Illinois Department of Public Health, Asthma Program
Individual Evaluation Plan for 2020-2024

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IDPH
Illinois Department of Public Health

1. INTRODUCTION

A complement to the Illinois Asthma State Plan (Plan) is the Strategic Evaluation Plan (SEP). Its purpose is to serve as the evaluation framework that guides individual evaluations, which are used to improve asthma control and reduce asthma costs. The SEP and components—individual evaluations such as this one-will contribute to specific action, collaboration, and communication that reduce the burden of asthma. One important component of the Plan is the sustainable, preventive, home-based, multi-trigger, multicomponent Asthma Home Visiting Program (Program).

Four subgrantees, the American Lung Association (ALA), Southern Illinois University at Edwardsville (SIU-E), Southern Illinois University School of Medicine (SIU SOM), and Sinai Urban Health Institute (SUHI), each operate their respective asthma home visiting programs in high burden areas of the state, targeting children with poorly controlled asthma. Although each program is independently run, they participate in a Home Visiting Collaborative (HVC) that strives to achieve the primary CCARE goal of preventing emergency department (ED) visits and hospitalizations among children with asthma. Thus, the foundation of each program includes the evidence-based components of EXHALE and directly aligns with the second question of the four overarching evaluation National Asthma Control Program questions: *To what extent has the recipient leveraged partnerships and policies to expand the EXHALE strategies to ensure availability, efficiency, effectiveness, and health equity?*

This evaluation is one focus of the SEP, aimed at learning what is working well and identifying areas for improvement within the Program in order to expand access to and delivery of asthma self-management education (AS-ME) to people with asthma and their caregivers.

Stakeholders

Asthma is a complex problem, fraught with disparities, requiring a comprehensive approach. Multidisciplinary stakeholders must work together to create an environment that supports community health while increasing accessibility and affordability of healthcare, to achieve increased rates of well-controlled asthma.
Too often, expert knowledge is substituted for public knowledge, so including HV staff like Community Health Workers (CHWs) in the evaluation planning team (EPT) enhances strategic value to optimize evaluation engagement, identify key issues, and uncover a common purpose. This strategy also helps mobilize resources, build program capacity, and inform choices, so the work of the program maximizes the impact of HV activities. Stakeholders listed below play an important role in evaluation design, data collection and interpretation, disseminating findings, and implementing lessons learned from this individual evaluation plan (IEP). Participation and contributions were achieved through consistent and timely communication via email, telephone, and scheduled video conferencing.

Table F.1. Stakeholder Assessment and Engagement Plan

Stakeholder Name	Stakeholder Category	Interest or Perspective	Role in the Evaluation	How and When to Engage
Dr. Felicia Fuller	Primary	Field Director, Health Promotions, ALA	Contributes ideas and feedback for this IEP process and implementation components.	IEP Formation Input, Data Collection, Dissemination of Results
Julie Kuhn	Primary	HV Program Manager, SUHI	Contributes ideas and feedback for this IEP process and implementation components.	IEP Formation Input, Data Collection, Dissemination of Results
Gloria Seals	Primary	Supervisor of Asthma Education, SUHI	Contributes ideas and feedback for this IEP process and implementation components.	IEP Formation Input, Data Collection, Dissemination of Results

Adlaide Holloway	Primary	CHW, SUHI	Contributes ideas and feedback for this IEP process and implementation components.	IEP Formation Input, Data Collection, Dissemination of Results
Gail DeVito	Secondary	Illinois Department of Public Health (IDPH), Tobacco Program Manager	Advisory	IEP Formation Input
Nikki Woolverton	Primary	State Program Manager, IDPH	Provides program evaluation guidance	All Stages (i.e., Formation of the IEP through Dissemination of Results)
Nancy Amerson	Primary	State Program, Epidemiologist, IDPH	Provides epidemiological guidance for evaluations	All Stages
Enoch Ewoo	Primary	Asthma/Tobacco Program Coordinator, IDPH	Provides program evaluation guidance/data collection	All Stages
Dr. Sarah Geiger	Primary	Evaluation, Epidemiology, UIUC	Ensures evaluation activities are carried out in accordance with the SEP and this IEP	All Stages
Dr. Arlene Keddie	Primary	Evaluation, Epidemiology, NIU	Provides epidemiological guidance for evaluations	All Stages
Cassandra Johnson	Primary	Evaluation, Health Promotion, UIUC	Provides administrative assistance and evaluation expertise to the evaluation team	All Stages
Madison Lamphear	Primary	Evaluation, Student, UIUC	Provides administrative assistance to the evaluation team	All Stages
Dr. Felesia Bowen	Tertiary	Asthma Researcher	Advisory	IEP Formation Input

