

# PROJECTING THE WAY TO 80% BSN PREPARED NURSES IN A SMALL RURAL STATE

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# **FUTURE OF NURSING™**

Campaign for Action

## **ACKNOWLEDGEMENTS**

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Robert Wood Johnson Foundation



- Vermont AHEC
- Vermont Organization of Nurse Leaders

# OBJECTIVES

1. Participants will review and critique a projection tool created by one state to determine the number of RN to BSN graduates needed to achieve 80% BSN by 2022.
2. Participants will identify challenges, barriers, and successes in the path of employers, educators, and nurses to achieving this goal.

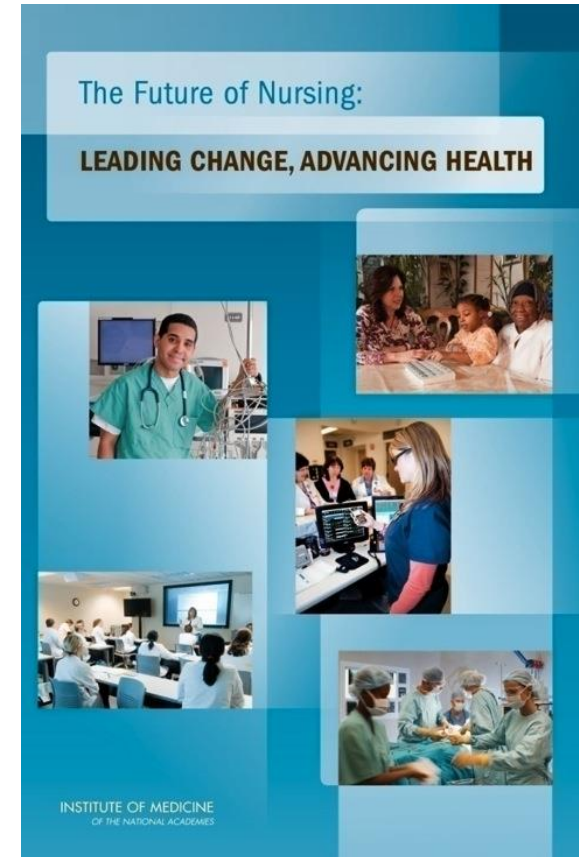
# PURPOSE

A model for achieving 80% BSN prepared nurses was created to inform stakeholders of short and long term goals for numbers of graduating BSN prepared nurses in one state.

# BACKGROUND

The IOM Future of Nursing report recommended that nurses can help transform our healthcare system if they are prepared to practice at ***the fullest extent of their education and license.***

The BSN prepared nurse is best suited to use evidence based practice to ensure the health of populations across settings. ***States must determine how best to achieve a workforce with 80% BSN prepared nurses over the next decade.***



# BACKGROUND

- RN employment is expected to grow most rapidly in outpatient settings - particularly physician offices and home health care.
- The Affordable Care Act will likely impact the places where RNs work, and ***the skills they need to be successful in these settings***
- RNs will be expected to serve as care coordinators, case managers, patient educators, and chronic care specialists (Spetz, 2014)



# BACKGROUND

Definition of Model ( Dall, 2014)

“A model is a mathematical framework representing some aspects of reality at a sufficient level of detail to inform a clinical or policy decision”

(Roberts M, Russell LB, Paltiel AD, Chambers M, McEwan P, Krahn M. Conceptualizing a model: a report of the ISPOR-SMDM Modeling Good Research Practices Task Force--2. Value Health 2012; 15(6):804-811)

# BACKGROUND

Pitfalls of Models and Projections (Dahl, 2014)

