

CTE Program Proposal

NAME OF COLLEGE: Modesto Junior College

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DATE: 2/1/2016

Division: Allied Health (Dean: Patrick Bettencourt)

Faculty: Bonnie Hunt, Instructor of Respiratory Care and Janet Fantazia, Instructor of Respiratory Care

PROGRAM NAME: Respiratory Care Baccalaureate Program

☒ New Program Proposal

☐ Program Revision Proposal

TYPE OF DEGREE:

☐ Certificate

☐ Associate of Arts

☐ Associate of Science

☐ Associate of Arts for Transfer

☐ Associate of Science for Transfer

☒ Other – Bachelor of Science

ATTACHMENTS REQUIRED:

Labor/Job Market Data and Analysis

Advisory Committee Meeting Minutes

Employer Survey

A. Appropriateness to Mission

Statement of Program Goals and Objectives

The goal of the Bachelor of Science degree in Respiratory Care is to increase the preparation and technical expertise of respiratory care practitioners who are prepared to serve in leadership roles, education roles, and case management roles related to patient care in the field of respiratory care. Major competencies students will achieve include advanced knowledge and skills in neonatal, pediatric, and adult critical respiratory care; management skills in respiratory care settings; advanced clinical practice, teaching, and research skills to serve as members of multidisciplinary teams in patient education and disease management of acute and chronic illnesses and to contribute to the diverse field of respiratory care.

Program faculty have met with and shared the Respiratory Care Baccalaureate program curriculum with its advisory committee, and made revisions and refinements according to their recommendations. The program will prepare students to take and pass the Adult Critical Care Specialist, Neonatal and Pediatric Specialist, Asthma Educator (NAEB), and the Registered Pulmonary Function Technician national board exams. It will also provide students with higher critical thinking, research and leadership skills, preparing them for demanding roles in the health industry.

The American Association for Respiratory Care (AARC) has taken a new position that “all programs applying for accreditation be able to award a minimum of a baccalaureate degree upon student completion of programmatic and degree requirements.” (*Commission on Accreditation for Respiratory Care (CoARC) Communication to Communities of Interest, January 28, 2016*). The MJC program will prepare students for new standards recommended by industry accrediting bodies acknowledging that respiratory therapists with baccalaureate and graduate education are needed in larger numbers to serve as educators, researchers, managers, clinical specialists, and other roles in the healthcare system. Course curriculum for this program was developed with specific skills in mind for these roles.

The selection process for admission was developed to support the college mission of open access. Requirements for enrollment include possession of an associate degree, eligibility for a California Respiratory Care license, and possession of National Board of Respiratory Care (NBRC) Registered Respiratory Therapist Certification. In addition, students must provide evidence that they have completed 10 of the 13 courses required for CSU graduation. (This ensures students can complete the program within two years). Students will be selected for enrollment by lottery. The program is designed to be a cohort program.

SPO2: Program Award	Bachelors of Science	Faculty Workload (1)	1
Program Title	Respiratory Care	New Faculty Positions	0
Program Goal		New Equipment	0
SP01: Pgm Top Code	12100	New/Remodeled Facilities	0
Required Unit Minimum	123	Library Acquisitions	0
Required Units Maximum	123	Program Review Date (2)	February 2017
Annual Completers	12	Gainful Employment	No
New Annual Labor Demand (CTE Only)	860	Apprenticeship	No
		Distance Education (3)	100%
		CTE Regional Consortium Approved	---
		District Governing Board Approved	Yes
		District Governing Board Approval Date	February 10, 2016

1. Catalog Description

Respiratory Care B.S. B.S. Degree: Respiratory Care

The Modesto Junior College Respiratory Care Baccalaureate Program will offer a Bachelor of Science degree in respiratory care. The upper division curriculum is specifically tailored for working Respiratory Care Practitioners and for graduates desiring to transition from an Associate degree program into a higher level of education within the field of respiratory care. Earning a Bachelor of Science degree in respiratory care will enhance the practitioner's professional career and open the door to multiple opportunities including education, management, leadership, clinical specialist, research, case management, pharmaceutical sales, and advanced clinical practice. The program is innovative in curricular offerings to prepare the next generation of leaders within the field of respiratory care.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this program, the student should be prepared to:

1. Perform the duties and functions of an advanced practitioner in neonatal, pediatric and adult critical care.
2. Meet program-defined criteria related to management, advanced clinical practice, teaching, research, professional service and other professional development metrics.
3. Participate as a multidisciplinary team member in patient education and disease management of acute and chronic illnesses.
4. Demonstrate professional and ethical behavior and communication skills within the diverse field of respiratory care.

5. Successfully pass the Adult Critical Care Specialist, Neonatal and Pediatric Specialist, the Asthma Educator (NAEB), and the Registered Pulmonary Function Technician national board exams.

PROGRAM REQUIREMENTS

1. To earn a Baccalaureate Degree (B.S.) in this major, the student must complete the CSU-GE or IGETC Transfer Pattern requirements and the upper division coursework in respiratory care.

2. Program Requirements

The program requirements must be consistent with the catalog description. The number of units, specific course requirements and the sequence of the courses must be coherent, complete and appropriate. Display the program requirements in a table format that includes all courses required for completion of the program (core requirements and required or restricted electives), subtotal of core units, and total program units. For each course, indicate the course department number, course title, and unit value.

