Findings from the 2015 National Nursing Workforce Study:
A Collaboration between the National Council of State Boards of Nursing &
The National Forum of State Nursing Workforce Centers

Presented by: Jill Budden, PhD
Learner Objectives

• #1
  – The learner will be able to describe how the nursing workforce may change in the coming years, specifically relating to age, gender, ethnic/diversity, and educational background.

• #2
  – The learner will be able to describe the implications that change in age, education, specialty, and settings of the US nursing workforce may have for health care provision in the years to come.
Background & Introduction

• Collaborative partnership with The National Forum of State Nursing Workforce Centers
  – Patricia Moulton, PhD
    • President, The National Forum of State Nursing Workforce Centers
    • Executive Director, North Dakota Center for Nursing
  – Kimberly Harper, RN, MS
    • CEO, Indiana Center for Nursing
  – Mary Lou Brunell, MSN, RN
    • Executive Director, Florida Center for Nursing

• Data from HRSA’s final NSSRN was completed in 2008, and reported out in 2010

• NCSBN & The Forum Partnered to fill the void of RN supply data in 2013

• 2015 included LPN/VNs for the first time
Method

• Sample
  – All active RN and LPN/VN licensees were eligible for survey participation
  – Sampling was stratified by state
  – Approx. 140,000 RNs and 121,000 LPN/VNs were selected to be sent a survey

• Materials
  – Minimum Data Set
  – Additional telehealth and specialty setting questions added
Method

• Procedure
  – Week 1: announcement postcard
  – Week 2: letter and survey mailed (first class)
  – Week 2: letter and survey mailed (nonprofit/standard rate)
  – Week 8: letter and survey mailed (first class)
  – Week 8: letter and survey mailed (nonprofit/standard rate)
  – Week 14: deadline for survey receipt

• Weighting
  – Nonresponse bias analysis was conducted
  – Survey responses weighted based on:
    • Age
    • Gender
    • State nursing population size

• Descriptive Analysis
Response

• Participants
  – Approx. 46,000 RN responded:
    • 34.3% response rate
      – 12.3% online
      – 87.7% paper
  – Approx. 32,000 LPN/VN responded:
    • 28.0% response rate
      – 8.6% online
      – 91.4% paper
Registered Nurse Results
Age & Employment Status

- Average age = 48.8
- 81.7% of RN licensees were actively employed in nursing
Gender

• Men 8.0%
• Men most prevalent in
  – Anesthesia (32.2%)
  – Emergency/trauma (17.8%)
  – Acute care/critical care (15.2%)
• Men least prevalent in
  – Maternal-child health (0.2%)
  – Women’s health (0.5%)
  – School health (1.2%)
• Male workforce expected to grow
Racial/Ethnic Diversity

- Individuals from racial and ethnic minority groups accounted for 37.9% of the US population in 2014
- **19.5%** of respondent RNs were minorities; approximately the same as in 2013
- Racial/ethnic diversity expected to increase
## Demographic Trends

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>Mean = 50&lt;br&gt;Median = 52</td>
<td>Mean = 48.8&lt;br&gt;Median = 50</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>Men (7%)</td>
<td>Men (8%)</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Asian</td>
<td>6%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>6%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>1%</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>White/Caucasian</strong></td>
<td>83%</td>
<td>80.5%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>3%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Mixed</td>
<td></td>
<td>2.1%</td>
</tr>
</tbody>
</table>
Education

• **39.0%** held a BSN as their initial nursing education
  – BSN as initial nursing education is expected to continue to grow
  – Newly-licensed RNs were more likely to have obtained a BSN as their initial education (48.6%) vs RNs licensed prior to 2000 (34.8%)

• **3.0%** held a graduate degree as their initial nursing education

• **65.0%** had baccalaureate or higher degree as their highest level of education
Initial Education

Initial Nursing Education, by Age

- LPN Certificate
- Diploma
- A.D.N.
- BSN
### Highest Level of Education, by Initial Nursing Education