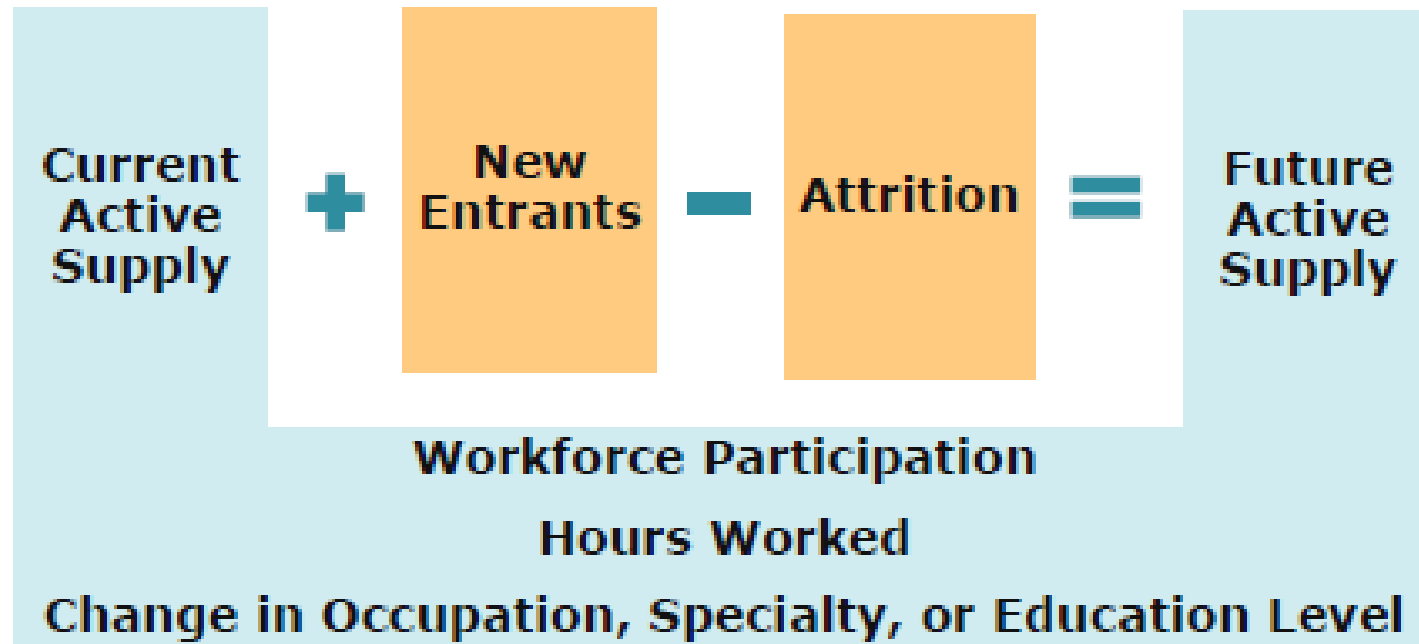
- Models and projections need periodic updating and refinement
- Assumption errors
- Technology changes
- Small sample size issues
- Defensive medicine
- Change in scope of practice
- Change in costs or reimbursement mechanisms





