ABSTRACT: 2016 ELAM Institutional Action Project Symposium

Project Title: Duke Surgical Center for Outcomes Research (SCORES)

Name and Institution: Julie Ann Sosa, Duke University

Collaborators: Allan Kirk, Chair, Dept of Surgery

Background, Challenge or Opportunity: Health services research (HSR) is a multidisciplinary field of study aiming to identify best processes and practices of health care delivery in order to optimize patient outcomes. At a national level, surgical science has evolved, shifting from basic science to outcomes and clinical research. This reflects increasing emphasis on value-based care and evolution of the health care marketplace. Duke Surgery has a strong tradition in basic science, but many contemporary faculty and trainees work in clinical research. There is a new Chancellor who is a health services researcher, and a new Dept of Population Health. Timing for SCORES is optimal given potential need and synergy.

Purpose/Objectives: SCORES is a novel, transdisciplinary effort to promote excellence in HSR among Surgery faculty and trainees. Our purpose is to create an HSR platform that will cross all surgical specialties and integrate the Dept into the broader university community and health system. SCORES will serve as a hub for research, education, mentorship, and resources to enable participants to ask and answer questions with direct translational relevance to patient care, safety, and quality improvement. Objectives are to: (1) Support SCORES faculty to gain independent funding and perform impactful work; (2) Provide trainees with enduring research skills; (3) Facilitate access to 'big data'; (4) Offer mentorship; (5) Facilitate access to collaborators and biostatisticians; and (6) Recognize research excellence.

Methods/Approach: Discussions with thought leaders in the Dept and around the country have informed the general direction of SCORES, and allowed us to assure efficiency and avoid redundancy. Faculty and trainees have provided perspectives on opportunities and barriers via on-line survey and a mini-retreat; this has been important for transparency and relevance. A SWOT analysis was summarized in a white paper with a 1, 3 and 5 year plan that was presented to the Chair to formally enroll his support and resources. An organizational structure has been created with a steering committee and full-time administrative support to make the process efficient and allow colleagues to help lead. A 2500 square foot dry laboratory space will open in June with offices, carrels, computers/server, and a conference room. Branding with a logo and website, and communication via newsletter and listserv have begun. A library of large datasets owned or requested by faculty is under assembly, and an RFA for pilot awards is planned. SCORES will help to build a novel surgical 'DataMart' based on the EMR to support HSR using institutional-level data.

Outcomes and Evaluation Strategy: Since we are in the planning stages, *short term* outcomes are process-oriented. Upcoming milestones are: assigning working groups to refine priorities and timelines; mini-retreat vs speed-dating events for affiliates; recruitment of faculty and biostatisticians; and selection of a first trainee cohort. Already, a short term success is that a T32 resubmission was revised to include an HSR track supported by SCORES. *Long term* outcomes will include: 1. Quantity and quality of publications and presentations; 2. Grant funding of affiliates and SCORES; 3. Satisfaction with SCORES services (a baseline survey has been performed); 4. Successful recruitment of new affiliates, and timely promotion of existing ones; and 5. Library of datasets and surgical 'DataMart.'

Duke Surgical Center for Outcomes Research (SCORES)

Julie Ann Sosa MD MA, Dept. of Surgery and Medicine, Duke University

Collaborators: A Kirk MD, PhD, L Mureebe MD MPH, B Tong MD MHS MS, D Witsell MD MHS, C Scales MD MSHS, G Della Porta MHS

Background

- Health services research (HSR) is a multidisciplinary field of study aiming to identify best processes and practices of health care delivery in order to optimize patient outcomes.
- Surgical science has evolved, shifting from basic science to outcomes and clinical research.
- This reflects increasing emphasis on value-based care and evolution of the health care marketplace.
- Duke Surgery has a strong tradition in basic science, but many contemporary faculty and trainees work in clinical research and HSR. Timing for SCORES is optimal given potential need and synergy.

