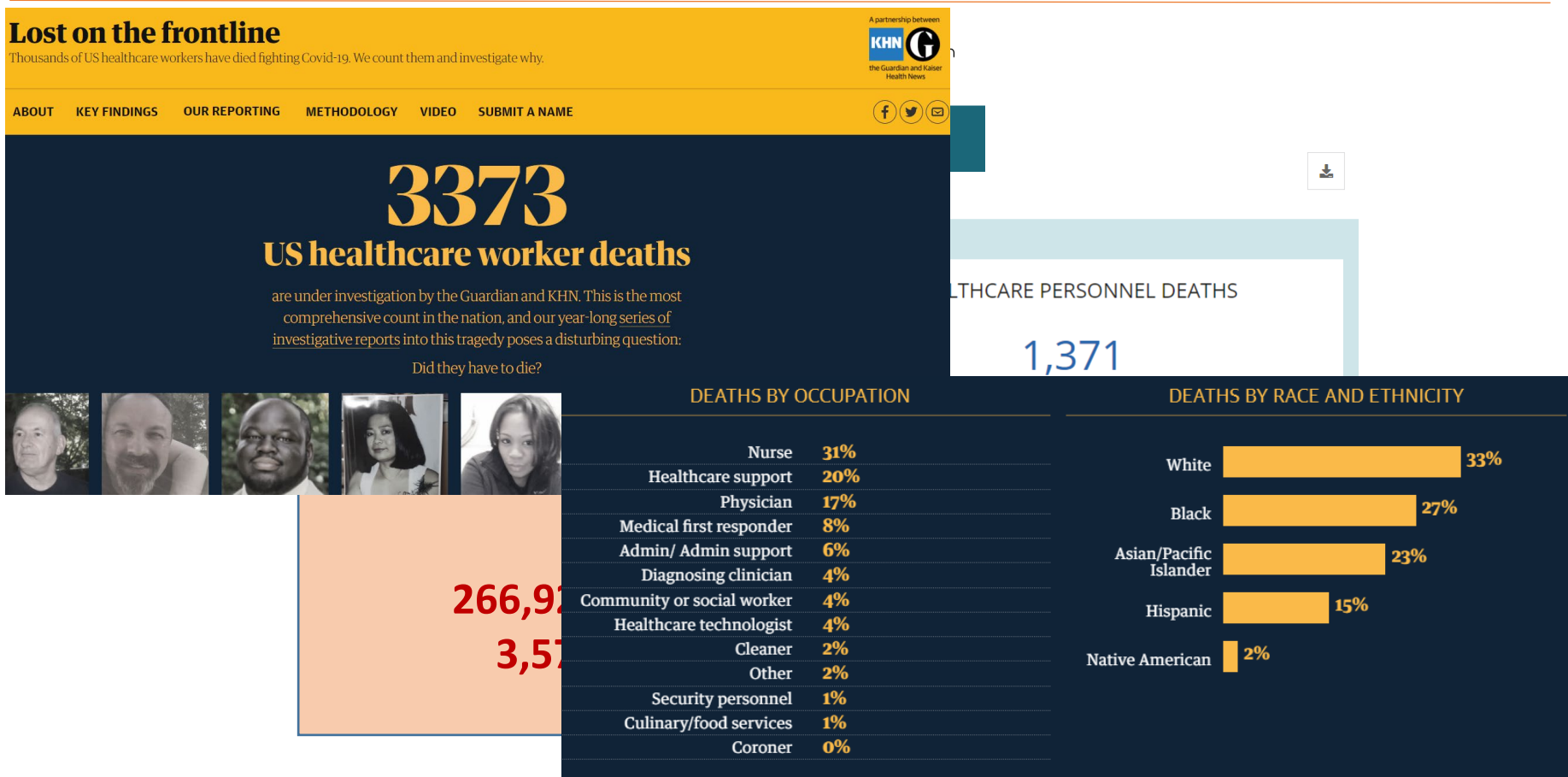
1,371

My Projections for SNFs:

266,923 cases (range: 120,463-556,130)

3,578 deaths (range: 1,626-22,528)

