Puerto Rico Asthma Program
STRATEGIC EVALUATION PLAN

PUERTO RICO DEPARTMENT OF HEALTH

2017-2019

Programa de Asma
de Puerto Rico
Puerto Rico Asthma Program

Strategic Evaluation Plan for 2017-2019

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<th>Description</th>
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<td>ALA</td>
<td>American Lung Association</td>
</tr>
<tr>
<td>ASES</td>
<td>Puerto Rico Health Insurance Administration / Administración de Seguros de Salud de Puerto Rico</td>
</tr>
<tr>
<td>BRFSS</td>
<td>Behavioral Risk Factor Surveillance System</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>EPT</td>
<td>Evaluation Planning Team</td>
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<tr>
<td>FQHC</td>
<td>Federally Qualified Health Centers</td>
</tr>
<tr>
<td>HCO</td>
<td>Health Care Organization</td>
</tr>
<tr>
<td>HUD</td>
<td>US Department of Housing and Urban Development</td>
</tr>
<tr>
<td>IEP</td>
<td>Individual Evaluation Plan</td>
</tr>
<tr>
<td>NACP</td>
<td>National Asthma Control Program</td>
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<td>NAEPP</td>
<td>National Asthma Education and Prevention Program</td>
</tr>
<tr>
<td>PR</td>
<td>Puerto Rico</td>
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<tr>
<td>PRAC</td>
<td>Puerto Rico Asthma and Other Chronic Respiratory Diseases Coalition</td>
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<td>PRAP</td>
<td>Puerto Rico Asthma Program</td>
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<td>PRDOH</td>
<td>Puerto Rico Department of Health</td>
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<td>PRPCA</td>
<td>Puerto Rico Primary Care Association</td>
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<tr>
<td>PCP</td>
<td>Primary Care Physician</td>
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<tr>
<td>QI</td>
<td>Quality Improvement</td>
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<tr>
<td>SEP</td>
<td>Strategic Evaluation Plan</td>
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<tr>
<td>UPR</td>
<td>University of Puerto Rico</td>
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<tr>
<td>VIAS</td>
<td>Asthma Interactive Home Visits / Proyecto de Visitas Interactivas de Asma en el Hogar</td>
</tr>
</tbody>
</table>
Program Background and Purpose of the Strategic Evaluation Plan

Program Background

The Puerto Rico Asthma Program (PRAP) recognized asthma as a major public health problem in Puerto Rico. According to the Behavioral Risk Factor Surveillance System (BRFSS) in 2014-2015, approximately 1 in 7 children living in PR had current asthma. Furthermore, during the period of 2011-2014, the current asthma prevalence in children living in Puerto Rico has been constantly higher than children living in US (13.8% vs. 9.2%, respectively). In 2015, approximately 1 in 10 adults living in PR had current asthma. Current asthma prevalence is higher among women, children, and adolescents. Puerto Ricans living in the United States also had higher asthma prevalence when compared with other ethnic and racial groups. The purpose of the PRAP is to improve the quality of life of people living with asthma in PR by maximizing the reach, impact, efficiency, and sustainability of comprehensive asthma control services.

Our mission is to provide educational tools for the management and control of asthma in order to reduce the morbidity and mortality, and improve the quality of life in Puerto Rico.

Our vision is to be the leading governmental asthma management and control program in Puerto Rico.

The Puerto Rico Asthma Program (PRAP) was funded in 2004 under a cooperative agreement between the Puerto Rico Department of Health (PRDOH) and the Centers for Disease Control and Prevention (CDC). In 2016, the PRDOH was awarded with a new cooperative agreement from the CDC’s National Asthma Control Program for three years. The PRAP’s work plan addresses three major components: infrastructure, services, and health system.
The primary PRAP goals include:

- Maintain a statewide infrastructure to address asthma from a public health perspective.
- Expand access to comprehensive asthma control services through home-based and/or school-based strategies.
- Coordinate with health care organizations to improve coverage, delivery, and use of clinical and other services.
Program’s Activities and Strategies

To strength the implementation of the main activities and strategies, PRAP infrastructure was divided into the following components: leadership, partnerships, strategic communications, surveillance, and evaluation. The Program has strengthened its infrastructure by having solid and effective key partnerships with the organizations that are part of the Puerto Rico Asthma and Other Chronic Respiratory Diseases Coalition (PRAC). This Coalition, in collaboration with the PRAP, developed the Asthma Strategic Action Plan as an effort to decrease morbidity and mortality in Puerto Rico. In terms of strategic communications, PRAP uses various communication channels and venues to disseminate asthma key messages. The communications strategies are included in the Strategic Communication Plan. Since 2003, the PRDOH has an Asthma Surveillance System, which provides analyzed data on the asthma burden in PR.

