Health Services Research Town Hall

April 14, 2011

12:30-5:00 p.m.
Oak Amphitheater
Emory Conference Center and Hotel

Refreshments to the Left in the Oak Break Area
Restrooms to the Right

Health Services Research Inventory

David S. Stephens, MD
Stephen W Schwarzmann Professor of Medicine
Vice President for Research, WHSC
Emory University

Health Services Research

"is a multidisciplinary field of inquiry, both basic and applied, that examines the use, costs, quality, accessibility, delivery, organization, financing, and outcomes of health care services to increase knowledge and understanding of the structure, processes, and effects of health services for individuals and populations." (IOM, 1995)

Health Services Research

"is the multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to health care, the quality and cost of health care, and ultimately our health and well-being. Its research domains are individuals, families, organizations, institutions, communities, and populations." (Academy for Health Services Research and Health Policy, 2000)

Health Services Research

"examines how people get access to health care, how much care costs, and what happens to patients as a result of this care. The main goals of health services research are to identify the most effective ways to organize, manage, finance, and deliver high quality care; reduce medical errors; and improve patient safety." (Agency for Healthcare Research and Quality, 2002)

Comparative or Clinical Effectiveness Research

" conduct, support, or synthesize research that compares the clinical outcomes, effectiveness, and appropriateness of items, services, and procedures that are used to prevent, diagnose, or treat diseases, disorders, and other health conditions."

ARRA 2009

JAMA 2010: 303: 2182-2184

Health Services Research

- Health Policy and Management
  - National and International Health Policy
- Health Outcomes
  - Quality, Safety, Satisfaction
  - Clinical Effectiveness Research
- Health Economics
  - Value, Resources, Technology
- Health Delivery
  - Access , Models
- Heath Education and Practice

Other Health Services Research Topics

- Behavioral Research in Health
- Community/Health Care networks
- IT Infrastructure and Connectivity
- Primary Care Oriented Research
- Health Ethics
- Health Disparities

80 + Faculty with Health Services Research Interests / Funding

Kathleen Adams	Benjamin Druss	Jessica Holmes	Stephen Pitts
Susan Bauer-Wu	Sandra Dunbar	Marcia Holstad	John Puskas
Loida Bonney	Ingrid Duva	Debra Houry	Arshed Quyyumi
Arlene Chapman	Chris Flowers	Maeve Howett	Barbara Rothbaum
Michael Compton	Jennifer Foster	James Hughes	Richard Saltman
Elena Conis	Paula Frew	Nadine Kaslow	Leslee Shaw
Hannah Cooper	Julie Gazmararian	Jeffrey Koplan	Iris Smith
Carlton Dampier	Ron Goetzel*	Joseph Lipscomb	Nancy Thompson
Lyndsey Darrow	Victoria Green	Reynaldo Martorell	Kenneth Thorpe
Neal Dickert	Patricia Griffiths*	Clair Null	Kevin Ward
Monica Donohue	Jessica Holmes	Solomon Ofori-Acquah	Steven Wolf
Kim Rask	Viola Vaccarino	Venkat Narayan	Larry Phillips
Theresa Gillespie	Peter Wilson	Alex Isakov	Ken Brigham

80 + Faculty with Health Services Research Interests / Funding

Martha Rogers	Richard Rheingans	Claire Sterk	John Sweeney
Bob Lyles	Gina Wingood	Linda McCauley	Sara Markowitz
Victoria Green	Rani Singh	Rebecca Pentz	Yang Liu
Greg Berns	John Puskas	Sam Lim	Monica Donohue
Michael Goodman	Michael Kramer	Martha Rogers	Jim Curran
Mathew Strickland	Ya Wang	David Howard	Karen Andes
Solveig Argeseanu	Sara Markowitz	Gene Brody	Alex Null
Edmund Becker	Jeremy Sarant	Ying Zhou	Neal Dickert
Richard Saltman	Joel Saltz	Steven Culler	Barbara Stoll

Health Services Research by School / Center FY 2010

School/Division	$ Total Dollars
Health Affairs	135,565
School of Medicine	4,887,565
School of Nursing	2,411,737
School of Public Health	9,215,577
Total	16,650,444

FY10 Health Services Research Funding by Department / Center

Department/Center	$ Total Dollars
SOM: Surgery	500,000
SOM: Cardiology	860,688
SOM: Gen Medicine	
SOM: Infectious Dis	733,749
SOM: Nephrology	1,203,465
SOM: Peds	426,777
SOM: Geriatrics	565,187
SOM: Genetics	215,173
SOM: Psych	517,955
SOM: Radiation Onc	200,013

Department/Center	$ Total Dollars
SON: Fam & Comm	860,233
SON: Adult & Elder	1,220,234
SON:Other	331,280
SPH: Behav Science	2,028,957
SPH: Health Pol	3,005,811
SPH: Environ & Occ	818,299
SPH: Epidemiology	642,130
SPH: Global Health	987,415
SPH: GH Institute	1,732,965

Strengths

- Health Policy and Management (Thorpe, Druss, Goetzl)
- Health Economics (Adams)
- International Health Policy (Koplan, Martorell)
- Health Disparities (Kaslow, Quyyumi, CTSA, CFAR)
- Behavioral Research in Healthcare
- Health Ethics
- SPH
- SON: symptom and self management behavioral interventions, quality of life, family caregiver outcomes, prevention
- Partnerships: Children's, MSM, CDC, GA Tech, Kaiser, Grady, ACS

Disease Specific Health Services Research Strengths

- Cardiovascular (Vaccarino, Dunbar, Wilson, Shaw)
- Psychiatry (Kaslow, Rothbaum, Thompson, Druss)
- ID/Vaccines (Frew, Hughes, Omer, Swartz. Mulligan, Del Rio)
- Cancer (Lipscomb, Gillespie)
- Emergency Medicine (Houry, Isakov)
- Diabetes (Narayan, Phillips)
- Peds Hem/Onc (Woods, Dampier)

Weaknesses or Underdeveloped

- Clinical Effectiveness Research
- VA Program in HSR&D
- Links with Community/Health Care Networks
- Quality
- IT Infrastructure and Connectivity
- Primary Care Oriented Research
- New Healthcare Delivery Models

Threats

- Competition
  - AHCs
  - Non-AHCs
- Funding Uncertainties in Health Services Research
- Anticipated Reductions in R&D Expenditures
- Health Care Reform and Reimbursement Changes
- Fragmentation of Efforts

Opportunities

- Health Ethics
- Pediatric Health Services Research
- Global Health Policy
- Emory Institute for Advanced Policy Solutions
  - Emory Healthcare Innovation Program
- Health Disparities
- General Medicine
- Links to Quality Initiatives
- VA HSR&D http://www.hsrd.research.va.gov/
- Business School / College Economics Dept?
- GA Tech Health Systems Institute

HSR&D Funding ~$2B and Increasing

- Patient Centered Outcomes Research Institute (PCORI)
- NIH
- AHRQ
- CMS (Center for Medicare and Medicaid Innovation)
- HHS
- DOD
- VA
- CDC
- National Center for Health Workforce Analysis-HRSA
- National Health Service Corp-HRSA
- FDA (Drug Effectiveness and Safety)

Benchmarking

- Tufts-New England Medical Center-Institute for Clinical Research and Health Policy Studies-Harry Selker
- Stanford-Department of Health Research and Policy
- Columbia/NY-Presbyterian-Harold Pincus
- Health Research and Education Trust with AHA,

  (*Health Services Research*)
- *Health Affairs*
- Kaiser / Geisinger / Intermountain Healthcare, Mayo Clinic
- RAND
- Dartmouth Institute for Health Policy and Clinical Practice

Next Steps

- Completion of Inventory
- Summit/Town Hall Meeting, April 2011
- HSR Committee
- Define Core Assets to Develop HSR&D
- Development of a Website
- Key New Recruitments
- Integration with Health Care Quality Initiatives
- Better Define Opportunities for Federal Funding
- Better Define Benchmark Programs

Health Services Research in HPM

Kimberly Rask MD, PhD
Department of Health Policy and Management
Rollins School of Public Health
April 2011

Department overview

- 16 faculty members
  - Range of methodologic disciplines including economics, statistics, behavioral science, evaluation sciences, health education, health policy, sociology and medicine
  - Existing collaborations across disciplines and organizations

HSR is not new…

Health Services Research is the study of the "benefits of medical interventions in relation to their hazards and costs."

