

Governor Edmund G. Brown Jr.  
State of California

Anna Caballero, Secretary  
State and Consumer Services Agency

Denise Brown, Director  
Department of Consumer Affairs



Murray Olson, RCP, RRT-NPS, RPFT  
President

Charles B. Spearman, MSEd, RCP  
Vice President

Lupe Aguilera  
Member

Sandra Magaña-Cuellar  
Member

Larry L. Renner, BS, RCP  
Member

Barbara M. Stenson, RCP, RRT  
Member

Stephanie Nunez  
Executive Officer



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# Respiratory Care Board of California

444 North 3rd Street, Suite 270, Sacramento, CA 95811

## Board Meeting Agenda

Friday, February 10, 2012

Crafton Hills College

11711 Sand Canyon Road

Performing Arts Center

Yucaipa, CA 92399

(909) 389-3286

### 9:30 AM Call to Order

**1. Approval of October 7, 2011 Minutes** (Murray Olson)

**2. Public Comment** (Murray Olson)

*Public comment will be accepted after any agenda item or toward the end of the agenda for public comment not related to any particular agenda item. The President may set a time limit for public comment as needed.*

**3. Executive Officer's Report** (Stephanie Nunez)

- BrEZe, On-Line Application/License System
- Limited Travel Directive
- Office Lease
- Status on Proposed Regulations (Disciplinary Guidelines, Citations/Fine, etc...)
- Sunset Review 2012/2013

**4. Enforcement Review/Fiscal Impact** (Stephanie Nunez)

- Enforcement Paths
- Probation Monitoring Cost Comparison
- Practice-Related Case Scenarios/Proposed Discipline

**5. Enforcement Update** (Bud Spearman)

- Enforcement Statistics
- Enforcement Performance Measures

**6. November 18, 2011 CDPH Meeting Update** (Murray Olson & Larry Renner)  
**(AFL 10-22/Draft AFL 12-10 Polysomnography)**

**7. 2012 Legislation of Interest - Discussion/Action** (Christine Molina)

Senate Bills: 544 and 975; Assembly Bills: 569 and 958  
*And any other newly discovered bills relevant to the Board's activities*

**10:30 AM 8. "Transitioning the Respiratory Therapist Workforce for 2015 and Beyond" / Consideration/Impact of Attaining the RRT Credential as the Minimum Standard in California - Discussion** (Bud Spearman)

- National Board for Respiratory Care
- American Association for Respiratory Care

**12:00 PM Lunch Break**

*The Respiratory Care Board of California's mission is to protect and serve the consumer by enforcing the Respiratory Care Practice Act and its regulations, expanding the delivery and availability of services, increasing public awareness of respiratory care as a profession and supporting the development and education of all respiratory care practitioners.*

• **Closed Session** •

The Board will convene into Closed Session, as authorized by Government Code Section 11126(a), subdivision (1) and 11126(c), subdivision (3), to deliberate on the following matters and any other matters that may arise after the issuance of this agenda notice.

- I. Decision on Reinstatement Petition: Cindy Marie Cudney-Matson, RCP 21840
- II. Consideration of ALJ Proposed Decision: Michael A. Branly, RCP 4833
- III. Executive Officer Evaluation

10. **Public Comment on Items Not on the Agenda**

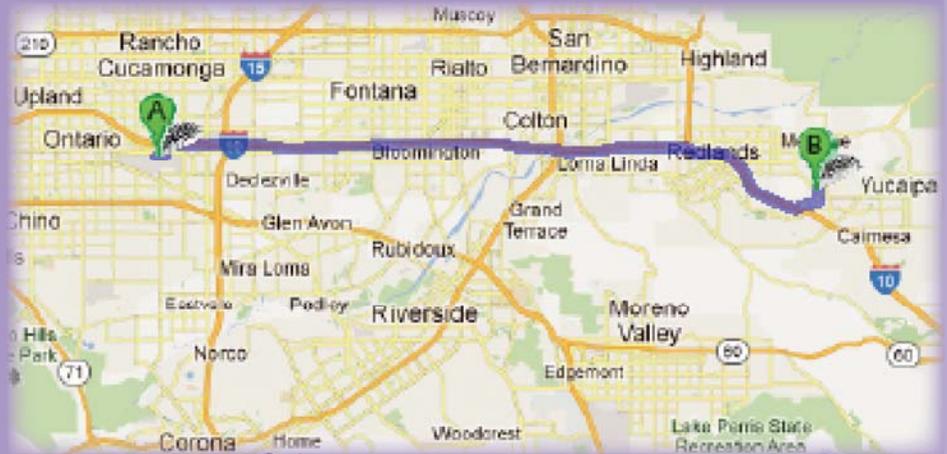
11. **Future Agenda Items**

2:30 p.m. 12. **Adjournment**

**DIRECTIONS**

**Ontario Airport to Crafton Hills College (31 miles)**

- Take Terminal Way and continue onto Archibald Avenue
- Take the ramp onto I-10 E
- Take exit 83 for Yucaipa Blvd
- Turn left onto Yucaipa Blvd
- Turn left onto 16th St
- Turn left onto Sand Canyon Rd



**NOTICE**

This meeting will be Webcast. To view the Webcast, please visit [http://www.dca.ca.gov/publications/multimedia/webcast\\_current.shtml](http://www.dca.ca.gov/publications/multimedia/webcast_current.shtml).

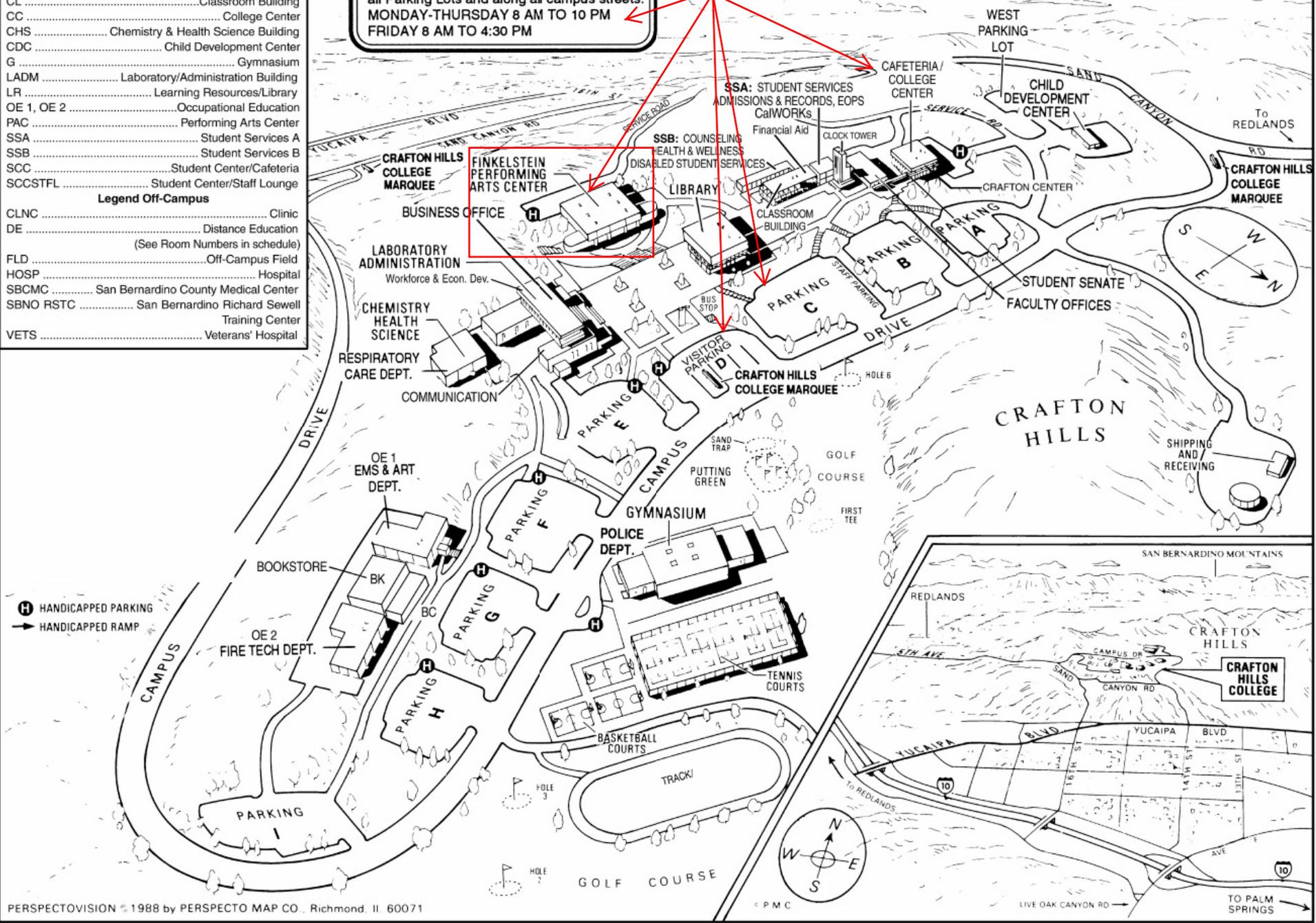
Action may be taken on any item on the agenda. Time and order of agenda items are subject to change at the discretion of the President. Meetings of the Respiratory Care Board are open to the public except when specifically noticed otherwise in accordance with the Open Meeting Act. In addition to the agenda item which addresses public comment, the audience will be given appropriate opportunities to comment on any issue before the Board, but the President may, at his discretion, apportion available time among those who wish to speak. Contact person: Paula Velasquez, telephone: (916) 323-9983.

The meeting is accessible to the physically disabled. A person who needs a disability-related accommodation or modification in order to participate in the meeting may make a request by contacting Paula Velasquez at (916) 323-9983 or sending a written request to: Paula Velasquez, Respiratory Care Board, 444 North 3rd Street, Suite 270, Sacramento, CA 95811. Providing your request at least five (5) business days before the meeting will help ensure availability of the requested accommodation.

Legend On-Campus	
(See map on inside back cover)	
BC.....	Bookstore Complex
BK.....	Bookstore
CL.....	Classroom Building
CC.....	College Center
CHS.....	Chemistry & Health Science Building
CDC.....	Child Development Center
G.....	Gymnasium
LADM.....	Laboratory/Administration Building
LR.....	Learning Resources/Library
OE 1, OE 2.....	Occupational Education
PAC.....	Performing Arts Center
SSA.....	Student Services A
SSB.....	Student Services B
SCC.....	Student Center/Cafeteria
SCCSTFL.....	Student Center/Staff Lounge
Legend Off-Campus	
CLNC.....	Clinic
DE.....	Distance Education
(See Room Numbers in schedule)	
FLD.....	Off-Campus Field
HOSP.....	Hospital
SBCMC.....	San Bernardino County Medical Center
SBNO RSTC.....	San Bernardino Richard Sewell Training Center
VETS.....	Veterans' Hospital

**NOTE:** Parking Controls are in effect in all Parking Lots and along all campus streets. MONDAY-THURSDAY 8 AM TO 10 PM FRIDAY 8 AM TO 4:30 PM

**NOTE** Parking: Lots C and D appear to be closest lots. Be sure to bring change/small bills to obtain parking pass.



**H** HANDICAPPED PARKING  
**→** HANDICAPPED RAMP



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11 **PUBLIC SESSION MINUTES**

12 **Friday, October 7, 2011**

13 **Department of Consumer Affairs**  
14 **1625 North Market Blvd. (Room S-102)**  
15 **Sacramento, CA 95834**

16  
17  
18  
19  
20 **Members Present:** Larry L. Renner, BS, RCP, RRT, RPFT, President  
21 Murray Olson, RCP, RRT-NPS, RPFT, Vice President  
22 Lupe V. Aguilera  
23 Sandra Magaña Cuellar  
24 Charles B. Spearman, MEd, RCP, RRT  
25 Barbara M. Stenson, RCP, RRT

26  
27 **Staff Present:** Dianne Dobbs, Legal Counsel  
28 Stephanie Nunez, Executive Officer  
29 Christine Molina, Staff Services Manager  
30 Liane Freels, Staff Services Manager  
31 Paula Velasquez, Staff Service Analyst

32  
33  
34 **CALL TO ORDER**

35  
36 The Public Session was called to order at 10:45 a.m. by President Renner. A quorum was present.

37  
38 President Renner explained that public comment would be allowed on agenda items, as items are  
39 discussed by the Board during the meeting. He added that under the Open Meeting Act, the Board  
40 may not take action on items raised by public comment that are not on the Agenda, other than to  
41 decide whether to schedule that item for a future meeting.

42  
43 President Renner stated this Board meeting was being webcasted.

