

# Synapse: Applied Healthcare Operations Management & Research Conference

Thursday, May 7, 2015  
at  
Washington Hilton, Washington DC  
Production & Operations  
Management Society Conference  
Hotel  
Organized By  
College of Healthcare Operations  
Management (CHOM)

[www.poms.org](http://www.poms.org)



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## CONFERENCE OBJECTIVES

This conference connects healthcare researchers and practitioners to actively exchange ideas and approaches. This helps all of us to develop solutions that are innovative, practical and sustainable in improving the operations of healthcare. This conference provides a venue for discussion between those working and researching healthcare delivery issues to share what works, what doesn't and why, and which areas need greater attention. The conference is meant to complement the POMS annual meeting (May 8-11, 2015) as it gives participants a chance to learn from practitioners and researchers and allows time for brainstorming new research ideas and approaches to improving the effectiveness of healthcare systems.

## PANEL DISCUSSION: MAKING OM/OR MAINSTREAM – FEDERAL GOVT. FUNDING AGENCIES PERSPECTIVE



**Heather Woodward-Hagg, PhD**, Acting National Veterans Health Administration, Veterans Engineering Resource Center National Program Director, & Director, VA Center for Applied Systems Engineering. She was Asst. Professor of Industrial Engineering Technology at the Purdue School of Engineering and Technology - Indianapolis. In that role, she led a collaborative of Purdue School of Engineering and Technology faculty with Indiana hospital and healthcare providers in translation and application of quality engineering methodologies. She has BS degrees in Ceramic Engineering and Mechanical Engineering from University of Missouri-Rolla, MS in Materials Science and Engineering and a PhD in Manufacturing Engineering (Health Systems emphasis) from Worcester Polytechnic Institute.



**Michael Harrison, Ph.D.**, Sr. Social Scientist, Center for Delivery Org. & Markets, Agency for Healthcare Research and Quality (AHRQ). He researches in the implementation and dissemination of delivery system redesign and improvement. He has published in leading health services and social science journals. Sample of books: *Diaanosina Oraanizations: Methods, Models, and Processes; Oraanizational Diaanosis and Assessment*; he has a Ph.D. in Sociology from University of Michigan. He was previously a faculty member at the SUNY, Stony Brook, Bar Ilan University in Israel; visiting professor Boston College, Haifa University; visiting scholar at Brandeis University, Georgetown University, Harvard Business School, and the Nordic School of Public Health.

**Diwakar Gupta, Ph.D.**, is currently assigned to the National Science Foundation, where he serves as a program director for the Service, Manufacturing, and Operations Research program in the division of Civil, Mechanical, and Manufacturing Innovation of the Directorate for Engineering. He holds a Ph.D. in Management Science from Univ. of Waterloo. He is a professor of Industrial & Systems Engg. at Univ. of Minnesota. His research interests are in stochastic models of supply chain and healthcare operations management. He has published extensively in the top management science and operations management journals.



## ROUNDTABLE DISCUSSIONS

Two thirty-minute sessions of concurrent discussions led by practitioners and process improvement experts in breakout groups of up to 10 will be held. Discussion leader(s) present operational challenges they face, and some solutions they have implemented. Researchers will relate solutions to existing knowledge and then jointly develop future research questions.

## SHOWCASE: 3 APPLIED RESEARCH AND IMPLEMENTATION PRESENTATIONS

### Redistricting U.S. Liver Allocation to Save Lives and Mitigate Inequity

Sommer Gentry, Eric Chow, Allan Massie, Nino Dzebashvili, Corey Wickliffe, David Axelrod, Krista Lentine, Mark Schnitzler, Dorry Segev

### Healthcare Response to Urban Disasters: Care Infrastructure Readiness, Vulnerability, and Improvement

Andres F. Jola Sanchez, Jonathan E. Helm, Alex F. Mills, Mohan V. Tatikonda (Indiana University), Bobby A. Courtney (Former CEO, MESH Coalition, Indianapolis)

Using Data Analytics and Systems Modeling to Inform Hospital Management and Policy Making: A Case of Hospital Obstetrics Capacity Analysis in New York City  
Linda Green, Nan Liu (Columbia University)

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 May 7th, 2015 - Hilton Hotel, Washington D.C.

