



# Maryland Nurse Support Program I: A Four-Year Analysis of Outcomes

## **Nurse Support Program I (NSP I) FY 2013 to 2016: Outcomes Evaluation & Recommendations**

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Nursing Support Program I (NSP I)  
Health Services Cost Review Commission

Acknowledgment

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# Background

# Goals: Nurse Support Program I

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- ▶ **Grow & retain bedside hospital Registered Nurses (RNs)**
  - More than 70,000 RNs in the state of Maryland\*
  - More than half employed by hospitals
- ▶ **Advancement of the Nursing Workforce**
- ▶ **Improved Hospital Quality and Safety**

Budden, JS, Moulton, P, Harper, KJ, Brunell, ML, & Smiley, R. The 2015 national nursing workforce survey. *Journal of Nursing Regulation*. 2016, 4S, S4-S90.

# Background: Nurse Support Program I

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- ▶ **Implemented first phase 2001**
- ▶ **Purpose:**
  - ▶ Address short- and long-term shortages of bedside hospital RNs in Maryland
- ▶ **Goal:**
  - ▶ Increase number of bedside hospital RNs through recruitment and retention activities

# Program Description:

## Nurse Support Program I

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- ▶ **Five-year, non-competitive grant program**
- ▶ **Hospitals receive up to 0.1 percent of its gross patient revenue through hospital rate adjustments for approved projects**
- ▶ **Renewed for FYs 2008 – 2012 & 2013-2017**
- ▶ **Requesting renewal FYs 2018-2022**

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131 million funded in  
hospital rates

FYs 2001 to 2016



# Renewal 2012: Nurse Support Program I

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NSP I aims aligned with IOM Future of Nursing recommendations:

- ▶ Education and career advancement (nurse residency programs & advanced nursing degrees)
- ▶ Improved Quality and Safety of Our Hospitals (certification & continuing education)
- ▶ Advancement of the Nursing Workforce (achievement of Nursing Excellence- ANCC Magnet® or Pathway to Excellence® designation)

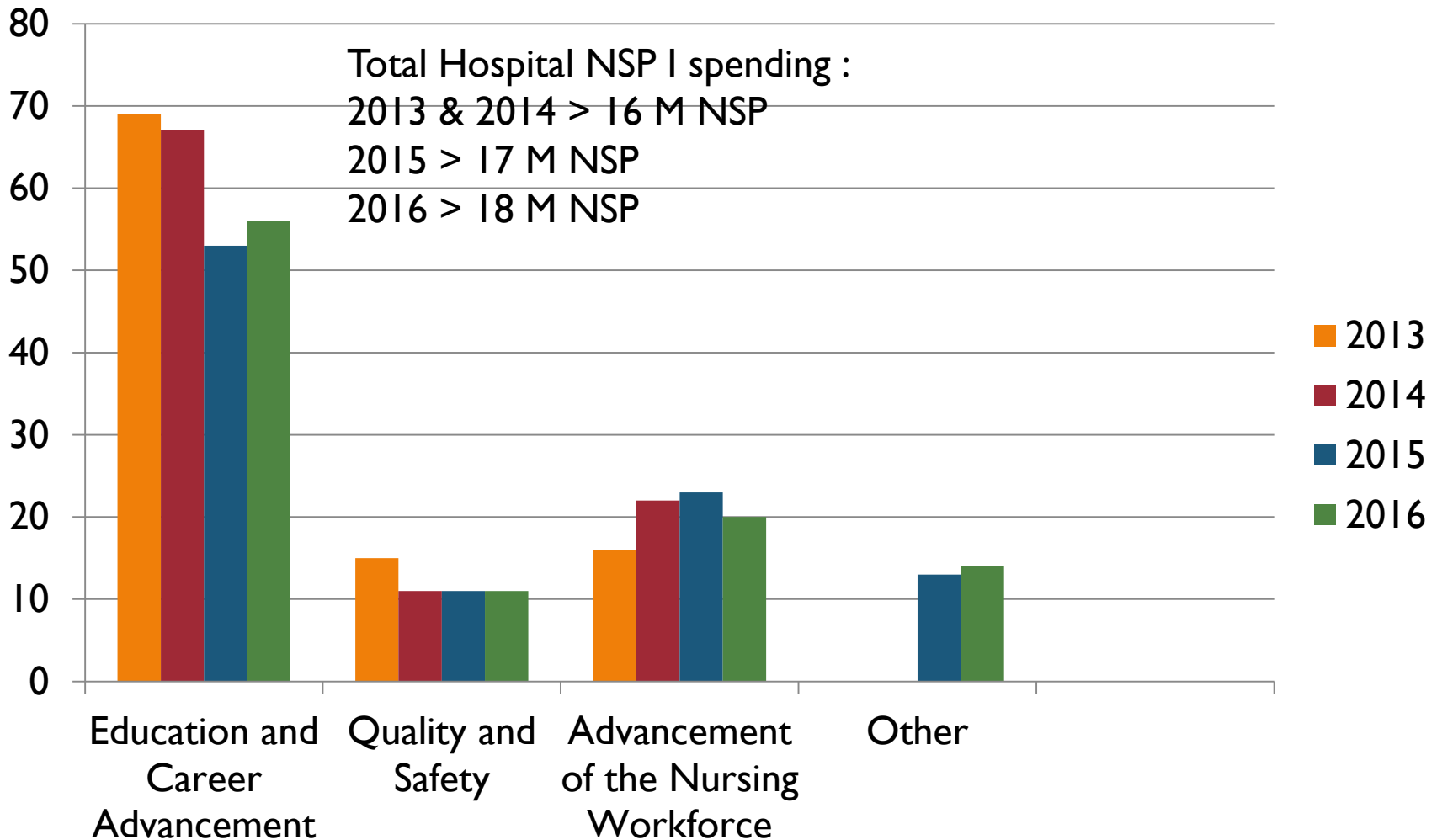
IOM (Institute of Medicine). *The future of nursing: Leading change, advancing health*. Washington, DC: The National Academies Press; 2010.