The proposed activities and strategies focus in improving the program’s sustainability to better implement the services and health system components. The PRAP services are divided into two major activities: school-based interventions and home-based interventions. The first one is coordinated with the Puerto Rico Department of Education, leader governmental agency regulating public education in our jurisdiction. School staff is mandated by law to be trained in asthma. The law also includes that students with asthma should be educated in asthma self-management. The PRAP provides full day training in asthma self-management education to school staff and relevant community partners. In addition, school nurses will collaborate in identifying children with uncontrolled asthma and refer them to the home visiting program and/or primary care providers. Another important strategy that we will work is providing self-management education for children with asthma in schools. For this strategy, the PRAP’s personnel and other key partners were certified as Trainers by the American Lung Association (ALA) in the curriculum Open Airways for Schools. The curriculum will provide asthma self-management education for children with asthma between 8 to 11 years, leading to a healthier and active life. Open Airways for Schools consists in six 40-minutes interventions in schools for groups of no more than 10 children with asthma per group. During years 2 and 3, Open Airways for Schools will be implemented at selected schools by PRAP staff, Head Start program staff, school staff, and the Universidad del Este.

Our home-based services program is the VIAS Project (Proyecto de Visitas Interactivas de Asma en el Hogar). VIAS project will provide training to home visitors on asthma self-
management and other topics of relevance to home visiting activities. Potential participants can be self-referred to the Program or referred by primary care providers (PCPs), Federally Qualified Health Centers (FQHCs), or schools. Home visitors will conduct an initial assessment to identify eligible participants for the intervention. If the person is eligible, they will complete the necessary documentation and will conduct the intervention with the family, including social and environmental assessments. The home-based self-management education consists of six home visits for 1-hour every two weeks for a maximum period of 4 month. During the visits, the family will receive education on how to manage and control asthma and how to reduce potential triggers in the home of children whose asthma is not under control. VIAS will include a period of follow up that will be performed via telephone at 1st, 6th, and 12th months after the last home visit was done. In the follow up calls, the home visitors will collect information on asthma control, including the present score in the asthma control test and clinical information such as hospitalizations, visits to emergency room, etcetera.

As part of the health system strategies, PRAP will focus on the following two strategies: quality improvement and system-level linkages. For the quality improvement strategy, PRAP will partner with the PR Primary Care Association (PRPCA), which comprises all the Federally Qualified Health Centers (FQHCs) in PR, and the Puerto Rico Health Insurance Administration (referred to as ASES). We will assure the FQHC’s staff and PCPs referred by health insurance companies are trained in quality improvement processes by integrating this topic in the training provided on NAEPP guidelines. Six training activities for health services providers will be conducted during the three-year project period. In addition, PRAP will facilitate the process of including asthma-related reminders (flags) in electronic health records by including this as a priority for ASES and FQHCs. For the System-level Linkages strategy, PRAP will link collaborating health care organizations (HCOs) with the asthma home-visiting program (Refer to the home-visiting strategies). Home visitors will ensure that referral and follow-up occur. HCOs will identify a care coordinator or case manager to be our main contact in the organization and we will have direct communication to follow-up on referrals. At the end, we will link information from the home-visiting program with clinical data provided from the HCOs to evaluate efficacy of this intervention and the feasibility of expanding the program to other areas or populations.
Logic Model

The Puerto Rico Asthma Program’s logic model is a graphic representation to describe the relationship between program activities and the intended goals to be accomplished in the three-year project period (Appendix 1). The PRAP logic model was developed to provide detailed information regarding its components (assumptions, external factors, inputs, activities and strategies, outputs, outcomes, and impact). The activities and strategies were focused on the principal program’s components: infrastructure, services, and health system.

Purpose of Plan

The Strategic Evaluation Plan (SEP) is a living document which will need to be revaluated annually to adapt it to meet changing needs and to provide the right activities and strategies. These strategies can be achieved through the combined efforts of both individuals and society interventions. The main goal of the program is to control the occurrence of uncontrolled asthma and to prevent its related complications in the general population through the implementation of health promotion initiatives. The SEP is used to track and measure the program main goal and also to outline evaluation strategies to be implemented during the next three years of the CDC cooperative agreement. The SEP is a detailed description on how the evaluation will be accomplished. The main aim of the evaluation plan is to provide data during the project implementation that allows making mid-course decisions to ensure successful results and critically examine interventions and other program activities in order to inform program decisions, improve effectiveness, demonstrate program impact and establish evidence for best practices. Additionally, it helps measure the extent to which goals and objectives are met. It is anticipated that PRAP staff and stakeholders will use this plan as a roadmap in structuring evaluation efforts over the next three years. The main evaluation questions and a detailed evaluation plan for each of the program key components are described in the next sections.

