Using Interprofessional Collaboration to Solve Today’s Clinical Challenges

Debra Herrmann, MPH, MSHS, PA-C
Barbara Resnick, PhD, CRNP, FAAN, FAANP
November 7, 2015
History of NPs and PAs

- Arose in the late 1960s / early 1970s in response to primary care physician shortages in impoverished areas
- NP training initially informal, but quickly formalized
- PA training based on shortened MD training during WWII
- Numbers of both began to increase dramatically when practices were allowed to bill for their services
- PAs and NPs now practice in almost every medical specialty and in every state
- PAs and NPs are typically paid 50 – 60% of MD salary, but can bill for 85 – 100% for services provided
## Comparing NPs, PAs, and MDs

<table>
<thead>
<tr>
<th></th>
<th>NP</th>
<th>PA</th>
<th>MD / DO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training</strong></td>
<td>2 years of graduate school post bachelorette</td>
<td>2 years of graduate school post bachelorette</td>
<td>3 years minimum post bachelorette, (most do at least 4 years of medical school).</td>
</tr>
<tr>
<td></td>
<td>DNP: 4 years post bachelorette</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pre-requisites</strong></td>
<td>BSN (+/- experience, although most do have experience)</td>
<td>BA or BS in any field + 1-2000 hours experience</td>
<td>BA or BS in any field. No experience required</td>
</tr>
<tr>
<td><strong>Credential</strong></td>
<td>Traditionally MS(N,) moving to DNP as entry level</td>
<td>MS (most)</td>
<td>MD / DO</td>
</tr>
<tr>
<td><strong>Specialization</strong></td>
<td>Chosen at time of application to MSN program (e.g., adult/gerontological primary care; adult/gerontological acute care; pediatrics etc). Change of specialty requires additional formal training</td>
<td>May change fields at any time if a new employer wishes to hire the individual</td>
<td>Choose specialty in 4th year of training. Change of specialty requires minimum of 3 years full time additional training</td>
</tr>
<tr>
<td><strong>Recertification</strong></td>
<td>every 5 years</td>
<td>every 6-10 years</td>
<td>every 10 years (most)</td>
</tr>
<tr>
<td><strong>Prescribing</strong></td>
<td>Yes as per state scope of practice</td>
<td>Yes as per state scope of practice</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Ordering Tests / Rads</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Procedures</strong></td>
<td>If trained</td>
<td>If trained</td>
<td>If trained</td>
</tr>
<tr>
<td><strong>Independent?</strong></td>
<td>Yes in some states, no in others</td>
<td>No – always works with some level of physician supervision</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Regulation</strong></td>
<td>Board of Nursing</td>
<td>Board of Medicine</td>
<td>Board of Medicine</td>
</tr>
<tr>
<td><strong>Salaries</strong></td>
<td>High 5 figures to low 6 figures</td>
<td>High 5 figures to low 6 figures</td>
<td>Low to high 6 figures</td>
</tr>
</tbody>
</table>
Challenges Facing US Healthcare System

- More patients in the system
- Aging population
- Rising health care costs
- Impending physician shortage

What Workforce Resources Does the US Have to Respond to these Challenges?
Decennial Growth of US PAs, NPs, Residents & Fellows (1970-2010)
US PA and NP Graduates Per Year
(1992-present)

2001 Hooker & Berlin; modified 2011 PAEA & AACN data
NP Distribution by Specialty, Mean Years of Practice and Mean Age of Clinician – 2013-14

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Percent in Specialty</th>
<th>Mean Years in Practice</th>
<th>Mean Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute care</td>
<td>7.5</td>
<td>8.0</td>
<td>46</td>
</tr>
<tr>
<td>Adult Internal Medicine</td>
<td>19.3</td>
<td>10.6</td>
<td>50</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>54.5</td>
<td>9.4</td>
<td>48</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>5.3</td>
<td>14.6</td>
<td>49</td>
</tr>
<tr>
<td>Gerontology</td>
<td>2.5</td>
<td>12.8</td>
<td>53</td>
</tr>
<tr>
<td>Neonatal</td>
<td>1.1</td>
<td>15.8</td>
<td>52</td>
</tr>
<tr>
<td>Oncology</td>
<td>1.2</td>
<td>9.4</td>
<td>47</td>
</tr>
<tr>
<td>Psych/mental health</td>
<td>3.7</td>
<td>14.7</td>
<td>54</td>
</tr>
<tr>
<td>Women’s health</td>
<td>4.9</td>
<td>16.7</td>
<td>53</td>
</tr>
</tbody>
</table>

