Health, United States
Special Feature on Emergency Care

2015 National Conference on Health Statistics

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Presentation Outline

Who goes to the Emergency Department?
  - By age and insurance status

When and why do people go to the Emergency Department?
  - After hour visits
  - Immediacy of need to be seen
  - Injury visits

What happens in the Emergency Department?
  - Emergency Department capacity/crowding
  - Wait time
  - Electronic health records
  - Diagnostic and screening services

What are Emergency Department visit outcomes?
  - Discharge status
  - Hospital admissions

What are average per person expenses for ED visits?
Who goes to the Emergency Department?
Emergency Department Visits in the past 12 months, by age: United States, 2004 and 2014

One or more visits

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total 2004</th>
<th>Total 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 6</td>
<td>13.8</td>
<td>22.6</td>
</tr>
<tr>
<td>6-17</td>
<td>19.8</td>
<td>18.4</td>
</tr>
<tr>
<td>18-64</td>
<td>20.8</td>
<td>18.0</td>
</tr>
<tr>
<td>65-74</td>
<td>22.5</td>
<td>18.9</td>
</tr>
<tr>
<td>75-84</td>
<td>27.7</td>
<td>20.7</td>
</tr>
<tr>
<td>85 and over</td>
<td>31.9</td>
<td>29.2</td>
</tr>
</tbody>
</table>

Two or more visits

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total 2004</th>
<th>Total 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 6</td>
<td>3.9</td>
<td>6.8</td>
</tr>
<tr>
<td>6-17</td>
<td>7.4</td>
<td>3.9</td>
</tr>
<tr>
<td>18-64</td>
<td>7.0</td>
<td>6.6</td>
</tr>
<tr>
<td>65-74</td>
<td>7.5</td>
<td>6.1</td>
</tr>
<tr>
<td>75-84</td>
<td>7.5</td>
<td>12.0</td>
</tr>
<tr>
<td>85 and over</td>
<td>11.4</td>
<td>11.6</td>
</tr>
</tbody>
</table>

SOURCE: NCHS, National Health Interview Survey (NHIS) – HUS2012 Special Feature Data Table 20
One or More Emergency Department Visits in the Past 12 Months, by Age and Type of Coverage: United States, 2004-2014

SOURCE: NCHS, Health, United States, 2014 (Tables 79 and 80), National Health Interview Survey (NHIS)
When and why do people go to the Emergency Department?
When do most visits to the Emergency Department occur, all ages: United States, 2008 and 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>During Business Hours</th>
<th>After Business Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>34.3%</td>
<td>64.8%</td>
</tr>
<tr>
<td>2011</td>
<td>39.4%</td>
<td>59.7%</td>
</tr>
</tbody>
</table>

NOTE: Business hours defined as Monday through Friday 8 a.m. to 5 p.m. Percent distribution of ED visits.
SOURCE: NCHS, NHAMCS 2008 and 2011 ED Summary Tables (Table 4)
Triage Status of Emergency Department Visits, by age: United States, 2011

NOTE: Triage status was missing for 2.2% of visits.
SOURCE: NCHS, NHAMCS 2011 ED Summary Tables (Table 7)
Emergency Department Injury Visit Rates by Sex and Age: United States, 2011

Number of Emergency Department injury visits per 100 persons per year

Male:
- <15 years: 14.7
- 15-24: 19.3
- 25-44: 15.6
- 45-64: 10.9
- 65-74: 8.5
- 75+: 15.7

Female:
- <15 years: 11.6
- 15-24: 14.5
- 25-44: 12.7
- 45-64: 9.5
- 65-74: 8.9
- 75+: 20.0

SOURCE: NCHS, NHAMCS 2011 ED Summary Tables (Table 14)
What happens in the Emergency Department?

Hallway Beds Ease ER Overcrowding

CT Scans Increase Threefold in Emergency Rooms, Raising Costs

Ambulance Diversion, ER Crowding, and How You

ER Use Of CT Scans Rises Sharply, Raising Questions About Costs And Benefits

Emergency rooms increasingly crowded

Why Doctors Order Too Many Tests (It's Not Just to Avoid Lawsuits)
Emergency Department Capacity, all ages: United States, 2008 and 2011

- Has observation deck or clinical decision unit: 2008 (32.1%), 2011 (20.7%)
- Admitted patients were ever boarded 2+ hours in ED waiting for inpatient bed: 2008 (61.4%), 2011 (62.4%)
- Admitted patients are boarded in hallways or other space: 2008 (17.5%), 2011 (20.0%)
- ED went on ambulance diversion: 2008 (30.8%), 2011 (33.4%)
- ED increased number of treatment spaces in last 2 years: 2008 (27.9%), 2011 (22.3%)
- ED physical space expanded in last 2 years: 2008 (22.4%), 2011 (18.1%)
- ED plans to expand physical space in next 2 years: 2008 (21.0%), 2011 (28.3%)

SOURCE: NCHS, NHAMCS 2008 and 2011 ED Summary Tables (Tables 26 and 27)
Time Spent Waiting to See a MD, DO, PA, or NP, all ages: United States, 2003 and 2011