44  
45  
46 **BREEZE DATABASE PRESENTATION**

47 *(Debbie Balaam, Sean O'Connor)*

48  
49 Ms. Balaam (DCA's Chief Information Officer) along with Sean O'Connor (BreEZe Lead Business  
50 Project Manager) gave a presentation highlighting the BreEZe Project: system overview, functionality

1 and benefits. Ms. Balaam stated that the Respiratory Care Board will be in the first release targeted  
2 for late summer 2012.  
3  
4

## 5 **APPROVAL OF MAY 10, 2011 PUBLIC SESSION MINUTES**

6  
7 Vice President Olson moved to approve the February 25, 2011 Public Session minutes as written.  
8

9 M/ Olson /S/Stenson

10 Ayes: Aguilera, Olson, Renner, Spearman

11 Abstain: Magaña Cuellar

12 MOTION PASSED  
13  
14

## 15 **EXECUTIVE OFFICER'S REPORT**

### 16 **On-Line License Renewal**

17 *(Christine Molina)*  
18  
19

20 Ms. Molina stated, on September 15, the Board deployed a system to allow licensees to renew online  
21 using a credit card. She added this is an interim solution until the BreEZe system is in place. The  
22 system has received only positive feedback to this point and the vendor's customer service  
23 representatives have been extremely helpful.  
24

### 25 **Staffing/BCPs**

26 *(Stephanie Nunez)*  
27

28 Ms. Nunez updated the Board on staffing and Budget Change Proposals (BCPs), explaining the BCP  
29 process takes approximately a year to complete. Ms. Nunez stated the Board submitted two BCPs  
30 and were approved for position authority (not funding) for three positions for the Licensing Unit and  
31 three positions for Enforcement Unit. However, due to budget constraints, the Board will only fill three  
32 of these positions.  
33

### 34 **DCA Change Control Board**

35 *(Stephanie Nunez)*  
36

37 Ms. Nunez stated she is serving on the DCA Change Control Board which meets two times a month  
38 to review various proposals concerning change requests from boards and bureaus to the BreEZe and  
39 Legacy systems.  
40

### 41 **Travel Directive**

42 *(Stephanie Nunez)*  
43

44 Ms. Nunez stated travel restrictions remain in place and are not expected to be lifted anytime in the  
45 near future. Travel is limited and requires pre-approval.  
46

### 47 **Office Move**

48 *(Stephanie Nunez)*  
49

50 The Board's office lease, which has been extended twice, will expire June 2012. According to the  
51 Department of General Services, further extensions are not allowed. Through a site search and  
52 bidding, the Board has found an office location close in price to the current rent paid and anticipates  
53 moving before June 2012.

1 **Sunset Review**  
2 *(Stephanie Nunez)*  
3

4 Ms. Nunez stated the Board's Act does include a provision which sunsets the Board January 1, 2014.  
5 Accordingly, the Board will begin the Sunset Review Process in 2012 which consists of completing an  
6 in-depth, extensive report and questions/testimony before the Sunset Review Committee. Ms. Nunez  
7 stated she does not foresee any issues with the Board receiving a Sunset extension.  
8  
9

10 **CSRC RCP STAFFING RATIOS INITIATIVE-UPDATE**  
11 *(Barbara Stenson)*  
12

13 Ms. Stenson explained that the Board invited the California Society for Respiratory Care (CSRC) to  
14 look into developing a staffing matrix to help identify appropriate staffing levels and invited Jack  
15 McGee, CSRC Government Affairs Committee Chair to comment.  
16

17 Mr. McGee stated the CSRC has been meeting with managers from various departments looking to  
18 identify individuals to spearhead the formulation of a survey. He further explained the CSRC Board is  
19 working on a White Paper which would specifically address staffing ratios and benchmarks, and are  
20 optimistic they can move forward with this in the first quarter of 2012.  
21

22 President Renner inquired if they would be using any of the data the American Association for  
23 Respiratory Care (AARC) collected during their "Time in Motion" studies.  
24

25 Mr. McGee stated the AARC is pursuing the same subject and currently upgrading and updating their  
26 own database and working in collaboration with the CSRC.  
27

28 **FISCAL REVIEW**  
29 *(Larry Renner)*  
30  
31

32 President Renner commented on fiscal expenditures. Specifically, under Salary and Benefits, an  
33 increase is projected due to the return of a 5% salary reduction and the hiring of an additional staff  
34 person. In addition, he pointed out one-time costs associated with the upcoming move. President  
35 Renner commented the workload associated with the increases in caseload necessitates the need for  
36 the additional staff allocated which would create a bigger margin in the gap between expenses and  
37 revenue.  
38

39 Ms. Nunez stated savings might be achieved by looking into some existing processes and priorities.  
40 Additional staff would definitely help in the processing of cases, but that has to be balanced with the  
41 associated costs.  
42

43 President Renner and Ms. Nunez agreed staff would do some analysis and bring ideas to the Board  
44 for discussion at the next meeting.  
45  
46

47 **CALIFORNIA CODE OF REGULATIONS CONCERNING NEW AND AMENDED LANGUAGE**  
48 **RELATED TO DISCIPLINARY GUIDELINES, CITATIONS AND FINES, FEES AND VARIOUS**  
49 **REGULATORY SECTIONS: VOTE TO FINALIZE REGULATORY PACKAGE**  
50

51 *(Larry Renner)*  
52

52 President Renner reviewed proposed language  
53

1 Vice President Olson moved to adopt the proposed regulations at Sections 1399.301, 1399.302,  
2 1399.303, 1399.320, 1399.330, 1399.340, 1399.352.7, 1399.353, 1399.360, 1399.364, 1399.370,  
3 1399.374, 1399.375, 1399.376, 1399.377, 1399.378, 1399.379, 1399.380, 1399.381, 1399.382,  
4 1399.383, 1399.384, 1399.385, 1399.387, 1399.388, 1399.389, 1399.390, 1399.391 and 1399.395 of  
5 division 13.6, of Title 16 as filed and allow staff to take all the steps necessary to complete the  
6 rulemaking process, including the filing of the final rulemaking package with the Office of  
7 Administrative Law and authorize the Executive Office to make any non-substantive changes to the  
8 proposed regulations that may be needed to complete the rulemaking process.  
9

10 M/Olson /S/Stenson  
11 Unanimous: Aguilera, Magaña Cuellar, Olson, Renner, Spearman  
12 MOTION PASSED  
13  
14

## 15 **ENFORCEMENT UPDATE**

### 17 **Enforcement Statistics** 18 *(Charles Spearman)* 19

20 Mr. Spearman reviewed Enforcement Statistics questioning the reduction in costs recovered by the  
21 collection agency from FY 07/08.  
22

23 Ms. Nunez explained the drop might be, in part, due to the economy but believes it is mostly reflective  
24 of the amount of claims initially sent to collections and the ability of the agency to collect on the easier  
25 claims first, leaving the more difficult claims and lowering the amount collected in later years.  
26

27 President Renner asked the Board to consider if there is anything that should be done differently from  
28 the standpoint of what is collected (or not collected) with regards to cost recovery or probation  
29 monitoring costs.  
30

31 Ms. Nunez responded probation monitoring costs could be increased as the Board spends more than  
32 is collected for monitoring costs, however, she also added that most Probationers are already be  
33 subjected to the costs of increased testing frequency. Ms. Nunez also stated that decisions that do  
34 not include costs should be rejected as they do negatively impact the Board from a fiscal perspective.  
35

36 President Renner requested staff find out what other Boards charge for probation monitoring costs.  
37

38 Mr. Spearman inquired as to whether the Board's Performance Measures are available online, and  
39 Ms. Nunez replied that they care available to the public on both the Department and the Board's  
40 websites. Mr. Spearman added the Board is meeting enforcement goals and under target on all  
41 measures.  
42

## 44 **"TRANSITIONING THE RESPIRATORY THERAPIST WORKFORCE FOR 2015 AND BEYOND"** 45 **UPDATE**

46 *(Charles Spearman)*  
47

48 Mr. Spearman reviewed the Gap Analysis prepared by the AARC addressing some of the problems  
49 and attributes to consider concerning the recommendations from the outcome of the three year  
50 project "Transitioning the Respiratory Therapist Workforce for 2015 and Beyond".  
51

52 Discussion ensued.  
53

1 Ms. Nunez and Mr. Spearman suggested the Board invite the AARC and the NBRC to the next  
2 meeting to share updates, timelines, and future visions for the respiratory care entry-level workforce.  
3  
4

### 5 **POLYSOMNOGRAPHY/CDPH MEETING UPDATE**

6 *(Larry Renner/ Murray Olson)*  
7

8 President Renner stated the meeting with the California Department of Public Health was enlightening  
9 and productive and both parties came away more knowledgeable.  
10

11 Vice President Olson stated he felt the Respiratory Care Act was not recognized in the meeting and  
12 anticipates future action from the Board and the CSRC.  
13

14 Public comments regarding this issue were received by Mark Goldstein, Alan Roth, and Jack McGee.  
15  
16

### 17 **LEGISLATION OF INTEREST – DISCUSSION/ACTION**

18 *(Larry Renner)*  
19

#### 20 **2011 Legislation**

21  
22 President Renner reviewed the Board's positions on legislation of interest:  
23

24 SB 103 - Watch

25 SB 231 – Watch

26 SB 538 – Watch (changes do not impact RCB)

27 SB 544 – Watch

28 AB 569 - Watch

29 AB 958 – Oppose unless amended (letter mailed to author 3/25/11)

30 AB 991 – Watch

31 AB 1273 – Watch  
32

33 President Renner stated the Governor signed SB 539, SB 541, SB 943 and SB 944.  
34  
35

#### 36 **Board Sponsored Proposed 2012 Legislation**

37  
38 President Renner reviewed the Non-Substantive enforcement amendments.  
39

40 Mr. Spearman moved to have staff proceed to secure an author for the proposed language.  
41

42 M/ Spearman /S/ Magaña Cuellar

43 Unanimous: Aguilera, Magaña Cuellar, Olson, Renner, Spearman

44 MOTION PASSED  
45

46 Ms. Nunez added that the Board requested the Department get a general Business and Profession  
47 Code amendment seeking legislative authority to entitle all boards to receive arrest reports.  
48  
49

### 50 **ELECTION OF OFFICERS FOR 2012**

51  
52 Ms. Stenson nominated Vice President Olson for President. No other nominations were presented.  
53

1 Unanimous: Aguilera, Magaña Cuellar, Olson, Renner, Spearman  
2 PASSED

3  
4 President Renner nominated Mr. Spearman for Vice President. No other nominations were  
5 presented.

6  
7 Unanimous: Aguilera, Magaña Cuellar, Olson, Renner, Spearman  
8 PASSED

9  
10  
11 **2012 MEETING DATES: CALENDAR**

12  
13 Mr. Olson suggested a future Board meeting be held at one of the respiratory colleges based on past  
14 experiences and the positive student participation.

15  
16 Future meeting dates were agreed upon as follows:

- 17  
18 February 10, 2012 in Southern California  
19 May 18, 2012 in Northern California  
20 October 12, 2012 in Northern California

21  
22  
23 **PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA**

24  
25 Mr. Goldstein commented on the staffing assessment tool, noting the acuity levels of patients can vary  
26 greatly.