Average NP is female (92.3%) and 48 years old; she has been in practice for 10.4 years as a family NP (54.5%)

AANP National NP Database, 2013-14
## U.S. PAs at a Glance — 2013

<table>
<thead>
<tr>
<th>Physician Assistants in 2013*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate clinically active</td>
<td>93,098</td>
</tr>
<tr>
<td>Female</td>
<td>67%</td>
</tr>
<tr>
<td>Age (mean years)</td>
<td>37</td>
</tr>
<tr>
<td>Mean age at graduation from PA program</td>
<td>30 years</td>
</tr>
<tr>
<td>Mean years in clinical practice</td>
<td>7 years</td>
</tr>
<tr>
<td><strong>Employer type</strong></td>
<td></td>
</tr>
<tr>
<td>Single or multi-specialty physician group practice</td>
<td>39%</td>
</tr>
<tr>
<td>Hospital employed (includes ambulatory care)</td>
<td>37%</td>
</tr>
<tr>
<td>Solo physician practice</td>
<td>9%</td>
</tr>
<tr>
<td>Government employment</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Work setting</strong></td>
<td></td>
</tr>
<tr>
<td>Hospital inpatient unit</td>
<td>10%</td>
</tr>
<tr>
<td>Hospital emergency department</td>
<td>10%</td>
</tr>
<tr>
<td>Hospital outpatient unit</td>
<td>11%</td>
</tr>
<tr>
<td>Community health center</td>
<td>10%</td>
</tr>
<tr>
<td>Rural community</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Primary practice specialty</strong></td>
<td></td>
</tr>
<tr>
<td>Primary care (family/general medicine, general internal medicine, general pediatrics)</td>
<td>32%</td>
</tr>
<tr>
<td>Surgery/surgical subspecialties</td>
<td>27%</td>
</tr>
<tr>
<td>Internal medicine subspecialties</td>
<td>10%</td>
</tr>
<tr>
<td>Annual income (mean total income for more than 32-hour workweek; may include second job [28%])</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

*Source: American Academy of Physician Assistants 2013*
NP Practice Acts

2013 Nurse Practitioner State Practice Environment

Green = No Physician Involvement Required
Yellow = Collaborative Agreement with Physician Required
Red = Physician Supervision Required
PA Practice Acts

Low-Low Outliers and Favorability of PA Practice Laws 2008

Ritsema TS
Unpublished Data 2014
The Role of NPs/PAs in Primary Care

or PA!
Nonphysician Care in Community Health Centers (CHCs)


Data source: National Ambulatory Medical Care Survey

The 2006-2008 NAMCS comprised 312 CHCs within a national geographic primary sampling unit (PSU). The unweighted four-stage sampling response rate was 85.5%

Participating CHCs completed a total of 17,128 patient record forms PRFs).
Who Sees CHC Patients?

- Physicians delivered care at 69% of visits
- Nurse practitioners (NP) delivered care at 21% of visits
- Physician assistants (PA) delivered care at 9% of visits
- Certified Nurse-midwives (CNM) delivered care at 1% of visits

Reason for Visit by Provider Type (US CHCs 2006-8)

Figure 2. Major reason for visit, by type of provider: United States, 2006–2008.

- **Physician**
  - New problem: 36%
  - Chronic problem: 31%
  - Preventive care: 30%
  - Other or unknown: 1%

- **Physician assistant**
  - New problem: 45%
  - Chronic problem: 36%
  - Preventive care: 17%
  - Other or unknown: 1%

- **Nurse practitioner**
  - New problem: 38%
  - Chronic problem: 21%
  - Preventive care: 38%
  - Other or unknown: 3%

- **Nurse midwife**
  - New problem: 15%
  - Chronic problem: 2%
  - Preventive care: 82%
  - Other or unknown: 1%

* Estimate does not meet standards of reliability or precision.

1 Differences between physician assistant and physician percentages is statistically significant.

2 Differences between nurse practitioner and physician, and between nurse practitioner and physician assistant, are statistically significant.

3 Differences between nurse midwife and physician, physician assistant, and nurse practitioner percentages are statistically significant.

