SURGEON SHORTAGE IN THE US: FACT OR FICTION, CAUSES, CONSEQUENCES (I HAVE NO SOLUTIONS!)

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MY BACKGROUND

- Born in rural Kentucky
- Attended University of Kentucky Medical School
- Trained in general/thoracic surgery
- Surgical faculty at University of Louisville for 34 years. Directed residency/busy clinical surgeon.
- Chair , American Board of Surgery;

  Vice-Chair, Residency Review Committee for Surgery; Regent, American College of Surgeons

DISCLAIMERS

- Definitely will not be my best talk (and may be my worst!) but done on the shortest notice
- Practical interest in surgical workforce (on ACS Workforce Committee) but no health care systems expert or policy wonk
- There is a huge shortage of doctors of all types; difficult to find primary care physician (PCP); this is not to devalue other specialties
- Most remarks focus on general surgeon but all surgical disciplines have issues

SURGEON SHORTAGE: FACT OR FICTION?

- Anecdotal
- Data

SURGEON SHORTAGE

- **USA TODAY 2/26/08** Shortage of surgeons pinches U.S. hospitals
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Jul 28, 2009

ANECDOTAL EVIDENCE FOR SHORTAGE

- Google surgeon shortage – 841,000 citations
- Over 1000 hospitals seeking general surgeons (over 40 in KY) in our survey of hospitals/search firm
- Average KY recruiting time is over three years

DATA

- Ohio State – general surgeon issues
- UCLA - shortage of all surgical specialties
- North Carolina – SHEPS, ACS Health Policy Institute

GENERAL SURGERY SHORTAGE

- Estimated 21,500 general surgeons in US
- Estimated 6,000 do few, if any, operations: semi-retirement, administration, office practice, etc.
- 705 die or retire annually
- 7.53/100,000 population
- Annually train 1,000 general surgeons
- Need to train 1875 surgeons annually by 2020 to stay even with population growth

FATE OF GENERAL SURGERY TRAINEES

- 1000 finish residency annually
- About 50-100 never practice (disability, change careers, women's issues – family, children, etc.)
- 60% now do additional training – many focus on very narrow fields: transplant, heart surgery, etc. These are important but create tremendous generalist shortages; i.e., general surgeon.
- Specialization has created a huge void of generalists in almost all specialties
- About 500 general surgeons entering practice annually (705 needed for status quo)

SHORTAGES OF SPECIALIST SURGEONS (UCLA) 2020 PROJECT GROWTH

Specialty	**2020 Projected Growth % Cases**
Ophthalmology	47
Cardiac	42
General surgery	31
Orthopedics	28
Neurosurgery	28
Otolaryngology	14

SHORTAGE OR MALDISTRIBUTION?

- Critics occasionally cite maldistribution as the real problem
- Maldistribution is a major problem and access to surgical care in rural areas is a major problem that will worsen
- Only oversupply might be plastic surgeons
- General surgery needs are present in most cities as well, large and small
- ED coverage is huge problem
- Louisville appointment times: foot surgeon 2-3 mos. Spine surgeon 1-2 months; G.S. weeks