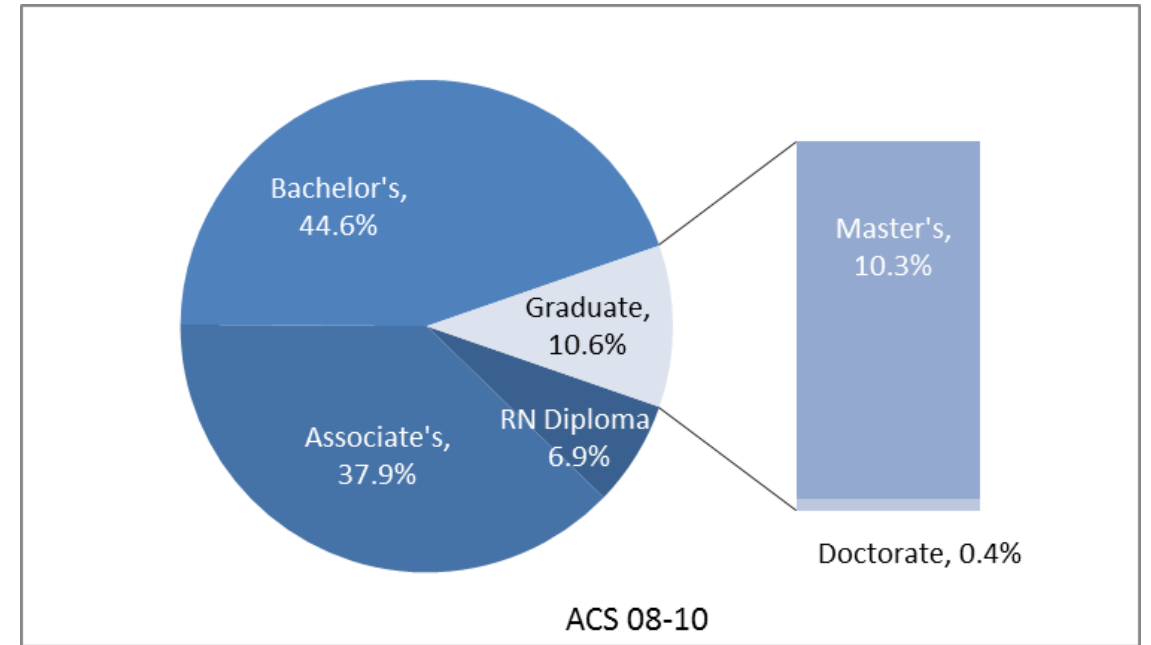
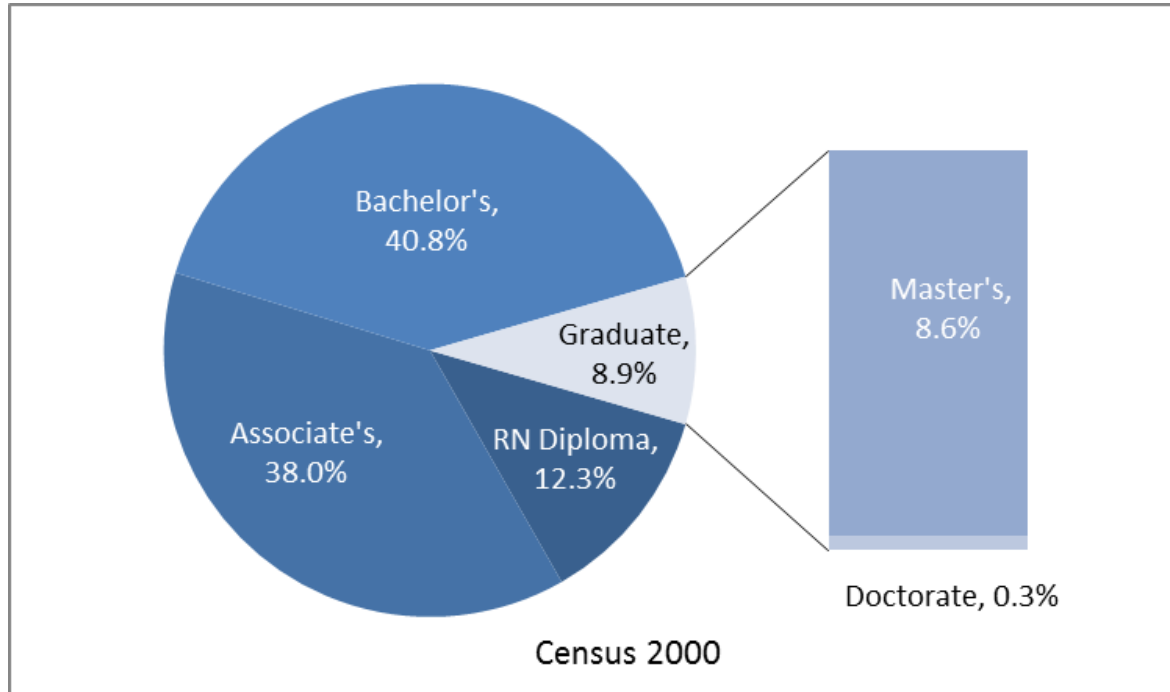
# BACKGROUND