Methods for developing and updating the SEP

Stakeholders

The evaluation planning activities will be leaded by the asthma co-PI, and will integrate the participation of key PRAP personnel and stakeholders (Table 1). The SEP was developed with the integration of key stakeholders who provided insights to improve the evaluation process and prioritization of activities. Other stakeholders that collaborated in the development of the
SEP were: Puerto Rico Department of Health (Mother and Child Health Division, Tobacco Control and Oral Health Division, Secretariat of Planning and Development), the PRAC, the Puerto Rico Association of Allergist Physicians, University of Puerto Rico (Endowed Health Services Research Center, and Extension Services), Head Start Program, and the Alliance for Chronic Disease Control in Puerto Rico.

Table 1. Evaluation Planning Team

<table>
<thead>
<tr>
<th>Stakeholder Name</th>
<th>Title and affiliation</th>
<th>Contribution to Evaluation Planning</th>
<th>Role in Implementing Evaluations</th>
</tr>
</thead>
</table>
| Jessica Irizarry | PhD, MS Co-Principal Investigator PRAP | • Provide technical assistance in evaluation.  
• Assist in the process of writing and reviewing the SEP.  
• Participate in CDC conference calls and evaluation webinars. | • Lead the evaluation team  
• Oversee evaluation interventions  
• Promote the dissemination and use of evaluation reports  
• Support the evaluation activities  
• Implement and make necessary adjustments to the SEP  
• Coordinate meetings of the evaluation planning team  
• Assist in the development of evaluation reports  
• Assist in the process of writing the Individual Evaluation Plans |
| Ibis Montalvo Félix | MPHE, EdD candidate Program Manager PRAP | • Promote the participation of stakeholders in the development of the SEP.  
• Assist in the process of reviewing and editing the SEP.  
• Participate in CDC conference calls and evaluation webinars. | • Conduct community mobilization efforts  
• Promote the engagement of stakeholders in evaluation activities  
• Monitor the implementation of the SEP  
• Supervise PRAP staff in evaluation interventions  
• Promote the dissemination and use of evaluation reports  
• Support the evaluation activities  
• Participate in meetings of the evaluation planning team  
• Assist in the development of evaluation reports |
<table>
<thead>
<tr>
<th>Stakeholder Name</th>
<th>Title and affiliation</th>
<th>Contribution to Evaluation Planning</th>
<th>Role in Implementing Evaluations</th>
</tr>
</thead>
</table>
| John Rodríguez Adames  | MS candidate Evaluator PRAP | ● Lead prioritization activities with stakeholders  
● Provide technical assistance on evaluation  
● Participate in CDC conference calls and evaluation webinars.  
● Assist in the process of writing and reviewing the SEP and the reports on the prioritization activities | ● Assist in the process of writing the Individual Evaluation Plans  
● Participate in meetings of the evaluation planning team  
● Support the evaluation activities  
● Assist in the development of evaluation reports |
| Krystel Ruiz Serrano   | MS Epidemiologist PRAP  | ● Provide surveillance data and technical assistance.  
● Provide assistance to the evaluator in conducting the prioritization activities  
● Assist in the process of writing the SEP | ● Assist in the process of writing the Individual Evaluation Plans  
● Assist in the monitoring of the implementation of the SEP  
● Develop data collection instruments  
● Assist in the data analysis, interpretation of evaluation data, and report writing  
● Participate in meetings of the evaluation planning team  
● Support the evaluation activities |
<table>
<thead>
<tr>
<th>Stakeholder Name</th>
<th>Title and affiliation</th>
<th>Contribution to Evaluation Planning</th>
<th>Role in Implementing Evaluations</th>
</tr>
</thead>
</table>
| Ivis Figueroa    | PhD Health Specialist at University of Puerto Rico Mayaguez Campus, Extension Services | • Provide technical assistance on evaluation  
• Assist in the evaluation prioritization process and inclusion of specific activities and strategies to evaluate | • Provide technical assistance on indoor evaluation environmental assessment  
• Provide a different perspective on the meaningful use of the evaluation results  
• Participate in meetings of the evaluation planning team  
• Assist in the revision of the evaluation tools  
• Assist in the implementation of specific activities related to her work in the UPR.  
• Assist in the dissemination of evaluation findings |
| Emily Lorán      | MS Evaluator Epidemiology and Evaluation Unit | • Provide technical assistance on the validation of questionnaires and data collection tools | • Provide a different perspective on the meaningful use of the evaluation results  
• Participate in the annual review of the plan  
• Assist in the dissemination of evaluation findings  
• Providing technical assistance in evaluation plan  
• Participate in meetings of the evaluation planning team  
• Assist in the dissemination of evaluation findings |
### Stakeholder Contributions

