

2019

# Evaluating Use and Benefit of Asthma Action Plans Among Michigan Providers



## Evaluation Report

Michigan Asthma Prevention and Control  
Program

Michigan Department of Health and Human  
Services

Funding Year 5

Asthma action plans (AAPs) provide patients with a daily plan for asthma management, control, and instructions on what to do in case of distress. AAPs allow patients to know when to take control medications versus rescue (distress) medications leading to better adherence and increased asthma control. AAPs can also be beneficial in facilitating conversations and educational opportunities for providers during a point-of-care contact. A project team of volunteer participants worked closely with staff from the Michigan Asthma Prevention and Control Program (MiAPCP) within the Michigan Department of Health and Human Services (MDHHS) to develop a free PDF fillable AAP. On the survey, this partnership was referred to as AIM (Asthma Initiative of Michigan).

This report details results associated with a survey conducted by MiAPCP and the Michigan Primary Care Association (MPCA) pertaining to the use of AAPs within clinical practice and other asthma educational opportunities providers are integrating into point-of-care contact. Evaluation of AAPs will allow MiAPCP and partners to determine effectiveness of use in clinical practice and assess provider perceptions of usefulness.

Evaluation of this tool focused on the following key indicators impacting AAPs: frequency of use (including how often plans are updated), benefit for facilitation of patient communication, and other educational opportunities surrounding use of AAPs. The survey was administered via an online survey platform and disseminated to 72 quality improvement directors using MPCAs network roster of Federally Qualified Health Centers. The survey received 14 responses containing a mix of providers and network directors.

#### Use & Dissemination of Asthma Action Plans:

Providers were asked to identify if they use an AAP, whether that be the plan developed by AIM or a different plan tool through the question, "Have you ever used an electronic asthma action plan developed by AIM?" From this question, 86% of respondents indicated that they were using an AAP (*calculated by adding responses: "Yes, currently using" and "No, using one not developed by AIM"*), with 7% indicating that they were specifically using the plan developed by AIM (Figure 1).

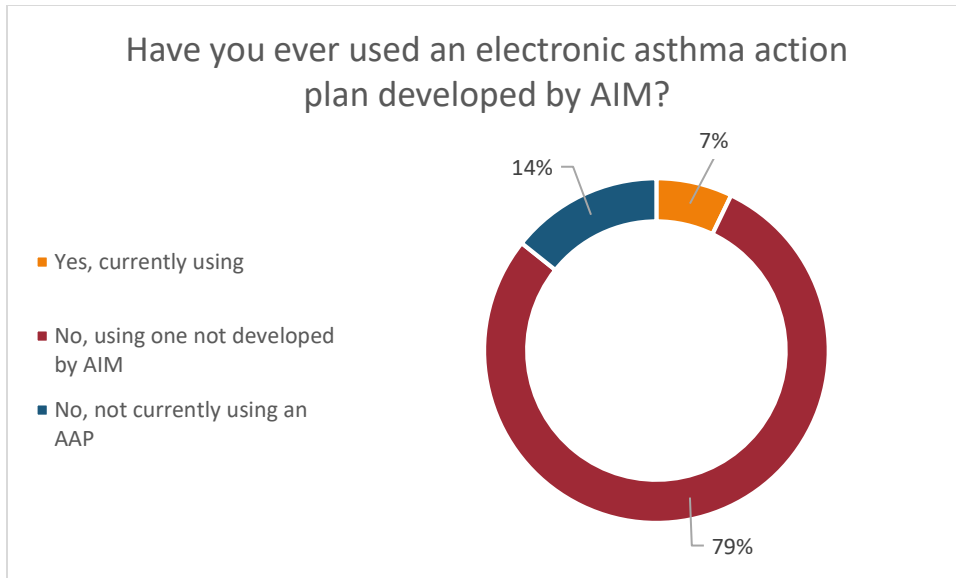


Figure 1. Response to survey question 1: “Have you ever used an electronic asthma action plan developed by AIM?” Respondents also given option to select, “Yes, previously used.” This option was not indicated by respondents and was excluded from analysis.