## Conceptual Model for Health Workforce Supply



Dall, 2014

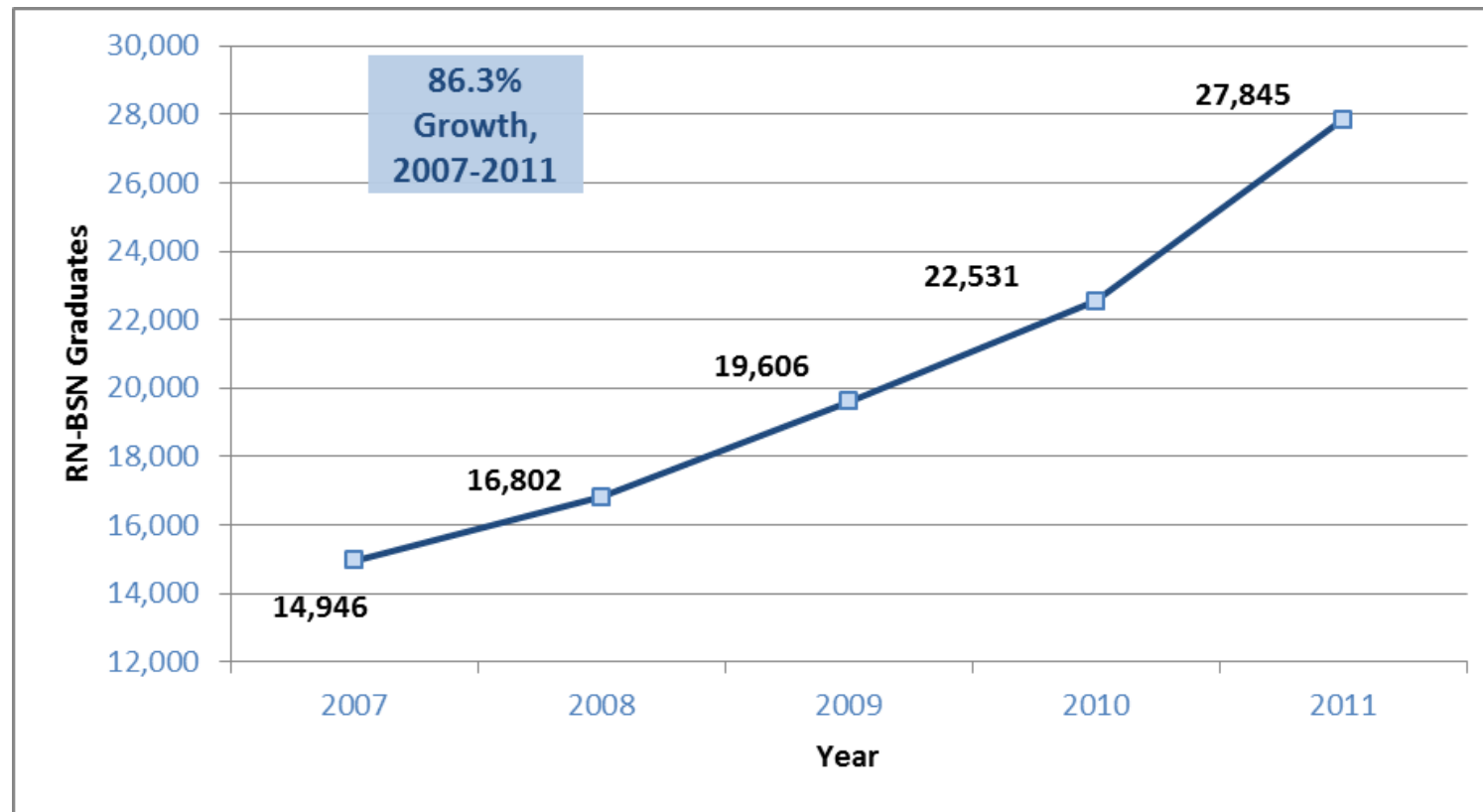
# BACKGROUND



**FIGURE 8. HIGHEST DEGREE HELD BY RNS, CENSUS 2000 AND ACS 2008 TO 2010**  
**HRSA, FIGURES FROM THE REPORT AVAILABLE AT**  
**[BHPR.HRSA.GOV/HEALTHWORKFORCE/REPORTS/NURSINGWORKFORCE](http://BHPR.HRSA.GOV/HEALTHWORKFORCE/REPORTS/NURSINGWORKFORCE)**

