RURAL RESIDENCY FEST GENERAL SURGERY

MICHAEL D SARAP MD FACS

CAMBRIDGE, OHIO

WHY AM I HERE?

- 34 YEARS PRACTICE IN SAME RURAL COMMUNITY (WITH 1, 2 OR 3 PARTNERS)
- CLINICAL FACULTY FOR SURGICAL RESIDENCY PROGRAM, OSTEOPATHIC MED SCHOOL AND LOCAL COLLEGE PA PROGRAM
- COORDINATE RURAL SURGICAL RESIDENT ROTATION
- LONGTERM INTEREST IN RURAL TRAUMA AND ONCOLOGY INITIATIVES
- LOCAL, STATE AND NATIONAL AMERICAN COLLEGE OF SURGEONS AND COMMISSION ON CANCER INVOLVEMENT


Smart-Traveler.Info® Road Map of Ohio
CANADA
ONTARIO
MICHIGAN
Lake Erie
Adrian
Monroe
Toledo
Sylvania
Oregon
Lake Erie Is.
Perry's Victory & Int'l. Peace Mem.
Kelleys I.
Wauseon
Maumee
Perrysburg
Port Clinton
Bryan
Napoleon
Bowling Green
Fremont
Sandusky
Lorain
N. Olmsted
Huron
Elyria
Cleveland
Euclid
Willoughby
Mentor
Painesville
Conneaut
North Madison
Geneva
Ashtabula
Pymatuning Res.
Westlake
Cleveland Heights
Beachwood
Garfield Heights
Parma
Strongsville
Brunswick
Defiance
Clyde
Norwalk
Bellevue
Fostoria
Tiffin
Willard
Findlay
Medina
Akron
Aurora
Streetsboro
Cortland
Warren
Girard
Youngstown
Cuyahoga Valley Nat. Pk.
Cuyahoga Falls
Wadsworth
Barberton
Austintown
Boardman
Poland
North Lima
Maumee R.
Van Wert
Delphos
Upper Sandusky
Shelby
Ashland
Rittman
Alliance
North Canton
Omville
Wooster
Massillon
Canton
Salem
East Palestine
Lima
Ada
Bucyrus
Galion
Mansfield
Kenton
Marion
Bellville
AMISH COUNTRY
East Liverpool
Celina
Wapakoneta
St. Marys
Indian L.
Scioto R.
Grand L.-St. Marys
Great Miami R.
Bellefontaine
New Philadelphia
Toronto
Uhrichsville
Steubenville
Mount Vernon
Sidney
Delaware
Marysville
Sunbury
Westerville
Coshocton
OHIO
INDIANA
PENNSYLVANIA
Greenville
Piqua
Urbana
Troy
Dublin
Worthington
Hilliard
Gahanna
Newark
Cambridge
Martins Ferry
St. Clairsville
Wheeling
Springfield
COLUMBUS
Reynoldsburg
Zanesville
Ohio R.
Vandalia
Englewood
Huber Heights
Fairborn
London
Grove City
Pickerington
Richmond
Trotwood
Dayton
Beavercreek
Kettering
Xenia
Muskingum R.
Miamisburg
Centerville
Springboro
Franklin
Lancaster
New Lexington
Wayne National Forest
Oxford
Middletown
Lebanon
Wilmington
Circleville
Washington Court House
Logan
Hocking Hills
Hamilton
Fairfield
Mason
Fort Ancient St. Mem.
Paramount's Kings Island
Springdale
Sharonville
Blue Ash
Norwood
Hopewell Culture Nat. Hist. Park
Chillicothe
Greenfield
Athens
Marietta
Parkersburg
Harrison
White Oak
Cincinnati
Covington
Hillsboro
Wellston
Serpent Mound State Mem.
Jackson
Scioto R.
WEST VIRGINIA
Ohio R.
Portsmouth
Wheelersburg
Wayne Nat. Forest
Ironton
Ashland
Huntington
Charleston
KENTUCKY
0 10 20 30 40
Miles
© World Sites Atlas (sitesatlas.com)

Defining Rural

"Rural areas cover **97 percent** of the nation's land area but contain **19.3 percent** of the population (about 60 million people)

