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| **MEETING TITLE:**  **Making EHR Data More Available for Research and Public Health (MedMorph)**  **Technical Expert Panel (TEP) Meeting** | | | **DATE SCHEDULED:**  Tue 11/12/2019,  3-4pm ET/ 2-3pm CT/  1-2pm MT/ 12-1pm PT |
| **MEETING PURPOSE:**  **To provide input related to the reference architecture and other aspects of Making EHR Data More Available for Research and Public Health** | | | **LOCATION:**  [Skype](https://webconf.cdc.gov/ktx2/ZT9GJSW2) or Join by phone:  (770) 488-3600, (855) 644-0229  Conference ID: 8774895 |
| **PROGRAM/AREA:** Industry-wide | | | **NEXT MEETING:** 12/17/2019  [Skype](https://webconf.cdc.gov/ktx2/ZT9GJSW2) or Join by phone:  (770) 488-3600, (855) 644-0229  Conference ID: 8774895 |
| **CO-CHAIRS:**  Bill Lober  John Loonsk | | |
| **SCHEDULED TIME** | | |  |
| **Start**  3:00 PM ET | **Stop**  4:00 PM ET | **Total Hours**  1 hour | **M**aking EHR Data Available for Research and Public Health (MedMorph) |

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| **TOPIC** | | **LEAD(S)** | **TIME** | **NOTES** |
| 1 | Roll Call, Welcome, and Introductions | Maria Michaels, TEP Co-Chairs: Bill Lober/ John Loonsk | 3:00 – 3:05 | Roll call of TEP members based on new protocol, which will be used for attendance documentation going forward. |
| 2 | Background & Definitions | Bill Lober/John Loonsk | 03:05-03:20 | Background & Definitions: SLIDES 4-19  -Briefly described the data lifecycle.  - Fast Healthcare Interoperability Resource (FHIR) is a way to organize clinical data into standardized objects, which can be combined like building blocks to solve different representation goals. The objects have attributes that are optional slots where relevant metadata can be stored, for example, observation resource, lab values.  - FHIR is a consistent way to move data, FHIR is a standardized set of containers (shown in slide 7) and can help avoid proprietary data models that necessitate building adapters (analogous to international electrical plug adapters) to connect data models.  - The “four-legged stool” is propped up by the “legs” of common clinical data representation, ecosystem, Application Program Interfaces (APIs), technical transaction representation that support different aspects of FHIR.  - Consideration of data authorities and the levels of data that can be accessed is important. Need to address Identifiable data, Limited data set, and Deidentified data in context what can be accessed by whom and where in the ecosystem.  - Data authorities need to be considered in the context of public health and Health Insurance Portability and Accountability Act (HIPAA), which may require additional supplement legislation or regulation in addition to HIPAA  - Constraints on Research authorities and considerations for distributed queries, which have been articulated mainly as a way of trying to navigate data authorities and advanced analytics on clinical data and potential technical architecture, to differentiate between the incoming and outgoing data form the healthcare environment.  -Consideration of leveraging implementation in the clinical environment is important. Meaningful Use helped, but the architecture that can be implemented will vary depending on the clinical side, and these are some aspects that need to work through.  - The path to Implementation may involve advancing through FHIR API, broader FHIR International standards, and adoption spectrum.  - Considerations of how to advance the health needs in the busy clinical environment without further burdening the providers.  - From the standpoint of use cases, we need to consider the role of surveillance, including understanding the difference between sentinel, active, and passive surveillance to have implementation and Technical Reference Architecture to meets these different needs.  - Definitions (System, Reference Architecture, Initial Implementation, Reference Implementation, Registries and U.S Core Data for Interoperability (USCDI))  - We will continue to develop the list of terms so that we have a commonly shared terminology.  - Map data needed to USCDI, use USCDI wherever possible, and recognize the variation from USCDI. |
