



Samuel Merritt
University

Imperatives for the Healthcare Workforce of the Future - An Educator's View

Celeste G. Villanueva, EdD, CRNA, FNAP
Assistant Vice President, Academic & Student Affairs
Associate Professor
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Dedicated to Dr. Elizabeth Sodbinow, PhD, CRNA, Col USAFR (Retired)

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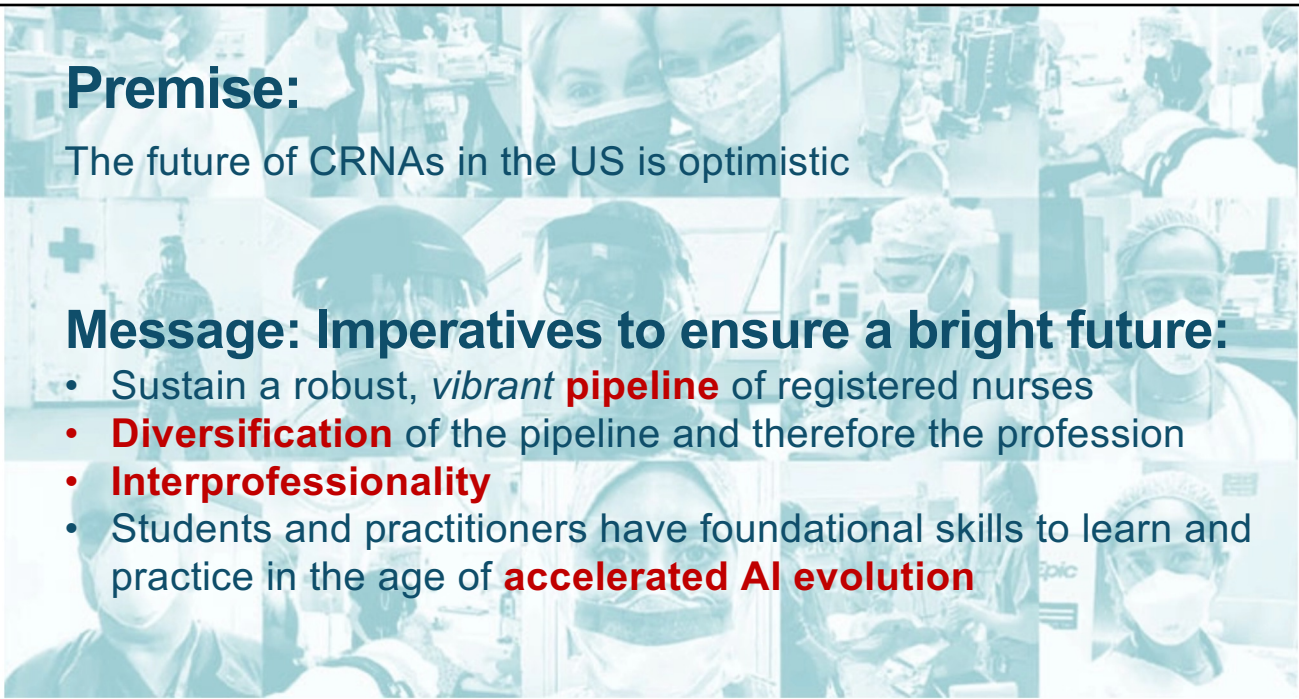
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Learning outcome: Articulate one potential idea to incorporate into one's professional practice or personal activities that addresses a key challenge facing nurse anesthesia educators

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Premise:
The future of CRNAs in the US is optimistic

Message: Imperatives to ensure a bright future:

- Sustain a robust, *vibrant* **pipeline** of registered nurses
- **Diversification** of the pipeline and therefore the profession
- **Interprofessionality**
- Students and practitioners have foundational skills to learn and practice in the age of **accelerated AI evolution**

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AANA American Association of Nurses Anesthesiologists

CRNAs Close the Gap on Provider Shortages

The supply of new graduates entering the anesthesia profession has been increasing faster than the demand for anesthesia care, reducing the shortage of anesthesia providers.