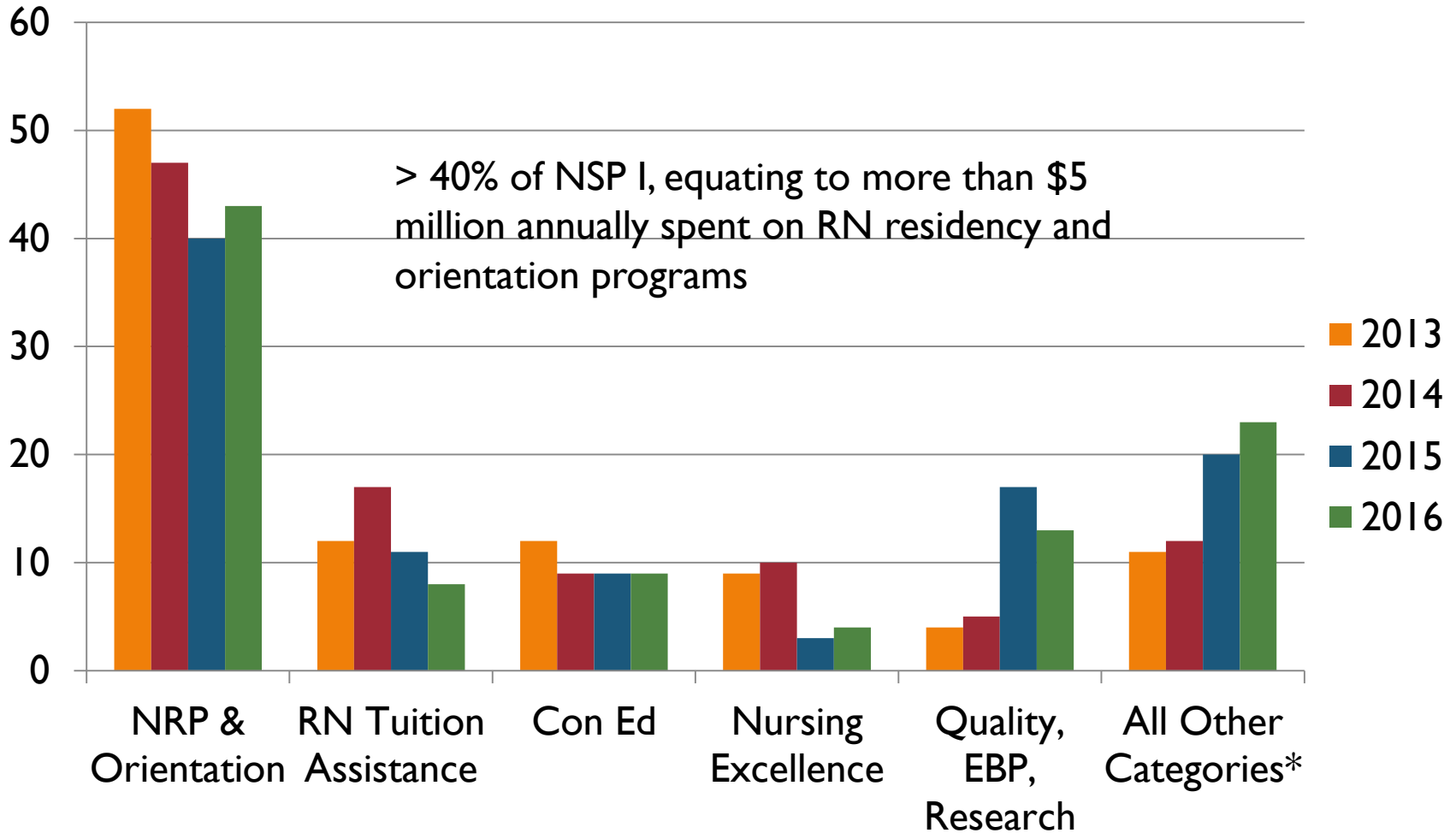
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# Summary of FY 2013 to 2016 Data

