

in focus: diabetes & disparities

Using Cell Phone Technology to Improve Diabetes Care and Outcomes in Chicago

The University of Chicago has a lengthy history of working closely with residents and groups in the surrounding community. Diabetes is a serious problem for many of the residents, particularly those who reside on Chicago's South Side. The need for improved diabetes care and self-management has been a central concern for clinicians and researchers.

Researchers at the University of Chicago Medicine, an academic medical center on Chicago's South Side, have pioneered an innovative program to address diabetes based on the use of mobile phones for members of the employee health plan. The program, called CareSmarts, uses automated text-messaging software to engage patients in self-care and to facilitate care coordination between nurses at the health plan and physicians at the medical center.



Dr. Monica Peek and a patient discuss how the text messages are helping her to manage her diabetes.

The 6-month study of the program included an individually paced educational curriculum delivered via patients' cell phones. Automated messages were sent to patients that prompted certain self-care behaviors ('Time to check blood sugar') and inquired about patient needs ('Do you need refills?'), to which patients responded with text messages. Based on patient responses to self-assessment questions, nurse care managers were alerted when additional care management was deemed necessary.

The researchers found improvement in patients' self-care activities, patients' satisfaction with the quality of care, as well as improvement in the clinical gold standard for effective diabetes control, the HbA1c. Results also revealed an overall reduction in health care utilization and an 8.8% decrease in health plan costs for overall care of diabetes patients. These findings demonstrate the potential of innovative programs to support health care organizations' pursuit of the triple aim of improving patients' experiences with care, improving population health, and reducing the per capita cost of health care.

Full details of the study are published in the February 2014 edition of *Health Affairs*: 33(2).

The Center for Managing Chronic Disease (CMCD) serves as the National Program Office for the Alliance to Reduce Disparities in Diabetes. To learn more about the Alliance, which is supported by the Merck Foundation, please visit www.alliancefordiabetes.org. To read more about CMCD, find us at www.managingchronicdisease.org.