# The U.S. Nursing Workforce: Trends in Supply and Education HRSA (year)

## LICENSED RNS GRADUATING WITH BSN QUALIFICATION, 2007 TO 2011



# BACKGROUND

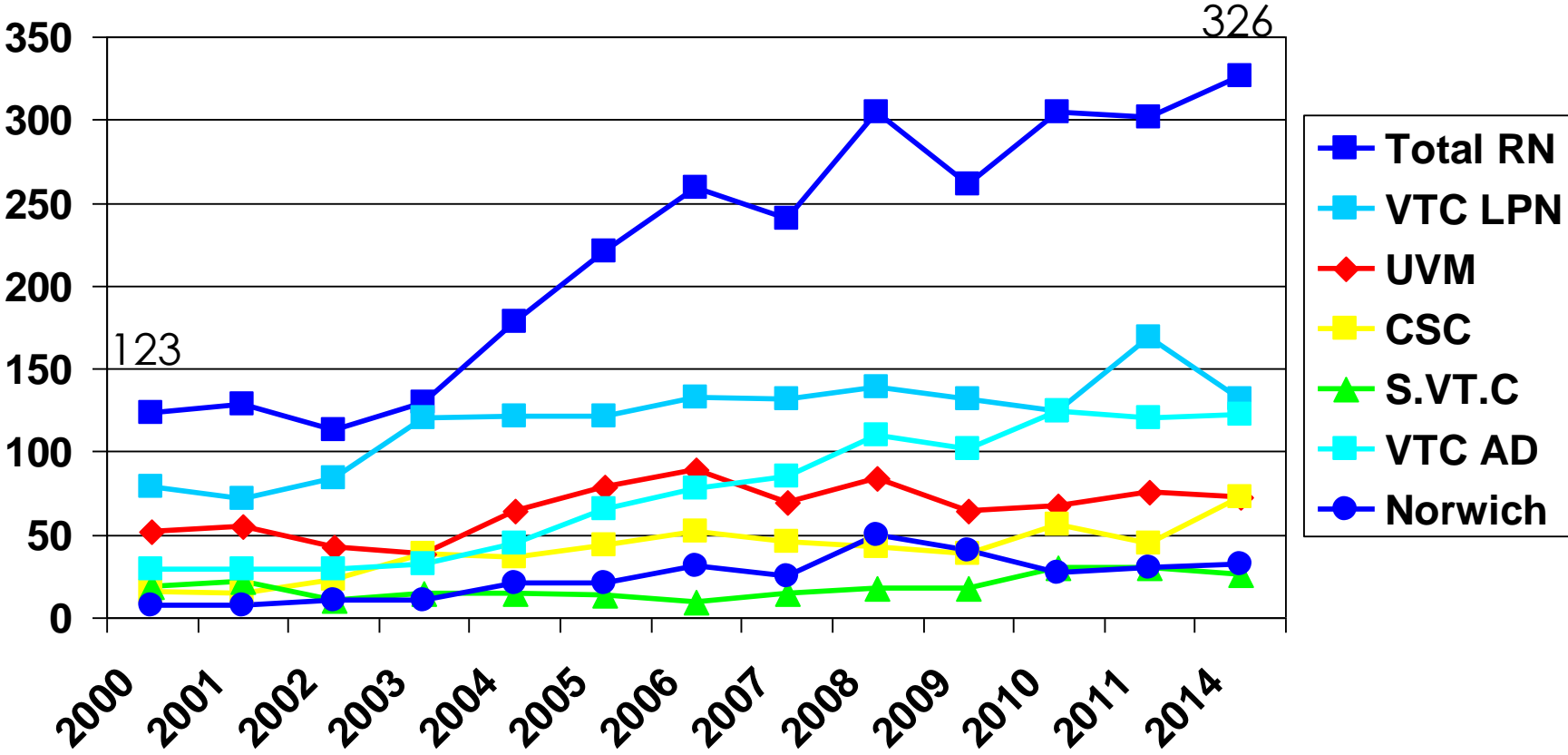
## In Vermont

### Nursing Education

There has been a **153% increase** over the last 15 years in the number of RN graduates in the state of Vermont – 129 in 1999 to 326 in 2014.

All five nursing programs in VT now offer a bachelor's degree in nursing. Two programs offer a master's degree and one offers the doctor of nursing practice degree. The number of RNs with a BS degree has not increased in 15 years.