Challenge 1: Tracking Health Care Workers with COVID: Feb 2021



Challenge 1: Tracking Health Care Workers with COVID: Feb 2021

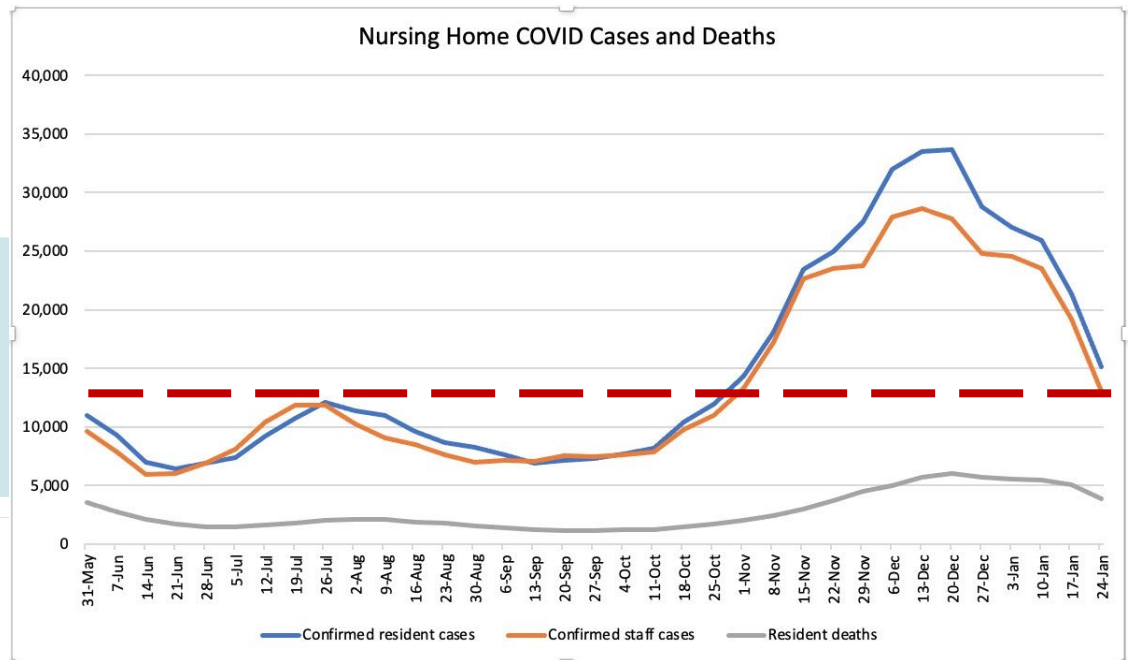
CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

