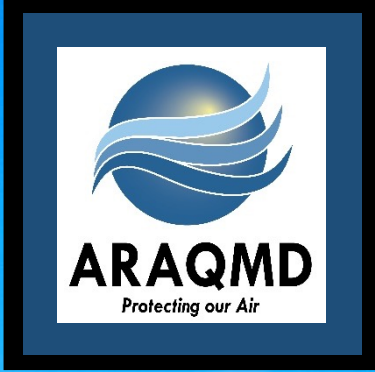
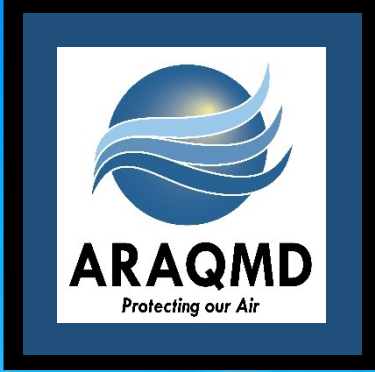


MATH Program

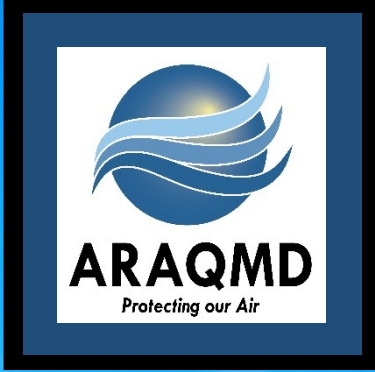
Managing Asthma Triggers at Home



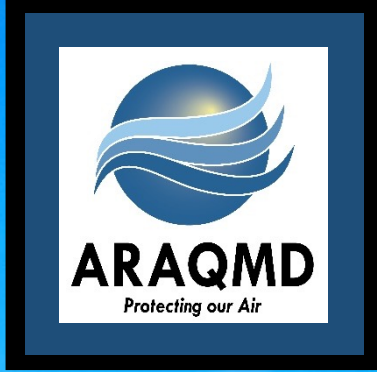
- AAFI (2019) map showed Akron area as 14th worst for asthma in children
 - <https://aafa.org/asthma-allergy-research/our-research/asthma-capitals/>
- ODH (2021) reports 11.3% of children (~300,000) have been told they have asthma
 - <https://odh.ohio.gov/know-our-programs/asthma-program/data-and-statistics>
- The asthma these children and their families deal with put a burden on public health, hospitals, insurers, and schools.



- Kids with severe asthma need help to do the most basic of things, breathe.
- Without being able to breathe, they can't grow, learn, and have hampered possibilities in life. Their parents have similar problems. If they spend the night in the hospital, how effective are they at work the next day if they can go? If they have to take off repeatedly, what does that do to their career opportunities?
- The social cost of asthma is significant.