Kerr L. White, M.D.

NEJM, 1961

One newer aspect is emphasis on translating information into practice

"..to assure Americans that the *information* needed for decision making will be available; that it will be translated into *knowledge* about health care outcomes, effectiveness, efficiency, and quality; and that it will be used wisely to *enhance the health of the public*"

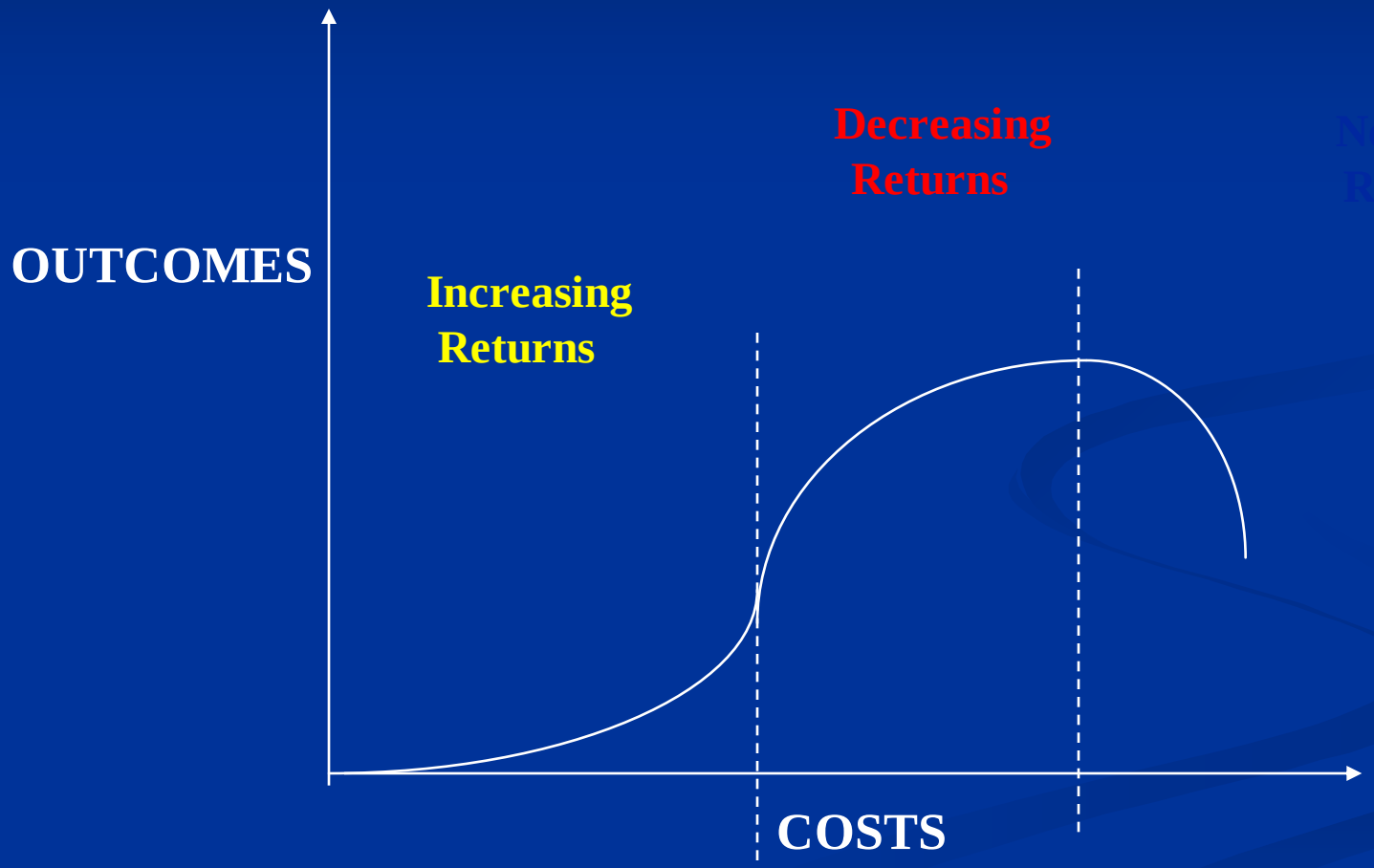
John Eisenberg, MD,MBA
AHRQ, 1998

Where federal funds are focused…

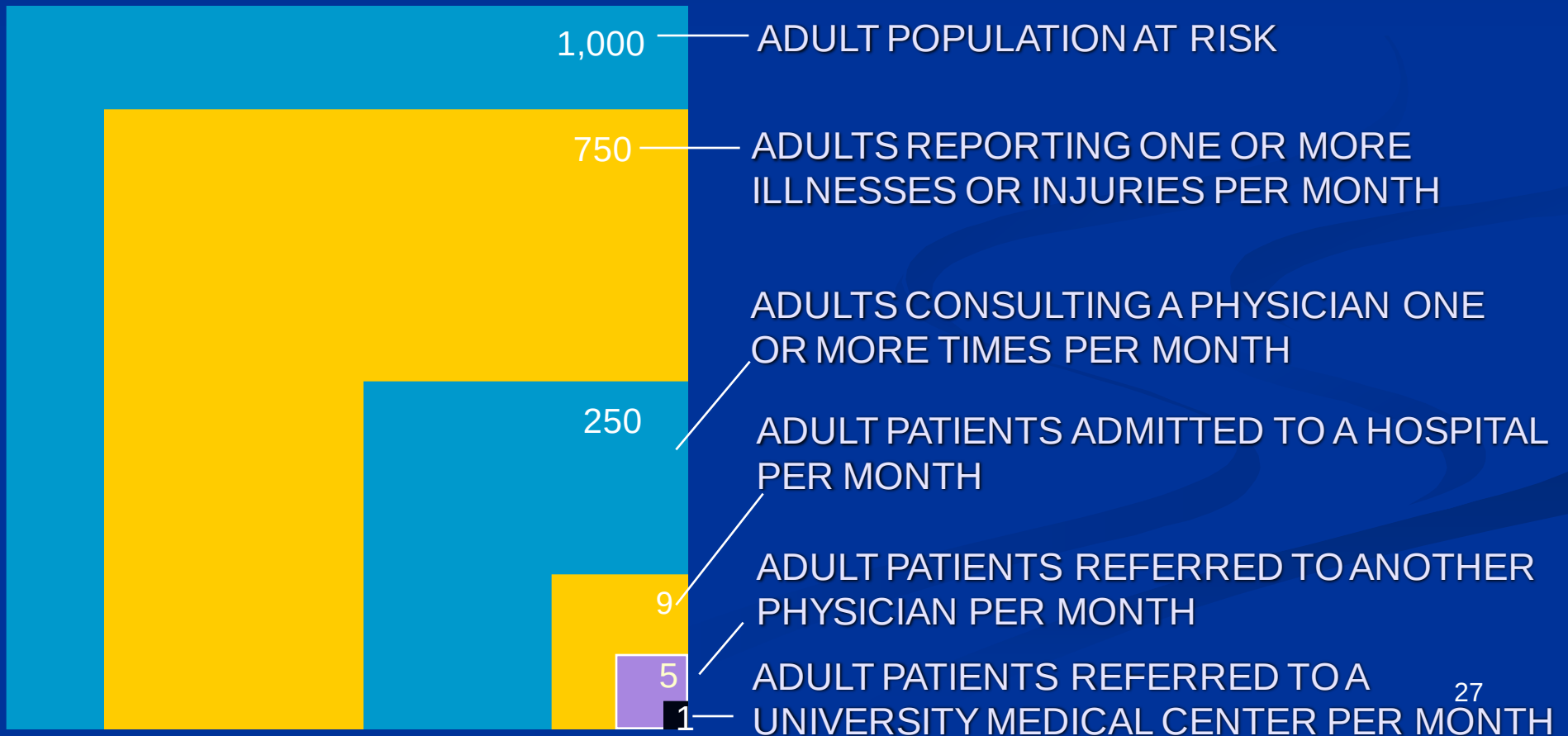
Health Services Research examines *how people get access to care, how much care costs, and what happens to patients as a result of this care*. The main goals are to identify the most effective ways to organize, manage, finance and deliver high quality care, reduce medical errors, and improve patient safety.

