

**CDC Health Information Innovation Consortium (CHIIC)  
May Forum Meeting Notes**

**Chamblee 106, 1A + Adobe Connect + Phone Bridge  
May 2, 2017, 10:00-11:00AM**

**Meeting Agenda**

1. Introduction – Brian Lee – 10 minutes
  
2. Public Health Informatics on Fast Healthcare Interoperability Resources (FHIR) by Paula Braun, National Center for Health Statistics (NCHS) and Mark Braunstein, College of Computing, Georgia Institute of Technology – 20 minutes

Health Level Seven International (HL7), a standards development organization for the health industry, is developing a more facile, easier-to-implement standard—called FHIR—to share electronic health information across silos, to engage and empower patients, and to integrate decision support tools into physicians’ workflows at the point-of-care. Pronounced “fire”, FHIR stands for Fast Healthcare Interoperability Resources. FHIR uses widely accepted technologies that are ideal for web applications and mobile devices. This increases the attractiveness of health informatics—and by extension public health informatics—to innovators who bring significant reevaluation and novel approaches to existing problems, systems, and tools. This CHIIC forum will present an overview of the FHIR standard and examples of how public health mentors paired with students in the Georgia Tech University’s Online Masters in Computer Science Program are exploring the use of FHIR to move public health into a new era of interoperability.

3. A SMART App to Track and Report Stroke Cases to Reduce Readmissions by Arunkumar Srinivasan, Asha Krishnaswamy, and Sridevi Wilmore, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), and Fayaz Adam, Georgia Institute of Technology – 20 minutes – [Full Project Description](#)

The Office of Informatics and Information Resource Management (OIIRM) in collaboration with Division for Heart Disease and Stroke Prevention (DHDSPP) has spearheaded this project. It aimed to evaluate creation of a flexible and effective alternative to the Quintiles solution, solving the double-data-entry problem, and providing a scalable solution to support future stroke care workflow and surveillance across a wider population of hospitals within each grantee jurisdiction. A gap analysis of the HL7 FHIR resources and support reporting from both inpatient and post discharge setting was studied. A standalone SMART app was designed with suitable security permissions to support health practitioners in recording information using a data entry form during 2-30 day post-discharge follow-up call. The form will be prepopulated using EHR data supporting post-hospital workflow. In addition to

collecting this data for quality improvement activities, the post discharge follow up information will also be included back into the EHR as a part of the patient history. This allows validation of the HL7 FHIR based SMART platform to enable the feedback loop to the point of care which is noticeably missing in the current PH-Clinical partnership.

#### 4. Discussion & Suggestions – 10 minutes

### **Attendees**

The meeting was well attended – a total of seventy-five people attended; in person (18) via webinar (57). Attendance included people from CDC centers, organizations, and government entities: CSELS, OPHSS, NCCDPHP, NCIPC, NCHS, CGH, ATSDR, Georgia Tech, NCHHSTP, NCIRD, NCEZID, OCIO, OCOO, CACI, Westat, Cerner, and HHS. Other participants attended the Adobe Connect session, but only their name was captured and not their location or organization.

### **Minutes**

#### **Introduction – Brian Lee**

Brian started by introducing the first presenters, Paula Braun and Dr. Mark Braunstein who presented on Public Health Informatics on Fast Healthcare Interoperability Resources (FHIR). He also reminded the participants that were signed in through the webinar, to put a note into chat stating what organization they were from to increase collaboration across public health boundaries. He also presented Arunkumar Srinivasan, Asha Krishnaswamy, and Sridevi Wilmore. Brian thanked Briana Hill, Randy Mitchell and Dennis Jarosz for their supportive efforts with the CHIIC forum.

#### **Presentation 1 – Public Health Informatics on Fast Healthcare Interoperability Resources (FHIR) – Paula Braun and Mark Braunstein**

Speaker bio: **Paula Braun** is an Entrepreneur-in-Residence (EIR) at the National Center for Health Statistics, which is part of the Centers for Disease Control and Prevention (CDC). She offers a fresh look on how technology can inform and simplify the way mortality data are collected, analyzed, and reported across the United States. She also collaborates with colleagues across CDC to develop proof-of-concept SMART-on-FHIR applications to improve public and population health.

