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Reducing Emergency Department Visits Utilizing a Primary Care Asthma Specialty Clinic in a
High Risk Patient Population

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Objective: Asthma is a leading cause of pediatric emergency department(ED) use. Optimizing asthma outcomes is a goal of Nationwide Children's Hospital(NCH) and its affiliated Accountable Care Organization. NCH's Primary Care Network, comprised of 12 offices serving a predominantly Medicaid population, sought to determine whether an Asthma Specialty Clinic (ASC) operated within a single primary care office could reduce ED asthma rates and improve quality measures, relative to all other network offices.

Methods: An ASC was piloted with four components: patient monitoring, provider continuity, standardized assessment, and multi-disciplinary education. A registry was established to contact patients at recommended intervals. At extended-length visits, a general pediatrician evaluated patients and a multi-disciplinary team provided education. Novel educational tools, were utilized, guideline-based templates recorded and spirometry obtained. ED asthma rate, spirometry utilization, and controller fills by intervention office patients were compared to all other network offices before and after ASC initiation.

Results: At baseline, asthma ED visits by intervention and usual care populations were similar($p=0.43$). After, rates were significantly lower for intervention office patients versus usual care office patients($p < 0.001$), declining in the intervention population by 26.2%, 25.2% and 31.8% in 2013, 2014, and 2015, respectively, from 2012 baseline, versus increases of 3.8%, 16.2%, and 9.5% in the usual care population. Spirometry completion, controller fills, and patients with favorable Asthma Medication Ratios significantly increased for intervention office

patient relative to the usual care population.

Conclusions: A primary care-based asthma clinic was associated with a significant and sustainable reduction in ED utilization versus usual care.

What's new: This study describes a comprehensive, multi-disciplinary and innovative model for an asthma management program within the medical home that demonstrated a significant reduction in emergency department visits, an increase in spirometry utilization and an increase in controller fills in a high-risk asthma population versus comparison group.

Abbreviations:

ED—Emergency Department

NCH—Nationwide Children's Hospital

ACO—Accountable Care Organization

ASC—Asthma Specialty Clinic

EMR—Electronic Medical Record

YTD—Year to Date

RCT—Randomized Controlled Trial

AMR—Asthma Medication Ratio

Background

Asthma is a leading cause of pediatric emergency department (ED) visits in the United States, and its prevalence is increasing¹. Nationally, more than 10 million children (14%) have been diagnosed with asthma, and nearly 7 million children (9%) have a current diagnosis². Families living in urban areas and those with lower income and education levels have a higher prevalence of asthma and are more likely to utilize the ED for asthma care²⁻⁴. Moreover, enrollment in Medicaid has been shown to be an independent predictor of increased asthma risk⁵. Poor asthma control has been linked to increased patient morbidity, more missed school and work days, and impaired academic performance⁵. Despite organized efforts within our state, asthma ED rates in Ohio's children increased nearly 15% from 2005-2009³. Nationwide Children's Hospital (NCH), a large freestanding pediatric hospital in Columbus, Ohio, has responded to this trend with initiatives to reduce ED visits by its asthma patients. The NCH Primary Care Network, a system of 12 primary care offices, serves an at-risk, urban, largely Medicaid population of more than 70,000 patients.

NCH and its affiliated Accountable Care Organization (ACO), Partners for Kids, aim to optimize asthma care and strive for best outcomes for their patients. Through its relationship with the ACO, NCH utilizes full-risk capitation with all regional pediatric members enrolled in Medicaid-managed plans. The ACO, established in 1994, currently manages approximately 330,000 Medicaid-eligible members within the state of Ohio, tasked with increasing value of care by maintaining or improving quality while reducing cost. Approximately ninety-five percent of the Primary Care Network population is Medicaid-enrolled; thus, nearly all patients in the network are attributed to the ACO. This provides great incentive to decrease ED visits in network

patients. Historically, ACO patients managed by the NCH Primary Care Network have visited the ED for asthma at a more frequent rate than ACO patients cared for by independent practices.

The Primary Care Network trialed an Asthma Specialty Clinic (ASC) within a primary care office in an attempt to improve this pattern. ASCs located in the medical home are not a new concept; however, relatively little has been published regarding their impact on outcomes⁶.

Given our network's large, demographically at-risk, almost exclusively ACO-attributed population and the institution's unique relationship with the ACO, our network provided an ideal setting to study the impact of an ASC on an entire population.

The primary objective of our study was to determine if this model improved outcomes in our entire at-risk patient population. Specifically, we analyzed whether our multi-disciplinary ASC—one embedded in the primary care office and led by a general pediatrician—reduced asthma-related ED visits and improved quality measures of the intervention office population to a greater extent than usual care provided by all other network offices.

Methods

In December 2011, the intervention office established the ASC. This pilot employed four key components: (1) proactive patient monitoring, (2) physician continuity, (3) standardized assessment, and (4) multi-disciplinary education. All model components have been individually supported by past literature⁷⁻²².