COVID Data Tracker

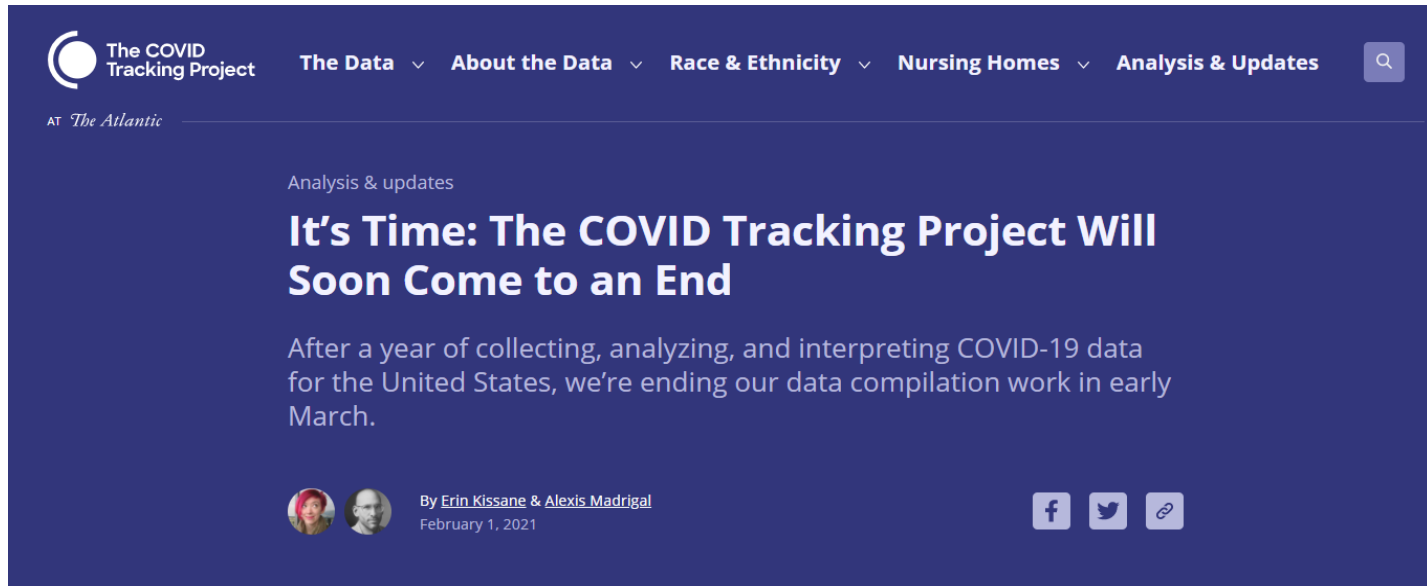
CDC | Updated: Feb 07 2021 12:27 PM

HEALTHCARE PERSONNEL CASES

397,196



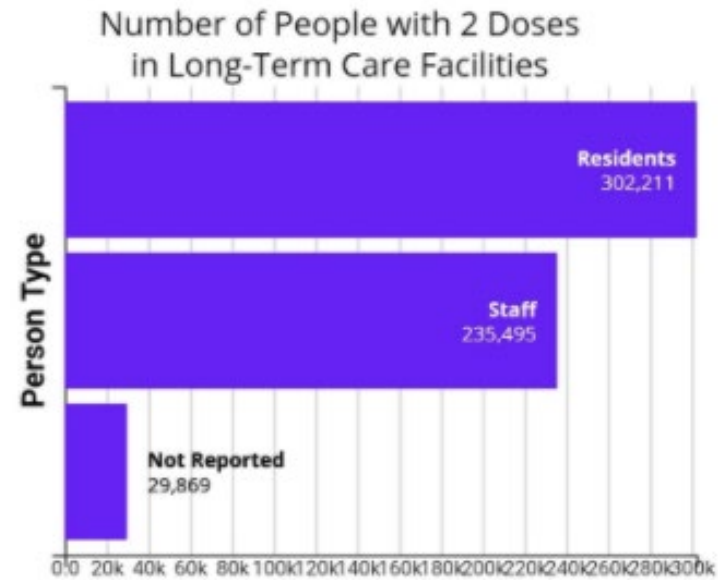
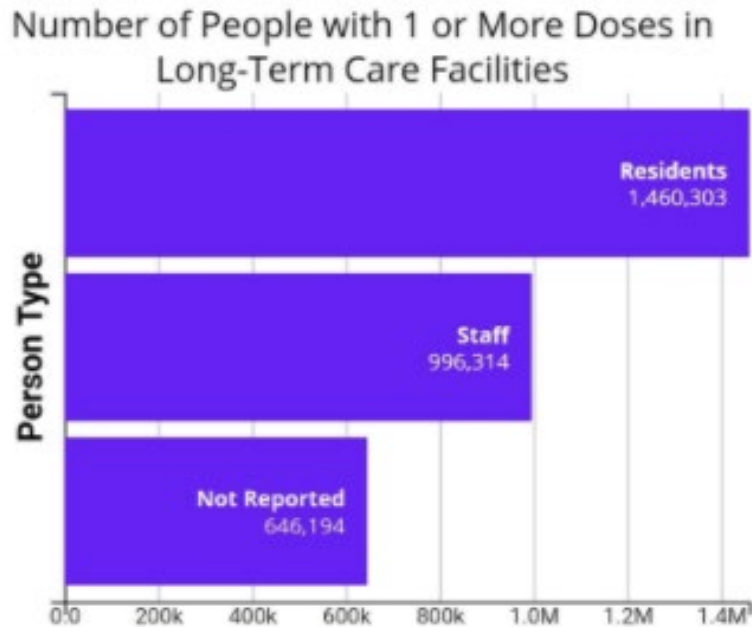
Challenge 1: Tracking Health Care Workers with COVID



The screenshot shows the top portion of a news article. At the top left is the logo for 'The COVID Tracking Project'. To its right is a navigation menu with items: 'The Data', 'About the Data', 'Race & Ethnicity', 'Nursing Homes', and 'Analysis & Updates'. A search icon is on the far right. Below the navigation is the text 'AT The Atlantic'. The main heading of the article is 'It's Time: The COVID Tracking Project Will Soon Come to an End'. Below the heading is a sub-heading 'Analysis & updates'. The main text begins with 'After a year of collecting, analyzing, and interpreting COVID-19 data for the United States, we're ending our data compilation work in early March.' Below the text are two circular profile pictures of the authors, followed by the text 'By Erin Kissane & Alexis Madrigal' and 'February 1, 2021'. To the right of the author information are three social media icons: Facebook, Twitter, and a link icon.

Every day for almost a year, hundreds of COVID Tracking Project contributors from all walks of life have compiled, published, and interpreted vitally important COVID-19 data as a service to their fellow Americans. On March 7, the one-year anniversary of our founding, we will release our final daily update and our data compilation will stop. Documentation, analysis, and archival work will continue for another two months, and we will bring the project