Display of Program Requirements

Respiratory Care Courses (Complete 18 units)					
DEPT/NUMBER (CB01)	COURSE TITLE (CB02)	UNITS (CB06)	CSU-GE AREA	IGETC AREA	SEQUENCE
RSCR 405	Healthcare Leadership and Operations Management	3			Yr 1 Fall
RSCR 410	Critical Review of Healthcare Research	3			Yr 1 Spring
RSCR 415	Disease Management and Healthcare Promotion	3			Yr 1 Spring
RSCR 420	Advanced Pharmacology and Critical Care	3			Yr 2 Fall
RSCR 425	Pulmonary Diagnostics, Rehabilitation, and Sleep	3			Yr 2 Spring
RSCR 430	Capstone Research	3			Yr 2 Spring

General Education Baccalaureate Courses (Complete 9 units)					
DEPT/NUMBER (CB01)	COURSE TITLE (CB02)	UNITS (CB06)	CSU-GE AREA	IGETC AREA	SEQUENCE
SOCIO 400	Medical Sociology: Health and Diversity	3			Year 1 Fall
PHILO 400	Medical and Bioethics	3			Yr 1 Summer
COMM 400	Organizational Behavior	3			Yr 2 Fall

Required Major Upper Division Units Total:	18 units
Required GE Upper Division Units Total:	9 units
Completion of Associate Degree Major Units Total:	72 Units
Completion of CSU General Education Units Total:	24 units
Total Units:	123 units

3. Background and Rationale

Given the stated goals and objectives, address the role the proposed program will fulfill in the college's mission and curriculum offerings. This discussion may include some history of the program proposal origins, a description of the program purpose, and/or the program's relevancy for the region and college.

The proposal must demonstrate a need for the program that meets the stated goals and objectives in the region the college proposes to serve with the certificate. A proposed new certificate must not cause undue competition with an existing program at another college.

MJC is one of fifteen California Community Colleges invited to develop a baccalaureate program. Respiratory Care was identified as a high need program due to industry movement toward a requirement for a bachelor level degree. Currently there are no public institutions of higher education in California who offer a baccalaureate degree in Respiratory Care. Providing a bachelor level program to students in the region offers opportunity for advancement in management, patient education, case management, and research in the important field of respiratory care.

This program supports the college mission of "transforming lives through programs and services informed by the latest scholarship of teaching and learning" by offering a low-cost opportunity for students to earn a bachelor's degree, developed in close consultation with industry experts and aimed at providing increased critical thinking and technical skills and preparation for certification exams in specialty areas of respiratory care.

B. Need for Program

4. Enrollment and Completer Projections

This item should address and justify the number of projected students or “annual completers” to be awarded the certificate each year after the program is fully established.

CB 01: COURSE DEPT/NO	CB 02: COURSE TITLE	2016-17		2017-18	
		SECTIONS OFFERED (ANNUAL)	ENROLLMENT TOTAL (ANNUAL)	SECTIONS OFFERED (ANNUAL)	ENROLLMENT TOTAL (ANNUAL)
RSCR 405	Healthcare Leadership and Operations Management	1	40	1	40
RSCR 410	Critical Review of Healthcare Research	1	40	1	40
RSCR 415	Disease Management and Healthcare Promotion	1	40	1	40
RSCR 420	Advanced Pharmacology and Critical Care	1	40	1	40
RSCR 425	Pulmonary Diagnostics, Rehabilitation, and Sleep	1	40	1	40
RSCR 430	Capstone Research	1	40	1	40
RSCR 405	Healthcare Leadership and Operations Management	1	40	1	40
SOCIO 400	Medical Sociology: Health and Diversity	1	40	1	40
PHILO 400	Medical and Bioethics	1	40	1	40
COMM 400	Organizational Behavior	1	40	1	40

5. Place of Program in Curriculum/Similar Programs

Review the college’s existing program inventory, then address the following questions:

- *Do any active inventory records need to be made inactive or changed in connection with the approval or the proposed program? If yes, please specify.*
- *Does the program replace any existing program(s) on the college’s inventory? Provide relevant details if this program is related to the termination or scaling down of another program(s).*
- *What related programs are offered by the college?*

The proposed baccalaureate degree is a new degree. It is designed to build upon knowledge and skills gained in an Associate Degree Respiratory Care Program. It is independent and unique to the campus; there are no other programs or programs with similar curriculum.

BS Degree Respiratory Care

A.S. Degree Respiratory Care

6. Similar Programs at Other Colleges in Service Area

Describe all similar programs offered by colleges within the college service area. If the proposed program has a different emphasis than similar programs at other colleges, targets a different market, demonstrates state-of-the-art offerings, or for a number of reasons will be a stronger program, documentation and/or explanation need to be provided.

The MJC Baccalaureate Degree in Respiratory Care is unique to the Central Valley and Mother Lode Region and to California. Skyline College in San Bruno, California is also developing a baccalaureate degree in respiratory care; however students would have to travel long distances to attend the program. Loma Linda University, a private university in San Bernardino County, has a baccalaureate program in respiratory care. The cost and distance to this program is also prohibitive to students.

7. Labor Market Information and Analysis

Please See Attachment: Respiratory Care Practitioners

8. Employer Survey

Discuss in this area, or as a separate attachment, employer input in regard to necessity of program and number of jobs available.

A small employer survey found that 80% of responders have respiratory care practitioners employed at their facilities who are interested in the Respiratory Care Baccalaureate Degree Program at MJC.