Providers were also asked to provide relative frequencies of how often patient plans were updated and the amount of time spent per update (Figures 2 & 3).

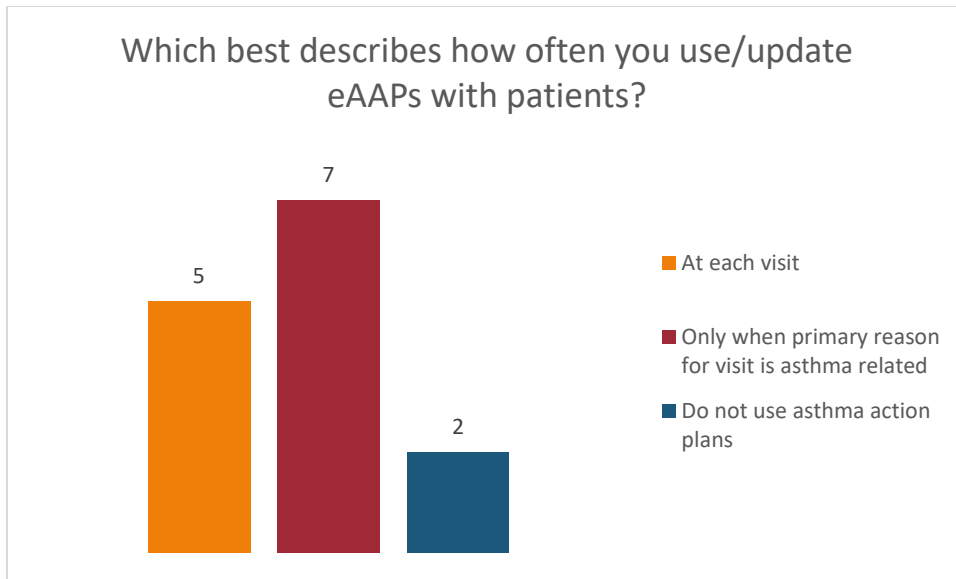
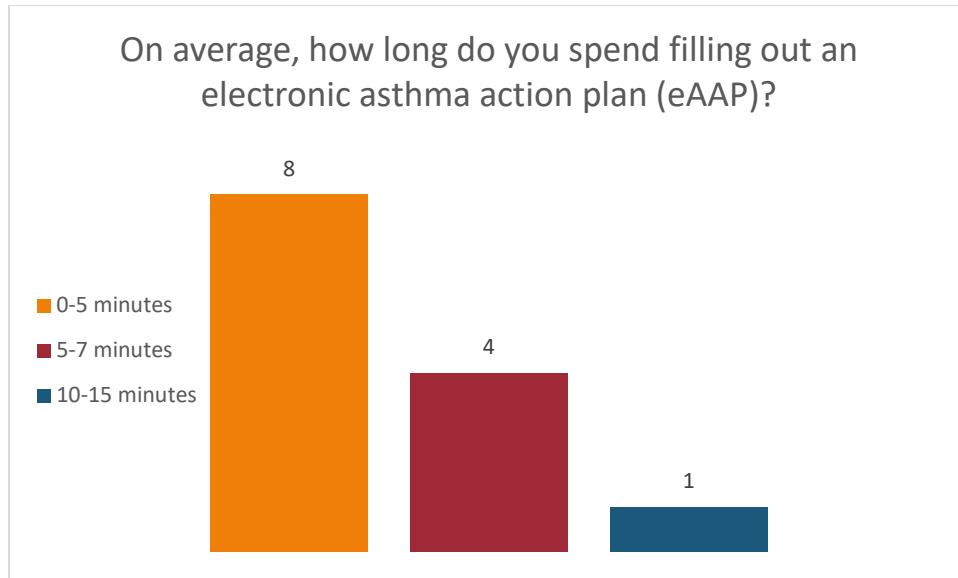


Figure 2. Response to survey question 5: “Which best describes how often you use/update eAAPs with patients?” Respondents also given option to select, “When asked by patient/parent” This option was not indicated by respondents and was excluded from analysis. Note. eAAP is used interchangeably with AAP. “e” indicates electronic, which is the type of AAP most common among providers.