**Mark Braunstein, MD**, teaches health informatics in the College of Computing at the Georgia Institute of Technology and an author and thought-leader in the field. After a successful career as a health IT entrepreneur, he joined the faculty at Georgia Tech in 2007 as a Professor of the Practice. He teaches health informatics as a graduate seminar and an undergraduate project

course and via the first Massive Open Online Course (MOOC) in the field. He is the author of Contemporary Health Informatics (AMIA 2014) and Practitioner's Guide to Health Informatics (Springer 2015).

Dr. Braunstein is actively involved with HL7's development of the Fast Healthcare Interoperability Resource (FHIR) standard and in efforts at the CDC to use FHIR as a 'universal platform' for public health surveillance. He is also collaborating with Open mHealth to bring their schema for representing data from patient operated apps and devices into the FHIR standard. He also serves as associate editor of the IEEE Journal of Biomedical and Health Informatics. He earned a BS from MIT in 1969, an MD from the Medical University of South Carolina in 1974, and served as a resident at Washington University.

He was a 1996 Entrepreneur of the Year Award for the Southeast Region, received a 1995 Innovation in Medical Management Award from the American Society of Physician Executives and received the 2006 Founder's Award from the American-Israel Chamber of Commerce, Southeast Region. In 2013, he was honored as a Distinguished Alumnus by MUSC's College of Medicine.

### **Presentation 2- A SMART App to Track and Report Stroke Cases to Reduce Readmissions by Arunkumar Srinivasan, Asha Krishnaswamy, Sridevi Wilmore, and Fayaz Adam**

Speaker bio: **Dr. Srinivasan** is an Informatics Health Scientist in the National Center for Chronic Diseases Prevention and Health Promotion, CDC Atlanta. He leads the informatics science team in modernizing the chronic disease surveillance systems, process and technology. Previously he served as the technical manager and project officer for the CDC's National Electronic Disease Surveillance System (NEDSS) system. He has PhD in Health Informatics from University of Texas-Houston. He specializes in business process re-engineering, information systems management, enterprise solutions architecture and data management. He is a graduate of CDC Public Health Informatics Fellowship Program, class of 2008. His current research interests include large scale open technology solutions e.g. blockchain, machine learning projects in healthcare

**Asha Krishnaswamy**, B.EE, MS, is a product of three continents. She earned her Masters in Applied Artificial Intelligence at the University of Aberdeen, Scotland, and her Bachelor in Electronics and Communication Engineering at the University of Madras, India. Before coming to CDC, she was President and Owner of an international IT firm specializing in software development in the US, UK, Singapore and India. During 1987 to 1992, she led and converted a large multi-specialty clinical database, used for patient care and medical research, from a local to a National system in Scotland. She was assigned to the Knowledge Management Division of the National Center for Public Health Informatics (NCPHI) during her two-year informatics fellowship. Her interests include surveillance using electronic health records, knowledge management, decision support and ontologies. Having worked in the Center on Birth Defects at

the CDC for seven years, she has recently moved to lead informatics science efforts with the ESB Branch in Heart Disease and Stroke Prevention.

**Ms. Sridevi Wilmore** is a Health Scientist in the National Center for Chronic Diseases Prevention and Health Promotion at CDC in Atlanta. She is a member of the informatics science team and collaborates in efforts to modernize chronic disease surveillance systems, processes, and technologies. Previously, she has served as the technical lead for CDC's Enhanced HIV/AIDS Reporting System (eHARS). She has an MPH in Community Health Practice from the University of Arizona. Her experience in public health includes informatics, epidemiology, and surveillance. She is currently involved in efforts to optimize the use of electronic health records (EHRs) for chronic disease public health efforts. Additionally, she utilizes an EHR system as a practicing mental health clinician with a Masters in Clinical Social Work from the University of Georgia.

### **Items of interest**

- Next Forum – Tuesday, August 1, 10:00am-11:00am ET – Innovative Surveillance and Assessment Techniques to Inform STD and HIV Prevention
- Microservices Hackathon – May 23-24, Century Center Bld 2500
- Blockchain Vendor Showcase- June 20
- CDC Tracking Network Enviro Health App Challenge  
<http://www.envirohealthchallenge.com/>
- Please take 90 seconds to share your feedback, <https://go.usa.gov/x5ESy> . We'd love to hear from you on improving the quarterly forums.

If you would like to review other CHIIC projects, please visit the [CHIIC web site](#).

Please contact [chiic@cdc.gov](mailto:chiic@cdc.gov) to be added to the CHIIC distribution list or have any questions related to previous CHIIC forums.