The ASC sessions were initially held one half-day per week and increased to twice weekly in October 2014. Compared to routine half-day office sessions in our network, which can include up to 21 patients, the ASC sessions consisted of nine extended-length appointments in a four-

hour time period. Team members originally included a general pediatrician, pharmacy student, medical assistant, and registration specialist. A respiratory therapist and spirometry was added in July 2012. A registered nurse health coach replaced the medical assistant role in June 2015. Four patient rooms were provided to the ASC for use during each session, and office encounters followed a pre-established flow [Figure 1]. Ideally, patients were scheduled for their subsequent appointment prior to leaving the office. All other asthma quality improvement initiatives and processes incorporated by the Primary Care Network during the entire study period were embedded at all offices, and this ASC was the only initiative unique to the intervention office. The intervention office was selected due to the general pediatrician's interest in the pilot project, available physical room space within the office, and availability of a respiratory therapist during the proposed half-day session.

Proactive patient monitoring

We generated a list from the hospital's data warehouse system that included patients meeting the following criteria: age 2-18, physician diagnosis of asthma in the previous 24 months, and a patient of the intervention office. In December 2011, office registration staff began contacting patients via telephone and scheduled appointments in the ASC. We established a spreadsheet registry for patients successfully scheduled in the ASC that included the following: patient name, medical record number, last visit in the ASC, and next recommended ASC visit, which was updated after each visit based upon ASC physician disposition. Patient appointments were recommended at the following intervals: well-controlled intermittent asthma—6 months; well-controlled persistent asthma—3 months; poorly-controlled asthma—4 weeks. Referrals from

other intervention office physicians for patients seen in regular intervention office sessions were also accepted. No patients from usual care offices were seen in the ASC. Common reasons for referral were patients seen for asthma ED or urgent care (UC) follow-up, those assessed to have poorly-controlled asthma, or patients without recent spirometry. Registration staff called patients from a monthly registry list to schedule appointments. The registry was comprised of patients due for a follow-up appointment but not yet scheduled. Priority was given to patients with a diagnosis of persistent asthma or a recent asthma visit to the ED or UC.

Provider Continuity

The same general pediatrician attended all patients at every ASC session. The physician had been in practice at the office for the previous four years and attended patients full-time at the intervention office for other routine office sessions.

Standardized Assessment

A guideline-based template was completed at each visit. Assessment and documentation of the patient's asthma impairment and risk, severity classification, level of control, medication management, and spirometry utilization followed EPR-3 guidelines⁷. A pediatric respiratory therapist performed spirometry that was interpreted by the general pediatrician during the patient's visit. Prior to ASC initiation, Primary Care Network patients would be referred to NCH pulmonary specialists at a different location to obtain spirometry. Travelling to these off-site appointments created barriers for many of our patients.

Multi-disciplinary Education

During ASC encounters, patients received electronic instruction with tablet technology, and face-to-face education from a variety of health care professionals, including the physician, respiratory

therapist, pharmacy student, and/or health coach. The pediatrician interacted with the patient initially, ordered spirometry if indicated, and formulated an impression and plan. After this assessment, patients and caregivers were given access to a handheld interactive tablet containing asthma information, the content of which was created by NCH asthma specialists and specifically targeted for this population. The tablet utilized several methods to display content, including videos, quizzes and literature regarding symptom recognition, inhaler technique, asthma triggers, controller medications, and home management. Patients chose educational content, repeated modules at their discretion, and worked at their preferred pace. Based on the encounter, educational objectives were individually tailored to the patient, and delivered via one or more members of the multi-disciplinary team, following EPR-3 suggested topics⁷ [Figure 2]. An individualized written asthma action plan was provided. Educational content delivered by pharmacy students was developed by an NCH-affiliated doctor of pharmacy, and approved by NCH, the ACO, and the Ohio State University College of Pharmacy.

Outcome Analysis

We reviewed coding data from the hospital's electronic medical record (EMR) data warehouse system. As a primary outcome, we examined visits to NCH ED with a primary diagnosis of asthma (493.xx/J45.xx) in the entire intervention office patient population from 2012-2015 and compared this with ED asthma utilization during the same time period by the entire patient population of the other Primary Care Network offices that continued to receive usual care. Asthma-related ED visits were chosen as the primary outcome to align most closely with hospital and ACO goals to reduce ED visits in asthma patients. ED visits were included for patients age 2-18 who had a completed Primary Care Network visit for any reason within the previous 13

months. Patients were assigned to a particular office based on EMR record at the time of ED visit. We analyzed the data on both a rolling 12-month year-to-date (YTD) average, as well as on an annual basis of ED visits/100,000 patients. For the rolling 12-month YTD analysis, each point on the graph represents the mean of the prior 12 months YTD ED visits/100,000 patients. For example, the January 2012 data point represents the average of February 2011 to January 2012. Statistical significance was determined using two-sample Poisson rate calculation. As of January 1, 2015, we replicated this model at one other office; as a result, this office was excluded from usual care data.

As secondary outcomes, we analyzed quality measures—completed spirometry, claims for controller fills, and Asthma Medication Ratio (AMR)—the ratio of controller fills to total asthma medication fills. We calculated the percent increase in the number of completed spirometry tests and controller fills per patient, as well as the percentage of patients with persistent asthma who had an $AMR \geq 0.5$, for intervention office and usual care office populations, from 2012 to 2015. The NCH Institutional Review Board deemed this study exempt.