<table>
<thead>
<tr>
<th>Stakeholder Name</th>
<th>Title and affiliation</th>
<th>Contribution to Evaluation Planning</th>
<th>Role in Implementing Evaluations</th>
</tr>
</thead>
</table>
| Gilberto Ramos Valencia           | PhD Biostatistician Professor at the Biostatistics and Epidemiology Department of the Graduate School of Public Health, University of Puerto Rico | • Provide technical assistance and content expertise on health interventions and home-based interventions | • Assist in the dissemination of evaluation findings  
• Provide a different perspective on the meaningful use of the evaluation results  
• Providing technical assistance on the evaluation of home-based educational activities  
• Participate in meetings of the evaluation planning team |
| Nilka Vargas Negrón               | MPHE Director School Health Program Department of Education                              | • Provide advice in the development of the IEP related to school-based self-management interventions. | • Facilitate the implementation of evaluation of school interventions.  
• Assist in the dissemination of evaluation findings  
• Provide a different perspective on the meaningful use of the evaluation results  
• Participate in meetings of the evaluation planning team |

### Methods Used to Develop the Strategic Evaluation Plan

The theoretical framework used in the development of the SEP was the CDC’s *Framework for Program Evaluation* and the *Learning and Growing through Evaluation* modules provided by the NACP. To identify priority activities for strategic evaluation, the PRAP used the Simplex Method and the Nominal Group Planning techniques and included both quantitative and qualitative methods. First, we started with the Simplex Method. In March 15, 2017, participants for our prioritization exercise were recruited during the 3rd Conference for Comprehensive Care of Chronic Diseases in Puerto Rico. The majority of the secondary and tertiary collaborators of the PRAP were participating in this conference. The Simplex Method technique was applied using a self-administered structured questionnaire, which collected information about the collaborative agency/organization, priority strategies to be incorporated in the SEP, and interests in the evaluation capacity building activities. A total of 69 collaborators answered the
questionnaire. Approximately half of participants (46.4%) were representatives from governmental/public agencies, 26.1% were from private organizations, 21.7% were from nonprofit agencies, 5.8% from public/private organizations, and 2.9% were from other type of agency. According to participants, the top three priorities to include in the SEP were: asthma self-management education interventions for children in scholar ages (68.1%), VIAS Project (56. %), and capacity building activities for health professionals on asthma self-management (44.9%). Finally, 69% of responders demonstrated interest in participating on evaluation capacity building activities.

Second, a focus group with the PRAP key stakeholders was convened to conduct the Nominal Group Planning technique. This activity was done in April 26, 2017, with the main goal of discussing and prioritizing with primary stakeholders the strategies and activities of PRAP to be included in the SEP. The PRAP invited 9 key stakeholders to participate in the prioritization process. All the invited stakeholders participated in the activity. During the prioritization process, several aspects were taken into consideration, such as: general experience with PRAP, the Program’s strengths and weaknesses, and general suggestions. Activities were listed and each participant provided a ranking from 1 to 4 to each activity depending on the discussed criteria. Afterwards, there was an open discussion of why they provided the ranking. In Table 2, prioritization criteria are presented and how it was applied.

<table>
<thead>
<tr>
<th>Criteria Used</th>
<th>How Criteria Were Applied</th>
<th>Information Supporting Criteria Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder interest</td>
<td>The stakeholders’ interests and previous experience in working with different strategies on asthma control were crucial in selecting the activities to be evaluated.</td>
<td>Simplex Methods / Nominal Group Planning</td>
</tr>
<tr>
<td>Use</td>
<td>Activities were selected taking into consideration the potential use of evaluation findings by stakeholders and for them to replicate activities within their organizations.</td>
<td>Simplex Methods / Nominal Group Planning</td>
</tr>
<tr>
<td>Plan alignment</td>
<td>The activities selected are also part of the activities included in the Puerto Rico Strategic Asthma Action Plan.</td>
<td>Puerto Rico Strategic Asthma Action Plan 2016-2019</td>
</tr>
<tr>
<td>Information need</td>
<td>The evaluation findings from the selected activities will be used by the stakeholders and other important decision makers for near-term decisions.</td>
<td>Nominal Group Planning</td>
</tr>
<tr>
<td>Focus</td>
<td>Activities selected target populations with high asthma burden (children with uncontrolled asthma) in order to reduce the individual and societal impact.</td>
<td>Asthma Burden Report / Nominal Group Planning</td>
</tr>
</tbody>
</table>
Considering the outcomes of both the Simplex Methods and the Nominal Group Planning techniques the three priority activities for evaluation were: VIAS Project (home-visiting program), Asthma Self-Management Interventions at schools, and the training activities for health professionals and PCPs. After an extent discussion and taking into consideration the time to complete our project’s objectives, the evaluation planning team (EPT) selected only the VIAS Project and the Asthma Self-Management Interventions at schools as priority evaluation activities.

