



RESPIRATORY
CARE BOARD
OF CALIFORNIA

***Professional Qualifications Committee
Education Requirements Study Session
6/30/2021***

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History of Profession

- **1943:** Edwin R. Levine, MD, establishes a primitive inhalation therapy program using on-the-job trained technicians to manage post-surgical patients at Michael Reese Hospital in Chicago.
- **April 15, 1947:** The Inhalation Therapy Association (ITA) is formally chartered as a not-for-profit entity in the state of Illinois. The new Association boasts 59 members, 17 of whom are from various religious orders.
- **May 11, 1954:** The New York State Society of Anesthesiologists and the Medical Society of the State of New York form a Special Joint Committee in Inhalation Therapy to establish “the essentials of acceptable schools of inhalation therapy.”
- **1960:** The American Registry of Inhalation Therapists (ARIT) is formed to oversee a new examination leading to a formal credential for people in the field and administers it’s first Registry Exam.
- **1982:** California passes the first modern licensure law governing the profession of respiratory care; President Ronald Reagan proclaims the first National Respiratory Care Week.



The Inhalation Therapy Association was founded in 1947.

Respiratory Care Board (RCB)



- 1982: Signed into Law (Respiratory Care Examining Committee)
- 1994: Name Change (Respiratory Care Board)
- One of 39 Department of Consumer Affairs Agencies

Mission

- To protect and serve consumers by licensing qualified respiratory care practitioners, enforcing the provisions of the Respiratory Care Practice Act, expanding the availability of respiratory care services, increasing public awareness of the profession; and supporting the development and education of respiratory care practitioners.

Commission on Accreditation for Respiratory Care



Ensure that high quality educational programs prepare graduates to be competent respiratory therapists with proficiency in practice, education, research and service.

- 1954: Special Joint Committee in Inhalation Therapy
- 1970: Joint Review Committee for RT Education (JRCRTE)
 - Recommending body to the Committee on Allied Health Education and Accreditation (CAHEA)
- 1996: Committee on Accreditation for RC (CoARC)
 - Recommending body to the newly formed Commission on Accreditation for Allied Health Education Programs (CAAHEP)
- 2009: Commission on Accreditation for RC (CoARC)
 - Freestanding accreditor

The logo of the American Association for Respiratory Care (AARC) is a circular emblem. It features the letters 'AARC' in a stylized, bold font in the center. The words 'AMERICAN ASSOCIATION' are written along the top inner edge of the circle, and 'FOR RESPIRATORY CARE' is written along the bottom inner edge. Two small stars are positioned on the left and right sides of the circle, flanking the central letters.

American Association for Respiratory Care (AARC)

Foremost professional association promoting respiratory therapists

- **1946:** Inhalation Therapy Association (ITA)
- **1954:** American Association of Inhalation Therapists (AAIT)
- **1955:** Holds first annual meeting in Chicago
- **1956:** Publishes Inhalation Therapy (now Respiratory Care)
- **1973:** American Association for Respiratory Therapy (AART)
- **1973:** American Association for Respiratory Therapy (AART)
- **1986:** American Association for Respiratory Care (AARC)
- **1990:** Clinical Practice Guidelines



California Society for Respiratory Care (CSRC)

Represent and support members through public and legislative advocacy, educational opportunities, and to continuously strive for excellence in the cardiopulmonary profession.

- **1960's:** California Inhalation Therapists were organized into two informal groups, Northern and Southern.
- **June 1968:** Northern California Association for Inhalation Therapists
- **1969:** Southern California affiliation became California Society for Inhalation Therapy
- **1986:** Name changes to California Society for Respiratory Care
- AARC affiliate

Respiratory Care Board Strategic Plan 2017 - 2021

Ensure the initial and continuous competency of all licensed Respiratory Care Practitioners (RCPs).

- Goal #2
 - Develop an action plan to incorporate a baccalaureate degree provision in the Respiratory Care Practice Act (RCPA) to ensure education requirements meet the demand of the respiratory care field.