**CONFERENCE AGENDA**

Start	End	Duration	Activity
1:00 PM	1:10 PM	0:10	Welcome & Introductions
1:10 PM	2:10 PM	1:00	Panel: Making OM/OR Mainstream: Fed. Gov. Funding Agencies Perspective
2:10 PM	2:20 PM	0:10	Break 1
2:20 PM	2:50 PM	0:30	Round Table Discussion
2:50 PM	2:55 PM	0:05	Switch Table Participants
2:55 PM	3:25 PM	0:30	Round Table Discussion
3:25 PM	3:35 PM	0:10	Break 2
3:35 PM	4:35 PM	1:00	Big Data and Healthcare: Hype or Reality? (Panel + Presentation)
4:35 PM	4:45 PM	0:10	Break 3
4:45 PM	5:15 PM	0:30	Showcase Presentation 1
5:15 PM	5:45 PM	0:30	Showcase Presentation 2
5:45 PM	6:15 PM	0:30	Showcase Presentation 3
6:15 PM	6:30 PM	0:15	CHOM Best Paper Competition Summary - Prof. Kurt Bretthauer (VP - Awards)
6:30 PM	6:45 PM	0:15	Set up
6:45 PM	8:15 PM	1:30	Networking / Evening Social - hors d'oeuvre & drinks

**ROUNDTABLE DISCUSSION LEADERS**

**MGH: Massachusetts General Hospital, Boston, MA**

- Bethany Daily, MHA (Sr. Admin. Director Perioperative Services)
- Cecelia Zenteno Langle, PhD (Operations Research Manager, Perioperative Service)

**MHCD: Mental Health Center of Denver, Denver, CO**

- Linda LaGanga, Ph.D. (VP Quality Systems & Operational Excellence)

**SIM: SIMIT LLC, Denver, CO**

- Allyson Robbins, PharmD (Co-founder SIMIT)

**CSHA: Cornell University Sch. of Hotel Admin, Ithaca, NY**

- Rohit Verma, PhD (Prof. Service Operations)

**BCM: Baylor College of Medicine, Houston, TX**

- Panos Kougiyas, MD (Chief Vascular Surgery, VA Houston, Associate Professor Baylor College of Medicine)

**ROUNDTABLE DISCUSSION LEADERS**

**CCH: Cincinnati's Children Hospital, Cincinnati, OH**

- Denise White, Ph.D. (Assistant Professor, Director of Quality and Transformation Analytics)

**VUMC: Vanderbilt Univ Med Ctr, Nashville, TN**

- Paul St. Jacques, MD (Associate Professor of Anesthesiology, Clinical Director Quality)
- Brian S. Rothman, MD (Assistant Professor – Anesthesiology, Medical Director Informatics)
- Rajnish Gupta, MD (Asst. Professor of Anesthesiology, Director Acute Pain Service)

Roundtable Topic	Discussion Leaders	Org.
<b>Perioperative Processes and Supplies</b>		
<b>Handoffs and Checklists</b>	Dr. Raj Gupta	VUMC
<b>Surgical Supplies Planning</b>	Bethany Daily Cecilia Zenteno	MGH
<b>Operating Room Scheduling</b>	Dr. Panos Kougiyas	BCM
<b>Clinical Decisions Impact on Operations</b>		
<b>Clinical Decision Support</b>	Dr. Brian Rothman	VUMC
<b>Clinical Pathways</b>	Dr. Paul St. Jacques	VUMC
<b>Healthcare Operations – New Frontiers</b>		
<b>Healthcare &amp; Hospitality – Knowledge Integration</b>	Rohit Verma	CSHA
<b>Analytics &amp; Operations</b>	Denise White	CCH
<b>Infusing Simulation &amp; OM Knowledge in Healthcare Community</b>	Allyson Robbins	SIM
	Linda LaGanga	MHCD

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**College of Healthcare Operations (of POMS) – Conference Organizers**

