

**BROOKS COLLEGE of HEALTH
SCHOOL of NURSING**

**Ist die US-amerikanische APRN ein Vorbild
für Österreich – oder wird auch nur mit
Wasser gekocht?**

Kerms Kongress, 8 May 2024

Univ. Prof. Dr. Dr. John P. McDonough,

CRNA, EdD, Dr. (habil) NScA, ARNP, FRSM

Gründung Professor, Abteilung für Anästhesiologie

Und Direktor der Doktor-Programme

Institut für Pflegewissenschaft u. Praxis



Die Antwort ist:
“ja ist es ein Vorbild”

Vielen Dank für Ihre
Aufmerksamkeit!

Daten und Fakten/ Jacksonville



- US- Bundesstaat: Florida
- County: Duval County
- Gründung: 12 August 1822
- Gebildet aus St.JohnsCounty
- Fläche: 2378km²
- Einwohner: >1M
- Bevölkerungsdichte: 389 Einwohner je km²
- Durchschnittliches Einkommen einer Familie: 47.689USD
- Pro Kopf Einkommen 20.753 USD
- 11,9 % unterhalb der Armutsgrenze



UNF Institut für Pflegewissenschaft



Welcome to **Florida**

We are here



Where did it all start in “the west”?

- ❑ Opened by Theodore Fliedner in Kaisersworth, Germany in 1836, Kaisersworth Deaconess Institute is the first recorded nursing school in western civilization. It was here that Florence Nightingale received her three months of formal training in 1844.

What is the timeline?

- 1860 Nightingale Fund Council & St Thomas Hosp Board establish school
- 1873 Bellevue Hospital SoN 1st class graduates
- 1893 University of Michigan graduates nurses
- 1896 “The Nightingale” 1st nursing journal
- 1900 “American Journal of Nursing”
- 1901 New Zealand Nurse Registration Act

And then...

- 1903 North Carolina, 1st nursing registration law
- 1915 Ohio State Board of Nursing established
- 1923 Yale University, 1st autonomous SoN
- 1954 University of Pittsburgh, PhD in nursing
- 1956 Columbia U, 1st MScN in clinical specialty
- 2002 DNP (practice doctorate) established
 - 2009 5,200 students enrolled

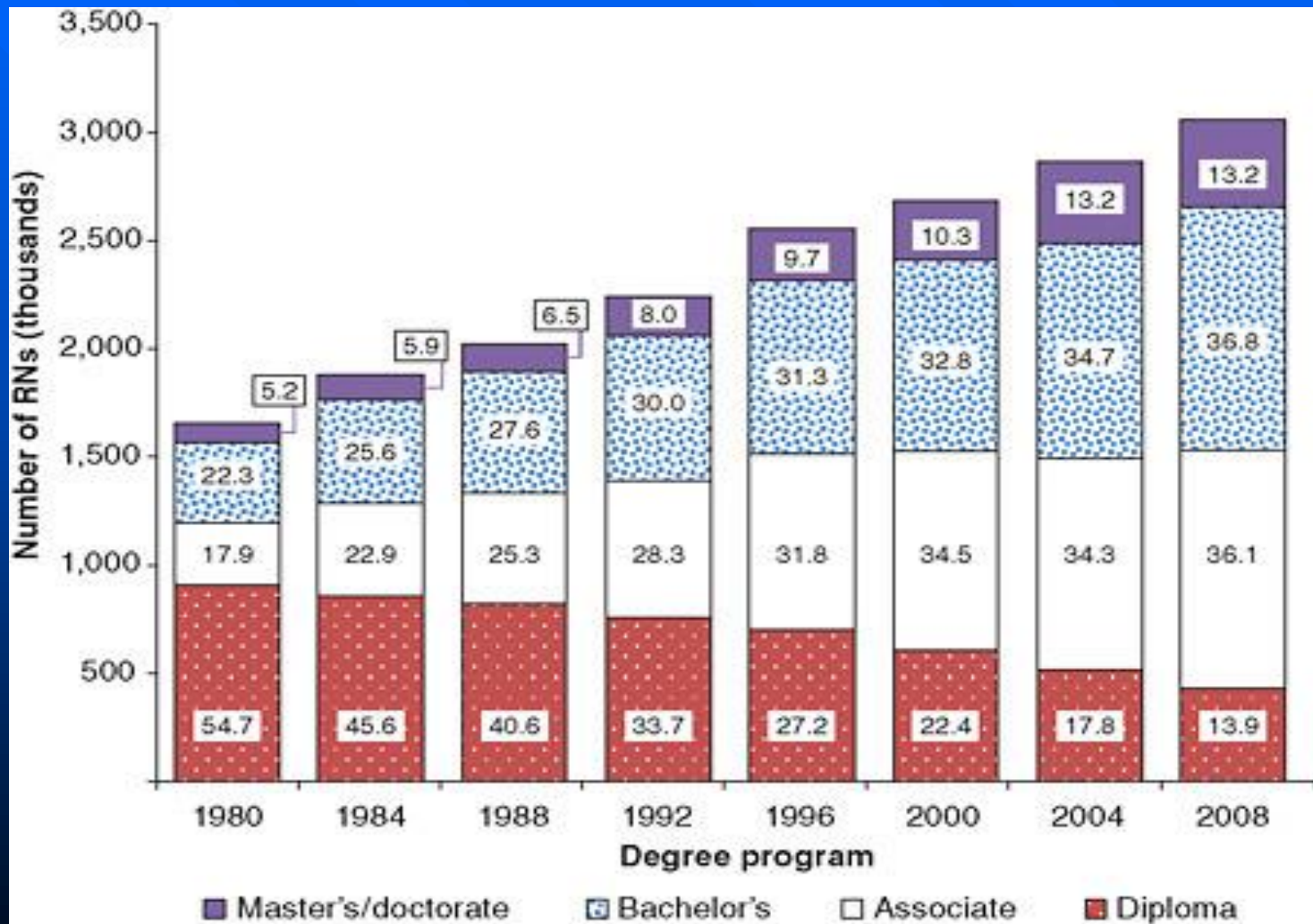
Nurses in the U.S.