Results

On a monthly rolling basis, in 2012, the intervention office and usual care office populations had statistically similar ED usage amongst its patients ($p=0.43$)[Figure 3]. From 2013-2015, after ASC implementation, ED visit rate by the intervention office population was significantly less than the ED visit rate by the patient population managed by network offices providing usual care ($p < 0.001$). Full monthly results are shown in Table 1.

Displayed on an annual basis, ED asthma visits for the intervention office patient population were below the 2012 baseline each year after implementation of the ASC. In 2012, intervention office patients visited the ED at a rate of 1065.4 ED visits/100,000 patients, similar to the usual care rate of 1046.5 ED visits/100,000 patients. In 2013, 2014, and 2015, the intervention office patient ED asthma rate declined to 794.4, 804.9, and 734.3 ED visits/100,000 patients, respectively. These represent declines of 26.2%, 25.2% and 31.8% versus the 2012 baseline. Conversely, the ED asthma rate for all other office patient populations receiving usual care increased to 1085.8, 1225, and 1145.5 ED asthma visits/100,000 patients in 2013, 2014, and 2015, respectively. This represents increases of 3.8%, 16.2%, and 9.5% from the 2012 baseline [Figure 4].

In 2012, 84 patients of the intervention office had completed spirometry. This increased to 210 patients in 2015, representing a 127.3% increase in completed spirometry per patient, versus an increase of 10.1% in usual care offices [Figure 5].

Claims for controller fills were obtained in both 2012 and 2015 and compared in intervention office and usual care office patient populations. In 2015, compared to 2012, intervention office patients had a 23.3% increase in controller fills per patient versus an increase of 8.1% in usual care patients [Figure 5].

AMR was calculated for each patient with at least one controller fill in 2012 and 2015. In 2012, 49.8% of intervention office patients had an AMR ≥ 0.5 , which increased to 60.3% in 2015, representing a 21.1% improvement. This compared to an increase from 45.0% in 2012 to 45.6% in 2015 in the usual care population, a 1.3% improvement [Figure 5].

Intervention and usual care office population demographics are shown in Figure 6. The percentage of patients attributed to the ACO was similar in intervention and usual care offices, and the proportion of the Primary Care Network's entire population attributed to the intervention office remained similar throughout the entire study period.

Discussion

After ASC implementation, the intervention office patient population demonstrated a significant and sustained reduction in ED asthma utilization rates, and diverged significantly from the population managed by the eleven network offices delivering usual care. To our knowledge, this is the first such comparative decline associated with a medical home-based ASC. In addition, intervention office patients were significantly more likely to complete spirometry and fill controller medications versus patients receiving usual care.

Despite their existence for nearly 30 years, the effectiveness of ASCs has not been well studied⁶. A 2012 Cochrane review suggested there was insufficient evidence to conclude that ASCs based in primary care offices influenced outcomes. This was based on several measures, including ED asthma visits. However, there are several differences between our study and those reviewed. Foremost, these trials involved adult populations, and were led by registered nurses with varying amounts of physician support^{6,23-25}. Our ASC model was physician-led with multi-disciplinary support. This variation may have contributed to the improved outcomes we observed, consistent with previous studies examining the benefits of the doctor-patient relationship^{8,9,20-22}. One study mentioned in the Cochrane review, a pediatric trial and most similar to ours, was conducted in an

HMO-affiliated multi-office primary care network. They also demonstrated an increased frequency of controller medication dispenses, but no improvement in ED utilization²⁶.

Each component of the ASC is supported by past research. Clinic-initiated monitoring and a greater number of asthma-specific outpatient visits has previously been shown to improve outcomes^{8,9}. By maintaining this proactive registry process, we hoped to increase the frequency of asthma-centric appointments in our population.

Ensuring continuity was prioritized due to many studies that have concluded that continuity of care is an effective component of chronic disease management⁸⁻¹². This feature of medical care has been shown to improve outcomes in chronic disease and enhance patient satisfaction^{10,11}.

Furthermore, national guidelines recommend assessment by a consistent physician^{7,12}; however, this model of continuity is not standard in our network. In the NCH Primary Care Network, individual providers do not have a panel of patients, but rather patients are assigned to a primary care office, at which multiple providers practice. Appointments are most frequently scheduled via a centralized scheduling service, which does not have access to a preferred individual provider; therefore, continuity is preserved for the office and not the provider. While other dynamics have likely influenced the historically higher rate of ED visits by ACO patients managed by our network versus other area practices, we considered that our system's challenge to maintain continuity for our patients may have contributed as well.

A standard approach to asthma management and following spirometry guidelines have both been shown to improve outcomes^{13,14}. The increased utilization of spirometry by intervention office patients may have influenced the improved outcomes seen in this study as well. Despite this past evidence, only 20% of outpatient pediatric offices routinely utilize spirometry¹⁵. Physicians

frequently overestimate asthma control without the procedure¹⁶; in fact, one study demonstrated that 1/3 of children are categorized to a more severe asthma classification when spirometry is used¹⁷. The availability of on-site, same day spirometry, removing a potential barrier to procedure access, likely improved our patient's completion of the procedure. Additionally, by utilizing spirometry more frequently in our patients, we likely were able to more accurately classify asthma severity and control and, as a result, provide pharmacotherapy in line with the patient's true asthma classification.