Challenge 2: Tracking Health Care Workers with Vaccinations



Challenge 2: Tracking Health Care Workers with Vaccinations

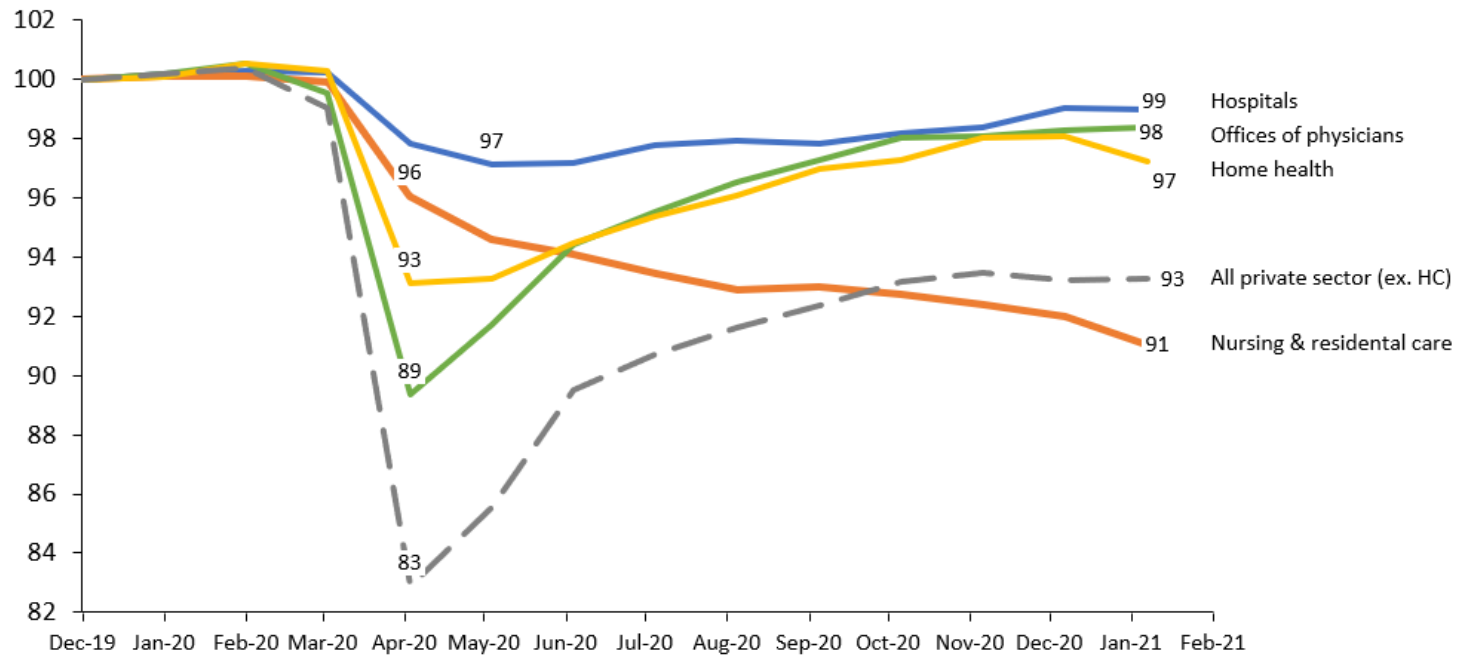
FIGURE 1. Estimated percentage* of residents[†] and staff members[§] at skilled nursing facilities[¶] enrolled in the Pharmacy Partnership for Long-Term Care Program who received ≥ 1 dose of COVID-19 vaccine — United States, December 18, 2020–January 17, 2021



Abbreviations: CMS = Centers for Medicare & Medicaid Services; COVID-19 = coronavirus disease 2019.

Challenge 3: Unemployed Health Care Workers

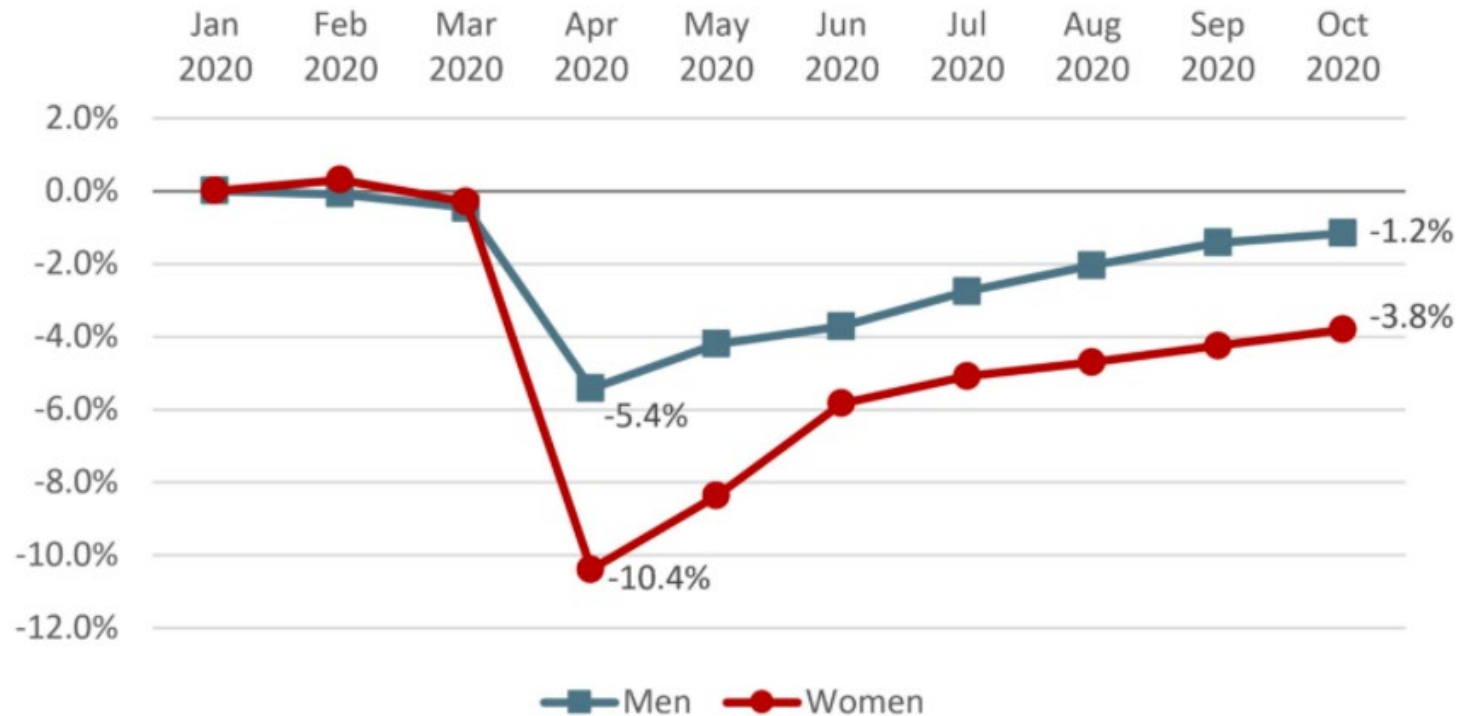
Total employment by industry (Indexed, December 2019 = 100)