- ~ 3,500,000 nationwide (441,361 in Florida)
 - Hospital Diploma 417,000 (13.9%)
 - Associate Degree 1,083,000 (36.1%)
 - BScN 1,104,000 (36.8%)
 - MScN & doctorate 396,000 (13.2%)

ANA “Magnet” hospital status

- BScN targets
 - Major teaching hospitals = 90%
 - Smaller community hospitals = >50%
- BScN strongly preferred for entry level beginning positions in hospitals

Chances between 1980-2008



What do US nurses earn? (US\$)

1€ = US\$ 1.1

	Diploma	Asso Degr	BScN	MS/Doc Degr	Average	(€)
□ All nurses	80,349	72,890	79,316	104,363	80,973	(72.725)
□ Staff nurse	75,527	71,310	76,382	83,616	73,706	(66.363)
□ First-line mgr	81,589	79,138	90,144	102,473	86,506	(78.636)
□ Mid/Sen mgr	89,090	83,871	95,878	120,730	97,391	(88,545)
□ Patient coord	75,693	72,240	92,068	86,516	95,978	(87.181)

Academic nursing preparation is not only found in the US

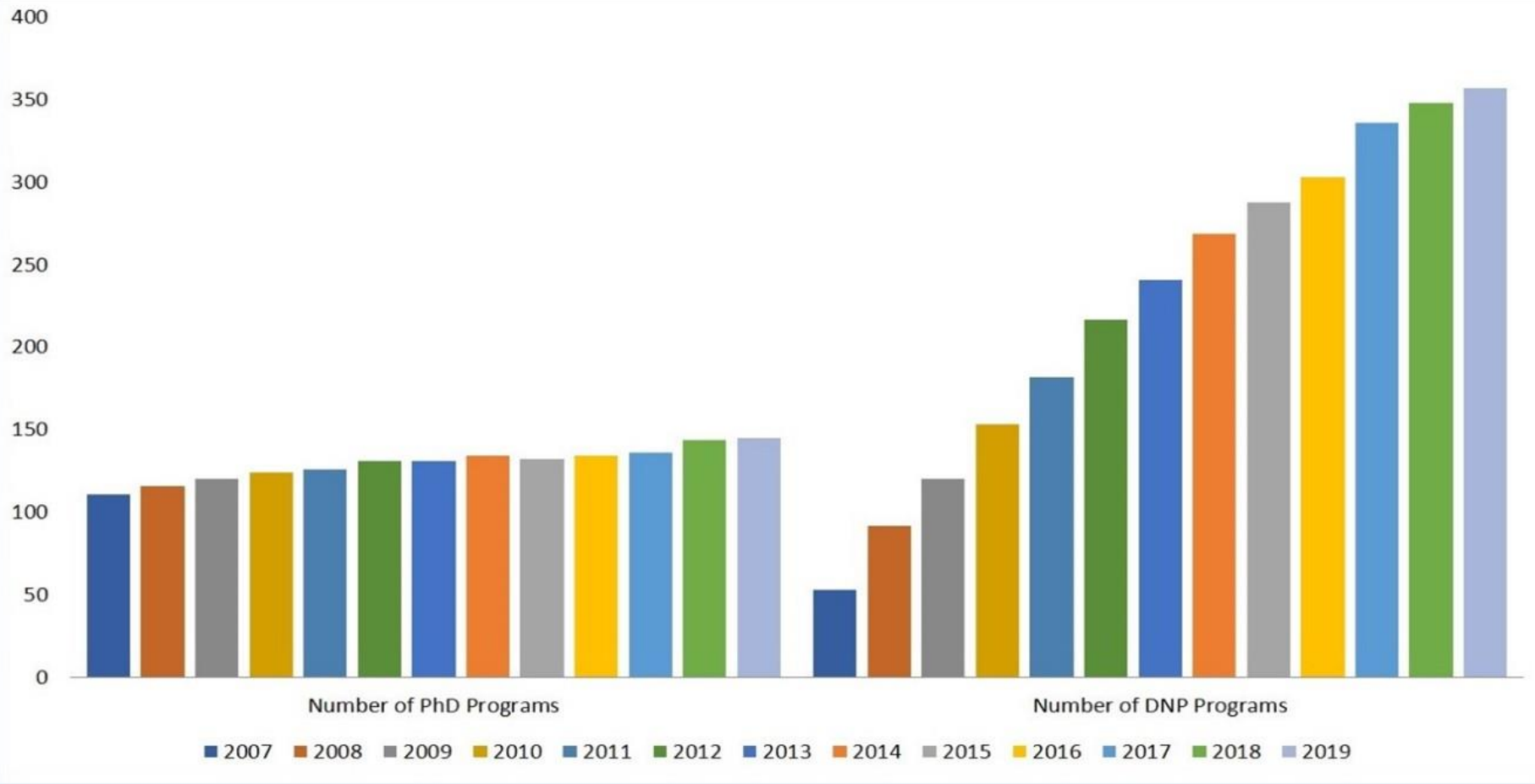
- 69% of nurses working in Belgian cardiac surgery ICUs have at least a BScN degree
- Starting 2011 all new nurses in the UK must have the BScN degree.
- Since 1978 all nurses in Thailand must be educated at the BScN level.

K. Van den Heede et al. (2009) The relationship between inpatient cardiac surgery mortality and nurse numbers and educational level: Analysis of administrative data *International Journal of Nursing Studies* 46 (2009) 796–803