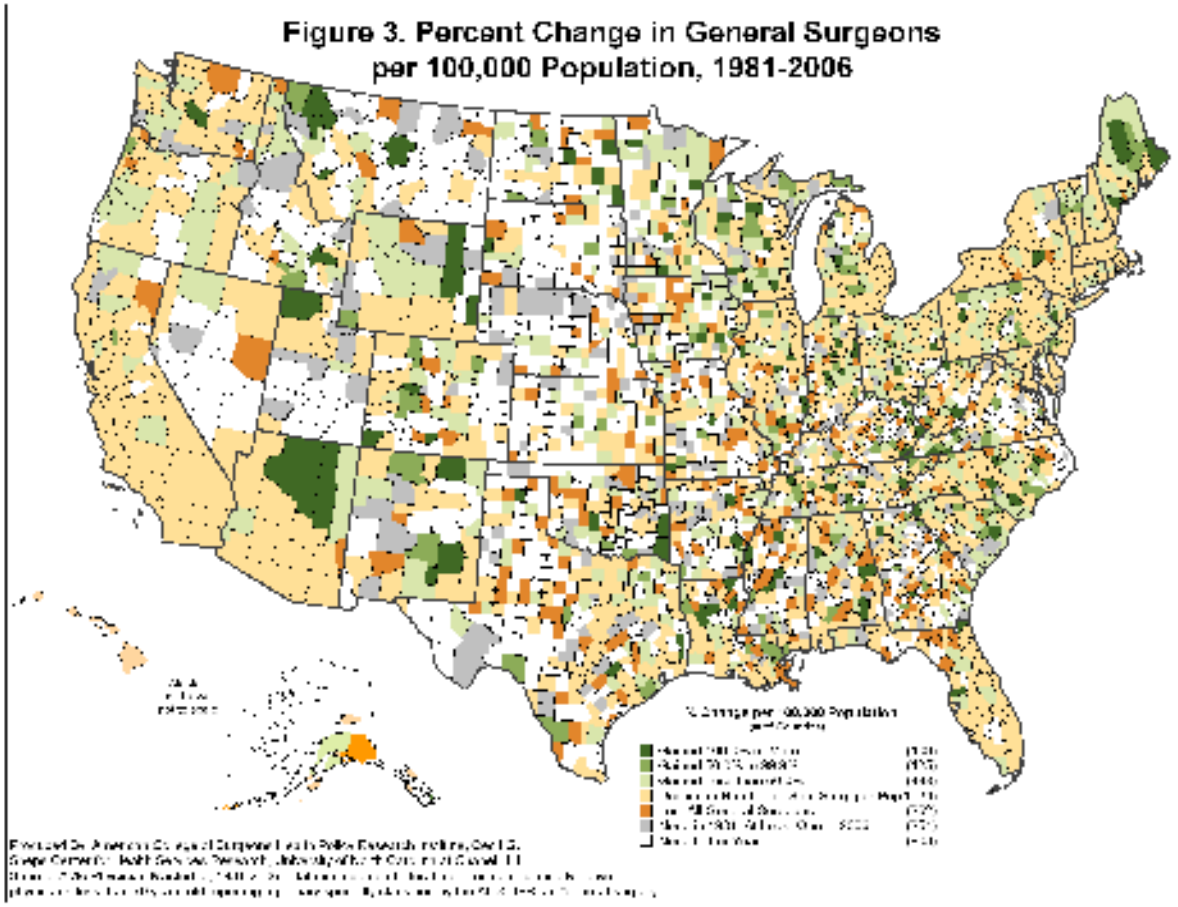
DISTRIBUTION OF GENERAL SURGEONS

- 1981: 1,025 of all US counties had no practicing surgeons (1/3 of counties in U.S.)
- 2006: 303 gained a surgeon but 203 lost all surgeons
- 925 counties with surgeon had collective population of 14.7 million
- 60% of all urban counties had declining surgeons

MISPERCEPTIONS ABOUT SHORTAGES

- Many academic surgeons (Ivory Tower), health policy types and politicians do not understand the fundamental nature of where shortage occur
- Assume the shortages occur in very small towns/wilderness environments; in fact, most towns of 10,000 to 25,000 function as regional medical centers in much of the country and have shortages
- Hometown example: Morehead has a 6-county service area with one hospital – lost surgeons to Chillicothee, OH and Valpariso, IN

Figure 3. Percent Change in General Surgeons per 100,000 Population, 1981-2006



[1] Graduate Medical Education National Advisory Committee (1980). Report to the Secretary, Department of Health and Human Services, Geographic Distribution Technical Panel Vol III. (DHHS Publication No. HRA 81-653). Washington, DC.

CAUSES OF SURGEON SHORTAGE

- Shortages of all physicians
- Bad projections on surgeon supply
- Devaluation of surgeons
- Public policy
- Economics
- Lifestyle

GENERAL SHORTAGE OF PHYSICIANS

- Many shortages exist, hard to find PCP, who wants to deliver babies at night?, etc.

