ASTHMA HOME-BASED SERVICES MANUAL

AND CLIENT EDUCATION CURRICULUM

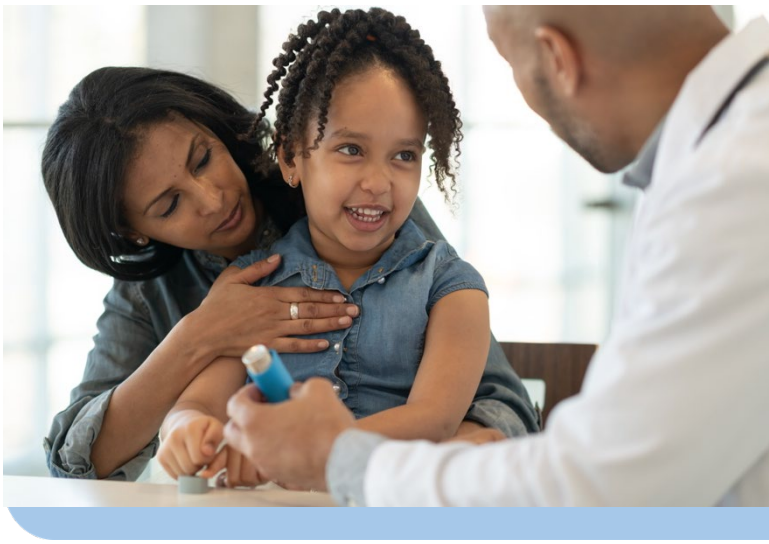
DEPARTMENT OF HEALTH

Last updated: 05.23.24

CONTENTS

INTRODUCTION

What are Asthma Home-Based Services?



Asthma home-based services (AHBS) provide an opportunity to meet with clients in their homes to create individualized plans of care, provide education on asthma self-management, assess the home environment, and address the specific needs identified in the home assessment. Asthma self-management skills combined with environmental assessments and services have been shown to be very effective in asthma control.

The Dakota County asthma program is an example of a model of how asthma home-based services can be administered within your organization (excerpt adapted from the Population-Based Public Health Clinic Manual/ The Henry Street Model for Nurses 4th Edition).

In 2012, Dakota County Public Health (DCPH) was awarded a grant from the Minnesota Department of Health's Housing and Urban Development-Reducing Environmental Triggers of Asthma Project (HUD-RETA) to implement evidence-based strategies to improve health outcomes for low-income children with asthma by reducing triggers in their homes. After funding ended, DCPH received a grant from the UCare Foundation to continue this great work and support an identified community need. The basis of the model being used is from the MDH grant and was expanded to include reporting capabilities by implementing the Omaha System (a research-based problem classification system designed to enhance practice, information management, and documentation).

Through the program, a public health nurse provides in-home health and environmental assessments to children from birth to age 18 who live in Dakota County and have a diagnosis of asthma. Individual intervention is based on information learned during the in-home assessment, an asthma control test, and review of the child's asthma action plan. This includes education on the pathophysiology of asthma, medications, and strategies to reduce or eliminate asthma triggers. Case management is also provided and is based on the child and family's needs, which may include ensuring the child has a primary care provider, coordination with school staff, and referrals to community resources. The public health nurse visits children and families three to four times over a year. For more complex cases, visit frequency and duration can be adjusted.

Allergen-reducing equipment is provided to eligible children to assist in the reduction of asthma triggers. Eligibility is based on income and can be determined by the child's participation in programs such as Women, Infants, and Children (WIC), enrollment in Medical Assistance or Minnesota Care, or participation in cash or food programs through the county. Equipment most often provided includes a High Efficiency Particulate Air (HEPA) vacuum cleaner, an air cleaning device, bed and pillow encasements, and a holding chamber. Other equipment can be provided based on the child's needs and home environment.

– **Judy Wohnoutka**, BAN, RN, PHN Dakota County Public Health

How to Use This Manual

This manual was created with the intent to provide structure and guidance to develop an AHBS program. The manual is an outline of operational considerations, step-by-step implementation, and workflow guidance.

This resource is meant for local public health organizations, Indian Health Services, health and human service agencies, or other health care focused organizations that wish to build a comprehensive asthma management solution for their defined population.

The manual provides practical steps to consider and implement when developing an AHBS program and is intended to be used in conjunction with support resources that include:

- MDH Asthma Program implementation technical support
- Mentoring from Local Public Health agencies experienced in implementing and operating an AHBS program
- A toolkit of resource links and documents supporting AHBS programs

Asthma Home-Based Services Toolkit

The icons below are used throughout the manual to correlate additional resources that are available on the Minnesota Department of Health's Asthma Home-Based Services Toolkit (www.health.mn.gov/diseases/asthma/professionals/home-basedservicestoolkit.html) web page.

Toolkit Icon Legend


Data


Supporting documents


Clinical forms


Data privacy & forms


Key partnerships


Dakota County


Grant


Professionals providing AHBS


Clinical training


Asthma environmental training


Training opportunity


Environmental health

1

SECTION ONE

INITIAL ASTHMA HOME-BASED SERVICE PROGRAM PLANNING

INITIAL ASTHMA HOME-BASED SERVICE PROGRAM PLANNING

Key Program Elements to Consider

Consider these key program elements when planning the start-up of an AHBS program at your agency:

- Who in your agency should be included in the start-up of a new program?
- Who outside your organization should be included in the start-up process?
- What services will you be providing?
- Where will you be providing these services?
- How will you pay for the program?
- Will you utilize third party payor billing?
- What kind of staffing will be needed?
- Will staff be trained in supplemental or advanced asthma clinical training or will training be more informal?
- Who will be your target population?
- What kind of documentation will you use?
- How will you communicate your program?
- How will you process referrals?
- How will you evaluate whether services are improving participants' asthmas management?
- What kind of data should be gathered?

Exploring the Impact of Asthma in Your Community – Data and Demographic Information

It may be helpful in your planning process to explore the impact of asthma in your community through available assessments and data. Data source examples may include, but are not limited to:

- School Nurse Surveys
- Minnesota Department of Health's asthma data
- Community health assessments (Dakota County example)
- MN Community Measurement
- Department of Human Service

Supporting Documents and Information – State and National Organizations

Items that may assist in the planning and implementation of an asthma program include:

- Asthma in Minnesota: A Strategic Framework 2021-2030
- Strategies for Addressing Asthma in Homes – Centers for Disease Control and Prevention
- Exhale: A Technical Package to Control Asthma – Centers for Disease Control
- Building Systems to Sustain Home-Based Asthma Services – National Center for Health Housing

Internal and External Participants in the Implementation and On-Going Operations of Your Asthma Program

Internal: Key Players within Your Organization

Local Public Health Leadership

Your agency's Director, Deputy Director or a Community Health Board Administrator could be an expert resource for program planning, financial decision-making, and in garnering leadership support.

Supervisor or Lead

Designate a supervisor or lead to provide project management during implementation and/or on-going operations.

Finance or Billing

Identify a representative from your finance and billing areas who can assist with creating and implementing a process for billing and reimbursement for program services.

Electronic Health Record (EHR)

Identify an electronic health record or system and consult with Information Technology or Informatics to create, adapt and implement asthma visit workflows in the EHR.

Legal

Identify and consult with your legal department or County Attorney who can assist with creation of documents related to data privacy, consents, liability and mitigation concerns.

Communications

Consult with communications staff on a plan for developing a marketing strategy for the program (web, print, digital, social media).