Our education program mirrors others that have demonstrated improved asthma outcomes associated with structured education, those that utilized written action plans, and studies that have described a correlation between enhanced health literacy and better outcomes^{13,18,19}.

Moreover, EPR-3 guidelines advise that pharmacist involvement should be considered in the treatment of asthma and recommended further study to support their use⁷.

The increase in controller fills and improvement in patient AMR may have contributed to the overall outcome improvement seen as well. Andrews, et al reported that patients with an AMR ≥ 0.5 were less likely to have future asthma-related ED visits²⁷. A higher AMR has also been previously associated with improved controller adherence²⁸.

Other asthma programs have shown improvement in various patient outcomes, many without a proper comparison group^{13,25,29-33}. Ko, et al showed that asthma symptoms naturally improve over time, which can lead to overestimating the significance of a population's asthma improvement. The authors demonstrated the importance of a control group when evaluating asthma outcomes³⁴. As such, the presence of a comparison group in this study with similar baseline asthma outcome patterns was vital.

There are several limitations to the study. While not randomized, our trial did demonstrate significant positive outcomes versus a control group; nevertheless, we cannot definitively state that one intervention had a greater effect than others. Future attempts to differentiate the most effective components of this model may prove beneficial.

Our baseline populations were similar demographically with the exception of race, as intervention office patients were more likely to be Caucasian; however, both the intervention and usual care populations remained similar from 2012 to 2015 relative to themselves. Despite this difference, the two populations had similar baseline ED utilization and quality measures; therefore, this is unlikely to have had an impact in the improved outcomes we observed solely in the intervention group.

Lastly, this study may be limited by its generalizability. This study involved a single general pediatrician in the intervention office, and took place in a single primary care office serving an urban, predominantly Medicaid population. As previously described, this model was replicated—in another larger office within our Primary Care Network with similar initial results (data not displayed). This office was demographically similar to usual care offices as a whole, and utilized a different general pediatrician trained in this model. While this addressed generalizability from the provider standpoint, it did not address the ability to potentially replicate this model in a demographically different patient population.

Incorporating all model components may be challenging. Utilizing a multi-disciplinary team, spirometry equipment and tablet technology requires increased resources. One could argue that these resources are justified by a decrease in acute care utilization, if improving overall population health is the ultimate aim. Ohio's asthma hospitalization rate for children is much

lower than adults; however, the ED rate is much higher³. This discordance may suggest that ED asthma care for children is sought for less severe exacerbations. A comprehensive asthma program with extended-length interactions like our ASC provided may be necessary for a higher risk pediatric population to show improvement in ED usage.

We chose to also represent data using a rolling 12-month average to limit the seasonal variability that occurs with asthma morbidity. For example, patients of our network experienced a significant increase in ED asthma visits in 2014, likely influenced by the enterovirus D68 outbreak described in populations around the country³⁵. However, patients of the intervention office did not see an annual increase in asthma ED visits during 2014. Our model was able to minimize the overall effects of this outbreak, diverging from patterns observed in our network and other locales nationwide.

We chose to examine outcomes for the entire office population versus only asthma patients. This eliminated potential skewing of data through higher numbers of asthma patients with less severe symptoms, who would be less likely to visit the ED for care. This assumes that asthma prevalence within a population stays relatively constant over time. Moreover, it reflects more closely the focus of NCH and the ACO on population health. Within the ACO's patient population, asthma remains the most common chronic condition leading to ED visits. Improving this remains a key focus at our institution and the ACO, while simultaneously attempting to enhance quality of care and lower costs. Costs per patient with poorly-controlled asthma are estimated to be more than double that of well-controlled patients³⁶. Kelleher, et al. demonstrated relative cost containment achieved by the ACO's business model compared to traditional fee-for-service plans. In their report, however, asthma ED visits by ACO-attributed members, as a

whole, did not improve³⁷. This comprehensive ASC model may provide a solution to influence this data on a broader scale, and may be potentially valuable for other institutions affiliated with ACOs, those striving to improve population health, or providers who manage at-risk patient populations.

Conclusion

Using a comprehensive, multi-disciplinary and innovative approach to asthma care in a primary care-based asthma specialty clinic, we demonstrated a significant and sustained reduction in ED visits, and a significant improvement in asthma quality measures in a high-risk, urban pediatric population. This may serve as a suitable model for others attempting to optimize asthma care within the patient-centered medical home.

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Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this paper.