**Proposed Methods for Updating the Strategic Evaluation Plan**

The Puerto Rico Asthma Program evaluation planning team (EPT) will be updating the SEP every year selecting the appropriate methods to explore new areas to evaluate. The annual review meetings will be at the beginning of each calendar year to make evaluations decisions and will include key stakeholders. The EPT will revise the SEP and the results obtained in individual evaluation plans to determine if selected priorities are still the most relevant activities to evaluate. The next step will be to review the timeline to assure that program’s milestones have been met, before the next evaluation activities. The performance measure data related to selected activities will play a critical role in guaranteeing that relevant data are being collected for individual evaluations. Revisions made to the SEP will be documented with the track changes and comments tools. The EPT will also document the process by writing minutes of the meetings with stakeholders and PRAP staff. The revised SEP will be submitted and discussed with CDC. The final updated SEP will be disseminated among key stakeholders and PRAC members in order to keep them informed and active.
Proposed Priority Evaluations

As a result of the two prioritization activities, the VIAS Project and the Asthma Self-Management Interventions at schools activities were selected for evaluation. In Table 3 are presented the different strategic activities assessed in the prioritization activities, the order in which participants ranked them, and the selected activities for strategic evaluation (in bold).

Table 3. Rank-ordered List of Priority Evaluation Candidates

<table>
<thead>
<tr>
<th>Services</th>
<th>Infrastructure</th>
<th>Health Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. VIAS Project (Home-visiting program)</td>
<td>4. Surveillance System</td>
<td>7. Expand the use of external environmental data with health insurances.</td>
</tr>
</tbody>
</table>

Overarching Timeline

To successfully implement the evaluation activities, the EPT will have the responsibility to monitor the progress of the proposed activities and to update the timeline, if needed. In Table 4, there is a projected overarching timeline for the completion of evaluation activities.
Table 4. Overarching Timeline

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evaluations</strong></td>
<td>Prioritization Activities</td>
<td>Development of the Open Airways for Schools Project IEP</td>
<td>Implementation of SEP and IEP</td>
</tr>
<tr>
<td></td>
<td>• Simplex Method</td>
<td>developmental planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Nominal Group Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development of the SEP</td>
<td>Implementation of SEP and IEP</td>
<td>SEP review</td>
</tr>
<tr>
<td></td>
<td>Development of the VIAS Project IEP</td>
<td>SEP review</td>
<td>Evaluation analysis and outcome report of VIAS project</td>
</tr>
<tr>
<td></td>
<td>Development of evaluation data collection instruments</td>
<td>Evaluation analysis and outcome report of VIAS project</td>
<td>Evaluation analysis and outcome report of asthma self-management interventions at schools</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Program Milestones</strong></td>
<td>• Train asthma home visitors</td>
<td>• Implement the VIAS project in the selected Health Regions</td>
<td>• Implement the VIAS project in the selected Health Regions</td>
</tr>
<tr>
<td></td>
<td>• Implement the Pilot Project for the home-visiting program</td>
<td>• Implement Asthma Self-Management Interventions at schools</td>
<td>• Implement Asthma Self-Management Interventions at schools</td>
</tr>
<tr>
<td></td>
<td>• Train personnel on asthma self-management interventions to be</td>
<td>• Maintain strategic collaborations</td>
<td>• Maintain strategic collaborations</td>
</tr>
<tr>
<td></td>
<td>implemented at schools</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Establish and maintain strategic collaborations for the VIAS project</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>and the School Asthma Self-Management Interventions</td>
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<tr>
<td><strong>Capacity Building</strong></td>
<td>Participation of PRAP staff in the Summer Evaluation Institute</td>
<td>Train stakeholders on the CDC Evaluation Framework</td>
<td>Dissemination of evaluation outcomes</td>
</tr>
<tr>
<td></td>
<td>Train PRAP staff on the CDC Evaluation Framework</td>
<td>Train stakeholders and PRAP staff on Logic Model Development</td>
<td>Meaningful use of evaluation outcomes in decision making</td>
</tr>
<tr>
<td></td>
<td>Participation of PRAP staff in CDC evaluation conference calls and</td>
<td>Train stakeholders and PRAP staff on general aspects of program evaluation.</td>
<td></td>
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<td></td>
<td>webinars</td>
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Prioritized Activity and Proposed Evaluation

This section provides information on the prioritized evaluation activities and also describes how the PRAP will be collecting data for evaluation and how the methods used are related to the identified evaluation questions. Detailed information of the proposed evaluation will be included in each of the IEPs.