UK National Health Service (<http://www.nhscareers.nhs.uk/nursing.shtml>)
Srisuphan, W. (2009) Development of a Supply and Demand Model for Nursing in Thailand. Chang Mai University.

Advanced Practice Nurses

- Requires a graduate degree (MScN or DNP)
- Permitted to diagnoses and prescribe (order) tests, treatments and medications
- Doctor of Nursing Practice
 - 426 programs now, 70 in planning stages
 - 48,021 students (2022)
 - 11,149 graduates (2022)

PhD v. DNP Programs



What type of APNs are there? (nurse practitioners & clinical specs)

- Anesthesiology
- Family health
- Child health
- Adult health
- Acute care
- Geriatrics
- Women's health/MW
- Mental health
- Cardiac (medical)
- Cardiac (surgical)
- Respiratory
- Oncology
- General medical
- General surgical
- Orthopedics
- et al.

Es ist immer eine Frage des Budgets !



Historical Retrospective Payment System

- “We” provide services
- “They” paid after the service was provided
 - We determined the charges
 - “cost plus” payment
- System *encouraged* treatment
- \uparrow treatment = \uparrow € (\$, £, ¥)

Prospective Payment System

- “DRG” coding determines payment
- Payment set according to what “should be required” to be done
- Based upon “average” values
- Actual service provided has no effect on payment

Why Did This Happen?

- Escalating health care costs
- Decreasing resources

What's happening in Deutschland?

