



Healthcare
Working Group 

Bringing Systems Thinking to Healthcare

The Healthcare Working Group of INCOSE

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April 18, 2019:

Healthcare Working Group Overview for the
Chicagoland Chapter

Presenter:

Bob Malins

Eagle Summit Technology Associates, Inc.

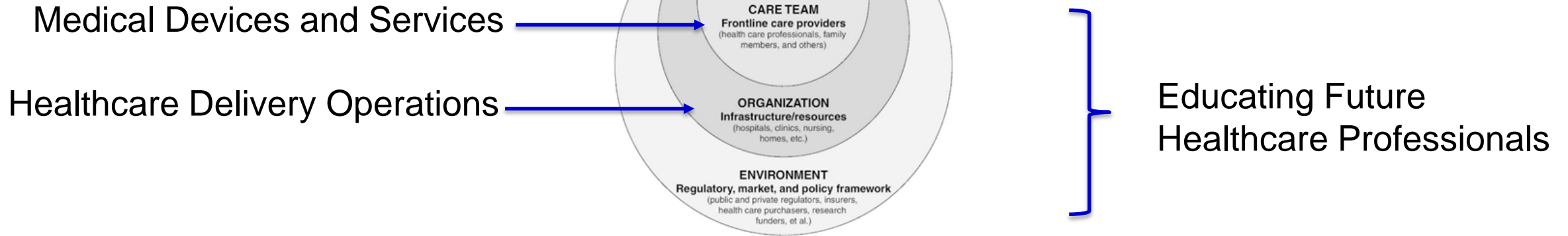


What Is the Healthcare Working Group?

- **We are the subject matter experts on systems engineering and healthcare... integrating people, tools, and process**
 - We speak the language of Systems Engineering in the Context of Healthcare
 - We handle both the technical and people aspects systems engineering, leading to greater success rates
 - We leverage the INCOSE corporate experience base to enable cross-industry sharing of best practices
- **We bring together systems engineers and systems thinkers from within the Healthcare industries to identify, develop, and tailor best practices for application in the improvement of healthcare delivery**

Points of Contact		
Healthcare Working Group Co-Lead	Chris Unger	Christopher.Unger@med.ge.com
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Outreach & Communications Lead	Cary Bryczek	cbryczek@jamasoftware.com

Overall HWG Strategy



Healthcare MedTech SE

- HWG advisory board formed
- Healthcare SE conference
 - 2 days, 40 speakers, 120+ attendees
- Healthcare SE Agile Course

Healthcare Delivery

- RCS/RAE report “Engineering better care”
<https://www.raeng.org.uk/publications/reports/engineering-better-care>
- Formed team at IW2018 and used “Delphi” to generate vision

Healthcare SE Education

- Bo Oppenheim invited China tour: 3 cities, 300 hospital directors
- Forming an informal HSE Academic Council

Healthcare Working Group Activities

- **5th Annual HWG Healthcare Systems Engineering Conference**
 - 1-2 May 2019, Minneapolis, MN
- **Medical Device-Healthcare Annex to SEBoK**
 - Five white papers addressing medical devices, healthcare IT, pharmaceuticals, and public health
- **Medical Device Control Loop Model V&V White Paper for FDA**
- **Periodic Webinars on Healthcare Systems Engineering Topics**
 - *Currently seeking volunteer to assist in organizing webinars*
- **Collaboration with Assoc. for Advancement of Medical Instrumentation (AAMI)**
- **Healthcare Systems Engineering Workshops at IW2015, IW2016, IW2017**
 - Included speakers from Kaiser Permanente, Yale New Haven Health System, Center for Healthcare Information Research and Policy, and numerous medical device companies
- **Sponsored the Biomedical-Healthcare MBSE Challenge Team**
 - Phase 1: Medical device MBSE [2011-2014]
 - Phase 2: Clinical operations MBSE [2014-2017]
- **Reference Architectures for Hospital Department White Paper**