DEVALUATION OF SURGEONS AND WHAT WE DO

- “Cognitive” specialties vs. proceduralist
- The surgeon as a technician view
- Medical schools formed for PCP creation
- Interest in primary care earns points with admission committee
- Focus on procedures as costs drivers while ignoring other factors
- Stereotypical images: Marcus Welby vs. Dr. Kildare

PUBLIC POLICY

- Many examples

- Balanced Budget Act capped surgical residency positions while creating a huge surplus in primary care

WORKFORCE PROJECTIONS

- Virtually every workforce projection underestimated the need for surgeons and seriously underestimated the number of surgeons
- Some question the motives behind these studies . My charitable view = difficult to predict the future

ECONOMICS

- In a budget neutral world, the increase paid to primary care and radiology (as an example) has come directly from surgeons
- While some corrections may have been needed, surgeons incomes have plummeted
- Reimbursement for average laparoscopic appendectomy $525, laparoscopic cholecystectomy $600, open cholecystectomy $518, direct repair of aortic aneurysm $1,120, Whipple $2,500,
- The actual amount paid for these ops is less than 1976 when I entered practice simply cannot make it up on volume
- Huge practice expenses, particularly malpractice insurance

LIFESTYLE

- Average education debit of risk punishes longer training disciplines; average surgeon now trains 6.4 years after medical school, nearly 34 before entering practice
- Incredibly rigorous training; requires time to develop master surgeon skills
- Physically very demanding 60-100 hour work weeks once common – new generation not interested especially without appropriate compensation
- Especially tough for these providing 24-7-365 care

CONSEQUENCES OF SHORTAGES

- Access and distribution problems
- Impact on critical access hospitals
- People will die!

ACCESS AND DISTRIBUTION

- As shortages worsen, there will be increasing raiding by wealthy hospitals of rural, less affluent public hospitals of their surgeons
- Already huge pressure on those who provided emergency care (what sane, rational person would do that?)
- Creation of surgical “deserts”

CRITICAL ACCESS HOSPITALS

- 1305 critical access hospitals in July 2009
- Virtually impossible for many of these hospitals to survive without a general surgeon
- Surgeons are the economic drivers for virtually all hospitals, small and large, but small hospitals are particularly vulnerable
- Economic impact of surgeon loss to a small town whose hospital closes is immeasurable