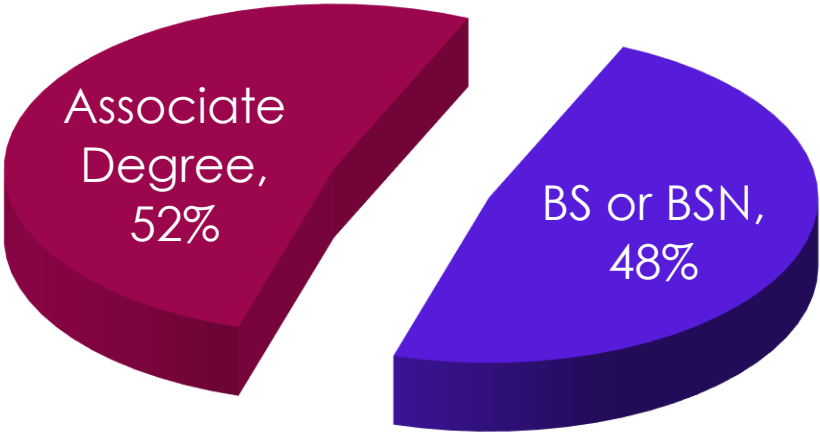
# VERMONT NURSE GRADUATES 2000-2014



# RN GRADUATES IN VERMONT

## 2000 RN Graduates

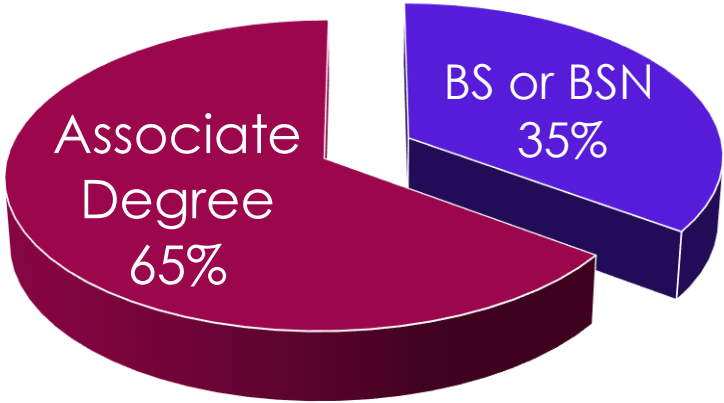
n = 123



■ BS or BSN ■ Associate Degree

## 2014 RN Graduates

n = 326

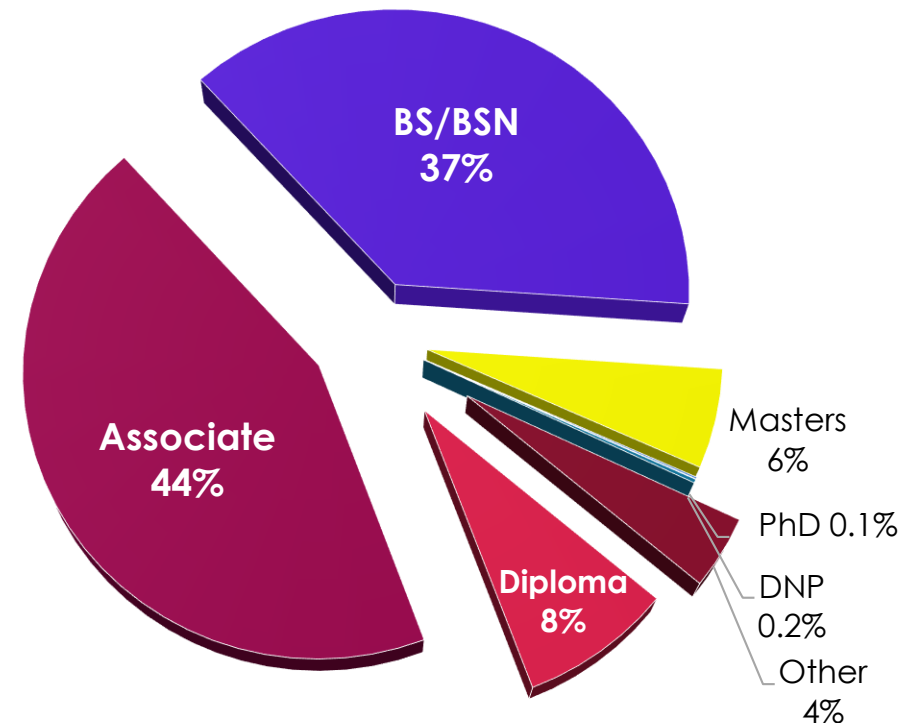


■ BS or BSN ■ Associate Degree

# LEVEL OF EDUCATION AMONG REGISTERED NURSES WORKING IN VERMONT

## 2015 RN Relicensure Survey Preliminary Results

- Electronic entry only
- Degree at Licensure and Highest Degree obtained
- Other includes non-nursing BS and higher
- BS or higher = 47%



■ Diploma ■ Associate ■ BS/BSN ■ Masters ■ PHD ■ DNP ■ Other

# METHODS

Our model was created using historical data regarding the age distribution of RN, BSN, and those converting from RN to BSN.





# METHODS

- We assumed that 10% of each age group "graduates" into the next age group annually and is replaced with 10% of the preceding age group.
- Users input:
  1. the % of new BSN entering the workforce each year
  2. their age distribution
  3. the % converting from RN to BSN, and
  4. the annual growth/shrinkage in the workforce.

# METHODS

- Baseline assumptions made using actual data from Vermont 2013 Board of Nursing Re-licensure Survey
- Output provides yearly percentages and final % BSN in 2022

INPUT											
<b>Traditional BSN</b>											
% new RNs entering with BSN (in 2013):	60%										
% new RNs entering with BSN (starting 2016):	70%										
% new RNs entering with BSN (starting 2020):	80%										
<b>RN to BSN</b>											
% of RN -> BSN per year (94 in 2013***):	1.5%										
% of RN -> BSN per year (starting 2016):	3.0%										
% of RN -> BSN per year (starting 2018):	4.0%										
% of RN -> BSN per year (starting 2020):	5.0%										
# of RNs in workforce in 2012*:	6310										
% change in # of RNs in workforce per year**:	1%										