Eighty percent responded that the MJC Respiratory Care Baccalaureate Degree Program would better prepare respiratory care practitioners for the changing roles and expectations within the profession.

One hundred percent of responders reported they anticipated job openings within their respiratory care departments in the next year. They also reported that they anticipated job openings and growth over the next five years.

Sixty percent of responders reported they believed the MJC Respiratory Care Baccalaureate Degree Program graduates would qualify for specific positions in respiratory care at their facilities and that they would prefer applicants who received a bachelor's degree in respiratory care over applicants with an associate degree.

9. Explanation of Employer Relationship

Whenever a program is to be offered in close cooperation with one or more specific employers, a discussion of the relationship must be provided.

Local employers serve on the advisory committee, offer clinical experience to associate degree students and support the program via donation of (a) time in class as guests, (b) supplies, technology and equipment, and (c) review of curriculum.

10. List of Members of Advisory Committee

This list must include advisory committee member names, job titles, and business affiliations.

Patrick Bettencourt	Dean, Allied Health, Modesto Junior College
Janet Fantazia	Respiratory Care Faculty, Modesto Junior College
Valerie Fisher	Central Region Consortium Deputy Sector Navigator, Health
Joe Garcia	Director of Respiratory Care Services, Doctors Medical Center
Sanjeev Goswami	MD - Employer
Bonnie Hunt	Program Director, Modesto Junior College
Margareth Hutcheson-Paris	RRT – Lead Therapist, Sutter Tracy Community Hospital
Toni Jardine	RN – Respiratory Therapy Department Manager, Emanuel Medical Center
Bruce Kennedy	MA, RRT – Respiratory Care Manager, Sonora Regional Medical Center
Mary Martinez	Clinical Educator, Respiratory Care, Memorial Medical Center
Kristen Nelson	student
Timothy Olvera	RRT, Respiratory Care Supervisor, Emanuel Medical Center
David Perezelsky	First-Line Supervisor, Mercy Medical Center
Alan Roth	President, Respiratory Care Board of California, MCJ Adjunct faculty
Brian Smith	Respiratory Therapy Department, UCSF Medical Center
Robert Tanaka	MD – Medical Director for Respiratory Care Program, Sutter Gould Medical Center
Susan Trinchera	RCP, Department Manager, San Joaquin General Hospital
Adam Williams	RCP, Department Manager, Mercy Medical Center, Merced

11. Recommendation of Advisory Committee

In a separate attachment, provide minutes of the advisory committee meetings at which the program was discussed and approved, with relevant areas highlighted, as well as a summary of the advisory committee recommendations.

C. Curriculum Standards

12. Display of Proposed Sequence

Proposed Sequence:

Year 1 (Fall) 6 units
Year 1 (Spring) 6 units
Year 1 (Summer) 3 units
Year 2 (Fall) 6 units
Year 2 (Spring) 6 units
Total Units: 27 units

First Semester		Units
SOCIO 400	Medical Sociology: Health and Diversity	3
RSCR 405	Healthcare Leadership and Operations Management	3
Total		6

Second Semester		Units
RSCR 410	Critical Review of Healthcare Research	3
RSCR 415	Disease Management and Healthcare Promotion	3
Total		6

Summer Term		Units
PHILO 400	Medical and Bioethics	3
Total		3

Third Semester		Units
COMM 400	Organizational Behavior	3
RSCR 420	Advanced Pharmacology and Critical Care	3
Total		6

Fourth Semester		Units
RSCR 425	Pulmonary Diagnostics, Rehabilitation, and Sleep	3
RSCR 430	Capstone Research	3
Total		6

13. Transfer Applicability (if applicable)

n/a

D. Adequate Resources and Compliance

Library and Learning Resources Plan

Discuss resources currently available for course support, as well as resources recommended for purchase to further support the course.

No additional resources will be required beyond the college's current library and learning resources.

14. Facilities and Equipment Plan

Discuss facilities and equipment currently available for course support, as well as facilities and equipment recommended for purchase to further support the course.

Associate Degree facilities will accommodate the baccalaureate Respiratory Care program. One-time funding from the State Chancellor's office for start-up costs associated with baccalaureate programs will be allocated for equipment and materials to begin the program. CTE Local Enhancement Funds have been used for curriculum development, planning meetings and capacity building work for the program.

15. Financial Support Plan

Discuss how the program, including faculty, will be funded.

Financial support for the program will be addressed under the division's annual college operational resources planning projections for Allied Health programs.

16. Faculty Qualifications and Availability

Discuss the discipline, qualifications and availability of faculty as it relates to the proposed program.

The faculty discipline for this program is Respiratory Care. Presently, current FT faculty and adjunct faculty are available to support the program. All faculty that teach in this program will meet the State minimum qualifications and possess knowledge and experience in this program area.

17. Based on model curriculum (if applicable)

State the model curriculum on which the proposed program is based.

N/A

18. Licensing or Accreditation Standards

List any licensing, accreditation or certifications available to program completers.

The baccalaureate program will be accredited by ACCJC as well as the Commission on Accreditation for Respiratory Care (CoARC). Students who complete the program will be prepared to take certification exams through the NBRC and will receive a nationally recognized certification.

19. Student Selection and Fees

If the program is selective, describe relevant entry criteria and the selection process for admission to the program. Specify all mandatory fees that students will incur for the program aside from the ordinary course enrollment fee.