- selbständige Ausübung von Heilkunde
 - “Only physicians can order medical treatment”
- Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen
 - „we have a shortage of healthcare providers“
- My new favorite German word:
 - “Pflegeweiterentwicklungsgesetz”
 - § 63(c) in the SGB V (Sozialgesetzbuch Gesetzliche Krankenversicherung)

Nurses **MÜSSEN** die Pflege steuern

- “Das *Board of Medicine* hat seine Kompetenzen überschritten, da es einen Praxisstandard eingeführt hat, das die Anästhesie in ambulanten Praxen durch *Nurse anesthetists* ohne ärztliche Supervision ausschließt. Autorisiert, Regelungen für die Nurse-Praxis zu erlassen, ist aber nur das *Board of Nursing*. Das *Board of Medicine* überwacht Ärzte, nicht Nurses. Deswegen heben wir diese Anordnung auf und erklären sie für UNGÜLTIG.
- Florida Court of Appeals Case #4D03-1763. Victor Ortiz, CRNA vs. Department of Health, Board of Medicine. Ruling issued 21 JUL 2004

Wan die Theme ist Erziehung oder
Regulierung: Nurses MÜSSEN mit “am
Tisch” sein



Certification in a nursing specialty requires advanced academic preparation

- There is a positive correlation between certification and a sense of “empowerment”.
- Nurses working on the units had a mean of 13 years of nursing experience and a mean of 50% of the nurses in each unit were prepared at the baccalaureate level of education. The mean rate of specialty certification in a unit was 17%, with a range from 4% to 38%.
- “... the importance of workplace empowerment at the unit level emerged as a potential strategy for nurse managers and nurse administrators to increase certification rates in their units.”

Without enough nurses, patients die!

- “Some adverse patient outcomes potentially sensitive to nursing care are urinary tract infections (UTIs), pneumonia, shock, upper gastrointestinal bleeding, longer hospital stays, failure to rescue, and 30-day mortality.”
- “Almost a third of all RNs have a baccalaureate degree, and 7.6 percent of hospital nurses have advanced practice credentials (either a master’s or doctoral degree).”
- “The implications of doing nothing to improve nurse staffing in low staffed hospitals are that a large number of patients will suffer avoidable adverse outcomes and patients will continue to incur higher costs than are necessary.”

- “The highest consensus levels regarding measure sensitivity to nurse staffing were found for nurse perceived quality of care, patient satisfaction and pain, and the lowest for renal failure, cardiac failure, and central nervous system complications.”

Heede, K., et al. (2007) International experts' perspectives on the state of the nurse staffing and patient outcomes literature. *J Nurs Scholarsh.* 39:4, 290-7.

Satisfaction and failure to rescue

- “... all patient satisfaction measures increased as total hours of care per patient day increased, and as the skill mix became richer (more RN hours/total hours) there was a higher satisfaction with pain management and physical care requests.”
- “There was an increase in FTR (failure to rescue) from medication error as the non-RN (Other) hours of care per patient day increased...”

Seago, J., Williamson, A., Atwood, C. (2006) Longitudinal Analyses of Nurse Staffing and Patient Outcomes. JONA 36:1, 13-21.

Nurses retten Leben und Geld!

- 232 kalifornische Krankenhäuser; 124.204 Patienten; 20 chirurgische DRGs
- 10% ↑ bei Pflegekräften verringerten das Risiko von Pneumonien um 9,5% ↓.

Tourangeau AE, Giovannetti P, Tu JV, Wood M.

- Nursing-related determinants of 30-day mortality for hospitalized patients. *Can J Nurs Res* 2002 Mar;33(4):71-88

Cho SH, Ketefian S, Barkauskas VH, Smith DG

- The effects of nurse staffing on adverse events, morbidity, mortality, and medical costs. *Nurs Res* 2003 Mar-Apr;52(2):71-9

Zahl der Pflegekräfte verglichen mit der Sterblichkeitsrate

(Krankenhäuser=168; Patienten=232,3K; Nurses=10,2K)

- Pro 100 chirurgische Patienten, die innerhalb von 30 Tagen nach dem Eingriff sterben,
↓ Pflegekräfte = ↑ Sterblichkeit. Die
Gegenüberstellung Patient/Nurse belegt:
 - 4:1 = 100 Todesfälle
 - 5:1 = 107 Todesfälle
 - 6:1 = 114 Todesfälle
 - 7:1 = 123 Todesfälle
 - 8:1 = 131 Todesfälle

University of Pennsylvania Report (2002) *“Hospital staffing and patient mortality, nurse ‘burnout’ and job dissatisfaction”*.

