

Use Case Library

Monitoring the Nation's Health with Blockchain Technology

Executive Summary written by GBBC

Every day, doctors and patients generate massive amounts of data, most of which has yet to be properly harnessed. The sensitive nature of health data makes gathering it from a variety of sources extremely complex. Currently, the Centers for Disease Control (CDC) relies on surveys of medical professionals to track health trends, though Dr. Askari Rizvi, Chief of the Technical Services Branch at the CDC's National Center for Health Statistics, says response rates have declined. The CDC's ability to quickly and accurately assess national health trends has been hampered by the difficulties it faces in accessing quality health data.

IBM and the CDC have partnered to build a blockchain-based system "that lets the agency closely control access to sensitive information and keep tabs on how datasets move through the organization. Though still in its infancy, the technology could automate the compliance process and potentially transform the way government responds to national health crises." The distributed nature of blockchain makes it an excellent choice for storing specific kinds of health data and ensuring relevant authorities have instant access to important information. Electronic health records on a blockchain could also allow individuals to have control over and potentially monetize their health data. IBM and the CDC successfully completed a proof of concept that "linked synthetic data from a fictional health care provider to the blockchain and demonstrated how providers could make data available or inaccessible on a case-by-case basis." They are now engaging with private sector partners to develop data-sharing framework.

The possibility of a future in which the CDC instantly detects and respond to health crises is exciting, however there are significant challenges to this becoming reality. The vast and disconnected U.S. health care system cannot be easily moved to an interoperable blockchain system. Putting health data on a blockchain will require a wide range of stakeholders to work together. Private stakeholders must be convinced that moving to a blockchain-based system will generate cost savings, something that will only be evinced through continued proofs of concept and pilot projects.