Student selection will be through a lottery of qualified applicants. Fees for students enrolled in the baccalaureate program are \$130 per unit (\$46 + \$84). Students will also pay fees for the Advanced Critical Care Specialist board exam and the Neonatal and Pediatric Specialist board exam – approximately \$600 for both exams.

**MODESTO JUNIOR COLLEGE
RESPIRATORY CARE PROGRAM
ADVISORY COMMITTEE MEETING
December 7, 2015**

MINUTES

ATTENDEES: Patrick Bettencourt; Janet Fantazia; Bonnie Hunt; Valerie Fisher;
Kristen Nelson; David Perezelsky; Alan Roth;

I. Call to Order/Welcome

II. Review/Approval of 9/18/15 RCP Advisory Committee Minutes

Motion to approve minutes with corrections by David Perezelsky, seconded by Alan Roth. All in favor.

III. Respiratory Care Program's Pinning Ceremony

The Pinning Ceremony is December 11, 2015, 6:00 p.m., in the Performing and Media Arts Center on East Campus. All Advisory Committee members are invited to attend.

IV. CoARC Update

- A. Changes to Positive (Job) Placement Outcomes Measure – Effective November 21, 2015
 - 1. The minimum threshold of 70% for positive (job) placement has been eliminated.
 - 2. Positive (job) placement is now defined as “a graduate who, within the three year reporting period, is employed utilizing skills within the scope of practice of the respiratory care profession (i.e., full-time, part-time, or per diem).” See attachment.

V. Progress of the Respiratory Care Baccalaureate Degree Program

- A. The Advisory Committee was asked if they supported the program's decision to offer a 2 + 2 program (associate + baccalaureate) degree program. All attendees were in favor of the 2 + 2 program.
 - 1. The college would like to see the baccalaureate program accept 40 instead of 24 students a year. Additional adjunct faculty would be needed for cover additional lab sections.
- B. The college would like the baccalaureate program to begin fall 2016 instead of spring 2017. There are several issues that need to be addressed prior to deciding on the start date.
 - 1. We need another full-time instructor for the associate degree program.
 - 2. We need at least one additional full-time instructor and possibly one or two additional adjunct faculty for the baccalaureate program.

V. Progress of the Respiratory Care Baccalaureate Degree Program (continued)

3. First reading of the program handbook is due from the Chancellor's Office January 2016. Final handbook due March 2016. This information will affect the online application and program information on our website.
 4. Starting fall 2016 takes away a semester in the program, so applicants would need 10 of the 13 CSU GEs instead of 8 of the 13 CSU GEs in order to be considered for acceptance.
- C. ACCJC Substantive Change
The document will be reviewed in December. Once the approval letter is received, Bonnie will send it to CoARC.
- D. CoARC Advanced Degree Substantive Change
1. Submission January 2016 for March 2016 meeting.
- E. Professional Development Courses for Instructors
The respiratory care instructors are going to take professional development courses to prepare them for the baccalaureate program.
- F. Program/Course Map
See attachments for fall 2016 start and spring 2017 start.

VII. Baccalaureate Eligibility Criteria

- A. Admission Criteria
The tentative admission criteria was review by the Advisory Committee. It is not clear whether or not applicants can be prioritized for selection in terms of courses completed, hours worked as a Respiratory Therapist, being a graduate of the MJC Respiratory Care Program, etc. If this type of prioritization is acceptable, the Advisory Committee suggested addition two more categories:
1. Served as a preceptor for the MJC Respiratory Care Program.
 2. Possesses advanced certificates such as BLS, ACLS, NRP, COPD Educator, etc.
- B. General Education Requirements
Thirty-nine CSU GEs.

VIII. Curriculum Review and Approval

Bonnie spoke with the Respiratory Care Program Director at Skyline and they compared their proposed baccalaureate curriculum. Skyline College has approved their curriculum. The state will approve their curriculum in January. We combined adult, pediatric and neonatal critical care into one course. Skyline separated adult from pediatric and neonatal critical care. We added pharmacology to our course and Skyline did not.

Valerie Fisher suggested adding an interprofessional team building exercise with other Allied Health students. Valerie thought that threading critical thinking throughout the curriculum was a good idea and to make sure that it was part of the clinical component as well.

A list of entry-level job skills could be obtained from job descriptions from local employers or board competencies.

Words such as introduce, identify and explore are low level and appropriate for the associate curriculum. Higher level terminology should be used for the baccalaureate curriculum. Faculty could do a word search to check compliance.

SOCIO 400

The reading assignment of 30-100 pages should be 100-300 pages.
Research paper of 1500-2000 words should be more like 6000-8000 words for a baccalaureate course.

PHILO 400

Suggested title change of Medical Ethics and Bioethics to just Medical Ethics.

COMM 400

No comments.

RSCR 405

Change wording "To ~~perform~~ describe techniques for measuring perfusion.
Page 2, Education-competencies, move to regulatory agency, Title 22.

RSCR 410

The research content is very general. Maybe it should reflect more respiratory care focus.

RSCR 415

Add patient education, disease management. American Lung Association or American Heart Association.

VIII. Curriculum Review and Approval (continued)

RSCR 420

Add an inter-disciplinary education team from Allied Health to the course.
Add Percutaneous Intravenous Central Catheter (PICC) and arterial line insertion under hemodynamics on page 3.

8. b. Weaning – needs to be expanded to address the interdisciplinary (RT/RN/PT) teamwork that goes in to deciding when a patient is ready for weaning to begin. Separate RSCR 220 into two courses: 1 section of theory and 3 sections of lab. It is easier to schedule courses this way and it increases FTES.