Other

Determine the need to collaborate or consult with other units or departments within your organization that may be working with your target population.

Assess expertise within other parts of your organization and their interest in and ability to consult with or participate in the program. For example, your organization may have a certified environmental assessor on staff.

External: Key Players Outside of Your Organization

Minnesota Department of Health (MDH)

MDH provides technical support, connections to asthma program mentoring, networking opportunities, education, and asthma resources as well as possible access to small grant funding to assist with start-up. Contact the MDH Asthma Program at health.asthma@state.mn.us

Key Partnerships in On-Going Asthma Program Operations

Community Agencies

Consider reaching out to service agencies in your community that can assist with generation of referrals as well as to determine resource support for shared populations served. Community agencies may include local non-profit organizations serving at-risk families. Examples include Head Start, local service agencies and faith-based organizations.

Health Care Providers/Clinics

Consider reaching out to health care providers and clinics that can assist with the generation of referrals, serve as partners in case management and care coordination for clients, and have an interest in asthma-related training for their clinic staff.

Colleagues

Co-workers and colleagues may serve as referral sources, provide back up support for the program and may provide case consultation.

Health Insurance/PMAPS

Form relationships with third party payors for referral generation, to stay appraised of reimbursement opportunities and to serve as a connection to complementary programs such as commercial tobacco cessation for plan members.

Other Local Public Health (LPH) Agencies

Consider partnerships with other LPH agencies that support opportunities for mentoring, collaboration, idea and resource sharing.

Schools

Consider reaching out to area schools for referral generation, to establish relationships with school nurse(s) for care coordination and potential in-service training opportunities.

Other Departments

Consider collaboration with other units and departments such as environmental services and family home visiting, which provide access to other programs that may share a similar mission and populations.

Weatherization Assistance Program (WAP)

The WAP provides free home energy upgrades to income-eligible homeowners and renters to help save energy and make sure a home is a healthy and safe place to live. The Department of Commerce Weatherization Assistance Program is an example.

Contracts

Contracting, if any, will be based on your agency's policies. The asthma program may fall under contracts already in place for a larger organization, such as purchasing of Prepaid Medical Assistant Program (PMAP) contracts.

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SECTION TWO

BILLING, FUNDING AND PROGRAM COSTS

BILLING, FUNDING AND PROGRAM COSTS

Billing Process Options and Considerations

There are two approaches to setting up billing for an asthma program.

Option 1: Add Asthma Program to an Existing Department and Billing Process

Embed the program into an existing department. Placing the program into an existing department or team allows for the utilization of existing billing procedures and staff.

> ***Example:*** *Dakota County's Asthma Program currently resides under the Family Health unit. This allows for utilization of Family Health's billing staff and already established billing processes, rather than needing to create completely new procedures for billing and reimbursement. Minor coding and diagnosis codes had to be added to the process. (See Billing Procedure under Reimbursement Section).*

Option 2: Create New Billing Process

If there is not an existing department to embed the program into, billing processes and procedures will need to be created to submit third party reimbursement and other funding. (See the reimbursement section for potential billing process information.)

Grant Funding Sources

Seek grant opportunities available to assist in funding an asthma home-based services program. Some examples to research for ongoing opportunities include:

- Minnesota Department of Health (MDH)
- The UCare Foundation
- The Medica Foundation
- Health Partners Foundation
- The Centers for Disease Control and Prevention
- The Environmental Protection Agency
- Other foundations focused on health and health equity

Program Costs

When planning for the costs of the program, consider the following:

- Home visiting staff time
- Support staff time – "behind the scenes" staff who provide technical support to the program including things such as making copies, answering phones, creating folders for client handouts, etc.
- Billing, contracting or accounting staff time
- IT support staff time (Data Collection, EHR Support)
- Communications support staff time (program promotions, marketing, website management client materials creation)
- Reimbursement for home visits
- Mileage and staff time reimbursement for traveling to homes
- Staff training
- Office supplies and printing costs (client handouts, marketing materials, etc.)
- Translation of client materials and interpreting services
- Equipment for on-going operations such as computers, phones, cars
- Asthma and allergen reducing equipment, including air cleaners, HEPA vacuum, bed/pillow encasements

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SECTION THREE

STAFFING AND TRAINING NEEDS

STAFFING AND TRAINING NEEDS

When planning for, implementing, and operationalizing an asthma program, consider the staffing resources and training needed to provide a sustainable asthma visit program.

Staffing

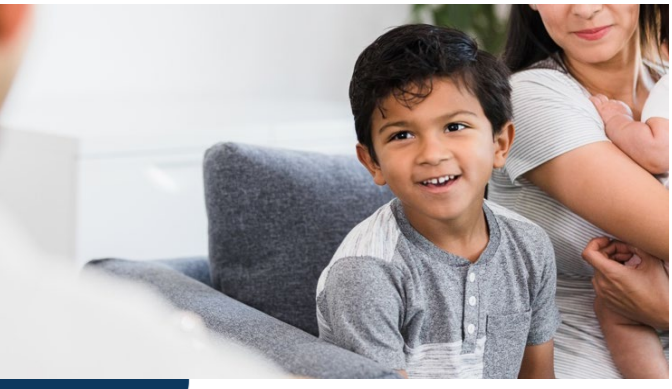
What staff are required? A variety of staff may be involved in supporting the daily operations of the asthma program. A common model for home visits includes a clinical professional providing a home visit and may or may not include an environmental professional providing an environmental assessment. If an environmental professional is not available, the clinical professional may provide an abbreviated home assessment. The qualifications and the scope of work of staff may impact which billing codes may be used.

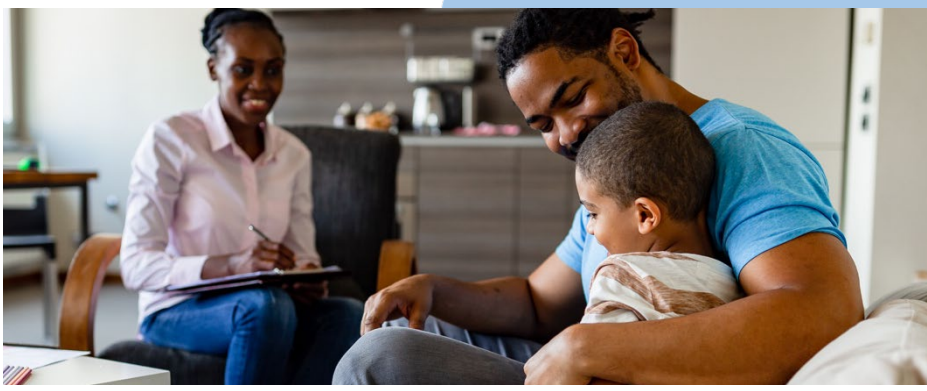
Supervisory/Management

If possible, utilize a supervisor or manager already on staff at your agency to oversee the program under their current unit. Consider an existing family health unit supervisor or supervisors from related units such as disease prevention and control, environmental services, or health promotion.

> ***Example:*** *Dakota County was able to identify an existing family health unit supervisor to oversee the Asthma Program.*

If it is not feasible to use existing staff, a new supervisory position will need to be established for your asthma program.





Professional Providing AHBS

Primary home visitors may consist of one of the following professionals or may consist of a combination team approach.