Data Support for Increased Educational Requirements

AARC – 2015 and Beyond (2008)

- Conference I: Creating a Vision for Respiratory Care in 2015 and Beyond
- Conference II: Competencies Needed by Graduate Respiratory Therapists in 2015 and Beyond
- Conference III: Transitioning the Respiratory Therapy Workforce for 2015 and Beyond

Education

A single recommendation regarding RT education was accepted and approved by majority vote:

- That the AARC request the Commission on Accreditation for Respiratory Care to change, by July 1, 2012, accreditation standard 1.01 to read as follows:

1.01 The sponsoring institution must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the United States Department of Education and must be authorized under applicable law or other acceptable authority to award graduates of the program a *baccalaureate or graduate degree* at the completion of the program. *Programs accredited prior to 2013 that do not currently offer a baccalaureate or graduate degree must transition to conferring a baccalaureate or graduate degree, which should be awarded by the sponsoring institution, upon all RT students who matriculate into the program after 2020.*

AARC: Competencies for Entry into Respiratory Therapy Practice

- New graduates of respiratory therapy educational programs have many **competencies** needed **prior to entry into professional practice**.
- Practicing respiratory therapists must continue their development **post-graduation** to attain additional **competencies**.
- Failure to obtain these competencies mean that patients will not be receiving the respiratory care that they expect and deserve.

Competency	Acquired <u>before</u> entry or <u>after</u> entry according to the AARC Taskforce on Competencies for Entry into Respiratory Care Professional Practice
Area I: Collection of Diagnostic Information	
A. Pulmonary Function Technology	
1. Perform basic spirometry, including adequate coaching, recognition of improperly performed maneuvers, corrective actions, and interpretation of test results.	before
2. Compare and evaluate indications and contraindications for advanced pulmonary function tests (plethysmography, diffusion capacity, esophageal pressure, metabolic testing, and diaphragm stimulation) and be able to recognize normal/abnormal results.	after
B. Sleep	
1. Compare and evaluate the indications and contraindications for sleep studies.	before
2. Explain results in relation to types of respiratory sleep disorders.	before
C. Invasive Diagnostic Procedures	
1. Identify and distinguish the indications, contraindications, and general hazards, complications in preparation, performance, and post care of bronchoscopic procedures.	after
2. Describe the role of a respiratory therapist in diagnostic bronchoscopy procedures.	after
3. Monitor and evaluate the patient's clinical condition with pulse oximetry, electrocardiogram, exhaled gas analysis, and other related diagnostic devices.	after
4. Perform arterial and venous sampling for blood analysis.	before
Area II: Disease Management	
A. Management of Chronic Diseases	
1. Understand the etiology, anatomy, pathophysiology, diagnosis, and treatment of cardiopulmonary diseases (e.g., asthma, chronic obstructive pulmonary disease) and comorbidities.	before
2. Communicate and educate to empower and engage patients.	before
3. Develop, administer, and re-evaluate patient care plans to	
a. establish specific desired goals and objectives.	before
b. assess level of patient understanding.	before
c. anticipate the effects of pharmacologic agents on organ systems within scope of respiratory care.	before
d. identify the patient/caregiver's need for psychosocial, emotional, physical, or spiritual support.	after
e. educate about nutrition, exercise, wellness.	before

Entry Requirements to Respiratory Therapy Practice: 2030 and Thereafter

The American Association for Respiratory Care (AARC) recommends the following requirements for Respiratory Therapists entering the workforce beginning in 2030 and thereafter. The AARC asserts that meeting these requirements is essential for respiratory therapists to be able to demonstrate the minimum competencies needed to provide safe, effective and efficient patient care in an increasingly complex and evolving health care environment.

The Respiratory Therapist entering practice in 2030 and thereafter must:

- Obtain a minimum of a baccalaureate degree in respiratory therapy, or health sciences with a concentration in respiratory therapy.

AND

- Have earned the Registered Respiratory Therapist (RRT) credential from the National Board for Respiratory Care (NBRC).



*Professionalism • Advocacy
Commitment • Excellence*

Education Requirements for Respiratory Care Practitioners

Position Statement

The California Society for Respiratory Care endorses and supports bachelor's degree programs in respiratory care (or equivalent) for education and training as a minimum requirement for licensure beginning in 2030. A bachelor's degree will meet the demands for practitioners to critically think, assess, and practice within a more independent scope. Additionally, higher education will help move the profession to allow greater opportunities for practitioners to engage in specialized care that is outcomes-focused, providing a more significant impact on the healthcare delivery system. Finally, Respiratory Care Practitioners seeking to practice in advanced clinical settings, leadership roles, research, and professional educator roles are encouraged to earn masters or doctoral degrees.