Purpose and Objectives

- SCORES' purpose is to create an HSR platform that will cross all surgical specialties and integrate the Dept. into the broader university and health-system communities.
- Objectives are to:
  - Support SCORES faculty to gain independent funding and perform impactful work.
  - Provide trainees with enduring research skills.
  - Facilitate access to 'big data'.
  - Offer mentorship.
  - Facilitate access to collaborators and biostatisticians.
  - Recognize research excellence.

Methods and Approach

- **Inception:**
  - Discussions with thought leaders to avoid redundancy and assure efficiency
  - On-line survey and a mini-retreat for faculty and trainees
  - A SWOT analysis
  - A 1, 3 and 5 year plan presented to the Chair
- **Structure and Process:**
  - A steering committee and full-time administrative support
  - A 2500 square foot dry laboratory space will open in June 2016.
  - Branding with a logo, website, newsletter and listserv
  - A library of large datasets owned or requested by faculty is under assembly.
  - An RFA for pilot awards is planned.

- **http://surgery.duke.edu/research/health-sciences-research**

Outcomes

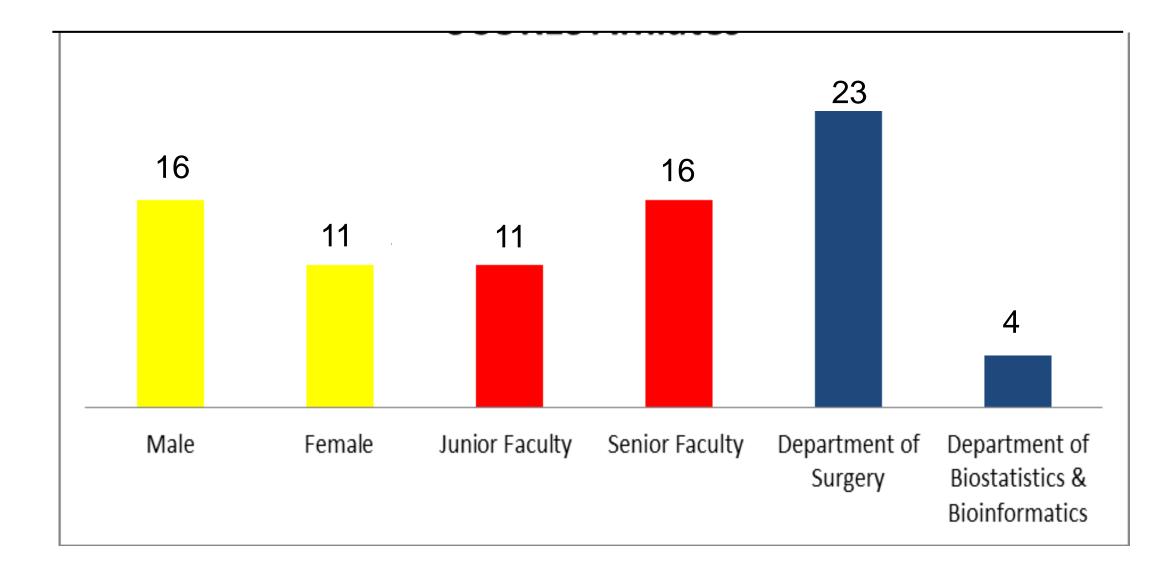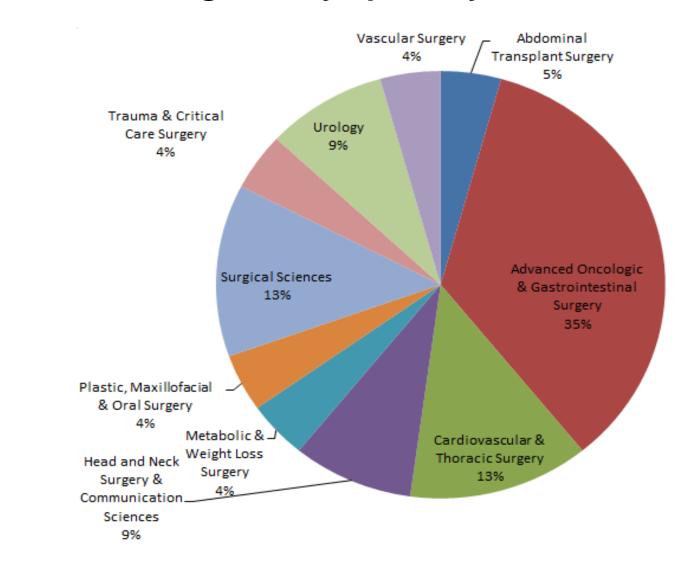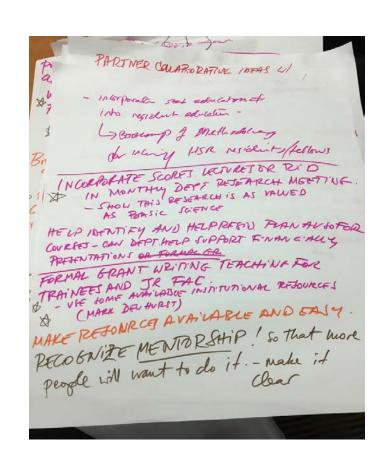**Fig. 1. Demographics of the SCORES affiliates**