Clinical:

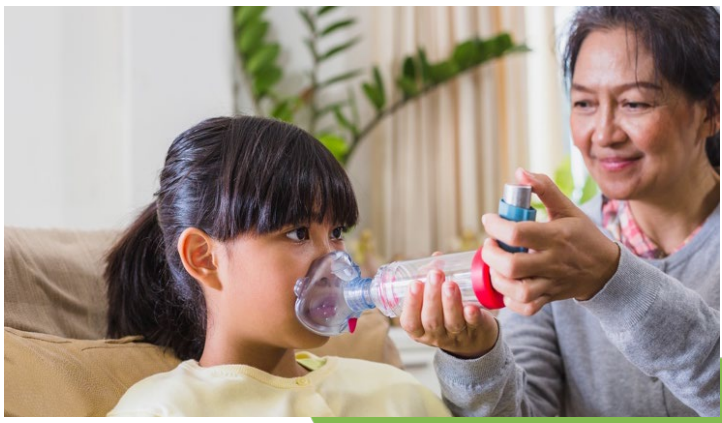
- Registered Nurse or Public Health Nurse
- Respiratory Therapist
- Community Paramedic
- Community Pharmacist

Environmental/Home Assessments:

- Healthy Homes Specialist (defined and credentialed as a Health Home Evaluator by the Building Performance Institute as credentialed and defined by MDH)
- Registered Environmental Health Specialist defined and credentialed by MDH

Other staff to consider involving in an asthma program:

- Community Health Workers (CHW) – CHWs are trained roles that are trusted, knowledgeable members of a community who can assist in providing education, barrier mitigation, program information, referrals, and support.
- Health Educators – May assist in providing education on asthma and healthy behaviors.
- Support Staff – Support staff to assist home visitors and supervisors in the maintenance of the asthma program by providing technical and administrative support.



Training

Asthma Program Training

To determine staff training needs, consider staff capabilities, interest, experience in home visiting, history of work in asthma care and capacity to attend trainings. There are a variety of training resources and options.

- **Home Visitor Training** for those with no or minimal experience in home visiting.
- **Workplace/Personal Safety Training** for home visitors as identified by your organization.
- **Privacy/HIPAA Training** may be needed and required. What is offered within your organization?
- **Technical Training** may be needed for staff documenting in your electronic health record. Consult your agency's staff training process and policy.

Asthma Clinical Training

- The American Lung Association's "Asthma Basics" is a free, online training appropriate for those with limited knowledge of asthma and is a precursor to the ALA's Asthma Educator Institute training.
- The United States Environmental Protection Agency's "What is Asthma" (web) training provides information on asthma, asthma triggers, and asthma resources.
- The American Lung Association's Asthma Educator Course is an advanced asthma training. This is highly recommended for the professional selected to provide home visits. The course is a preparatory course required prior to taking the Asthma Educator certification exam. However, the course can also be taken for educational purposes only. There is no requirement that the participant must take the certification exam.
- The Association of Asthma Educators has an asthma training available for Community Health Workers.
- MDH's Asthma Program and St. Paul College collaborated to create an online, self-paced course (1 CEU available) around the four components of asthma motivational interviewing. The course supports optimal health education and coaching skills for the professional providing home visits.

Asthma Environmental Training

- The Minnesota Department of Health's Asthma Program provides a free 40-minute online Reducing Environmental Triggers of Asthma in the Home (RETA) training course.
- The US Environmental Protection Agency (EPA) provides a recorded 30-minute webinar on the Home Characteristics and Asthma Triggers Checklist and Training for Home Visitors: Making Homes Healthier.
- The US Environmental Protection Agency (EPA) offers information and guidance on their Introduction to Integrated Pest Management web page.
- The Centers for Disease Control and Prevention (CDC) offers strategies and guidance about asthma environmental triggers in the home on the CDC Asthma Public Health Professionals web page.

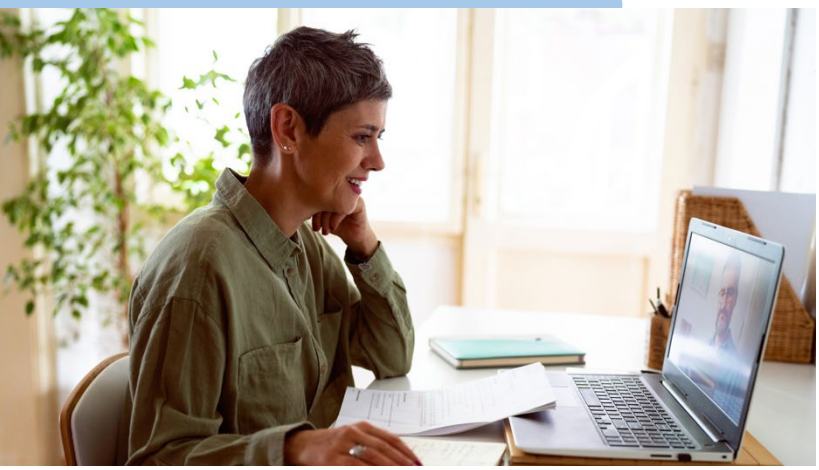
Training frequency and selection will depend on the following:

- Budget and funding available for staff training
- Internal and external training opportunities
- Individual staff training needs based on skills and experience

Additional Training Opportunities

Asthma program staff can sign up to receive email notifications of asthma training opportunities from credible national asthma organizations, including:

- Allergy & Asthma Network
- American Lung Association
- Asthma and Allergy Foundation of America
- National Heart, Lung, and Blood Institute
- National Environmental Education Foundation (NEEF)



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SECTION FOUR

REFERRAL IMPLENTATION AND OPERATIONS

REFERRAL IMPLEMENTATION AND OPERATIONS

Referral Implementation

There are two approaches to setting up your asthma program's referral process.

Option 1

Utilize your agency's existing referral process. The process may need to be adapted to include information pertinent to the asthma program. (See Dakota County example below.)

Option 2

Create a new referral process. If a new referral process specific to your asthma program needs to be created, consider the following during planning and implementation:

- How will referrals be made? Phone, e-mail, fax and/or online?
- Which staff will be monitoring, processing, and validating the referral information?
- What information should be collected?
- How will the referral be assigned to the home visiting staff?

Sample Referral Process and Workflow from Dakota County

Dakota County Public Health Intake referral process:

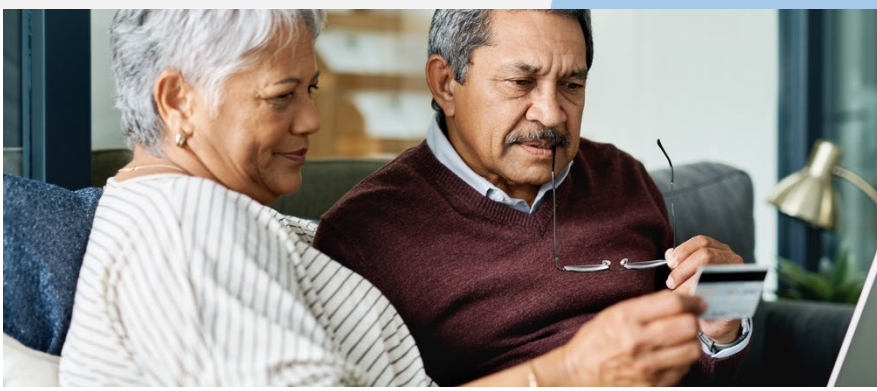
1. Referrals are made either by phone, email, fax, or using an online form that, once submitted, is routed directly to the program's intake area (preferred method).
2. Public Health Intake staff validate information received on referrals through Public Health Systems (Client index, Medicaid Management Information System, Birth Certificate Records, EHR). Staff correct misinformation and add other pertinent information such as insurance and demographics.
3. Client information is then entered into our EHR (PH Doc) or updated if the client already exists in the EHR.
4. A referral is created in PH Doc and assigned to appropriate Public Health Nurse (PHN) for follow up (the Asthma PHN).

