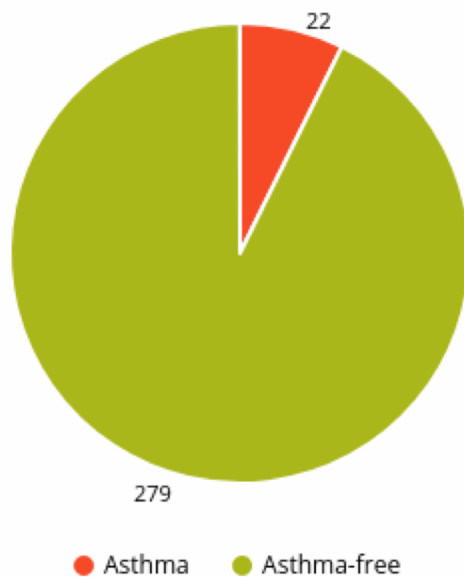


Team Epidemics

Research

Americans with Asthma (2007) in millions



Asthma

- Different age groups and asthma control levels have different recommended treatments
- Asthma control informs how treatment needs to change over time.
- Monitoring can either be based on symptom frequency or peak flow (ability to push a lot of air out at once as measured by a device)
- Treatment adjustment is step-wise. I.e. If current treatment level is not sufficient at asthma control “step-up” to the next level of treatment, and step-down when possible

Expert Panel Report - 3

An updated report providing providers guidelines for diagnosis and management of asthma, created by gathering knowledge from medical experts and the literature. Included is an ask to help disseminate to the provider community.

- Introduces a focus on monitoring asthma control
 - Impairment: fewer symptoms and lower negative impact on quality of life
 - Risk: acute e.g. ED visits and chronic e.g. reduced lung growth over time
- Places emphasis on patient and provider education about asthma treatment

In a study published in *Pediatrics* in 2010, researchers from the Children's hospital of Philadelphia used a cluster-randomized trial to produce evidence suggesting that using an EHR-based clinical decision support system at the point of care improved clinician compliance with National Asthma Education Prevention Program guidelines.

In 2015, researchers from the same group found that patients, families, and providers using an EHR-linked asthma portal to monitor asthma control as input to a clinical decision support system improved clinically meaningful outcomes compared to the clinician-focused clinical decision support systems from the 2010 study alone.

Business Case: The Problem

In America, **3,615** people die every year from asthma. Many of these deaths are avoidable with proper treatment and care.²

Worldwide, **250,000** people per year die unnecessarily from Asthma¹.

References

1. World Health Organization. *Global surveillance, prevention and control of chronic respiratory diseases: a comprehensive approach*, 2007.
2. Centers for Disease Control and Prevention. Most Recent Asthma Data. http://www.cdc.gov/asthma/most_recent_data.htm

Business Case: Alternatives

Find a permanent cure for Asthma? **No.** Incurable at present.

Prevent inhalation of airborne irritant triggers? **No.** Impractical and limiting.

Schedule frequent pulmonologist consultations? **Yes**, But expensive, slow and not all medical providers are up do date on latest EPR-3 research.

Competitor Asthma management tracking websites such as <http://myasthma.com>

Business Case: Solution

An interactive website can educate Asthma sufferers using the latest EPR-3 research to help guide people toward optimal mitigation of Asthma.

Benefits to users and providers

- Information for the user to understand the problem enough to self medicate.
- Lower friction between healthcare provider and patient.
- Data acquisition through surveys and health tracking devices through FHIR API's