Nurses Manage Hospital Care

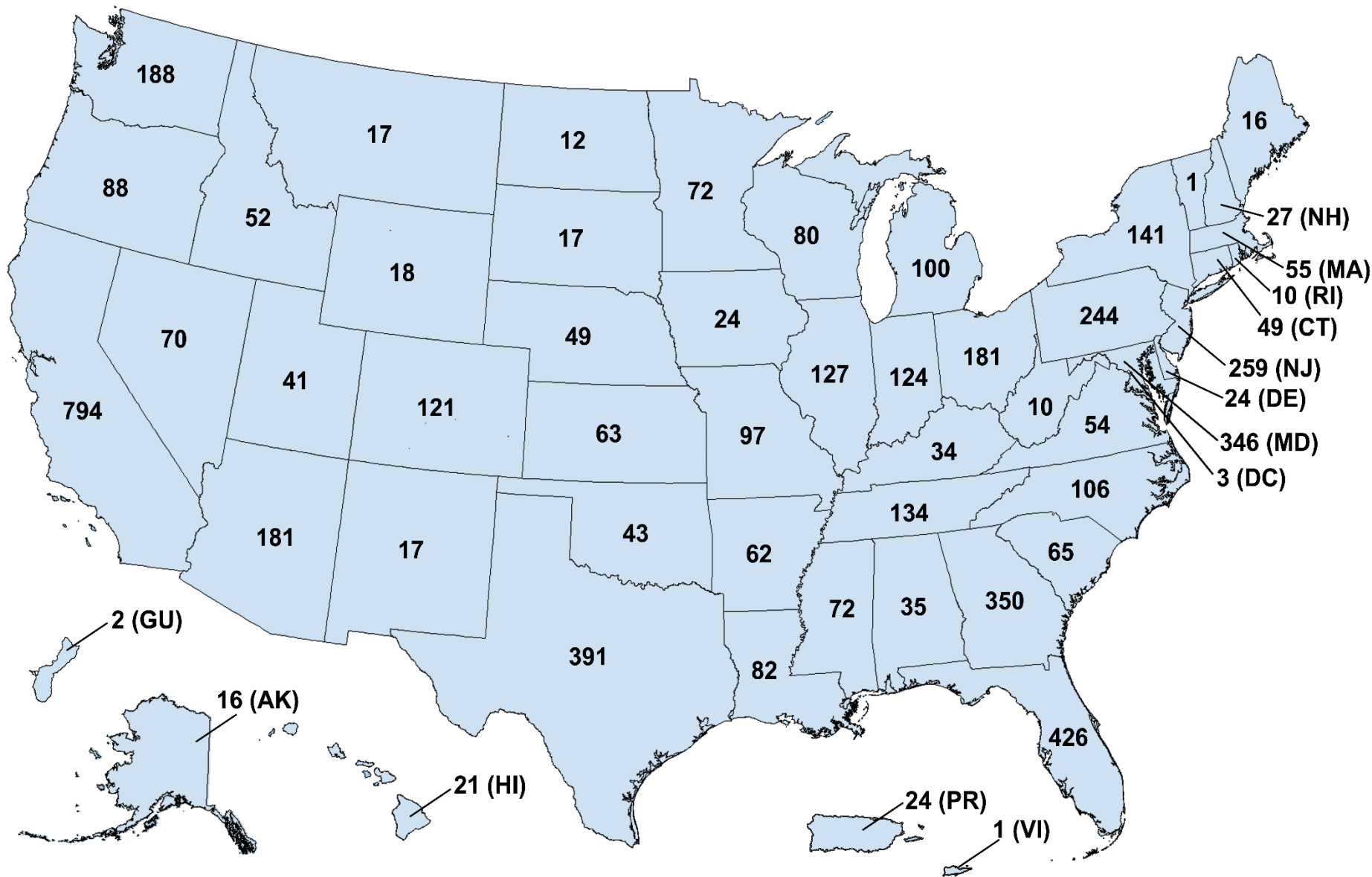
- APNs identified nursing strategies developed to monitor the elderly patient, implement interventions, and evaluate patient outcomes. Goals: identify “outliers” before becoming outliers, managing their nursing care early, attempt to match resource requirements with resource availability
- Cisar NS, Mitchell CA. Development of a program to manage costly outliers. Clin Nurse Spec 2001 Jan;15(1):25-33.

Why are patients in “hospitals”?

- Why are patients admitted to hospitals?
 - *For surgery services?*

Ambulatory Surgery Center





**Commons
Medical &
Surgical Centre**



800

 **ANCHOR
HEALTH CENTERS**

ADMINISTRATION OFFICE

**COLLIER SURGERY
CENTER**

PHYSICIAN OFFICES



Office Based Surgery



Why are patients in “hospitals”?