University of California
San Francisco

California Respiratory Care Workforce Study (2016)

Support for the baccalaureate degree in respiratory therapy

Figure 14 presents RC directors' responses to questions about baccalaureate education in respiratory therapy. Although a significant majority of directors view the AD program as sufficient preparation to enter the workforce (Figure 13 above), there is also strong support for moving respiratory therapy education to the baccalaureate degree level. More than 60 percent of directors agreed with the notion that because of the technical complexity of respiratory care, the clinical knowledge it requires, and the broadening roles and responsibilities of RTs as care providers, respiratory therapy education needs to move to a four-year bachelor's degree. In addition, more than 60 percent of responding RC directors agreed that moving respiratory therapy education to the bachelor's degree level is necessary to create career opportunities in the profession. Finally, there was strong agreement among RC directors that respiratory therapy is perceived as a technical occupation and moving to a bachelor's degree requirement is necessary to raise the field's professional standing.



Commission on Accreditation for Respiratory Care

Response to AARC Position Statement on Respiratory Therapist Education

The CoARC acknowledges that respiratory therapists with baccalaureate and graduate education are needed in larger numbers to serve as educators, researchers, managers, clinical specialists, and other roles throughout the healthcare delivery system. Likewise the CoARC recognizes the prominent role played by associate degree respiratory therapy programs. To support the increasing extent and complexity of the skills required of graduates of Respiratory Care programs and the associated movement of the profession toward baccalaureate and graduate degrees, the CoARC Board of Commissioners, along with the AARC, ACCP, and ATS, approved the following change to Standard 1.01 in the *Accreditation Standards for Entry into Respiratory Care Professional Practice*, effective January 1, 2018:

~~An~~ Except as provided in the following sentence, an educational sponsor must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the U.S. Department of Education (USDE) and must ~~be authorized under applicable law or other acceptable authority to~~ award graduates of the program ~~a~~ an associate or higher baccalaureate or graduate degree upon ~~at the~~ completion of the program. For associate degree programs that applied for accreditation or were accredited prior to January 1, 2018, an educational sponsor must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the USDE. These programs may continue to award graduates of the program an associate degree as long as they remain in compliance with the CoARC Standards.

Response to AARC Position Statement on Respiratory Therapy Education, 2017, Commission on Accreditation for Respiratory Care

https://coarc.com/wp-content/uploads/2020/12/CoARC-Communication-Min-Degree-Requirements-1-28-16-rev-12-1-17_1-compressed.pdf



Licensure Across the United States

- **Education Requirement:** Minimum Associate Degree from CoARC accredited RC program
 - New York State in conversation of increasing educational requirements
- **State Licensure:** California 1982 – Vermont 2004
- **RRT Credential:** Ohio 2013, California 2015, Arizona 2017, New Jersey 2017, Oregon 2018, New Mexico 2018
 - Minnesota, Washington, and West Virginia in regulation processes
- **CEU Requirement:** 0 – 30 Biennial

External Pressures Increasing Educational Requirements

Quality and Safety

- Higher adoption of National Quality Forum safe practices⁷;
- Lower overall missed nursing care⁸;
- Higher support for evidence-based practice implementation⁹;
- Higher nurse-perceived quality of care¹⁰⁻¹²; and
- Higher patient ratings of their hospital experience¹³⁻¹⁶.

Patient Outcomes

- Lower mortality rates¹⁷⁻²²;
- Lower failure-to-rescue^{19,21};
- Lower patient fall rates²³⁻²⁴;
- Lower nosocomial infections²⁰;
- Lower hospital-acquired pressure ulcer rates²⁵; and
- Lower central line-associated bloodstream infection rates²⁶.

- Healthcare Accreditation Standard
 - Magnet Status
 - Patient Safety
- Occupation Classification
 - Advanced Practice Roles (management/leading/research, specialty areas)
 - Medicare Reimbursement
 - Independent Practice
 - Disease Management / Care Planning
 - Medical Device / Pharmaceutical Industry

Other Professional Advancement Opportunities

- Case Manager
- Clinic Specialist
- Educator
- Researcher

Educational Pathways for Respiratory Care

- **Entry into Practice**
 - Associate (only programs that were approved prior to Jan 2018 and maintain accreditation)
 - Baccalaureate
 - Master
- **Degree Advancement**

Graduate of a CoARC-accredited Entry into Respiratory Care Professional Practice degree program. Students who do not have the RRT credential upon admission to the program may be admitted as a CRT and must achieve the RRT credential.