Age of RNs entering workforce:	<table border="0"> <tr> <td>20-29 years:</td> <td>40%</td> </tr> <tr> <td>30-39 years:</td> <td>50%</td> </tr> <tr> <td>40-49 years:</td> <td>10%</td> </tr> <tr> <td>50-59 years:</td> <td>0%</td> </tr> <tr> <td>60+ years:</td> <td>0%</td> </tr> </table>	20-29 years:	40%	30-39 years:	50%	40-49 years:	10%	50-59 years:	0%	60+ years:	0%
20-29 years:	40%										
30-39 years:	50%										
40-49 years:	10%										
50-59 years:	0%										
60+ years:	0%										
	Must add to 100%										
*** 2013 RN to BSN grads = 94 VBON											
VT Dept of Labor*											
VT Dept of Labor Occupation projection 2010-2020**											
OUTPUT											
% BSN in 2022:	80%										



## RESULTS/OUTCOMES

- In one small state, it is estimated that the number of RN to BSN graduates must increase by 365% by 2022.
- Using current assumptions, Vermont will face challenges to achieve 80% BSN by 2022.

# LIMITATIONS

Did we get our  
assumptions correct?



# DISCUSSION

- How will economics impact the VT nursing workforce in the next decade?
- How will the cost of education impact RNs ability to return to school?
- Will changes in health care reimbursement affect RN positions?
- Will an academic progression campaign influence RN to BSN enrollment in one small state?

campaign progress

## Indicator 1: education

IOM Recommendation:

Increase the proportion of nurses with baccalaureate degree to 80 % by 2020

Percentage of employed nurses with baccalaureate degree in nursing or higher degree

2020 80%

2010 49%



# DISCUSSION

**Barriers:** Cost of college, age of RNs, employers lack of differentiated pay.

**Challenges:** Adjustment of curriculums to meet new nursing skills, faculty preparedness.

**Successes:** Increase in interest in nursing careers, increased diversity, Future of Nursing report and Campaign for Action, Forum of State Nursing Workforce Center