An estimated 10.7% shortage of anesthesia services in 2017 will decline to 3.6% by 2027.¹

Increasing CRNA-only practice by 10% could reduce the shortage by over 40%.

Practicing independently is associated with higher job satisfaction for CRNAs, which can also help to reduce provider turnover for anesthesia practices.²

Projected Trend in Anesthesia Provider Shortage¹

Year	Demand (FTEs)	Supply (FTEs)	% Excess Demand (Shortage)
2017	~85,000	~75,000	10.7%
2019	~87,000	~78,000	9.7%
2021	~88,000	~80,000	7.2%
2023	~90,000	~83,000	5.3%
2025	~92,000	~85,000	4.2%
2027	~95,000	~90,000	3.6%

1. Negrusa, Sebastian, Paul Hogan, Inna Cintina, Jihan Quraishi, Ruby Hoyem, Lorraine Jordan, and Matt Zhou. "Anesthesia Services: A Workforce Model and Projections of Demand and Supply." *Nursing Economic\$* 39, no. 6 (2021): 275-84.

2. Negrusa, Sebastian, Paul Hogan, Lorraine Jordan, Ruby Hoyem, Inna Cintina, Matt Zhou, Amanda Pereira, and Jihan Quraishi. "Work Patterns, Socio-Demographic Characteristics and Job Satisfaction of the CRNA Workforce – Findings from the 2019 AANA Survey of CRNAs." *Nursing Outlook* 69, no. 3 (February 9, 2021): P370-379.

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Health Resources & Services Administration (HRSA) Workforce Projection - Registered Nurses

Supply & Demand 2020 - 2035

Key Takeaways

- Shortage of supply of RNs relative to demand is projected to continue through 2025 (78K) and beyond to 2030 (64K)
- California is among 10 states with largest projected shortage
- Pandemic impact - on population seeking care, workforce providing care, and data available for both
- Projections should be treated with caution

Data created October 15, 2023. Retrieved from <https://data.hrsa.gov/topics/health-workforce/workforce-projections>

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Actions to consider

To alleviate nursing workforce shortage challenges:

1. Attract more people to nursing roles
2. Increase academic & clinical spots
3. Reimagine clinical education
4. Innovate care delivery models - alleviate burden on RNs



From: Berlin et al. Assessing the lingering impact of COVID-19 on the Nursing Workforce; McKinsey & Co. Healthcare Systems & Services Practice Report, May 2022

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HHS Office of the Secretary
2,201 followers
3mo

I was in Oakland to visit **Samuel Merritt University's** health science simulation lab and meet the next generation of health care workers.

We talked about our new HHS Health Workforce Initiative, which will explore ways to improve the health workforce pipeline, expand recruitment and retention, and deliver career advancement opportunities with a strong focus on equity.

We need more health workers, especially those who look like and share the experiences of the people they serve. And we need to take care of the people who take care of us – especially their mental health.

Diversification of the RN workforce pipeline

RN Workforce Demographics

- 80.6% White/Caucasian
- 5.6% report ethnicity as Hispanic
- 6.7% African American
- 7.2% Asian
- 0.5% American Indian/Alaskan Native
- 0.4% Native Hawaiian/Pacific Islander
- 2.1% Two or more races
- 2.5% Other



Source: National Council on State Boards of Nursing & The Forum of State Nursing Workforce Centers, 2020 National Nursing Workforce Study

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Diversity in Nurse Anesthesia Mentorship Program

