Digital Skills for the Health Workforce: The EU*US eHealth Work Project

Measuring, Informing, Educating and Advancing eHealth

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STEVE POSNACK

• **Steven Posnack, MS, MHS,** is Director, Office of Standards and Technology, US Office of the National Coordinator for Health Information Technology

• Steven Posnack joined the Office of the National Coordinator for Health Information Technology (ONC) in July 2005.

• As the Director of the Office of Standards and Technology, Steve advises the National Coordinator, leads the ONC Health IT Certification Program, and directs ONC’s standards and technology investments through the ONC Tech Lab, which organizes its work into four focus areas: pilots, standards coordination, testing and utilities, and innovation.
BACKGROUND

• A Memorandum of Understanding (MoU) was signed in 2010 between the European Union and the United States
• This was done to address:
  – the burgeoning global demand for skilled healthcare workers, and
  – the need for development and deployment of eHealth skills, competencies and training programs
BACKGROUND

• This Memorandum of Understanding and Roadmap, beginning in 2010, and most recently updated in 2016, focused on activities to advance the goals for cooperation around health-related information and communication technology, with a specific emphasis on three areas:

1. International interoperability among Health IT systems with patient summary records, including a focus on semantic and syntactic requirements for the purposes of clinical care across borders
2. Cooperation and collaboration around shared challenges related to eHealth/Health IT Workforce Development; and
3. Supporting Transatlantic eHealth/Health IT Innovation Ecosystems
WORKSTREAM ALIGNMENT

Initiatives continue in all areas - DG CONNECT and the US Department of Health and Human Services ensures continuing linkages of all three work streams:

• Interoperability:
  – The interoperability work support Standards and Profile Developing Organizations and eHealth/Health IT stakeholders so that they collaborate to enable a standardized international patient summary (IPS) to be in use by 2020
  – CEN is participating to this activity along with other SDO (HL7, IHTSDO, ISO...)
  – This activity is also the subject of an EU-US MoU Support action funded under Horizon 2020

• Ecosystems:
  – This new work-stream aims at encouraging innovation in the eHealth/Health IT industry.
  – One of its key elements will be to strive to identify key EU and U.S. stakeholders and enlist their support for greater collaboration between companies and ecosystems located in each jurisdiction

• Workforce:
  – The work continues primarily in the form of the EU*US eHealth Work Project and Digital Skills initiatives of the European Commission
WORKFORCE STREAM GOALS

• The goals of the EU-US Collaboration in Workforce Development are:
  – To **achieve a robust supply of health professionals** highly proficient in the use of HIT and digital skills
  – To **assure current and future workforces have the required technology skills** needed to be successful, and enhance experience and performance within the eHealth/Health IT Ecosystem
  – To **support an innovative collaborative community** of public- and private sector eHealth/Health IT entities, working toward the shared objective of developing, deploying, and using eHealth science and technology
  – To **define standards, develop competencies and produce useful tools** that support this work

This project has received funding from the European Union’s Horizon 2020 Programme under Grant Agreement No. 727552.
MEASURES TO ACHIEVE THESE GOALS

• MoU and Roadmap
  – Established direction and plan of action

• CAMEI Project
  – Served to engage stakeholders in eHealth communities from the EU
  – Coordinated research activities and policies
  – Established a network of best practices in Medical Education Informatics

• EU-US Workforce Development Workgroup
  – Over 20 weeks, reviewed, analyzed and synthesized thousands of skills and competencies from global 15 source organizations
  – Catalogued over 1,200 competencies, from basic to expert levels, in 33 areas of focus
  – Mapped competencies to over 250 job roles in health care
  – Compiled the data and developed content into an interactive resource called the HITCOMP Tool and Repository (www.hitcomp.org)

• EU*US eHealth Project
RACHELLE BLAKE

• Rachelle Blake, PA, MHA, is a global health subject matter expert and physician assistant
• Founded Omni Micro Systems/Omni Med Solutions (US) in 2007, in 2014 in Germany (GmbH)
• Original member of EU-US Workforce Development Workgroup
• Co-creator of HITCOMP tool
• Member of Global Health Workforce Council (AHIMA)
• EU*US eHealth Work Project Coordinator

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THE EU*US EHEALTH WORK PROJECT

- Begun in September 2016, the 18-month Coordination and Support Action project involves research, synthesis, resource and tool development, and dissemination related to the eHealth/health information technology workforce in the following streams:
  - Measuring
  - Informing
  - Educating
  - Advancing
WORK STREAMS

Aligned with the directives of the 2010 MoU, the EU*US eHealth Work Project is carrying out objectives in these four major areas of focus:

• **Measure**
  – Performing surveys, analyzing the results through gap analyses, and compiling the findings through case studies

• **Inform**
  – Hosting a web portal, distributing newsletters, holding interactive stakeholder sessions and participating in eHealth conferences and events

• **Educate**
  – Building a set of foundational curricula for digital skills in eHealth, enhancing the HITCOMP Tool and Repository, and creating an interactive web platform