Referral criteria from Dakota County asthma program:

- Children up to age 18
- Diagnosed with Asthma
- Live in Dakota County
- Must be income eligible to receive the equipment provided under the program

Information to be collected:

- Name
- Date of Birth
- Family members (if applicable)
- Address
- Phone
- How client prefers to be contacted and if ok to leave a message
- Primary language
- Demographics-ethnicity, gender, race
- Referral source contact information
- Insurance
- Reason for referral
- Concerns/Needs
- Diagnosis and other health conditions



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SECTION FIVE

ASTHMA PROGRAM WORKFLOW

ASTHMA PROGRAM WORKFLOW

Client Visits

Contacting Clients

Consider the following questions when planning for engaging clients.

1. How will you contact the client by phone, text, email, mail, or a combination of all methods?
2. What is the typical number of contact attempts your agency plans to make to reach each client?
3. What is the best time to call clients? After 10 a.m. and during business hours?
4. Will you offer in-person and virtual visits?
5. Will visits need to be during business hours or will the times be flexible to accommodate school and work schedules?

Visit Frequency

Consider the following questions when planning visit frequency:

- Will the number of home visits offered be the same for every client/family or will there be flexibility to increase or decrease visit frequency based on the client's needs? For example, will everyone receive four visits over one year or will some clients have visits monthly or more often?
- Will the client/family receive asthma home-based services indefinitely or will it be based on a specific time frame or number of home visits completed? For example, will the program provide services to families for a year and then close them to services or may clients remain open to services for a more extended period of time?

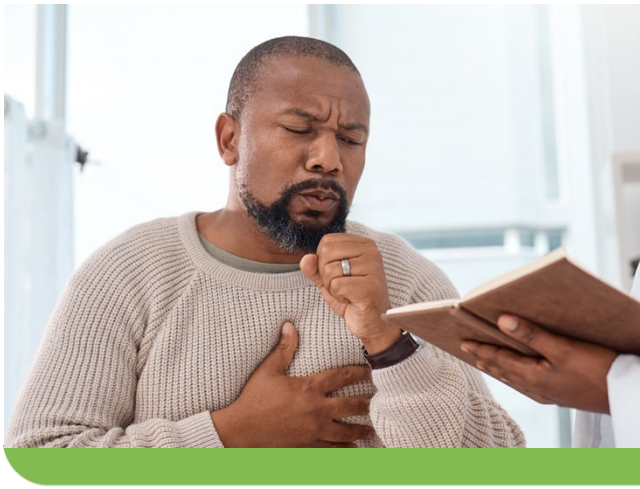
Visit Frequency Variation

Consider situations that may suggest a need for additional visits or where fewer visits are needed. For example:

- Client and/or family is high risk and/or high need based on socioeconomic factors, resource needs, mental health status, or requiring assistance with follow-up recommendations
- A child's asthma is not well-controlled, as demonstrated by one or more of the following: low Asthma Control Test score, increase in symptoms, not following medication recommendations, recent asthma-related emergency department (ED) visit or hospitalization, or the visiting professional's clinical judgement

Consider each family's circumstances and each situation when determining the number of visits for optimal care

Clients Lost to Follow-up / Unable to Reach



If unable to reach clients referred for first visits after planned number of contact attempts:

1. Close out referral to assigned staff in EHR
2. Inform referral source that unable to reach referred client

If unable to reach clients that are considered enrolled in the program because they have completed one or more visits and the planned number of contact attempts have been made, consider the following:

1. Keep client open until next scheduled visit interval and try again
2. Discontinue AHBS services and complete necessary charting in EHR according to your agency procedures
3. Document all contact attempts in EHR
4. Send Closure Letter to provider/referral source

Special Circumstances to Consider

- Will you serve families of children with chronic respiratory issues or just those with a diagnosis of asthma? For example, it may be difficult to distinguish if a young child with ongoing respiratory symptoms has an illness like Respiratory Syncytial Virus (RSV) or asthma so they may not have been given a formal diagnosis of asthma.
- Will families be allowed to re-enroll in the program or will it be a one-time service?
- If the child resides at multiple residences, will services be provided in each residence?
- If providing equipment, determine if equipment is a one-time benefit. Additionally, determine your agency's policy on whether equipment will be replaced if broken or not functioning when the warranty does not cover product.

Notify the Provider

1. Consider sending a letter to client's primary or specialty provider after the initial home visit to alert them that the child is enrolled in an asthma program. This also opens communication and case management possibilities and may generate additional referrals for your program.
2. Consider sending a brief visit report after subsequent visits to the client's current health care provider.

Documentation

1. Documentation should be completed in the EHR consistent with other programs in your agency.
2. Additional medical records received, referrals and paper documents should be uploaded to you EHR
3. HIPAA and legal consents – Consult your agency's legal department/county attorney on required documents. You may use existing forms from other program areas if applicable or create new forms specific to your asthma program.
4. Administrative forms – Forms may be completed with clients in-person using hard copy or electronically using a platform such as DocuSign.
5. Consider having forms available in English and then translated into other client languages

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SECTION SIX

FORMS, LETTERS AND CONSENTS

FORMS, LETTERS AND CONSENTS

Forms, letters, and consents to consider as part of your asthma home-based services program.

Dakota County Specific Forms

- **HIPAA/Notice of Privacy** – Document that explains how a client's private data is collected, retained, and how it can be shared
- **Data Privacy Tennessen Warning** – Document that explains how a client's private data is collected, retained, and how it can be shared
- **Rights, Responsibilities, and Grievance Notice** – Document to inform clients of their rights and responsibilities as well as how to report a grievance
- **Consent to Release Information to an Outside Entity** – Document that allows a client to give your organization permission to release information to a specified entity. For example, a clinic, school, or insurance provider
- **Tele-health Consent (Video/Audio)** – Document that indicates a client is consenting to participate in video or telephone visits/services
- **Equipment Recipient Release/Consent** – Document that indicates the client is agreeing to the terms and conditions of the equipment being provided
- **Asthma Health and Environmental Assessment/Home Visit Form** – Documentation form of the health and environmental assessments completed at the initial asthma visit
- **Equipment Home Visit Form** – Documentation form completed during the equipment home visit
- **Asthma Follow-Up Visit Forms** – Documentation forms completed at subsequent follow up asthma visits
- **Visit Documentation -** Documentation in your EHR for the asthma visit and workflow will depend on your agency's current method of documentation or EHR

