Philips and Dutch Radboud university medical center introduce first diabetes prototype app with integrated community to empower patients and enhance continuity of care

The digital health revolution is taking connectivity beyond the smart home and smart devices, and empowering consumers to take more control of their personal health and wellness. Data from connected devices not only gives us deeper insights into how we can age well, but it is truly impacting global population health management, especially for the hundreds of millions of people living with a chronic disease. Philips is leading the way in the consumerization of healthcare for those living with chronic disease, to make their lives safer, smarter and healthier at every stage of life.

Patient empowerment and connected care through technology

As clinicians and caregivers seek effective ways for patients to become more actively involved in managing their own health, there is a growing need for solutions that help enhance self-management, facilitate collaboration between patients and healthcare providers and improve continuity of care to potentially decrease health deterioration, re-admissions and mortality rates.

Philips strives to empower patients to manage their health by creating technology solutions that facilitate connected care between patients and caregivers, provide access to their data and make it actionable. To deliver on this vision, Philips is working closely with leading university medical centers, health consumers and industry partners, such as Salesforce.

Diabetes, a major challenge for people living with it and for society at large

Diabetes is growing global challenge. According to the U.S.-based Centers for Disease Control and Prevention, 387 million people worldwide have diabetes\(^1\), including more than 52 million people with diabetes in the European Union, 30 million in the United States, and almost 1 million in the Netherlands. In North America, the American Diabetes Association concluded that there is a 20.3 percent re-admission rate for people with diabetes, and it remains the seventh leading cause of death, with an annual cost of approximately USD 245 billion.

On average, people with diabetes make up to 180\(^2\) decisions about their health every day, collecting and evaluating valuable information on personal and medical factors from blood sugar levels to exercise to food choices. This makes living with diabetes type 1 complex and often very stressful. Philips and Radboudumc have introduced a robust connected digital health prototype solution to improve their care – combining a diabetes self-management app with an integrated online community to share care coordination together with making more confident care decisions.

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\(^{*}\) Not available in the USA. The app is work in progress and not for medical use. The coaching that is provided should not be construed as medical advice or care. Always consult your qualified personal health care provider before making changes to your medication prescription.

\(^1\) International Diabetes Federation

\(^2\) Stanford Medicine Scope
What is the diabetes prototype solution

The diabetes app, a joint development between Philips, Radboudumc and Salesforce, collects and connects data from patient self-reported records, multiple personal health devices, and electronic medical records. It uses the HealthSuite digital platform’s new CareCatalyst and Salesforce’s engagement platform. It delivers the data to patients through an app-based dashboard and provides a secure collaborative virtual community in which patients and healthcare professionals can interact. It will allow patients and their clinical and non-clinical caregivers to access the data (after the patient gives his approval), make data-driven decisions and communicate with each other within a secure collaborative virtual community.

Meeting an unmet need

People with diabetes can:

- Access the app to track data via devices and manual input, including blood sugar levels, insulin doses, food intake, physical activity, mood and stress.
- Receive coaching guidance based on patient data when needed, to support patients in self-management, at home or on the go
- Collaborate with healthcare providers using the combined data from their personal health records and self-measurement and healthcare electronic medical records using the Philips HealthSuite digital platform’s new CareCatalyst.
- Communicate with and learn from other people with diabetes and healthcare providers within a secure data-driven virtual community.

This diabetes prototype app aims to support patients in managing their condition in complex situations using their own medical data and the knowledge derived from real world experience of their peers, validated by their care team, expert physicians and other healthcare professionals and tailored to their own needs. This prototype solution spans multiple episodic events and encompasses physiology, disease-specific information, self-management guidance and personal support.

Ultimately, the Philips HealthSuite digital platform – CareCatalyst is the foundation for solutions created to aggregate data across a patient’s lifespan from a range of different sources and analytics to deliver accurate, actionable insights that, when combined with a secure virtual community, lead to better, more confident decision-making and open collaboration in connected care among patients and care providers. This can empower patients to self-manage their diabetes care and may potentially lead to improved health outcomes.

What is the technology behind the diabetes prototype solution

The diabetes prototype solution consists of two primary technology components:

- Philips HealthSuite digital platform – CareCatalyst aggregates data from medical-grade and consumer-grade personal health devices and multiple electronic records across many episodes of care to support analytics and patient/healthcare provider decision-making
Salesforce is the engagement platform that fosters collaboration between healthcare consumers (and patients) and health care providers and provides access to the data from the HealthSuite digital platform.

The patient app will work on a smartphone, tablet, or laptop enabling patients and care providers to be supported in decision making at home and on the go. The prototype can currently be used on iOS and Android devices.

**The HealthSuite digital platform**

The HealthSuite digital platform is an open cloud-based IT platform that supports the secure collection of data related to a person’s health and lifestyle, allowing for integration and analysis of this data with clinical data from electronic medical records. The platform enables Philips propositions that connect health measurement devices, patient self-report data, and clinical data from medical records with cloud-based data storage and analysis to provide data-driven personal health and clinical programs, fueling collaboration between consumers, patients and caregivers in the broadest sense. Based on user-friendly and comprehensive data feedback, consumers, patients and caregivers can make more confident health and lifestyle-related decisions.

**What is CareCatalyst?**

CareCatalyst comprises of digital components for device connectivity, data ingestion, normalization and analytics while offering extensive security and privacy control. It allows the collection and integration of data from consumer and medical measurement devices, patient self-entry and integration with medical record systems, such as Epic, Cerner, Allscripts and Meditech. It also offers advanced data analytics tools, an adaptable patient app framework, clinical dashboards and secure online community.

Through CareCatalyst, powered by our HealthSuite digital platform and Salesforce’s engagement platform, our customers can now make more confident care decisions and empower their patients to...
collaborate in new and more effective ways.

CareCatalyst is making it easy for health systems, institutions and care providers to utilize the power of our HealthSuite digital platform technology. With CareCatalyst they can set up connected care programs that use the latest digital technologies and support their local patient population living with chronic conditions, by securely collating data from consumer health devices, apps, electronic medical records and clinical systems.

HealthSuite CareCatalyst will integrate with eCareCoordinator, Philips Ambulatory Care Platform, which allows care givers to proactively monitor patients from a telehealth center.

This combined technology offering is designed to support patient/healthcare consumer-centric and healthcare provider-centric health management solutions for a range of health conditions.