Presentation Objectives:

• Identifying the key professional Personnel involved in health care
• Summarizing the roles and activities of health professionals
• Explaining the current market challenge for various health care personnel

Factors Contributing to the Growth in Health Care & Health Care Professionals

• Technology
• Population Growth
• Aging in the Population
• Increased Access
• Where the jobs are

http://www.bls.gov/oes/current/oes_alph.htm#H
Health Professionals

- Physicians
- Nurses - RN, LN
- Advanced Practice Nurse (APNs)
- Physician Assistant (PA)
- Nurse Practitioners (NPs)
- Certified Nurse Midwives (CNMs)
- Pharmacists
- Laboratory Technicians
- Other Aids

Fastest project growth (2010)

  - Personal and Home Care Aides
  - Medical Assistants
  - Physician Assistants
  - Medical records and health information technicians
  - Home Health Aides
  - Fitness Trainers

Number of Jobs in US

Selected Healthcare Professionals

<table>
<thead>
<tr>
<th>Profession</th>
<th>2000</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietitians</td>
<td>49,000</td>
<td>70,000</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>217,000</td>
<td>241,000</td>
</tr>
<tr>
<td>Physician Assistants</td>
<td>58,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Physicians</td>
<td>598,000</td>
<td>705,000</td>
</tr>
<tr>
<td>Respiratory Therapists</td>
<td>89,000</td>
<td>112,000</td>
</tr>
</tbody>
</table>
Physicians

- Nature of work
  - Diagnostic, determination of treatment, examination, counsel to patients

- Classifications
  - M.D. (doctor of medicine) – Allopathic
  - D.O. (doctor of osteopathic medicine)

- A little trivia ... doctor???

---

### Pulling Your Weight

This chart shows the average starting salary of physicians, and how much revenue they can generate for a hospital annually.

<table>
<thead>
<tr>
<th>Physician Specialty</th>
<th>Average Starting Salary</th>
<th>Average Revenue Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>$267,000</td>
<td>$1,079,070</td>
</tr>
<tr>
<td>Cardiovascular Surgery</td>
<td>N/A</td>
<td>$313,461</td>
</tr>
<tr>
<td>Family Practice</td>
<td>$136,000</td>
<td>$1,599,482</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>$275,000</td>
<td>$1,246,228</td>
</tr>
<tr>
<td>General Surgery</td>
<td>$216,000</td>
<td>$1,015,470</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>$275,000</td>
<td>$1,010,546</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>$415,000</td>
<td>$1,569,000</td>
</tr>
<tr>
<td>Neurology</td>
<td>$174,000</td>
<td>$1,039,303</td>
</tr>
<tr>
<td>Neonatology</td>
<td>N/A</td>
<td>$2,364,864</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>$275,000</td>
<td>$1,449,038</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td>$275,000</td>
<td>$1,449,038</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>$275,000</td>
<td>$1,449,038</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>$212,000</td>
<td>$892,363</td>
</tr>
<tr>
<td>Osteopathy</td>
<td>$135,000</td>
<td>$691,034</td>
</tr>
<tr>
<td>Physical Medicine</td>
<td>N/A</td>
<td>$1,017,857</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>$134,000</td>
<td>$1,185,069</td>
</tr>
<tr>
<td>Pulmonology</td>
<td>$175,000</td>
<td>$1,278,688</td>
</tr>
<tr>
<td>Urology</td>
<td>$232,000</td>
<td>$1,126,697</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>N/A</td>
<td>$2,216,463</td>
</tr>
</tbody>
</table>

NOTE: Morrison, Hensar & Associates.

Add approximately 20% to each category for estimate of current amount.

