

# SENSE4HEALTH → Remote-controlled mobile solution for hospital clients (case: children’s asthma examination)

## The need

At present, children’s asthma tests start with two appointments. The first appointment is with a nurse. It contains a lot of important guidance to promote successful diagnostic tests, including guidance on blowing into the PEF meter, two-week PEF monitoring and instruction on taking inhaled medication. The second appointment is related to pulmonary function tests and nurse’s and doctor’s surgery. Some clients could skip the first appointment with the nurse if they had access to high-quality materials and the asthma tests could be carried out in one visit without compromising the reliability of diagnostic tests. The application is needed for the purpose of submitting guidance material in various domestic and international units and organisations.

## The solution

The Astmatti app encourages its user to learn basic skills to perform asthma examination. Astmatti guidance material includes a video, which provides instruction on peak expiratory flow measurement and taking medication in a proper way via dry-powder inhalers. The Astmatti app can visualize health organizations’ own guidance material in a mobile app. Astmatti app guidance can be individualized, which makes it easier for the patient to follow the examination trail according to health organizations protocol. For example, the patient can be reminded to pause the asthma medication in the correct timely manner before spirometry examinations in the outpatient department.

## Potential Impact

- Astmatti-app helps children and young people to prepare for asthma tests at home
- Better performance in PEF measurement
- Better performance in taking dry powder inhaled medication

\* These results come from regular end-user testing during the co-creation by healthcare professionals at the Oulu University Hospital Testbed.

#Astmatti

#HealthInnovations

#ChildrenAsthmarcePlanning

## Co-creation and Business Support

Pilot region: Oulu (Finland) | Period: May 2018 - December 2018

Challenger	Solver	Users	Supporter	Funder
Oulu University Hospital	Sense 4Health	Patients, relatives	BusinessOulu	Oulu Region Council
3 Nurses 1 Head Nurse 1 MD 2 Innovation Experts	1 software engineer 1 medical director	1 patient 2 relatives	3 business development experts	2 experts

## Hear the stories!



***As a public health organization, we were able to carry out an interesting co-creation process with Sense4Health. As a result, we got the Astmatti-app for children and young people to prepare for asthma tests.***

**Marjo Lepistö, Deputy Head Nurse at Oulu University Hospital**



***Astmatti supports self-management and potentially improves consequently asthma control.***

**Miika Arvonen, Specialist in Pediatrics, PhD, Sense4Health**



***Astmatti helped me to perform PEF-monitoring properly.***

**Patient: Ilkka 10 year old, male**



### About inDemand

**inDemand boosts digital health solutions proposed and co-created with healthcare professionals**

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