An estimated 25 million Americans suffer from asthma<sup>1</sup>, which accounts for more than 10 million outpatient visits and 500,000 hospitalizations each year in the U.S.<sup>2</sup> Asthmapolis is working with Qualcomm Life to develop wireless tools that aim to improve the day-to-day management of asthma and reduce the cost of care.<sup>3</sup>

**Asthmapolis** is a Wisconsin company modernizing the way people manage and understand asthma and other chronic respiratory diseases. The company has pioneered the use of small medication sensors, which attach to everyday inhalers, to collect the first data about asthma from daily life. These valuable signals about asthma management, impairment and risk, are analyzed and used to generate personalized assessments and data-driven guidance and education. For physicians, the information is akin to a vital sign for asthma. They now have the ability to remotely monitor their patients and identify which are worsening and need more attention, before they suffer a costly and life-threatening attack. Altogether, the information provides public health agencies with a novel, invaluable new perspective on the burden of asthma in their communities and, hopefully, new clues into the causes of attacks.

#### To learn more, visit www.asthmapolis.com.



## **Developing Technologies**

"We've enjoyed working with the team at Qualcomm Life to develop new technologies that help patients and physicians better understand and manage asthma."

David Van Sickle Medical Anthropologist, Asthma Epidemiologist, Co-Founder of Asthmapolis

**Qualcomm Life is helping Asthmapolis** say "Goodbye" to limited asthma monitoring and "Hello" to reimagined wireless technology to advance treatment.

## CHALLENGE

Asthmapolis aimed to build a new set of tools that would passively and objectively monitor the use of inhaled medications in near real-time, without adding to the day-to-day burden of managing asthma and COPD.

#### SOLUTION

The Asthmapolis medication sensors (which determine the time and location when an inhaler is used) will seamlessly send information through the 2net™ Hub, allowing data to be collected routinely during the day without any additional effort from the patient.

#### BENEFITS

- Expert engineering services and R&D facilities shortcut time to market and assure intelligent, secure machine-to-machine communications.
- Plug-and-play connectivity technology makes end-user setup simple and devices easier to use.
- Improved management of asthma has been shown to improve control and lower the cost of care for asthma patients.<sup>3</sup>

'National Health Statistics Report; "Asthma Prevalence, Health Care Use and Mortality: United States, 2005-2009," January 2011.

<sup>2</sup>AAFA.org; http://www.aafa.org/displaycfm?id=8&sub=42#cost.

<sup>3</sup>The Asthmapolis sensor and corresponding software applications have not been cleared for use by the United States Food and Drug Administration. Asthmapolis products are not currently supported by the 2net Hub or Platform.

## Goodbye, uncontrolled asthma. Hello, disease management with near real-time data storage.

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#### **CHALLENGE**

The majority of patients with asthma do not have the disease under control and are unaware that more could be done to prevent day-to-day symptoms and attacks. Physicians too have struggled to understand how their patients are doing between visits. Additionally, without timely and comprehensive information about the burden of asthma in their communities, public health agencies have faced challenges targeting their efforts to the groups and areas most in need.

Asthmapolis wants to offer a wireless solution for people who don't use a smartphone, and aren't likely to adopt them, such as pediatric patients in the case of asthma, and elderly patients with COPD.

## SOLUTION

Qualcomm Life's 2net™ Platform provides the answer. A unique cloud-based service designed to be technology agnostic and to provide seamless connectivity to medical devices, the 2net Platform will make it possible for Asthmapolis to aggregate data collected from medication sensors and send this information to a remote data server.

## BENEFITS

The data that will be able to be aggregated by connecting Asthmapolis medication sensors with the 2net Platform will facilitate greater perspective into when asthma patients are experiencing attacks and what might be causing them. It will provide the opportunity for two-way communication with the device. This insight will allow physicians to better target their management strategies leading to greater asthma control overall. In addition, near real-time reminders and feedback to patients can help them better control their asthma and participate fully in the activities they choose.

## Why Qualcomm Life?

Working with Qualcomm Life's expert team of engineers and experienced wireless leaders removes the burden of hardware development and connectivity issues inherent in other data transfer platforms, freeing the Asthmapolis team to focus on launching their system. Qualcomm Life's easy-to-use 2net Platform will extend the number of people who will be able to utilize Asthmapolis technology.

## Advantages

The addition of the 2net Hub will enable Asthmapolis to routinely collect data without any effort on the part of patients, allowing them to offer seamless and transparent asthma monitoring to everyone with the disease. Biometric data stored and transferred by the 2net Hub and Platform will provide physicians with actionable intelligence about their patients.

## Connecting with an Experienced Partner

The wireless connectivity experience, know-how and global interoperability Qualcomm Life brings to Asthmapolis enable the company to leverage:

- A potentially global footprint with top-notch engineering and unrivaled wireless expertise
- A system designed for reliable and secure data transfer
- An ecosystem of companies dedicated to improving wireless health devices
- One-of-a-kind, two-way functionality that is easy to integrate

# The Future of the Asthmapolis Pipeline

Asthmapolis plans to leverage data collected by complementary medical devices and the two-way functionality of Qualcomm Life's 2net Platform to help patients, physicians and public health officials receive timely data that they can use to improve the control and management of asthma.



Asthmapolis products are not available as medical devices nor are they wirelessly integrated with the 2net Hub and Platform at commercial launch.