*Figure 3.* Response to survey question 4: “On average, how long do you spend filling out an electronic asthma action plan (eAAP)?” Respondents also given option to select, “7-10 minutes” and “15+ minutes.” These options were not indicated by respondents and were excluded from analysis. Note. eAAP is used interchangeably with AAP. “e” indicates electronic, which is the type of AAP most common among providers.

From the results, majority of providers (62%) spend under 5 minutes per plan update and are updating plans most frequently when a patient’s primary reason for visit is related to asthma (50%) or at each office visit (36%). 78.5% of providers responded that patients were provided a copy of their AAP either electronically (14.3%) or in print version (64.2%).

**Facilitation & Communication Benefits:**

Perception of benefit of use is a key indicator surrounding frequency of use for AAPs. Providers were asked to respond to their perception of usefulness for communication with patients regarding asthma management (Figure 4) and if they perceived that patients found AAPs beneficial for management of asthma (Figure 5).

Do you find eAAPs to be a beneficial communication tool to use for asthma management?

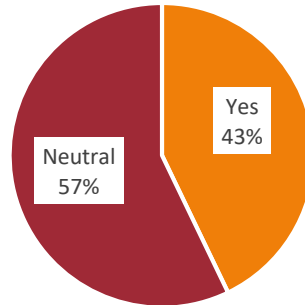


Figure 4. Response to survey question 7: “Do you find eAAPs to be a beneficial communication tool to use for asthma management?” Respondents also given option to select, “No.” This option was not indicated by respondents and was excluded from analysis. Note. eAAP is used interchangeably with AAP. “e” indicates electronic, which is the type of AAP most common among providers.

Do you believe patients/parents find AAPs useful for asthma management?

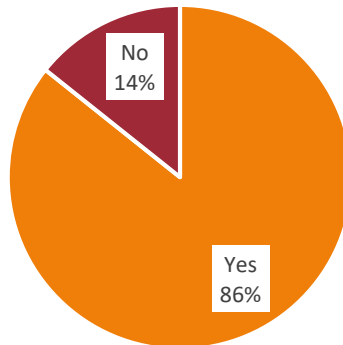


Figure 5. Response to survey question 8: “Do you believe patients/parents find eAAPs useful for asthma management?” Note. eAAP is used interchangeably with AAP. “e” indicates electronic, which is the type of AAP most common among providers.

While majority of providers were neutral (57%) about the benefit of AAPs as a tool for communication with patients, many providers felt that parents/patients find AAPs useful for self-management of asthma (86%).

Open communication about asthma related topics can enhance a provider’s ability to incorporate educational opportunities into a point-of-care contact. Proper use of spacers or

valve holding chambers (VHC) and which medications require these devices are an essential part of asthma management education that can be facilitated through use of an AAP. 64% of providers using AAPs indicated that they are also providing patients/parents with education related to use of spacers (Figure 6), and 80% of providers not currently providing this education noted they would like to receive information to distribute to patients.

Further, home-based asthma management programs and referrals to these programs can provide patients and their families with additional educational opportunities for enhanced asthma management and control which can be facilitated through point-of-care contact with providers. Only 29% of providers indicated they refer patients to home management programs in their area (Figure 7). A few providers indicated that a different provider (i.e. a specialist) may be referring their patients to these services, while others indicated referring patients but were unsure of the program name. Just over half of surveyed providers requested more information about home management program in their area.