David Dobrzykowski, Ph.D. (VP Meetings), ddobrzykowski@business.rutgers.edu

Linda Laganga, Ph.D. (VP Outreach) - Linda.Laganga@mhcd.org

Vikram Tiwari, Ph.D. (President) - Vikram.Tiwari@Vanderbilt.Edu

## PANEL DISCUSSION: BIG DATA AND HEALTHCARE – HYPE OR REALITY?



**Bruce Golden**, Ph.D., is the France-Merrick Chair in Management Science and a Full Professor in the Robert H. Smith School of Business. He received his Ph.D. from M.I.T. in 1976. He served as Department Chairman of Management Science and Statistics from 1980 to 1996. His research interests include business logistics, networks, and healthcare analytics. He has won numerous awards including the Distinguished Scholar-Teacher Award, the INFORMS Computing Society Prize, and the Harvey J. Greenberg Award for lifetime contributions to the INFORMS Computing Society. He was named an INFORMS Fellow in 2004. Bruce has published extensively and is widely cited. He has served as the Editor-in-Chief of a major journal in his field since 1992. In addition, he started a business logistics software company with several colleagues in 1980, grew the company, and sold it in 1998.

**Juergen A. Klenk**, PhD, a Principal Scientist with Exponent, Inc., has over 20 years of professional experience in the commercial and public health market. He is leading Exponent's Healthcare and Analytics Services team, conducting work that spans fields such as Health Economics and Outcomes Research, Healthcare Quality Research, Clinical Trials Optimization, Regulatory Science, Health Preparedness and Surveillance, and Big Data Analytics. Dr. Klenk's work focuses on providing advanced analytics services such as statistics, data mining, predictive modeling, optimization, and microsimulation in conventional and Cloud based environments to commercial, non-profit, and government clients to enable data-driven planning and decision making. Previous professional affiliations include Booz Allen Hamilton, Definiens AG, and IBM. Dr. Klenk holds a Ph.D. in Mathematics and a M.S. in Physics and Mathematics from Tuebingen University, he is a PMI-certified Project Management Professional, and he holds a Six Sigma Green Belt and an IBM MicroMBA certification. He spent his academic career at Tuebingen University, Yale University, and the Australian National University.

**Arnie Greenland**, Ph.D., is currently a faculty member at the Robert H. Smith School of Business, University of Maryland. He recently retired from the IBM Corporation, where he was a Distinguished Engineer. His career spanned more than 40 years in which he delivered advanced business analytics services for both public- and private-sector clients including many healthcare organizations. Arnie is active in the professional society, INFORMS, and is one of the first 20 individuals to receive their Certified Analytics Professional (CAP) certification. He holds a Ph.D. in Mathematics from the University of Rochester where he focused on Measure Theory, Probability and Functional Analysis.

**Margrét Vilborg Bjarnadóttir**, Ph.D., is an Assistant Professor of Management Science and Statistics at Robert H. Smith School of Business. Dr. Bjarnadóttir's research focuses on data analytics and surveillance system design with applications in health care and finance. Her work includes healthcare cost prediction, drug surveillance, and drug pattern analysis. Dr. Bjarnadóttir has advised number of health care start-ups such as D2Hawkeye, 360Fresh and Benefit Science on cost predictions and risk evaluations. Dr. Bjarnadóttir holds a B.Sc. degree in Mechanical and Industrial Engineering from the University of Iceland and a Ph.D. in Operations Research from the Massachusetts Institute of Technology.

**John Silberholz** is a PhD student at MIT in the Operations Research Center. In this role, he has researched the application of healthcare analytics in the design of chemotherapy regimens for advanced cancers and in the design of population screening strategies for prostate cancer. His research on designing chemotherapy regimens was recently awarded the William Pierskalla Award, the top award for a healthcare paper in operations research. Prior to coming to MIT, John was co-founder of Enertaq, a smartgrid startup company that used analytics techniques to provide electricity grid reliability services. He graduated summa cum laude with bachelor's degrees in mathematics and computer science from the University of Maryland.

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