AHRQ, 2002

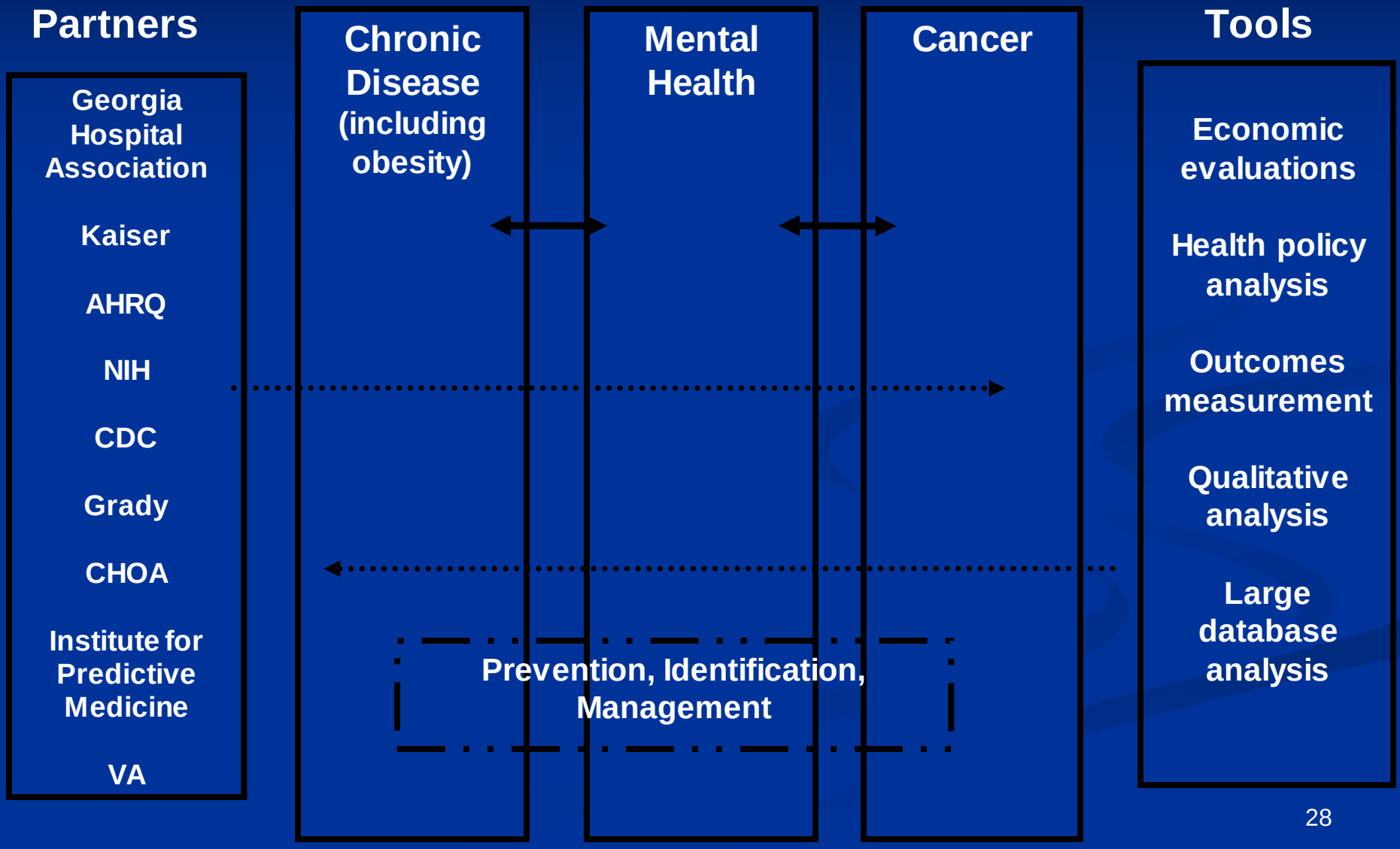
First common theme to much of health services research…



A second theme stresses importance of population-based analyses and selection bias *(White et al., NEJM 1961)*



Research areas bridge science, policy, education and practice



Obesity and Cardiovascular Research

- Workplace wellness initiatives
  - Impact on productivity and health care costs (Goetzel)
- Prevalence
  - Obesity among African-American women in an inner city primary care practice (Jacobson)
- Childhood obesity
  - Impact of health insurance coverage on screening and treatment for childhood obesity (Rask)

Obesity and Cardiovascular Research

- CABG outcomes
  - Impact of gender and hospital quality on outcomes for women undergoing CABG (Culler)
- Health care costs of chronic conditions
  - Impact of growing burden of chronic diseases on health care costs (Thorpe)

Mental Health

- Promoting use of personal health records by persons with SMI (Druss)
- Improving the provision of primary care to persons with SMI (Druss)
- Racial and ethnic differences in use of mental health services by adolescents (Cummings)

Cancer

- Impact of Medicaid coverage on time to treatment for cancer (Adams)
- Impact of detection and treatment on lifetime medical costs for patients with polyps and colorectal cancer (Howard)
- Local practice and quality variations in breast and prostate cancer care (Lipscomb)

Economic evaluations

- Cost-effectiveness analyses
  - costs of implementing and EHR in primary care practices (Culler, Becker)
  - Advancing the science of health care costing (Lipscomb)
- Health care finance
  - Impact of HMOs in Medicaid populations (Adams)
  - International health care reform options (Saltman)
- Economic modeling and forecasting
  - Costs of public services for teenage mothers post-welfare reform (Adams)