• **Advance**
  – Disseminating and exploiting the work generated under this project, utilizing our "network of networks" in a perpetually evolving process of information, resource and tool development
THE EU*US EHEALTH WORK CONSORTIUM

• The project consortium is a “network of networks” and includes:
  – Omni Micro Systems/Omni Med Solutions GmbH (Project Coordinator) (Germany)
  – HIMSS (Health Information Management Systems Society)*
  – EHTEL (European Health Telematics Association) (Belgium)
  – University of Osnabrück (Germany)*
  – Tampere University of Technology (Finland)
  – Steinbeis 2i (Germany)

* HIMSS and University of Osnabrück will submit all deliverables in tandem, as the university’s team lead is also chair of the International TIGER committee
KEY ACCOMPLISHMENTS – MID-TERM

• Significant Deliverables
  – eHealth Survey
  – Gap Analysis (in progress)
  – HITCOMP Restoration

• Major Events
  – Project Dissemination Events
  – EU-US Collaboration Event at HIMSS17 in Orlando, Florida
KEY PROJECT DELIVERABLES

Survey of Current State of eHealth Needs

- **Timeframe**: Survey runs February through May 2017
- **Priority**: Flagship of our project
- **Goal**: Capture information to identify global health IT/eHealth workforce development needs, trends and gaps
- **Target**: Over 1,000 respondents

**Survey addresses:**

- Availability of eHealth courses
- Certification & Certificates
- Digital skills gaps
- eHealth promotion/importance
- Online tools / courses
- Gender disparities
- eHealth education funding
- eHealth reputation in politics
KEY PROJECT DELIVERABLES (CONT’D)

• Survey Results Report and Gap Analysis that leads to Case Studies

Most healthcare professionals are adequately prepared to use information technology as needed in their roles by their first day of work. The majority of healthcare workers have digital skills as well as core eHealth competencies.

Figure 18: Please specify the areas of discipline where you see a high number of clinician shortages.

Figure 20: Are you aware of gender disparities within the healthcare sector in your country or region?

Figure 22: Are there plans or systems in place to help address any such gender disparities within the healthcare sector in your country or region?
KEY PROJECT DELIVERABLES (CONT’D)

• HITCOMP Restore
• What is the HITCOMP Tool? *Health Information Technology Competencies*
  ✓ An interactive health information technology role, competencies and education research tool and repository
  ✓ A global resource usable by employers, educators, managers, recruiters, agencies, students, current/future eHealth workers and more
  ✓ An open Source tool, free to anyone with internet access, with a commitment to remain available to the public beyond the lifetime of the project
  ✓ A resource containing over 1000 competencies mapped to 250 roles
    ✓ Coming soon: All competencies and roles mapped to an entire foundational online curriculum along with additional instructor-led and online courses
  ✓ You can find HITCOMP at [www.hitcomp.org](http://www.hitcomp.org)
**KEY PROJECT DELIVERABLES (CONT’D)**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Level</th>
<th>Competency Quadrant</th>
<th>Area of Competency</th>
<th>Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration/Big Data/ICT</td>
<td>Advanced</td>
<td>Clinical Interactions</td>
<td>Clinical Practice &amp; Workforce</td>
<td>Assess and evaluate past, current and future operational and clinical workflows within health IT/Health to determine what changes need to be made to achieve successful integration and adoption within your organisation</td>
</tr>
<tr>
<td>Administration/Big Data/ICT</td>
<td>Advanced</td>
<td>Clinical Interactions</td>
<td>Clinical Practice &amp; Workforce</td>
<td>Balance standardization of health information with prioritization of data and results for accuracy and ease of use and interpretation from an administrative, legal, financial and management perspective, and to achieve best practices and improve patient care</td>
</tr>
<tr>
<td>Direct Patient Care (DPC)</td>
<td>Advanced</td>
<td>Clinical Interactions</td>
<td>Clinical Practice &amp; Workforce</td>
<td>Balance standardization with customization in DMR development to achieve clinical best practices and improve patient care</td>
</tr>
<tr>
<td>Information</td>
<td>Advanced</td>
<td>Clinical Interactions</td>
<td>Clinical Practice &amp; Workforce</td>
<td>Establishing work to define the workflow within which clinical information and evidence is captured and used by primary, secondary, policy makers, developers of guidance and the public</td>
</tr>
<tr>
<td>Direct Patient Care (DPC)</td>
<td>Advanced</td>
<td>Clinical Interactions</td>
<td>Clinical Practice &amp; Workforce</td>
<td>Develop and utilize clinical pathways and guidelines to improve clinical practice</td>
</tr>
<tr>
<td>Administration/Big Data/ICT</td>
<td>Advanced</td>
<td>Clinical Interactions</td>
<td>Clinical Practice &amp; Workforce</td>
<td>Develop and facilitate the integration of evidence-based and best practice business processes and workflows into health information technology systems</td>
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KEY PROJECT DELIVERABLES (CONT’D)