27  
28  
29 **ADJOURNMENT**

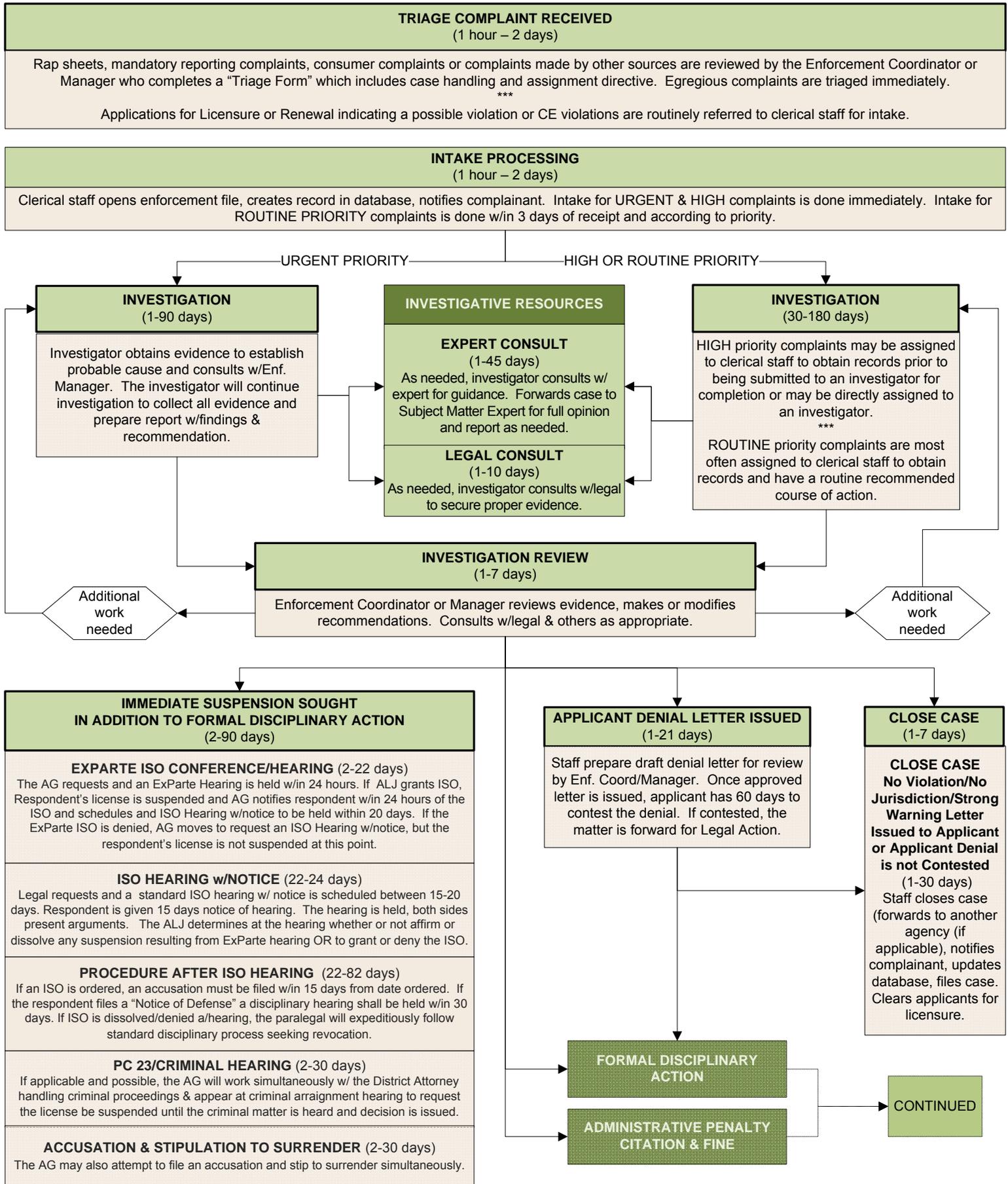
30  
31 The Public Session meeting was adjourned by President Renner at 12:58 p.m.

32  
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40 \_\_\_\_\_  
41 LARRY L. RENNER  
President

\_\_\_\_\_  
STEPHANIE A. NUNEZ  
Executive Officer

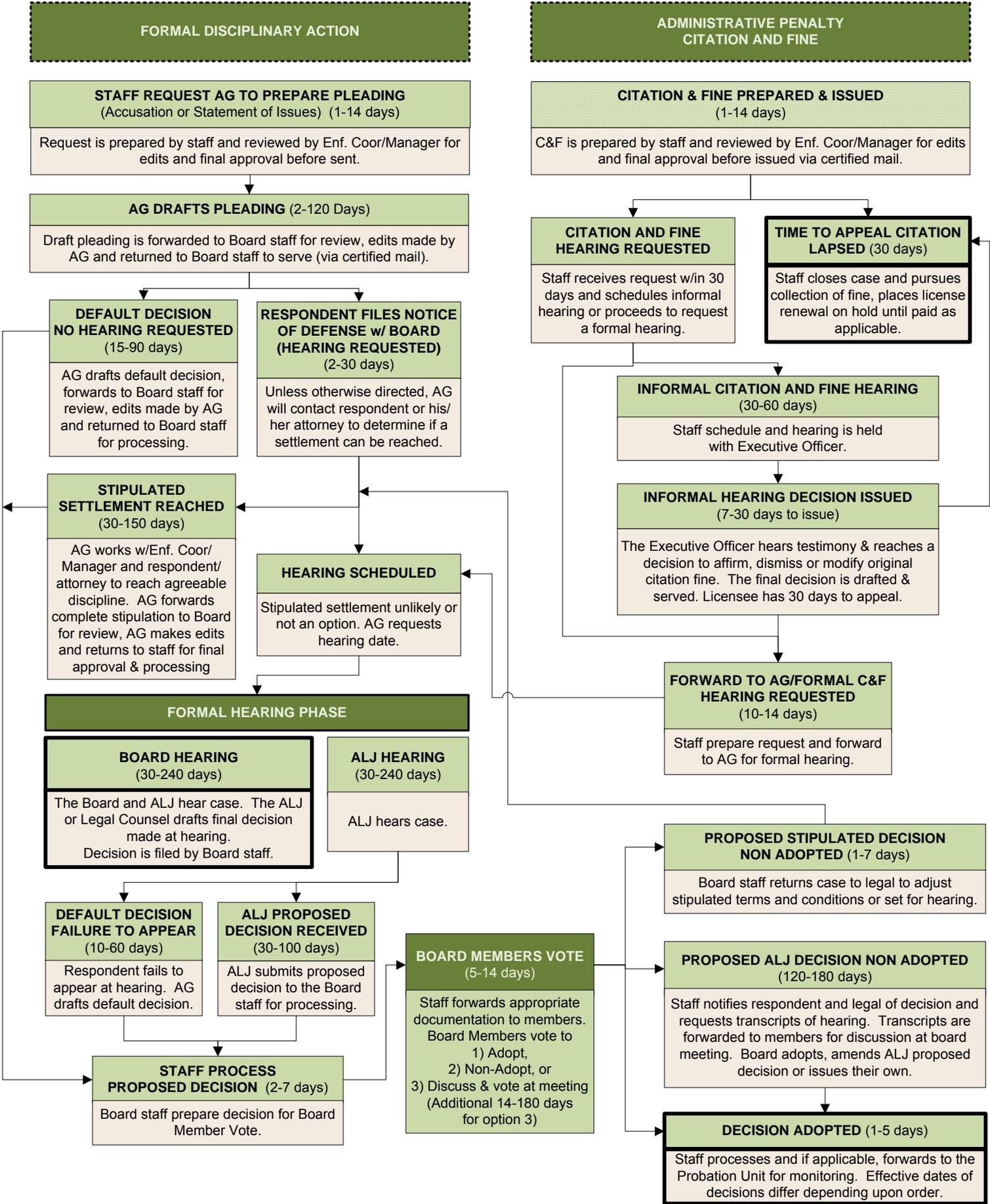
**Respiratory Care Board of California**  
**DISCIPLINARY PROCESS MODEL**

(new 1/4/12)



**Respiratory Care Board of California  
 DISCIPLINARY PROCESS MODEL**

Continued from page 1



# Probation Monitoring Cost Comparison

Prepared December 2011

Charge	HEALTH BOARDS	Monthly Charge or Equivalency	
Y	Behavioral Sciences	\$100	
	Chiropractic Examiners	\$0	May move to gain authority.
Y	Dental Board	\$95	
Y	Medical Board	\$333	Actual overall costs billed annually/Approx. \$4,000 per probationer.
	Occupational Therapy	\$0	Currently attempting to gain authority.
Y	Optometry	\$100	
Y	Pharmacy	\$100	Actual costs billed annually; Estimate approx. \$1200 per probationer per year.
Y	Physical Therapy	\$20	Probationers are currently charged \$58.50/quarter.
Y	Physician Assistant	\$130	Actual overall costs.
Y	Podiatric Medicine		Actual costs for each probationer billed annually.
Y	Psychology	\$100	
	Registered Nursing	\$0	Does not charge probation monitoring costs.
Y	Respiratory Care Board	\$100	Actual overall costs break down to \$127-\$180/month depending on number of probationers (currently est. \$168/mo. w/ 75 probationers)
	Speech-Language Pathology & Audiology & Hearing Aid Dispensers	\$0	Currently in process of establishing
Y	Veterinary Medicine	\$100	
	Vocational Nursing & Psychiatric Techs	\$0	Does not charge probation monitoring costs.
OTHER BOARDS			
	Athletic Commission	\$0	Does not charge probation monitoring costs.
	Board of Accountancy	\$0	Does not charge probation monitoring costs.
	Contractors Board	\$0	Does not charge probation monitoring costs.
	Court Reporters	\$0	Does not charge probation monitoring costs.
	Engineers, Land Surveyors & Geologists	\$0	Does not charge probation monitoring costs.

Practice-Related Case Scenarios/Proposed Discipline

REFERENCE SHEET

MITIGATING/AGGRAVATING CIRCUMSTANCES

**Experience/Practice:** The number of years an RCP has practiced and whether or not this bears any weight in connection to the violation(s).

**Prior Disciplinary History:** The number of years an RCP has practiced and the number times he/she has been disciplined for related/unrelated violations.

**Time Frame:** Whether multiple violations were isolated to a period of a few days (short time frame) vs. a greater span of time.

**Patient Harm:** Whether the violation(s) resulted in potential patient harm or actual patient harm/death.

**Assigned Workload:** Whether assigned workload may have contributed to the violation(s).

DISCIPLINE

	PUBLIC RECORD	MAY BE USED IN FUTURE CASES	COSTS RECOUPED	RESOLVED IN-HOUSE (expeditious)	FORMAL DISCIPLINE PROCESS (Lengthy/Costly)	
Citation & Fine	YES	YES	SOME*	GENERALLY*	POSSIBLY*	* The majority of cases are handled in-house & costs may be recovered through the fine. However, cases appealed result in the lengthy formal discipline process and prosecution costs cannot be recovered.
Public Reprimand	YES	YES	YES	NO	YES	Through stipulation, additional continuing education hours or education courses can be required to be completed prior to the next renewal (allowing 6-30 months to complete or license will not be renewed), in addition to cost recovery.
Probation	YES	YES	YES	NO	YES	Consideration needs to be given to actual benefit of placing licensee on probation. Probation uses staff resources and also requires probationer to pay monthly costs, along with many other reporting elements. However, probation affords routine contact with employer and probationer.
Revocation	YES	YES	*SOMETIMES	NO	YES	*Costs <u>may</u> be recouped through use of collection agency, though costs must be paid prior to the respondent petitioning for reinstatement. Most costs that go unpaid are a result of revocations. Respondent must wait 3+ years prior to petitioning for reinstatement.

Practice-Related Case Scenarios/Proposed Discipline

	Dependency on Mitigating/Aggravating Factors Rating	Possible Discipline
<b>SCENARIOS</b>	1= Not dependent 2 = Not likely dependent 3 = May be dependent 4 = Most likely dependent 5= Highly dependent	CF = Cite & Fine PR = Public Reprimand PB=Probation R = Revoke
<b>1 FAILURE TO CHART</b>		
a) Administered medication.		
b) Ventilator check performed.		
c) Patient check/Assessment performed.		
d) Significant event that occurred.		
e) Multiple counts of those listed above.		
<b>2 MISSED TREATMENTS/TESTS</b>		
a) Failure to administer medication as ordered.		
b) Failure to perform patient check/assessment per policy/patient care plan.		
c) Failing to perform diagnostic test as ordered (may be missed completely or very late).		
d) Failure to give treatment as ordered or per patient care plan.		
<b>3 FALSIFYING A CHART</b>		
a) Recording medication was administered when in fact it had not.		
b) Recording a ventilator check was performed, when in fact it had not.		
c) Recording a patient check/assessment was made when in fact it had not.		
d) Recording multiple counts of those listed above.		
<b>4 VENTILATOR RELATED</b>		
a) Failure to perform check of ventilator itself, prior to connecting it to patient.		
b) Failing to perform a timely ventilator check per hospital/facility policy or patient care plan.		
c) Performing a ventilator check and failing to recognize that it was disconnected.		
d) Performing a ventilator check and failing to recognize settings were not as ordered and/or settings as ordered were causing patient harm/discomfort.		
e) Failure to adequately and/or timely assess diagnostic results or patient response to ventilator settings.		
f) Failed to follow doctor orders to adjust ventilator settings.		