Variations in quality of care

- Health care quality
  - Improving prescribing patterns of Medicaid providers (Becker)
  - Evaluating a quality improvement curriculum for health system leaders (Rask)
- Health disparities
  - Maternal and child health in diverse communities (Gaydos)
- Health literacy
  - Health literacy intervention to improve medication adherence (Blake)

Health Outcomes

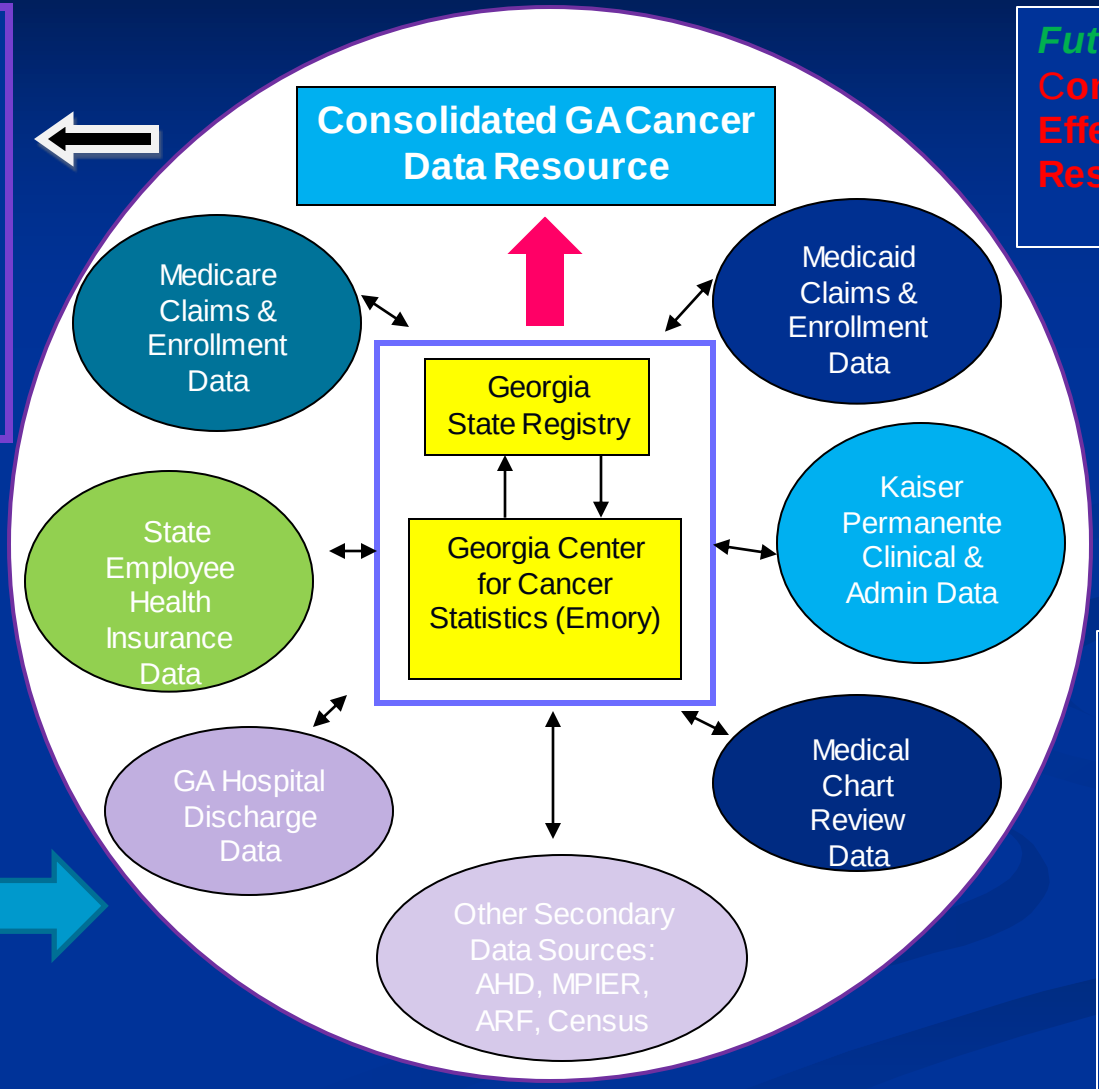
- Health outcomes measurement
  - Effects of cigarette taxes and indoor air regulations on pre-pregnancy smoking, quit behaviors and birth outcomes (Adams)
  - Impact of IT adoption on patient outcomes (Culler)
- Patient Safety
  - Improving disaster planning in nursing homes, home health agencies and dialysis centers (Howard)
  - Impact of pharmacist detailing on adverse drug events post hospital discharge (Rask)

Administrative claims analyses

- Public use data sets
  - HCUP, ambulatory surveys, longitudinal surveys
- Medicare data
  - Medpar, Chronic care data warehouse
- Medicaid data
  - State-specific data sets
- Commercial claims databases
  - FFS and HMO

Linking Georgia Cancer Registry Data to Public and Private Sources

Current Application:
Quality-of-Care Assessment for Breast and Colorectal Cancers: *Does Care Received Match National Quality Forum Guidelines ?*



Future Applications:
Comparative Effectiveness Research

"Augmenting Georgia Cancer Registry Data from Multiple Sources to Track Outcomes and Quality"
(Lipscomb, Adams, Ward, Chen, Flowers, Howard, Gillespie)

2-year project (2009-2011) supported at 500K by Assoc of Schools of Public Health and CDC, with funding from NCI

In sum…

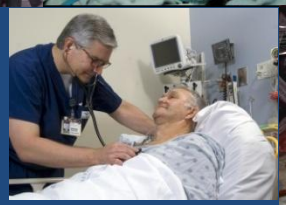
Successful health services research programs are built upon…

- teams of multi-disciplinary researchers
- with collaboration between content experts and methodologic experts
- who have an accessible data "laboratory"
- and are supported by a mix of internal, industry, foundation and federal funding







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Healthcare Innovation Program

Fred Sanfilippo MD,PhD

Health Services Research Town Hall Meeting

April 14, 2011

Healthcare Innovation Program

Outline

- **What, Who, Why**
- **Current status**
- **Website demo**
- **Next Steps**

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Healthcare Innovation Program

The What

Using combined approaches

- Virtual : www.hip.emory.edu "Wiki + Linked In"
- Real: meetings, workshops, projects

An interactive network that provides

- Information: content, links
- Resources: facilitate activities
- Connections: among faculty, staff, students

Focused on healthcare delivery/services/systems

- Research: sponsored projects
- Education: courses, public
- Programs: quality, access, cost

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Healthcare Innovation Program

The Who: Engaged Institutions

Emory:

- HIP Strategic Planning Committee

Georgia Tech:

- EVP Research Office
- Health Systems Institute

ACTSI: institutional partners, including

- Morehouse School of Medicine
- Children's Healthcare of Atlanta
- Grady Health System
- Atlanta VAMC

Supported by the Woodruff Fund and ACTSI

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Healthcare Innovation Program