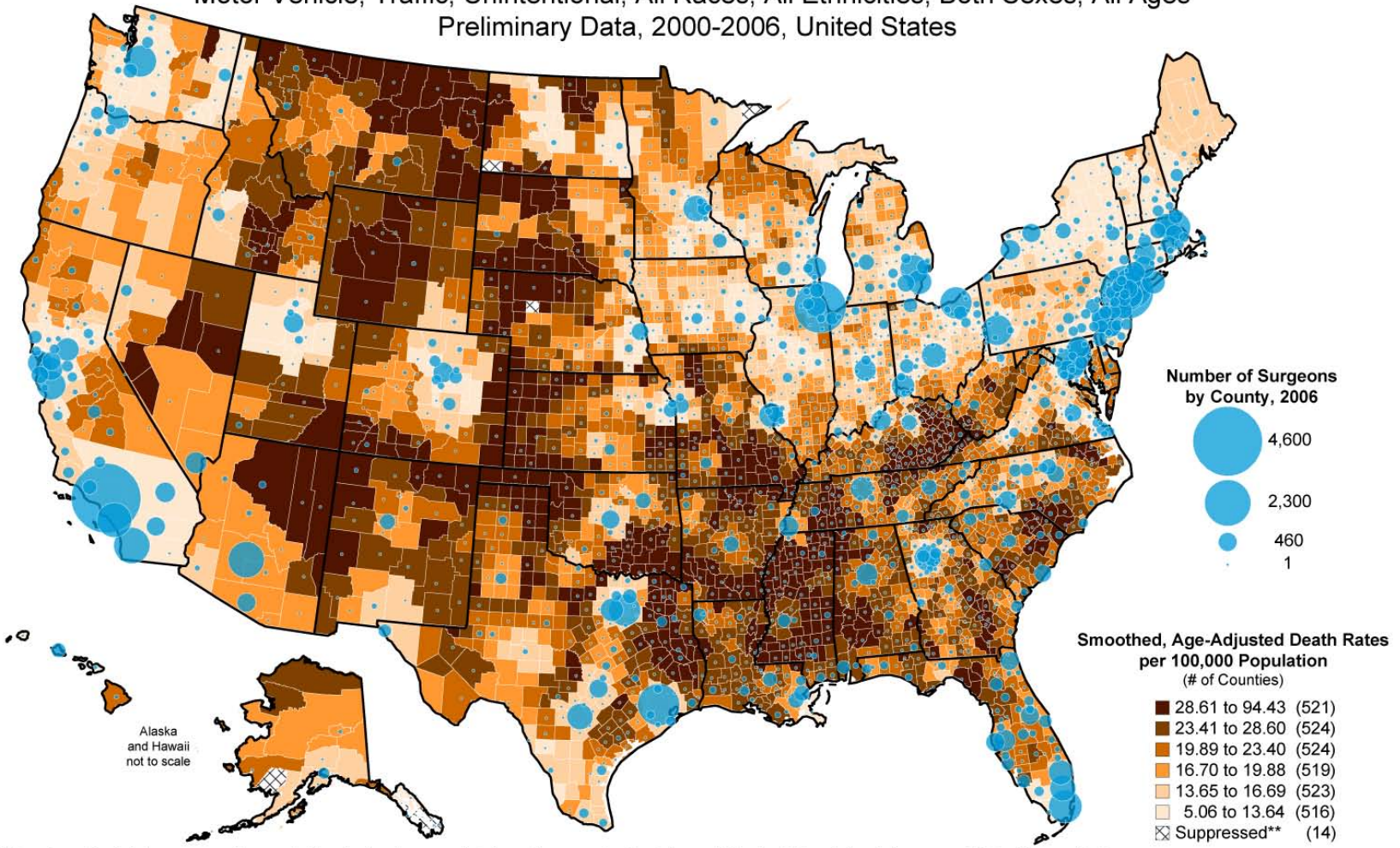
IMPACT ON MORTALITY

- A surgeon actually can save lives: neurosurgeon for certain head injuries, someone who can do a tracheostomy for airway compromise, a surgeon who stops bleeding, treats the badly injured
- I love my internist and he may save my life slowly and incrementally but if I am really dying fast he can't help me
- PCP get help from nurse practitioners and PA, but extenders or alternate practitioners can't do procedures for a surgeon

Number of Surgeons by County, 2006 and Smoothed, Age-Adjusted Death Rates per 100,000 Population

Motor Vehicle, Traffic, Unintentional, All Races, All Ethnicities, Both Sexes, All Ages*

Preliminary Data, 2000-2006, United States



Notes: Smoothed data were used to create the death rate map; data based on county of residence. *Standard Population is from year 2000, all races, both sexes. Reports for all ages include those of unknown age. **Death rates based on 20 or fewer deaths may be unstable. These counties have been suppressed (see legend).

Sources: Surgeons: AMA Physician Masterfile, 2006. Surgeon data include all non-federal, non-resident,clinically active physicians less than 70 years old reporting a primary specialty as any type of surgery. Death Rates: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC, with age-adjusted death rates derived from the NCHS Vital Statistics System (number of deaths) and the US Census Bureau (population estimates).

Produced By: American College of Surgeons Health Policy Research Institute, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