Practice-Related Case Scenarios/Proposed Discipline

	Dependency on Mitigating/Aggravating Factors Rating	Possible Discipline
<b>SCENARIOS</b>	1= Not dependent 2 = Not likely dependent 3 = May be dependent 4 = Most likely dependent 5= Highly dependent	CF = Cite & Fine PR = Public Reprimand PB=Probation R = Revoke
<b>5 WILLFUL CONDUCT</b>		
a) Licensee perjures employment documentation (not patient care related).		
b) RCP changes ventilator settings on own accord and falsified patient chart by indicating doctor approved changed ventilator settings.		
c) Rude and/or physically rough with patient.		
d) Forging a physician signature for patient-related or non patient-related activities.		
e) Caring for ventilator patient, RCP determines another setting or even an unrelated respiratory practice that he/she believes will help the patient and implements that without a doctor's order/authority.		
<b>6 MISCELLANEOUS</b>		
a) Failure to wear protective materials or equipment or follow infection control guidelines risking transmission of blood-borne and other infectious diseases.		
b) Inappropriately instituted CPR measures for ventilator and non ventilator patients.		
c) During patient check, failure to recognize that oxygen was not properly connected to patient.		
d) During patient check, failure to recognize that oxygen setting was not appropriate as ordered or setting as ordered was causing patient harm/discomfort.		
e) Perform an ABG on wrong person.		
f) Perform an ABG as ordered, but failed to timely assess/report the results.		

# ENFORCEMENT STATISTICS

Agenda Item: 5a  
Meeting Date: 02/10/12

Data through December 31, 2011

Applicant Licensed Unlicensed	CASELOAD	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12
A	Applications Received	680	713	853	1003	1283	1359	1360	1443	1357	617
L	Total Licensed	23,056	23,674	24,408	25,246	26,338	27,545	28,847	30,120	31,511	32,277
A L U	Enforcement Budget	\$568,422	\$436,421	\$494,771	\$514,365	\$557,312	\$584,409	\$579,161	\$640,576	\$661,077	\$661,077
L	Licenses Active	15,268	15,367	15,503	15,835	16,511	17,202	18,077	18,803	19,658	20,133
A	Applicants Investigated (RCB Staff)	98	113	141	205	238	269	270	311	260	129
A	Applicants Denied/Initial	17	19	11	23	19	31	46	35	21	7
L U	Complaints Received	603	521	515	495	476	472	493	583	575	270
A L U	Cases to Investigation (sworn investigators)	3	0	4	3	9	5	11	3	6	1
L U	Citations Issued	5	68	99	57	71	63	102	75	96	40
A L	Cases to the DAG	105	125	46	56	71	64	99	69	80	35
L	Prob. Cases to AG for Revocation	15	15	13	13	10	9	17	23	9	6
A L U	Cases to the DA	0	1	0	1	0	1	0	0	1	0
L	Accusations Filed	90	102	60	34	51	51	46	42	58	31
A	Statement of Issues Filed	17	17	9	15	21	22	40	29	20	7
L	Petitions to Revoke Probation Filed	18	12	11	18	8	9	11	20	9	6
A L	Stipulated Settlements	97	85	71	34	46	59	61	57	50	21
A L	Disciplinary Hearings Completed/Final Decisions	19	19	11	13	7	14	9	20	17	10
L	Revocations/Surrenders	44	36	31	27	24	29	30	45	32	21
A	Applications Denied (Final Decision)	2	2	0	3	2	3	1	6	5	1
A L	Public Reprimands	52	50	20	5	6	9	6	4	10	1
A L	Probationers (New)	46	38	53	27	32	40	48	39	29	17
L	Probationers (Active)	80	81	100	80	77	84	108	92	84	75
L U	Fines Imposed	\$5,000	\$51,600	\$61,050	\$33,600	\$33,413	\$32,450	\$60,950	\$123,975	\$51,450	\$13,775
L U	Fines Reduced, Withdrawn, Dismissed	\$2,000	\$1,550	\$1,350	\$900	\$900	\$1,225	\$2,715	\$400	\$3,500	\$400
L U	<b>Fines Collected</b>	<b>\$9,379</b>	<b>\$23,386</b>	<b>\$41,942</b>	<b>\$37,941</b>	<b>\$31,919</b>	<b>\$31,061</b>	<b>\$30,121</b>	<b>\$41,863</b>	<b>\$41,378</b>	<b>\$13,834</b>
A L	Cost Recovery Requested	\$230,033	\$213,720	\$233,873	\$198,758	\$183,032	\$208,563	\$198,892	\$263,848	\$267,310	\$186,855
A L	Cost Recovery Awarded	\$226,878	\$195,354	\$223,996	\$173,771	\$174,142	\$168,976	\$184,082	\$214,040	\$245,009	\$140,754
A L	<b>Cost Recovery Collected</b>	<b>\$107,028</b>	<b>\$130,994</b>	<b>\$130,378</b>	<b>\$142,061</b>	<b>\$120,820</b>	<b>\$96,454</b>	<b>\$55,820</b>	<b>\$81,483</b>	<b>\$84,285</b>	<b>\$39,523</b>
L	Probation Monitoring Costs <b>Collected</b>	<b>\$111,907</b>	<b>\$83,447</b>	<b>\$100,746</b>	<b>\$102,596</b>	<b>\$81,613</b>	<b>\$79,748</b>	<b>\$85,176</b>	<b>\$90,316</b>	<b>\$87,604</b>	<b>\$44,525</b>
A L U	Franchise Tax Board <b>Collected</b>	<b>\$20,508</b>	<b>\$16,064</b>	<b>\$13,676</b>	<b>\$20,288</b>	<b>\$13,542</b>	<b>\$17,697</b>	<b>\$10,440</b>	<b>\$8,796</b>	<b>\$8,826</b>	<b>\$48</b>
A L U	Collection Agency <b>Collected</b> *	Not Applicable	<b>\$17,402</b>	<b>\$32,285</b>	<b>\$56,826</b>	<b>\$19,414</b>	<b>\$22,568</b>	<b>\$2,292</b>	<b>\$1,100</b>	<b>\$11,216</b>	<b>\$4,504</b>

\* Amount recovered by the Board's collection agency. This amount is also reflected in Fines, Cost Recovery, or Probation Monitoring Costs Collected depending on the account in which the money was ordered.

## Performance Measures

### Q2 Report (October - December 2011)

To ensure stakeholders can review the Board's progress toward meeting its enforcement goals and targets, we have developed a transparent system of performance measurement. These measures will be posted publicly on a quarterly basis.

#### Volume

Number of complaints and convictions received.

**Q2 Total: 182**

*Complaints: 45 Convictions: 137*

**Q2 Monthly Average: 61**

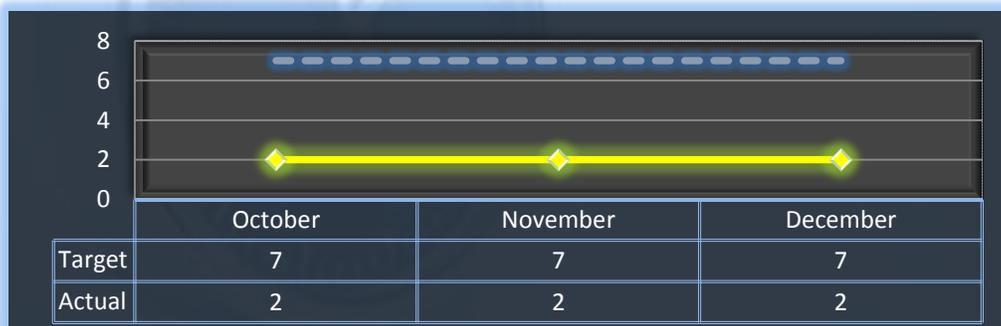


#### Intake

Average cycle time from complaint receipt, to the date the complaint was assigned to an investigator.

**Target: 7 Days**

**Q2 Average: 2 Days**

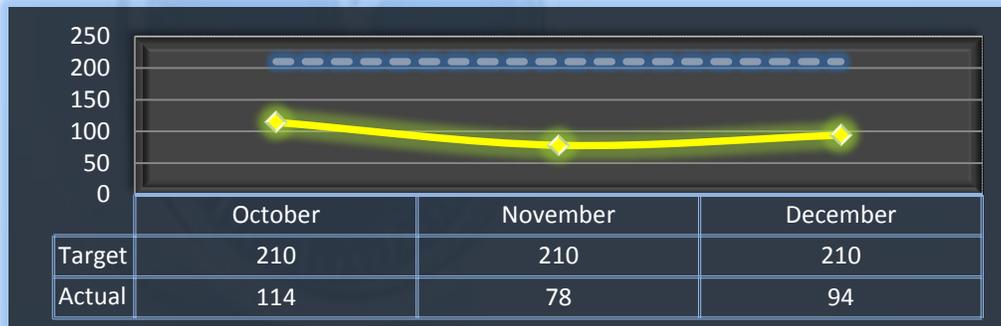


## Intake & Investigation

Average cycle time from complaint receipt to closure of the investigation process. Does not include cases sent to the Attorney General or other forms of formal discipline.

**Target: 210 Days**

**Q2 Average: 94 Days**

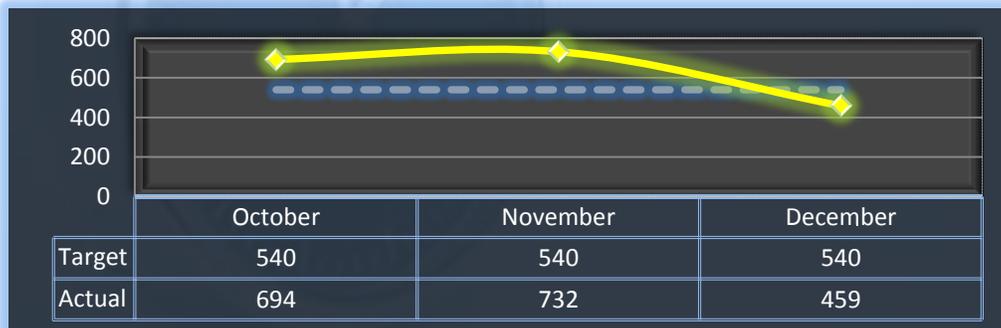


## Formal Discipline

Average number of days to complete the entire enforcement process for cases resulting in formal discipline. Includes intake and investigation by the Board, and dispensation by the AG.

**Target: 540 Days**

**Q2 Average: 640 Days**

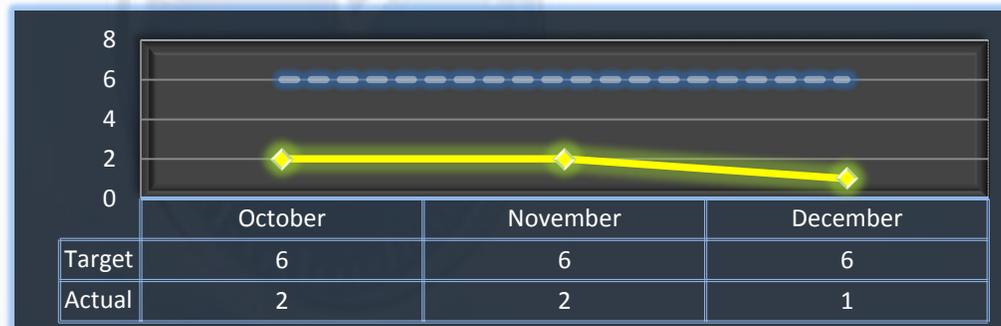


## Probation Intake

Average number of days from monitor assignment, to the date the monitor makes first contact with the probationer.

**Target: 6 Days**

**Q2 Average: 2 Days**



## Probation Violation Response

Average number of days from the date a violation of probation is reported, to the date the assigned monitor initiates appropriate action.

**Target: 10 Days**

**Q2 Average: 6 Days**





RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health

Agenda Item: 6  
Meeting Date: 2/10/12



EDMUND G. BROWN JR.  
Governor

## AFL REVISION NOTICE

Subject: Sleep Study Lab Staffing  
Revision To: AFL 10-22  
Revision Date: January 30, 2012  
Attachment: AFL 12-10

This notice is to inform you that the California Department of Public Health has revised All Facilities Letter (AFL) 10-22 with the attached AFL 12-10, which supersedes AFL 10-22 as well as AFL 10-04.

The AFL has been revised to clarify nurse staffing requirements for General Acute Care Hospital (GACH) outpatient supplemental services where polysomnography is provided and is being issued in response to questions from facilities and providers of polysomnographic services.

Please review the AFL and contact your local District Office if you have further questions.



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health

Agenda Item: 6  
Meeting Date: 2/10/12



EDMUND G. BROWN, JR.  
Governor

January 30, 2012

AFL 12-10  
(Supersedes  
AFLs 10-04, 10-22)

**TO:** General Acute Care Hospitals

**SUBJECT:** Sleep Study Lab Staffing

**AUTHORITY:** Title 22 California Code of Regulations (CCR) Sections 70529(c) and (d); 70701(a)(4).

The purpose of this All Facilities Letter is to clarify nurse staffing requirements for General Acute Care Hospital (GACH) outpatient supplemental services where polysomnography is provided and is being issued in response to questions from facilities and providers of polysomnographic services.