2. Description of What is Being Evaluated

In order to ultimately contribute to the prevention of 500,000 emergency department visits and hospitalizations due to asthma anticipated by the year 2024, public health officials, medical providers, community health workers (CHWs) and educators have all acknowledged the need for comprehensive asthma care. This need is due to the interconnectedness of poverty, poor air quality, indoor allergens, lack of patient education, and insufficient access to affordable healthcare. This acknowledgement has developed into a variety of programs

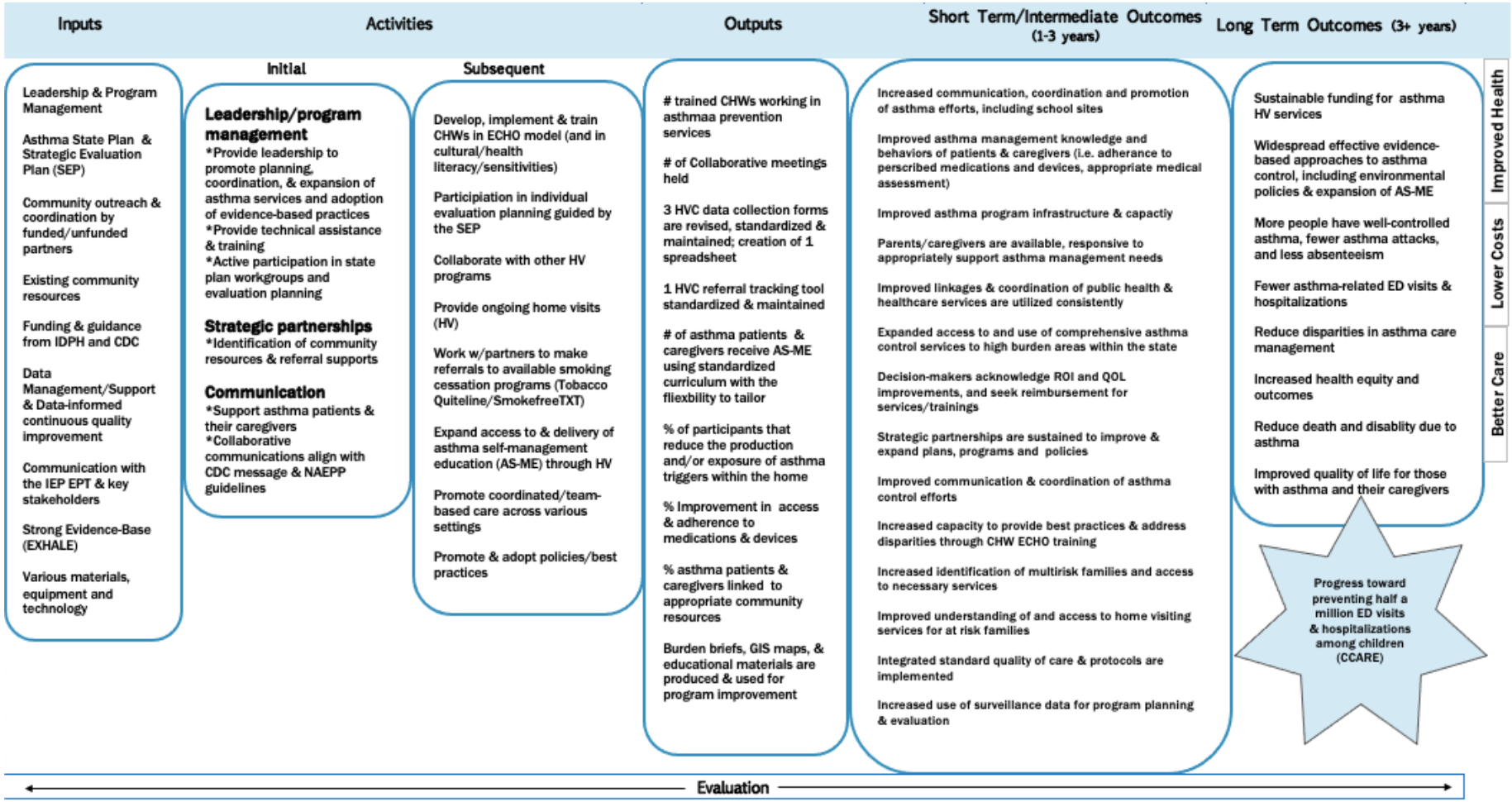
and activities within the Plan, with one of the most robust being home-based, multi-trigger, multi-component interventions.