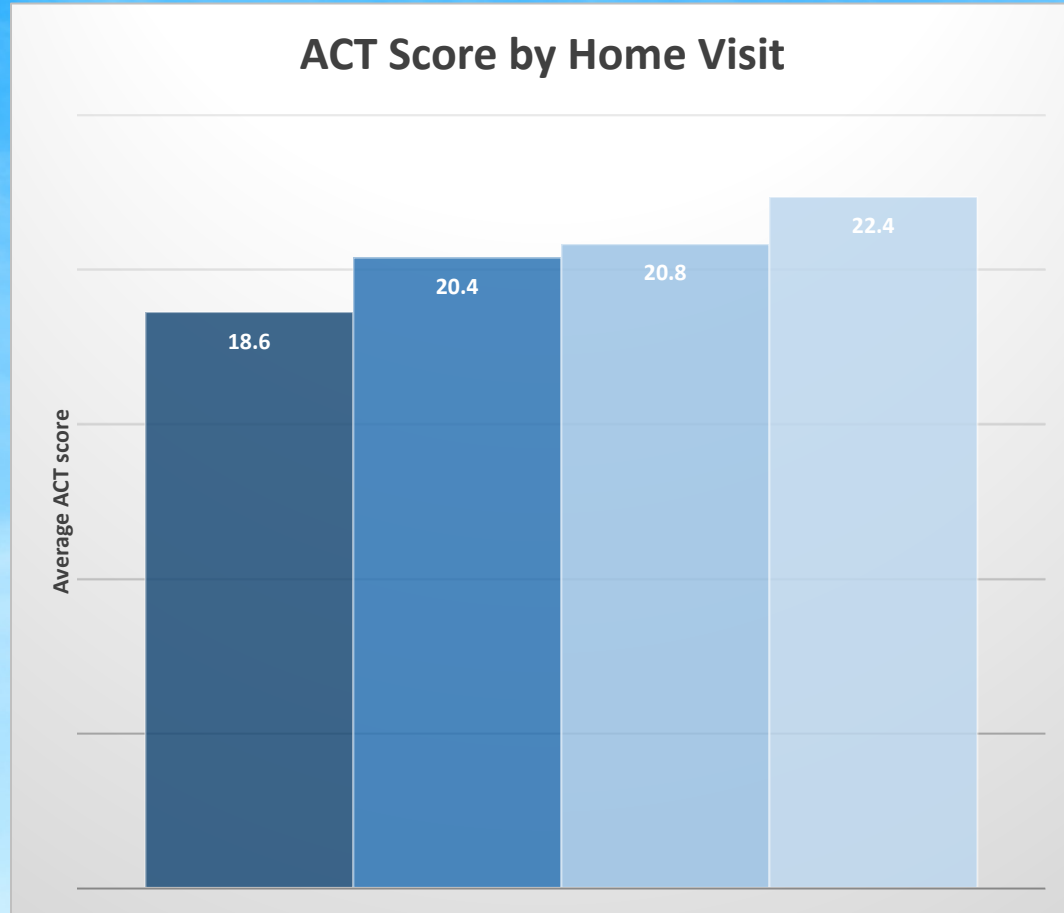
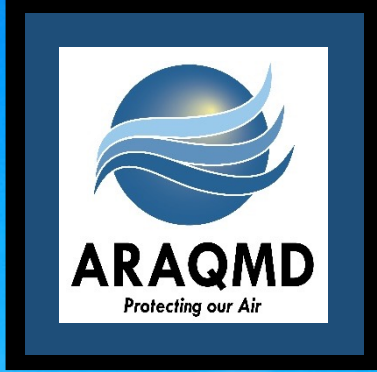
- To help combat the issue of childhood asthma, we worked with ACH to contact the families of those kids who ACH had determined to have the worst of the worst asthma.
- We wanted to create a program that could be adopted by any health department to assist children with asthma live better lives.



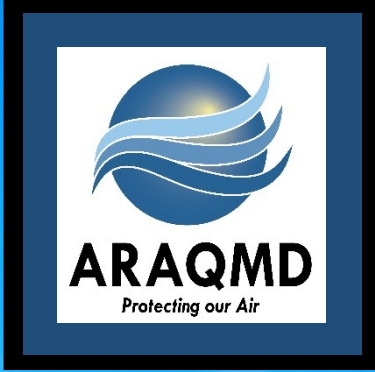
Introduction to MATH

- Collaborative effort with Akron Children's Hospital since 2018
- SCPH focuses on home environment, ACH handles medical treatment
- SCPH does home assessment, provides suite of equipment to reduce exposures to triggers
- Worked with 88 clients over a two year period from ACH high risk asthma registry
- Used ARAQMD funds to purchase equipment and staff the program
 - \$1,500 in staff costs and \$1,000 in per client
 - Roughly \$240,000 total for setup, recruitment and service for the 88 clients