Based on the prioritization process described previously, the selected evaluation activities are the VIAS project and the Asthma Self-management Education Interventions at schools, both activities part of the program services component. Detailed information on the methodology of implementation of these two evaluation priorities are presented in the Program’s Activities and Strategies section of the SEP. In tables 7 and 8 are the general evaluation profiles for the two strategic evaluation priorities.
This is the first time PRAP implement a home visiting program. The EPT and key stakeholders considered important to evaluate not only the content and the implementation of the program, but also the benefit of participating in the program in reducing asthma related hospitalizations and visits to emergency rooms.

The purpose of evaluating this activity is to justify the implementation and sustainability of an asthma home visiting program in Puerto Rico and potential growth of the program to other Health Regions.

<table>
<thead>
<tr>
<th>Possible Evaluation Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is VIAS a viable and replicable model for delivering home-based asthma education, taking into consideration our social and cultural context?</td>
</tr>
<tr>
<td>2. To what extent has the project been implemented as planned?</td>
</tr>
<tr>
<td>3. Have individuals with asthma and their family/caregiver more knowledge in managing asthma, including identifying and reducing triggers in the home?</td>
</tr>
<tr>
<td>4. Is VIAS project effective in decreasing asthma related hospitalizations and emergency room or urgent care visits?</td>
</tr>
</tbody>
</table>
5. Have the referral system been successful in identifying and referring participants?

G. Number and demographics of participants initiating and attending at least 60% of sessions of guidelines-based intensive asthma self-management education.

H. Number of participants attending at least 60% of intensive asthma self-management education sessions who successfully complete a return demonstration of basic asthma self-management knowledge and skills.

I. Number of participants completing the program who are without a regular primary care provider at the time of enrollment and are referred to care for asthma.

L. The number of participants with poorly controlled asthma on enrollment who report their asthma is “well-controlled” one month or more after attending at least 60% of intensive asthma self-management education sessions.

K. Number of participants who: had poorly controlled asthma and were not using a long-term control medication regularly on enrollment; who reported better adherence to long-term control medication a month or more after completing intensive asthma self-management education.

M. Number and percent of participants completing the program who report a decrease in the frequency of hospitalizations and ED visits during the 12
<table>
<thead>
<tr>
<th><strong>Timing of Evaluation</strong></th>
<th>July, 2017 – August, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suggested Evaluation Design</strong></td>
<td>Observational Mixed Methods</td>
</tr>
<tr>
<td><strong>Potential Data Source</strong></td>
<td>Referral Database, VIAS database</td>
</tr>
<tr>
<td><strong>Potential Data Collection Methods</strong></td>
<td>Data collection instruments, such as structured interviews, survey, and pre- and post-questionnaires, will be used at the beginning, end, and follow-up stages of the intervention. Data will be collected by home visitors and key partners.</td>
</tr>
<tr>
<td><strong>Cultural or Contextual Factors</strong></td>
<td>The PRAP selected people with asthma from undeserved or high asthma burden areas.</td>
</tr>
<tr>
<td><strong>Potential Audiences</strong></td>
<td>Children with asthma and their caregivers, PRAP staff, key stakeholders, and health care providers.</td>
</tr>
<tr>
<td><strong>Possible Uses of Information</strong></td>
<td>The information will be used to build a stronger evidence practice program and justify the program implementation in other underserved areas.</td>
</tr>
<tr>
<td><strong>Estimated Evaluation Cost</strong></td>
<td>~$50,000 overall</td>
</tr>
</tbody>
</table>
### Activity Name
Asthma Self-Management Education at Schools

### Program Component
Services

### Evaluation Justification
This is the first time PRAP implement asthma self-management education at schools. The EPT and key stakeholders considered important to evaluate the implementation process of interventions at the school setting.

### Evaluation Purpose and Use
The purpose of evaluating this activity is to justify the implementation and sustainability of asthma self-management education interventions at schools and to improve the delivery process to increase the number of participating schools in the future.

### Possible Evaluation Questions
1. Is Open Airways for Schools an effective curriculum for delivering school-based asthma self-management education?
2. To what extent has the interventions been implemented as planned?
3. Are children with asthma more knowledgeable in managing and controlling their asthma?
4. What barriers to participation exist?
5. Are trained teachers or other school personnel more knowledgeable and skilled in providing asthma self-management education to children with asthma?