---

Solo and Group Practice

**Solo Practice:**
- A doctor independently manages the practice
- Independently responsible

**Group Practice:**
- A group of doctors manage the practice
- Share resources
- Joint collaboration in patient care delivery
- Shares related responsibilities and liabilities
**Solo Practitioner**

**Pros**
- Decision Autonomy
- Complete oversight of business operations
- Total control over strategic direction and practice future
- Consistent relationships with patients
- Opportunity to determine practice revenue

**Cons**
- Reduced practice coverage for time off
- Loss of cost sharing
- Financial insecurity if time off is required
- Less support for expansion
- More vulnerable to competition

---

**Group Practitioner**

**Pros**
- Potential for improved office efficiencies
- Stable coverage for time off
- Potential for improved cost sharing
- Work/Life balance
- Increased negotiating power with payers and others

**Cons**
- Reduced independence in business decisions
- Complex division of revenues and costs
- For large practices:
  - Inefficient bureaucracies may
  - Potential for reduction in benefits from cost sharing opportunities

---

**Employed Physician**

**Pros**
- Financial security
- Work/Life balance
- Reduced administrative burden
- More time to focus on patient care, research, and teaching

**Cons**
- Less or little involvement in practice decision making
- Possible bureaucratic processes with larger organizations
Physicians by Gender

Physician Gender Composition (1970)
- Male 50%
- Female 50%

Physician Gender Composition (2006)
- Male 73%
- Female 27%

Female Specialties
Which specialties do female physicians select?

Source: Allied Physicians, Los Angeles Times

Challenging Practice Environment

- Decreasing reimbursements
- Increasing cost of maintaining a practice
  - Professional liability
  - Labor
  - Rent
  - Supplies
  - Other infrastructure, e.g. billing costs, Hardware, Software, Telecom, etc.
- Increasing administrative burden
  - Regulations
  - Contract provisions
Other Independent Health Related Practice Types

- Optometrist (OD)
  - vision correction
- Psychologist (PhD)
  - mental health counseling & psychotherapy
- Podiatrist (DPM)
  - diseases & deformities of the feet
- Chiropractor (DC)
  - literally, hand manipulation; Health of spine and nervous system

Malpractice Insurance

A Brief Analysis

The New Professional Liability Crisis

- Premiums rising sharply for the last three years for physicians
- Premiums doubled in some specialties, especially OB-GYN
- Some physicians are dropping out of OB-GYN
- The beginning of an access to healthcare crisis?
An Example: Malpractice Premium Increase in Massachusetts

Example: Average Premiums in Massachusetts – 2002

- Family Practice: $7,200
- Internal Med.: $8,428
- Ophth.: $8,600
- Ped.: $10,200
- Anesthes.: $12,400
- ENT: $16,800
- General Surg.: $30,246
- Orth. Surg.: $47,000
- OB-GYN: $84,566

Ped: Pediatric; Ophth: Ophthalmology; ENT: Ear, Nose, Throat
Orth: Orthopedic; General Surg: General Surgery; OB: Obstetrics; GYN: Gynecology

I used to deliver babies, but the insurance is too expensive.
What to do about increasing malpractice insurance rates?

- Insurance Industry tries to shun high risk physicians
- Tort Reform aimed at reducing plaintiff’s awards
- State-run malpractice insurance
Chiropractic doctors or Chiropractors diagnose and treat patients' neuromuscular-skeletal disorders of the spine and other body joints by adjusting the spinal column or through other corrective manipulation. Chiropractors are usually in private practice or in clinics with other health practitioners.

What do they do?

- Duties are similar to M.D.'s:
  - Take patient's case history, conduct examination, and perform X-rays and other tests to diagnose patient's condition
- Diagnose neuromuscular-skeletal disorders of the spinal column, pelvis, extremities and associated tissues
- Treatment of health disorders in a natural manner
- Advise patients on corrective exercises, posture, lifestyle and nutrition
- Refer patients for medical care when appropriate.

Structure, Education, Income

- 50,000 to 100,000 Chiropractors in U.S.
- Mostly Solo Practice
- Licenses are regulated at the state level
- 4-year chiropractic college course at an accredited program
- Median Income: approximately $70,000
Nurses

Definitions
Statistics

What Do Nurses Do?

- Assessment
- Diagnosis
- Planning of treatment
- Intervention
- Evaluation of human response to health or illness

More on what nurses do ...