ABOUT US | MEMBERSHIP | EVENTS | FREE SERVICES | SPONSORSHIP | GIVING | VIDEO ON DEMAND | RESOURCES | STORE

CONTACT US

Inspired by Diversity, Realized by Action
MENTORSHIP PROGRAM

Registered Nurses: 4 million
CRNAs: 59,000

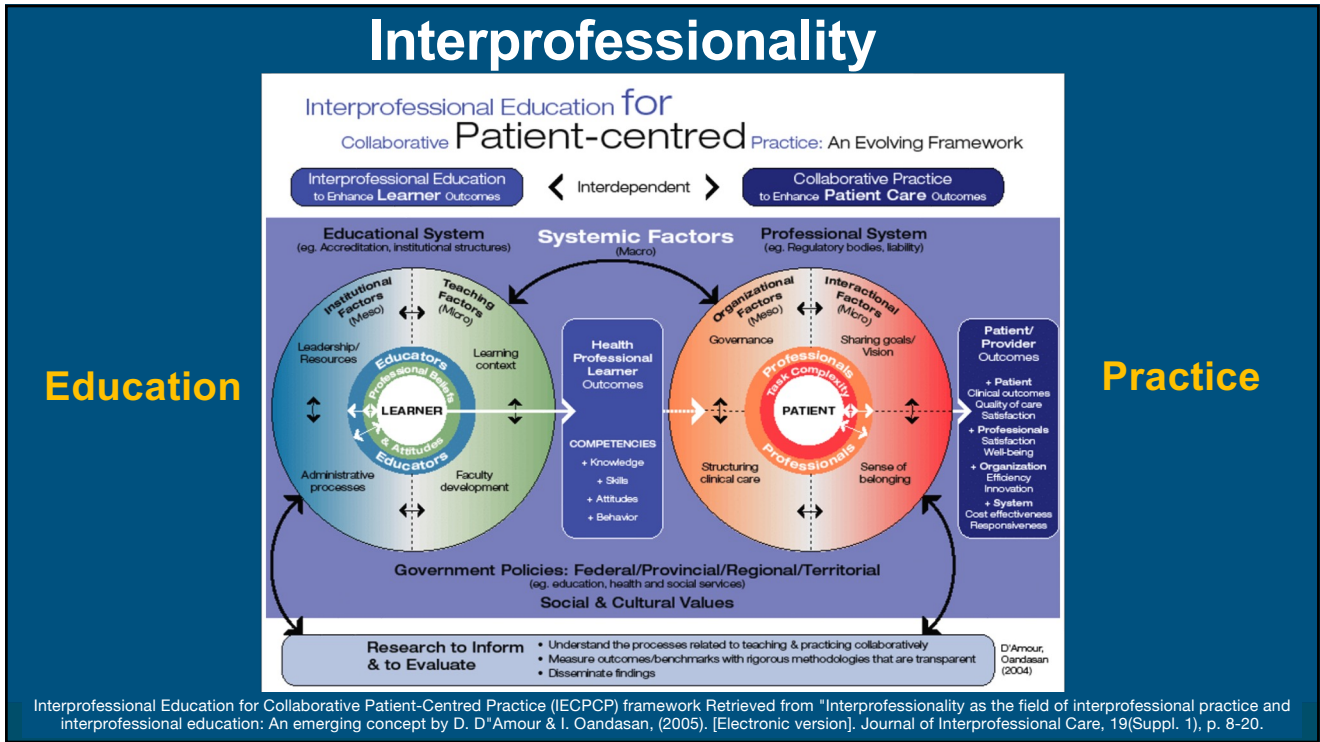
CRNAs who identify as person of color: 12%

- 3% African American
- 4% Asian/Pacific Islander
- 4% Hispanic
- 0.7%: Native American/Indian
- 1%: Other/Non-white

Source: American Nurses Association (RN statistic); AANA 2020 Member Profile Survey

Gould W (2021); Historical underpinning to diversifying nurse anesthesia programs: A model of success; Teaching and Learning in Nursing, 16

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How AI is used in Higher Education


- Assessment & Evaluation
- Predicting (performance, at risk profiles, decisions...)
- AI assistance (effort regulation, accessibility, student outreach...)
- Managing student learning

Crompton & Burke (2023) Artificial intelligence in higher education: the state of the field [systematic review]; International Journal of Educational Technology in Higher Education; 20:22

Chat GPT
"Generative Pre-trained Transformer"

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McKinsey & Company


Transforming healthcare with AI

The impact on the workforce and organisations


March 2020

EIT Health is supported by the EIT, a body of the European Union


Exhibit 1 – Areas of impact for AI in healthcare



Improving population-health management
Improving operations
Strengthening innovation



EIT Health is a Knowledge and Innovation Community supported by the European Institute of Innovation and Technology (EIT), an EU body created to find solutions to pressing global challenges. The **McKinsey Center for Government (MCG)** is a global hub for research, collaboration and innovation in government productivity and performance.