### Relevant
C. Total enrollment, including racial, ethnic, and
<table>
<thead>
<tr>
<th><strong>Performance Measures</strong></th>
<th>SES breakdown of students in schools or districts covered by MOAs, MOUs, or other formal agreements.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G. Number and demographics of participants (a) initiating and (b) attending at least 60% of sessions of guidelines-based intensive asthma self-management education.</td>
</tr>
<tr>
<td></td>
<td>H. Number of participants attending at least 60% of intensive asthma self-management education sessions who successfully complete a return demonstration of basic asthma self-management knowledge and skills.</td>
</tr>
<tr>
<td></td>
<td>J. Description of existing and new policies supportive of comprehensive asthma control adopted by educational agencies prior to/during the reporting period and influenced by the state asthma program.</td>
</tr>
</tbody>
</table>

| **Timing of Evaluation** | August, 2017 – July, 2019 |

| **Suggested Evaluation Design** | Observational Mixed Methods |

| **Potential Data Source** | Open Airways for Schools database |

<p>| <strong>Potential Data Collection Methods</strong> | Data collection instruments, such as structured interviews, survey, and pre- and post-questionnaires, will be used at the beginning, during and at the end of the intervention. Data will be collected by PRAP staff and key partners. |</p>
<table>
<thead>
<tr>
<th>Cultural or Contextual Factors</th>
<th>The PRAP will select schools from underserved areas in PR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Audiences</td>
<td>Children with asthma, PRAP staff, and school staff.</td>
</tr>
<tr>
<td>Possible Uses of Information</td>
<td>The information will be used to justify the program implementation in other areas and to enforce the implementation of Law 56, which requires trained school personnel in asthma.</td>
</tr>
<tr>
<td>Estimated Evaluation Cost</td>
<td>~$35,000 overall</td>
</tr>
</tbody>
</table>
Communication Plan

Communication is an essential component in the evaluation process. The EPT will have
the responsibility of disseminating evaluation findings. The evaluation outcomes will be
disseminated through a variety of means, including evaluation reports, professional conferences,
partners and stakeholders meetings, PRAP webpage, and other types of publications, such as the
PRAP quarterly newsletter, fact sheets, or infographics. Evaluation findings will be shared with
key staff at the Department of Health, the NACP, the PRAC, intervention participants, and other
key stakeholders. In addition, the SEP and the IEPs will be available for public access in the
PRAP webpage. The PRAP Communication Plan will also include detailed information on
strategies to communicate evaluation findings to all sectors.

Table 9. Communication Plan Summary Matrix

<table>
<thead>
<tr>
<th>Information and Purpose</th>
<th>Audiences</th>
<th>Possible Formats</th>
<th>Timing</th>
<th>Person Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present the final SEP</td>
<td>CDC-NACP, PRAC, PR Chronic Disease Division, general public</td>
<td>Website, email, partners meeting</td>
<td>August, 2017</td>
<td>PRAP coordinator</td>
</tr>
<tr>
<td>Review SEP</td>
<td>PRAP staff and EPT, key stakeholders</td>
<td>Meetings and Evaluation Reports.</td>
<td>Annually</td>
<td>EPT lead</td>
</tr>
<tr>
<td>Development of IEPs</td>
<td>PRAP staff and EPT, key stakeholders</td>
<td>Meetings, email</td>
<td>July, 2017 – August, 2017</td>
<td>Evaluator and EPT lead</td>
</tr>
<tr>
<td>Present the final IEPs</td>
<td>CDC-NACP, PRAC, PR Chronic Disease Division, general public</td>
<td>Website, email, partners meeting</td>
<td>November, 2017</td>
<td>PRAP coordinator</td>
</tr>
<tr>
<td>Announce evaluation activities, including</td>
<td>PRAP staff and EPT, key stakeholders, PR Chronic Disease Division</td>
<td>Meetings, email, PRAP newsletter, social media</td>
<td>As necessary</td>
<td>Evaluator</td>
</tr>
<tr>
<td>capacity building activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share evaluation findings</td>
<td>CDC-NACP, PRAC, PR Chronic Disease Division, general public</td>
<td>Website, email, partners meetings, PRAP newsletter</td>
<td>Annually</td>
<td>Evaluator</td>
</tr>
<tr>
<td>Present lessons learned during cooperative</td>
<td>CDC-NACP, PRAC, PR Chronic Disease Division, general public, other State</td>
<td>Website, partners meetings, PRAP newsletter, grantee meeting</td>
<td>August, 2019</td>
<td>PRAP coordinator</td>
</tr>
<tr>
<td>agreement cycle</td>
<td>Ashma Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Wrapping Up