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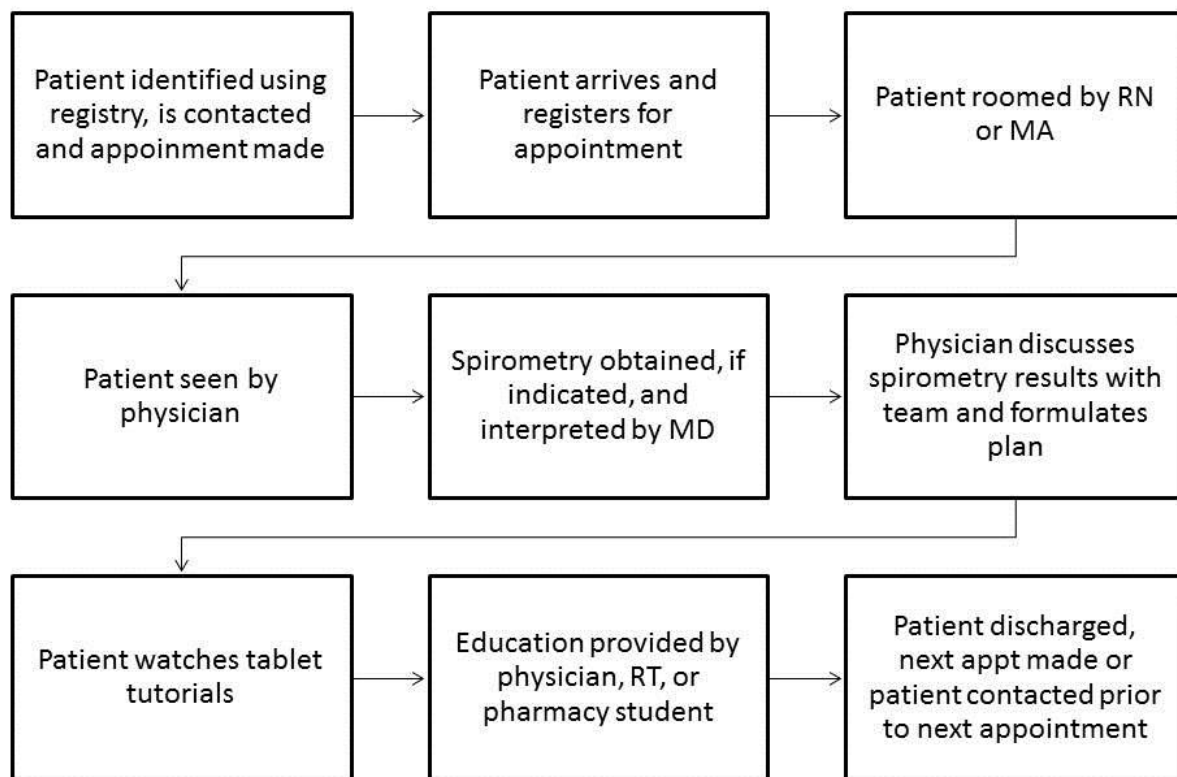


Figure 1—Asthma Specialty Clinic Flowchart

Figure 1. Asthma Specialty Clinic Flowchart.

