Epidemiology of Primary Care in relation to preventive medicine - public health

CMG Buttery MB BS MPH
Fall 2008

Figure 1. Percent of office visits by physician specialty: United States, 2000

Table 1. Number, percent distribution, and annual rate of office visits with corresponding standard errors, by selected physician practice characteristics: United States, 2000

- Physician practice characteristics:
  - All visits
    - General and family practice
    - Internal medicine
    - Pediatrics
    - Obstetrics and gynecology
    - Orthopedic surgery
    - All other specialties

>50% of ALL office visits are to primary care physicians.

Table 3. Number, percent distribution, and annual rate of office visits by patient’s age, sex, and race: United States, 2000

- Patient’s age, sex, and race
  - Under 15 years
  - 15–24 years
  - 25–44 years
  - 45–64 years
  - 65–74 years
  - 75 years and over

Table 9. Number and percent distribution of office by the 20 principal reasons for visit most frequently mentioned by patients, United States, 2000

- Principal reason for visit and RVC code
  - All visits
    - General medical examination
    - Progress visit, not otherwise specified
    - Cough
    - Routine prenatal examination
    - Postoperative visit
    - Symptoms referable to throat
    - Skin rash
    - Vision dysfunctions
    - Knee symptoms
    - Back symptoms
    - Well-baby examination
    - Stomach pain, cramps, and spasms
    - Medication, other and unspecified kinds
    - Earache or ear infection
    - Hypertension
    - Depression
    - Headache, pain in head
    - Nasal congestion
    - Chest pain and related symptoms
    - Fever

Table 16. Number and percent of office, by therapeutic and preventive services ordered or provided, United States, 2000

- Number of Therapeutic and preventive visits
  - All visits
    - Counseling/education
    - Exercise
    - Injury prevention
    - Growth/development
    - Stress management
    - Prenatal instructions
    - Mental health
    - Tobacco use/exposure
    - Breast self-examination
    - Skin cancer prevention
    - Family planning/contraception
    - HIV/STD transmission
    - Other therapy
      - Complementary and alternative medicine

Advance Data No. 328 June 5, 2002
Table 26. Mean time spent with physician by physician specialty: United States, 2000

- Mean time spent with physician (Mins.)
- Physician specialty
  - All visits: 18.9
  - Psychiatry: 36.0
  - Neurology: 28.0
  - Cardiovascular diseases: 21.5
  - Internal medicine: 19.7
  - General surgery: 19.0
  - Obstetrics-gynecology: 18.2
  - Orthopedic surgery: 17.1
  - General, family practice: 17.0
  - Ophthalmology: 16.9
  - Otolaryngology: 16.8
  - Urology: 16.2
  - Dermatology: 15.8
  - Pediatrics: 15.4
  - All other specialties: 23.5

---

PRIMARY CARE PROBLEMS IDENTIFIED BY PRIMARY PRACTITIONERS
Prepared for NAPCRG meeting in 1994

<table>
<thead>
<tr>
<th>Physician A</th>
<th>FP</th>
<th>GIM</th>
<th>PED</th>
<th>OBG</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP</td>
<td>159/100</td>
<td>110/73.8</td>
<td>74/83.1</td>
<td>41/61.2</td>
</tr>
<tr>
<td>GIM</td>
<td>110/69.2</td>
<td>147/100</td>
<td>53/59.6</td>
<td>33/49.3</td>
</tr>
<tr>
<td>PED</td>
<td>74/46.9</td>
<td>53/35.6</td>
<td>90/100</td>
<td>27/40.3</td>
</tr>
<tr>
<td>OBG</td>
<td>41/25.8</td>
<td>33/22.1</td>
<td>27/30.3</td>
<td>69/100</td>
</tr>
</tbody>
</table>