The Program puts together all aspects of managing asthma to reach "Whole House Health" in five visits. Health education is major component of the work of trained home visitors (CHWs and/or other practitioners). They provide Asthma Self-Management Education (AS-ME) tailored to asthmatic children living in high burden areas with poorly controlled asthma. These children and their caregivers participate in a curricula of learning activities within their own home aimed at increasing their knowledge and skills in how to reduce their asthma severity. This directly aligns with CDC's EXHALE strategies by specifically educating participants in asthma basics, proper medication use, what to do when symptoms worsen and identifying and reducing exposure to environmental triggers.

The three original HV programs are ALA (Greater Chicago), SIUE (Southern Illinois) and SIU-SOM (Central Illinois). The fourth HV program, Sinai Urban Health Institute (SUHI) joined the HVC for Year 2 of the cooperative agreement (beginning 9/1/2020) and will serve Chicagoland. The core set of standardized data elements across HVC programs provides a unique evaluation opportunity prior to a planned expansion of the programs. This IEP contributes to the Plan's short-term, intermediate and long-term objectives by revising, standardizing and maintaining HVC data collection tools, improving asthma management behaviors of patients and caregivers, expanding access to asthma control services, improving the health of communities through achieving well-controlled asthma, and improving health equity and outcomes. (See Appendix A).

Since May 2020, data collection tools and ALA's Asthma Basics education platform have been standardized and implemented within each program. In June 2020, a referral tracking tool was circulated for approval before the next HVC check in call at the end of July 2020. Within this same time frame, Redcap™ services were adopted by IDPH to help with programmatic and evaluation efforts, and the HVC began meeting. Other activities and outputs are listed in Table F.2 and in the Logic Model. These items also list program resources and outcomes. Programmatic activities and evaluation efforts have been only minimally affected by the novel coronavirus outbreak (COVID-19) that was first reported in the U.S. in March 2020. The minimization of limitations due to COVID-19 is due to many factors, most notably the accessibility of resources like iPads, staffing, time and telephone lines to move home visits to a remote format. The evaluation leadership team has always worked remotely using various ways to communicate, such as email, telephone and weekly video conferencing.