<table>
<thead>
<tr>
<th>Highest</th>
<th>Initial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LPN Certificate ((n = 2,373))</td>
</tr>
<tr>
<td></td>
<td>Diploma ((n = 6,446))</td>
</tr>
<tr>
<td></td>
<td>ADN ((n = 16,997))</td>
</tr>
<tr>
<td></td>
<td>BSN ((n = 17,066))</td>
</tr>
<tr>
<td></td>
<td>MSN ((n = 1,231))</td>
</tr>
<tr>
<td></td>
<td>DNP ((n = 42))</td>
</tr>
<tr>
<td>LPN Certificate</td>
<td>--</td>
</tr>
<tr>
<td>Diploma</td>
<td>2%</td>
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<tr>
<td></td>
<td>54%</td>
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<tr>
<td>ADN</td>
<td>48%</td>
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<tr>
<td></td>
<td>3%</td>
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<tr>
<td></td>
<td>60%</td>
</tr>
<tr>
<td>Associate’s-other field</td>
<td>.1%</td>
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<tr>
<td></td>
<td>2%</td>
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<tr>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>BSN</td>
<td>27%</td>
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<tr>
<td></td>
<td>14%</td>
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<tr>
<td></td>
<td>16%</td>
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<tr>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Master’s-other field</td>
<td>6%</td>
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<tr>
<td></td>
<td>3%</td>
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<td></td>
<td>3%</td>
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<tr>
<td></td>
<td>7%</td>
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<tr>
<td></td>
<td>3%</td>
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<tr>
<td>DNP</td>
<td>1%</td>
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<td>.3%</td>
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<td></td>
<td>1%</td>
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<td>1%</td>
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<td></td>
<td>1%</td>
</tr>
<tr>
<td>PhD-nursing</td>
<td>.2%</td>
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<tr>
<td></td>
<td>1%</td>
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<tr>
<td></td>
<td>.2%</td>
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<tr>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Doctoral-nursing other</td>
<td>0%</td>
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<td></td>
<td>0%</td>
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<tr>
<td>Doctoral-other field</td>
<td>1%</td>
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<td>.4%</td>
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<td></td>
<td>1%</td>
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<td></td>
<td>1%</td>
</tr>
</tbody>
</table>

*Note: n = number of respondents in each initial education category.*
## Education Trends

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<thead>
<tr>
<th></th>
<th>2013</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Initial education</td>
<td>BSN (36%) graduate degree (3%)</td>
<td>BSN (39.0%) graduate degree (2.9%)</td>
</tr>
<tr>
<td>Highest level of education</td>
<td>61% baccalaureate degree or higher</td>
<td>65% baccalaureate degree or higher</td>
</tr>
<tr>
<td>Foreign-educated</td>
<td>6%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>
Faculty Education

Primary Position Title, by Highest level of Education:

NURSE FACULTY

- DOCTORAL-OTHER FIELD: 4%
- DOCTORAL-NURSING OTHER: 1%
- PHD-NURSING: 8%
- DNP: 5%
- MSN: 36%
- BSN: 25%
- A.D.N.: 14%
- DIPLOMA: 2%
Foreign-Educated Nurses

- **6.7%** of RNs obtained initial nursing education outside of US
- For newly-licensed RNs, foreign-educated were more likely to have obtained a BSN as initial education (72.2%) versus US-educated (47.2%)
- States with more than **10%** foreign-educated RNs currently practicing:
  - California (18.2%)
  - Nevada (17.5%)
  - DC (14.1%)
  - Hawaii (12.8%)
  - New Jersey (11.5%)
  - New York (10.9%)
Primary Employment Setting & Year Licensed

- Ambulatory care setting
- Hospital

Primary Position Title & Year Licensed

- Advanced practice nurse
- Staff nurse
Advanced Practice Registered Nurses

• APRN 8.6%
  – Nurse Practitioner 70.4%
  – Clinical Nurse Specialist 13.0%
  – Certified Registered Nurse Anesthetist 12.9%
  – Certified Nurse Midwife 3.8%
Advanced Practice Registered Nurses

- **Certified Nurse Midwives**
  - 48.2% were 55 or older
  - Trend towards aging more so than other APRN groups
- **Clinical Nurse Specialists**
  - 26.6% were 55 or older
  - Only 9% were younger than 40
- **Certified Registered Nurse Anesthetists**
  - 33.2% were 55 or older
  - 28.2% younger than 40
  - Compared to other APRN groups, CRNAs are younger