# Percent of NSP I Funds Invested in Future of Nursing Program Aims



# NSP I Top Funding Categories



\*Includes shared governance, nursing student tuition assistance, professional & technical certification, transitional RN programs, & other (2015 & 2016 only)

# Other, to name a few

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- ▶ Internship/Externship Programs for Nursing Students
- ▶ Simulation Materials
- ▶ Clinical Advancement Program
- ▶ High School Healthcare Exploration Program
- ▶ RN positions
  - ▶ preceptors, nursing informatics educator, admission nurse, nurse educator at a community college, simulation center coordinator, and patient safety nurses
- ▶ Nurse's Week
- ▶ BLS



# Education & Career Advancement

Nurse Residency & Orientation Programs

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# 2013 to 2016

## Nurse Residency and Orientation Funding

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	2013	2014	2015	2016
Nurse Residency	5.1 M (43%) (N=28)	3.3 M (29%) (N=26)	4.4 M (25%) (N =21)	4.8 M (26%) (N=25)
Orientation	1.0 M (9%) (N=23)	2.0 M (18%) (N=18)	2.6 M (15%) (N = 21)	3.0 M (17%) (N=21)

2013 & 2014 > 16 M NSP

2015 > 17 M NSP

2016 > 18 M NSP



# 2012 to 2016

## Maryland Newly Licensed RN Hires

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- ▶ Decline in number of new RN hires\*
  - ▶ 2012 ↓ 1547
  - ▶ 2013 ↓ 1420
  - ▶ 2014 ↓ 1317
  
- ▶ Increase in number of new RN hires and NRPs\*\*
  - ▶ 2015 ↑ 1778
  - ▶ 2016 ↑ 2038


\*IRB exempt study data \*\* NSP data

# 2013 to 2014

## Nurse Residency Programs

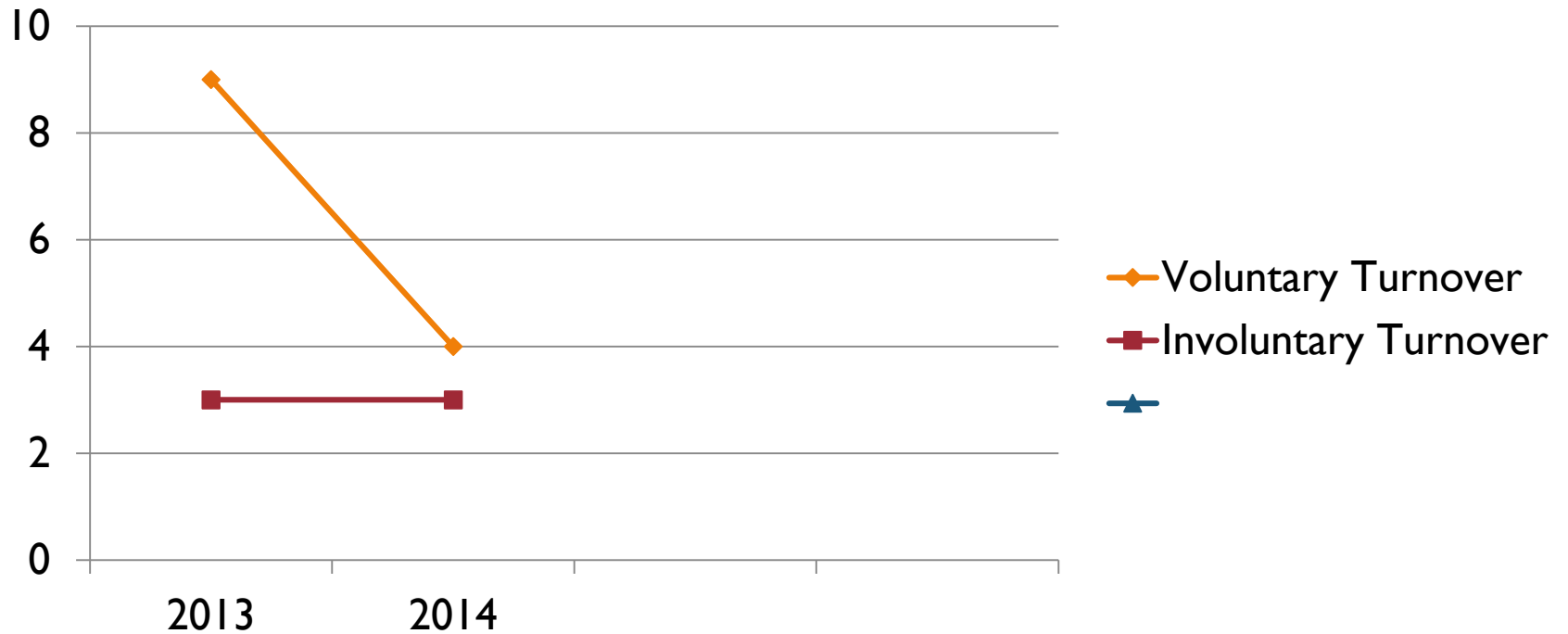
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### **Nurse Residency Programs**