Source: Bureau of Labor Statistics

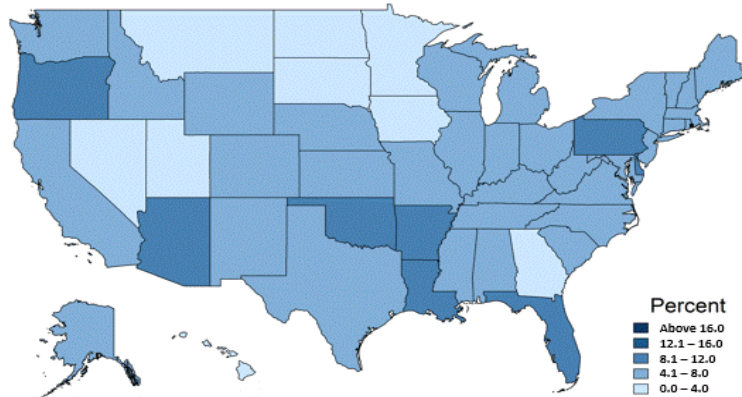
Challenge 3: Unemployed Health Care Workers

Figure 1: Percentage Change in Health Care Jobs Since January 2020, by Sex



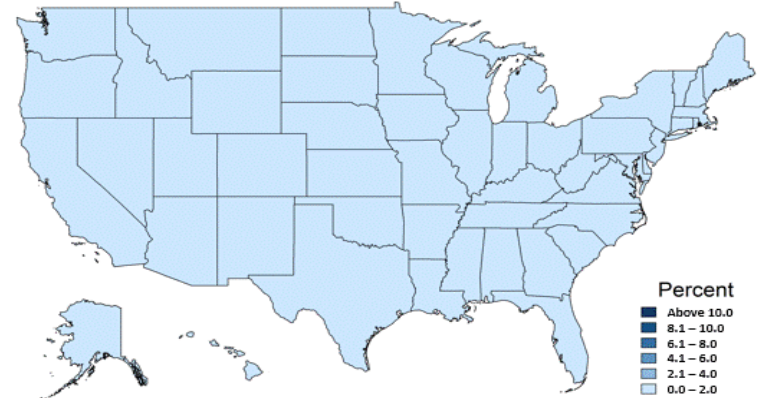
Challenge 3: Unemployed Health Care Workers

Unemployment Claims by **All Health Care Workers** as a Percentage of **All Unemployment Claims** by State **February 2020**



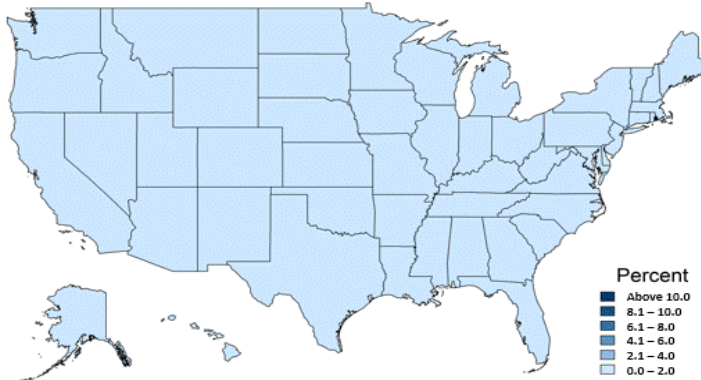
Source: Employment and Training Administration, U.S. Department of Labor. "ETA 203: Characteristics of the Insured Unemployed." <https://oui.doleta.gov/unemploy/csv/ar203.csv> [Accessed 2020 Aug 31]

