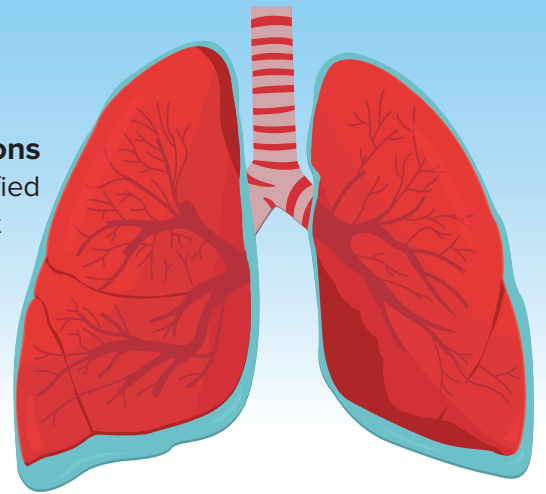


The Home Asthma Response Program (HARP)

HARP is an evidence-based asthma intervention designed to **reduce preventable asthma emergency department visits and hospitalizations** among high risk pediatric asthma patients. The HARP model utilizes a Certified Asthma Educator (AE-C) and a Community Health Worker (CHW) to conduct three intensive sessions that:

- Assess patients' asthma knowledge and trigger exposure
- Provide intensive asthma self-management education
- Deliver cost-effective supplies to reduce home asthma triggers
- Improve quality and experience of care



ECONOMIC CASE: COST SAVINGS AND RETURN ON INVESTMENT

HARP has consistently demonstrated reductions in asthma costs, driven by large decreases in hospital and emergency department asthma claims. Claims data comparing one year pre-HARP to one year post-HARP shows that participants had a 75% reduction in asthma-related hospital and ED costs. High utilizers had reductions close to 80% and much larger average savings compared to other participants.

	N =	PRE	POST	% CHANGE	\$ CHANGE
HARP PARTICIPANTS (at least one asthma ED visit or hospitalization)	158	\$2,127	\$521	-75.5%	-\$1,606
HIGH UTILIZER (subset with 2+ prior ED visits)	51	\$3,398	\$690	-79.7%	-\$2,708

ELIGIBLE CHILDREN IN MANAGED CARE

796 children

had at least one asthma emergency room visit or hospitalization, costing Medicaid over

\$1 million at an average of

\$1,358

per person

A subset of

265 "high utilizers"

had 2+ asthma ER visits at a total cost of **\$695,000** and average per person cost of

\$2,624

HARP has a positive return on investment. This means that every dollar invested into reducing preventable ED/hospital visits gets returned, with additional savings earned. Overall, HARP participants had a 33% ROI on ED/hospital costs (\$1 investment returned with extra 33 cents saved). The subset of high utilizers had an ROI of 126%. Including overall asthma costs which show an encouraging increase in medication costs, HARP was still cost effective (i.e., investment equal to savings). For high utilizers, the overall asthma cost ROI was positive at 65%.

Demonstrated Outcomes:

Quality Improvement: The asthma medication ratio HEDIS score for participants increased from 32% to 46%.

Improved Asthma Control: Patient population went from 20% well controlled to 51.5% well controlled.

Improved Quality of Life: Caregiver quality of life improved 17% on validated surveys.

Reduction of Environmental Triggers: HARP Community Health Workers observed reductions in mold, dust, pests, pets, tobacco smoke, and chemicals.

Reduction in Missed School/Work Days: Caregivers report reducing missed work days due to asthma by 62%. Patients cut missed school days almost in half.

Increased Asthma Action Plans: Availability and patient use of asthma action plans created by providers increased from 20% to 80% of participants.

2015 Medicaid data, Dx asthma

HARP is part of the regional New England Asthma Innovation Collaborative (NEAIC). In Rhode Island, HARP is a partnership between the Rhode Island Department of Health, Hasbro Children's Hospital, Saint Joseph's Health Center, and Thundermist Health Center.