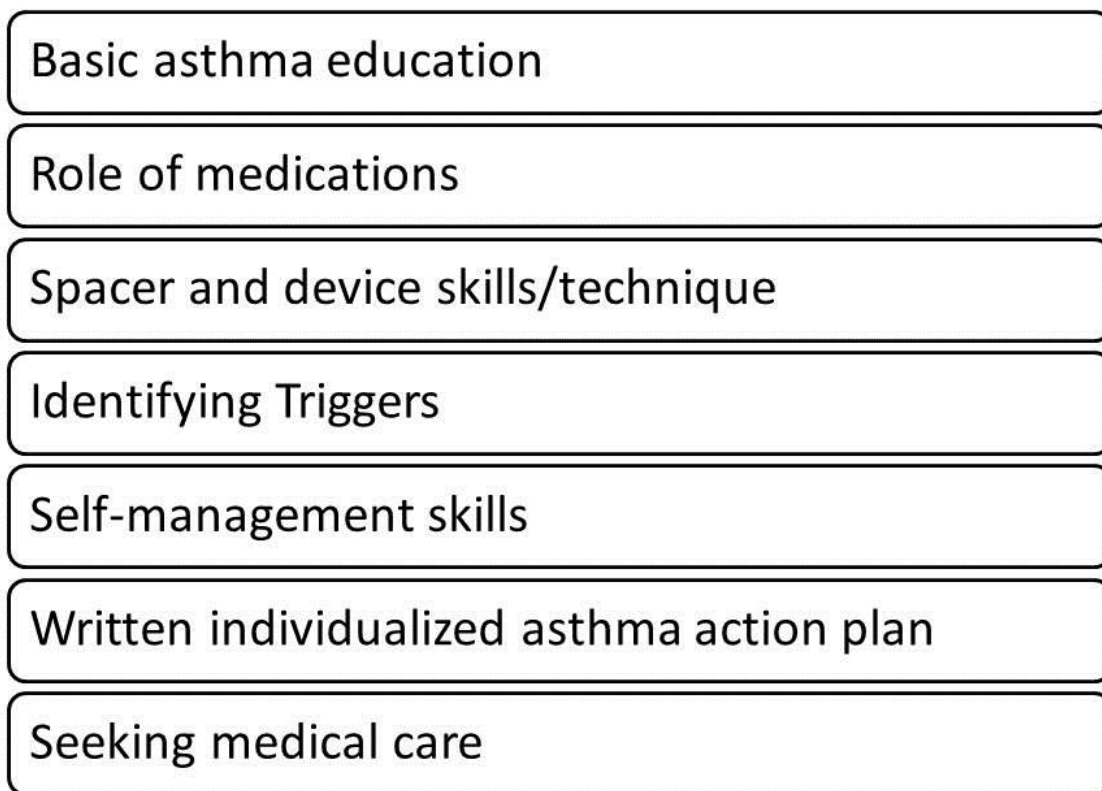


Figure 2—Education Topics

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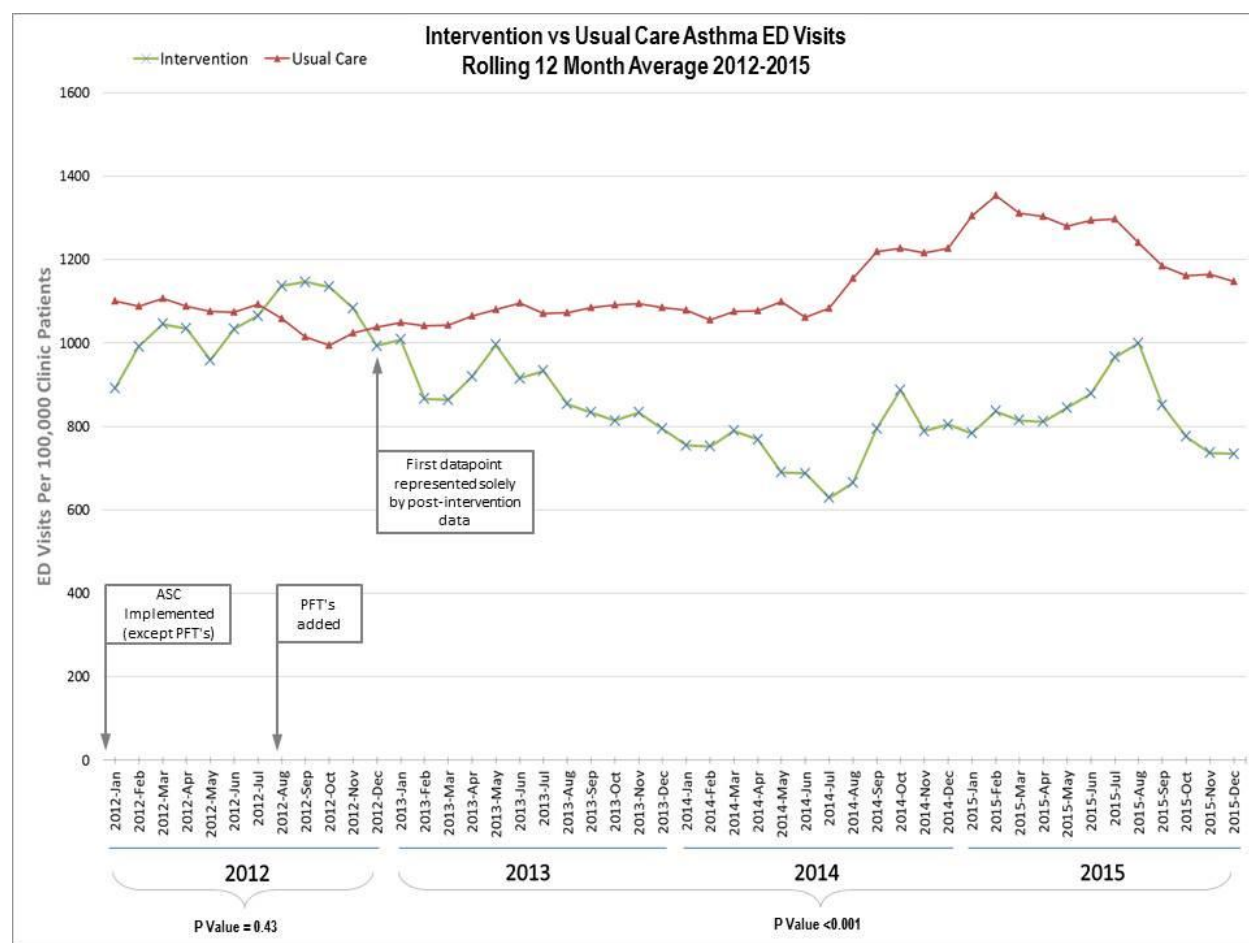


Figure 3. ED Visits/100,000 patients, Intervention versus Usual Care Offices, Rolling 12 Month Average, 2012-2015.