General Data Privacy Forms Available for MN

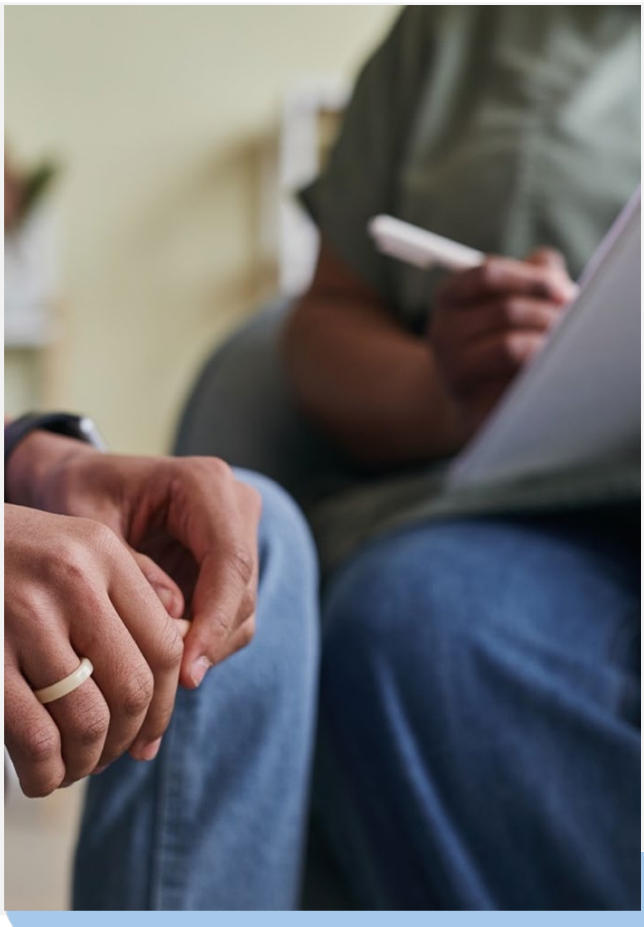
- Minnesota Standard Consent Form to Release Health Information – A standard patient consent for a person to release their health information
- Access to Health Records Notice of Rights – Summary of official legal language references in the Access to Health Records Notice

Dakota County Client and Provider Letters

- **Initial Letter to the Health Care Provider** – explaining the program and notifying them of the client's enrollment
- **Letter to Referral Source** – noting referral received and completed visit or family was unable to be reached at home
- **Visit Report/Follow-Up Visit Report Form for Health Care Provider** – to inform them of findings of health and environmental assessments completed and recommendations made along with any other pertinent information (concerns, asthma control)
- **Unable-to-reach letters for clients** – sent if unable to reach after planned number of contact attempts for initial or follow-up visits
- **A closing letter** to the health care provider informing them the client will be closed to services, the reason for closure, number of visits, and client asthma control status

Clinical Forms

- **Asthma Action Plan** – Individualized asthma self-management plans
- **Asthma Control Test (ACT), child Asthma Control Test (cACT) or other validated test/questionnaire to measure asthma control** – recommend for each visit
- **Test for Respiratory and Asthma Control in Kids (TRACK)** – asthma control assessment for children under age 5-recommeded for each visit
- **Asthma Control Questionnaire (ACQ)**
- **Visit Documentation** – Documentation in your EHR for the asthma visit and workflow will depend on your agency's current method of documentation or EHR



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SECTION SEVEN

REIMBURSEMENT

REIMBURSEMENT

Covering the cost of providing services will be unique to your agency. Program costs may be covered by grants, existing agency budget, third party reimbursement, or through a combination of sources.

Consult your agency's billing specialist to determine internal processes needed to bill for asthma visits. Example billing procedure document linked under Key Manual Resources Dakota County Specific Forms and Letters.

- **Billing for Child:**
  - Child Visits: Visits are billed to the child using ICD – 10 Code J45.21.
  - Childhood Asthma: Initial Visit – billed as HCPC- S9123
  - Childhood Asthma: Follow-up Visit – billed as HCPC- S9123
  - Childhood Asthma: Equipment – billed as HCPC- S9123
  - Childhood Asthma: Education – billed as HCPC- S9441
  - Initial, follow-up and equipment visits billed to the child as S9123 where asthma education was completed AND visit length is greater than 31 minutes qualify for the use of the S9441 code in addition to S9123.
- **Billing for Parent:**
  - Visits are billed to the parent's insurance using HCPC- S9123 and ICD-10 Code Z71.89 when education is provided to the parent and the visit length is greater than 31 minutes.
- **Billing Code Requirements:**
  - If you bill using the S9123 code, this must be done by a Registered Nurse (RN); no other provider types are allowed and there is a minimum of a 31-minute visit, and a one-unit max allowed per day.
  - If billing using S9441 code as a non-ordering provider, there is no time requirement, and it is billed per visit.
- **Medical Assistance or Minnesota Care insured Clients:**
  - There is potential to receive third party reimbursement through Medical Assistance (Medicaid) or Minnesota Care insurance. Counties are reimbursed at varying rates based on individual contracts.
- **Uninsured Clients:**
  - Clients are not billed for public health services if they do not have health insurance, or their health insurance does not cover these services. They may be covered by a combination of county levy money and grant funds.
- **Purchasing Allergen-reducing Products:**
  - Determine if this can be paid for by grants, county budget funds or other funding sources.
  - Example: Currently at Dakota County, Allergen-reducing products are purchased using funds from a grant received from the UCare Foundation.

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SECTION EIGHT

SUPPLIES

SUPPLIES

Supplies for Client Visit

Patient Education

Client education materials that include information on asthma, asthma triggers, managing asthma, asthma medications, tobacco cessation programs, and other community resources or guides may be part of the client packet.

Medication demonstration toolbox

Took box may include tester or demo versions of various types of inhalers, holding chambers and/or peak flow meters.

Durable Medical Equipment

Durable Medical Equipment (DME) for asthma management is a valuable resource for trigger mitigation in the home. If your asthma program has funding available through your agency, grants, or other finance streams, consider the following for inventory and distribution.

Programs may choose to have routinely distributed products on hand and less common items to be ordered on an as-needed basis upon assessment of client asthma triggers.

Products to Consider*

- HEPA vacuum
- Filtration-type air cleaning devices
- Bed encasements
- Pillow encasements
- Holding chambers
- Dehumidifiers
- Furnace filters
- Cleaning products

** Research may need to be done on products—the resources to follow may assist you in gathering information on the best products to purchase for your program.*

Environmental Health Resources (Durable Medical Equipment)

- **The Asthma Home Environmental Checklist** developed by the EPA, CDC, & HUD provides information on identifying environmental triggers in the home along with strategies to reduce these triggers that includes providing durable medical equipment
- **EPA Guide to Air Cleaners** – guide to portable air cleaners and furnace or Heating, Ventilating, and Air Conditioning (HVAC) filters in the home
- **California Air Resource Board** provides information on selecting a safe and effective air cleaner
- **The Association of Home Appliance Manufacturers (AHAM) site**: Discussion of Clean Air Delivery Rates (CADR)
- **Make your own solutions** – American Academy of Allergy Asthma & Immunology resource for safe cleaning practices and solutions for those with asthma

Where Can I Order Products From?

Local hardware stores or large box retail stores vary by regional area. Or online vendors.

Consider lead time and best cost practices when deciding which products or supplies to purchase.

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SECTION NINE

PROGRAM COMMUNICATION AND MARKETING

PROGRAM COMMUNICATION AND MARKETING

Promotion and Marketing

Collateral

Marketing materials for your asthma program can take a variety of forms, including:

- Downloadable (web-based) documents
- Printed outreach materials
- Digital e-mail communications (template)
- Power Point presentation
- Video
- Social Media – Facebook, Instagram, Twitter, LinkedIn

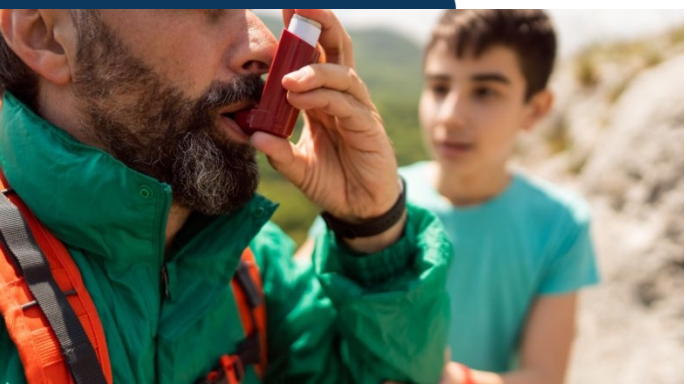
Outreach: Internal and External

Internal

Consider internal communication announcements or postings on various internal platforms to support outreach opportunities to heighten awareness about your asthma program. This will support the initial and continued generation of referrals.