- Work mostly in hospital settings
- In addition to patient assessment and diagnosing: staff teaching, managing care, maintaining patient safety, etc...
- Operate medical technologies and administer medications
Registered Nurse Population

- Licensed in the USA :: 2,558,874
- Females :: 2,433,277 (95.1%)
- Males :: 124,630 (4.9%)
- Under 30 years old :: 228,289 (9%)
- 30 - 39 years old :: 711,050 (27.8%)
- 40 - 49 years old :: 843,757 (33%)
- 50 - 59 years old :: 464,749 (18.2%)
- 60+ years old :: 293,800 (11.5%)

American Association of Critical Care Nurses 2002

Primary Practice Setting

- Hospitals :: 45%
- Intensive Care bed unit :: 17%
- Telemetry/Step Down/PCU :: 6.8%
- Emergency Department :: 7.8%
- Operating room :: 9%
- Post Operative/Recovery :: 3.2%
- General/Specialty unit :: 35.1%
- Labor/Delivery room :: 6.9%

Source: AACCN 2002

Registered Nurse Full Time Salary

- Weekly range :: $395 - $1005
- Average annual for all RNs :: $42,071
- Average annual staff RN :: $38,567
- East Coast average annual staff RN :: $41,884
- South average annual staff RN :: $37,109
- Midwest average annual staff RN :: $35,601
- West Coast average annual staff RN :: $44,781

Continued on next slide
Average annual Supervisor :: $41,950
Average annual Instructor :: $42,407
Average annual Head Nurse :: $46,262
Average annual Clinical Nurse Specialist :: $51,089
Average annual Nurse Practitioner/Midwife :: $55,014
Average annual Nurse Anesthetist :: $86,319

Highest Nursing Education

<table>
<thead>
<tr>
<th>Highest Nursing Education</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor</td>
<td>29.6%</td>
</tr>
<tr>
<td>Master</td>
<td>27.8%</td>
</tr>
<tr>
<td>Diploma</td>
<td>21.1%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>12.0%</td>
</tr>
<tr>
<td>RN</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Source: AACCN-2002

Characteristics of Registered Nurse Population: (HRSA-2001)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNs employed in nursing</td>
<td>2,201,813</td>
</tr>
<tr>
<td>RNs per 100,000</td>
<td>782</td>
</tr>
<tr>
<td>Average age</td>
<td>45.2</td>
</tr>
<tr>
<td>Average age at graduation</td>
<td>30.5</td>
</tr>
<tr>
<td>Average Salary</td>
<td>$46,782</td>
</tr>
<tr>
<td>Percent female</td>
<td>94.60%</td>
</tr>
<tr>
<td>Percent male</td>
<td>5.40%</td>
</tr>
</tbody>
</table>

Source: Health Resources Services Administration 2001
States with highest number of RNs per 100,000 (HRSA-2001)

<table>
<thead>
<tr>
<th>State</th>
<th>RNs per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>1,675</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>1,194</td>
</tr>
<tr>
<td>South Dakota</td>
<td>1,128</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>1,101</td>
</tr>
<tr>
<td>North Dakota</td>
<td>1,096</td>
</tr>
<tr>
<td>Iowa</td>
<td>1,060</td>
</tr>
<tr>
<td>Maine</td>
<td>1,025</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>1,010</td>
</tr>
<tr>
<td>Missouri</td>
<td>960</td>
</tr>
<tr>
<td>Nebraska</td>
<td>958</td>
</tr>
</tbody>
</table>

States with lowest number of RNs per 100,000 (HRSA-2001)

<table>
<thead>
<tr>
<th>State</th>
<th>RNs per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>701</td>
</tr>
<tr>
<td>Georgia</td>
<td>683</td>
</tr>
<tr>
<td>New Mexico</td>
<td>656</td>
</tr>
<tr>
<td>Idaho</td>
<td>636</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>635</td>
</tr>
<tr>
<td>Arizona</td>
<td>628</td>
</tr>
<tr>
<td>Texas</td>
<td>606</td>
</tr>
<tr>
<td>Utah</td>
<td>592</td>
</tr>
<tr>
<td>California</td>
<td>544</td>
</tr>
<tr>
<td>Nevada</td>
<td>520</td>
</tr>
</tbody>
</table>

Highest Educational Preparation of Registered Nurses 1980-2000
Country of Origin for Foreign-Educated RNs in 2004

Full Time RNs

Racial/Ethnic Characteristics of RN Population

Source: HRSA-2001
Chronic Shortages

- National Supply (1.89m) versus Demand (2m)
  - A 6% shortage
- Shortage projected to grow to 12%
- Factors driving demand include growing population and increased proportion of elderly
- What about supply?