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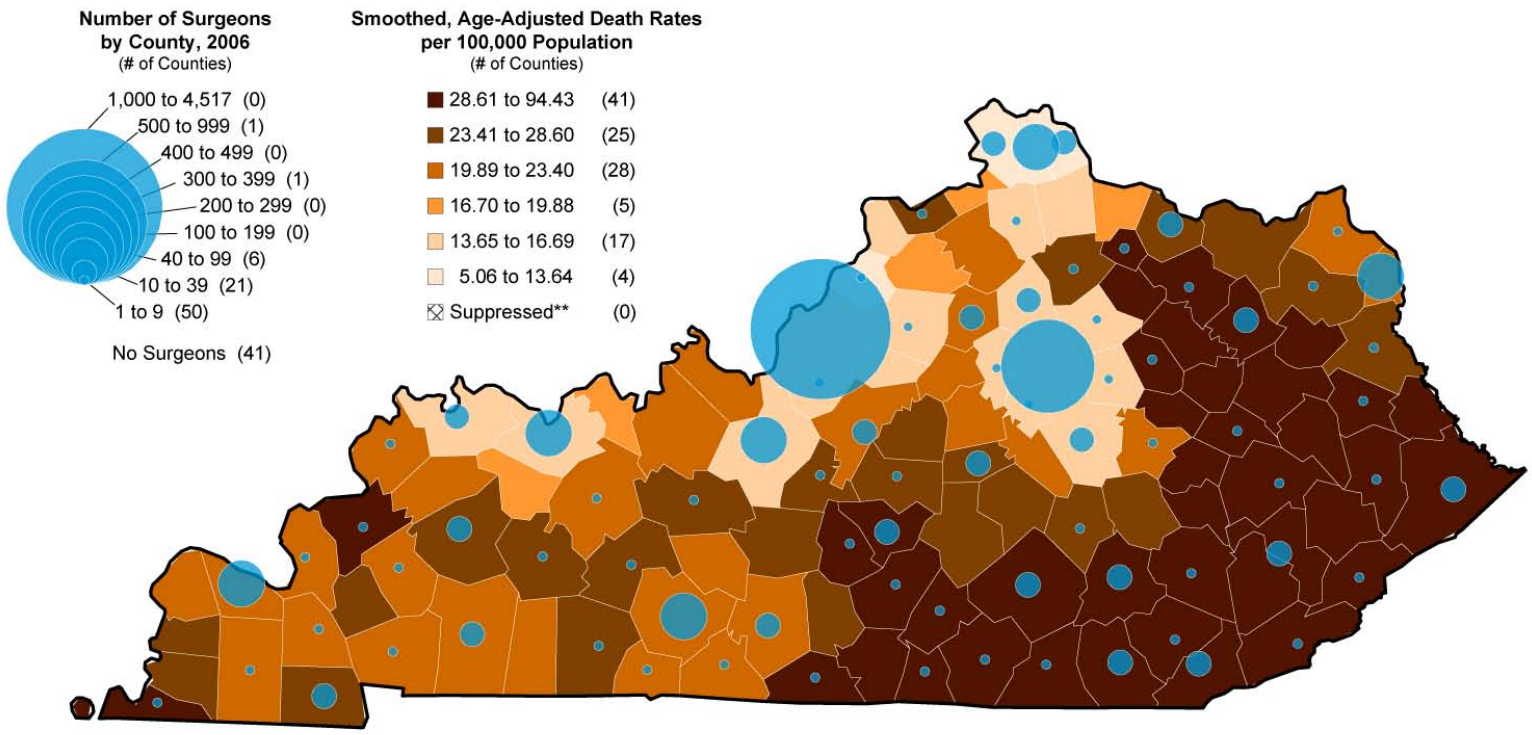

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Sources: US Census Bureau, 2008; CMS Regional Office, ORHP, and State Offices Coordinating with MRHFP, 2009.
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SOLUTIONS

- Insourcing
- Train more surgeons
- Regionalization of care

INSOURCING (STEALING FROM OTHER COUNTIES)

- Relies on other poorer counties to furnish surgeons for the world's richest country
- India, Pakistan and Philippines are three primary sources of IMG's and their training is very different
- We will not get trained surgeons to solve our needs (but they do produce many U.S. resident)
- Considerable social, cultural, and language barriers to overcome at times

INCREASE OUTPUT

- Even if public policy changes and more positions are approved, there are several huge problems:
  - Long lag time to have a surgeon trained
  - Difficult to identify candidates in medical schools where half are women (less interested in surgery than men statistically) and lifestyle desires are different for both sexes
  - Will they go to the “desert”?

REGIONALIZATION

- Referral of surgical cases to centers : already done in many cases
- May be okay for elective problems but does not work well for surgical emergencies
- Do patients have a right to surgical care close to home?

SUMMARY

- Anecdotal and real evidence we have a problem with surgical shortage
- Multi-factorial causation
- Potential adverse consequences to this shortage
- Few short-term fixes