- ▶ 2013 & 2014 > 2,000 newly licensed RNs in hospital-based nurse residency programs
- ▶ Turnover: 2013 – 11.5%  2014 - 7%


# 2013 & 2014 Turnover Rates

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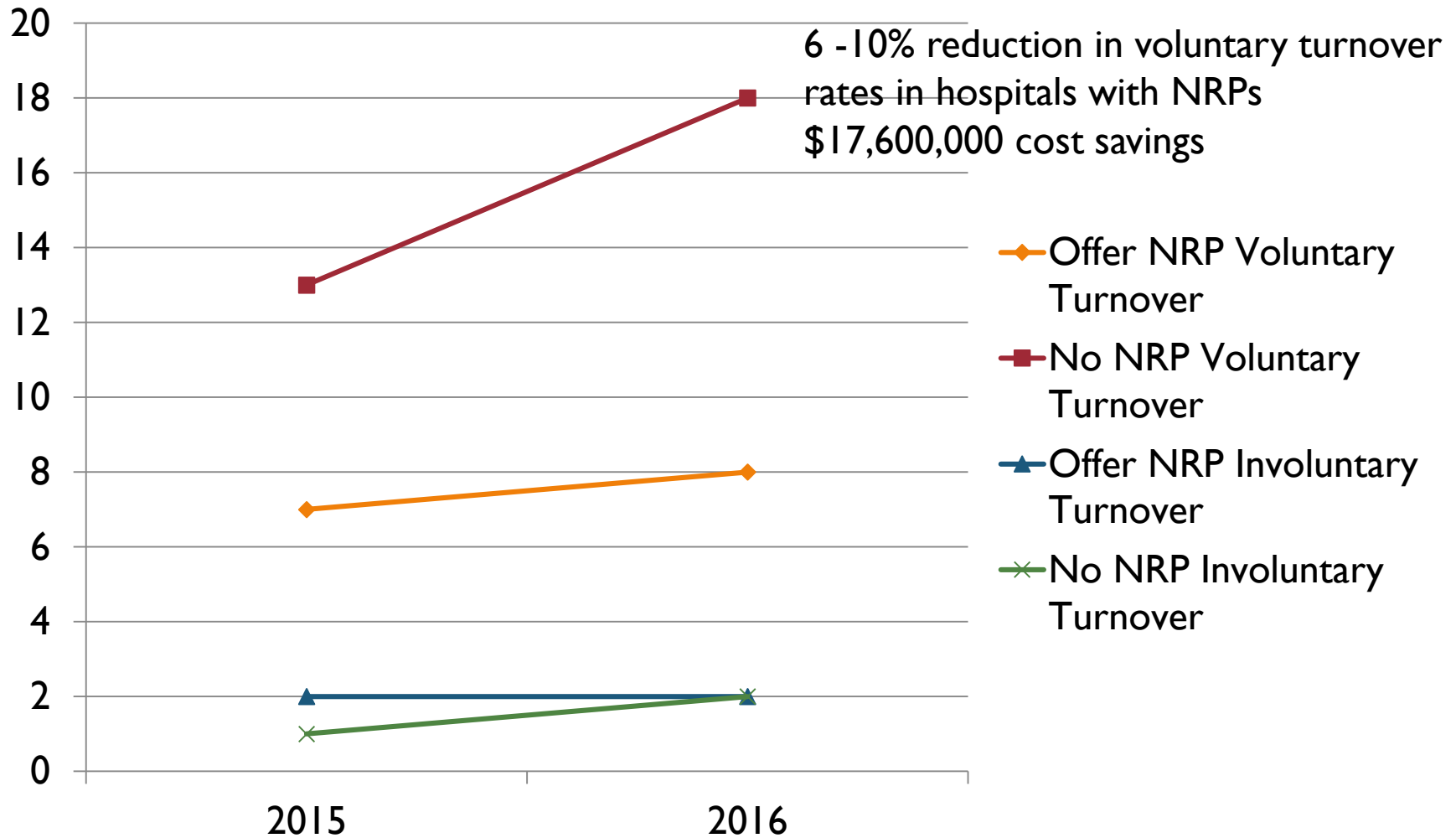
# 2015 to 2016