Systems Engineering in Healthcare Conference

- **Goals**

- Add value to the Healthcare Systems Engineering Community
- Increase the awareness of the value of SE in the Medical Device development and Healthcare Delivery communities
- Provide marketing and brand awareness for INCOSE and the HWG
- Generate content and potential contributors to HWG products

Nov 2015

- Inaugural Workshop
- Hosted by IBM Schaumburg
- By invitation only, Midwest companies
- About 7 organizations
- Agile Healthcare Systems
- Report written for INCOSE Insight Magazine

May 2016

- Conference (open to all)
- 32 attendees, not all Medical
- Schaumburg (ASA)
- 14 presentations, plus unconference
- Dutch treat dinner event
- 3 sponsors

May 2017

- 35 attendees, 2 from outside US
- Two tracks, two days
- Partnered with ChicagoLand
- Schaumburg (ASA)
- 14 presentations, plus unconference and banquet
- 3 sponsors

April 2018


- 100+ attendees
- Three tracks, two days
- @MSP, Partnered with North Star
- 32 presentations, plus unconference and banquet
- 10 sponsors

5th Annual Systems Engineering in Healthcare Conference, May 1-2, 2019


Conference website: <https://bit.ly/2PmvePC>

Registration: <https://bit.ly/2ANzAee>

5th Annual Systems Engineering in Healthcare Conference, May 1-2, 2019



5th Annual Systems Engineering in Healthcare Conference
May 1-2, 2019
Minneapolis, MN



World Class Speakers
Open Collaboration Sessions
Bring your own contributions
16 PDU Credits Available

Call for Registration

The INCOSE Conference on Systems Engineering in Healthcare enables participants to share the best practices in the latest Systems Engineering topics as applied to Healthcare. The conference theme is *"How SE Can Reduce Cost & Improve Quality."* Previous conferences focused on applying Agile methods to systems with hardware and software. The 2019 conference will broaden the topics to include systems methods for healthcare delivery (direct patient care).



Keynote Speaker: Kathleen L. Frisbee, PhD, MPH, Veterans Health Administration
"The Digitization of Healthcare"



Plenary Speaker: Gary Strong, CT and PET Engineering GM, GEHC-Retired
"So You Wanna Be a Rock 'n Roll Star; *Maximizing Your Impact as a System Engineer*"



Audience

The audience for this conference is Systems Engineers, product developers and testers, Certifiers, and leaders of organizations developing complex healthcare products and services, from large Healthcare IT systems to medical devices to healthcare delivery organizations.

Conference Theme / Description

For this small and interactive conference, we seek practitioners to share their knowledge and experience through presentations and collaborative sessions. We encourage sessions on experience reports and case studies, Interactive panel sessions, and instructional tutorials. There will be invited tracks on

Agile & Lean Methods Cybersecurity Modelling and Simulation

Healthcare Delivery: Simulation, Systems approaches, UX, and Home Healthcare

See the draft conference agenda at <https://bit.ly/2VtTf8k>. Listen to 2018 attendees: https://youtu.be/8atzUHU_CU

LEARN, CONTRIBUTE, COLLABORATE: This two-day conference includes multiple session learning tracks as well as collaboration session opportunities to advance the state of the community.

EASILY REACHED LOCATION: The conference venue is Crowne Plaza Aire, 3 Appletree Square, Bloomington, MN 55425 near to the MSP airport and the Mall of America. A light breakfast, lunch, and snacks will be provided at the meeting facility each day and there is a banquet included on the first night.

CONFERENCE HOTEL: A block of rooms has been reserved at the hotel. Reserve at <https://bit.ly/2sB3cHj> or 800-227-6963 and ask for the "INC" rate before April 9th.

Registration and Conference Information

Registration is open now, at: <https://bit.ly/2ANzAee>. Early registration ends March 30th.

Conference site: <https://bit.ly/2PmvePC>. Contact hwgseconf@gmail.com for more information



QUESTIONS?