 - Baccalaureate
 - Master
- **Advanced Practice**

Graduate of a CoARC-accredited program and baccalaureate degree, a minimum of one year of clinical practice, a state license in Respiratory Therapy, and Registered Respiratory Therapist (RRT) credential Prior to Master

 - Master

Case Study #1 - Nursing

- History of Nursing Education
 - OJT from early 1800's
 - 1860 in England - The Nightingale Training School for Nurses
 - 1873 - New York City - The Bellevue Hospital School of Nursing - 1 year program
 - 1909 University of Minnesota - Bachelors Degree in Nursing - 3 year program

Case Study - Nursing

- History of Nursing Education (Continued)
 - 1948 - Carnegie Foundation's Brown Report recommends nursing education be placed in academic settings
 - 1953 - Columbia University develops 2 year associate degree nursing program
 - 1960 to 1975 - Hospital based programs decline, replaced by ADN in community colleges

Case Study - Nursing

- History of Nursing Education (Continued)
 - 1982 - National League in Nursing releases position statement calling for BSN as minimum educational level for practice
 - 2010 - Institute of Medicine - The Future of Nursing recommends all nurses attain higher levels of education

Case Study - Nursing

- California Licensure of Nursing
 - 1905 - University of California Board of Regents empowered to set standards, administer exams, approve educational programs, issue / revoke certificates for Registered Nurses
 - 1913 - California Bureau of Registration of Nurses was created and given jurisdiction over nursing education and practice

Case Study - Nursing

- California Licensure of Nursing (Continued)
 - 1939 - Nursing Practice Act enacted, the governor appointed five RN board members to oversee practice
 - 1946 - State Board Test Pool Exam adopted as criteria for licensure
 - 1978 - Continuing education required for license renewal
 - 1982 - NLCEX test adopted

Case Study - Nursing

- California Licensure of Nursing (Continued)
 - 1982 - NLCEX test adopted
 - 1990 - Fingerprinting requirement established
 - 1994 - Cost recovery program implemented
 - 1996 - Citation and fine program implemented

Case Study - Nursing

- California Advanced Practice
 - 1975 - Certification of Nurse Midwives
 - 1978 - Certification of Nurse Practitioners
 - 1984 - Nurse Anesthetist practice established
 - 1985 - Registration of Psychiatric/Mental Health Nurses established
 - 1998 - Certification of Clinical Nurse Specialists established

Case Study - Nursing

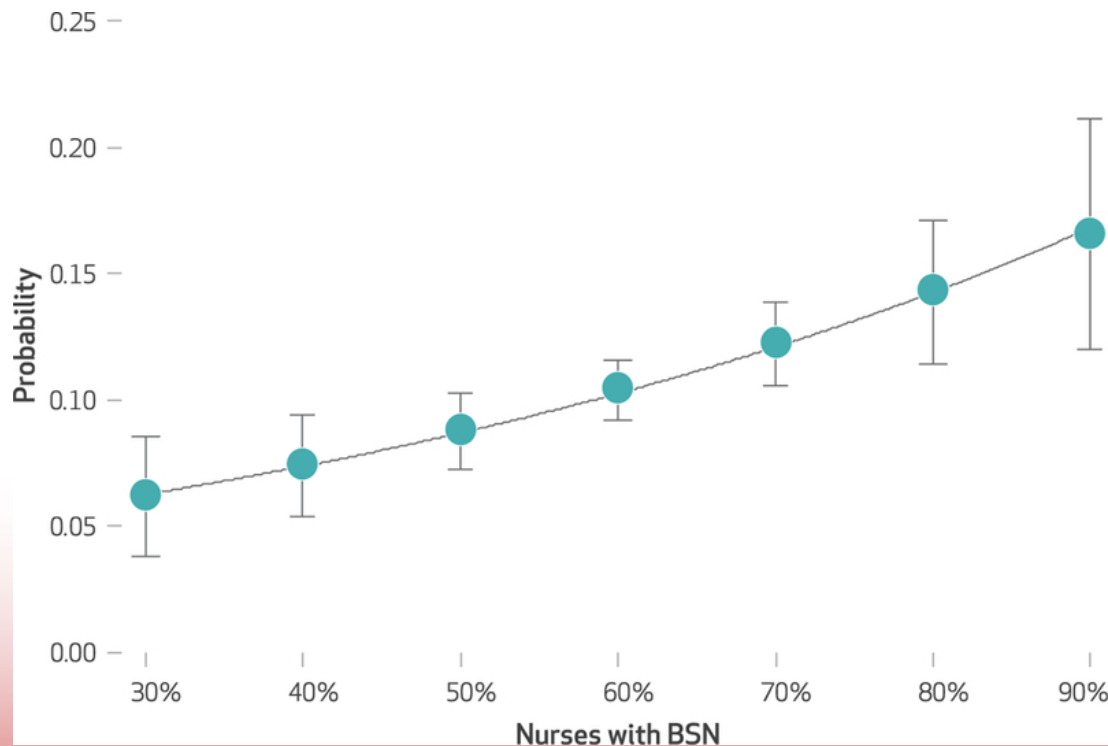
- 2010 - IOM & The Robert Wood Johnson Foundation - The Future of Nursing
 - Recommendations regarding education
 - Key Message #2: Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
 - Recommendation 4: Increase the proportion of nurses with a baccalaureate degree to 80 percent by 2020.