| 3 | Use Cases | Aaron Harris (Hepatitis C)  Wendy Blumenthal (Cancer)  Brian Gugerty (Healthcare Surveys) | 03:20-03:35 | Use Cases: SLIDES 20-24  -One percent of the United States population is living with Hepatitis C and over 50 percent of people are unaware of their infection. Since 2014 there is Highly affecting antiviral available with over 95 percent cure rate. The division of viral Hepatitis and The U.S. Department of Health and Human Services (HHS) working towards 2030 Hep C elimination goal, by reducing incidence by 90 percent and getting 80 percent patients to link to care and treatment.  - Tracking the diagnosed and treated patients is essential and utilizing Hep C as a Use case in this project, can improve public health reporting and achieve the 2030 Hep C elimination goal.  -The CDC national Program of Registries, in collaboration with the cancer registries community, has developed and published an HL7 Clinical Document Architecture (CDA) and Implementation Guide (IG) but did not use FHIR and has limited EHR uptake. Using FHIR will enhance more EHR uptake.  - The cancer Use case will help asses in addressing the gaps in Workflow, the triggers, and leverage or expand the FHIR IG developed by HL7 for breast cancer and Minimal Common Oncology Data Elements(mCODE) for all other cancers to address the public health information needs.  - The Healthcare Surveys Use case focus on sending EHR data to a system hosted at federal level.  -Developing an FHIR IG for the Healthcare Surveys Use case in alignment with USCDI will help in defining how EHR data can be used in automated data collection, thereby reducing the healthcare provider and HIT module vendors burden.  Note: Inputs from the Subject Matter Experts (SMEs) for other Use cases are welcome as it will help to identify the gaps and help to build a Reference Architecture that captures those needs. |
| 4 | TEP Workgroups | Maria Michaels | 03:35-03:55 | TEP Workgroups: SLIDES 25-30  -Three Workgroups (WG) have been created, one for each use case and the Technical experts are divided into 1. Clinical Workflow & Business Processes 2. Data Standards 3. Reference Architecture/Authorities/Policies.  - When the Use cases are fully modeled, the focus will be on Technical requirements WG and the SMEs from each Use case WG will be part of each Technical requirement WG, helping to incorporate the perspective of each Use case into the requirements. As the work is in an agile fashion, we may have to go back and forth between a focus on the use cases and a focus on the technical requirements based on the need.  - Experts in Evaluation will be part of each Use case so that we can identify the aspects for each of Use cases and each of Technical requirements to be evaluated and to determine if there is any improvement in the development of a Reference Architecture  - It is important to have SMEs from additional use cases providing different perspectives in each WG to help not only in modeling the use cases but also ensuring the broader needs are identified.  Note: Initial WG roster are assigned based on information submitted in the brief form you were asked to complete (if not completed, please complete it by clicking this [link](https://forms.gle/vpZmgtKVbupHGLHdA)). |