NOTE: Percent distribution of emergency department visits. Unknown time includes n/a and blank responses.
SOURCE: NCHS, NHAMCS 2003 ED Report (Table 5); 2011 ED Summary Tables (Table 4)
Hospital Emergency Departments with an Electronic Health Record (EHR) system: United States, 2006-2011

NOTE: “Any EHR system” is a medical or health record system that is either all or partially electronic. “Basic system” has all of the following functionalities: patient history and demographics, patient problems lists, physician clinical notes, patients’ medications and allergies, computerized orders for prescriptions, and ability to view laboratory and imaging results electronically. Estimates for a basic system prior to 2007 were not comparable. The HITECH Act of 2009 gave hospitals incentives to adopt EHR systems, by meeting standards of “meaningful use” - 2011 is the year with the most complete data on meeting objectives for demonstrating meaningful use.

Emergency Department Visits with Diagnostic and Screening Services Ordered or Provided During the Visit, all ages: United States, 2003 and 2011

<table>
<thead>
<tr>
<th>Service</th>
<th>2003</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced imaging (CT/MRI) scans</td>
<td>7.9</td>
<td>16.4</td>
</tr>
<tr>
<td>X-rays</td>
<td>39.2</td>
<td>34.4</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>2.5</td>
<td>3.8</td>
</tr>
<tr>
<td>EKG</td>
<td>16.3</td>
<td>19.1</td>
</tr>
<tr>
<td>Cardiac monitor</td>
<td>7.4</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Percent of Emergency Department visits with services ordered or provided

SOURCE: NCHS, NHAMCS 2003 ED Report (Table 15), 2011 ED Summary Tables (Table 18)
What are Emergency Department Visit Outcomes?

Follow-up compliance after emergency department evaluation.
Magnusson AR, Hedges JR, Vanko M, McCarten K, Moorhead JC.

Improving the Emergency Department Discharge Process: Environmental Scan Report
Prepared for: Agency for Healthcare Research and Quality

Perspective
The Growing Role of Emergency Departments in Hospital Admissions
Jeremiah D. Schuur, M.D., M.H.S., and Arjun K. Venkatesh, M.D., M.B.A.
Discharge Status of Emergency Department Visits, all ages: United States, 2003 and 2011

BAR CHART

- **Return to ED as needed or by appt**
  - 2003: 41.3%
  - 2011: 34.3%

- **Refer to physician or clinic for follow-up**
  - 2003: 60.9%
  - 2011: 66.6%

- **Admit to hospital**
  - 2003: 13.9%
  - 2011: 14.7%

- **No follow up planned**
  - 2003: 6.3%
  - 2011: 4.8%

- **Left before completing visit**
  - 2003: 2.7%
  - 2011: 3.2%

**NOTE:** More than one disposition may be reported per visit.

**SOURCE:** NCHS, NHAMCS 2003 ED Report (Table 22), 2011 ED Summary Tables (Table 24)
Emergency Department Visits Resulting in Hospital Admission, by age: United States, 2011

Admitted to hospital from the ED, by age

- 75+ (28%)
- 65-74 (15%)
- 45-64 (30%)
- 25-44 (17%)
- 15-24 (5%)
- <15 (5%)

SOURCE: NCHS, 2011 ED Summary Tables (Table 25)
What are Average Per Person Expenses for Emergency Department Visits?

Nearly $2 billion in ER visits and hospital care preventable

Want to cut health-care costs? Look at emergency rooms

The Costs of Visits to Emergency Departments

How Much Does It Cost to Go to the ER?

Emergency room visits up, despite Obamacare
Emergency Room Services, Mean Expenditure per Person with Expense, by age: United States, 2002 and 2012

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2002</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$929</td>
<td>$1,390</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>$509</td>
<td>$657</td>
</tr>
<tr>
<td>5-17 years</td>
<td>$633</td>
<td>$898</td>
</tr>
<tr>
<td>18-44 years</td>
<td>$989</td>
<td>$1,470</td>
</tr>
<tr>
<td>45-64 years</td>
<td>$1,214</td>
<td>$1,851</td>
</tr>
<tr>
<td>65+ years</td>
<td>$950</td>
<td>$1,285</td>
</tr>
</tbody>
</table>

NOTE: 2002 estimates adjusted to 2012 dollars using the GDP implicit price deflator (release date August 27, 2015). Expenditures are for the civilian noninstitutionalized population who had an emergency room visit.

SOURCE: Medical Expenditure Panel Survey, Agency for Healthcare Research and Quality
Future Research on Emergency Departments

- Effects of ACA on Emergency Department use
- Interventions for repeat and high users such as homeless, mentally ill, and those with chronic conditions
  - Case management
- Enhanced patient access to primary care outside of normal business hours
- Development of lower-cost care settings for urgent response
- Greater use of health information technology and care coordination
Thank you!

*Health, United States:*
http://www.cdc.gov/nchs/hus.htm

*Health, United States, 2012* with Special Feature on Emergency Care:
www.cdc.gov/nchs/data/hus/hus12.pdf

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