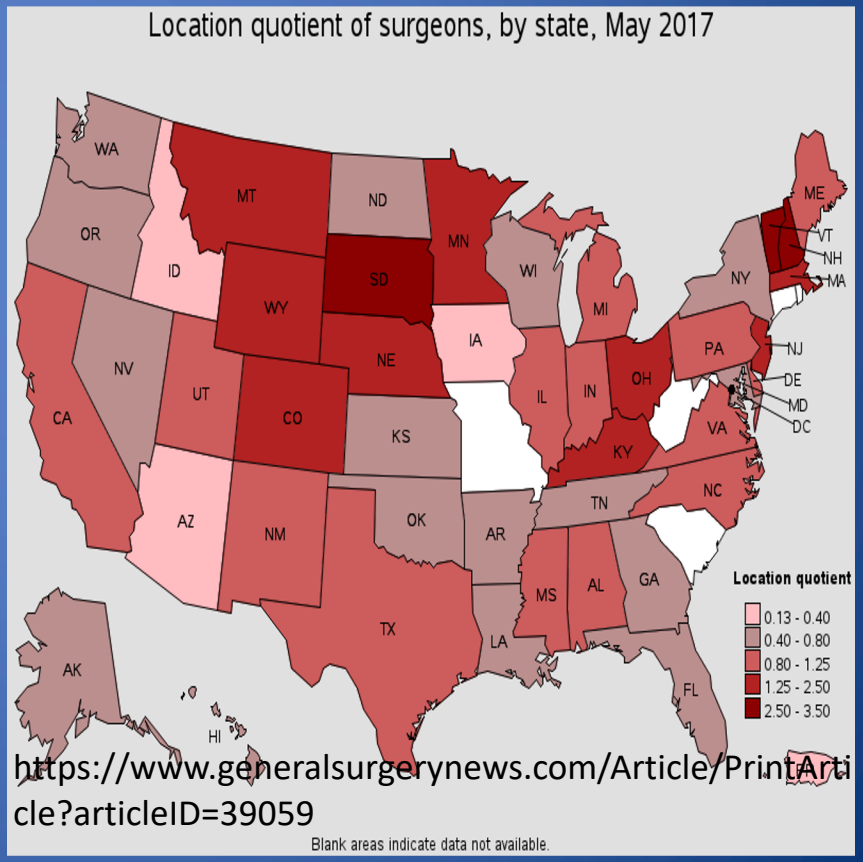
THE DEMOGRAPHICS OF RURAL AMERICA

- 60 MILLION PEOPLE
  - OLDER
  - SICKER
  - POORER
  - LESS EDUCATED
  - LESS INSURANCE
  - LESS PHYSICIANS PER CAPITA
  - GREATER INFANT MORTALITY AND INJURY-RELATED MORTALITY
  - 20-30% LESS OVERALL MEDICAL SERVICE FOR RURAL AND REMOTE AMERICANS

American College of Surgeons
Inspiring Quality:
Highest Standards, Better Outcomes
100+ years

Rural Surgeons

- **Number of general surgeons for adequate service**
  - ~7/100,000
- **Current average**
  - <**6**/100,000 urban
  - ~**4** surgeons/100,000 small rural (10,000)
- **2006**
  - **30%** (925 out of 3,107) of U.S. counties without a surgeon (**50%** with hospitals)
  - **7 %** of U.S. counties lost general surgery coverage entirely in 2006–2011



https://www.generalsurgerynews.com/Article/PrintArticle?articleID=39059

RURAL SURGEON DEMOGRAPHICS

- 7% OF US GENERAL SURGEONS CARING FOR 25% OF THE US POPULATION
- AGE 50-55
- OVER 60% PLAN TO RETIRE IN NEXT 10 YEARS
- LARGE AREAS OF “SURGICAL DESERTS” WITH LITTLE OR NO SURGICAL COVERAGE
- GENERAL SURGERY POSITIONS IN MANY HOSPITALS LEFT UNFILLED FOR YEARS
- 28% OF CRITICAL ACCESS HOSPITALS HAVE FACIITIES WITH OPERATING ROOMS BUT NO SURGEONS RESIDING IN THE COUNTY

RURAL SURGEON BENEFITS TO HOSPITALS AND COMMUNITIES

- Economic worth of a General Surgeon to a hospital is $1.05 - $2.7 million/year
- As much as 40% of a small hospital operating revenue is based on revenues generated by a General Surgeon
- GS generates $4.4 million in payroll and creates 26 jobs in a community
- Large numbers of small hospitals in danger of closing unless they can recruit a surgeon

THE VALUE OF GENERAL SURGEONS TO THE US HEALTH CARE SYSYTEM

- PERCENTAGE OF "SPECIALTY" PROCEDURES PERFORMED BY US GENERAL SURGEONS
  - 46% OF ALL VASCULAR
  - 16% OF ALL THORACIC
  - 30% OF ALL PEDIATRIC
  - 33% OF ALL PLASTIC
  - (GEN SURGERY NEWS, JUNE 2011)

