

**U.S. Environmental Protection Agency's Web Conference on
Successful Models in Comprehensive Asthma Management:
The University of Michigan School of Public Health
Asthma Health Outcomes Project (AHOP)
January 5, 2006**

Overview

On January 5, 2006, the Environmental Protection Agency hosted a Web conference, Successful Models of Comprehensive Asthma Management – The Asthma Health Outcomes Project (AHOP) at the University of Michigan, School of Public Health. The Web cast covered an exciting research project led by Amy Friedman, M.P.H. of the University of Michigan and focused on successful community-based environmental asthma programs. The purpose of this Web conference was to convene practitioners, health care professionals, researchers, program staff, and others with an interest in asthma disease management to share the AHOP findings. The following includes a transcript of questions and answers during the Web cast as well as those emailed following the Web cast. It begins with remarks by Amy Friedman.

Follow-up Commentary by Amy Friedman

Thank you for your interest in AHOP and your very thoughtful questions! It is wonderful to know that so many of you found the Web cast interesting and helpful. A couple of important notes before you read through the individual questions and answers:

It is important to keep in mind the design of the AHOP analysis, and to be careful in understanding what the AHOP data can tell us. AHOP conducted a broad-based analysis of activities in the field of asthma. Through the process, we looked across programs in the field to identify factors that were associated with successful programs. This process can help us understand what is happening at the *field* level, that is, across multiple programs. We need to be cautious in how we apply this analysis to the individual *programmatic* level, since it did not evaluate the effectiveness of particular programs. This should not be taken as an indication that other programmatic factors, particularly those that did not show significant association with successful programs in our data, cannot be successful. For example, although the AHOP data indicates that programs that did not conduct a skin test or blood test to determine trigger sensitivity were more likely to improve health outcomes, we also know there *are* programs that have used skin or blood tests to determine trigger sensitivity and have effectively improved health outcomes. We have therefore tried to choose our words very carefully, and encourage those reading the report to be cautious in interpreting our findings. Although we do feel there are significant lessons to be found in this report, we also acknowledge the limitations of the process, and have noted where additional analysis may help us better understand the data at hand. We hope our specific responses below will help clarify some of these issues.

As noted in the presentation, this is an *initial analysis* of the AHOP data. We have noted that there are places that merit additional analysis, and hope to add to and clarify our findings as we proceed. Part of our goal is to help inform the field on emerging

information. Your input and suggestions are very helpful and will help guide our plans for additional analysis. As our analysis unfolds we will update our Web site, www.AlliesAgainstAsthma.net/AHOP, so please stay tuned!

Web Conference Proceedings

Verbal Question and Answer Session with Amy Friedman

Q: Jan Cortez from the American Lung Association in San Diego and Imperial, CA: Did your data show the effectiveness of policy programs? I noticed in your slides that not many of the programs involved policy change activity, but did you come up with any conclusions from what you saw?

A: In some ways, our process was not set up to answer that question, in that every program in our database has been successful, so each program changed health outcomes. We can tell you to a confident degree the number of programs that conducted policy-level change and what they did. All the programs in the database have been identified as successful. We may be able to see if they did other kinds of programmatic activities. For example, we could look at who they educated, and determine through that what kind of policy change they made. There are also some types of open-ended questions where we might have information about the type of policy work they did. We could go back and look at that. I think it's a good question. One thing I think is that a natural development in the field of asthma management is from interventions to policy change. I think that as we move in more sophisticated efforts, we are going to see more and more policy work as the research comes out that shows what is most effective. It would be difficult to determine what policy efforts were more effective because all of the programs we looked at have been successful or they wouldn't be in the database.

Q: Polly Hoppin from the University of Massachusetts Lowell: Could you elaborate on the finding that clinical interventions are an important part of these programs? As I saw what you are reporting, it sounded as if it wasn't as much about the content of the intervention as it was about the setting of the intervention? Can you confirm that? It sounds as if having clinical people involved in communications about environmental aspects of asthma is what you found versus the need to ensure that medical information and medication compliance was important, could you clarify that?

A: A combination of different programmatic factors led us to that conclusion. Some important factors are settings, such as using a health care facility for health care activities. These data show that as we are conducting activities, we know that folks with asthma need to have appropriate clinical care, and we are more likely to have that happen if we include a clinical aspect in our program. That may mean educating physicians, having physicians conduct activities, or it may be using a health care setting. We found that assessing asthma trigger exposure during a clinical interview was more effective than taking physical samples, such

as blood testing. We found that the interaction between physicians and patients is very important, as is the interaction with the clinical environment and our asthma program. I would say that both are important. It is not only the setting, but also how we develop our programs, to make sure they do not overlook the clinical aspect.

Q: Polly Hoppin from the University of Massachusetts Lowell: It sounds as if it's about the engagement of clinicians and clinical tools but not necessarily about - or did you have information about - the content of what was communicated by the clinicians through that engagement as needing to include what we think of as the medical aspects of asthma management as compared to environmental factors. In other words, if you have clinical people engaged, clinical programs, clinical tools, all that, but the content focus was largely on the environmental aspects of asthma; were you able to discern a difference between those types of programs as opposed to other programs that had the same clinical components but the content emphasized the medication aspect?