Logic Model


Inputs
Activities
Initial
Subsequent
Outputs
Short Term/Intermediate Outcomes (1-3 years)
Long Term Outcomes (3+ years)
Leadership & Program Management
Asthma State Plan & Strategic Evaluation Plan (SEP)
Community outreach & coordination by funded/unfunded partners
Existing community resources
Funding & guidance from IDPH and CDC
Data Management/Support & Data-informed continuous quality improvement
Communication with the IEP EPT & key stakeholders
Strong Evidence-Base (EXHALE)
Various materials, equipment and technology
Leadership/program management
*Provide leadership to promote planning, coordination, & expansion of asthma services and adoption of evidence-based practices
*Provide technical assistance & training
*Active participation in state plan workgroups and evaluation planning
Strategic partnerships
*Identification of community resources & referral supports
Communication
*Support asthma patients & their caregivers
*Collaborative communications align with CDC message & NAEPP guidelines
Develop, implement & train CHWs in ECHO model (and in cultural/health literacy/sensitivities)
Participiation in individual evaluation planning guided by the SEP
Collaborate with other HV programs
Provide ongoing home visits (HV)
Work w/partners to make referrals to available smoking cessation programs (Tobacco Quiteline/SmokefreeTXT)
Expand access to & delivery of asthma self-management education (AS-ME) through HV
Promote coordinated/team-based care across various settings
Promote & adopt policies/best practices
trained CHWs working in asthmaa prevention services
of Collaborative meetings held
3 HVC data collection forms are revised, standardized & maintained; creation of 1 spreadsheet
1 HVC referral tracking tool standardized & maintained
# of asthma patients & caregivers receive AS-ME using standardized curriculum with the fliexbility to tailor
% of participants that reduce the production and/or exposure of asthma triggers within the home
% Improvement in access & adherence to medications & devices
% asthma patients & caregivers linked to appropriate community resources
Burden briefs, GIS maps, & educational materials are produced & used for program improvement
Increased communication, coordination and promotion of asthma efforts, including school sites
Improved asthma management knowledge and behaviors of patients & caregivers (i.e. adherance to perscribed medications and devices, appropriate medical assessment)
Improved asthma program infrastructure & capactiy
Parents/caregivers are available, responsive to appropriately support asthma management needs
Improved linkages & coordination of public health & healthcare services are utilized consistently
Expanded access to and use of comprehensive asthma control services to high burden areas within the state
Decision-makers acknowledge ROI and QOL improvements, and seek reimbursement for services/trainings
Strategic partnerships are sustained to improve & expand plans, programs and policies
Improved communication & coordination of asthma control efforts
Increased capacity to provide best practices & address disparities through CHW ECHO training
Increased identification of multirisk families and access to necessary services
Improved understanding of and access to home visiting services for at risk families
Integrated standard quality of care & protocols are implemented
Increased use of surveillance data for program planning & evaluation
Sustainable funding for asthma HV services
Widespread effective evidence-based approaches to asthma control, including environmental policies & expansion of AS-ME
More people have well-controlled asthma, fewer asthma attacks, and less absenteeism
Fewer asthma-related ED visits & hospitalizations
Reduce disparities in asthma care management
Increased health equity and outcomes
Reduce death and disablity due to asthma
Improved quality of life for those with asthma and their caregivers
Progress toward preventing half a million ED visits & hospitalizations among children (CCARE)
Improved Health
Lower Costs
Better Care
Evaluation

3. EVALUATION DESIGN

This evaluation will exercise a pre-experimental, one group pretest/posttest design. It will gather data from various sources like Redcap[tm] surveys, the Illinois Tobacco Quitline referral tracking tool(s), ALA's Asthma Basics completion rates, asthma knowledge questionnaires and behavior change indicators. The EPT considered rigor of deign in tandem with feasibility and the other evaluation standards in selecting a design for this evaluation. Pre-experimental design is more rigorous than a case study or a posttest only. It is also more feasible than an experimental or quasi-experimental design with a comparison group. If sample size allows, stratification by program completion will also be analyzed.

Evaluation Questions

Evaluation questions for this IEP are:

1. Among program completers and non-completers, what were the benefits of completing the program?
    a. Has the program completion rate changed over the last 5 years?
    b. Among program completers, was there an increase in asthma self-management knowledge between the initial visit and last follow-up visit or contact? Among non-completers, was there an increase in asthma self-management knowledge between the initial visit and last follow-up visit or contact?
    c. Among program completers, has the level of asthma control changed at follow-up compared to baseline visits? (i.e. ED rates, ED visits, etc.) Among non-completers, has the level of asthma control changed at follow-up compared to baseline visits?
    d. How has the quality of life of children with asthma and their families improved because of the HV program?
2. Has exposure to tobacco changed over time in the HV participants' households?