4 Includes pre- and postsurgical visits and unknowns (2%).

SOURCE: CDC/NCHS, National Ambulatory Medical Care Survey.
Addtional Findings

- PA and /NPs were used twice as often in CHCs than in private practice
- Team Practice: 13% of all CHC encounters had an interprofessional (collaborative) involvement
- A higher percentage of visits to NPs (53%) and PAs (54%) included documentation of health education/preventive services/counseling in the medical record compared to physicians (42%)

Quality of Care and Cost Effectiveness of Using PAs and NPs in Team-Based Practice
IOM: “Today no one clinician can retain all the information necessary for sound, evidence-based practice. Effective working teams must be created and maintained. Physicians groups, hospitals, and other health care organizations operate as silos.”

Institute of Medicine, 2001
Many Studies Demonstrate Quality and Safety of MD / Non-Physician Provider (NPP) Teams

Team Practice - Some Evidence

- Primary care team (PCT) functioning was assessed by surveys of practitioners and support staff of 14 primary care practices
- Measures were: perceived task delegation, role collaboration, patient orientation, and team ownership
- On average, patient physical and emotional health declined over 2 years.
- Medicare beneficiaries empanelled to relatively high functioning PCTs had significantly better physical and emotional health at 2 years following baseline assessment than those empanelled to relatively low functioning PCTs.

Percent Reduction in Primary Care Visit Costs with Increased Integration of PA/NPs Into Primary Care

-18 -16 -14 -12 -10 -8 -6 -4 -2 0

Percent of Visits Attended by PA/NPs

Practice Mean (33%)
PCDM Model (50%)

Percent Reduction in Labor Costs per Visit
Practitioner Costs per Visit Total Labor Costs per Visit

Roblin 2004
Adding PA/NPs to Cardiology

- **PA/NPs add significant value to cardiology practices**
  - We estimated a cardiology group practices gains about $300,000 per additional PA/NP employed per annum (2009)
  - This is a labor offset and routine work is delegated to PA/NPs maximizing cardiologist time
  - An additional cardiologists adds about $700,000
- Analysis of cardiology suggests that PA/NPs are an efficient and possibly underutilized resource in cardiology practice
- The value of PA/NP cardiologists will depend on practice size and other factors
- We estimate a practice “production function” – to provide insights on the efficient mix of practice resources and the demand for practitioners

_Hogan & Bouchary (Lewin) 2010 - unpublished_
Moving into specific areas...

- NP/PA partnerships in the area of behavior change
- NP/PAs have better outcomes with regard to dealing with challenging behaviors.
One reason for team....NEED

“MY GRANDMOTHER LIVED TO 101. WHY NOT ME, TOO?”
A body of research developed over the past 25 years demonstrates that employing advanced practice nurses (APRNs) provide equal if not better quality of care to residents at a reduced cost...

PAs also provide this care although the numbers are smaller.
Demonstrated Outcomes Include

- Better management of chronic diseases resulting in fewer chronic and acute care episodes requiring intervention;
- Improved functioning in toileting, dressing, and ambulation;
- Fewer preventable hospitalizations (e.g., for chronic obstructive pulmonary disease, asthma, diabetes) and reduced emergency department use for acute conditions (e.g., urinary tract infections, pneumonia, consequences of falls);
- Lower overall costs—additional employment expense was offset by cost savings in hospital admissions, length of stay, reduced occurrence of preventable health problems, and more timely treatment of conditions such as pressure ulcers;
- Lower mortality and higher rate of discharges into the community;
- More timely and comprehensive responses to residents’ health problems compared to care provided by physicians;
- Greater resident and family satisfaction than with physician care;
- Better staff morale and more likely implementation of best care practices.

Challenges to NP or PA/MD Team Care

- State differences in scope of practice
- Trust – hiring your own versus being forced/required to work with an NP/PA or MD you did not select to work with.
- Communication
- Collaboration
- Revenue issues in terms of direct NP/PA billing at 85% of Medicare rates.
  - Incident to billing? Understanding the differences is critical
What is in it for you and your practice?

- Better patient outcomes at reduced costs—critically important as we move towards quality focused outcomes (e.g., behavior related outcomes such as vaccinations; smoking cessation and weight loss).
- Increased productivity
- Better patient satisfaction with time spent with patients in teaching and adherence issues
- Marketing opportunities to increase ability to do such things as Wellness Visits; Advanced Care Planning and Transition visits; AL & senior housing visits and practices
- Help with regulatory visits in LTC
- Help dealing with challenging patients and families,
References


