Scripps Research

Advancing maternal health with digital technologies

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ABOUT THE LECTURE

As a leading clinical researcher at the Scripps Research Translational Institute, Tolúwalàsé Àjàyí discussed the use of personal devices and digital platforms to transform pregnancy-related research. Àjàyí laid out a path toward individualized maternal health recommendations that can help engage marginalized populations and significantly improve access to care.

TOP TAKEAWAY POINTS

1. **Maternal health is in a state of crisis in the United States.** Maternal mortality has been steadily increasing since 1997. Despite a brief plateau phase in 2008, it continues to increase to present day. This mortality rate is particularly pronounced in non-Hispanic blacks, Indian/Alaskan Natives and those over the age of 40 years old. The **leading causes of these deaths are preventable**, suggesting that, by engaging pregnant people sooner with digital health tools, doctors and researchers can help them find the care they need.
2. Àjàyí and her team have developed **PowerMom** to enable participants to contribute important pregnancy-related health information through app-based surveys and wearable sensors. The goal is to build a diverse research community of over 1 million pregnant people to **improve maternal and fetal outcomes across the nation**.
3. An initial pilot study using the PowerMom app captured over 14,000 unique physiological data points and was able to engage participants in rural "healthcare deserts," where access to medical services is limited. The platform is **breaking down barriers to research participation** and creating a rich data repository that can help participants engage with their healthcare team during pregnancy.
4. With design help from the participants themselves, the PowerMom platform acquires key health information about the moms during their pregnancy journey while providing them easy to understand data visualization. **Privacy is a top consideration**, and all participant information remains anonymous to researchers.
5. To broaden the research landscape even further, the smartphone platform can also integrate with fitness trackers that record activity, heart rate and sleep data. By leveraging these multiple information streams, scientists can **better predict maternal health outcomes and empower pregnant people** to seek out the necessary support from their physician.

To join or learn more about the PowerMom study, visit powermom.scripps.edu.