Informatics in the ongoing response to a pandemic

In this issue of the newsletter, we
- again take a look at the role of informatics in addressing pandemics, spotlighting the work of Dr. Deepti Pandita (p. 2).
- present a brief update on and link to the podcast interview of Dr. Emily Webber, focusing on burnout and technology (p. 4).

Previous issues of the WIA newsletter can be found on the Women in AMIA webpage here.
**Deepti Pandita on being a CHIO in the COVID-19 era**

Below is a conversation with AMIA member Deepti Pandita, on her work as a Chief Heath Information Officer at Hennepin Healthcare in Minnesota and how she's addressing the COVID-19 pandemic at work.

**Question: What is your title and position?**

**Answer:** I’m the Chief Health Information Officer of Hennepin Healthcare and Assistant Professor at University of Minnesota in Minneapolis. I’m also Program Director, Clinical Informatics Fellowship at Hennepin Healthcare.

**Question: What are you doing for your institution’s COVID-19 response?**

**Answer:** Our hospital has four main categories of responses: ambulatory, inpatient, research, and analytics. In ambulatory care, we are quickly rolling out telemedicine capabilities, including e-visits, telephone visits and video visits. We’re also creating and streamlining our system-wide COVID-19 testing and results capabilities. Also, we’re arranging for a lot of clinicians to work from home if possible. On the inpatient side, we are standing up tele-ICU and tele-ED capabilities. In the EMR, alerts and banners are being created on patients’ COVID-19 status and COVID-related order sets for ICU and routine admissions. In terms of research, Hennepin implemented 6 research study protocols within our EMR around post-exposure prophylaxis, antiviral drug use, and convalescent serum use. Finally, for analytics, we’ve developed a COVID-19 dashboard to indicate all metrics below. We’re also working with Epic to develop a COVID-19 registry to be able to share it with other organizations regionally, across the state and beyond to inform our regional and state incident command.
COVID-19 dashboard metrics include:

- Number of admitted patients who have a COVID-19 infection
- Number of admitted patients who have a COVID-19 infection and are on a ventilator
- Number of patients who were discharged as deceased from an admission with a COVID-19 infection
- Number of ICU Stays for patients with a COVID-19 infection
- Average length of stay in an ICU for patients with a COVID-19 infection
- Number of distinct ventilator episodes that occurred during the specified time period for admitted patients with a COVID-19 infection
- Average time in minutes between the first vent on and last vent off for patients discharged from a hospital admission with a COVID-19 infection
- Average time in hours that a patient with a COVID-19 infection is on a ventilator

**Question:** What long-lasting changes do you see happening as a result of COVID-19, with respect to how we design and integrate health information systems into healthcare delivery?

**Answer:** Telehealth has just been the refreshing "Aha" discovery, thanks to this pandemic: clinicians, patients and payers are all discovering the pros and cons of all levels of virtual care delivery and this is not likely to go away even past the pandemic. I see this as a path forward, for example, for our female clinicians - I can see them having a full slate of patients for video visits while working from home and being available to their families as well.

**Question:** How do you think clinical informatics education may change as a result of pandemic circumstances?

**Answer:** My Clinical Informatics fellows have learned more in the last month than they would have all year. Great learning in the area of creating clinical decision support tools when some of the parameters are rapidly changing. We have had teaching around population health at local, regional and state levels, but with a pandemic, we can have great learning about pandemic-related population health at a global level. Change management has also been a subject to study and teach in Informatics but the pandemic has opened us to a new concept of "rapid adoption and roll out" which most current change management tools don’t advocate.

**Question:** What are your major takeaway learnings from your experiences in responding to COVID-19?

**Answer:** Being flexible and adaptable is key; share information freely with other institutions. Often, a problem you are trying to solve today already has a feasible solution developed elsewhere yesterday. Leverage your colleagues to be super users when information and knowledge dissemination need to happen quickly.
Question: Any tips/advice for informaticians looking to do similar work?

Answer: Does not hurt to get training to run incident command - I did this and it was very helpful for me just in my role as the CHIO in incident command locally and at the state level, be flexible and adaptable, and as always be data savvy.

The Women in AMIA Podcast

Karmen Williams

"Always have the human in mind while engineering the system, rather than hoisting it down on them," was just one of the solutions for "Burnout and Technology" from Episode 11's interview with Dr. Emily C. Webber, MD, FAAP, FAMIA, a pediatric hospitalist at Riley Hospital for Children and Chief Medical Information Officer Riley Children's Health. She and host, Dr. Wendy Marie Ingram, have a lively and interesting discussion on Burnout and Technology and its relation to both the informatician and the physician. Listen here for interesting and relatable solutions. Also, do you know someone who would make a great guest on the WIA Podcast? Contact Karmen at KarmenSWilliams@gmail.com with the information. Spread the word! Thanks.