Physician Assistant & Nurse Practitioner Ambulatory Care & Chronic Disease Management
PAEA Annual Conference 2013

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Background

- Physician shortage
- NP & PA movements
- Ambulatory care
- Chronic disease
Purpose

- Examine the national experience of NPs and PAs in ambulatory care (& chronic disease management)

- Does a division of labor exist between the 3 providers?
Methods

- National Hospital Ambulatory Medical Care Survey (NHAMCS), 2001-2010
- Weighted hospital outpatient visits to each provider type examining multiple visit characteristics
- 14 chronic diseases
  - Arthritis, Asthma, Cancer, Cerebrovascular disease, CHF, Chronic renal failure, COPD, Depression, Diabetes, Hyperlipidemia, Hypertension, Ischemic heart disease, Obesity, Osteoporosis
## Number of Hospital Outpatient Department Visits and the Percentage of Visits by Provider Type, 2001 – 2010

Data from the National Hospital Ambulatory Medical Care Survey

<table>
<thead>
<tr>
<th>Year</th>
<th>Physician</th>
<th>PA</th>
<th>NP/CNM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Est. Visits</td>
<td>Percent Share of Visits</td>
<td>Est. Visits</td>
<td>Percent Share of Visits</td>
</tr>
<tr>
<td>2001</td>
<td>5,800,000</td>
<td>87</td>
<td>340,000</td>
<td>5</td>
</tr>
<tr>
<td>2010</td>
<td>7,200,000</td>
<td>84</td>
<td>460,000</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>68,000,000</td>
<td>86</td>
<td>4,200,000</td>
<td>5</td>
</tr>
</tbody>
</table>

≈ 79 million weighted visits

NP/CNMs and PAs 11.4 million

24% ↑ in physician visits
35% ↑ in PA visits
78% ↑ increase in NP visits
Percent Share of Outpatient Department Visits by Patient Gender and Age Group, 2001-2010
(NPs & PAs 14% of all visits)

Data from the National Hospital Ambulatory Medical Care Survey
## Characteristics of Outpatient Department Visits, Percent Share of Visits by Provider Type, 2001-2010

Data from the National Hospital Ambulatory Medical Care Survey

<table>
<thead>
<tr>
<th>Metropolitan Area Status</th>
<th>Physician</th>
<th>PA</th>
<th>NP/CNM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSA</td>
<td>89.8</td>
<td>2.9</td>
<td>7.3</td>
<td>60,000,000</td>
</tr>
<tr>
<td>Non-MSA</td>
<td>64.4</td>
<td>17.3</td>
<td>18.4</td>
<td>13,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>85.4</td>
<td>5.4</td>
<td>9.2</td>
<td>73,000,000</td>
</tr>
<tr>
<td>Total (Percentages)</td>
<td>85.5</td>
<td>5.4</td>
<td>9.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total (Visits)</td>
<td>62,000,000</td>
<td>3,900,000</td>
<td>6,700,000</td>
<td>79,000,000</td>
</tr>
</tbody>
</table>

### Regional differences

- **NP/CNMs**
  - Highest percentage (11.2%) – South
  - Lowest (6%) – West

- **PAs**
  - Highest percentage (7.8%) – West
  - Lowest (3.7%) – Northeast
## Characteristics of Outpatient Department Visits, Percent Share of Visits by Provider Type, 2001-2010

<table>
<thead>
<tr>
<th>Type of Clinic</th>
<th>Physician</th>
<th>PA</th>
<th>NP/CNM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>81.9</td>
<td>7.7</td>
<td>10.4</td>
<td>48,000,000</td>
</tr>
<tr>
<td>Surgery</td>
<td>95.4</td>
<td>2.5</td>
<td>2.0</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Pediatric</td>
<td>92.8</td>
<td>1.0</td>
<td>6.2</td>
<td>9,800,000</td>
</tr>
<tr>
<td>Obstetrics/Gynecology</td>
<td>82.0</td>
<td>1.8</td>
<td>16.3</td>
<td>6,500,000</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>93.5</td>
<td>0.3</td>
<td>6.2</td>
<td>150,000</td>
</tr>
<tr>
<td>Other</td>
<td>90.3</td>
<td>1.9</td>
<td>7.8</td>
<td>4,600,000</td>
</tr>
<tr>
<td><strong>Total (Percentages)</strong></td>
<td>85.5</td>
<td>5.4</td>
<td>9.1</td>
<td>100.0</td>
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</tr>
</tbody>
</table>

Data from the National Hospital Ambulatory Medical Care Survey
Percent Share of Outpatient Department Visits by Number of Chronic Conditions, 2005-2010 (All Ages)

- **None**: 83.4% (Physician), 11.3% (NP), 5.3% (PA)
- **1 or More**: 86% (Physician), 8.7% (NP), 5.3% (PA)
- **Missing**: 88.5% (Physician), 6.7% (NP), 4.8% (PA)
- **Total**: 84.9% (Physician), 9.9% (NP), 5.3% (PA)
Distribution of Visits by Major Reason for Visit Category (NHAMCS), 2001-2010

- **Chronic/Routine Problem**
  - Total: 90
  - Physician: 84
  - NP/CNM: 6
  - PA: 3

- **New/Acute Problem**
  - Total: 81
  - Physician: 70
  - NP/CNM: 11
  - PA: 8

- **Preventive Care**
  - Total: 84
  - Physician: 72
  - NP/CNM: 12
  - PA: 4

- **Total**
  - Total: 85
  - Physician: 77
  - NP/CNM: 9
  - PA: 5
Each Provider Distribution of Visits by Major Reason for Visit Category (NHAMCS), 2001-2010

Physician

- New/Acute Problem: 38%
- Chronic/Routine Problem: 32%
- Flare-up Chronic Problem: 7%
- Preventive Care: 5%
- Pre/Post Surgery: 2%

NP/CNM

- New/Acute Problem: 49%
- Chronic/Routine Problem: 20%
- Flare-up Chronic Problem: 5%
- Preventive Care: 7%
- Pre/Post Surgery: 2%

PA

- New/Acute Problem: 58%
- Chronic/Routine Problem: 18%
- Flare-up Chronic Problem: 14%
- Preventive Care: 3%
- Pre/Post Surgery: 7%
Are you the patient’s primary care provider?  
2005 – 2006
Results

- Diabetes and hypertension
  - 2-4% for each provider
- NPs & PAs proportionally *less* likely to attend insurance visits, *more* likely to attend “self pay” visits
- PAs more likely to attend worker compensation visits
- Overall
  - Physicians – older patients (complex chronic disease)
  - NPs – preventive care
  - PAs – acute care
  - PAs & NPs – non-metropolitan areas
Discussion/Limitations/Future

- **Discussion**
  - Division of labor
  - Meeting need in medically underserved areas

- **Limitations**
  - Not longitudinal
  - Addressed primary diagnoses only
  - No chronic disease score
  - No health outcomes

- **Future**
  - Optimal strategies
  - Regional, rural differences

- Thank you to the Physician Assistant Education Association