GENERAL SURGEONS PERFORMING A MAJORITY OF CANCER RELATED SURGERIES IN THE US (over 50%) U of NC, 2013

THE "SPECIALTY" OF GENERAL SURGERY

- 24/7 COVERAGE FOR ED AND IN-HOSPITAL PATIENTS W/O REGARD TO ABILITY TO PAY (NOWHERE ELSE FOR THEM TO GO)
- FULL PRIVILEGES IN GENERAL, VASCULAR, THORACIC AND LAPAROSCOPIC SURGERY AND ENDOSCOPY
- HUNDREDS OF OFFICE PROCEDURES YEARLY (SKIN CA, LUMPS AND BUMPS, VEIN INJECTIONS, ETC)
- ER SURGERY COVERAGE 2 WEEKENDS A MONTH FOR SMALLER HOSPITAL IN ADJOINING COUNTY

RESPONSIBILITIES

- TRAUMA AND CANCER PROGRAMS
- VASCULAR LAB
- WOUND CLINIC
- ENDOSCOPY UNIT
- ADMINISTRATIVE POSITIONS
- ATLS INSTRUCTORS
- MENTORS FOR MEDICAL AND PHYSICIAN ASSISTANT STUDENTS AND SURGICAL RESIDENTS

MY PERSONAL "HATRACK"

- CHAIRMAN, DEPT OF SURGERY
- CHAIRMAN, TRAUMA AND CANCER COMMITTEES
- ACS CANCER LIAISON PHYSICIAN (30 years)
- DIRECTOR, VASCULAR LAB
- HOSPITAL BOARD MEMBER
- HOSPICE BOARD MEMBER
- FORMER GOVERNOR, AMERICAN COLLEGE OF SURGEONS
- CO-CHAIR, OHIO COMMISSION ON CA PROGRAM
- FORMER CHAIR, ACS ADVISORY COUNCIL ON RURAL SURGERY
- ATLS INSTRUCTOR

12 MONTHS SURGERY
406 CASES

- CHOLECYSTECTOMY 81
- BOWEL CASES 34
- HERNIA 92
- APPENDECTOMY 20
- BREAST 29
- VASCULAR 55
- LAPAROSCOPY/LAPAROTOMY 22
- PACEMAKER 31
- AMPUTATION 4
- THYROID 5
- SOFT TISSUE 39

12 MONTHS ENDOSCOPY
1176 CASES

- COLONOSCOPY 716
- UPPER ENDOSCOPY 395
- GASTROSTOMY TUBE 12
- FLEX SIG 33
- ERCP 20

A TYPICAL WEEK

- MONDAY – SCOPES AM AND OFFICE PM (30-40 PATIENTS IN FULL OFFICE DAY)
- TUESDAY – SCOPES/ OFFICE AM, OFFICE PM
- WED – SCOPES ALL DAY (TWO ROOMS) OR OFFICE PM
- THURSDAY – SURGERY ALL DAY (TWO ROOMS)
- FRIDAY – SCOPES AM, OFFICE PM IF ON CALL

GOOD STUFF

- I LIVE ON 8.5 ACRES OF LAND WITH A FISH'N POND
- 6 MINUTE DRIVE TO HOSPITAL WITH NO REDLIGHTS (3 MINUTES WITH FLASHERS ON!)
- MY OFFICE IS ACROSS THE STREET FROM THE HOSPITAL
- 15-30 MINUTES FROM TWO LARGE RECREATIONAL LAKES AND THE LARGEST STATE PARK IN OHIO (THE HOME OF "BIG FOOT"!)
- CAN FISH AND GOLF WHILE I AM ON CALL
- 3-5 MINUTES FROM TWO INTERSTATE HIGHWAYS
- 1-2 HOURS FROM 3 MAJOR AIRPORTS

GOOD STUFF

- CARING FOR A COMMUNITY INCLUDING FRIENDS AND NEIGHBORS
- THE ABILITY TO MAINTAIN A VERY BUSY PRACTICE AND STILL ENJOY FAMILY LIFE
- THE VARIETY OF THE SURGICAL CASES
- RECOGNITION FOR THE COMMITMENT TO CARING
- THE “SELF-DETERMINATION” OF PRIVATE PRACTICE
- THE ABILITY TO REALLY MAKE A DIFFERENCE!

WHERE TO TRAIN?

