

## Introduction

- 24.6 million patients in the US have asthma
- 40% of them report uncontrolled asthma
- Asthma care is still episodic



- This RCT evaluated the effectiveness of the Propeller Health Platform to assess the contribution to asthma control

## Methods

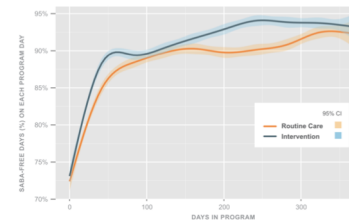
- The Propeller Health Sensor is an FDA approved sensor that measures
  - Use of inhaled medication
  - Time
  - Location
  - Date
  - Number of uses

It then transmits this information via Bluetooth to a mobile app and to datasevers accessible for health care providers.

- An intervention group and routine practice group were followed for 12 months
- The measured outcomes were: SABA use, SABA free days and electronically measured ACT score

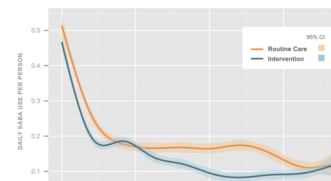
## Results

- **SABA-use:** Significantly ( $p < 0,001$ ) larger improvement in the intervention group (-0,41 vs -0,31 uses)



**FIGURE 2:** All participants: mean daily short-acting  $\beta$ -agonist (SABA) use per person

- **SABA-free days:** Significantly ( $p < 0,01$ ) larger improvement in the intervention group (+21% vs +17%)



**FIGURE 3:** All participants: short-acting  $\beta$ -agonist (SABA) – free days

- **ACT scores:** Significantly ( $p < 0,01$ ) larger improvement in the intervention group for uncontrolled patients (+6,3 vs +4,6)

- Survey
  - 59% learned about new triggers for their asthma
  - 86% of adults and 84% of children found Propeller reports useful in learning more about their asthma

## Conclusion

- The Propeller Health Asthma Platform provides a comprehensive tool for monitoring and feedback
- There is potential for improved care and efficiency to be delivered via telehealth

## Bibliography

Merchant et al. Effectiveness of Population Health Management Using the Propeller Health Asthma Platform: A Randomized Clinical Trial. American Academy of Allergy, Asthma & Immunology. 2015, [https://www.propellerhealth.com/wp-content/uploads/2017/09/Merchant\\_Effectiveness-of-Population-Health-Management-Using-the-Propeller-Health-Asthma-Platform-A-Randomized-Clinical-Trial.pdf](https://www.propellerhealth.com/wp-content/uploads/2017/09/Merchant_Effectiveness-of-Population-Health-Management-Using-the-Propeller-Health-Asthma-Platform-A-Randomized-Clinical-Trial.pdf)



**FIGURE 1:** The Propeller Health sensor attaches to a metered-dose inhaler (MDI) canister, and pairs with smartphone and web applications that present visualized data and trends