RSCR 425

Remove practicum participation piece (A) and insert case studies instead of competency under (D) Page 4

RSCR 430

Eliminate wording “one-on-one.” Students can communicate progress with faculty online.

[Motion to approve curriculum with suggested modifications by Dave Perezelsky and seconded by Alan Roth. All voted in favor.](#)

IX. Program Faculty Needs

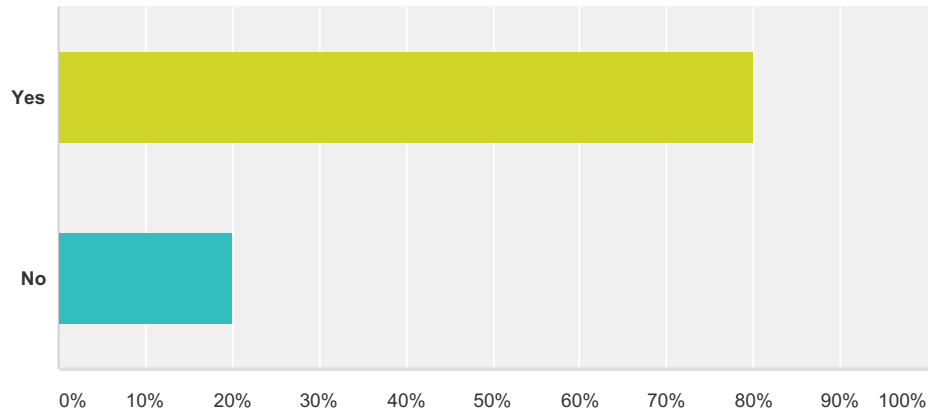
A. Minimum qualifications for baccalaureate program

We need to hire a full-time instructor for the baccalaureate program. Applicants need either a master’s degree or a bachelor’s degree with six years’ experience.

Dave Perezelsky has two RTs with baccalaureate degrees that he will refer. Valerie Fisher offered to email the job announcement for the associate degree instructor and the baccalaureate degree instructor to her contacts.

Q1 Do you have respiratory care practitioners employed at your facility interested in the Respiratory Care Baccalaureate Degree Program at MJC?

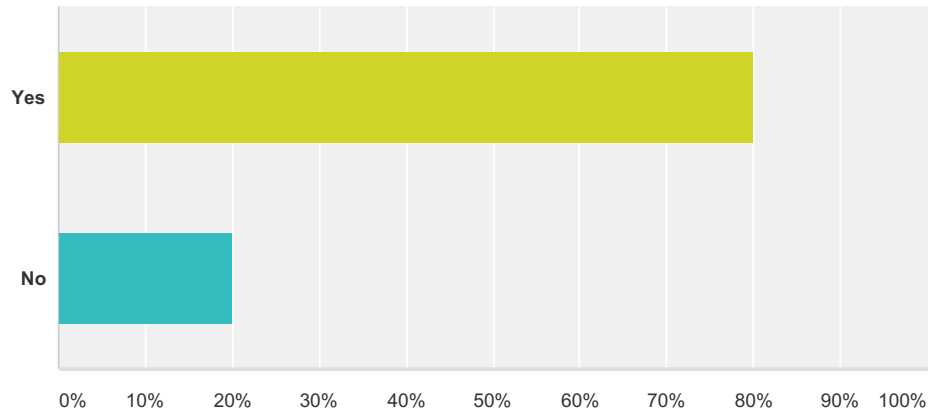
Answered: 5 Skipped: 0



Answer Choices	Responses	
Yes	80.00%	4
No	20.00%	1
Total		5

Q2 Do you believe the Respiratory Care Baccalaureate Degree Program at MJC will better prepare respiratory care practitioners for the changing roles and expectations within the profession?

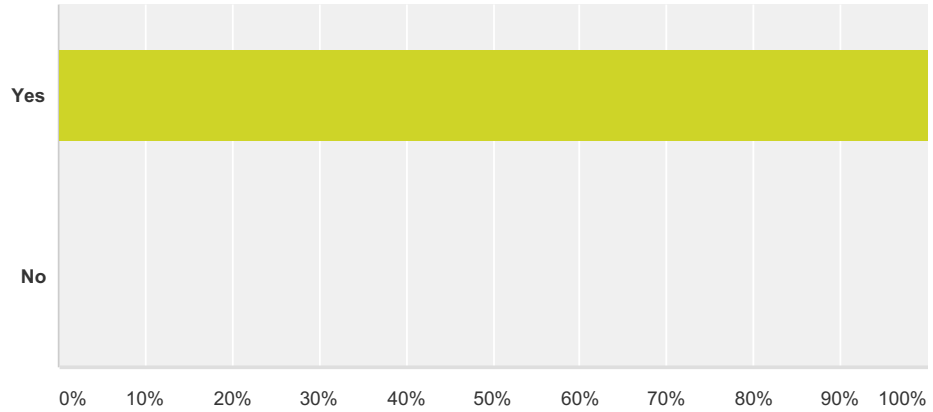
Answered: 5 Skipped: 0



Answer Choices	Responses	
Yes	80.00%	4
No	20.00%	1
Total		5

Q3 Do you anticipate job openings within your facility's respiratory care department in the next full year?