Stakeholder Needs

The HV programs are primary stakeholders, who will use the evaluation findings to revise and improve their respective programs. Based on the findings and the predetermined criteria for success, sustainable changes can be implemented. Findings must also include what is working and why. HV participants will directly contribute to effective action for change in the program that positively affects them and others with asthma in Illinois. This authentic engagement results in substantiated decision making. Other stakeholders may help disseminate the findings and lessons learned to various sectors outside of Public Health or they may decide to make changes to developing programs. Regardless, group cohesion and communicating credible information is crucial. This is reached by maintaining evaluation standards of propriety and accuracy throughout the entire evaluation process.

4. DATA COLLECTION

Data Collection Methods

Both new and existing data will be used to help answer the evaluation questions. The analyses will be conducted using primary data which will be collected from the four home visiting programs over the upcoming two years (2020-2022). When constructing the data collection tool, *HVC Data Collection Tool*, evaluators ensured that it included relevant performance measures assigned by CDC. These performance measures cover comprehensive service expansion in high burden areas (PM C), changes in population-level outcomes (PM H), AS-ME completion rates (PM F) and improvements in asthma control among program completers (PM G).

The data collection tool was constructed by integrating components of each program's home visiting questionnaire(s) and putting these components into an Excel spreadsheet. The template that the tool was built from is an already existing instrument designed by the by ALA-and will be utilized by the four home visiting programs. The data sources are the program participants and their caregivers from each previously listed home visiting program who are assigned a family identification number and participant identification numbers for confidentiality. Participants received at least 5 visits over a 12-month period conducted by the CHW. At baseline and each subsequent visit, data on asthma symptoms, safety, cooking and heating, tobacco use,

healthcare utilization and asthma self-management skills were collected via staff-administered surveys. This data was either directly entered into the tool via a tablet when possible or first written on a paper survey and entered into the tool at a later date. Additional data comes from the completion of Asthma Basics, pre- and post-test scores from an Asthma Knowledge Quiz and referrals to the Illinois Tobacco Quitline from the HV programs.

Data Collection Method – Evaluation Question Link
The *HVC Data Collection Tool* was designed with not only CDC performance measures in mind but with the overarching questions and priorities stated in the SEP. The tool includes various questions that support this individual evaluation plan's evaluation questions. For example, the tool asks about Asthma Control Test (ACT) scores, linking to evaluation question 1c. It also asks about asthma symptoms within the last 2 weeks, linking to evaluation question 1d.

Table F.2. Evaluation Questions and Associated Data Collection Methods

Evaluation Question	Data Collection Method	Source of Data
1. Among program completers and non-completers, what were the benefits of completing the program?	HVC Data Collection Tool Survey	HV Program Participants
2. Has exposure to tobacco changed over time in HV participants' households?	HVC Data Collection Tool Survey Referral Tracking Tool (Secondary)	HV Program Participants Illinois Tobacco Quitline

5. DATA ANALYSIS AND INTERPRETATION

Indicators and Standards
Performance indicators used in this evaluation refer to improvements in ACT and Asthma Knowledge Quiz scores, an increase in symptom free days, a decrease in healthcare utilization, and improvements in tobacco use behavior modifications and/or referrals to the Illinois Tobacco Quitline. Due to a few factors, including the context of COVID-19, the evaluation team felt it best to set standards after obtaining baseline data. It is expected that appropriate standards will be determined in year 3 or 4.

Analysis
Descriptive and inferential statistics will be used when analyzing the data.

Interpretation

The Evaluation Team has constructed a Data Management Plan (DMP) that includes, but is not limited to, roles and responsibilities for team members regarding data input, quality control, management, analysis and interpretation. The DMP involves all evaluation team members in analysis and interpretation. It is also part of this IEP to include the EPT, either via virtual conferencing and/or email, in justifying conclusions in order to ensure that issues of context and the program's intended outcomes were considered when interpreting the data, and alternative explanations and limitations of the evaluation were discussed. This helps to safeguard appropriate reporting per the audience and encourage use.