Internal outreach may consist of presenting to or attending meetings in other agency departments and/or provision of marketing materials to programs that engage with your target audience.

> ***Example:*** *At Dakota County, internal marketing includes regular attendance at other department unit meetings (Family Health, Disease Prevention and Control, Emergency Preparedness, Health Promotion, WIC)*



External

Consider external outreach strategies through virtual or in-person meetings. Potential outreach partners may include:

- Local clinics
- Hospitals
- Schools
- Community or club organizations
- Faith-based communities

Outreach can also be via e-mail/phone or mailed information to key partners or organizations. Provide referral process information to the Minnesota Department of Health for additional technical and communication support to increase program awareness.

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SECTION TEN

DATA COLLECTION, EVALUATION, AND QUALITY

DATA COLLECTION, EVALUATION, AND QUALITY

Data Collection

After program establishment, you may want to consider adding data collection, reporting, and analysis processes to your program. Data collection will be unique to your agency depending on agency reporting requirements and your ability to pull reporting from your electronic health record. During implementation of your program, consult your data analyst or technical lead about any electronic health record build-out that may support asthma program reporting.

Internal Agency Reporting

Your agency may require reporting to a health board or county board. Some data collection methods to consider, depending on electronic health record capabilities:

1. Electronic health record (EHR) data pull
2. Asthma Control Test results
3. Staff time reporting entries
4. Consider internal monthly reporting for program evaluation that includes:
5. Number of referrals
6. Referral sources
7. Number of asthma home visits completed
8. Initial
9. Follow-up
10. Completion
11. Number of outreach attempts
12. Caseload analysis
13. Breakout of type of visit (virtual, in person, initial, follow up)

Example of Dakota County reporting via PHDoc (their EHR):

- **Asthma Visits Report** – Quarterly aggregate data from client visit documentation providing the total number of asthma home visits completed by AHBS staff and further delineating by type of visit, for example initial visit, follow up, education, etc.
- **Asthma Visits Billed Report** – Quarterly aggregate data capturing the number of visits billed to medical assistance or pre-paid medical plans.
- **Asthma Time by Activity Code** – Quarterly report from staff time that is entered each month into EHR and provides a report noting the amount of indirect or direct staff time that was used for each program. This would include time for home visits, meetings, case management and program planning.
- **Caseload Analysis Report** – Staff report for management denoting number of clients a staff is working with each month – this is helpful when evaluating staffing and for program planning.
- **Referral Reports** – Information on number of referrals received monthly by source to guide outreach efforts. Determine overall number of asthma referrals received monthly for staffing and programmatic changes

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SECTION ELEVEN

CLIENT EDUCATION CURRICULUM

CLIENT EDUCATION CURRICULUM

New Asthma Visit Referral Workflow

Steps to take once a referral is received by your AHBS program.

- Review referral
    - Verify eligibility per eligibility criteria for your program (age, geographic location, asthma diagnosis, etc.)
    - Identify how client will be contacted (phone, text, email, etc.)
    - Determine if an interpreter will be needed from referral information (See cultural and language considerations sections)
    - Note insurance status if. planning to bill for services (private insurance, Medicaid, uninsured, etc.)
    - Identify special concerns, issues or requests from the referral source that may need to be addressed before the initial visit
    - Contact the client using their preferred method of contact

Establishing Client Contact

Contact the client using their preferred method of communication (phone, text, e-mail, etc.) to introduce yourself, review program details, and schedule an initial assessment visit at the client's preferred location.

Sample phone call script:

"Hello, my name is _____. I am a Public Health Nurse with the asthma program. I received information from _____ that you may be interested in our program for your child.

As part of the asthma program, a Public Health Nurse/Respiratory Therapist, etc. will provide up to three to four visits over the span of a year. During the first visit, we will talk about your child's asthma and the home environment. I will answer questions you may have, share information on asthma, and provide resources that might be helpful for you and your family.

If your child is eligible, I will return for an equipment visit to bring items that will assist in reducing exposure to triggers in the home. These items may include a high efficiency particulate air (HEPA) vacuum, bed and pillow encasements, and an air purifier.

I would plan to return for follow-up visits in six months and twelve months to see how your child is doing. Does this sound like it would be helpful for your family?"

Identify the Scope of Your Program

- **Example:** "I can provide information on asthma, answer questions, and share information on resources that might be helpful for your family. I am not able to diagnose asthma or prescribe medications so my visit would not be in place of a provider visit."
- Discuss whether services will be in-person or virtual. Determine what type of venue will best meet the needs of the family and the home visitor (if multiple options, including virtual visits may be an option for your organization).

Keep in mind that virtual visits may create challenges when attempting to verify medication use, when providing medication demonstrations, when assessing return demonstrations and when completing the environmental assessment.

Cultural, Language, Sexual Orientation, and Gender Identity Considerations

- Include language preference and interpreter needs on your agency intake form
- Consider including client race and ethnicity on your agency's intake forms
- Consider adding sexual orientation and gender identity question to your intake forms
- Race/ethnicity can also be gathered on the first contact and/or at initial home visit. Client may elect to decline to answer
- Once the client is contacted, verification of language preference can be made with questions such as:
  - What language do you prefer to speak?
  - What language do you prefer to read?
- If a family or client declines an interpreter but appears to have difficulty understanding information in English, consider advocating for an interpreter. Health care information is complex and adding a language barrier makes it challenging to relay necessary information. Refer to your agency/organization's procedure for interpreter use
- During the home visit, additional cultural practices can be assessed to gain a more holistic approach to care. It may be helpful to explain to the client why you are asking for this information. The home visitor can ask about cultural remedies, use of health care, and cultural understanding of illness with questions such as:
  - "Is there anything I should know about your culture, beliefs, or religious practices that would help me as I am meeting with you or your child about asthma?"
  - Or "Do any traditional healers advise you about your health?"
- Resources:
  - The Agency for Healthcare Research and Quality; Health Literacy Universal Precautions Toolkit, 2nd Edition

Preparation for Client Visits

Gather necessary agency consents and documentation forms to be signed at the home visit or send documents electronically prior to home visit using an electronic signature platform such as DocuSign per your agency/organization's protocol. Assure correct written language is being used.