Case Study - Nursing

- In Hospitals With More Nurses Who Have Baccalaureate Degrees, Better Outcomes For Patients After Cardiac Arrest
 - [Health Aff \(Millwood\). 2019 Jul; 38\(7\): 1087–1094. doi: 10.1377/hlthaff.2018.05064](#)
- Cross-sectional study linking three data sources
 - American Heart Association’s Get With the Guidelines–Resuscitation (GWTG-R) registry
 - 2015–16 RN4CAST-US survey
 - American Hospital Association (AHA) 2015 Annual Survey
- 36 United States hospitals
- Calculated % of nursing staff with BSN or higher degree
- Neurological outcome classified as good if CPC 1 criteria was met at discharge

Case Study - Nursing

Predicted probability of patient survival with good cerebral performance following in-hospital cardiac arrest, by hospital percentage of nurses with a bachelor of science in nursing (BSN)



– [Health Aff \(Millwood\). 2019 Jul; 38\(7\): 1087–1094.](#)
doi: [10.1377/hlthaff.2018.05064](#)

Case Study - Nursing

- Educational Levels of Hospital Nurses and Surgical Patient Mortality

- [JAMA. 2003 Sep 24; 290\(12\): 1617–1623. doi: 10.1001/jama.290.12.1617](#)
- Cross-sectional analysis of outcome data base linked to administrative and survey data
 - 168 Pennsylvania hospitals were included
 - 342 adult patients included over 1.5 years
 - Outcomes were related to four primary factors
 - Nurse education level
 - Nurse staffing
 - Nurse experience
 - Board Certification of Surgeon

Case Study - Nursing

Outcome and Effect	Estimated Separately and Unadjusted, OR (95% CI)	P Value	Estimated Jointly and Adjusted, OR (95% CI) [†]	P Value
Mortality				
Nurse education	0.94 (0.89–0.99)	.02	0.95 (0.91–0.99)	.008
Nurse staffing	1.14 (1.08–1.19)	<.001	1.06 (1.01–1.10)	.02
Nurse experience	1.03 (1.01–1.06)	.009	1.00 (0.98–1.02)	.86
Board-certified surgeon	0.51 (0.41–0.63)	<.001	0.85 (0.73–0.99)	.03
Failure to rescue				
Nurse education	0.92 (0.89–0.96)	<.001	0.95 (0.91–0.99)	.02
Nurse Staffing	1.11 (1.06–1.16)	<.001	1.05 (1.01–1.10)	.03
Nurse experience	1.03 (1.01–1.06)	.009	1.01 (0.98–1.03)	.52
Board-certified surgeon	0.61 (0.50–0.74)	<.001	0.80 (0.68–0.94)	.007

- [JAMA. 2003 Sep 24; 290\(12\): 1617–1623. doi: 10.1001/jama.290.12.1617](#)

Case Study - Nursing

- Educational Levels of Hospital Nurses and Surgical Patient Mortality
 - [JAMA. 2003 Sep 24; 290\(12\): 1617–1623. doi: 10.1001/jama.290.12.1617](#)
 - There was a statistically significant relationship between the proportion of nurses in a hospital with bachelor's and master's degrees and the risks of both mortality and failure to rescue, both before and after controlling for other hospital and patient characteristics.
 - Each 10% increase in the proportion of nurses with higher degrees decreased the risk of mortality and of failure to rescue by a factor of 0.95, or by 5%, after controlling for patient and hospital characteristics.