Outcomes – Asthma Control Test

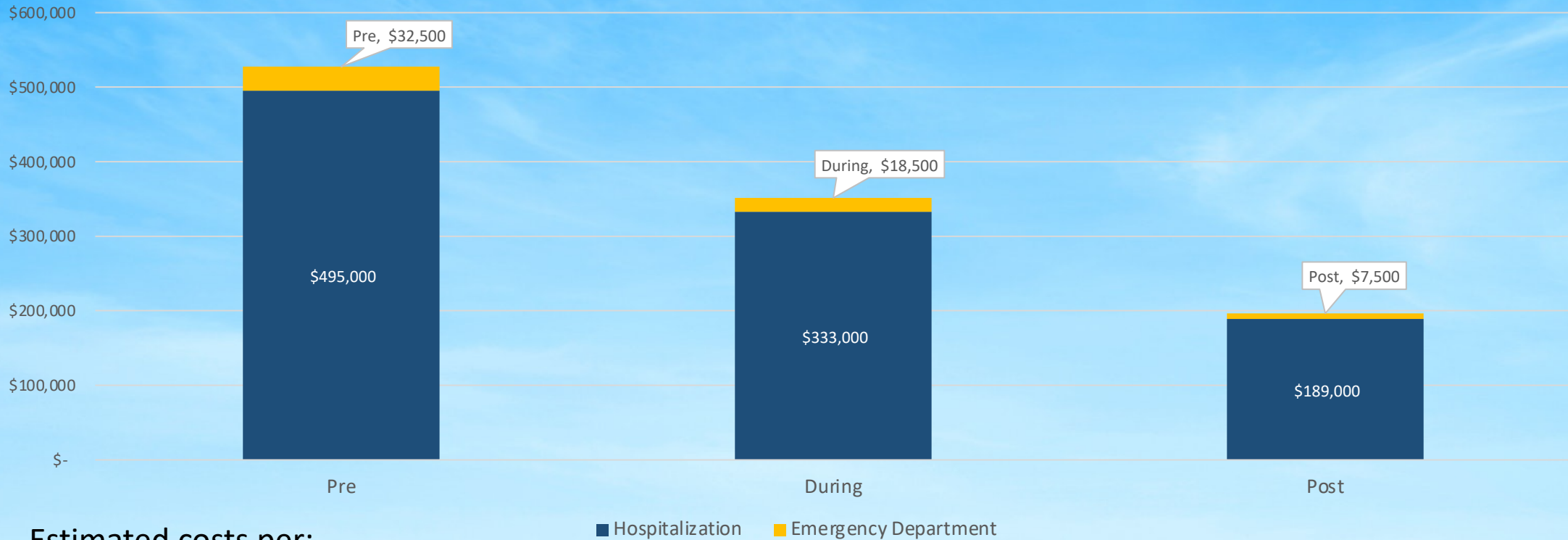


- ACT scores increased by a significant amount.
- Clients felt their asthma symptoms decreased through the year of our intervention.

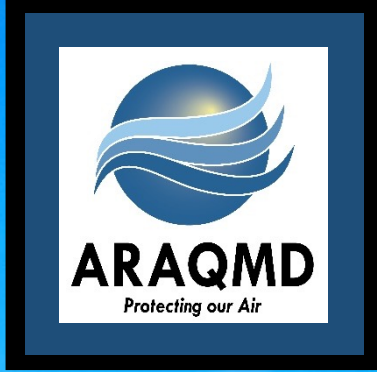


Outcomes – Hospital Usage Cost Analysis

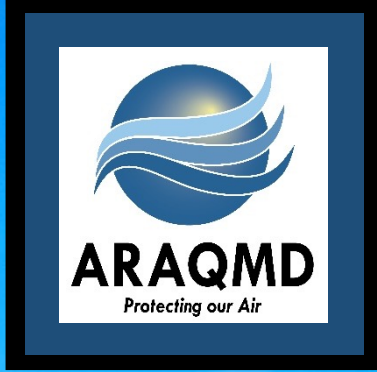
Estimated Costs for Hospitalization and Emergency Departments by Time Period Relative to the MATH Program



Estimated costs per:
Hospitalization - \$9,000
Emergency Dept. - \$500



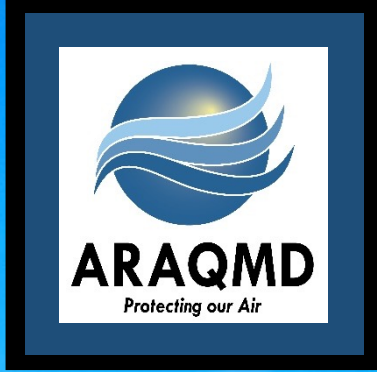
- All groups involved with children afflicted with asthma want them to get better and live better lives.
- Medical providers have a role to play, as does the Health Department
- Equipment needs are not the responsibility of either of those groups.
 - If someone breaks a leg, crutches are provided to them as medically necessary. The crutches prevent further damage and allow for healing. Same goes for asthma equipment. If the child is removed from triggers, their asthma can recede and allow their bodies time to heal without being assaulted.



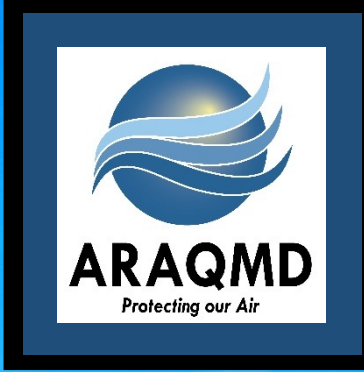
Current state of affairs

- Since the end of the research program, we have enrolled 33 clients over the last 18 months. 18 of those are clients of one payer.
- To realize those cost savings as seen in the research side (roughly \$3,800 per child for the one year period of study), the cost of the equipment (\$1,000 for the study equipment, less for the service provision equipment) could be borne by Medicaid payers.
- The medical and environmental costs would be borne by those agencies as part of normal operating costs.

Future



- How equipment provision happens has many options that can be discussed.
 - Whatever is best for client and funders
- Communication about needs and client care should be a foremost concern.
 - All organizations should be involved in communications to allow for the best outcomes for the client/patient.



Questions?

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