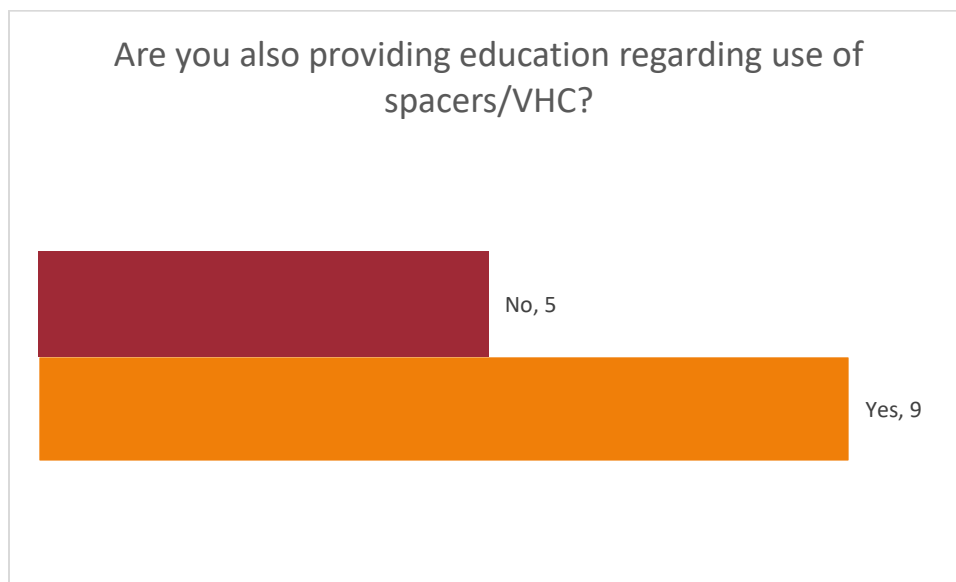


Figure 6. Response to survey question 10: "Are you also providing education regarding use of spacers/VHC?" Note. eAAP is used interchangeably with AAP. "e" indicates electronic, which is the type of AAP most common among providers. Note. VHC stands for "Valve holding chamber."

### Educational Opportunities for Providers:

It is important to not only educate patients/parents about asthma management and medication use, but to facilitate learning and knowledge development for providers as well. Keeping up with changing guidelines, medications, and innovative clinical practices can be difficult and time consuming for busy providers. MiAPCP and MPCA have agreed to partner to provide educational webinars regarding asthma topics. Below is a breakdown of weighted rankings of educational topics identified as most important by surveyed providers (Table 1):

1. Asthma Guidelines
2. Asthma medications and step management

- 3. The tricky AAP yellow zone
- 4. Spirometry

Other suggested topics included: Tips on medication compliance and Specific age-related guidelines.

	Ranked 1	Ranked 2	Ranked 3	Ranked 4	Total Responses	Weighted Rank
<b>Asthma guidelines</b>	6 42.86%	1 7.14%	6 42.86%	1 7.14%	14	2.86
<b>Asthma medications and step management</b>	4 28.57%	6 42.86%	1 7.14%	3 21.43%	14	2.79
<b>The tricky AAP yellow zone</b>	2 14.29%	5 35.71%	4 28.57%	3 21.43%	14	2.43
<b>Spirometry</b>	2 14.29%	2 14.29%	3 21.43%	7 50.00%	14	1.93

Table 1. Response to survey question 15: “MDHHS and MPCA will partner together to offer an asthma-related webinar. Please rank the following topics in order of your interest.” Note. AIM is the developer of the MDHHS’s State Asthma Program’s AAP tool.

**Evaluative Program Development & Future Implementation:**

The use of asthma action plans seems widespread and beneficial with a multifaceted use for both enhancing home asthma management and educational opportunities related to asthma topics. Providers indicated that action plans were timely to update and the visit frequency at which this update occurs. From this finding, MiAPCP will explore an additional question about frequency of updates with the potential of adding a unit of time to determine if providers are updating plans yearly, per NHLBI EPR-3 guideline recommendations.

Further, MiAPCP and MPCA will work to support resources and informational needs of Michigan providers indicated through this survey. MiAPCP has previously developed spacer educational handouts and home-based asthma management program information that can be accessed on our website and will be sent electronically to survey participants to share with fellow clinicians and patients. MiAPCP will track unique website hits (under the surveillance evaluation project) to determine reach and increased usage of these materials.

To further informational supports to providers, MiAPCP and MPCA will develop educational webinar(s) to enhance provider knowledge of top ranked informational topics from the survey results.

Although surveyed in 2017 regarding AAPs, MiAPCP is not able at this time to compare results due to low survey numbers leading to a non-representative population sample. In coming years, MiAPCP intends to re-survey providers to compare trend results and determine other areas of improvement and program development opportunities.