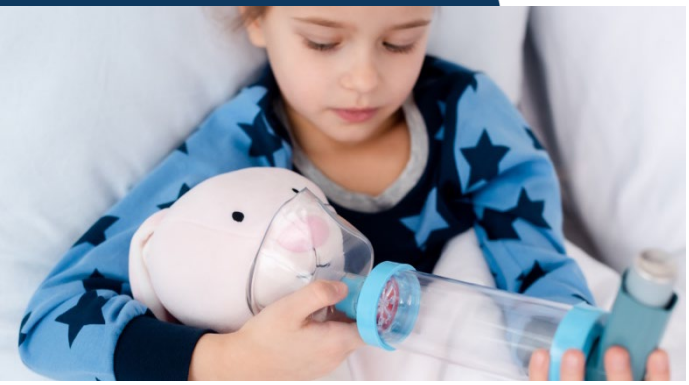
Gather patient education handouts and resources to be used during the home visit with attention to cultural and linguistic needs of clients. Potential resources are:

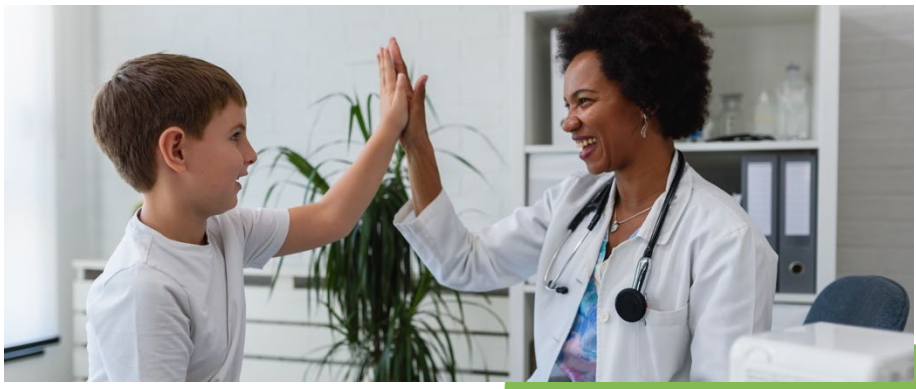
- The Minnesota Department of Health
    - "Asthma Triggers" – printable education flyer of asthma triggers with action items to reduce triggers in the home in English and Spanish
    - "Quitting Commercial Tobacco" resources, including
        - Quit Partner
        - My Life, My Quit for Teens
        - Hey Norm
        - The American Indian Quitline
        - Programs through client's health plan
- Children's Minnesota Asthma Center Content List
    - Information and videos on asthma available in English, Spanish, and Somali
- The Centers for Disease Control and Prevention (CDC)
    - "Learn How to Control Asthma" – webpage with information on asthma and videos about inhaler use. Access multiple languages by selecting "other languages"
    - "Asthma Action Plans" (AAPs) – printable asthma action plans available in multiple languages
- United States Environmental Protection Agency (US EPA)
    - "Help Your Child Gain Control Over Asthma" – printable brochure that offers tips on managing asthma and simple tips to minimize exposure to triggers in English and Spanish
    - "Dusty the Asthma Goldfish and His Asthma Triggers Funbook" – educational activity book to help children learn about asthma triggers in English and Spanish

- American Lung Association (ALA)
    - "Getting Ready for Your Next Office Visit" – fillable form to assist with preparation for medical appointments related to asthma
    - "Know the Difference Between Your Asthma Medications" – printable flyer distinguishing different types of medications
    - "My Asthma Action Plan for Home and School" – fillable asthma action plan in English and Spanish
    - "The Pathway to Managing Your Asthma" – printable flyer with tips on managing asthma
- Check with your county to learn if a community resource guide is available
    - Example: Dakota County resource guide provides information on resources and supports available for families in their local area, including medical, dental, financial, food, housing, crisis and mental health, parent support and school programs

Decide on other teaching methods to be used during the home visit

- Video (example: iPad, smart phone, computers, etc.)
- Demonstration
- Written materials
- Verbal instruction
- Teach-Back method
    - The Guide to Improving Patient Safety in Primary Care Settings by Engaging Patients and Families/Agency for Healthcare Research and Quality provides a guide on "Teach-Back" methodology, an evidence-based health literacy intervention that promotes patient engagement, patient safety, adherence, and quality.





Client Visit Components

Areas to address in increments over the course of a client's involvement in your program.

Assessments to be Completed

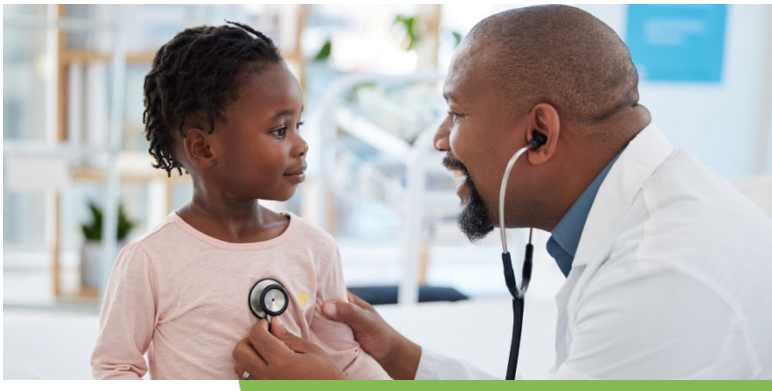
- Asthma-related health assessments
    - Family history
    - Asthma severity
    - Asthma-related hospitalizations or emergency department visits within the last year
    - Current signs and symptoms
    - Asthma Control Test score
        - Asthma Control Test (ACT)
        - Child Asthma Control Test (cACT)
        - Test for Respiratory and Asthma Control in Kids (TRACK)
        - Asthma Control Questionnaire (ACQ)
        - Other validated test or questionnaire to measure asthma control
    - Asthma triggers (indoor, outdoor, exertion, emotions, respiratory infections)
    - Allergy testing
    - Other concurrent health conditions
- Asthma self-management skills
- Current Asthma Action Plan (AAP) in the home and at school/daycare/sporting events
- Established care with a medical provider (primary care or specialist)
- Medications and durable medical equipment (DME) in the home and at school/daycare/sport activities
- Insurance coverage
- Financial resources
- Community resources or service agencies
- Home environmental assessment
- Child or caregiver goals for asthma treatment and control
- Cultural health beliefs and practices

Education

- Pathophysiology of asthma (understanding of asthma)
- Asthma self-management
    - Knowledge and treatment of symptoms
    - Identifying asthma triggers and avoidance
    - Medication use
    - Proper use of DME
    - Understanding the Asthma Action Plan
    - Medical follow up and communication with provider
    - Necessary medical care including primary care or well person visits, immunizations
    - Healthy behaviors (quitting smoking, healthy foods, exercise, manage stress, adequate sleep)

Referrals and Client Resources for Consideration

- Medical provider
- Private insurance, MNsure, MinnesotaCare
- Low-Cost Medication Resources (Partnership for Prescription Assistance, Rx Assist)
- Financial resources (cash or food programs)
- Housing
- Community resources or service agencies
- Transportation
- Culturally specific supports (interpreters)
- Mental health
- Education, school, or early intervention
- Commercial tobacco cessation programs
- Environmental Health Specialist
- Mold remediation services
- Integrated pest management services



Potential Outline of the Initial Client Asthma Visit

During the initial assessment home visit, provide an asthma health assessment, a home environmental assessment, Asthma Self-management Education (ASME) and trigger reduction education. Share resources tailored to the client or family needs, make referrals as appropriate, and assist in care coordination. After completing the initial assessment, you will be able to create an individualized plan of care and interventions for the client based on identified needs.

Asthma Health Assessment

- Determine asthma severity
- Complete asthma control assessment (ACT, cACT, Track, ACQ or another validated tool)
- Identify asthma signs and symptoms
- What triggers their asthma (irritants, allergens, illness, weather, emotions, exertion)?
- Do they have an up-to-date Asthma Action Plan, is it readily available, and does the client understand how to use the Asthma Action Plan? (AAP)
- Any recent asthma-related emergency department visits (in the last year)
- Any recent asthma-related hospitalizations (in the last year)
- Other health conditions
- Physical activity and healthy behaviors
- Has allergy testing been completed?
- Do they see a specialist and/or have a primary care provider?
- Is the school health office aware of their asthma and do they have a copy of a current Asthma Action Plan with medications at school?
- Have current Asthma Action Plans been provided to additional contacts such as after school care/programs, athletic program coaches, and other caregivers?