Unemployment Claims by **Health Care Support Workers** in **February 2020** as a Percentage of **Total Health Care Support Workforce** in May 2019 by State



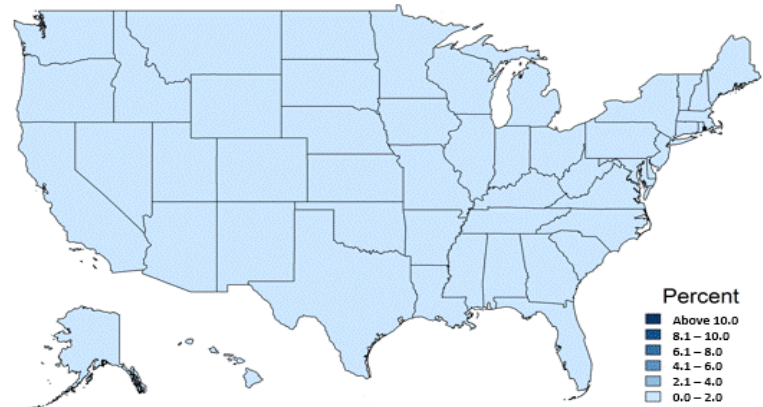
Source: Employment and Training Administration, U.S. Department of Labor. "ETA 203: Characteristics of the Insured Unemployed." <https://oui.doleta.gov/unemploy/csv/ar203.csv> [Accessed 2020 Aug 31]; Bureau of Labor Statistics, U.S. Department of Labor, "Occupational Employment Statistics." <https://www.bls.gov/oes/tables.htm> [Accessed 2020 April 24]

Unemployment Claims by **All Health Care Workers** in **February 2020** as a Percentage of **Total Health Care Workforce** in September 2019 by State



Source: Employment and Training Administration, U.S. Department of Labor. "ETA 203: Characteristics of the Insured Unemployed." <https://oui.doleta.gov/unemploy/csv/ar203.csv> [Accessed 2020 Aug 31]; Bureau of Labor Statistics, U.S. Department of Labor, "Quarterly Census of Employment and Wages." <https://data.bls.gov/maps/cew/us> [Accessed 2020 April 24]

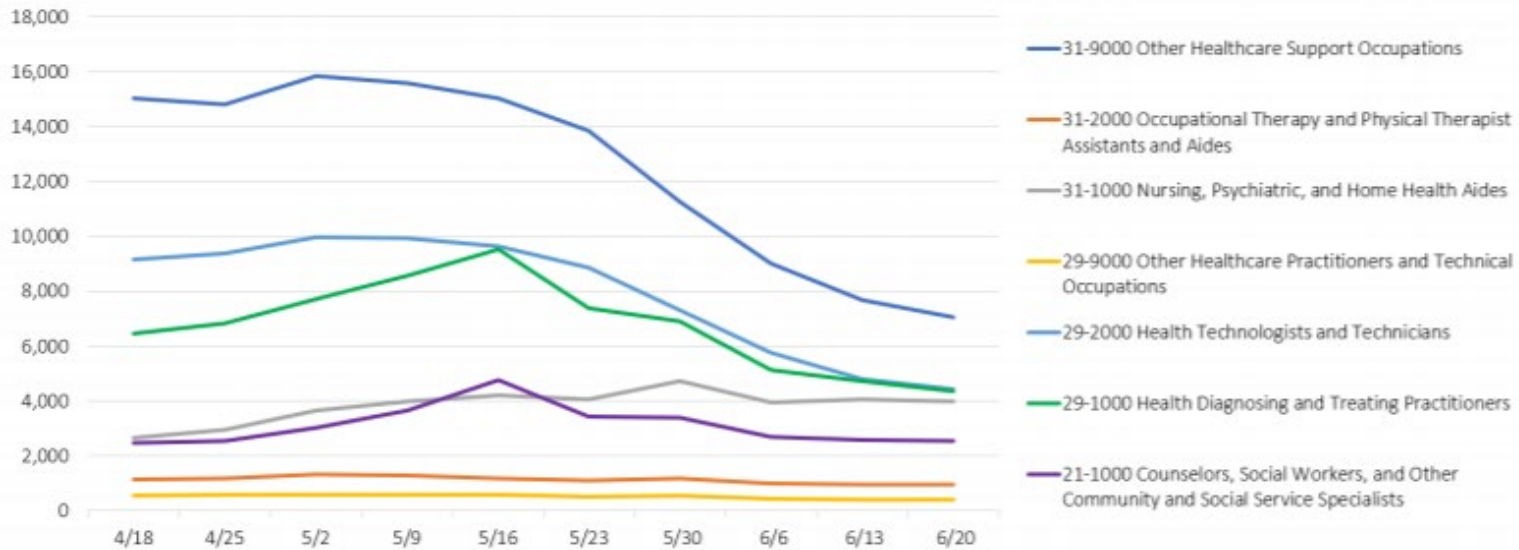
Unemployment Claims by **Health Care Practitioners/Technical Workers** in **February 2020** as a Percentage of **Total Health Care Practitioners/Technical Workforce** in May 2019 by State