SCORES Affiliates

Category	Value
Male	16
Female	11
Junior Faculty	11
Senior Faculty	16
Department of Surgery	23
Department of Biostatistics & Bioinformatics	4

Fig 2. SCORES surgeons by specialty

- Abdominal Transplant Surgery 5%
- Vascular Surgery 4%
- Trauma & Critical Care Surgery 4%
- Urology 9%
- Surgical Sciences 13%
- Plastic, Maxillofacial & Oral Surgery 4%
- Metabolic & Weight Loss Surgery 4%
- Head and Neck Surgery & Communication Sciences 9%
- Cardiovascular & Thoracic Surgery 13%
- Advanced Oncologic & Gastrointestinal Surgery 35%

Fig. 3. Surgery retreat with 'World Café' brain storming sessions

Presented at the 2016 ELAM Leaders Forum

Evaluation Strategy

- SCORES is a novel concept, bringing together all faculty and trainees with an interest in HSR.
- *Short term outcomes*:
  - Assigning working groups to refine priorities/timelines
  - Focus groups and speed-dating events for affiliates
  - Recruitment of faculty, biostatisticians and trainees
  - T32 submission
- *Long term outcomes*:
  - Quality and quantity of publications
  - Grant funding of affiliates and SCORES
  - Recruitment of new affiliates
  - Timely promotion of existing ones
  - Library of datasets and surgical 'DataMart.'

Summary and Next steps

- Open House on June 2 will mark the public 'birth' of SCORES.
- We have planned a speed-dating event for several weeks later, preceding the announcement of a pilot research funding that will incentivize affiliates to use the data and core resources of SCORES.
- A visiting professor with a national reputation as a health services researcher is planned for the fall.
- SCORES will succeed long-term if the program aligns itself with other ongoing HSR efforts around the institution:
  - The Clinical and Translational Science Award program
  - The new Center/Department of Population Health Sciences, DCRI, DCI, Margolis Health Policy Initiative, and Fuqua.
- Monthly meetings with the leaders of these other initiatives
- Plan a trans-departmental lecture series.
- Create multidisciplinary HSR teams around specific NIH program announcements that will include SCORES surgeons.
- In the end, we will need to ensure that faculty and trainees see SCORES as beneficial, and that they participate in SCORES events and utilize SCORES facilities.
- It will be important to be able to demonstrate that these SCORES affiliates succeed based on pre-assigned metrics, such as funding and high impact publications, and that we can recruit new trainees and faculty members.
- By aligning with others, the reach and resources potentially available to SCORES will be greater than those promised just by the Department of Surgery.