## **Nurse Residency Programs & Other Orientation Programs**

- ▶ 2015 & 2016 > 3,800 newly licensed RNs
- ▶  Turnover: 9.5 to 11%
- ▶ Voluntary Turnover – 7.5 to 9%
- ▶ Involuntary 2%



# Comparison of 1-Year Nurse Residency and No Nurse Residency Program Turnover Rates



# 2013 to 2014

## Hiring Practices Nurse Residency Programs

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### 2013

- ▶ ADN 33% (319)
- ▶ BSN 61% (581)
- ▶ MS/MSN 3% (30)
- ▶ Missing 30
- ▶ Reported Total 960
- ▶ N=22

### 2014

- ▶ ADN 37% (387)
- ▶ BSN 60% (628)
- ▶ MS/MSN 2% (23)
- ▶ Missing 7
- ▶ Reported Total 1045
- ▶ N=22

# 2015 to 2016

## Nurse Residents' Entry Level Degrees

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### Completed NRP

- ▶ 2015 N=1087
  - ▶ ADN 39% (422)
  - ▶ BSN 50% (540)
  - ▶ MS/MSN 3% (31)
  - ▶ Missing 94
- ▶ 2016: N=1441
  - ▶ ADN 36.5% (526)
  - ▶ BSN 57.5% (830)
  - ▶ MS/MSN 3% (44)
  - ▶ Missing 41

### Completed: No NRP

- ▶ 2015 N=173
  - ▶ ADN 36% (62)
  - ▶ BSN 25% (44)
  - ▶ MS/MSN <1 (1)
  - ▶ Missing 66
- ▶ 2016 N=188
  - ▶ ADN 36% (67)
  - ▶ BSN 20% (37)
  - ▶ MS/MSN 3% (5)
  - ▶ Missing 79



# Orientation Programs



# NSP I Annual Report Results

## Orientation Programs for Critical Need Positions

- ▶ Investment in programs doubled, but turnover rates for critical need positions **increased 7 percentage points between 2013 and 2014**  
  
**Data questionable data entry errors by hospitals**
- ▶ CNOs struggling with transitioning RNs in to hard to fill positions and roles:
  - ✓ Emergency Room
  - ✓ Critical Care
  - ✓ Operative Room/Peri-operative
  - ✓ Nurse Manager
  - ✓ Nurse Director
  - ✓ Hospital-based Nurse Educator

# 2013 to 2014-Revised Data

## Orientation Programs: Critical Need

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### 2013

- ▶ Total RN 217
- ▶ Voluntary Turnover 10% (22)
- ▶ Involuntary Turnover 2% (5)
- ▶ Total Turnover 12 %
- ▶ N=16

### 2014

- ▶ Total RN 173
- ▶ **Voluntary Turnover 16% (27)**
- ▶ Involuntary Turnover 3.5% (6)
- ▶ **Total Turnover 18.5%**
- ▶ **N=15**

# 2015 to 2016

## Orientation Programs: Critical Need

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### 2015

- ▶ Total RN 1044
- ▶ Voluntary Turnover 9% (95)
- ▶ Involuntary Turnover 3% (29)
- ▶ Turnover 12%

### 2016

- ▶ Total RN 961
- ▶ Voluntary Turnover 6% (56)
- ▶ Involuntary Turnover 2.3% (23)
- ▶ Turnover 8%