The Who: Emory HIP SPC

David Bederman, Law

Bill Bornstein, EHC

Shari Capers, WHSC

Maryam Carn, HIP

Steve Culler, RSPH

Lanny Liebeskind, CAS

Jeff Molter, WHSC

Joel Saltz, SOM, CCI

Fred Sanfilippo, HIP

Susan Shapiro, SON

David Stephens, WHSC, SOM

Anand Swaminathan, GBS

Gary Teal, WHSC

Ken Thorpe, RSPH

Viola Vaccarino, SOM, RSPH

Paul Wolpe, Ethics Ctr

Paul Spearman, SOM, CHOA

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Healthcare Innovation Program

The Why

Increase Effectiveness

- Enhance faculty, student, staff interactions
- Identify and facilitate high priority research, education, and program opportunities

Increase Efficiency

- Leverage existing assets; cost avoidance
- Facilitate access to information, collaborators for grant submissions, educational offerings

Increase Recognition

- Invited speakers
- External advisory board members

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Healthcare Innovation Program

Development Phases

Phase I: Sept 2010-Jan 2011

- HIP strategy, plan developed by SPC
- Emory inventory, internal website developed

Phase II: Jan- April 2011

- ACTSI, Georgia Tech, CHOA engagement
- Expand internal website, content
- Initiate internal workgroups, identify opportunities

Phase III: April-Sept 2011

- Launch website, enhance functionality; track use
- Expand partners, content
- Expand workgroups, prioritize opportunities

Phase IV: Sept 2011-Sept 2012

- Initiate external speakers, pilot projects programs

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Healthcare Innovation Program

Information: Research and Education

Program Topics

- 4 major Healthcare categories: Delivery, Outcomes, Costs & Value, Education
- 30 total categories; 2-3 subcategories each

Sponsored Research

- Program topics, faculty PI, sponsor, project link
- > 125 projects; > 100 faculty; > 75 sponsors

Educational Offerings

- Program topics, courses, schools/colleges
- > 30 courses, 8 schools/colleges
- Seminars, Lectures, Meetings

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Healthcare Innovation Program

Information: Resources

Faculty

- By University, College/School; Topics

Funding Sources

- Local/internal, regional
- Government, non-government

Support Programs

- Local/internal, regional
- Government, non-government

Databases

- Local/internal, regional
- Government, non-government

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Healthcare Innovation Program

Information: Resources

News & Events

- Events: scheduled lectures, programs
- News from National Sources
- News from Local Partners

Innovation Highlights

- Recent Research Projects
- Recent Publications
- Links: sites, journals

Partner Organizations

- Emory, Georgia Tech, ACTSI affiliated
- Other local, regional

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Healthcare Innovation Program

Website

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Healthcare Innovation Program

Potential Website Uses

Faculty, Staff

- Identify potential collaborators by interest topic, research program, course offering, academic discipline
- Identify potential funding sources, support programs
- Keep up to date: news & events, publications

Students

- Find potential mentors by interest topic, research program, course offering, academic discipline
- Identify course offerings, support programs
- Keep up to date: news & events, publications

External Community

- Identify activities, individuals; news & events

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Healthcare Innovation Program

Next Steps

Website

- Expand content; engage other local partners
- Enhance content; edits, updates
- Improve functionality, database content, utility

Seminars, Programs

- Internal speakers program
- External speakers program
- Promote existing programs among partners

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Healthcare Innovation Program

Next Steps

Workgroups

- Initiate, facilitate "bottom-up" interest groups within and across topics, schools and institutions
- Identify research, funding opportunities
- Help identify internal priorities

Pilot Projects

- Internal, local seed funding
- Facilitate research, education proposals
- Regional, national collaboration

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EMORY UNIVERSITY SCHOOL OF MEDICINE | Department of Surgery

Leveraging Investments in Clinical Quality to Enhance Health Services Research

John F. Sweeney, MD

Chief, General and Gastrointestinal Surgery

Director, Clinical Quality and Patient Safety

Department of Surgery

Best Place for Surgical Care

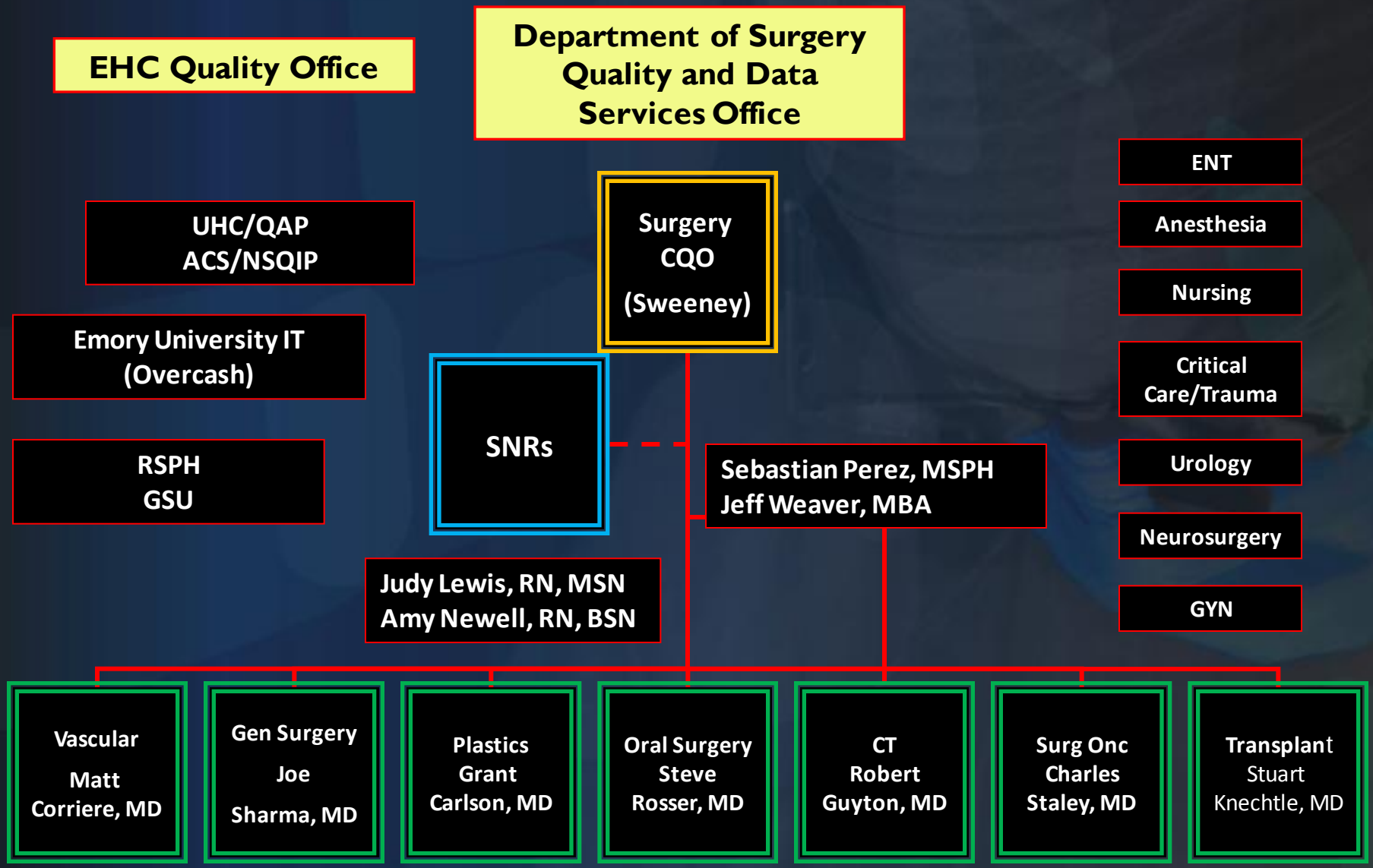
- **Best possible outcomes and service**
  Perspective of patient and family, referring physician, managed care
- **Build systems of care**
  Paradigm shift from individual excellence model to integrated care delivery (DOS/DOM/EUH/EUHM/SOM/TEC)
- **Data-driven multi-parameter assessment of Quality and Clinical Effectiveness**
  Net Health Outcomes and Service
- **Integrated clinical research and Health Services Research**
- **Culture of Quality and Service**

Objectives

- **Outline Department Quality Program**
- **Overview of ACS/NSQIP and UHC/QAP**
- **"Bedside to Laboratory and Back Again"**

  Readmission Project

EMORY UNIVERSITY SCHOOL OF MEDICINE | Department of Surgery



How is quality measured?