Case Study - Nursing

- BSN in Ten
 - 1987 – North Dakota – scrapped in 2003 due to nursing shortage
 - 2017 New York - requires registered nurses to have obtained at least a BSN within 10 years of their initial licensure to continue practicing. Pending legislation in New Jersey and Rhode Island

Case Study #2: Physical Therapy

Where do we go
from here?



The Professional Qualifications Committee will be facilitating a series of study sessions focused on educational preparation and requirements to support respiratory care practitioner competency. Attached is a list of documents and resources supporting the presentation.

American Association for Respiratory Care (AARC): 2015 and Beyond Conferences
<https://www.aarc.org/resources/programs-projects/2015-beyond/>

American Association for Respiratory Care (AARC): Competencies for Entry into Respiratory Therapy Practice
<https://www.aarc.org/education/educator-resources/competencies-entry-respiratory-therapy-practice/>

American Association for Respiratory Care (AARC): Statement of Respiratory Therapist Education
<https://www.aarc.org/wp-content/uploads/2017/03/statement-of-respiratory-therapist-education.pdf>

American Association for Respiratory Care (AARC): States with RRT Entry to Licensure
<https://www.aarc.org/advocacy/state-society-resources/states-rrt-entry-licensure/>

California Society for Respiratory Care (CSRC): Position Statement-Education Requirements for Respiratory Care Practitioners
[https://csrc.memberclicks.net/assets/docs/CSRC%20Position%20Statement%20Minimal%20Education%20Requirements-Final%20\(5-11-18\)%20\(1\).pdf](https://csrc.memberclicks.net/assets/docs/CSRC%20Position%20Statement%20Minimal%20Education%20Requirements-Final%20(5-11-18)%20(1).pdf)

Commission on Accreditation for Respiratory Care (CoARC): Accreditation Standards
<https://coarc.com/accreditation/>

Commission on Accreditation for Respiratory Care (CoARC): Response to AARC Position Statement on Respiratory Therapist Education
https://coarc.com/wp-content/uploads/2020/11/CoARC-Communication-Min-Degree-Requirements-1-28-16-rev-12-1-17_compressed.pdf

Health Affairs: In Hospitals With More Nurses Who Have Baccalaureate Degrees, Better Outcomes For Patients After Cardiac Arrest
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6681904/>

Institute of Medicine (US) Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine: The Future of Nursing: Leading Change, Advancing Health.
<https://pubmed.ncbi.nlm.nih.gov/24983041/>

Journal American Medical Association: Educational Levels of Hospital Nurses and Surgical Patient Mortality
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3077115/>

New York State Assembly Bill 1358: Amend the education law, in relation to the license requirements for the practice of respiratory therapy
https://nyassembly.gov/leg/?default_fld=&leg_video=&bn=AB+1358&term=&Summary=Y&Text=Y

New York State Assembly Bill 1842 – Educational preparation for practice of professional nursing
https://nyassembly.gov/leg/?default_fld=&leg_video=&bn=A01842&term=2017&Summary=Y&Actions=Y&Committee%26nbspVotes=Y&Floor%26nbspVotes=Y&Memo=Y&Text=Y

Nursinglicensure.org: The Future of the Associate Degree in Nursing Programs
<https://www.nursinglicensure.org/articles/adn-program-future/>

Respiratory Care Board of California (RCB): 2017 Strategic Plan

https://rcb.ca.gov/about_us/strategic_plans.shtml

Respiratory Care Board of California (RCB) / University of California San Francisco (UCSF): California Respiratory Care Workforce Study 2016

https://healthforce.ucsf.edu/sites/healthforce.ucsf.edu/files/publication-pdf/17_final_workforce_study.pdf