Coming Summer/Fall/Winter 2017

- Foundational Curriculum
  - Core online eHealth courseware in 20 modules, providing baseline digital health skills
  - Can also be used as a “starter set” for academic institutions without an existing eHealth program
- HITCOMP 2.0 upgrade
  - Linkage to Foundational Curriculum
  - Mapping of competencies and roles to EU, US and global instructor-led courses and global education
- Case Studies
  - Presentation of relevant regional and country-specific cases where digital health skills and education has led to significant eHealth workforce development
  - Competency synthesis evaluation, harmonization and recommendations for greater uptake of interprofessional eHealth skills
- Interactive Educational Demonstrator Module
  - Social media module series demonstrating foundational curriculum in an interactive instructor-led presentation
- Interactive Website Platform
  - eHealth platform that provides a variety of eHealth resources, tools, and certification and educational content such as HIMSS’ virtual learning environment (VLE) for all eHealth actors and stakeholders

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PROJECT DISSEMINATION EVENTS

• The project has participated in several key dissemination events to date, each offering opportunities to present information, network with eHealth workforce development stakeholders, and exploit the work of the project.

• Events to date have included:
  • MEDICA 2016, Düsseldorf DE: 14/15 November 2016
  • WoHIT (World of Health IT), Barcelona, ES: 21/22 November 2016
  • European Summit on Digital Innovation for Active & Healthy Ageing, Brussels, BE: 5/8 December 2016
  • European Health Telematics Association (EHTEL) Symposium, Brussels, BE: 15/16 March 2017
  • Royal College of Nursing Conference, Cardiff, Wales, UK: 22/23 March 2017
  • Informatics for Health 2017, Manchester, UK: 24/26 April 2017
The project has also sponsored one series of stakeholder participation events to date, with another scheduled to occur at the end of May.

On the morning of Tuesday, February 21, the project held its first international event: the EU-US Collaboration Roundtable.

- Held in Orlando, Florida, at the HIMSS17 Annual Conference, the event provided a unique opportunity for key US and European eHealth stakeholders to collaborate.
- Around 20 stakeholders participated in the event, including educators, government representatives, industry leaders, and other eHealth influencers.

In the afternoon, the project held its second event: the EU-US Collaboration Networking Event.

- Over 50 participants took part in the social and networking function, with project team members giving an overview of each facet of project.
- Emphasis was put on ensuring there is “an enduring legacy following project conclusion.”
UPCOMING STAKEHOLDER EVENT: FINLAND

• At project sponsored events, stakeholders will have an opportunity to hear about the project, participate in action planning, and take part in crafting a recommendations framework

• May 23, 2017: Stakeholder Engagement Event #1, Helsinki, Finland (hosted by Tampere University of Technology)
  
  – Social and Healthcare ICT Conference - “EU - US eHealth Skills Collaboration Opportunity” – an afternoon of eHealth workforce engagement and collaboration activities
  
  – A 3.5 hour informative interactive session featuring presentations, discussions and panels on digital health education, skills development and policy in eHealth workforce development
MORE EVENTS TO COME…

• Project sponsored events
  – September 2017: Stakeholder Engagement Event #2, hosted by University of Osnabrück, Germany
    • Actively discuss survey results and recommendations
    • Review case studies
    • Action planning for final quarter of project
    • Discuss interim project results to date
    • Present lessons learned
    • Discuss final results of the project
    • Create a recommendations framework for further dissemination and exploitation post-project
MORE EVENTS TO COME...

• There is also opportunity to attend these non-project sponsored upcoming events

• Stakeholders will have an opportunity to hear about the project and participate in action planning, and take part in crafting a recommendations framework:
  
  – **Healthcare Workforce Planning Summit**, Project presentation and stakeholder participation opportunities, Berlin, Germany, May 18-19, 2017
  
  – **Future Health Care Week**, Project presentation and stakeholder participation opportunities, Amsterdam, Netherlands, June 6-7, 2017
  
  – **MedInfo 2017**, Project presentations and panels/stakeholder participation opportunities, Xiamen, China August 21 – 25, 2017

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HOW YOU CAN SUPPORT THE PROJECT

• We need your help, now, during the project, and after its completion
  – You can participate as a stakeholder, active participant or interested party in helping to inform our work, make recommendations and have a voice in the future state of the eHealth workforce for the EU and US
  – All actors are welcome to participate in our project, including: healthcare providers, allied health staff, informaticists, ICT specialists, educators, managers, students, policy makers, and more

• Help us in our efforts to:
  – Inform and educate current and future eHealth workers
  – Participate as a stakeholders in our events
  – Help disseminate and use your networks to exploit the results of this important work to make an impact in eHealth

• Log on to our website:  [www.ehealthwork.org](http://www.ehealthwork.org) or [www.ehealthwork.eu](http://www.ehealthwork.eu)
• Take our survey here: [http://ww2.unipark.de/uc/eu_us_ehealth_work_survey](http://ww2.unipark.de/uc/eu_us_ehealth_work_survey)
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