Source: Employment and Training Administration, U.S. Department of Labor. "ETA 203: Characteristics of the Insured Unemployed." <https://oui.doleta.gov/unemploy/csv/ar203.csv> [Accessed 2020 Aug 31]; Bureau of Labor Statistics, U.S. Department of Labor, "Occupational Employment Statistics." <https://www.bls.gov/oes/tables.htm> [Accessed 2020 April 24]

Challenge 3: Unemployed Health Care Workers

**Figure 2. Continued Unemployment Claims 4/18/20-6/20/20:
Health Related Occupations***

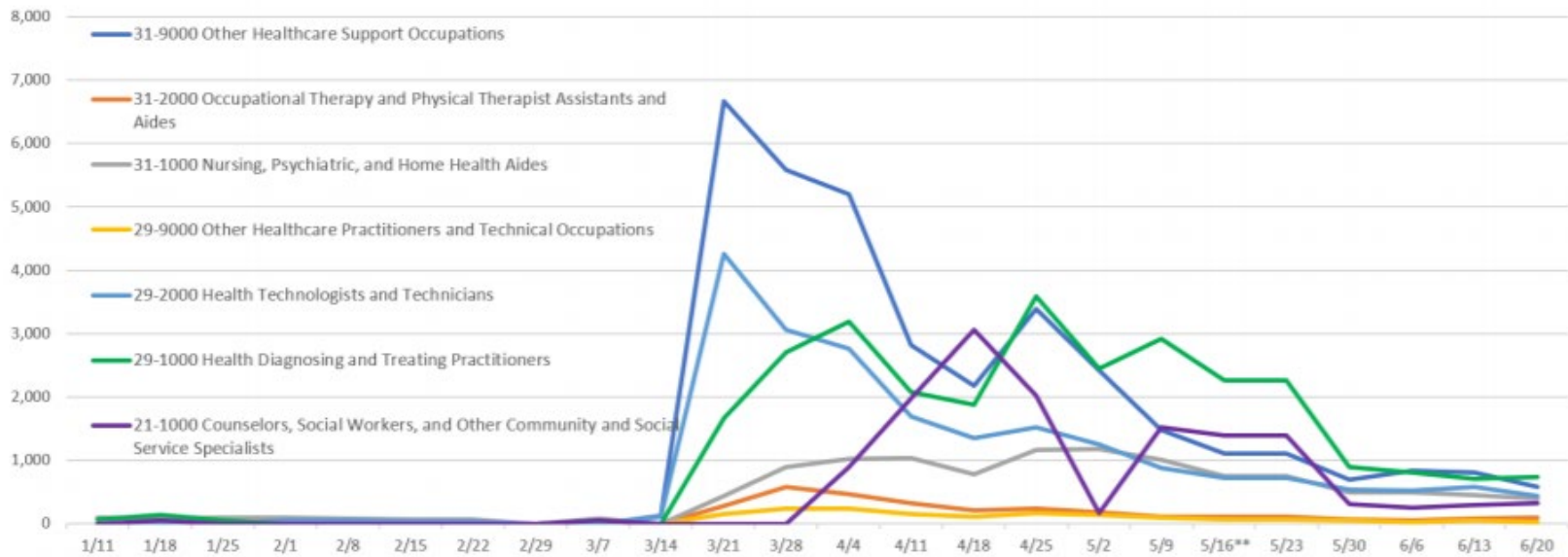


Data source: Washington State Employment Security Department/LMEA, 6/29/2020.

* Numbers may be slightly underestimated due to suppression of county level data with few claims.

Challenge 3: Unemployed Health Care Workers

**Figure 1. Initial Unemployment Claims 1/11/20-6/20/20:
Health Related Occupations***



Data source: Washington State Employment Security Department/LMEA, 6/29/2020.

*Numbers may be slightly underestimated due to suppression of county level data with few claims.

**Claims specific to the week ending 5/16 not provided separately. Total initial claims for the 2 weeks ending 5/9 and 5/23 were divided and assigned equally to each week.