6. COMMUNICATION AND REPORTING

Use

Part of the EPT's responsibilities include deciding who should receive the evaluation findings, what findings will interest different stakeholders and how they will be reached. This can be achieved by providing a unique, multi-layered understanding of the program and building on internal and external commitments to utilize evaluation findings. It is imperative that they are shared in a timely manner to achieve the maximum effect. Evaluation recommendations should be implemented by each program to improve program processes, impact and outcomes. Additionally, these recommendations will be shared with other public health professionals to communicate what works when addressing asthma to improve impacts and outcomes.

Communication

The strategic construction of the EPT allows for buy-in, and a greater degree of accuracy and validity. It also leads to seamless open communication where members of the EPT are expected to keep their respective sectors informed and abreast of key evaluation takeaways to aid in informed programmatic decision-making. This continuous communication is achieved through virtual meetings while developing the IEP and reviewing the findings. Moreover, the evaluation team leaders seek to present findings through a mixture of informal and formal avenues. Examples of evaluation finding use and communication include presentations at the annual IAP conference and during HVC calls, and formal reports accessed on IDPH's website.

7. EVALUATION MANAGEMENT

A well-managed evaluation leads to usable findings. Table F.5. reviews the roles and responsibilities of the EPT and highlights who is responsible for implementing the findings, either within the HVC's respective programs, the state health department, the IAP and/or advocacy groups.

Table F.3. Roles and Responsibilities of the Evaluation Team Members

Individual	Title or Role	Responsibilities
Dr. Sarah Geiger	Associate Professor, UIUC, Lead Evaluator	Ensures evaluation activities are carried out in accordance with the SEP and IEPs
Dr. Arlene Keddie	Associate Professor, NIU, Evaluator	Provides epidemiological guidance for evaluations, ensures evaluation activities are carried out in accordance with SEP and IEPs
Cassandra Johnson	Evaluator	Provides administrative assistance and evaluation expertise to the evaluation team
Madison Lamphear	Undergraduate Student, UIUC	Provides administrative assistance to the evaluation team
Dr. Felesia Bowen	Asthma Researcher	Contributes ideas and feedback to IEP process and implementing components
Nikki Woolverton	Asthma Program Manager, IDPH	Provides program evaluation and program guidance, ensures findings are implemented via IDPH
Nancy Amerson	Epidemiologist, IDPH	Provides epidemiological guidance and data for evaluations, ensures findings are implemented via IDPH
Enoch Ewoo	Asthma/Tobacco Program Coordinator, IDPH	Provides program evaluation guidance, ensures findings are implemented via IDPH
Gail DeVito	IDPH, Tobacco Program Manager	Provides program evaluation guidance, ensures findings are implemented via IDPH
Dr. Felicia Fuller	Field Director, Health Promotions, ALA	Contributes ideas and feedback to IEP process and implementing components.
Julie Kuhn	HV Program Manager, SUHI	Contributes ideas and feedback to IEP process and implementing components
Gloria Seals	CHW Trainer, SUHI	Contributes ideas and feedback to IEP process and implementing components
Adlaide Holloway	CHW, SUHI	Contributes ideas and feedback to IEP process and implementing components

Data Collection and Data Analysis Management

As previously mentioned, the evaluation team has created a Data Management Plan (DMP) where all evaluation team members are involved in various components. The *HVC Data Collection Tool* and Illinois Tobacco Quitline referral reports are the mains ways data is collected for this IEP. On a quarterly basis, members of the HVC will submit various reports to IDPH through REDCap^{tm}, including a completed data collection tool. The evaluation team members will receive a copy of these reports through a shared Box account with IDPH. As part of this systematic process, team members will also reach out to ITQL staff for the total number of referrals from the Asthma HV programs per the partnership agreement. These reports will be appropriately named in accordance with the DMP.

Data analysis is another component of the DMP. It is expected that evaluation team members analyze data early and often using appropriate analytic approaches, i.e. quantitative analysis (descriptive and inferential) for this IEP. Lastly, privacy, confidentiality, and data security are of upmost importance to the members of the evaluation team. These DMP components are emphasized throughout the evaluation process.