- Reap What You Sow: Which Rural
- Surgery Training Programs Currently
- Exist and Do Medical Students Know
- of Their Existence?
- Isolina R. Rossi, BS,* Aaron L. Wiegmann, MD,† Pat Schou, MS, FACHE,‡
- David C. Borgstrom, MD, FACS,§ and Matthew B. Rossi, MD, FACS‖
- *Rush Medical College, Chicago, Illinois; †Rush University Medical Center, Chicago, Illinois; ‡Illinois Critical
- Access Hospital Network, Princeton, Illinois; §West Virginia University Health Sciences Center, Morgantown,
- West Virginia; and ‖Hopedale Medical Complex, Hopedale, Illinois

- List of General Surgery Residency Programs with a “Rural Focus”
- On the ACS Website: (n = 12)
- University of Minnesota, Duluth
- University of Nebraska Medical Center
- Bassett healthcare, Cooperstown, NY
- East Carolina University, Greenville NC
- University of North Dakota, Grand Forks
- Oregon Health and Science University, Portland, OR
- East Tennessee State University, Johnson City
- University of Tennessee Medical Center, Knoxville
- University of Tennessee, Chattanooga
- University of Utah, Salt Lake City
- Gunderson Lutheran health System, Lacrosse, WI
- University of Wisconsin School of Medicine and Public Health
- Listed in FREIDA as having a “rural interest”, though need better definition of the nature of the
- experience (n = 18)
- University of Colorado
- University of California (Davis)
- Medical Center of Central Georgia (Mercer, Macon, Ga)
- Southern Illinois University
- St. Vincent Hospitals and Health Care Center Program, Indianapolis, IN ?
- Central Iowa Health System, Des Moines, IA ?
- University of Kansas School of Medicine, Kansas City, KS ?
- University of Kentucky College of Medicine, Lexington, KY
- University of Louisville School of Medicine Program, Louisville, KY
- **Mayo Clinic College of Medicine and Science, Rochester, MN
- **University of New Mexico School of Medicine, Albuquerque, NM
- Icahn School of Medicine at Mount Sinai, New York, NY ?
- Wright State University, Dayton, OH

- University of Oklahoma Health Science Center, Oklahoma City, OK
- Baylor College of Medicine, Houston, TX
- Drexel University College of Medicine/Hahnemann University, Philadelphia, PA
- York Hospital Program, York, PA ?
- **University of South Dakota School of Medicine, Sioux Falls, SD
- **Appear to qualify as true rural programs: should be listed on ACS Website
- Responded to survey that they have existing exposure to rural training (n = 3)
- University of Illinois COM, Peoria, IL
- Palmetto Health, Columbia SC
- SUNY Upstate, Syracuse, NY
- <9>
- Responded to survey that they are willing to customize exposure (n = 11)
- Arrowhead Regional Medical Center, Colton CA
- Kaiser Permanente, Los Angeles CA
- Maine Medical Center, Portland ME
- Massachusetts General Hospital, Boston MA
- Hennepin County Medical Center, Minneapolis, MN
- New Hanover Regional Medical Center, Wilmington NC
- Suma Health Center, Akron OH
- Texas Tech University Permian Basin, Odessa TX
- Virginia Tech Carilion, Roanoke VA
- West Virginia University, Morgantown, WV

Rural Surgical Training in the United States: Delineating Essential Components Within Existing Programs

Isolina Rossi, MD[1], Matthew Rossi, MD, FACS[2], Emily Mclaughlin, MD[3], Derek Minor, MD[3], Lauren Smithson, MD, FACS, FRCSC[4], David Borgstrom, MD, FACS[5], Michael Sarap, MD, FACS[6], and Karen Deveney MD, FACS[7]

Abstract

Background: Rural access to surgical care has reached crisis level. Practicing in r with limited resources and specialists. Most training programs do not provide enou surgical subspecialty skills to prepare a resident for an isolated rural environme programs have modified curriculum to address this need. The Advisory Cou American College of Surgeons set out to delineate important components of ru what degree the existing heterogeneous programs contain these components.

Study Design: The ACRS identified 4 essential components of rural surgical t opinion. These components included rotations in a rural setting, broad expos experience, and lack of competing specialty learners. A list of Accreditation C programs from a prior publication was updated with the 2019 Fellowship and Re self-identified "rural track" programs, reviewed, and categorized.

Results: We identified 39 programs that self-identified as having a rural empha essential components were included, programs were categorized as either " grams), or "Indeterminate" (7 programs).