| 5 | Summary/ Q&A, Action Items, Announcements Next Meeting | Bill Lober/John Loonsk, MedMorph Project Team | 03:55- 04:00 | **Actions:**  - Each Use Case WG should meet and begin working on the items listed in the slide #28. ​  -Those who are SMEs in use cases other than the three main use cases should identify the same items for their use case to have ready for the technical requirements discussions as well as participate by asking questions to surface important aspects of each of the main three use cases​  -Those who are technical experts should raise questions of items that would need to be defined for each use case in order to be able to work through the technical requirements in the next phase​  -First meeting for each Use Case WG will be convened by the MedMorph Team Member who is a SME in each respective use case​  -During that meeting, a WG lead should be identified for subsequent meetings​  -Meeting frequency and duration should be determined for each Use Case WG  **Q&A:**  Julia Skapik: What is the expectation across the WG’s collaboration to come up with uniform output vs. sharing actual physical content or let each WG work towards their end they like and see what the differences are at the end?  Maria Michaels: First Iteration of the use case WGs is to focus on the items listed on slide # 28, identifying the needs and gaps. This information will flow into technical requirements WGs, and this is when the solutioning starts. The idea is to start with a common denominator and see if we can come up with different modular ways to address the needs. This could include identifying multiple possible solutions and later determining whether we should develop a single approach or multiple.  Bryan Gugerty: It is very important to get TEP involved now in modeling the use cases, which will flow into the technical requirements as outlined in slide # 26. When the contractor is on board, they will select a formal use case methodology, for example, UML, Domain analysis modeling, Business process modeling, and they will be in collaboration with TEP on agile development. It will be useful later in the project when the contractor comes on board if the TEP can now discuss issues regarding policies, authorities.  DuWayne Willett: On the scope of Use cases, looks like they are related to specific conditions. Is that what is desired? To be disease/condition-focused? Are some use cases are too general, for example, how to create patient registries and patient-reported outcomes that can be shared between institutions, what qualifies as a use case, and what is too broad to be approached by this method?  Maria Michaels: Your examples are not too broad. It is not a single Use case issue, for example, the issues sharing local patient registries with other organizations would be relevant across different use cases, which is ultimately what we want to identify as “common denominators”. We are trying to create a Reference Architecture that can be flexible and work for multiple use cases, helping in reducing the burden on providers and organizations.  Bill Lober: Regarding goals for each Use cases, It will be interesting to see how the process unfolds and to what extent the described goals come together in a common structure.  **NEXT MEETING:** 12/17/2019  3-4pm ET/ 2-3pm CT/  1-2pm MT/ 12-1pm PT |

**ACTION ITEMS**

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| **Description** | **Assigned To** | **Date Assigned** | **Date Due** | **Status** | **NOTES** |
| Set of slides to review with TEP | Use Case WGs | 11/12/2019 | 12/17/2019 | OPEN |  |
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**ATTENDEES:**

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| --- | --- | --- |
| **Name** | **ORGANIZATION/ ROLE/ EXPERTISE** | **X** |
| **Bill Lober** | University of Washington, Co-chair | X |
| **John Loonsk** | Johns Hopkins University, Co-chair | X |
| **Maria Michaels** | CDC, Project Lead | X |
| **Wendy Blumenthal** | CDC, Project co- Lead | X |
| **Arun Srinivasan** | CDC, Project Technical Lead | X |
| **Brian Gugerty** | CDC, Healthcare Surveys SME | X |
| **Aaron Harris** | CDC, Hepatitis C SME | X |
| **Abigail Viall** | CDC, Hepatitis C SME | X |