![Age Distribution of NPs](image)
Median Annual Earnings

- $65,000 overall
- State differences
  - $51K – $90K
- Gender
  - Female $64K
  - Male $72K
- APRNs
  - NP $90K
  - CNS $89K
  - CNM $85K
  - CRNA $150K

![Median Annual Earnings in Primary Position, by Highest Level of Education](image-url)
Telehealth Overall

• 48.8% of RNs indicated they engage in telehealth
  – 31.4% between 1 – 25% of their time
  – 6.9% between 26 – 50% of their time
  – 4.8% between 51 – 75% of their time
  – 5.8% between 76 – 100% of their time
Cross-Border Telehealth

• **20.0% engaged in telehealth across a state border**
  – 16.1% between 1 – 25% of their time
  – 1.7% between 26 – 50% of their time
  – 0.8% between 51 – 75% of their time
  – 1.4% between 76 – 100% of their time

• **3.8% engaged in telehealth across a national border**
  – 3.3% between 1 – 25% of their time
  – 0.3% between 26 – 50% of their time
  – 0.0% between 51 – 75% of their time
  – 0.2% between 76 – 100% of their time
Modes of Communication Used for Telehealth

- Telephone (97.1%)
- Email (32.3%)
- Electronic messaging (ex: text message, instant message) (18.6%)
- Voice over internet protocol (VoIP)(Skype, FaceTime) (3.3%)
- Video call (2.9%)
- Virtual ICU (also known as: tele-ICU, remote ICU, eICU) (1.1%)
- Other (6.8%)
Licensed Practical/Vocational Nurse Results
Age & Employment

- Average age = 47.8
- 77.0% of LPN/VN licensees were actively employed in nursing
Gender

- Men 7.5%
- Women 92.5%
- Male workforce expected to grow
Racial/Ethnic Diversity

- Individuals from racial and ethnic minority groups accounted for **37.9%** of the US population in 2014
- **31.9%** of LPN/VNs were minorities
- Racial/ethnic diversity expected to increase
Education

• Highest Level of education:
  – 64.9% vocational/practical certificate-nursing
  – 7.5% associate’s degree-other field
  – 6.0% baccalaureate degree-other field
  – 1.2% master’s degree-other field
Foreign-Educated Nurses

- 4.9% received entry-level education outside of United States

Percentage of Male LPNs: US-educated vs. foreign-educated

- US-EDUCATED: 6.7%
- FOREIGN-EDUCATED: 22.7%
Foreign-Educated Nurses

- States with more than **10%** foreign-educated LPN/VNs currently practicing:
  - California (17.9%)
  - Hawaii (17.3%)
  - DC (14.9%)
  - Maryland (11.3%)
  - Nevada (11.7%)
Employment

• Employment setting
  – 30.1% nursing home/extended care
  – 15.0% home health
  – 10.8% hospitals

• Position title
  – 68.8% staff nurse

• Employment specialty
  – 27.6% geriatric/gerontology
  – 7.7% primary care
  – 6.0% pediatrics
Median Annual Earnings

• $38,000 overall
• State differences
  – $30K – $53K
• Gender
  – Female $38K
  – Male $43K
• 46.1% of LPNs indicated they engage in telehealth
  – 23.3% between 1 – 25% of their time
  – 9.3% between 26 – 50% of their time
  – 6.3% between 51 – 75% of their time
  – 7.2% between 76 – 100% of their time
Cross-Border Telehealth

- **16.9%** engaged in telehealth *across a state border*
  - 13.8% between 1 – 25% of their time
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- Video call (1.4%)
- Virtual ICU (also known as: tele-ICU, remote ICU, eICU) (0.6%)
- Other (6.1%)
Conclusions

• Trending toward slightly younger, more diverse, and higher initial nursing education
• Newly-licensed nurses are more likely to be found in hospital settings as compared to more experienced nurses
• CNM and CNS populations tend to be older; NP and CRNA populations have more representation in younger age cohorts.
• Similar to other recent studies, our data does not suggest an impending nurse shortage due to large age cohorts retiring
• Almost half of RNs and LPNs engage in telehealth
• 20% of RNs and 17% of LPN/VNs engage in telehealth across a state border
Discussion/Questions