# CONCLUSIONS

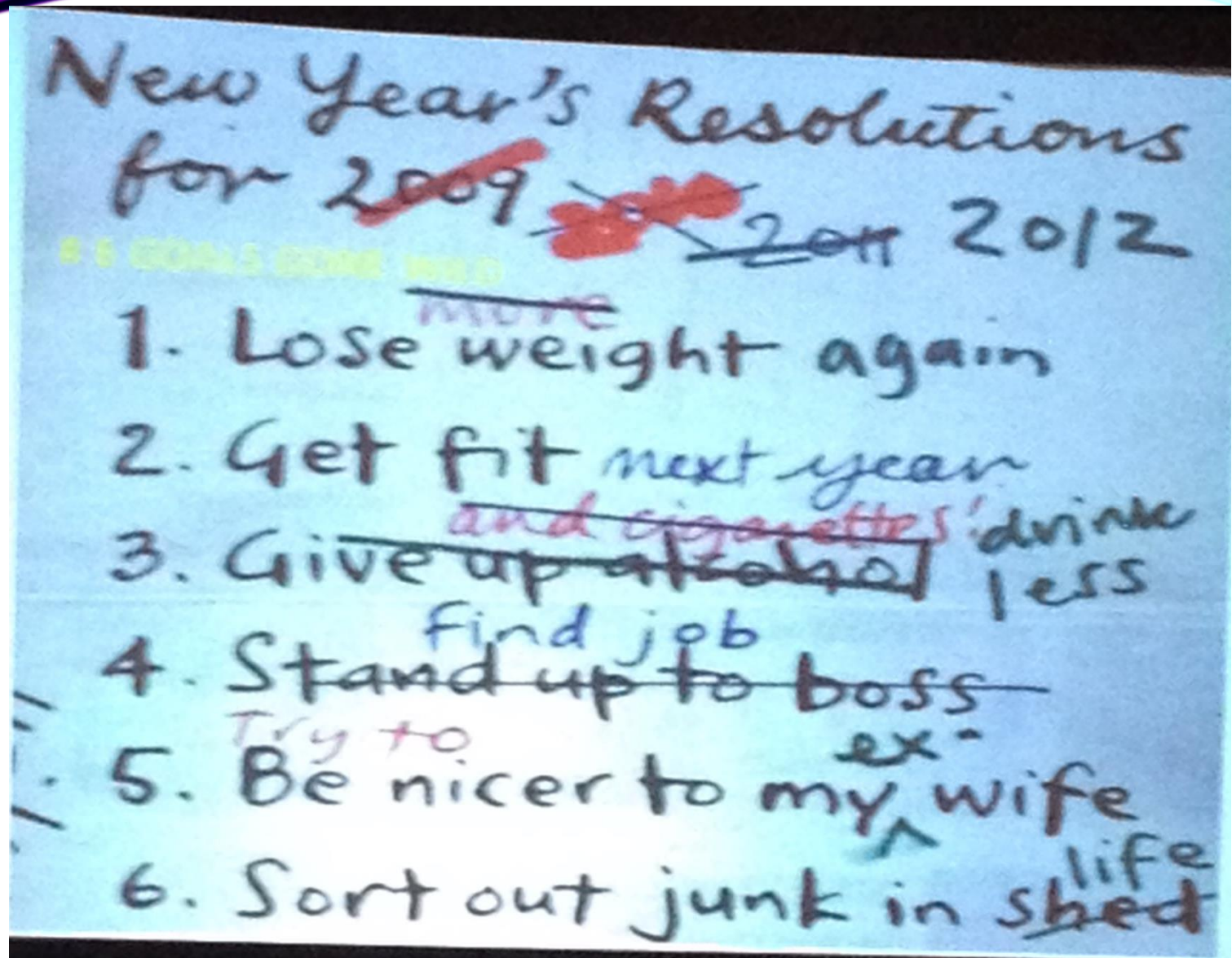
Projections of the necessary number of RN to BSN graduates can serve as tool to benchmark progress over the decade ahead.

**Projections and models must be updated based on a changing healthcare landscape.**



# Let's hope projections are a little more reliable than New Year's Resolutions

Eileen O'Grady, PhD, NP,  
Certified Wellness & Life  
Coach





# QUESTIONS ??



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