- Why are patients admitted to hospitals?
 - *For endoscopy?*

*The Endoscopy
Center of Naples*

1

5

0



Why are patients in “hospitals”?

- Why are patients admitted to hospitals?
 - *For laboratory services?*

Freestanding Laboratory



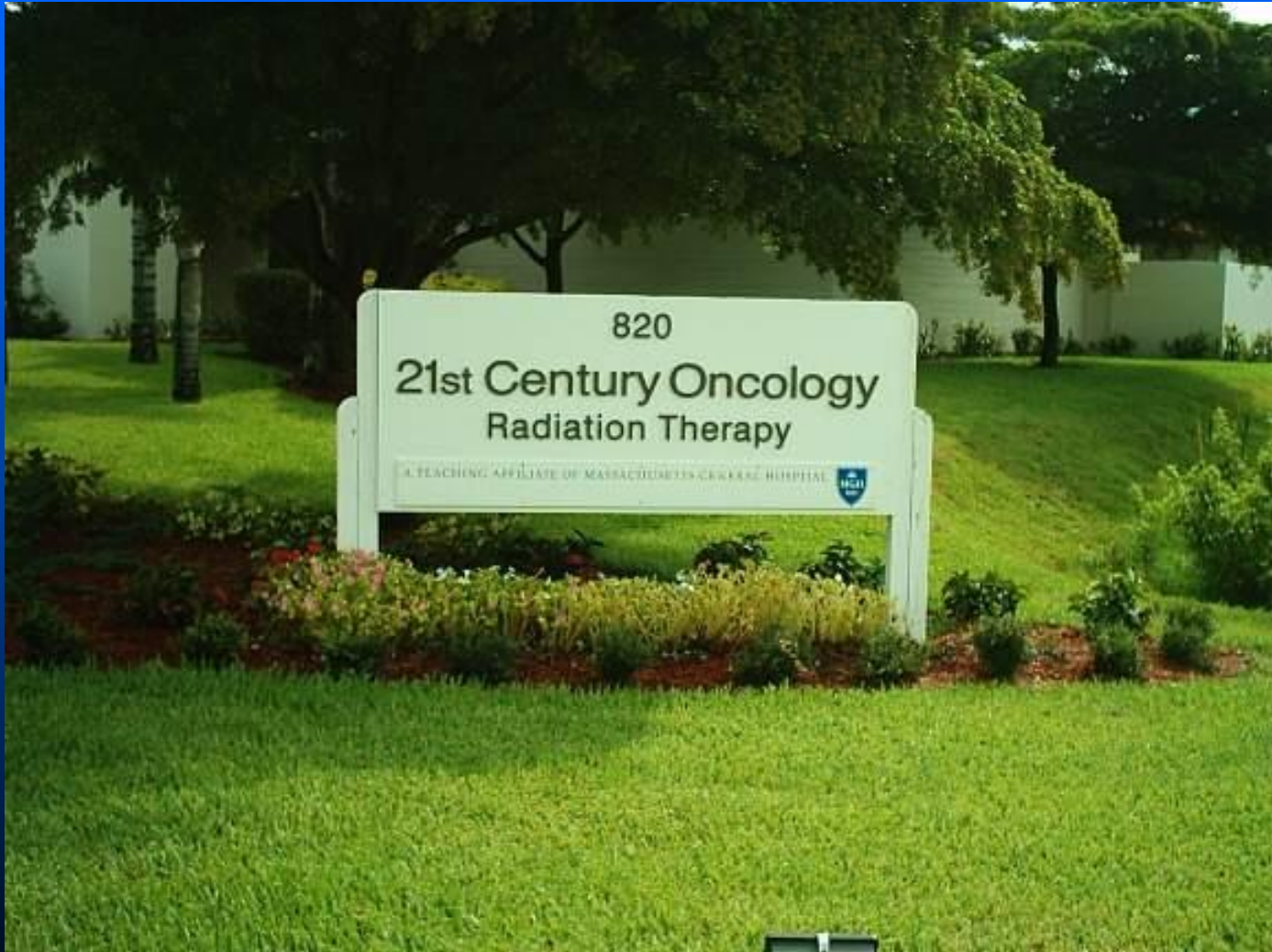
Why are patients in “hospitals”?

- Why are patients admitted to hospitals?
 - *For radiology services?*



Why are patients in “hospitals”?

- Why are patients admitted to hospitals?
 - *For radiation therapy?*



Why are patients in “hospitals”?