Conclusion: The ACRS described the optimal components of a rural surgic components are present in those surgical residencies

IMPORTANT COMPONENTS OF SUCCESSFUL RURAL TRAINING PROGRAMS

- IMMERSIVE EXPERIENCES IN RURAL COMMUNITIES
- EXTENSIVE ENDOSCOPY EXPERIENCE
- MINIMAL COMPETITION FROM OTHER SURGICAL SPECIALTY PROGRAMS OR FELLOWSHIPS

WALLACE/AVERY ARTICLE

- TYPES OF RURAL SURGERY TRAINING PROGRAMS
- There are five different types of training experiences. Rural experiences range from rural rotations
- to dedicated tracts to postgraduate fellowships (25). Rural training during a general surgery
- residency may take the place of a research or laboratory year.

- 1. Rural Surgery Rotations (25) are one to three month elective or required rotations usually in
- a community setting.

- 2. Dedicated Rural Surgery Tracks (25) are 9 months of surgical subspecialty and rural surgery
- rotations over PGY 2, 3 and 4 years.

- 3. Immersion Approach (25) is a one year rural experience instead of a research year with
- rotations throughout residency with a high volume operative experience. There are subspecialty
- and endoscopy rotations.

- 4. Fellowships (25): were designed for surgeons in practice or at completion of a general residency
- with a focused experience in a particular area such as endoscopy.

- 5. Transition to Practice Program (25) are useful for residents finishing a general surgery
- residency who want additional experience in practice development, subspecialty exposure and
- rural surgery (15).

MY OPINION ON PROGRAMS TO CONSIDER FOR RURAL TRAINING

- LARGE ACADEMIC CENTERS WITH A RURAL TRACK (OREGON)
- RURAL PROGRAMS (NORTH AND SOUTH DAKOTA, BASSETT IN NY, ETC)
- COMMUNITY PROGRAMS WITHOUT SURGICAL SPECIALTY TRAINING PROGRAMS AND NO FELLOWS
- ACS MASTERY IN SURGERY PROGRAM

Unique rural surgery track

- University of Wisconsin
- University of Minnesota
  - PGY 4,5 years completed in Duluth
- University of North Dakota
  - 9 months in rural setting PGY 2,3,4 (2 of 4 residents)
- University of Oregon
  - 1 year PGY4 small community (elected by 2 of 12 residents)
- University of Utah
  - 1 year in lieu of lab year PGY4

Programs training small town general surgeons

- Gundersen Clinic, WI
- Bassett Healthcare, Cooperstown, NY
- East Tennessee State University, Johnson City,

Elective rural rotations

- University of Nebraska
  - 1 month PGY3 rotation in North Platte
- University of Tennessee, Knoxville
  - 1 month elective as PGY3, 3 month elective as PGY4
- Gundersen Clinic
  - Elective rotations in PG2,3,4

Required rural rotation all residents

- University of Tennessee, Chattanooga
  - 3 months as PGY3
- East Carolina University
  - 1 month as PGY4

Focus During Interviews

**Go to dinner with the residents (Be yourself and be prepared)

- If program, area, and current residents are a good fit for you (Will be working with the residents more than you see your own family)
- Rotation schedule (Exposure to OB/GYN, ICU, ENT, Burn, Trauma, MIS, Urology, Hand/Plastics)
- ENDOSCOPY
- Opportunity to learn many approaches to each surgical case
- Appropriate autonomy
- Case numbers (can ask residents for their own case log)
- Fellowships
- Board pass rates (Can find this online and be able to ask program director to explain numbers)
- Where previous residents went after residency (Practice vs. Fellowship)
- Chief Service
- Ask chiefs specifically about comfort level for entering practice
- Curriculum includes important information for private practice (Contracts and Finances)
- Recent changes and what they would still like to see changed
- Patient Demographics
- Food and Parking
- Other personal considerations (Know before starting the interview process)

ANY additional questions (how to be competitive, applying, and interviewing) are welcome – wood.183@wright.edu

REFERENCES

- RURAL SURGICAL TRAINING IN THE US: DELINEATING ESSENTIAL COMPONENTS WITHIN EXISTING PROGRAMS. THE AMERICAN SURGEON 2020
- REAP WHAT YOU SOW: WHICH RURAL SURGERY TRAINING PROGRAMS CURRENTLY EXIST AND DO MEDICAL STUDENTS KNOW OF THEIR EXISTENCE? J SURGICAL EDUCATION 2018;75(3)
- RURAL SURGERY TRAINING PROGRAMS IN THE US: A REVIEW OF THE LITERATURE. ONLINE JOURNAL OF RURAL RESEARCH AND POLICY. 2016;11(3)


QUESTIONS?????
msarap@msn.com