- In general outcomes databases can be divided into two types based on how the data is obtained:
    1. Administrative
    2. Clinical
- The value of the product is directly related to the quality of the data.
- Bad data in = Bad data out

University Health System Consortium: Quality and Accountability Program

- Currently Emory Healthcare's outcomes vendor
- Only full UHC members participate
- Source data obtained from:
  - Clinical database (CDB)
  - Operational database (ODB)
  - Core measures submissions

University Health System Consortium: Quality and Accountability Program

- Institutional performance metrics grouped into 6 domains
  - Safety, mortality, effectiveness, equity, efficiency and patient centeredness
- The first 4 used to calculate overall score.
- Efficiency and patient centeredness reported but not included in calculations
- Implementation of standardized patient satisfaction survey in future

American College of Surgeons: National Surgical Quality Improvement Program

- **Prospective data collection by nurse reviewer**

  Demographics: Six variables

  Surgical Profile: 11 variables

  Pre-Operative Data: 44 clinical variables and 13 laboratory variables

  Intra-Operative Data: 16 clinical variables and 3 occurrence variables

  Post-Operative Data: 20 occurrence variables, 12 laboratory variables, and 10 discharge variables

American College of Surgeons: National Surgical Quality Improvement Program

- Data then analyzed using validated risk adjustment models and Results reported as Observed/Expected occurrences (O/E ratio)
- Reports available for review on a semiannual basis (June and January)
- Online reports available to monitor outcomes between formal report cycles
- Use data to re-engineer workflows, foster and improve internal education, and to develop clinical performance improvement initiatives

Bedside to Laboratory and Back Again: Readmission Project

- Patient Protection and Affordable Care Act
- Specific focus on reducing readmissions
- Heart Failure, Acute Myocardial Infarction and Pneumonia
- Understand how this might impact surgical specialties

Bedside to Laboratory and Back Again: Readmission Project

- EUH readmission rate above UHC median
- General Surgery contributor
- Reviewed 6 month time frame of General Surgery readmissions from UHC databases
  - Heterogeneous population
  - Difficult to draw conclusions/identify areas for improvement
- Needed new strategy

UHC Key Indicator Report

Print Date: Sunday, April 10, 2011
Data Extract Date: Wednesday, January 19, 2011

Emory University Hospital

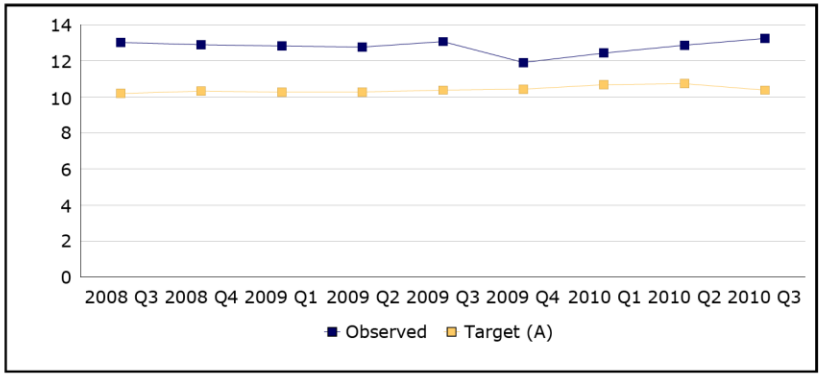
Jul - Sep 2010 (Q3)

30-Day Readmission Rate (all cause)

Definition - 30-Day Readmission Rate (all cause)
The proportion of patients who return to the hospital within 30 days of discharge from the prior (index) admission. Index admissions will be drawn from the reporting period except for the most-recent quarter or year. Encounters in the last 30 days of the most-recent quarter or year are excluded as index admissions for the current reporting period. At the next report release (when another quarter of patient data is available to UHC), these rates will be updated to include index admissions for the entire reporting period. Chemotherapy, radiation therapy, dialysis, rehabilitation, and delivery/birth cases are excluded. Bad data and deaths at first admission are excluded from the numerator and denominator. The calculation formula is: Readmission Rate = number of readmissions/number of index admissions.

	Relative Performance	Observed	Numerator	Denominator	Target	UHC Median	Rank
Current Quarter	⊖	13.3	845	6,377	10.4	11.7	87/113
Recent Year	⊖	12.6	3,119	24,702	10.8	12.1	70/113

	Current Quarter	Last Quarter	Recent Year
Cases (denom.)	6,377	6,161	24,702
Numerator (cases)	845	793	3,119
Observed	13.3	12.9	12.6
Target (A)	10.4	10.7	10.8



Data Source: UHC CDB
Related Report: N/A
Contact: Jodi Neikirk, cdpinfo@uhc.edu or Steve Meurer, meurer@uhc.edu

Benchmarks: Current Quarter (n)	Quantiles: 10th	25th	50th	75th	90th
A) UHC Primary Population (113)	9.0	10.4	11.7	13.2	14.0
B) UHC CMI < 1.25 (62)	6.0	7.5	10.0	11.3	14.1

Related Metrics Current Quarter	Numerator	Denominator	Readmission Rate	Rank
Related 30-Day Readmission Rate	395	6,377	6.2	89/113
Unrelated 30-Day Readmission Rate	450	6,377	7.1	77/113

Current Quarter UHC Top 10 in This Metric		Post-Surg Mortality	AHRQ Medical Mortality	FTEs/AOB	LOS O/E Ratio	Tot Exp/Dischg (Net BD)
PARKLAND	6.1	⊙	⊙			
HARBOR-UCLA	6.2					
HERMANN	6.4	⊙				
NEVADA	7.4					
UTMB-HEALTH	7.5			⊙		⊙
NMEXICO	8.0	⊙	⊙		⊙	⊙
LOUISVILLE	8.5			⊙	⊙	⊙
UTAH	8.7		⊙		⊙	⊙
AHS-OVERLOOK	8.8	⊙	⊙		⊙	
NYU	8.9	⊙	⊙			

30-Day Readmission Rate (all cause) Legend:

- ⊖ Substantially Worse than Target Range — Performance > UHC 90th percentile
- ⊖ Worse than Target Range — Performance > UHC 50th percentile
- ⊙ Within Target Range — Performance <= UHC 50th percentile
- ⊙⊙ Substantially Better than Target Range — Performance < UHC 10th percentile
- ⊘ No Data From Your Institution

Performance in Other Metrics Legend:

- ⊙ Within Target Range
- ⊙⊙ Substantially Better than Target Range
- ⊘ No Data Available

A missing performance symbol means performance was worse than target range

Prioritizing Quality Improvement in General Surgery

Peter L Schilling, MD, Justin B Dimick, MD, MPH, John D Birkmeyer, MD, FACS

BACKGROUND: Despite growing interest in quality improvement, uncertainty remains about which procedures offer the most room for improvement in general surgery. In this context, we sought to describe the relative contribution of different procedures to overall morbidity, mortality, and excess length of stay in general surgery.