- Why are patients admitted to hospitals?
 - *For surgery services?*
 - For endoscopy?
 - For laboratory services?
 - For radiology services?
 - For radiation therapy?
- ***NO!***
- All of the above can be done outside of hospitals
- They are admitted for *nursing care!*

Why Should We Consider Pharmacoeconomics (PE)?

- Health care is a large share of US GDP
- Double-digit inflation in insurance premiums
 - The value of medical insurance continues to shrink
- Hospitals and healthcare providers complain about rising costs and shrinking reimbursement
- Healthcare providers, especially physicians, work longer hours for lower payments
- Nurses are leaving the field

Kilicullen. *Fellow Reporter*. 2002;7:47-52.

Thomas. *New York Times*. 12/31/00.

PERCENTAGE OF PEOPLE WITH ANY HEALTH INSURANCE IN THE U.S.

91.4%

PERCENTAGE OF U.S. POPULATION WITH HEALTH INSURANCE THROUGH THEIR EMPLOYER

50.3%

PERCENTAGE OF PEOPLE WITH PUBLIC HEALTH INSURANCE IN THE U.S.

39.5%

2022 U.S. Census Data

- $335.5 \text{ M} \times .094 = \sim 306.190.000$ insured
- NOT INSURED
 - $335.5\text{M} \times 301.7 \text{ M} = \mathbf{28,810.000}$ people

Why Should We Consider PE? (cont'd)

- ❑ Negative perioperative outcomes absorb extra healthcare resources at a time of increased pressure to reduce spending
- ❑ Physicians often are unaware of the economic costs and benefits associated with many of the clinical decisions they make
- ❑ PE studies can be used widely and are essential in attempting to justify costly new medical services

Relating Costs to Outcomes

□ Cost-benefit

- Broader measure of the value of an intervention that places a monetary value on clinical outcomes¹
 - » Measures the “yield” or “return” on an investment in monetary terms²
 - » Reduces all benefits to dollar terms: ethical issues?
 - » Attempts to quantify aspects of the effects of an intervention that may not be specifically related to health

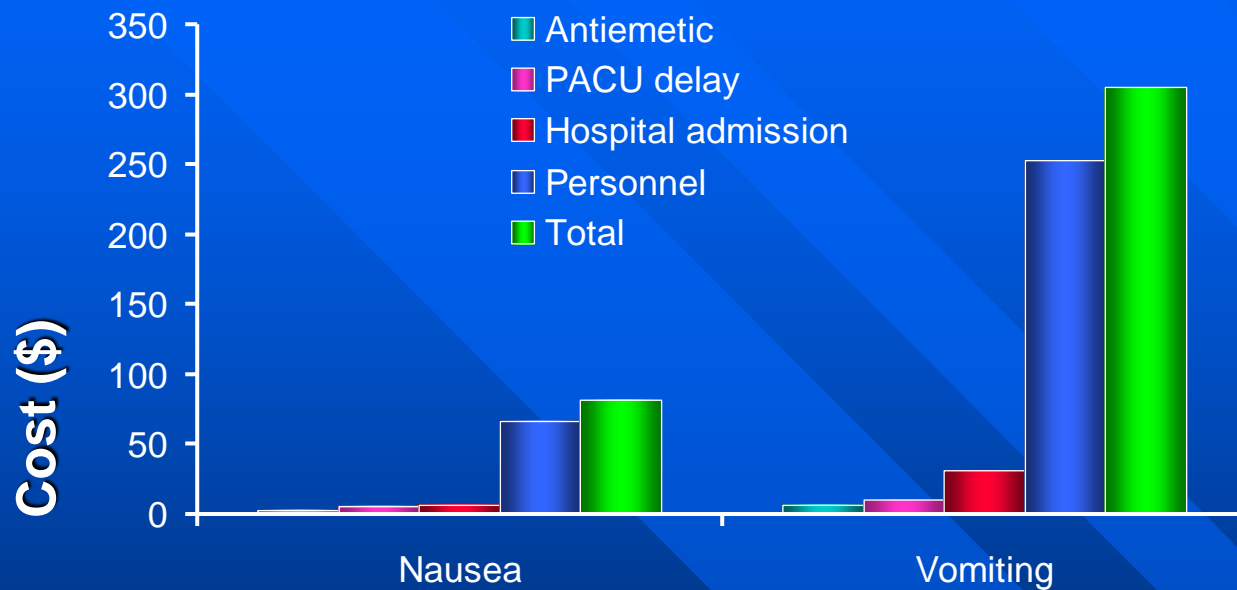
Arrow. *J Health Polit Policy Law*. 2001;26:851-883.