The California Department of Public Health (CDPH) enforces patient care standards in GACH outpatient supplemental service settings. Title 22 CCR Section 70529(c) requires that a registered nurse be responsible for the nursing service in the outpatient service. Federal regulations require "appropriate professional and nonprofessional personnel" be available in the outpatient service (Title 42 CFR Section 482.54(b)(2)). Title 22 CCR Sections 70529(d) and 70701(a)(4) require sufficient nursing and other personnel to provide the scope of services offered and to meet the needs of the patients.

All GACH units must have policies and procedures in place governing how services are to be provided to patients. Outpatient sleep study labs must provide sufficient nursing and other services to provide the scope of polysomnographic services offered. If, based on the GACH's policies and procedures and consideration of the types of patients and services provided in the outpatient sleep study lab, nursing services are not required in the outpatient sleep study lab, then a registered nurse is not required to supervise the nursing service.

AFL 12-10  
January 30, 2012  
Page 2

Facilities are responsible for following all applicable laws. CDPH's failure to expressly notify facilities of changes does not relieve facilities of their responsibility for following all laws and regulations. Facilities should refer to the full text of applicable sections of Title 42 Code of Federal Regulations and Title 22 California Code of Regulations Sections to ensure compliance. If you have any questions, please contact your local District Office.

Sincerely,

Debby Rogers, RN, MS, FAEN  
Deputy Director  
Center for Health Care Quality

DRAFT



MARK B HORTON, MD, MSPH  
*Director*

State of California—Health and Human Services Agency  
**California Department of Public Health**

Agenda Item: 6  
Meeting Date: 2/10/12



ARNOLD SCHWARZENEGGER  
*Governor*

October 18, 2010

AFL 10-22

**TO:** General Acute Care Hospitals

**SUBJECT:** Sleep Study Lab Staffing

**AUTHORITY:** Title 42 Code of Federal Regulations (CFR) Section 482.23 (b)(3)  
Title 22 California Code of Regulations (CCR) Sections 70215 and 70529.

The purpose of this All Facilities Letter is to clarify the requirements for providing polysomnography in sleep labs within a General Acute Care Hospital (GACH) setting.

SB 132 (Chapter 635, Statutes of 2009) requires the Medical Board of California (MBC) to adopt regulations relative to the qualifications for certified polysomnographic technologists, and requires that a certified polysomnographic technologist work under the supervision of a physician and surgeon.

The California Department of Public Health (CDPH) enforces patient care standards in GACH outpatient settings. These standards require a registered nurse provide ongoing patient assessments. Such assessments shall be performed, and the findings documented in the patient's medical record, for each shift, and upon receipt of the patient when he/she is transferred to another patient care area. (Title 22, California Code of Regulations (CCR), Section 70215(a)(1)).

CCR Title 22, Section 70529(c) requires that a registered nurse be responsible for the nursing service in the outpatient service. In addition, federal regulations state "a registered nurse must supervise and evaluate the nursing care for each patient." (Title 42 CFR Section 482.23 (b)(3)).

CCR Title 22, Section 70529(d) requires sufficient nursing and other personnel to provide the scope of services offered.

Based on the applicable statutory and regulatory requirements, certified polysomnographic technologists must be supervised by physicians; however, in a GACH registered nurses must also be present to provide ongoing patient assessments.

AFL 10-22  
Page 2  
October 18, 2010

Facilities are responsible for following all applicable laws. CDPH's failure to expressly notify facilities of legislative changes does not relieve facilities of their responsibility for following all laws and regulations. Facilities should refer to the full text of applicable sections of Title 42 Code of Federal Regulations Section 482.23 (b)(3), Title 22 California Code of Regulations Sections 70215 and 70529 to ensure compliance.

If you have any questions, please contact your local District Office.

Sincerely,

**Original Signed by Kathleen Billingsley, R.N.**

Kathleen Billingsley, R.N.  
Deputy Director  
Center for Health Care Quality

## 2012 LEGISLATION OF INTEREST

We are beginning the second year of a two year legislative cycle. Therefore, bills that did not move forward in 2011 may continue through the legislative process in 2012.

*The last day for **NEW** bills to be introduced is February 24, 2012.*

<b>SB 544</b>	Author:	Senate Business, Professions and Economic Development Committee
	Title:	Professions and vocations: regulatory boards
	Last Amended:	1/4/12
	<b>Status:</b>	<b>1/9/12 hearing before the Senate Business, Professions &amp; Economic Development Committee cancelled at the request of the author</b>
	Summary:	Includes various proposals from the Consumer Protection Enforcement Initiative (previously proposed in SB 1111 which failed during the prior legislative session).
	Board Position	<b>WATCH</b>

<b>SB 975</b>	Author:	Wright [D]
	Title:	Professions and vocations: regulatory authority
	Last Amended:	N/A
	<b>Status:</b>	<b>1/20/12: From printer - may be acted upon on or after 2/19/12</b>
	Summary:	Existing law, the Business and Professions Code, provides for the licensure and regulation of various professions and vocations by boards, bureaus, and commissions within the Department of Consumer Affairs. This bill would provide that those boards, bureaus, and commissions have the sole and exclusive authority in state government to license and regulate the practice of professions and vocations regulated by those boards pursuant to provisions of that code, and that no licensing requirements, as specified, shall be imposed upon a person licensed to practice one of those professions or vocations other than under that code or by regulation promulgated by the applicable board through its authority granted under that code.
	Staff Recommended Position	<b>WATCH</b>

<b>AB 569</b>	Author:	Berryhill [R]
	Title:	Business licensing: Business Master License Center.
	Last Amended:	N/A
	<b>Status:</b>	<b>5/27/11: Held under submission in Assembly Appropriations</b>
	Summary:	Under existing law, businesses are required to obtain various licenses from regulatory agencies. Existing law also requires state agencies to take specified actions, including, but not limited to, designating a small business liaison, to assist small businesses achieve compliance with statutory and regulatory requirements. This bill would create the Business Master License Center, which would have prescribed duties, including, but not limited to, developing and administering a computerized one-stop master license system capable of storing, retrieving, and exchanging license information, as well as issuing and renewing master licenses, as specified. The bill would permit the Governor to appoint a 3 <sup>rd</sup> -party facilitator from the business community, to provide oversight over the creation of the center and the development of its master license system. This bill would charge license applicants, in addition to any other fees or deposits required to obtain a particular license, a master license administrative fee in specified amounts, to be deposited into the Master License Fund, which this bill would create. This bill would require that the moneys in the fund, upon appropriation by the Legislature, be used only to administer the Business Master License Center.
Board Position	<b>WATCH</b>	

<b>AB 958</b>	Author:	Berryhill [R]
	Title:	Regulatory boards: limitations period.
	Last Amended:	N/A
	<b>Status:</b>	<b>3/10/11: Referred to Assembly Committee on Business, Professions and Consumer Protection - no hearing scheduled</b>
	Summary:	Existing law requires licensing boards to file disciplinary action accusations against licensees for various violations within a specified limitations period particular to each board. This bill would delete those specified limitation periods for each board and would instead impose a specified limitations period on all boards within the Department of Consumer Affairs.
Board Position	<b>OPPOSE UNLESS AMENDED</b> [Letter mailed to author 3/25/11]	

**SENATE BILL**

**No. 975**

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**Introduced by Senator Wright**

January 19, 2012

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An act to add Section 101.2 to the Business and Professions Code, relating to professions and vocations.

LEGISLATIVE COUNSEL'S DIGEST

SB 975, as introduced, Wright. Professions and vocations: regulatory authority.

Existing law, the Business and Professions Code, provides for the licensure and regulation of various professions and vocations by boards, bureaus, and commissions within the Department of Consumer Affairs.

This bill would provide that those boards, bureaus, and commissions have the sole and exclusive authority in state government to license and regulate the practice of professions and vocations regulated by those boards pursuant to provisions of that code, and that no licensing requirements, as specified, shall be imposed upon a person licensed to practice one of those professions or vocations other than under that code or by regulation promulgated by the applicable board through its authority granted under that code.

Vote: majority. Appropriation: no. Fiscal committee: no. State-mandated local program: no.

*The people of the State of California do enact as follows:*

- 1 SECTION 1. Section 101.2 is added to the Business and
- 2 Professions Code, to read:
- 3 101.2. (a) (1) The boards specified in Section 101 shall have
- 4 the sole and exclusive authority in state government to license and

1 regulate the practice of professions and vocations regulated by  
2 those boards pursuant to provisions of this code.

3 (2) No licensing requirement shall be imposed upon a person  
4 licensed to practice a profession or vocation regulated by a board  
5 specified in Section 101 other than by this code or by regulation  
6 promulgated by the applicable board through its authority granted  
7 under this code.

8 (b) For purposes of this section, “licensing requirements”  
9 include, but are not limited to, the following with respect to a  
10 profession or vocation licensed and regulated by a board specified  
11 in Section 101:

12 (1) Additional training or certification requirements to practice  
13 within the scope of practice of a profession or vocation licensed  
14 under this code.

15 (2) Continuing education requirements for renewal or  
16 continuation of licensure.

17 (3) Any additional requirements beyond those provided in this  
18 code or pursuant to regulations promulgated by the applicable  
19 board specified in Section 101 through its authority granted under  
20 this code.

21 (c) Nothing in this section shall be construed to do either of the  
22 following:

23 (1) Prohibit parties from contractually agreeing to additional  
24 experience, qualifications, or training of a licensee under this code  
25 in connection with performance of a contract.

26 (2) Prohibit a licensee from voluntarily undertaking satisfaction  
27 of certification programs not required under this code for licensure  
28 by a board specified in Section 101.

## Nunez, Stephanie@DCA

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**From:** Nunez, Stephanie@DCA  
**Sent:** Monday, November 07, 2011 10:59 AM  
**To:** Sam Giordano; 'gsmith@goamp.com'  
**Cc:** Nunez, Stephanie@DCA  
**Subject:** Invitation to California Board Meeting - 2/10/12

Hello Sam and Gary.

At the California Board's October meeting there was a lively discussion regarding the desire to increase the entry level standard for the State of California to a minimum of an RRT credential for licensure. The Board is well aware of the implications these changes bring to bear to the profession, its professional organizations and the associated testing affiliates. However, the Board believes that the consumers of California deserve to have the best qualified and trained professionals caring for their family and friends regarding their respiratory and pulmonary conditions. It is the Board's opinion that increasing the standard will provide our consumers with a significant improvement in knowledgeable practitioners that will have a direct impact in patient safety and clinical quality. In fact, the Board feels that both the changes we continue to see in technology, as well as the speed in which medical advances are being launched, make this a logical progression.

It would be our pleasure to have you join us at our next board meeting in February to discuss your future strategic plans regarding this matter so that we can better understand what we would need to overcome to accomplish our desired objectives. At a minimum, we would like to discuss the following:

1. How do our proposed changes follow the strategic planning your organizations intend to achieve over the next 5 years?
2. How do advance practice practitioners (similar in practice and Independence to NP, PA and FNP) fit into the profession's strategic objectives and timeline?
3. What value does the current CRT (entry level) examination have for the profession or should it be retired?
4. What level of collaboration could we expect from your organizations to help us achieve our objectives?

The meeting is scheduled for Friday, February 10, 2012 in Southern California. We expect the meeting will be held at Crafton Hills College located at 11711 Sand Canyon Road, Yucaipa, CA 92399 (between Ontario and Palm Springs).

We hope you will be able to join us for this discussion. We realize that a co-operative effort between the professional organizations and us will be essential to our success in this endeavor.

Stephanie Nunez, Executive Officer  
Respiratory Care Board of California  
444 North 3rd Street, Suite 270  
Sacramento, CA 95811  
Direct: (916) 323.9977  
T: (916) 323-9983  
W: [www.rcb.ca.gov](http://www.rcb.ca.gov)

## 2015 and Beyond: Usable and Unbiased Data

The American Association for Respiratory Care has conducted 3 conferences since March 2008, to picture the future practice of respiratory care. The focus of the first conference was to create a foundation and vision for the profession by examining expected changes in healthcare and how this may impact the respiratory therapist in the year 2015 and beyond. Topics explored were disease management, biomedical innovation, and human resource issues, as the United States adjusts to population increase, the aging of America, and decreasing the cost of healthcare while maintaining or improving quality.<sup>1</sup> The second conference in April 2009 focused on the competencies needed by graduate respiratory therapists and the workforce as the profession adjusts to these projected changes.<sup>2</sup> The third conference, held in July 2010, sought to determine how the respiratory therapy (RT) education system (both before and after degree) needs to change in order for the competencies required of the future RT workforce to be accomplished with minimal impact on current personnel.<sup>3</sup>

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SEE THE ORIGINAL STUDY ON PAGE 1906

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In this issue of *RESPIRATORY CARE*, Barnes et al present findings from their survey of program directors of RT education programs regarding the ability of their current infrastructure to make any necessary changes to meet the changing needs for competent RT providers in the future.<sup>4</sup> These findings were used as background information to ascertain the required length of RT programs and future needs of currently practicing respiratory therapists at the third conference.