# Critical Need Areas

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- ▶ Emergency Department
- ▶ Adult Critical Care/Intermediate Care
- ▶ Women/Infants (NICU, L & D)
- ▶ Perioperative
- ▶ Medical-Surgical Specialties

# 2013 to 2016 Nurse Refresher Programs

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- ▶ Numbers of hospitals offering refresher programs decreased from 3 to 1
- ▶ Number of graduates decreased from 23 to 2
- ▶ **\$276,300** ↓ **\$3120**

# 2013 to 2016 RN Tuition Assistance

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- ▶ **NSP Tuition Assistance**
  - ▶ Fulltime 500 to 15,000 (3000)
  - ▶ Part-time 0 to 15,000 (1500-2500)
- ▶ **Hospital Tuition Assistance**
  - ▶ Fulltime 0 to 6500 (3000)
  - ▶ Part-time 0 to 3900 (1500)
- ▶ **Number of hospitals offering assistance declining**
  - ▶ 2013 - 22
  - ▶ 2014 – 20
  - ▶ 2015 – 19
  - ▶ 2016 - 18

# 2013 to 2016 RN Tuition Assistance

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- ▶ Greater than 2300 RNs received tuition assistance
- ▶ 522 Graduates
  - ▶ 388 BSN (74%)
  - ▶ 116 MS/MSN (22%)
  - ▶ 2 DNP
- ▶ Attrition rate: 2 to 4.3%
- ▶ Number of RNs receiving tuition assistance for DNP/PhD doubled in 2016
  - ▶ 6 to 14 DNP
  - ▶ 1 to 2 PhD

# 2013 to 2016 Student Tuition Assistance


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- ▶ **524 Nursing Students Funded**
  - ▶ 227 AD (43)
  - ▶ 226 BSN (43)
  - ▶ 42 Generic Master's Degree (< 1)
  - ▶ Missing 29
  
- ▶ **282 Graduates**
  - ▶ **59 AD (21)**
  - ▶ **185 BSN (67)**
  - ▶ **36 Generic Master's Degree (13)**
  - ▶ Missing 2

# 2013 to 2016

## Nursing Student Tuition Assistance

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- ▶ Decline in student attrition by 6 percentage points
  - ▶ 7% (2013 N=9)
  - ▶ 5% (2014 N=6)
  - ▶ 4% (2015 N= 5)
  - ▶ <1 % (2016 N=1)
  
- ▶ Hospital Hiring Practices\*\*\*
  - ▶  10 % from 2013 to 2016 (85 to 95%)