McGhan et al. In: Bootman et al, eds. *Principles of Pharmacoeconomics*. 2nd ed. 1996:57-60.

Features of Drug Utilization Review

- ❑ Surrogate diagnosis made based on the drug
- ❑ Initiated by the **pharmacist**
- ❑ Focus on **cost savings**
- ❑ Tries to reduce drug use
- ❑ Cost savings realized through reduced drug expenditures
- ❑ Alerts are in reaction to therapy chosen
- ❑ Occurs after patient visit to the physician

Mean Cost per Episode of Nausea/Emesis



Features of Therapeutic Decision Support

- ❑ Drug chosen on the basis of provider's diagnosis
- ❑ Initiated by the **provider**
- ❑ Focus on **patient**
- ❑ Tries to increase **appropriate** drug use to solve underuse
- ❑ Cost savings realized through reduction in patient's total healthcare costs

Clinical Pathways

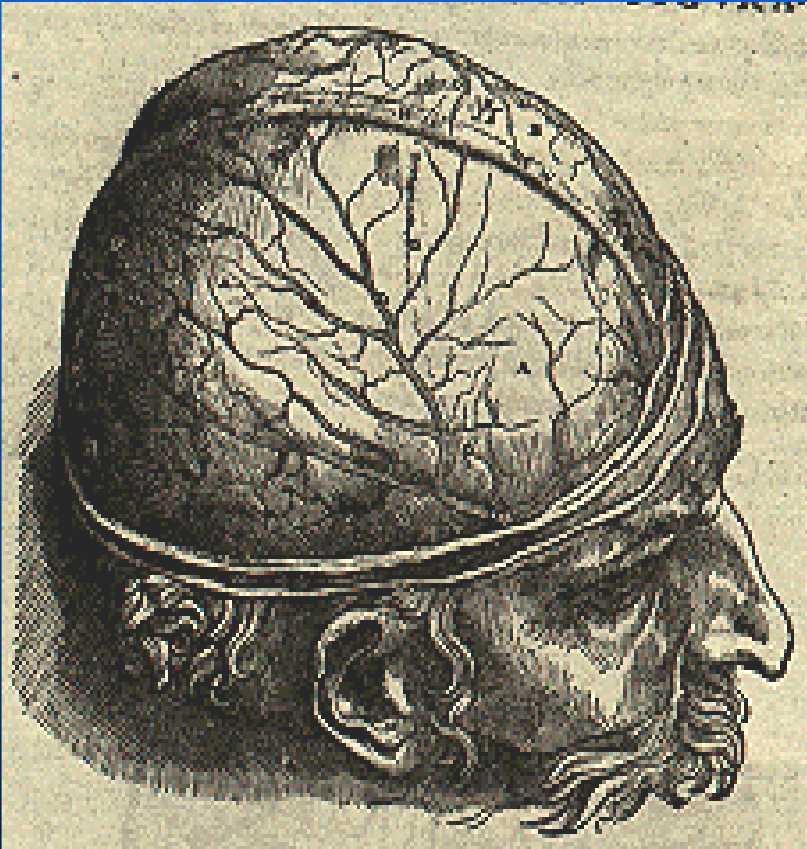
- Evidenced based
- Assures quality
- Improves outcomes
- Increases staff familiarity
- to reduce costs and improve quality
- Crummer MB, Carter V. Critical pathways--the pivotal tool. J Cardiovasc Nurs 1993 Jul;7(4):30-7
- Renholm M, Leino-Kilpi H, Suominen T. Critical pathways: A systematic review. J Nurs Adm 2002 Apr;32(4):196-202

“The Future of Nursing”

IOM, National Academy of Sciences

- 50.0% of the RN workforce holds a baccalaureate
- “...called for increasing the number of BScN-prepared nurses in the workforce to 80% and doubling the population of nurses with doctorates.”
- “Data analyzed by this international team of research that included representatives from Belgium, Canada, the Netherlands, and the United States showed that there were 4.9 fewer deaths per 1,000 patients on intensive care units staffed with a higher percentage of nurses with bachelor’s degrees.”

Was ist der Unterschied zwischen “Krise” und “Chance”?



- Es kommt darauf an, was man im Kopf daraus macht!



Vielen Dank für Ihre
Aufmerksamkeit!



Fragen?

(vielleicht würde Englisch besser sein)