Building a Systematic Review Service to Support Research

Margaret Foster, AHIP – Systematic Reviews & Research Coordinator
Esther Carrigan, AHIP-- Director, Medical Sciences Library, Associate Dean of TAMU Libraries
Christine Foster, AHIP-- Deputy Director

Medical Sciences Library
Texas A&M University
Overview

• Systematic reviews
• Building the foundation
• Developing the service
• Facing the challenges
• Taking next steps
Systematic reviews: Definition

A systematic review
• “attempts to collate all empirical evidence that fits pre-specified eligibility criteria
• in order to answer a specific research question.
• It uses explicit, systematic methods that are selected with a view to minimizing bias,
• thus providing more reliable findings from which conclusions can be drawn and decisions made.”

Systematic reviews: Increase in publication

Number of systematic reviews/meta analysis in Scopus 1995-2013
Systematic reviews: Increase in publication

- Increased call for evidence based research by policy makers and the public
- Increased publication of primary studies
- Increased software for management data/information
- Increased technical skills of most researchers
- Increased number of professional organizations promoting systematic reviews
- Increased funding for systematic reviews
- Increased standards
Building the foundation-
Texas A&M University

- 7 libraries
  - Evans Library & Annex
  - Cushing Library
  - West Campus Library
  - Medical Sciences Library
  - Policy Sciences & Economics Library
  - Digital Library
  - Qatar Campus Library

- Fall 2014: 61,279
Building the foundation - MSL Clients

Departments/Colleges

- Heath Science Center (HSC)
- Health & Kinesiology (HLKN)
- College of Veterinary Medicine (CVM)
- College of Agriculture and Life Sciences (CoALS)

Number of MSL Clients (students)

- HSC: 2221 graduate/ professional, 246 undergraduate
- HLKN: 3343 graduate/ professional, 196 undergraduate
- CVM: 526 graduate/ professional, 2124 undergraduate
- CoALS: 3580 graduate/ professional
Building the foundation - Early years

- Working out of main library
- Number of consultations grew quickly
- Publications were slow and few, rarely asked about authorship
- Some invitations to teach
- Asked to join a few grant applications
Developing the service-
Scope of service

• Moved to MSL
• Provide consultations on all parts of review
• Open to all TAMU students, faculty, or staff
• Work with groups or individuals
• Offer in person and online consultations

Steps in Review process
• Determining feasibility and scope of question
• Search
• Selection
• Critical Appraisal
• Data abstraction
• Synthesis
• Writing and publishing
Developing the service
Resources and training

- Additional databases
  - EMBASE
  - Joanna Briggs Institute
  - Northern Lights (grey literature database)

- Training
  - Joanna Briggs Institute
  - Pittsburg training
  - Additional
Developing the service: Impact of service

- Over 300 consultations a year
- Multiple publications per year
- Multiple requests for presenting
- Good attendance at workshops and webinars

Bar chart: # of consultations

- 2012: 161
- 2013: 260
- 2014: 340
Developing the service
Evaluating the service

After first year of service looked at:

• Researcher/review demographics
• State of review/ level of understanding of SRs before & after consultations
• Consultations
• Tools offered by services
• Future services
• Comments

Level of confidence in skills
[1=low, 3=high]

- Searching database: 73%
- Information management: 80%
- Systematic review Process: 134%

Before consultations
Current
Developing the service

Examples

Publications with graduate students
- **Nutrition**: What are Asian-American youth consuming? A systematic literature review
- **Health Education**: A Systematic Review of Emotions, Attitudes, and Decisions Regarding Genetic Tests Associated With Autism Spectrum Disorders
- **Preventive medicine**: Factors Associated with Colorectal Cancer Screening among Young African American Men: A Systematic Review

Publications with Faculty
- **Clinical medicine**: Intrahepatic Persistent Right Umbilical Vein and Associated Outcomes: A Systematic Review of the Literature
- **Education**: Systematic Literature Reviews in Engineering Education and Other Developing Interdisciplinary Fields
- **Veterinary**: Scoping review to identify potential non-antimicrobial interventions to mitigate antimicrobial resistance in commensal enteric bacteria in North American cattle production systems
Facing the challenges
Build capacity in skills

- Building capacity across all MSL client liaisons and then, UL
- Building confidence in recently trained/creating learning opportunities and materials
- Documentation of process to assist both users and newly trained
Facing the challenges

Time

- Time to keep up with new SR methods
- More group SRs requiring project management
- Other demands on time
- External invitations and commitments
Taking next steps:
Additional personnel

• Administrative support personnel
  – Schedule
  – Workshop organization
  – Communication

• Expand those regularly conducting systematic reviews: MSL and Evans
Taking next steps:
Additional tasks

• Assessment of service from both client perspective and sustainability
• Full description of the service for promotion and marketing
• Fit within a larger umbrella of research services
Thank you