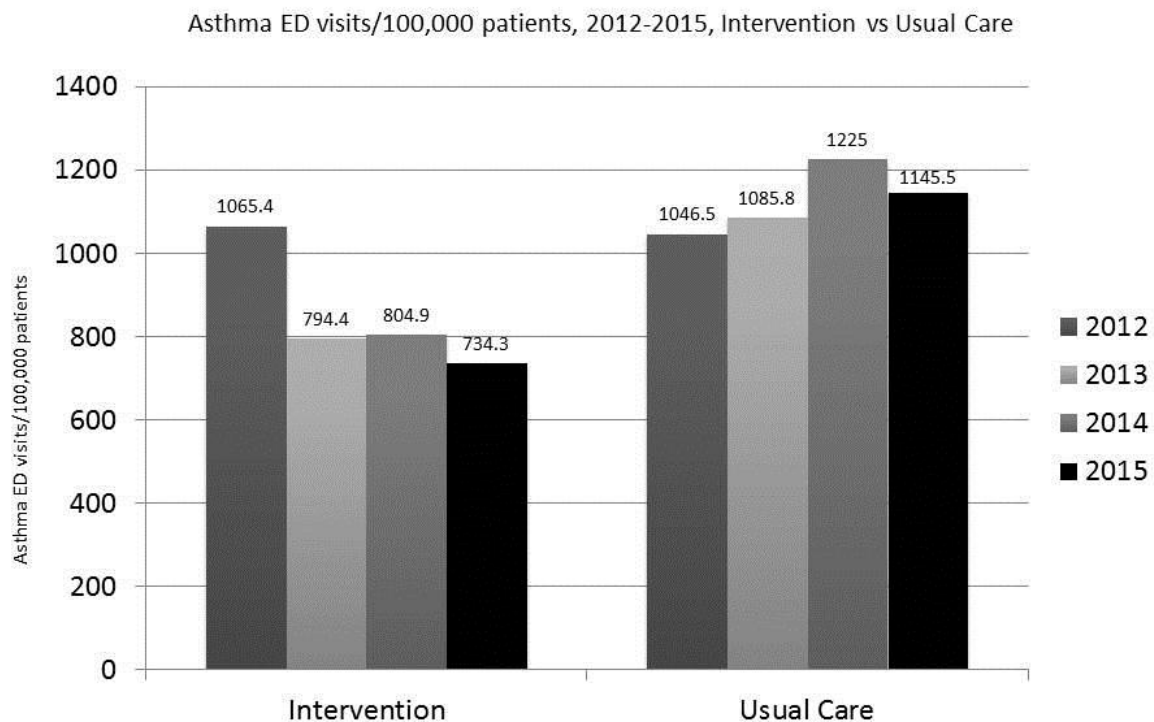


Figure 4--Asthma ED visits/100,000 patients, annually

Figure 4. ED Visits/100,000 patients, Intervention versus Usual Care, Annually, 2012-2015.

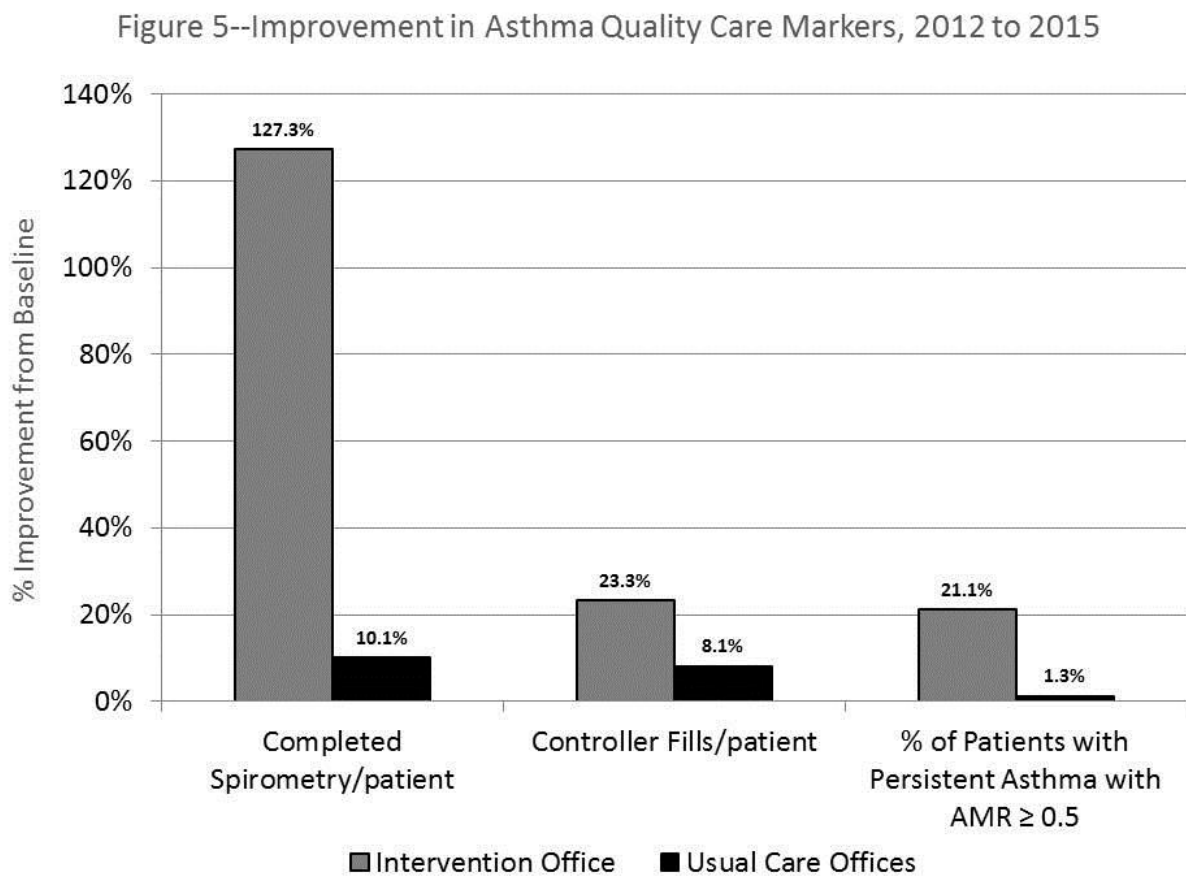


Figure 5. Improvement in Quality Markers, 2012 to 2015.