STUDY DESIGN: Using data from the American College of Surgeons' National Surgery Quality Improvement Program (ACS-NSQIP), we identified all patients undergoing a general surgery procedure in 2005 and 2006 (n = 129,233). Patients were placed in 36 distinct procedure groups based on Current Procedural Terminology codes. We first examined procedure groups according to their relative contribution to overall morbidity and mortality. We then assessed procedure groups according to their contribution to overall excess length of stay.

RESULTS: Ten procedure groups alone accounted for 62% of complications and 54% of excess hospital days. Colectomy accounted for the greatest share of adverse events, followed by small intestine resection, inpatient cholecystectomy, and ventral hernia repair. In contrast, several common procedures contributed little to overall morbidity and mortality. For example, outpatient cholecystectomy, breast procedures, thyroidectomy, parathyroidectomy, and outpatient inguinal hernia repair together accounted for 34% of procedures, but only 6% of complications (and only 4% of major complications). These same procedures accounted for < 1% of excess hospital days.

CONCLUSIONS: A relatively small number of procedures account for a disproportionate share of the morbidity, mortality, and excess hospital days in general surgery. Focusing quality improvement efforts on these procedures may be an effective strategy for improving patient care and reducing cost.
(J Am Coll Surg 2008;207:698–704.

Bedside to Laboratory and Back Again: Readmission Project

PROCEDURE	CPT CODE
COLECTOMY+/- COLOSTOMY	44140-44160,44188,44204-44208, 44210-44213, 44227, 44238
SMALL INTESTINE RESECTION	44187, 44202-44203, 44227, 44238, 44120-44121, 44125-44128, 44130
CHOLECYSTECTOMY/INPATIENT	47562-47564, 47579, 47600, 47605, 47610, 47612, 47620
CHOLECYSTECTOMY/OUTPATIENT	47562-47564, 47579, 47600, 47605, 47610, 47612, 47620
PANCREATECTOMY	48140, 48145-48146, 48148, 48150, 48152-48155, 48160
APPENDECTOMY	44955,44970, 44979, 44950-44960
BARIATRIC SURGERY	43644-43645, 43770-43774, 43842-43848, 43886-43888, 43800, 43651-43652, 43659
PROCTECTOMY +/- COLECTOMY +/- ANASTOMOSIS	44155, 44157-44158, 44212, 45110-45114, 45116, 45119-45121, 45123, 45395, 45397
LYSIS OF ADHESIONS	44005, 44180
LIVER RESECTION	47120, 47122, 47125, 47130

Procedure	Over 72 hours	within 72 hours	Total Encounters	72hour to 30 day re-admission rate	72 hour re-admission rate	Total re-admission rate
CHOLECYSTECTOMY/IN&OUT	12	5	500	2.40%	1.00%	3.40%
COLECTOMY COLOSTOMY	21	11	263	7.98%	4.18%	12.17%
BARIATRIC SURGERY	6	2	255	2.35%	0.78%	3.14%
APPENDECTOMY	2	5	214	0.93%	2.34%	3.27%
DRAIN PERITONEAL ABSCESS/NOT APPENDICEAL	34	3	212	16.04%	1.42%	17.45%
SMALL INTESTINE RESECTION	18	7	171	10.53%	4.09%	14.62%
VENTRAL HERNIA REPAIR	14	1	167	8.38%	0.60%	8.98%
PARATHYROIDECTOMY	2	1	151	1.32%	0.66%	1.99%
PANCREATECTOMY	16	3	134	11.94%	2.24%	14.18%
LIVER RESECTION	4	2	98	4.08%	2.04%	6.12%

Bedside to Laboratory and Back Again: Readmission Project

- Preliminary analysis of factors associated with early readmission undertaken
- Collaboration with GSU Experimental/Behavioral Economics Group
  - Jim Cox, PhD Vjollca Sadiraj, PhD
  - Kurt Schnier, PhD
- NIH grant submitted 3/2010 and awarded 10/2010
- In depth econometric analysis almost complete
  - Complex GI Surgery for Cancer
  - 8500 cases from CDW
  - Over 250,000 data points
- Short term goal: "Triage" activities of the Transition Manager
- Long term goal: Redefine how decision to D/C made

Bedside to Laboratory and Back Again: Readmission Project

- Create discharge decision support software tool (risk calculator)
- Test the impact of tool in an experimental setting
  - Medical Students
  - Surgery Residents
  - Attending Surgeons
- Test the impact of switching D/C default from an "opt in" decision to an "opt out" decision
  - Maintain physician autonomy
  - Changes the transaction costs
- "Decision Software Tool" required for these experiments can be used in future to educate Medical Students about D/C decision during preclinical curriculum

EMORY UNIVERSITY SCHOOL OF MEDICINE | Department of Surgery

Department of Surgery Quality Program

- **LAPAROSCOPIC VERSUS OPEN APPENDECTOMY: An Analysis of Outcomes in 17,199 Patients Using ACS/NSQIP**

  Accepted for publication in *Journal of Gastrointestinal Surgery*

- **Left Subclavian Artery Coverage During Endovascular Thoracic Aortic Aneurysm Repair: Risk of Perioperative Stroke or Death**

  Presented at Society of Vascular Surgery and manuscript in preparation

- **Uptake of Comparative Effectiveness Research: Implications for Discharge Decision**

  NIH Grant Awarded

- **A Behavioral Model of Organ Utilization in Patients with Chronic Renal Failure**

  NIH Submission 3/2010

- **Georgia Surgical Quality Collaborative**

  WellPoint Signature Grant 10/2010

- **Resident Participation During CEA: Impact on Perioperative Outcomes**
- **Prevalence of DNR Status in Vascular Surgery Patients: Impact on Perioperative Mortality**
- **Impact of End Stage Renal Disease on Outcomes for Bariatric Surgery**
- **Single versus Multiple Operative Teams during Endovascular Abdominal Aortic Aneurysm Repair: 30-Day Mortality Analysis from the ACS-NSQIP Dataset**

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Thank You

Questions?

Georgia Tech
Institute for People and Technology

WHAT IF?

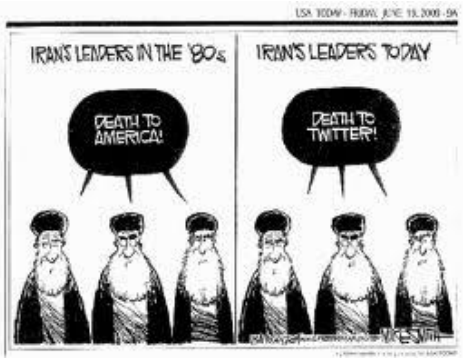
Transforming Complex Human Enterprises
Through Disruptive Research

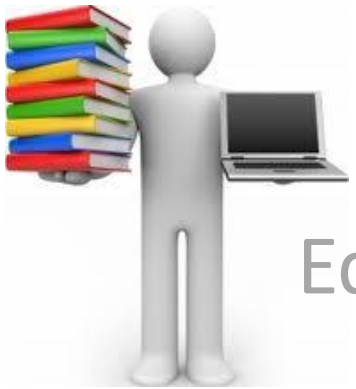
Georgia Tech | Institute for People and Technology

Lead Domains

Healthcare

Media





Education

Our Approach

Transformative

What is the vision?