---

NUMBER AND PROPORTION OF COMMON PROBLEMS SEEN BY PHYSICIAN B AS A SUBSET OF TOTAL COMMON PROBLEMS SEEN BY PHYSICIAN A

<table>
<thead>
<tr>
<th>Physician B</th>
<th>FP</th>
<th>GIM</th>
<th>PED</th>
<th>OBG</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP</td>
<td>159/100</td>
<td>110/73.8</td>
<td>74/83.1</td>
<td>41/61.2</td>
</tr>
<tr>
<td>GIM</td>
<td>110/69.2</td>
<td>147/100</td>
<td>53/59.6</td>
<td>33/49.3</td>
</tr>
<tr>
<td>PED</td>
<td>74/46.9</td>
<td>53/35.6</td>
<td>90/100</td>
<td>27/40.3</td>
</tr>
<tr>
<td>OBG</td>
<td>41/25.8</td>
<td>33/22.1</td>
<td>27/30.3</td>
<td>69/100</td>
</tr>
</tbody>
</table>

---

Types of Prevention

- **Primary**
  - Before signs or symptoms of disease
    - Immunization
    - Diet
    - Exercise
    - Aspirin to reduce stroke events

---

Prevention (Continued)

- **Secondary**
  - Signs and symptoms present but early
    - Lower Blood Pressure
    - Reduce Smoking
    - Reduce Weight
    - Reduce Stress
    - Reduce Salt Intake
    - INH for TB Infection

---

Prevention (Continued)

- **Tertiary**
  - Late disease, intent to delay progress
    - Physical Therapy after Injury
    - Anticoagulant after Stroke
    - Weight Reduction for Morbid Obesity
    - HAART Therapy for PWA
    - Tamoxifen after Breast Cancer Surgery
    - Insulin Pump for Type 1 Diabetic
PROPORTION OF OFFICE VISITS FOR DIAGNOSES AMENABLE TO PRIMINARY OR SECONDARY PREVENTION

<table>
<thead>
<tr>
<th></th>
<th>Prim</th>
<th>Sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD</td>
<td>29.8</td>
<td>5.4</td>
</tr>
<tr>
<td>FP</td>
<td>31.9</td>
<td>10.6</td>
</tr>
<tr>
<td>GIM</td>
<td>31.8</td>
<td>0.2</td>
</tr>
<tr>
<td>OBG</td>
<td>54.1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

How we improve the links between Primary Care and Public Health/Prevention

- Pay for Prevention Services
- Add Physician Extenders to Practice
  - NP, PA, H.Ed., MH Counsellor
- Use of Computerized Records that
  - Remind need of Immunizations
  - Remind Need for Routine Management
  - Provide Health Ed. Material
  - Computer links to patients.

PC – PH Prevention Links

- Closer Health Department – Practicing physician ties.
  - Weekly or monthly surveillance reports
  - Databases of Community Health Status
  - Prevention talks at Hospital meetings
  - Epidemiologic Surveys of patient records
  - CASA/CDC
  - Periodic review of death records with Rx for prevention activities
  - Place PHNs in Physician’s offices

How many Doctors?

Current US population: Approximately 300Mn.

AFP Recommended patient load: 1 FP/2000 patients

How Many Doctors -II

For 300 Million People: 150,000 FPs.
Assume 48 work weeks per MD
Assume 10% will be in nonproductive positions teaching.
Need =200,000
Outside the US maximum ratio of Specialist to PCPs is 1:1

How Many Doctors III

Maximum number of physicians needed

400,000

According to AMA practicing non-federal Physicians

814776 non-federal
How Many Doctors - IV

- **Most physicians are in Patient Care** (80.0%). Patient Care includes: Office-Based physicians
- Full-Time Hospital Staff (9.2%), and Residents/Fellows (14.0%).
- Physicians not in Patient Care are in Other Professional Activity, which includes: Administration (1.9%), Teaching (1.2%), Research (1.7%), and Other (0.5%).
- None of these percentages has changed significantly over the last 30 years.