| **Laura Conn** | CDC, Electronic Case Reporting (eCR) SME | X |
| **Sameemuddin Syed** | CDC, ORISE Fellow | X |
| **Adi Gundlapalli** | CDC, Chief Public Health Informatics Officer (CPHIO) | X |
| Al Taylor | TEP Member | X |
| Alex Goel | Cancer Care Ontario, TEP Member, Cancer registries SME |  |
| Aly Goodman | CDC, TEP Member, Childhood obesity SME |  |
| Anais Tanon | CDC, TEP Member, Program Evaluation SME |  |
| Andrew Hamilton | Alliance Chicago, TEP Member Research, CDS, Syndromic Surveillance, eCR SME |  |
| Angie Glotstein | Cerner Corporation, TEP Member, Data Quality Summit SME | X |
| Annie Fine | NYC Department of Health and Mental Hygiene, TEP Member, Hepatitis C SME |  |
| Arlene Bierman | AHRQ/CEPI, TEP Member, eCare Planning (use case for EHR data going to another EHR or via HIE) SME |  |
| Barry Blumenfeld | RTI International, TEP Member, Health Data Exchange, CDS, Interoperability SME | X |
| Blackford Middelton | Apervita, TEP Member | X |
| Brian Dixon | Regenstrief Institute, TEP Member, HIE expert SME | X |
| Bryn Rhodes | Dynamic Content Group, TEP Member, Clinical quality framework SME | X |
| Clay Cooksey | CDC, TEP Member, Evaluation SME |  |
| Craig Newman | Altarum, TEP Member, HL7 Implementation, Reference Architecture SME | X |
| Crystal Snare | Washington Department of Health, TEP Member | X |
| Daniel Chaput | ONC, TEP Member, Health Data Exchange Standards & Terminology SME | X |
| Daniel Pollock | CDC/NHSN, TEP Member, Health data & Terminology standards SME | X |
| Davera Gabriel | Johns Hopkins/HIMSS, TEP Member, standards development and interoperability SME | X |
| David Dorr | OHSU, TEP Member, diabetes, CV, high blood pressure Research, Informatics SME | X |
| David Jones | CDC, TEP Member, Cancer SME | X |
| Denys Lau | CDC, TEP Member, Health Care Surveys SME |  |
| DuWayne Willet | UT Southwestern, TEP Member | X |
| Ed Lomotan | AHRQ/CEPI, TEP Member |  |
| Eric Larson | American Immunization Registry Association, TEP Member, Immunizations SME |  |
| Erin Holt | Tn Dept of Health, TEP Member, PH surveillance, Investigation, and related systems and associated interoperability SME | X |
| Floyd Eisenberg | iParismony, TEP Member, Standards, CDS, eCQMs SME |  |
| Grace Mandel | CDC, TEP Member |  |
| Harold Sobring | Johns Hopkins University, TEP Member, Health data and Terminology SME |  |
| Helen Burstin | Council of Medical Specialty Societies, TEP Member Guidelines, Quality Measures SME |  |
| Hilary Wall | CDC, TEP Member | X |
| Imtiyaz Syed | TEP Memeber | X |
| James Doyle | Epic, TEP Member, Clinical Decision Support SME | X |
| Jason Hall | CDC/DDID/NCEZID/DPEI, TEP Member | X |
| Jeff Klann | Massachusetts General Hospital, TEP Member, Clinical Decision Support SME | X |
| Jeff Smith | AMIA, TEP Member, Informatics, Policy SME | X |
| Jeffery Danford | Allscripts, TEP Member, HL7 standards development and interoperability SME | X |
| Jenna Norton | NIH, TEP Member, eCare Planning (use case for EHR data going to another EHR or via HIE) SME | X |
| Jennifer Wiltz | CDC, TEP Member, Chronic Disease SME |  |
| Jerry Sheehan | National Library of Medicine (NIH/NLM), TEP Member |  |
| Jill Shuemaker | American Board of Family Medicine, TEP Member | X |
| Johna Peterson | Washington State Cancer Registry, TEP Member, Cancer Registries SME |  |
| Jon Duke | Georgia Tech Center for Health Analytics and Informatics, TEP Member, Health analytics SME |  |
| Joseph Rogers | CDC, TEP Member, Cancer Registries SME | X |
| Julia Skapik | Cognitive Medical Systems, TEP Member, Payer Coverage Decision Exchange, Clinical Quality Measures SME | X |
| Kathryn Turner | Idaho Dept of Health, TEP Member | X |
| Katrina Hoadley | CMS, TEP Member, eCQMs /Quality reporting SME | X |
| Ken Gersing | NIH NCATS, TEP Member, Research, HL7 implementation, Clinical Workflow SME |  |