Figure 6—Demographics, Intervention and Usual Care Office Populations, 2012 and 2015

	Intervention 2012	Usual Care 2012	Intervention 2015	Usual Care 2015
Gender, n(%)				
Female	2538 (49.2)	30847 (49.0)	2793 (49.3)	28677 (48.9)
Male	2616 (50.8)	32145 (51.0)	2875 (50.7)	29953 (51.1)
Race, n(%)				
White	2511 (48.7)	11861 (18.9)	2487 (43.9)	10736 (18.3)
Black	1101 (21.4)	35870 (56.9)	1371 (24.2)	33981 (58.0)
Other	1542 (29.9)	15259 (24.2)	1810 (31.9)	13913 (23.7)
Age (years), mean (sd)				
	7.8 (4.6)	8.2 (4.8)	8.2 (4.7)	8.6 (4.8)
ACO-attributed (%)				
	94.0	92.4	96.8	94.9

Figure 6. Demographics.

Table 1. Patient population and ED visits, Intervention and Usual Care Offices, 2012-2015.

Month/Year	# Patients, Intervention Office, 12 month average	# ED visits, Intervention Office, previous 12 months	ED visits/ 100,000 patients, Intervention Office, 12 month Average	# Patients, Usual Care Offices, 12 month average	# ED visits, Intervention Office, previous 12 months	ED visits/ 100,000 patients, Intervention Office, 12 month average
2012-Jan	4487	43	958.2	59777.8	658	1100.7
2012-Feb	4538	45	991.7	59978.3	653	1088.7
2012-Mar	4590	48	1045.8	60174.8	666	1106.8
2012-Apr	4640	48	1034.4	60376.0	657	1088.2
2012-May	4691	45	959.3	60581.1	652	1076.2
2012-Jun	4739	49	1033.9	60792.8	653	1074.1
2012-Jul	4786	51	1065.5	61018.0	667	1093.1
2012-Aug	4836	55	1137.2	61248.8	648	1058.0
2012-Sep	4885	56	1146.3	61491.7	624	1014.8
2012-Oct	4936	56	1134.6	61751.4	614	994.3
2012-Nov	4987	54	1082.9	62009.3	635	1024.0
2012-Dec	5032	50	993.6	62244.0	646	1037.9
2013-Jan	5057	51	1008.5	62469.3	655	1048.5
2013-Feb	5078	44	866.6	62690.9	653	1041.6
2013-Mar	5094	44	863.8	62888.7	656	1043.1
2013-Apr	5108	47	920.1	63062.5	671	1064.0
2013-May	5121	51	995.9	63228.9	683	1080.2
2013-Jun	5134	47	915.5	63373.8	695	1096.7
2013-Jul	5145	48	933.0	63507.7	680	1070.7
2013-Aug	5153	44	853.8	63632.3	682	1071.8
2013-Sep	5158	43	833.6	63743.6	692	1085.6
2013-Oct	5162	42	813.7	63857.3	697	1091.5
2013-Nov	5161	43	833.2	63983.2	700	1094.0
2013-Dec	5161	41	794.4	64100.7	696	1085.8

Month/Year	# Patients, Intervention Office, 12 month average	# ED visits, Intervention Office, previous 12 months	ED visits/ 100,000 patients, Intervention Office, 12 month Average	# Patients, Usual Care Offices, 12 month average	# ED visits, Intervention Office, previous 12 months	ED visits/ 100,000 patients, Intervention Office, 12 month average
2014-Jan	5169	39	754.5	64213.2	693	1079.2
2014-Feb	5181	39	752.7	64346.3	679	1055.2
2014-Mar	5192	41	789.6	64498.5	694	1076.0
2014-Apr	5204	40	768.7	64683.8	697	1077.6
2014-May	5219	36	689.7	64887.3	713	1098.8
2014-Jun	5233	36	687.9	65105.2	691	1061.4
2014-Jul	5246	33	629.0	65359.2	708	1083.2
2014-Aug	5264	35	664.9	65673.3	759	1155.7
2014-Sep	5280	42	795.4	66004.2	805	1219.6
2014-Oct	5299	47	886.9	66343.7	814	1226.9
2014-Nov	5321	42	789.4	66674.5	811	1216.4
2014-Dec	5342	43	804.9	67023.4	822	1226.4
2015-Jan	5362	42	783.4	65470.6	724	1305.2
2015-Feb	5379	45	836.7	65744.5	754	1352.6
2015-Mar	5400	44	814.8	66034.3	735	1311.7
2015-Apr	5424	44	811.3	66323.5	734	1303.2
2015-May	5443	46	845.2	66608.7	725	1280.7
2015-Jun	5463	48	878.6	66902.5	736	1293.4
2015-Jul	5485	53	966.2	67191.1	742	1297.4
2015-Aug	5503	55	999.5	67417.9	713	1241.8
2015-Sep	5525	47	850.7	67614.5	683	1185.5
2015-Oct	5543	43	775.7	67789.9	671	1161.1
2015-Nov	5562	41	737.1	67964.3	675	1164.5
2015-Dec	5583	41	734.3	68142.1	667	1147.2

Table 1—Patient population and ED visits, Intervention and Usual Care Offices, 2012-2015