Answered: 5 Skipped: 0



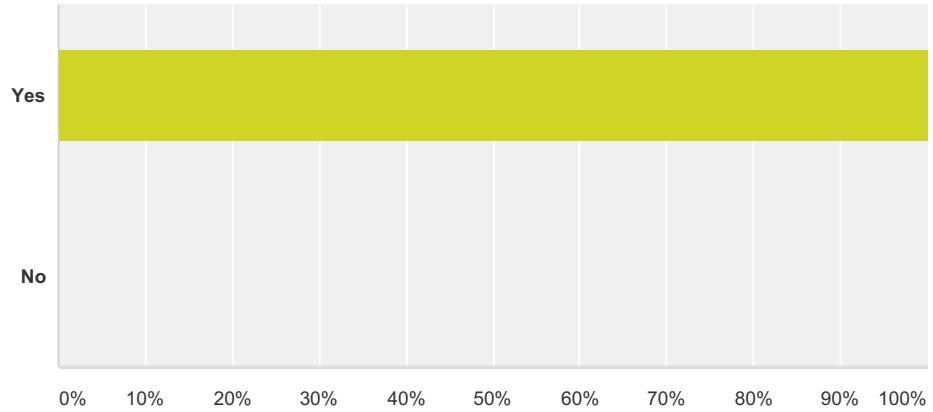
Answer Choices	Responses	
Yes	100.00%	5
No	0.00%	0
Total		5

Q4 If yes, how many?

Answered: 4 Skipped: 1

Q5 Do you anticipate job openings and growth in the respiratory care department over the next five years at your facility?

Answered: 5 Skipped: 0



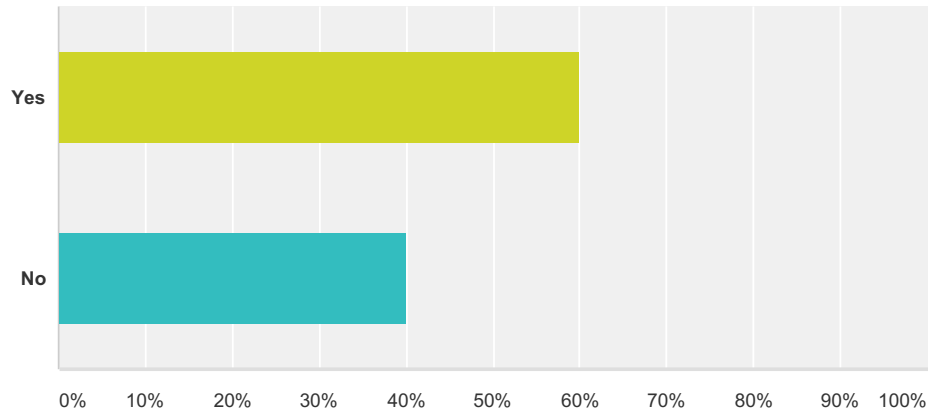
Answer Choices	Responses	
Yes	100.00%	5
No	0.00%	0
Total		5

Q6 If yes, how many?

Answered: 3 Skipped: 2

Q7 Do you believe MJC Respiratory Care Baccalaureate Degree Program graduates will qualify for specific positions in respiratory care at your facility?

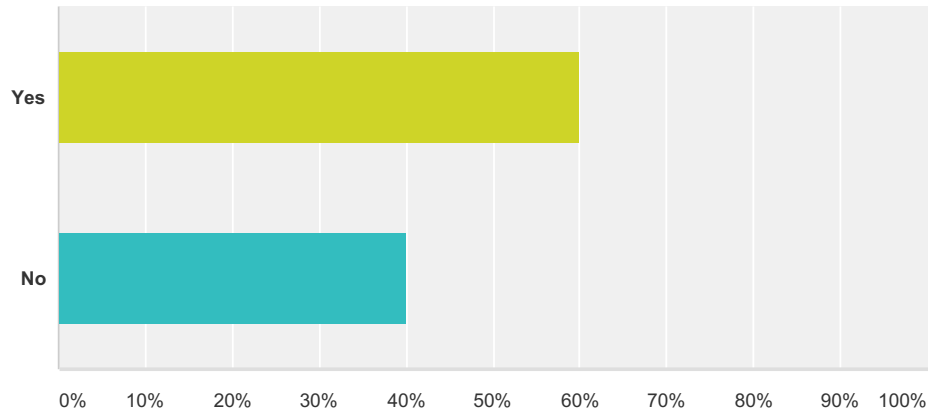
Answered: 5 Skipped: 0



Answer Choices	Responses	
Yes	60.00%	3
No	40.00%	2
Total		5

Q8 Would you prefer applicants who have received a bachelor's degree in respiratory care over applicants with an associate's degree?

Answered: 5 Skipped: 0



Answer Choices	Responses	
Yes	60.00%	3
No	40.00%	2
Total		5

RESPIRATORY CARE PRACTITIONERS in California



Healthcare is one of the largest employers in California, providing a wide range of well-paying career opportunities for residents. In 2014, the Centers of Excellence partnered with the Health Workforce Initiative (HWI) and the California Hospital Association (CHA) on two healthcare surveys to **assess workforce needs** at both state and regional levels. The surveys targeted three healthcare sectors:

- **Hospitals** provide medical, diagnostic, and treatment services to inpatients and some outpatient services.
- **Ambulatory Healthcare Services** provide healthcare services to outpatients in settings such as offices of physicians, outpatient care centers, and laboratories.
- **Nursing and Residential Care Facilities** provide residential care combined with either skilled nursing, long-term, transitional care, or other types of care as needed.