\*\* issues with data accuracy



# Patient Quality & Safety

Certifications & Continuing Education

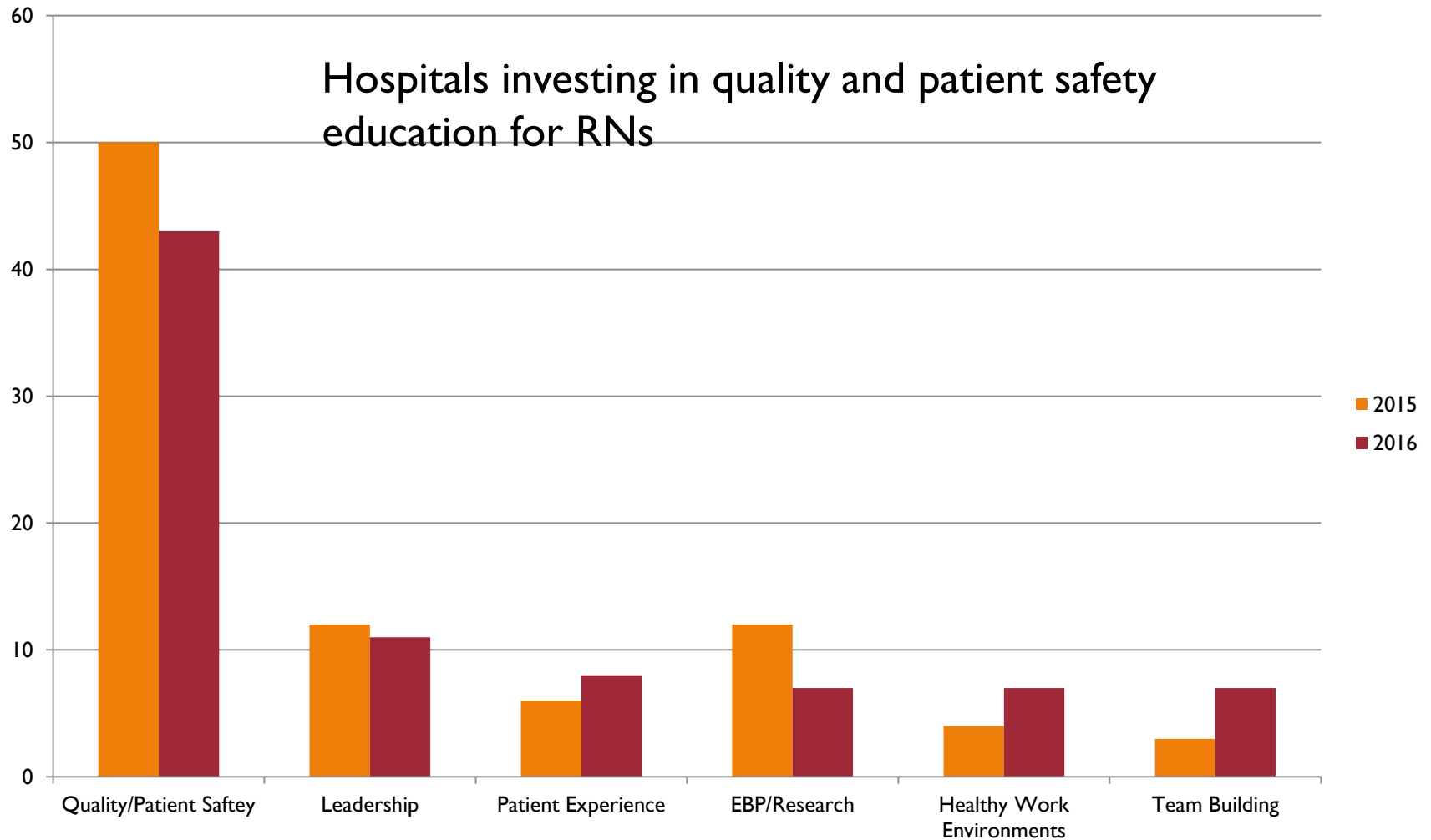


# Professional Certifications

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- ▶ 19 and 11 percentage increases in professional and technical certification in 2013 & 2014
- ▶ 17.5 and 8.4 percentage increase in 2015 & 2016
- ▶ Almost 4,000 RNs obtained initial technical certification or recertification in 2015 & 2016

# NSP I Top Internal & External Continuing Education Categories



\*does not include succession planning, nursing excellence and Other classes





# Advancing the Practice of Nursing

Nursing excellence programs, Shared governance models,  
Evidence-based practice and research

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# Nursing Excellence Designation

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## ▶ Magnet

- ▶ Anne Arundel Medical Center (2014)
- ▶ Mercy Medical Center (2011, 2016)
- ▶ Sinai Hospital of Baltimore (2008; 2013)
- ▶ MedStar Franklin Square Medical Center (2008; 2013)
- ▶ Johns Hopkins Hospital (2003; 2008; 2013)
- ▶ University of Maryland Medical Center (2009; 2014)
- ▶ UM Shore Medical Center at Easton (2009; 2014)
- ▶ UM Shore Medical Center at Dorchester (2009; 2014)