Transdisciplinary

Who needs to be at the table?

Translational

How to pave the road for real world impact?

Networked Model

Academic/applied research, prototyping at GTRI

An “onramp” to GT for external partners

Joint investment in competitive infrastructure

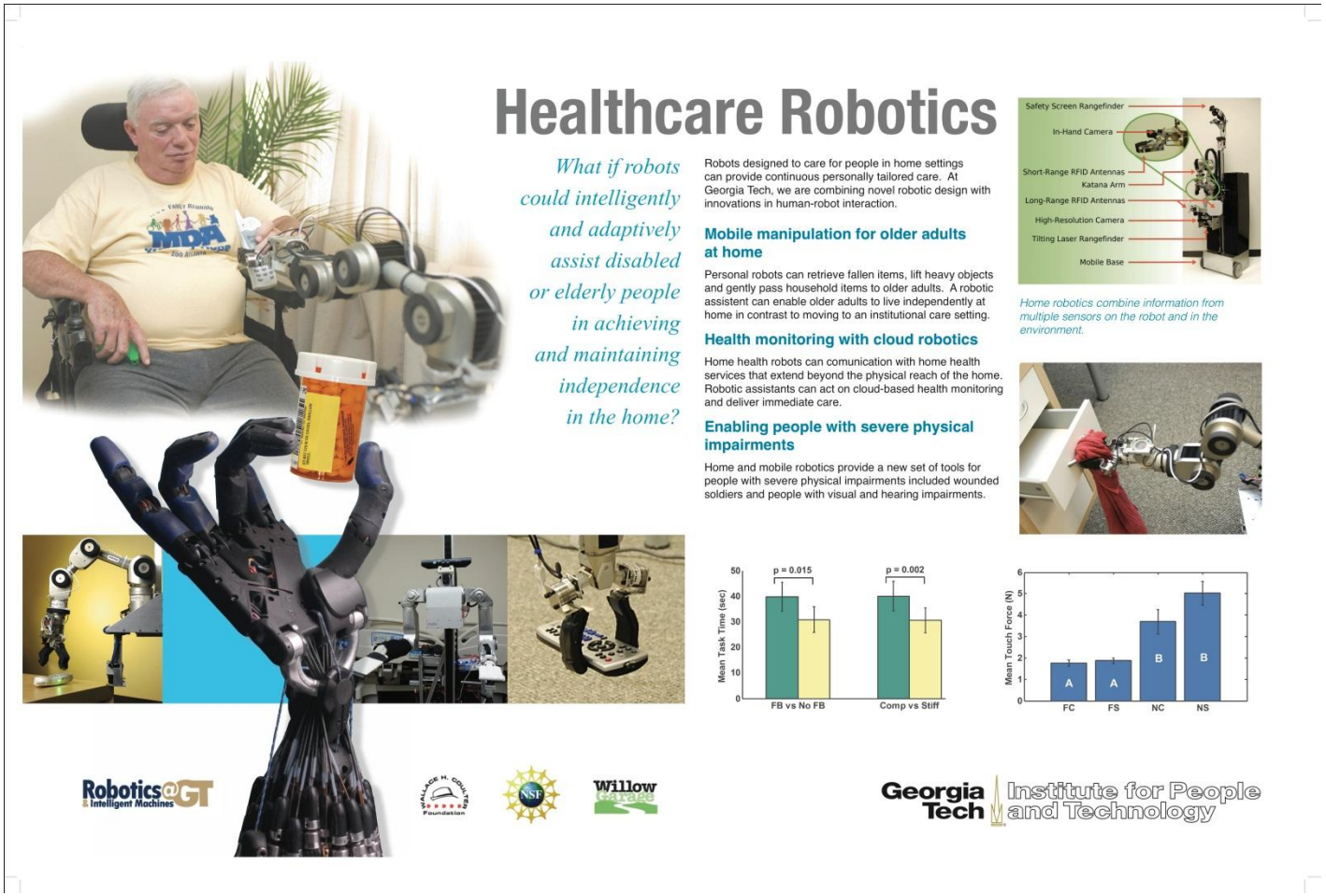
Healthcare Subdomains

Transforming Delivery Systems

Enabling Everyday Healthcare

Enabling Everyday Healthcare

What if robots could intelligently and adaptively assist disabled or elderly people in achieving and maintaining independence at home?



Enabling Everyday Healthcare

What if everyone could make decisions about healthcare and lifestyle based on a unique personalized view of their own health?

Empowered Personal Health

What if everyone could make decisions about healthcare and lifestyle based on a unique personalized view of their own behavior, health risks and clinical status?

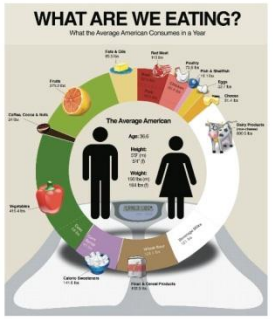
The dominant health challenges in the modern world stem are dominated by chronic disease and the behaviors that lead to poor health. Georgia Tech is inventing new human-centered technologies and models of care that empower individuals, families and care providers to achieve healthier lifestyles.

Ongoing calibration of treatment, monitoring and management based on personal data

The vast majority of healthcare takes place outside of the hospital and doctor's office. New technologies enable people to monitor their health condition and adjust treatment and behavior as part of their daily routine. Greater engagement and confidence leads to better health.

Improve patient outcomes and physician involvement by taking an ecological approach to technology development

Monitoring technologies can provide a wealth of information to clinicians by creating a fully detailed and robust description of health challenges outside of the exam room. Care teams can monitor and adjust treatment avoiding costly ER visits and lengthy delays between routine appointments.



Visualizing the data

Personalized nutrition tools empower consumers to make informed food choices when dining out, grocery shopping and cooking at home.

Salud! (below) is a system managing appropriate health goals through tracking and analysis of self-collected data, such as exercise, diet, and sleep patterns.

Children's Healthcare of Atlanta · HUMANA. Guidance when you need it most · NSF · Georgia Tech Institute for People and Technology

Enabling Everyday Healthcare

What if even subtle changes in children with autism or elderly patients could be easily monitored to make timely decision?

Transforming Delivery Systems

What if innovative healthcare applications could simply "plug in" to health information exchanges?

Transforming Delivery Systems

What if care spaces, health IT and medical devices were designed to work together seamlessly based on care processes?

Transforming Delivery Systems

What if managers and policy makers could "test drive" new ideas with a model that encompasses our health system?

WHAT IF?

Professional HIT Certificate Program at GT

Four 2-day Friday/Saturday Courses:

- Understanding the changing dynamics of the health care industry
- Contemporary health care IT technologies
- Managing change to solve your customers' future challenges
- Hands on project

Contact Sherry Farrugia
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Breakout Session Assignments

Session	Room	Color
HSR Funding & Program Development	Dogwood	Green
HSR Key Faculty, Partnerships & Collaborations	Mountain Laurel	Yellow
HSR Programs 1	Maple	Blue
HSR Programs 2	Magnolia	Red