Medications

- Appropriate understanding of use and side effects
- Are there current unexpired asthma medications in the home?
- Is there appropriate Durable Medical Equipment (DME) being used such as a nebulizer or holding chamber and is the equipment being used correctly?
- When was the last refill of medications?
- Do medications match what is on the AAP?
- Assess income and insurance related to medication adherence

Income/Insurance/Basic Needs

- Assess insurance coverage needs (uninsured, underinsured, etc.) and identify if a referral is needed (MNsure)
- Are basic needs being met (shelter, food, income source)?
- Are referrals needed to community services or financial service agencies?

Tobacco, Cannabis or Substance Use

- Are commercial tobacco products or other controlled substances being used around the client with asthma?
- Is there interest in being referred to commercial tobacco cessation or substance use resources?

Assessment of the Home Environment

- Dust and dust mites
- Indoor moisture and mold
- Animals/pets
- Pests (cockroaches, mice, rats, etc.)
- Use of aerosol sprays, cleaning solutions, paint strippers, etc. that give off volatile organic compounds (VOC's)
- Use of air fresheners or other fragranced products that are used to cover up odors
- Use of scented body products such as perfumes and scented lotions
- Any hobbies in the home where glues and other irritating compounds are used
- Use of fireplace, wood burning stove, candles, or incense that produce fine particulate matter indoors
- Check how often air filters are changed, use of fans, air conditioners, and ventilation
- Smoking and vaping (including second and third-hand smoke)
- Weather changes (cold air or extreme heat)
- Pollen and outdoor air pollution/ air quality
- Gas appliances-Nitrogen Dioxide (NO2)

Resources

Asthma Home Environmental Checklist - Detailed asthma home environmental checklist and trigger reduction interventions from the US EPA

Provide education:

- Asthma self-management education (ASME) - ALA *Asthma Self-Management Skills: Why Do I Need to Learn Them?*
- Medication use instruction and videos from Fairview Physician Associates Network, American Lung Association, *Iggy and the Inhalers*, and MDH's Asthma Medications resources
- How to reduce exposure to triggers identified in the home - Asthma Triggers: Gain Control | US EPA
- Other education needs as identified from the health and home environmental assessment

Provide resources and case management based on support needs identified during visit.
Examples:

- Referral to medical provider (primary care, asthma and allergy specialist, pulmonologist, etc.)
- Assist in obtaining asthma medication refills
- Provide information related to Minnesota insurance programs (MN Sure)
- Refer to Federally Qualified Health Centers (FQHC) or Community Clinics
- Refer to county or city programs for financial assistance/ food support
- Refer to tribal health agency or Indian Health Services supports
- Connect with housing programs (emergency, voucher programs)
- Connect with transportation for medical appointments (through insurance)
- Assist with connections to local or national tobacco cessation resources
- Refer to environmental resources

- Refer to legal help for renters (HOME Line provides free and low-cost advocacy and legal education)

- Refer to Weatherization and Energy Assistance program

Potential Plan for Durable Medical Equipment (DME) Follow-up Visit if Completed by a Health Care Professional (if available and applicable to your agency)

During the follow-up DME visit, address issues identified in the health and environmental assessment from the initial home visit, along with providing education and distribution of DME

- Follow up on areas identified from the initial health and environmental assessment that need to be addressed (mold, dust, pets etc.)
- Check in on the status of case management items and referrals made at the initial assessment visit
- Provide additional ASME/medication demonstration as needed
- Distribute and provide education on environmental equipment provided (such as HEPA filter vacuum cleaner, bed and pillow encasements, HEPA filter air purifier, cleaning supplies, etc.)
- Plan for next contact and/or visit

Potential Workflow for Additional Follow-Up Visits (suggested at 6 & 12 months or more frequent as indicated by client need)

During the follow-up visit, address current health status (abbreviated health assessment) and concern areas of the environmental assessment completed at the initial assessment or complete a new environmental assessment if there has been a change in the living situation.

- Complete abbreviated health assessment (ER/ hospitalizations since initial assessment, recent illness, current asthma signs and symptoms)
- Assess asthma control using validated asthma control assessment tool (i.e. ACT, cACT, TRACK, etc.)
- Address environmental concerns and triggers identified in previous assessments as needing follow up
- Review asthma self-management practices, teaching, and medication demonstration as needed
- Review and conduct knowledge check for asthma medications
- Confirm that medical appointment follow up has been completed
- Follow up on commercial tobacco use and/or exposure as appropriate
- Assess resource and support needs
- Establish plan for additional home visits or follow up

Asthma Home-Based Service Models

There are several asthma home-based service models based on staff availability and specialization:

- **Public Health Nurse Only:** All components of the asthma visit are completed by the Public Health Nurse (PHN), including the health assessment, asthma self-management education (ASME), and an abbreviated home environmental assessment that includes education on trigger reduction. The PHN may consult an environmental specialist through their agency if available for more complex environmental concerns.
- **Public Health Nurse and Environmental Health Specialist:** A PHN completes the health assessments and asthma self-management education, and an Environmental Health Specialist completes the home environmental assessment and provides trigger remediation and reduction education.
- **Public Health Nurse and Community Health Worker (CHW):** The PHN & CHW act as a team to complete a health assessment, ASME, and a baseline abbreviated environmental assessment with education on trigger remediation and reduction.
- **Alternative Professional Models:** Depending on your organization's staffing, other professionals may be providing AHBS, including a Certified Asthma Educator, Respiratory Therapist, Pharmacist or other credentialed professional.

Considerations for Client Virtual Visits

If a virtual visit is part of your agency or organization's service offering, identify what platform is approved by your agency and whether it is Health Insurance Portability and Accountability Act (HIPPA)-compliant prior to completing the components of the asthma visit.

- Examples of virtual visit platforms may include:
    - Zoom
    - Microsoft Teams
    - Smart phone
- Consider how the home assessment via virtual visit will be completed
    - Will you request that the client walk through the home using video to for you to assess the home environment visually together?
    - Will the client complete an environmental assessment prior to the call you sent in advance for discussion and take pictures of questionable areas to email/text/mail to you for evaluation and follow up?
    - Identify an electronic means to obtain needed signatures on required documents per your organization's protocol
    - Consider emailing or mailing out education materials and resources

Tips for Success

Self-awareness is an essential skill when working directly with clients and families and is necessary in establishing and forming a trusting relationship. Home visitors must be aware of their own biases, beliefs, and ideals, and strive to be open-minded to the needs, goals, and beliefs of clients and families. Acknowledge that a client may feel very vulnerable when allowing someone into their home and discuss deeply personal topics such as housekeeping. It is important that the home visitor meets the family where it is and partners with the family on their journey to have a healthy home and a healthy family. Challenging housing conditions may be encountered. It is paramount to a successful effective client relationship to be respectful and to focus on empowering each family to gain skills, knowledge, and confidence in their ability to optimally manage their health.

Additional Asthma Resources can be found on the Asthma Home-Based Services Toolkit (www.health.mn.gov/diseases/asthma/professionals/home-basedservicestoolkit.html) web page (instructional videos, handouts, & asthma information online).

Curriculum content and teaching methods contained in this manual are based on evidence-informed practices.

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