## ▶ Pathway to Excellence

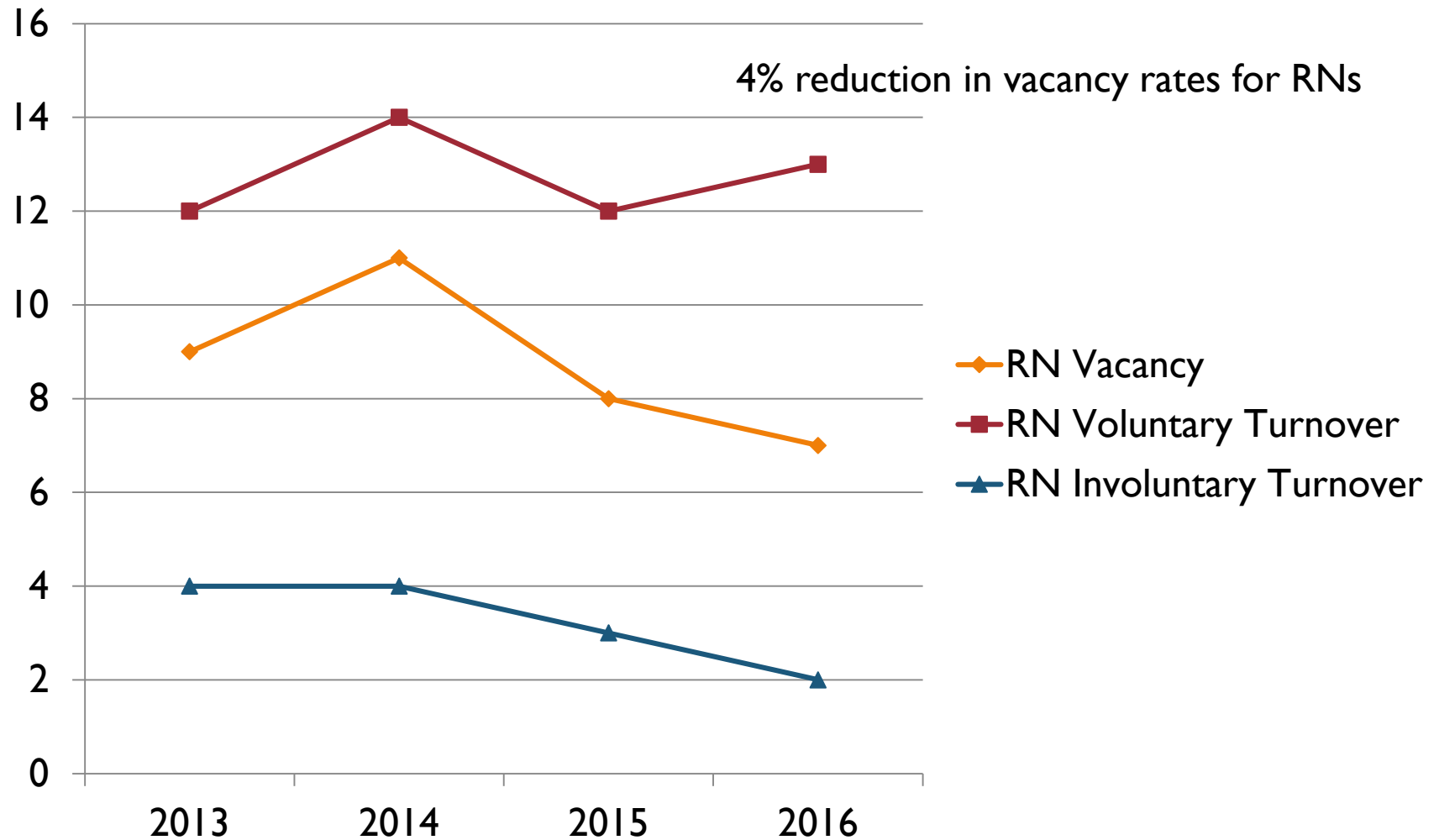
- ▶ Union Hospital of Cecil County (2016)

# EBP/QI/Research

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- ▶ 2013 5 hospitals
- ▶ 2015 & 16 More than 12 Hospitals
- ▶ Greater than 2.3 Million
- ▶ Qualitative
  - ▶ Used to support nurse residents with EBP project
  - ▶ Research studies
  - ▶ Quality & patient safety initiatives

# Hospital Vacancy & Turnover FY 2013-2016



# 2015 & 2016 Agency Use

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## 2015

- ▶ Hospitals Using Agency **47**
- ▶ FTE Used
  - ▶ Total 1,004
- ▶ Cost
  - ▶ Total 129,011,910

## 2016

- ▶ Hospitals Using Agency **47\***
- ▶ FTE Used
  - ▶ Total 854
- ▶ Cost
  - ▶ **Total 105,825,500**

**↓ 8.2%**



# Continued Monitoring/Improvement

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- ▶ Improve hospital reporting of individual NSP I program expenditures and reliability and accuracy of hospital outcome data
- ▶ Monitor orientation programs turnover data of newly licensed and experienced registered nurses working in areas of critical need
- ▶ Determine the demand in Maryland for the offering of nursing transition (refresher) programs enabling registered nurses to re-enter the profession
- ▶ Monitor recruitment and retention rates and agency usage for trends

# Future Recommendations

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- ▶ Revise NSP goal from focus on bedside hospital RNs to all RNs employed by hospitals
- ▶ Expand RN transition to specialty practice programs to meet changing workforce needs
- ▶ Expand options for hospital-based nursing student programs such as externships and internships and add associated outcome metrics to data collection tool
- ▶ Eliminate data collection for Nurse Refresher Transition programs due to low interest but continue program funding.
- ▶ Establish NSP I Advisory Board to make recommendations, monitor hospital programs and associated outcomes
- ▶ Revise the end-of-the-year expenditure report and align it with the online data collection tool to improve hospital reporting of data