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The Rise of AI: Finding Human Design in a Growing Digital World

Special Keynote: 2023 Health Policy Conference

American Academy of Nursing - October 5, 2023

- AI as an Ally to healthcare professionals
- **Caveats**
 - Lack of regulation, ethical issue
 - Misinformation
 - Bias (data sets)

Bottom line: Evaluate & “interrogate” the AI tools presented to you

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Nursing > Nursing

Experts on AI Tell Nurses: 'You Need to Embrace This'

— And no, you will not be replaced by a robot

by Shannon Firth, Washington Correspondent, MedPage Today October 9, 2023



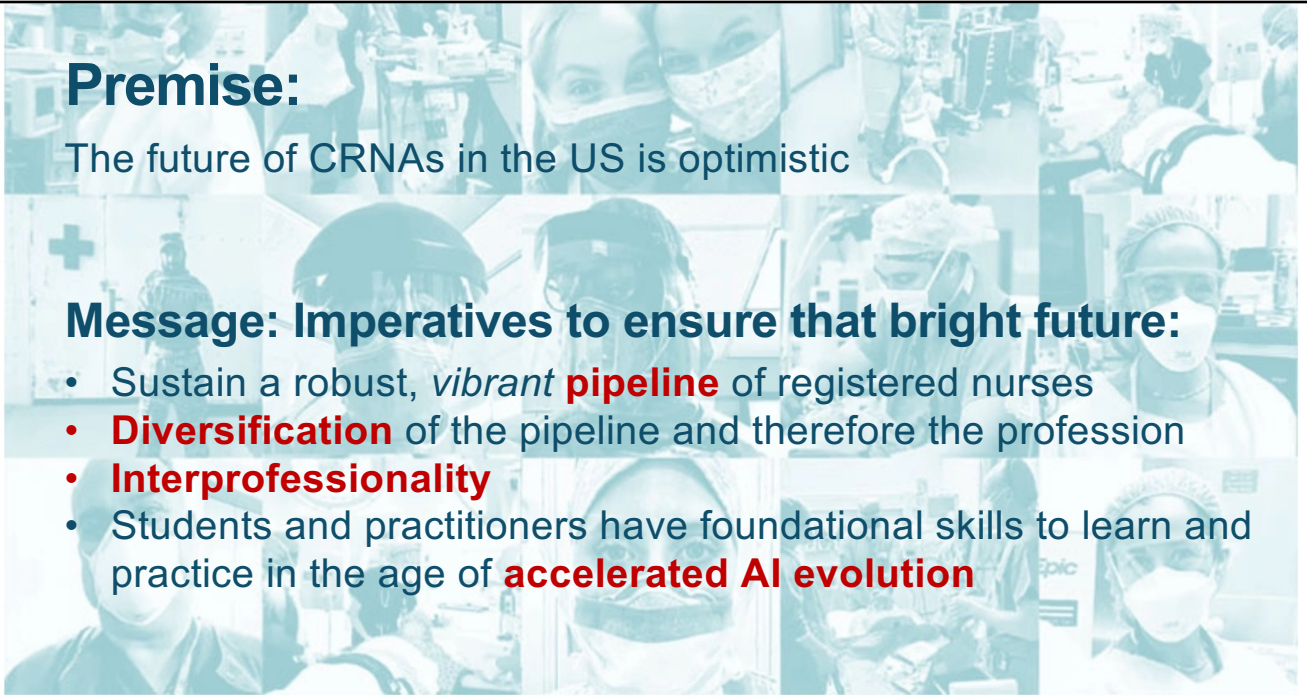






Maura Grossman, JD, PhD, MA - Professor, Waterloo University; Affiliate Faculty, Vector Institute of Artificial Intelligence
Greg Springan, MSN, RN - VP Clinical Services, Diligent Robotics, Inc.


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FUTURE

LOADING

PLEASE WAIT.

PLEASE ENGAGE

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