While there are many opinions regarding what the respiratory therapist of the future should do or look like, there is a noted lack of peer-reviewed research to guide the profession as we look into the future. Opinions are quite passionate, as witnessed at the open hearing after the third conference in July 2010 and other forums where 2015 and Beyond updates have been presented. For this study,<sup>4</sup> Barnes and his co-authors invited all 435 RT education program directors listed by the Commission on Accreditation for Respiratory Care to participate in an Internet-based survey. Response rates for Internet surveys are typically low,<sup>5</sup> but Barnes et al had an excellent response rate of 80%. This speaks to the notion that a lot of people have

something to say regarding this issue. Given the interest (and emotion) for this topic, some readers of this study will discern that the data are valid and useful, while others will believe that the data are misleading and the intent is to publish befuddling misinformation. Whatever your opinion, future researchers must carefully select methods similar to the one used in this study in order to add usable and unbiased data to the literature.

The instrument used by Barnes et al was designed and reviewed for face validity by the 2015 Research Group. The survey was pilot-tested (I was among those asked to take the pilot survey), and approved by the institutional review board of Northeastern University. Most of the responses were from associate-degree programs, which is expected since most of the RT education programs are at the associate level. Answers collected in survey research always contain some amount of error, and a perfectly accurate survey is seldom, if ever, conducted.<sup>6</sup> Also, Internet-based surveys often have high non-response errors, as answers are overlooked or omitted by the respondents. In the Barnes et al<sup>4</sup> survey many questions were left unanswered, indicating that a program did not teach a particular competency. No follow-up was conducted to verify if this was the reason, but it opens the question of why some did not provide answers.

Did the respondents believe that their survey answers would be used to support a predetermined objective the authors felt to be true? Or were the questions not answered because the respondent did not want the survey administrators to know that his or her RT program is deficient in certain competencies and will not have the resources necessary to be able to change to meet accreditation or community requirements? Other explanations may be that courses are not taught uniformly across RT programs because of time constraints, or the length of the program does not allow time to teach any additional competencies.

Nonetheless, Barnes et al were able to determine from the findings that many programs, regardless of the degree awarded, do not teach the majority of the competencies identified in the second 2015 and Beyond conference. Yet many may believe this is not the complete picture or a fair assessment. More information would be helpful in order to make the next best steps regarding transitioning the profession.

As noted by Barnes et al,<sup>4</sup> it is difficult to interpret a selective lack of response, but they do conclude that, de-

spite the limitations of the responses received, important statistically significant differences do exist between the associate and baccalaureate programs. The baccalaureate programs cover more of the competencies identified in the second 2015 and Beyond conference than do the associate programs, including research, applying evidenced in clinical practice, healthcare policy, and advanced practice models. Also noteworthy is the consensus on 2 items, by both baccalaureate and associate program directors, that the RRT credential (instead of the CRT credential) should be required for professional practice, and there was broad support for the idea that a baccalaureate or graduate degree should be required of future graduates after they enter practice. The results show that there are areas where both associate-degree and baccalaureate-degree programs can work together to transition students to 2015 and Beyond.

I highly commend Barnes et al for attempting to glean this important information. Their answers are usable and unbiased, given their conclusions. However, as mentioned before, there is a serious lack of peer-reviewed research on this subject, and surveys need to be administered with rigor so that respondents and readers can easily judge for themselves whether the questions and answers are valid (through construct validity—the instrument actually measures the intended construct) and reliable (the extent to which answers are consistent over time). The opinions are quite passionate, but best practices for implementation should be used in any future survey design, sampling, solicitation, and interpretation. Again, I encourage RESPIRATORY CARE readers to become familiar with best practices for survey methods and to conduct education survey research such as this study by Barnes and his co-authors to add to the literature that will provide meaningful guidance

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The author has disclosed no conflicts of interest.

Correspondence: Lynda T Goodfellow EdD RRT AE-C FAARC, Byrdine F Lewis School of Nursing and Health Professions, Georgia State University, PO Box 3995, Atlanta GA 30302. E-mail: ltgoodfellow@gsu.edu.

DOI: 10.4187/respcare.01619

to our profession as we navigate our future in these uncertain healthcare times.

Just as Giordano opined earlier this year,<sup>7</sup> I suggest that one review the papers that describe the 3 conferences and carefully ask if our education system is able to prepare graduates with the expanded skills inventory identified in the second conference. The more important question is, however, are we ready for 2015? And, finally, can we provide a transition plan to get us from today to 2015 and Beyond? After 3 years of work with conference planning, manuscript writing, and Internet-based surveys, is our profession able (or willing) to transition from where we are today to where we will need to be tomorrow? Our future patients and students deserve a *valid* answer to this question.

**Lynda T Goodfellow EdD RRT AE-C FAARC**

Byrdine F Lewis School of Nursing  
and Health Professions  
Division of Respiratory Therapy  
Georgia State University  
Atlanta, Georgia

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## Survey of Respiratory Therapy Education Program Directors in the United States

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and Charles G Durbin Jr MD FAARC

**OBJECTIVE:** As background for the American Association for Respiratory Care (AARC) third 2015 and Beyond conference, we sought information and opinions on the ability of the current respiratory therapy education infrastructure to make changes that would assure competent respiratory therapists in the envisioned healthcare future. **METHODS:** After pilot testing and refining the questions, we invited the directors of 435 respiratory therapy programs (based in 411 colleges) that were fully accredited or in the process of being accredited by the Commission on Accreditation for Respiratory Care as of May, 2010, to participate in the survey. **RESULTS:** Three-hundred forty-eight program directors (80%) provided valid survey responses. Three of the 5 competencies related to evidence-based medicine and respiratory care protocols were taught less often in the associate-degree programs than in the baccalaureate-degree programs. Eighty percent of the baccalaureate-degree programs, compared to 42% of the associate-degree programs, instruct students how to critique published research ( $P < .001$ ). Only 34% of the associate-degree programs teach students the general meaning of statistical tests, compared to 78% of the baccalaureate-degree programs ( $P < .001$ ). Ninety-four percent of the baccalaureate-degree programs, versus 81% of the associate-degree programs, teach the students to apply evidence-based medicine to clinical practice ( $P = .01$ ). Teaching students how to describe healthcare and financial reimbursement systems and the need to reduce the cost of delivering respiratory care (a leadership competency identified by the second 2015 and Beyond conference) was significantly more common in the baccalaureate-degree programs (72%) than in the associate-degree programs (56%) ( $P = .03$ ). Other competencies showed trends toward differences, and the baccalaureate-degree programs reported higher percentages of success than the associate-degree programs. **CONCLUSIONS:** There are important differences between the baccalaureate-degree and associate-degree programs. *Key words:* respiratory care; respiratory therapist; survey; education; credentials; accreditation. [Respir Care 2011;56(12): 1906–1915. © 2011 Daedalus Enterprises]

### Introduction

The first American Association for Respiratory Care (AARC) 2015 and Beyond conference defined the expected

role of the practicing and graduating respiratory therapist in 2015 and beyond.<sup>1</sup> The second 2015 and Beyond conference identified 67 competencies (in 8 categories) that

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Dr Barnes has disclosed a relationship with Mercury Medical. Dr Kacmarek has disclosed relationships with Space Labs, Puritan Bennett, Maquet, Cardinal Health, Newport Medical, Hamilton Medical, Respi-

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ronics, General Electric, and Dräger. Dr Durbin has disclosed relationships with Kimberly Clark and Masimo.

Supplementary material related to this paper is available at <http://www.rcjournal.com>.

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DOI: 10.4187/respcare.01259

will be required of respiratory therapists in 2015 and beyond.<sup>2</sup> The goal of the third 2015 and Beyond conference was to determine the education, credentialing, and accreditation needs that would support the profession in attaining the competencies identified in the second conference.<sup>3</sup> To ensure that the participants of the third conference would have as much information as possible on which to base their recommendations, the 2015 and Beyond conferences planning committee surveyed the directors of respiratory therapy (RT) education programs about their current and future ability to ensure that their graduating students will have the identified competencies. We also asked the program directors for their opinions on the required length of respiratory care programs in 2015 and beyond, the education needs of practicing therapists, and the credentials that will be needed by graduating therapists.

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The committee hypothesized that the RT education programs would not be able to ensure that their graduates could attain all the competencies identified in the second conference, that there would be differences in opinion between the associate-degree and baccalaureate-degree program directors on the education requirements of graduates, and that a large majority of education programs would consider the Registered Respiratory Therapist (RRT) credential necessary for entry into the profession in 2015 and beyond.

### Methods

This study was conducted by the AARC's 2015 Research Group (see the supplementary materials at <http://www.rcjournal.com>).

### Questionnaire Development and Pilot Testing

Survey questions related to RT practice in 2015 and beyond were developed based on outcomes from the first and second 2015 and Beyond conferences and on information needed for the third conference. These questions were organized, reviewed, and discussed by group members, who have considerable academic and clinical experience in respiratory therapy practice, education, accreditation, certification, and licensure. The survey asked:

- General demographic questions about the respondent's institution (eg, degrees offered, institutional control, programs offered, and expected number of graduates in 2010 and future years)

- Which of the 67 competencies identified by the second 2015 and Beyond conference are taught in the RT program's curriculum?
- Can additional credit hours be added to the RT curriculum to teach the competencies needed in 2015 and beyond, and not exceed maximum degree requirements?
- Which degree and which RT credential should be required to enter practice, and to continue practice as a respiratory therapist in 2105 and beyond?

We pilot-tested the survey with 6 program directors of accredited associate-degree and baccalaureate-degree RT programs, and asked them to comment on:

- Time: How many minutes were required to complete the survey?
- Clarity: Were any questions ambiguous?
- Invitation: Was the survey invitation letter easily understood and appropriate?
- Connection: Did the link provided connect you to the online survey easily? Were you able to submit the survey easily?
- Progression: Were you able to easily move forward and backwards between survey questions?
- Overall: What general comments do you have regarding the survey?

The survey was revised according to the pilot-test feedback, and approved by the 2015 Research Group (see the supplementary materials at <http://www.rcjournal.com>). The study protocol was approved by the institutional review board of Northeastern University.

### Data Collection

The survey population was the directors of 435 RT programs based in 411 colleges accredited or in the process of being accredited by the Commission on Accreditation for Respiratory Care as of May 2010. The AARC President sent an invitation, via e-mail, to the 435 program directors, asking that they complete the survey. The directors' e-mail addresses were obtained from the Committee on Accreditation for Respiratory Care, and the Internet-based survey was self-administered. We sent 3 e-mail follow-up reminders to non-respondents.

### Data Analysis

Data were aggregated according to response categories for type of RT program (associate or baccalaureate degree). With statistics software (SPSS 18.0, SPSS, Chicago, Illinois) we calculated percentages, frequency distribution,

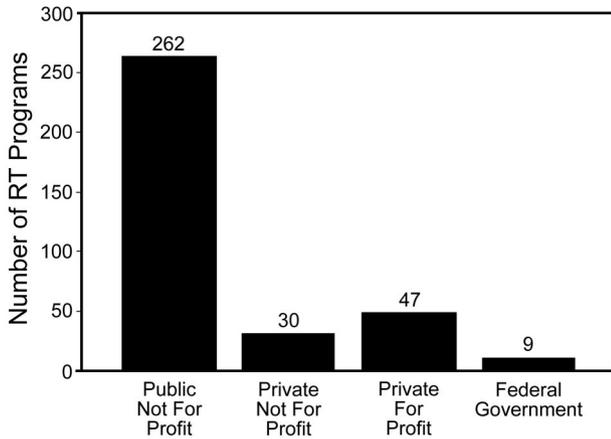


Fig. 1. Institutional control of 348 respiratory therapy education programs, according to the program directors.