Statewide, 190 hospitals responded to the hospital survey and 1,600 clinics, labs and facilities responded to the ambulatory and residential care survey, providing an excellent sample to analyze healthcare workforce demand across the state and in several regions. The research focused on identifying: (1) labor market demand for key occupations in healthcare industries, (2) training supply supporting healthcare industries, and (3) key issues impacting supply and demand.

This report is one in a series of reports profiling healthcare occupations in California. There are 12 occupational profiles in the series: respiratory care practitioners, certified nursing assistants, healthcare social workers, home health aides, licensed vocational nurses, medical assistants, medical coders, physician assistants, medical laboratory technicians, clinical laboratory scientists, occupational therapy assistants and registered nurses.

Labor Market Demand

In California, there are approximately 5,700 respiratory care practitioner (RCP)¹ jobs in the ambulatory and residential care subsectors. Over the next 12 months, employers in these subsectors will need to fill over 860 openings created by new job growth and replacement needs.

Projected Employment for Respiratory Care Practitioners²

Ambulatory & Residential Care Industries	2014 Employment	12-Month Growth	Replacement Jobs	Total Openings (Growth + Replacements)
	5,725	220	646	866

California Hospital Association members that responded to the survey employ 4,690 respiratory care practitioners. This sample does not include an estimate of total hospital employment because not all of California's hospitals participated in the survey.

Current Employment for Respiratory Care Practitioners

Hospitals	Current Employment*	Full-time Positions	Part-time Positions	Per Diem Jobs
	4,690	3,611	1,079	1,280

*Ending headcount for the 4th quarter of 2013

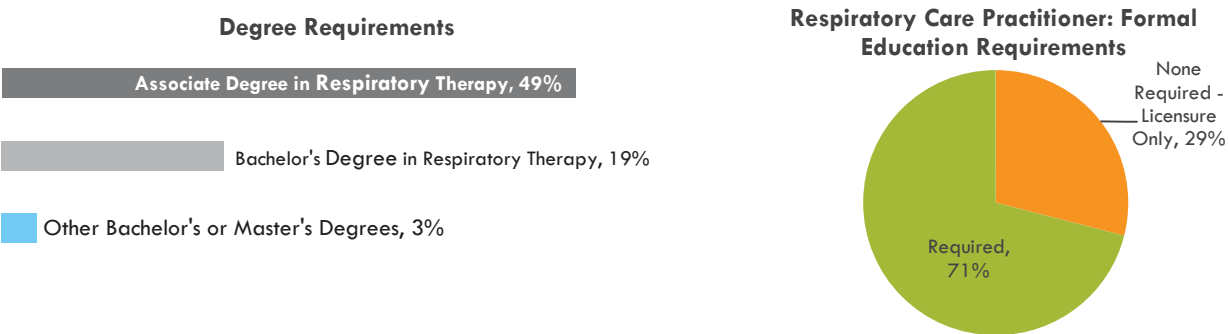
¹ Once licensed, graduates of Respiratory Therapy education programs are known as Respiratory Care Practitioners, the term used by the Respiratory Care Board of California that is the regulatory and licensing agency, <http://www.rcb.ca.gov>. However, some employers still use the occupational term of Respiratory Therapist.

² Ambulatory/residential care and hospital employment counts include full-time and part-time employment. Additional data on per diem employment for hospitals is totaled separately.

Employer Preferences

In the **ambulatory and residential care survey**, employers were asked about the level of formal education required for respiratory care practitioners at their organization. Almost three-fourths (71%) of employers require formal education — either an Associate Degree in Respiratory Therapy (49%) or a Bachelor's Degree in Respiratory Therapy (19%).

Since July 1, 2000, the minimum education requirement for licensure in California is completion of an associate degree from an accredited program. Therefore the 29% of employers who indicated they have no requirements for formal education, only the State of California license, most likely hired their respiratory therapists prior to the adoption of the current law.



Difficulty Hiring

Nearly half of employers in the **ambulatory and residential care** subsectors reported difficulty finding qualified applicants for entry-level respiratory care practitioner positions.³ Beside the required current state license, the minimum qualifications may include experience in acute and/or non-acute care settings, knowledge of another language, basic computer skills, and communication skills.



Training Supply

The minimum education requirement for a RCP is an associate degree. Effective January 1, 2015, passing the Registered Respiratory Therapist (RRT) exam is the minimum requirement for licensure to practice in California. According to the California Department of Consumer Affairs, Respiratory Care Board of California, there are currently 37 accredited programs in the state.⁴ Eighteen (18) programs are offered at community colleges and 19 programs are offered at private education institutions. Thirty-six (36) programs offer an associate degree, and one program offers a bachelor's degree. These programs annually confer approximately 1,222 degrees.⁵ One community college and five private education institutions did not report student completion data.

Degrees Conferred (3-year annual average)	CA Community Colleges Associate Degree	Private Education Institution Associate Degree	Private Education Institution Bachelor's Degree	Total Awards
	407	801	14	1,222

³ Hospitals were not asked about the level of difficulty they experienced in finding qualified applicants for entry-level respiratory care practitioner positions.