| Ken Rubin | VHA, TEP Member Standards, HSPC SME |  |
| Kevin Larsen | HHS/CMS, TEP Member, Quality, Registries, HIV SME |  |
| Kim shin | (CDC/DDNID/NCBDDD/DBDID), TEP Member | X |
| Kirsten Hagemann | Cerner Corporation, TEP Member | X |
| Kristin Lyman | Louisiana Public Health Institute, TEP Member, PCORnet SME | X |
| Laura Vonahme | CDC, TEP Member, Utilizing EHR data for public health surveillance, specifically for TB infection and TB disease SME | X |
| Lesliann Helmus | CDC, TEP Member, Surveillance SME | X |
| Lindsay Ryan | CDC-Contractor, TEP Member, Cancer registries SME | X |
| Liz Amos | NIH/NLM, TEP Member |  |
| Lori Fourquet | TEP Member |  |
| Lori Havener | NAACCR, TEP Member, Cancer registries SME |  |
| Lynn Gibbs-Scharf | CDC/NCIRD, TEP Member, Immunizations SME | X |
| Marc Hadley | MITRE Corporation, TEP Member, Health data exchange standards, HL7 Implementation, Reference Architecture SME | X |
| Mark Durand | Pacific Islands Health Officers Association, TEP Member, Health systems strengthening SME |  |
| Matt Ritchey | CDC, TEP Member, Clinical Quality Measures, Surveillance SME |  |
| Matt Whipple | Northrop Grumman, TEP Member, Research, Information system SME |  |
| Megan Light | CDC, TEP Member | X |
| Melvin Crum | CDC, TEP Member, Health surveys SME |  |
| Meredith Lichtenstein | CSTE Surveillance and Informatics, TEP Member |  |
| Michael Castera | South Carolina Central Cancer Registry, TEP Member, Cancer Registries SME |  |
| Michael Coletta | CDC, TEP Member, Syndromic surveillance SME | X |
| Michael Lieberman | OCHIN, TEP Member, clinical data for quality measurement and improvement SME | X |
| Michael Wittie | DHHS/ONC Health Analyst, Research, Hepatitis, usability/UCD SME |  |
| Mitra Rocca | FDA/CDER, TEP Member | X |
| Mignon Dryden | Cancer Registry of Greater California, TEP Member, Cancer Registries SME |  |
| Mona Doshani | CDC, TEP Member | X |
| Nedra Garrett | CDC, TEP Member, Data Standard Management, Informatics SME |  |
| Nigar Salahuddin | NC Cancer Registry, TEP Member, Cancer registries SME | X |
| Paul Drawz | University of Minnesota, TEP Member, Chronic kidney disease SME | X |
| Paula Braun | CDC, TEP Member, Innovation, Interoperability SME |  |
| Paula Yoon | CDC, TEP Member, Syndromic Surveillance SME | X |
| Rachelle Boulton | Utah Dept of Health, TEP Member, Public Health Surveillance SME | X |
| Ray King | CDC, TEP Member, Childhood obesity SME |  |
| Rishi Tarar | Northrop Grumman, TEP Member, Interoperability, triggering, analytics and standards SME | X |
| Ryan Mullins | Cerner Corporation, TEP Member | X |
| Sandy Jones | CDC, TEP Member, Cancer SME |  |
| Samantha Olson | CDC, TEP Member |  |
| Sanjeev Tandon | CDC, TEP Member | X |
| Sara Johnston | CDC, TEP Member |  |
| Scott Gordon | FDA/CDER, TEP Member |  |
| Serban Negoita | NCI/SEER, TEP Member, Cancer registries SME | X |
| Shin Kin | CDC, TEP Member, Hepatitis SME | X |
| Solad Youheni | TEP Member | X |
| Stephanie Garcia | ONC, TEP Member, PCOR Portfolio SME | X |
| Steve Bernstein | AHRQ/CEPI, TEP Member |  |
| Steve Eichner | Texas Department of State Health Services, TEP Member, Interoperability of data systems SME |  |
| Stuart Myerburg | CDC- NCIRD, TEP Member, Immunizations SME | X |
| Sumana Nagaraj | NC Cancer Registry, TEP Member, Cancer registries SME | X |
| Sunanda McGarvey | TEP Member | X |
| Tamara Hennessy-Burt | California Dept OF Public Health, TEP Member, Health Data and Exchange Standards SME |  |
| Taylor Mann | CDC, TEP Member |  |
| Tushar Malhotra | EClinicalWorks, TEP member, Health Data &Terminology standards SME | X |
| Viet Nguyen | Stratametrics LLC, TEP Member, HL7 DaVinci SME |  |
| Violanda Grigorescu | CDC, TEP Member, Clinical work flow, Health data standards SME |  |
| Wendy Scharber | CDC-Contractor, TEP Member, Cancer SME | X |
| William Thompson | CDC, TEP Member | X |