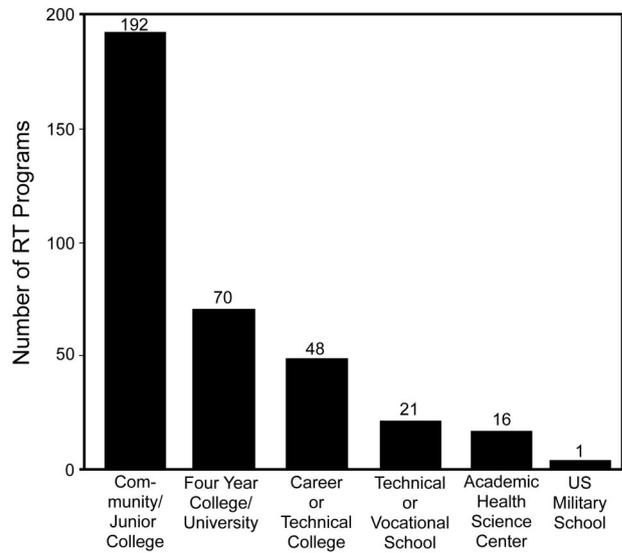


Fig. 2. Types of institutions of 348 respiratory therapy education programs, according to the program directors.

and differences between program types with cross tabulation and Pearson chi-square analysis. A two-tailed  $P < .05$  was considered statistically significant.

## Results

### Response Rate and Demographics

We received 348 valid responses (response rate 80%). Six colleges had more than one program director because of students located on satellite campuses, and those 6 colleges collectively submitted 30 survey responses. At least one program-director response was received from 324 colleges (79%) of the 411 colleges with RT programs. Institutional control was reported as public not-for-profit by 271 (78%), and as private by 77 (22%) (Fig. 1). Community and junior colleges were the most common institution type (Fig. 2). The associate degree is offered by 294 of the programs. The baccalaureate degree is offered by 54 of the programs (Fig. 3).

### Major Competency Areas

There were statistically significant differences between the competencies taught by the baccalaureate-degree programs and the associate-degree programs in evidence-based medicine and protocols (Table 1), leadership (Table 2), and diagnostics (Table 3). There were differences  $> 6\%$  in the chronic and acute disease-management competencies (Table 4), the emergency competencies (Table 5), and the critical care competencies (Table 6). The differences were  $< 5\%$  in the patient-assessment competencies (Table 7), the therapeutics competencies (Table 8), and the therapeutic applications competencies (Table 9).

### Evidence-Based Medicine and Respiratory Care Protocols

Three of the 5 competencies related to evidence-based medicine and respiratory care protocols were taught significantly more often by the baccalaureate-degree programs than the associate-degree programs (see Table 1). Eighty percent of the baccalaureate-degree programs, compared to 42% of the associate-degree programs, instruct students in how to critique published research ( $P < .001$ ). Seventy-eight percent of the baccalaureate-degree programs teach students the general meaning of statistical tests, compared to 34% of the associate-degree programs ( $P < .001$ ). The respondents reported that students are taught to apply evidence-based medicine to clinical practice in 94% of the baccalaureate-degree programs and 81% of the associate-degree programs ( $P = .01$ ). Both types of programs teach students how to treat patients in a variety of settings, using the appropriate respiratory care protocols (baccalaureate-degree programs 96%, associate-degree programs 95%) and explain to students the use of evidence-based medicine in the development of hospital-based respiratory care protocols (baccalaureate-degree programs 83%, associate-degree 79%).

### Leadership

Teaching students to describe healthcare financial reimbursement and the need to reduce the cost of delivering respiratory care (a leadership competency identified by the second 2015 and Beyond conference) was significantly different between the baccalaureate-degree programs (72%)



Fig. 3. Colleges and universities that award a baccalaureate of science degree in respiratory therapy. (Adapted from Reference 4, with permission.)

Table 1. Evidence-Based Medicine and Respiratory Care Protocol Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Critique published research (no. = 165)	80	42	< .001
Explain the meaning of general statistical tests (no. = 142)	78	34	< .001
Apply evidence-based medicine to clinical practice (no. = 288)	94	81	.01
Explain the use of evidence-based medicine in the development and application of hospital-based respiratory care protocols (no. = 276)	83	79	.43
Treat patients in a variety of settings, using the appropriate respiratory care protocol (no. = 332)	96	95	.73

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.

and associate-degree programs (56%) ( $P = .03$ ). Both the baccalaureate-degree programs (63%) and associate-degree programs (52%) are preparing students to lead groups in care planning, bedside decision making, and collaboration with other healthcare professionals ( $P = .15$ ). Teaching students to contribute to organizational teams as related to planning, collaborative decision making, and other team functions, was also reported by both the baccalaureate-degree programs (78%) and associate-degree programs (66%) ( $P = .09$ ). Basic organizational implications of reg-

Table 2. Leadership Competencies

	Respondents (%)*		
	Baccalaureate Program	Associate Program	P
Contribute to organizational teams as related to planning, collaborative decision making, and other team functions (no. = 236)	78	66	.09†
Describe fundamental/basic organizational implications of regulatory requirements on the healthcare system (no. = 235)	76	66	.15†
Demonstrate effective written and verbal communications with various members of the healthcare team, patients, families, and others (cultural competence and literacy) (no. = 327)	94	94	.87
Describe healthcare financial reimbursement systems and the need to reduce the cost of delivering respiratory care (no. = 204)	72	56	.03
Lead groups in care planning, bedside decision making, and collaboration with other healthcare professionals (no. = 188)	63	52	.15†

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.  
 † Difference > 6%.

ulatory requirements on the healthcare system were reportedly taught by both the baccalaureate-degree programs (76%) and associate-degree programs (66%) ( $P = .15$ ).

Table 3. Diagnostic Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Perform basic spirometry (no. = 343)	100	98	.33
Explain indications and contraindications for advanced pulmonary function tests (no. = 325)	100	92	.03
Explain indications and contraindications for sleep studies (no. = 296)	93	84	.09†
Relate results of sleep studies to types of sleep disorders (no. = 239)	76	67	.21†
Explain indications and contraindications, general hazards, and complications of bronchoscopy (no. = 329)	96	94	.54
Describe the bronchoscopy procedure and the respiratory therapist's role in assisting the physician (no. = 330)	100	94	.06†
Evaluate monitoring of a patient's clinical condition with pulse oximetry, electrocardiogram, exhaled-gas analysis, and other related devices (no. = 344)	100	99	.39
Perform arterial puncture and sampling, and blood analysis (no. = 343)	100	98	.33

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.  
 † Difference > 6%.

Both types of programs had a high proportion that taught effective written and verbal communications with various members of the healthcare team, patients, families, and others (see Table 2).

**Other Competency Areas With Differences**

A high proportion of both the baccalaureate-degree programs (> 93%) and associate-degree programs (> 84%) teach most competencies in diagnostics, except for the competency of relating the results of sleep studies to sleep disorders (baccalaureate-degree programs 76%, associate-degree programs 67%, see Table 3). Overall, the baccalaureate-degree programs reported teaching competencies in diagnostics more often than did the associate-degree programs.

Eighty-nine percent of the baccalaureate-degree programs teach all the competencies in chronic and acute disease management, except for to develop, administer,

Table 4. Chronic and Acute Disease-Management Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Explain the etiology, anatomy, pathophysiology, diagnosis, and treatment of cardiopulmonary diseases (eg, asthma, COPD) and comorbidities (no. = 345)	100	99	.46
Engage patients through communication, education, and empowerment (no. = 304)	89	87	.71
Develop, administer, and reevaluate the care plan for chronic disease management (no. = 275)	83	78	.40
Manage respiratory care plans in the acute-care setting, using evidence-based medicine, protocols, and clinical practice guidelines (no. = 315)	96	90	.12†

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.  
 † Difference > 6%.

and reevaluate the care plan for chronic disease management: only 83% teach that competency (see Table 4). A larger proportion of the baccalaureate-degree programs than the associate-degree programs teach the disease-management competencies, and the largest difference (6%) was for the competencies to manage the respiratory care plan in the acute-care setting, and to use evidence-based medicine, protocols, and clinical practice guidelines.

Ninety-one percent of the baccalaureate-degree programs and the associate-degree programs teach their students patient-assessment competencies. Fewer baccalaureate-degree programs (91%) than associate-degree programs (95%) teach students how to obtain social, behavioral, occupational, and other historical information about the current complaint. All the baccalaureate-degree programs and 98% of the associate-degree programs teach students how to interpret pulmonary function studies (spirometry). More baccalaureate-degree programs than associate-degree programs teach students to interpret lung volumes and diffusion studies (see Table 7).

The emergency care competencies are taught by a higher proportion of the baccalaureate-degree programs than the associate-degree programs (see Table 5). Fewer programs of both types teach students how to provide emergency care to children and neonates. A relatively low proportion of the baccalaureate-degree programs and the associate-degree programs are training students how to perform as a

SURVEY OF RESPIRATORY THERAPY EDUCATION PROGRAM DIRECTORS IN THE UNITED STATES

Table 5. Emergency Care Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Perform basic life support (no. = 336)	100	96	.13
Perform advanced cardiovascular life support (no. = 298)	89	85	.46
Perform pediatric advanced life support (no. = 180)	56	51	.54
Perform neonatal resuscitation program (no. = 211)	67	60	.32†
Perform endotracheal intubation (no. = 331)	98	95	.26
Maintain current American Heart Association certification in basic life support and advanced cardiovascular life support (no. = 275)	89	77	.053†
Perform as a member of the rapid response team (medical emergency team) (no. = 230)	72	65	.30†
Participate in mass-casualty staffing to provide airway management, manual and mechanical ventilatory life support, medical gas administration, aerosol delivery of bronchodilators and other agents in the resuscitation of respiratory and cardiovascular failure (no. = 169)	54	48	.41†
Provide intra-hospital transport of critically and chronically ill patients, provide cardiopulmonary life support and airway control during transport (no. = 282)	87	80	.22†
Recommend pharmacotherapy in clinical settings, including emergencies (no. = 321)	94	92	.51

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.  
 † Difference > 6%.

member of a rapid response team: 72% and 65% respectively. Eighty-nine percent of the baccalaureate-degree programs and 77% of the associate-degree programs require students to maintain current American Heart Association advanced cardiovascular life support and basic life support certification. About half of both types of programs teach students how to participate in mass-casualty staffing (see Table 5).

The largest differences in the critical care competencies was in the number of programs that teach how to participate in collaborative care management based on evidence-based protocols: 82% and 71% in the baccalaureate-degree and associate-degree programs, respectively (see

Table 6. Critical Care Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Apply invasive and noninvasive mechanical ventilation (no. = 341)	98	98	.93
Apply all ventilation modes currently available on all invasive and noninvasive mechanical ventilators, as well as adjunct to mechanical ventilation (no. = 335)	100	96	.12
Interpret ventilator data and hemodynamic monitoring data and calibrate monitoring devices (no. = 334)	100	95	.10
Manage airway devices and sophisticated monitoring systems (no. = 338)	100	97	.17
Make recommendations for treatment based on waveform graphics, pulmonary mechanics, and related imaging studies (no. = 328)	96	94	.48
Use therapeutic medical gases to treat critically ill patients (no. = 333)	94	96	.62
Apply circulatory gas-exchange systems in respiratory therapy practice (eg, ECMO) (no. = 154)	44	44	.98
Participate in collaborative care management based on evidence-based protocols (no. = 252)	82	71	.11†
Deliver therapeutic interventions based on protocol (no. = 326)	98	93	.14
Integrate the delivery of basic and/or advanced therapeutics in conjunction with or without the mechanical ventilator in the care of critically ill patients (no. = 331)	100	94	.07
Make recommendations, and provide treatment to critically ill patients based on pathophysiology (no. = 331)	94	95	.80
Recommend cardiovascular drugs based on knowledge and understanding of pharmacologic action (no. = 302)	89	86	.62
Use electronic data systems in respiratory therapy practice (no. = 307)	94	87	.12†

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.  
 † Difference > 6%.

SURVEY OF RESPIRATORY THERAPY EDUCATION PROGRAM DIRECTORS IN THE UNITED STATES

Table 7. Patient Assessment Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Complete a patient assessment through physical examination, chart review, and other means, as appropriate, and interact with healthcare team members about assessment results (no. = 344)	98	99	.60
Obtain medical, surgical, and family history (no. = 337)	96	97	.80
Obtain social, behavioral, occupational, and other historical information about the current complaint (no. = 329)	91	95	.18
Interpret pulmonary function studies (spirometry) (no. = 343)	100	98	.33
Interpret lung volumes and diffusion studies (no. = 330)	98	94	.23
Interpret arterial blood gases, electrolytes, complete blood cell count, and related laboratory tests (no. = 346)	100	99	.54
Inspect the chest and extremities to detect deformation, cyanosis, edema, clubbing, and other anomalies (no. = 344)	100	99	.39
Measure vital signs (blood pressure, heart rate, and respiratory rate) (no. = 346)	100	99	.54
Evaluate patient breathing effort, ventilatory pattern, and use of accessory muscles (no. = 345)	100	99	.46
Document S <sub>pO<sub>2</sub></sub> measurements under all appropriate conditions (with or without oxygen, at rest, during sleep, ambulation, and exercise) (no. = 339)	98	97	.71

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.

