The University of Michigan Medical Center, known as Michigan Medicine, is one of the largest healthcare systems in the Midwest, and a major international leader in medical research and technologic advancement. Driving this innovation is Michigan Medicine's vision of creating new and effective ways to deliver patient care, make medical discoveries through groundbreaking science, and train the next generation of healthcare professionals.

Motivation for Change
The University of Michigan School of Public Health is home to the Center for Managing Chronic Disease (CMCD). CMCD's vision is to improve community health and chronic disease management through novel approaches to support behavior change, symptom monitoring, and health education while people are in their communities. For many chronic health problems, research has shown that more frequent contact with health professionals can improve outcomes. However, the reality is that frequent follow-up is costly and often not feasible due to lack of clinical resources. Moreover, many people living with chronic illness cannot attend frequent 1-1 clinician visits due to time and transportation complexities.

To address the challenges of accessible and effective self-care support, Michigan Medicine partnered with CMCD to create an environment of connected care through a mobile health solution that enables healthcare teams to communicate with patients remotely. As a first target, they focused on developing an accessible program to help patients with hypertension improve their blood pressure control. Michigan Medicine treats 29,000 patients with a diagnosis of hypertension, and despite clinicians’ best efforts, many patients were falling short of Healthcare Effectiveness Data and Information Set (HEDIS) goals.

Desired Solution
Research is overwhelmingly clear that connecting patients with clinicians, their peers and caregivers in-between infrequent clinician visits can improve self-care behaviors and health outcomes, and can lower costs associated with preventable acute events. To address the health system’s need for an integrated solution of hypertension patient monitoring and self-care assistance linked with the Epic-based electronic health record and supporting clinical pharmacists, CMCD used an Aspect development platform to design and deploy an evidence-based program using interactive voice response (IVR) calls. Using IVR, clinical staff can now identify patients needing additional assistance or medication changes to reach blood pressure targets. Because the IVR system doesn’t require patients to log in to a website or download an “app” to their phone, it can reach a broader group of patients who may not be able to read, text, or use a smartphone.
Why Aspect

CMCD built the IVR hypertension program using the Patient Engagement Solution, an integration of CXP and Microsoft Dynamics, provided by Aspect. The Aspect platform was chosen because it had the ability to scale to the needs of Michigan Medicine, and could seamlessly integrate with the Michigan Medicine electronic health record, Epic.

The Results

The Michigan Medicine Mobile You Blood Pressure Program is the result of this collaboration between Aspect, CMCD, the Michigan Medicine ambulatory care leadership, and the Michigan Medicine team managing the Epic-based health record. The platform uses automated, omni-channel two-way conversations to connect patients and clinicians. The Aspect® Patient Engagement™ solution utilizes Microsoft Dynamics 365 for enrollment management and the ability to develop campaign lists and manage study design and implementation. Patients with a diagnosis of hypertension and inadequate blood pressure control are identified via Epic, using automated queries of the EHR. After clinician approval of the referral, patients are automatically enrolled in Dynamics, through an Epic API interface. Once enrolled, patients are sent outbound IVR assessment calls from Aspect CXP, at times the patient identifies as convenient. IVR survey results are passed back to Dynamics, where clinicians are able to view the results via tailored dashboard interfaces. Auto-notifications are utilized to send patient updates to clinicians based on the patient responses and all of patients’ responses are available for clinician review as part of their health record.

“Patient communication with their healthcare team is critically important for identifying new complications, for counseling patients about acute events for adjusting medications or adding them. Aspect’s Patient Engagement solution strengthens bonds between patients and their clinical team, thereby providing effective self-management assistance and better outcomes.”

– Dr. John Piette, Director of CMCD and University of Michigan Medical School Professor

The Michigan Medicine leadership team plans to expand the program to include other chronic disease management programs and increase monitoring of patients recently discharged from the hospital.