Communicating and Reporting Management

The purpose of the plan is to keep appropriate parties abreast of the evaluation activities, the progress of the evaluation, and request feedback to ensure use of the evaluation findings. The plan helps evaluators manage dissemination in order to share evaluation findings and lessons learned to various audiences such as the CDC, HVC, home visiting participants and their caregivers, Illinois Primary Healthcare Association (IPHA), Illinois Tobacco Quitline (ITQL) and other program evaluators.

Table F.4. Communication and Reporting Plan

Communication Plan for Benefits of HV IEP			
Audience	**Formats**	**Date(s)**	**Purpose and Notes**
EPT	Word doc via email	4/9/2021	*Asked team for feedback; due 4/23/21
IDPH	Word doc and pdf via email, webpage	5/3/2021	*After including EPT feedback, the final IEP will be sent out.
HVC	Pdf via email	5/3/2021	*After including EPT feedback, the final IEP will be sent out.
ITQL	Pdf via email	5/3/2021	*After including EPT feedback, the final IEP will be sent out.

Timeline

The preliminary timeline is built around the grant cycle including quarterly reporting. Data collection will cover the 2020-2022 grant cycle, and data analysis will be conducted during the 2022-2023 grant cycle. Formal dissemination of the final evaluation findings will occur no earlier than September 2022 to the CDC, IAP, HVC and appropriate collaborating partners not otherwise mentioned. Formal reports and an executive summary are planned for Year 4, although informal discussions with various stakeholders will likely occur throughout the planning process and into 2023. Evaluation findings will also be shared with HV program participants and their families at the discretion of the program administrators and staff.

Potential roadblocks include data quality and sample size during the 2020-2022 grant cycle. While relevance and reliability are of little concern, accuracy, completeness and timeliness are attributes that the evaluation team is monitoring. This concern stems from COVID-19 and its resulting challenges, such as converting programs to virtual platforms and participants' accessibility to, knowledge and use of technology. However, IDPH, the evaluation team and leaders of the HV programs have strived to prevent issues in reliability through standardization and consistent communication with the HVC as well as individual programs. Therefore, only minimal data transmission and completeness issues are expected.

Evaluation Budget
There is no evaluation budget aside from the evaluation contract already in place, which covers evaluators' time.

POST EVALUATION

5. Action Planning

The EPT will develop an action plan to guide the implementation of evaluation recommendations and help the target audience(s) make critical decisions in program expansion and funding sources while ensuring sustainability. The evaluators are tasked with revising the action plan and revising this IEP. This will be done by documenting various lessons learned and tracking progress overtime which can help develop new strategies to close the gap between what is not currently working, and what would work to meet funding requirements and if possible, outreach activities.

Table F.5. Action Planning Matrix

Strategies/Actions (How will we achieve this? Note all significant steps needed.)	**Person(s) Responsible** (Who is accountable for this task?)	**By When** (When do we want to do this by?)	**Resources Required** (What non-staff resources do we need?)	**Indicators of Success** (How will we measure our progress?)	**Progress Update** (How far along have we gotten by X date of review?)	**Comments** (Challenges, unintended consequences, decisions?)
Share reports with current HVC	IDPH staff and evaluators	Year 4	Time	Completed discussions/ presentations		Scheduling issues, Limited/changing personnel, funding changes
Share reports with other programs (within and outside of Illinois)	IDPH staff and evaluators	Year 4	Time, partnerships	Completed discussions/ presentations, reports accessible on IDPH's webpage		Scheduling issues

8. REFLECTION

During the planning process, it is important to note that evaluation capacity was strengthened thanks to several team meetings and HVC calls. The evaluation team leaders acknowledge the invaluable contributions from the EPT and believe this sets the tone for implementation of the plan.
While it is too early to reflect on the implementation of the evaluation plan, some reflections on the initial planning process are listed in Table F.10 below. EPT team conversations, including valuable implementation insights, will be documented and applied to the lessons learned section in order to make sound decisions at all points in the evaluation process and during plan revisions.

Table F.6. Reflections Summary Matrix

Observations/Lessons Learned	**Plans for modifying the process**
HV program first-hand knowledge	Ensure an HV program participant is involved in the IEP process in a timely manner.

Appendix A: Illinois Asthma Program Logic Model