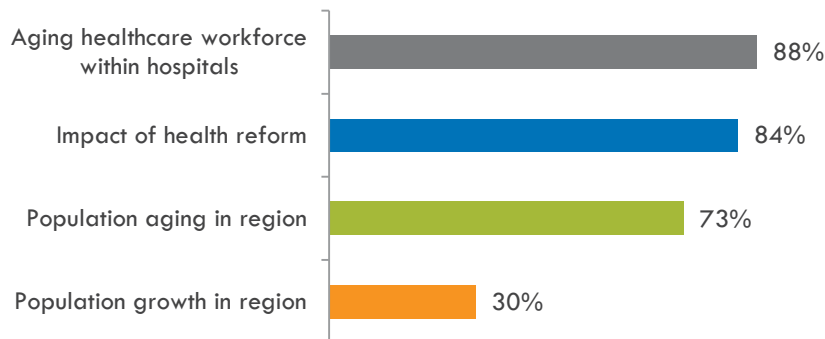
⁴ <http://www.rcb.ca.gov/applicants/caschools.shtml>

⁵ This estimate is based on data reported to the California Community College Chancellor's Office Data Mart and National Center for Education Statistics (NCES). Higher education institutions are required to report completion data to NCES if they participate in any federal financial assistance program authorized by Title IV of the Higher Education Act. Completion data not reported to the NCES or CCCC Data Mart were not included in the estimate.

Supply Challenges

The healthcare sector is facing a variety of factors that may have a direct impact on the workforce supply. Across California, the majority of hospitals are concerned that health reform, the aging hospital workforce, and the aging population will have a significant impact on the state's ability to keep up with healthcare workforce demand. Healthcare reform is expanding coverage to thousands of previously uninsured residents, which is increasing demand for healthcare services across the board. The aging population will expand demand for certain types of services, creating additional need for skilled workers.

Percent of Hospitals Moderately to Extremely Concerned Over Factors Impacting the Workforce Supply



California Community Colleges Accredited Respiratory Therapist Programs

American River College
 Antelope Valley College
 Butte College
 Crafton Hills College
 East LA College (in partnership with Santa Monica College)
 El Camino College
 Foothill College
 Fresno City College
 Grossmont College
 Hartnell College
 Los Angeles Valley College
 Modesto Junior College
 Mt. San Antonio College
 Napa Valley College
 Ohlone College (in partnership with Diablo Valley College)
 Orange Coast College
 Skyline College
 Victor Valley College

While these two factors will increase demand for new healthcare workers, the aging healthcare workforce within hospitals creates a need for replacement workers. In the hospital setting, this is not a critical issue in the respiratory care practitioner workforce. **Fifty-seven percent of respiratory care practitioners employed by hospitals fall within the age cohort of 25 to 45, which indicates that there is a sufficient pipeline of young workers entering this field.**⁶

Ambulatory and Residential Care: Employer Perspective

Nearly half (46%) of ambulatory and residential care facilities provide professional development (either in-house or sponsored training) for their respiratory care practitioners. Some of the topics include: continuing education units; policies and procedures; new trends in treatments, protocols and techniques; guidelines and regulations; and training on sleep breathing disorders. Employers discussed the topics that community colleges could offer or improve upon to support professional development for their existing staff.

Offer

- Establish new programs in rural areas in regions with moderate-to-large populations expressing demand for more qualified RCPs
- Expand existing programs to enroll more students in classes to meet employment demand
- Training/experience with neonatal and pediatric patients
- Training on medical records and coding
- Training on patient care related to behavioral issues
- Training on conveying compassion, appropriate customer service, patient interaction, and communication

Improve

- Patient services in home health and hospice settings
- Training using more advanced equipment & technology
- Training in communications: with other departments, patients and family members
- Training with patient care who are on ventilators and those with COPD
- Tracheotomy care of patients who take showers
- Training in cultural diversity
- Sleep apnea testing

⁶ Hospital Survey, statewide data.

In Summary

Key issues affecting supply and demand for respiratory care practitioners include:

- **Ambulatory and residential care** employers will need to fill over 866 openings created by new job growth and replacement needs over the next 12 months.
- 42% of **ambulatory and residential care** employers report difficulty finding qualified applicants for entry-level respiratory care practitioner positions.
- There are 37 accredited Respiratory Therapist programs in the state that award more than 1,222 degrees annually.
- Almost one-fourth of employers (22%) require a bachelor's degree, yet only one program, Loma Linda University, currently offers this program.
- Some regions, especially rural areas, are requesting colleges to establish education programs due to lack of available qualified RCPs. Other areas are requesting existing programs to expand their classes to include additional students to meet employment demand.
- Hospitals are concerned that health reform, the aging hospital workforce, and the aging population will have a significant impact on the state's ability to keep up with healthcare workforce demand.

For More information

This document and others are available to download at www.coecc.net/health.

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More about the Health Workforce Initiative: The HWI provides education and training programs to meet emerging demands for healthcare industry workers; to determine needs, facilitate development of innovative solutions and to locate resources to implement planned responses; to evaluate and initialize health-related educational programs. More information about the Health Workforce Initiative is available at www.ca-hwi.org.



More about the Centers of Excellence: The Centers of Excellence (COE), in partnership with business and industry, deliver regional workforce research customized for community college decision making and resource development. This information has proven valuable to colleges in beginning, revising, or updating economic development and Career Technical Education (CTE) programs, strengthening grant applications, assisting in the accreditation process, and in supporting strategic planning efforts. More information about the Centers of Excellence is available at www.coecc.net.

Important Disclaimer: All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

This study was supported by Economic and Workforce Development funds awarded by the Chancellor's Office California Community Colleges. It was produced pursuant to grant agreement number 13-151-004.