Challenge 4:

Burnout among Health Care Workers

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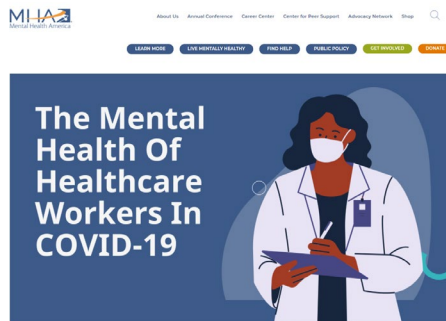
ANALYSIS

COVID-19 'HAS TURNED THE HEALTHCARE INDUSTRY UPSIDE DOWN,' SURVEY FINDS

BY CHRISTOPHER CHENEY | JULY 27, 2020

KEY TAKEAWAYS

- A recent survey found 64% of unemployed healthcare professionals had lost their jobs due to the impact of the coronavirus pandemic on their organization.
- The survey found 88% of owners were concerned about the future of their physician practice.
- The survey found 52% of clinicians reported experiencing increases in stress, burnout, or mental health issues during the pandemic.

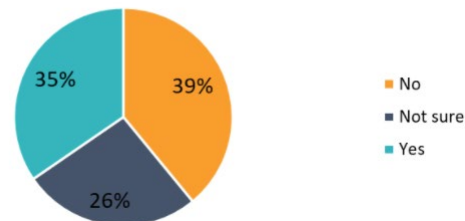


Quick COVID-19 Primary Care Survey Conducted by Larry Green Center

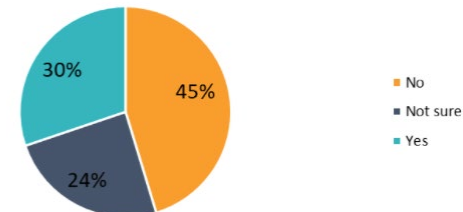
- 48% report mental stress/exhaustion is at all-time high – 76% report mental stress is worse than in the Spring
- 23% feel unsafe due to lack or low volume of PPE

As of 12/15/2020

Do you feel like you have adequate emotional support?



Nurses: Do you feel like you have adequate emotional support?



Agenda

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Example Policy Option 1: Sustain emergency scope of practice regulations



HEALTH AFFAIRS BLOG

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Is It Fair? How To Approach Professional Scope-Of-Practice Policy After The COVID-19 Pandemic

Alden Yuanhong Lai, Susan M. Skillman, Bianca K. Frogner

Perspective

306

Ensuring and Sustaining a Pandemic Workforce

Erin P. Fraher, Ph.D., M.P.P., Patricia Pittman, Ph.D., Bianca K. Frogner, Ph.D., Joanne Spetz, Ph.D., Jean Moore, Dr.P.H., Angela J. Beck, Ph.D., M.P.H., David Armstrong, Ph.D., and Peter I. Buerhaus, Ph.D., R.N.



The NEW ENGLAND
JOURNAL of MEDICINE

Article Figures/Media Metrics

4 References 4 Citing Articles

CURRENT EFFORTS TO fight the Covid-19 pandemic aim to slow viral spread and increase testing, protect health care workers from infection, and obtain ventilators and other equipment to prepare for a surge of critically ill

Audio Interview



Interview with Dr. Erin Fraher on opportunities for expanding health workforce capacity during the Covid-19 pandemic. (13:32)

Download



Source: <https://www.healthaffairs.org/doi/10.1377/hblog20200624.983306/full/>;
<https://www.nejm.org/doi/full/10.1056/NEJMp2006376>

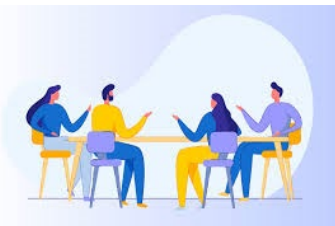
Example Policy Option 2: Recruit & retrain unemployed hospitality workers

Table 2. Ten Most Common Prior Year Industry for Entrants and Current Year Industry for Leavers of the Health Care Industry Between 2003 and 2013.

Despite recent job gains,
2.4M unemployed hospitality workers (19% unemployment rate) as of 9/2020
versus 0.7M unemployed (4.8% unemployment rate) as of 9/2019

Leisure and hospitality	11.0	Unemployed	18.6
Retail trade (excluding pharmacies and drug stores)	8.8	Educational services	5.6
Educational services	8.4	Leisure and hospitality	4.6
In school	6.9	Professional, scientific, and technical services	4.3

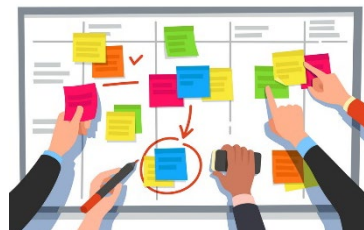
Example Policy Option 3: Establish national and state committees to advise health workforce planning



- Include health professional representatives, health care employers, human resource groups, state agencies including workforce development boards, policymakers, educators, researchers and patient representatives



- Centralize and harmonize data sources to track number of health care workers by location and specialty, job openings, and unemployed workers



- Tasks may include identifying workforce gaps, evaluating promising practices, centralize resources, streamlining communication, making policy recommendations to strengthen health workforce

Thank you!

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