Department of Medicine
Data Analytics and Biostatistics
Core (DAB)

Research Resources 101
November 20, 2014
History

• DOM IT Faculty and Staff Advisory realize a need and opportunity

• Opportunity
  • Growing richness and availability of clinical, administrative, and research-related data
  • Leverage these data in pursuit of research, quality improvement, and business process improvement

• Needs
  • Opportunities remains largely unrealized
  • Lack of understanding of what data is available, how to obtain it and how to use it
Our challenge: Use data to improve healthcare

- Clinical
- Biomedical
- Financial
- Operational
- Variety
- Volume
- Velocity

2012: 500 petabytes
2020: 25,000 petabytes

Courtesy of Arun Mohan
Our challenge: Use data to improve healthcare

- Clinical
- Biomedical
- Patient Reported
- Operational
- Financial
- Variety
- Volume
- Velocity

- Improve knowledge creation
- Improve clinical effectiveness
- Improve operational effectiveness
- Improve financial and administrative performance

Courtesy of Arun Mohan
Effective use of data means moving beyond standard reporting.

Source: Competing on Analytics

Courtesy of Arun Mohan
The Proposal

• To create new informatics and analytics core to make data better available and encourage its use in appropriate ways

• Developed input across the DOM, SOM, and WHSC
  • DOM IT Steering Committee
  • DOM IT Faculty and Staff Advisory Committee (Arun Mohan)
  • DOM Research Advisory Team (Russ Price)
  • Research & Woodruff Health Sciences IT (Marc Overcash)
  • Department of Biostatistics @RSPH (Lance Waller)
  • DOM Leadership (Kathy Griendling, David Stephens)
DOM DAB Core

- Facilitate DOM’s clinical, education, and research advancement by leveraging existing resources with key partners in RSPH and RWIT
- To provide coordinated support
  - Biostatistics and research design
  - IT Data Management and Extraction
  - Guidance on opportunities for innovative techniques for algorithm development, data analysis, and informatics development
### Governance of Core

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Chair, Dept of Medicine</td>
<td>David Stephens</td>
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<tr>
<td>Vice-Chair for Research, DOM</td>
<td>Kathy Griendling</td>
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<td>Vice-Chair for Quality, DOM</td>
<td>Nathan Spell</td>
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<td>Chair, DOM Fac/Staff IT Advisory Committee</td>
<td>Aneesh Mehta</td>
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<tr>
<td>Chair, DOM IT Steering Committee</td>
<td>Kathy Griendling</td>
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<tr>
<td>Chair, Dept of Biostatistics, RSPH</td>
<td>Lance Waller</td>
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<tr>
<td>Director of RWIT, SOM Dean for IT</td>
<td>Marc Overcash</td>
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Key Principles for Success

• Collaborative core between DOM, Department of Biostatistics and RWIT

• Key targets
  • Faculty in early career or new to data analysis
  • Preliminary data for grants

• Visibility and easy request process for the core
  • [https://medicine.emory.edu/research/resources/dab/](https://medicine.emory.edu/research/resources/dab/)
  • medicine.emory.edu » Research » Resources » DOM Data Analytics and Biostatistics (DAB) Core
  • Standardize request through surveymonkey form
Key Principles for Success

• Performance analysis
  • Feedback survey to measure service quality
  • Escalation pathway for any high priority issue
  • Maintain a dashboard of ongoing and proposed projects for review by DOM leadership
  • Monitor utilization of data (publications, grants, etc)

• Sustainability
  • Leverage grants and projects for the funding
  • Expectation that if services provided by core leads to grant proposals, will include support for the DAB core
Key Principles for Success

• Great staff
  Chad Robichaux, MPH
  Research Informatics Analyst

  Shailesh Nair, MS
  Research Informatics Analyst

  Eugene Huang, PhD
  Professor of Biostatistics and Bioinformatics

  Andrea Knezevic, MS
  Senior Biostatistician

• Engagement of the Faculty
  • We need YOU to use the resources and let us know what you think!
http://medicine.emory.edu/research/resources/dab/