Table 6). Less than half of either program type teaches students to apply circulatory gas-exchange systems (eg, extracorporeal membrane oxygenation) in practice (see Table 6).

**Projected Numbers of Graduates and Factors That Impact Enrollment**

The respondents expected the average number of graduates per program to increase 25% over the next decade, from 20 in 2010 to 25 in 2020 (Table 10). Using the median data, the number of graduates would increase by

Table 8. Therapeutics Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Assess therapy (no. = 340)	100	97	.22
Assess a patient prior to therapy (no. = 340)	98	98	.81
Administer therapy (no. = 342)	100	98	.29
Evaluate therapy (no. = 338)	98	97	.62

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.

Table 9. Therapeutic Applications Competencies

	Respondents (%)*		P
	Baccalaureate Program	Associate Program	
Medical gas therapy (no. = 340)	100	97	.22
Humidity therapy (no. = 341)	100	98	.25
Aerosol therapy (no. = 341)	100	98	.25
Hyperinflation therapy (no. = 340)	100	97	.22
Bronchial hygiene therapy (no. = 341)	100	98	.25
Airway management (no. = 339)	100	97	.19
Mechanical ventilation (no. = 337)	94	97	.27

\* n = 348 (total programs responding): 294 associate programs; 54 baccalaureate programs.

Table 10. Projected Graduates in Surveyed Respiratory Therapy Programs

Year	Respondents, no.	Projected Graduates			
		Mean ± SD	Median	Minimum	Maximum
2010	341	20 ± 18	15	0	120
2012	338	23 ± 17	18	0	120
2015	324	25 ± 17	20	5	130
2020	321	25 ± 16	20	5	100

one third, from 15 to 20 per program. Three-hundred forty-one programs answered the question on the number of graduates in 2010. The largest barriers to accepting more students into RT programs were inadequate number of clinical affiliates, limited availability of additional faculty, and lack of funding to expand (Table 11). Half of the program directors reported difficulty recruiting faculty, and 67% of that group indicated that lack of teaching experience, inadequate salary, and lack of academic credentials contributed to the recruitment problem. Twenty-six percent of the programs can allow program graduates to directly earn a baccalaureate degree. More of the baccalaureate-degree programs (85%) than the associate-degree programs (15%) directly award the baccalaureate degree to graduates. The baccalaureate-degree programs that

Table 11. Barriers to Accepting More Students in Surveyed Respiratory Therapy Programs

	Relevance, no. (%)					Total
	1 (lowest)	2	3	4	5 (highest)	
Inadequate number of clinical affiliates	58 (17)	27 (8)	38 (11)	63 (18)	160 (46)	346
Additional faculty unavailable	70 (20)	51 (15)	62 (18)	83 (24)	82 (24)	348
Competition from other respiratory therapy programs	88 (25)	60 (17)	80 (23)	71 (20)	49 (14)	348
Competition from other healthcare programs	93 (27)	59 (17)	83 (24)	66 (19)	45 (13)	346
Funding to expand program unavailable	60 (17)	48 (14)	74 (21)	83 (24)	83 (24)	348
Insufficient classroom/lab space	83 (24)	56 (16)	67 (19)	74 (21)	65 (19)	345

indirectly award a baccalaureate degree in RT do so through consortia agreements with colleges and universities (eg, academic health science centers with accredited RT programs).

**Education Level and Credentials to Enter Practice**

One-hundred two respondents indicated that a baccalaureate or master’s degree in respiratory therapy should be required to qualify for a license to deliver respiratory care in 2015 and beyond. However, 241 thought the associate degree was all that should be needed to begin practice as a respiratory therapist. Eighty-seven percent of the baccalaureate-degree program directors thought that a baccalaureate or master’s degree should be required for entry. Eighty-one percent of the associate-degree program directors thought that an associate degree should be required for entry. There was more agreement on the education level after licensure: all of the baccalaureate-degree program directors and 66% of the associate-degree program directors favored requiring a baccalaureate or master’s degree to progress in practice.

Sixty-nine percent of all respondents were in favor of the RRT credential being required to practice in 2015 and beyond: 83% among the baccalaureate-degree program directors, and 66% among the associate-degree program directors. Three-hundred (86%) of all respondents indicated that future RT graduates should be required to maintain an active Certified Respiratory Therapist (CRT) or RRT credential to renew their state license to practice respiratory care. Only 48 (14%) of all respondents were opposed to that requirement.

**Accelerated and Associate to Baccalaureate Bridge Programs**

Forty-four (80%) of the baccalaureate-degree program directors reported that they offer an associate-degree to baccalaureate-degree program option. Fifteen (27%) of the baccalaureate-degree programs offer an accelerated baccalaureate program for individuals who have already com-

pleted a baccalaureate or graduate degree in a non-respiratory discipline. Twelve (22%) of the baccalaureate-degree programs plan to start new accelerated programs by 2015. One-hundred thirty-two (38%) of all respondents reported that their college has an articulation agreement with another institution to award a baccalaureate degree. Twenty-one programs plan to offer a baccalaureate or master’s degree in respiratory therapy in the future: 19 of them by 2015. Two-hundred eleven programs reported that the largest barrier to offering a baccalaureate degree was that their college does not award baccalaureate degrees.

Sixty percent of all respondents had the ability to increase the number of credit hours in their curriculums to teach new competencies, and 92% said they could accomplish that by 2015. The directors who are unable to add credit hours to their curriculums indicated that they plan to teach the competencies needed in 2015 by revising their curriculums.<sup>2</sup>

**Discussion**

The major findings of this national survey are:

- Six of the 8 major competency areas identified by the second 2015 and Beyond conference have several competencies that are taught in more of the baccalaureate-degree programs than in the associate-degree programs.
- One quarter of the respondents have the capability to directly award a baccalaureate degree.
- Two thirds of the respondents favor requiring the RRT credential to practice in 2015 and beyond.
- There was broad support for future respiratory therapists obtaining a baccalaureate or graduate degree after they have begun practice.
- One-hundred respondents favored requiring a baccalaureate or graduate degree to qualify for a license to deliver respiratory care.

Strong evidence supports that in 2015 and beyond, respiratory therapists will need to master 67 competencies in

8 major areas<sup>2</sup> and understand the scientific evidence, because healthcare is increasingly driven by evidence-based medicine.<sup>1,5</sup> Disease management is one of the major competency areas that will be needed in 2015 and beyond,<sup>1</sup> and respiratory therapists will have to increase their scope of knowledge and skills to assimilate into the new disease-management model. They will need to expand and refine their critical thinking and communication skills, receive training in finance, and increase their ability to analyze the literature.<sup>6</sup>

Leadership was one of 8 major competency areas identified by the second 2015 and Beyond conference.<sup>2</sup> The present survey found that substantially fewer associate-degree than baccalaureate-degree programs teach students how to describe healthcare financial reimbursement systems. The respondent program directors reported that leadership skills for serving as a member or leader of interdisciplinary clinical teams are taught more often by the baccalaureate-degree programs. This presents a serious challenge for the next decade, because currently only one quarter of the respondent accredited RT programs can offer a baccalaureate or graduate degree in respiratory therapy or related areas such as health sciences. The AARC 2009 Human Resources Study reported that 75% of RT faculty from accredited programs plan to retire by 2020.<sup>7</sup> Eight years ago, in a white paper, the AARC identified the need for RT graduate programs to prepare respiratory therapists for faculty positions in accredited programs.<sup>8</sup> However, despite regional accrediting group requirements for baccalaureate allied health faculty to have a graduate degree in their specialty area, today there are only 4 master's degree and no doctorate programs with majors or concentrations in respiratory therapy.<sup>4,9</sup> However, a recent 2009 survey of 52 baccalaureate-degree program directors (with a 100% response rate, and located throughout the United States, see Fig. 3), indicated that 22 will start a master's degree program for RTs by 2014.<sup>9</sup> The AARC 2009 Human Resource Study surveyed 359 accredited RT programs and received responses from 242 directors (67%).<sup>7</sup> Forty-five programs awarded only the baccalaureate degree in respiratory therapy, and only 3 offered a graduate degree. However, 71 programs (29%) indicated that students could earn a baccalaureate directly from their institution.

Student enrollment in 2009, in both associate-degree and the baccalaureate-degree programs, was quite limited, with a mean  $\pm$  SD graduating class of  $18 \pm 13$ .<sup>7</sup> The baccalaureate-degree programs have a smaller average number of graduates than the associate-degree programs. The mean  $\pm$  SD number of baccalaureate-degree program graduates in 2009 was  $15 \pm 9$ .<sup>9</sup> The present survey found that the mean  $\pm$  SD number of graduates will increase to  $20 \pm 18$  by 2010, and to  $25 \pm 16$  by 2020 (see Table 10).<sup>4</sup> If the total number of programs remains unchanged (435),

10,745 students will graduate from RT programs in 2020, compared to 8,656 that reportedly graduated in 2010. More RT faculty with graduate degrees, teaching experience, and scholarly publication records are needed for both types of programs so they can expand and graduate more students who can successfully complete the RRT examinations and practice the competencies expected in 2015 and beyond.<sup>2,3</sup> Funding and number of clinical affiliates, closely followed by faculty shortage, are reported to be the barriers to accepting more students (see Table 11). Twenty-one programs plan to offer a baccalaureate or master's degree in respiratory therapy in the future, 19 by 2015.

A high proportion of the program directors favored requiring the RRT credential for RT licensure in 2015 and beyond. Further, they no longer see a rationale for the National Board for Respiratory Care to require graduates to take 3 examinations to earn the RRT credential. Many directors stated in the survey's comment sections that they believe that the CRT examination should no longer be offered. A majority of the voting participants at the third AARC 2015 and Beyond conference recommended that the AARC request that the National Board for Respiratory Care no longer offer the CRT examination after 2014,<sup>3</sup> because:

- There are no differences in job duties between a RRT and a CRT credentialed therapist.
- RT programs prepare students for the RRT credential and it is time to require it for practice of the profession.
- Advancement in technology and assessment techniques requires a higher level of competency for entry into the profession.
- Having 2 credentials (CRT and RRT) confuses the public and healthcare workers as to what is necessary to practice as a respiratory therapist.
- Most institutions and communities do not differentiate between the CRT and the RRT credential.
- A 2-tiered credentialing process is time-consuming, expensive, and does not improve patient care.
- All the category of questions in the CRT examination can be incorporated in the RRT examination.

### Limitations

This study is limited by the fact that RT program directors at 58 colleges (14%) did not complete the survey. One of the more confounding and distressing aspects of the response to this survey was the large number of competency items the respondents intentionally left unselected (see Tables 1 through 9). For example, only 43 of the 54 baccalaureate-degree program directors selected the com-

petency about teaching students how to critique the published literature (80%), and only 122 of 294 of the associate-degree program directors selected this competency (41%). The selection rate was even lower for the competency on teaching the meaning of general statistical tests (see Table 1). There was a similarly low selection rate on many of the competency area questions, and the selection rate was consistently lower among the associate-degree program directors than the baccalaureate-degree program directors. Since there was no possibility to respond to an individual item with “not currently taught in this program,” the meaning of this selective lack of response is difficult to understand. Did the program directors simply overlook these items, or was the absence of a response an indication that the competency was not taught? Since the current requirements for accreditation of RT programs<sup>10</sup> do not require the inclusion of specific content areas or specific numbers of hours of clinical instruction, we think it is likely that these non-responses actually are a statement that the competency is not taught by the program.

### Conclusions

Our study provides important information from RT program directors regarding changes to the respiratory therapy education infrastructure that would assure competent respiratory therapists in the envisioned health-care future and on their ability to ensure that their graduates have the competencies identified in the 2015 and Beyond conferences. Other major findings of this national survey are:

- Only one quarter of accredited RT programs that responded to this survey can directly award a baccalaureate degree in respiratory therapy or a health-science related area to their graduates.
- Two thirds of the respondent program directors favored requiring the RRT credential in 2015 and beyond.
- There was broad support for requiring that respiratory therapists obtain a baccalaureate or graduate degree after

they have begun practice.

- Over one fourth of the respondents favored requiring a baccalaureate-degree or graduate degree to qualify for a license to deliver respiratory care.
- Many respondents have concerns about finding necessary administrative and clinical resources to increase the number of graduates who will meet the needed competencies in 2015 and beyond, and adjusting or expanding curriculum to meet those competencies.

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