Florida Nursing Market

2002 Survey

Florida Situation

Demands for hospital services continue to grow...

While the supply of nurses remains constant
A relatively larger shortage

By 2020, Demand for RNs Will Exceed Supply by 33% in Florida and 20% Nationally

U.S.

Florida

- Supply in Demand

- Supply Exceeds Demand


The Vacancy Rate

Florida's RN Vacancy Rate 1988 - 2002

% of vacant/total RN positions


Source: Survey was not conducted in 1996

Percent of Vacant Positions by Specialty

3,179 Vacant Positions

- Med/Surg 31%
- Adult CCU 23%
- Stepdown & Telemetry 18%
- Emergency 9%
- Operating Room 6%
- Neonatal CCU 2%
- Other 11%

Source: FNA Nurse Staffing Issues in Florida Surveys, 2001 & 2002
Recruitment of Foreign Nurses

Targeted Countries for Recruiting RNs

<table>
<thead>
<tr>
<th># Hospitals</th>
<th>% of Recruiting</th>
<th># RNs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>74%</td>
<td>362</td>
</tr>
<tr>
<td>Canacia</td>
<td>38%</td>
<td>70</td>
</tr>
<tr>
<td>England</td>
<td>27%</td>
<td>9</td>
</tr>
<tr>
<td>Ireland</td>
<td>9%</td>
<td>2</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>9%</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>15%</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Foreign RNs Hired: 461

Source: FHA Nurse Staffing Issues in Florida Survey, 2002

Hospital Spending on Nurse Recruitment by Category: 2001

- Total Recruiting Cost: $12.4 Million
- Salary expenses: 52.7%
- Other costs: 15.0%
- Travel expenses: 2.4%
- Advertising: 50.2%

Source: FHA Nurse Staffing Issues in Florida Survey, 2002

Non-Physician Practitioners

Who are they?

Non-Physician Practitioners
Who are they?

- Nurse Practitioner
- Advanced Practice Nurse
- Certified Nurse Midwife (CNM)
- Certified Registered Nurse Anesthetist (CRNA)
- Clinical Nurse Specialist (CNS)
- Physician Assistant
- Surgery Assistant
- Clinical Social Worker
- Clinical Psychologist (Ph.D.)
- Non-clinical Psychologist
- PT, OT, Speech Pathologist

NP versus PA

Physician assistants are health care professionals licensed to practice medicine with physician supervision.

- Nurse Practitioner
  - NPs are RNs
  - Masters degree trained
  - Certified by a nursing specialty organization
  - Not possible for a non-RN to be a NP

- Physician Assistant
  - Undergraduate degree from an approved PA program.
  - It is possible for an LVN, or RN to be a PA

For useful info on Pas: [http://www.aapa.org/geninfo1.html](http://www.aapa.org/geninfo1.html)

What can they do?

- Nurse Practitioner
  - Physician Services
  - Defined by their Scope of Practice as stated in state law BNE Rules 221.12
  - Limited prescriptive authority

- Physician Assistant
  - Physician Services
  - Defined by their Scope of Practice as stated in state law
  - Limited prescriptive authority
Where can a non-physician practitioner perform services?

- Nurse Practitioner
  - In all settings
  - Inpatient
  - Outpatient
  - SNF
  - Home
  - Nursing Home

- Physician Assistant
  - In all settings
  - Inpatient
  - Outpatient
  - SNF
  - Home
  - Nursing Home

Show me the money!!!

In 2005

- Average Base: $65,000
- Average 1st Year: $56,000
- Salary Range: $50,000 - $105,000

Practice Characteristics for PAs who graduated in 2000

Source: American Academy of Physician Assistants (AAPA) 2001 survey
Other Health Professionals

- Pharmacists
  - Knowledge of drugs and pharmaceuticals
  - Patient Safety
  - Monitor medication orders
- Laboratory Technicians
  - Detection, diagnosis, and treatment
  - Bachelor’s Degree
- Aides
  - Promotion of health and healing
  - Licensed at state level
  - Typically employed by hospitals

Conclusion

Many of the fastest growing occupations are concentrated in the health services field. Factors contributing to continued growth in this industry include the aging population, which will continue to require more services, and the increased use of innovative medical technology for intensive diagnosis and treatment.