The SEP is a living document that will facilitate the use of evaluation findings in strengthening the Program’s infrastructure, in assessing the effectiveness and efficacy of evaluation priorities and in maintaining the sustainability of strategies. By doing this, PRAP will have a positive impact in addressing asthma control and in improving the health and quality of life of people living with asthma in Puerto Rico. Over the next years, PRAP will work in close collaboration with key partners and stakeholders to achieve the proposed goals. The contribution of all collaborators will be acknowledged in our Partners’ meetings and in the final published documents, including a report on the evaluation lessons learned. The plan will be reviewed annually by the EPT and stakeholders to monitor progress on evaluation activities and to assess if changes are needed.
Appendix 1: Puerto Rico Asthma Program Logic Model

Puerto Rico Asthma Program: Logic Model

**Inputs**
- Funding and technical assistance: CDC (RFA-EH01-00056)
- PR Department of Health
  - Health Promotion Secretariat
  - Tobacco Control Program
  - Chronic Disease Division
  - PRAP staff
  - Planning and Development Secretariat
  - Federal Affairs Office
  - Maternal and Child Health Division
- BRFSS
- ASHE
- Strategic Partners
  - PRAC
  - PR Alliance for the Chronic Disease Control
  - UPR Mayaguez Campus
  - UPR Medical Sciences Campus
  - PR Department of Education
  - FQHCs
  - PR Primary Care Association
  - Health Start - Puerto Rico
  - Health Insurance Companies
  - PR Allergists Physicians Association
  - HUJD
  - PR Lung Association
  - American Lung Association
  - San Jorge Children's Hospital
  - Puerto Rico Asthma Control Strategic Plan 2016-2018

**Strategies and Activities**
- **Leadership**
  - Establish statewide planning, coordination and expansion of asthma activities and services.
  - Promote adoption of evidence-based practices.
  - Partnerhips
  - Establish and strengthen strategic collaborations with stakeholders.
  - Promote the adoption of evidence-based practices among stakeholders.
  - Communication
  - Support the dissemination of asthma surveillance and evaluation results.

- **Services**
  - Educate people with asthma and their caregivers in self-management skills.
  - Provide home- and school-based education for asthma management and to control triggers.
  - Link people with asthma to services at homes, schools, and community health centers.
  - Educate school personnel about Law 56 and its regulation.

- **Health System**
  - Assist with provider training in QI processes for selected FQHCs.
  - Ensure that non-physician providers have the skills to provide asthma self-management education and coordination of care.
  - Provide training on NAEP guidelines to physicians and non-physician health professionals.
  - Promote teams-based care by providing coordination between services and health organizations.
  - Promote coverage and utilization of comprehensive asthma control services.

- **Evaluation**
  - Establish and maintain a strategic evaluation plan to improve comprehensive asthma control services for effectiveness and efficiency.
  - Build evaluation capacity among stakeholders and PRAP staff.

**Outcomes**

**Short Term**
- Increased understanding and promotion of comprehensive asthma control services in Puerto Rico.
- More stakeholders implementing and promoting evidence-based practices and policies supportive of asthma control.
- Increased asthma self-management knowledge in people living with asthma and their caregivers.
- Establishment of a referral system to increase coverage for comprehensive control services.
- More health professionals trained in NAEP guidelines and QI processes.
- Increased evaluation capacity among PRAP staff and stakeholders.
- Increased capacity, infrastructure, and strategic partnerships to support and improve health care and public health linkages.

**Medium Term**
- Increased number of people with asthma who have access to guidelines-based care.
- More partnerships collaborating in the evaluation process, the implementation of plans, development of policies, etc.
- More people with asthma that adopt appropriate self-management practices.
- More communities are prepared to support people with asthma.

**Long Term**
- People with asthma have better control and better quality of life.
- Comprehensive asthma control services are expanded and sustained in PR.
- Evidence-based strategies for asthma self-management education are widely implemented in schools, community and health system.
- Decreased asthma-related ER visits and hospitalizations.

**Situation**
- Asthma is a complex multifactorial chronic disease and a priority for public health authorities in Puerto Rico.
- An estimated 10.2% of adults and 15.5% of children in PR had current asthma in 2014-2015.
- Approximately half of the population with asthma in PR had their condition uncontrolled.
- The PR Asthma Program (PRAP) mission is to improve asthma control, to reduce the burden, and to improve the quality of life of people living with asthma and their families.
- PRAP is structured around 3 strategy areas: Infrastructure, Services, and Health System.
- Achieving the proposed objectives in these strategy areas will maximize the reach, impact, and sustainability of comprehensive asthma control services in Puerto Rico.
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Programa de Asma