A: Based on the information we have, we can't piece that out. We can tell you how many programs worked with providers, and did provider education. To some degree, we have information about what topics were addressed in provider education. We can't go the next step to say what happened when providers worked with their patients and what their education efforts focused on.

Q: Shenice Mooney from the Health District in Las Vegas, NV: My question is in regard to the environmental health specialist aspect, in terms of that not leading to a positive outcome. I was a little confused about why that may be, if environmental specialists are also a key to picking up triggers.

A: I thought that was interesting also. Our team had some thoughts on this; perhaps having environmental specialists involved in the planning put a spin on programs that caused them to become very environmentally focused so they adopted some of these more sophisticated, more intensive environmental efforts, and they did not show a significant benefit. For instance, if you have an environmental specialist at the table while you are planning, are you then more likely to have someone say, we need to do dust sampling and collection, or blood analyses to find out what people are sensitive to? I do think it is important to have people at the table who have that kind of information and knowledge, so I don't want to discount it. The fact that it's a "not" statement leads us to be very cautious. We are not telling people what they should do, we're saying what wasn't done was likely to be more effective. We should use caution interpreting the data. I am interested to hear other people's take on that, and whether other people have a sense of what that might mean.

Q: Jane McGinnis from Nebraska: I wonder, in regard to the last question, if that finding has more to do with the fact that there weren't as many EPA people involved, which makes the number smaller, so the number of programs that had a

positive outcome may not have reflected the true participation. What percent of these projects had EPA people involved in the planning? Also, I wonder if this information will be coded in terms of statistical viability.

A: I don't have the answer to your first question. We did not collect data on that point. The only coding we've done at this point is to separate those published in peer-reviewed literature. The only information we have to date is people's response as to whether they have successfully changed health outcomes, and we have information on each health outcome. We don't have their data about how significantly they made those changes. It was incredibly difficult to get from even the published literature, information about an intervention's analysis and their data. We will cite those studies that published in peer-reviewed literature, and we have confidence that those studies were well-designed and had significant outcomes. These are folks who reported to us that they have made changes to health outcomes. There is a possibility that we will go back and look at the programs, but it would not be very in depth because we do not have the resources.

Q: Eric Werling from EPA: I'm wondering if there might be a time dimension to the kind of outcomes that would impact the relative effectiveness of different types of actions. I'm wondering that because my general impression of your findings is that they are mostly common sense, the more short-term, efficient interventions which do not do in-depth monitoring, and they are inexpensive, per person assisted. Is there a time dimension possible to investigate how long patients are followed up for the positive outcomes? What is the stickiness of the outcomes? Could a longer analysis of the successful programs explain some of the counterintuitive results we have been discussing for the past couple of questions?

A: That is a good question, one which we could go back and look at. We did ask people what their follow up period was. I don't remember off the top of my head how those responses were categorized. None of those follow up periods came back as being positively associated with health outcomes. What we did not see is that those who did a shorter follow up are more likely to get positive health outcomes. It could be that we did not have enough programs in the mix to pick up that outcome. Our data did not necessarily show that. In terms of the intervention period, the way we categorized the data, we may not have seen that. We could go back and look in terms of how long the interventions were and whether that seemed to make any difference.

Q: Lorraine Kohler from EPA: My first observation/question concerns having an environmental specialist involved with the program and the physical samples. It is possible that if someone is analyzing physical samples, they are more likely to be in a research oriented study, and you may not have the community involvement portion that you found so important. My next question/comment is that you talked about two ways to get environmental information, and I think there are three. One is to talk about environmental issues, or get an assessment through a clinical interview. You talk about physical sampling, and yet with these

programs that used home visits, there is an intermediate where a home visit or home evaluation involved no physical sampling. Did anything in the data show up about that?

A: Data did show that using a home visual assessment was effective and led to more positive health outcomes. We found that the simple environmental checklist was a good idea and that may be a very good use of resources.

Q: That should be reflected in the environmental strategies.

A: Good point, I will go back and find out if our data warrant adding that as an environmental strategy.

Q: Joyce Keith Hargrove in Detroit, MI: Do you have any information with regard to the budget these programs used? Did you collect data on the funding sources?

A: We have information about both. We asked people to give us a sense of their budget, although that question became very complicated. In some cases, people couldn't piece out this particular intervention from the whole of their programmatic activity. We do have information on budget levels, as well as information funding sources. That will be part of the descriptive data that comes out with the report.

Email Question and Answer Communication with Amy Friedman

Q: Dorothy Vura-Weis, Assistant Health Officer, San Mateo County Health Department: One of the inclusion criteria was that all programs had to be successful. How was the relative value of different components determined -- by the degree of improvement seen in programs with that characteristic compared to programs without that characteristic, by cost per increment of improvement, by the program's own assessment? The comparison of programs is very difficult, given that most were not randomized/controlled studies and there were probably different levels of asthma severity, baseline resources and asthma knowledge of patients/families, and program evaluation methodology.

A: AHOP did not determine the relative value of different components. In terms of success, programs included in AHOP were characterized in two ways (1) all programs included in the AHOP project reported that they had successfully improved at least one health outcome, and (2) programs whose outcomes had been published in peer-reviewed literature were included in the analysis of programmatic factors. For the analysis of programmatic factors, we asked programs to self-report whether they successfully improved each health and environmental outcome independently (e.g. hospitalization, quality of life). Programs that reported success with at least one of the health outcomes were included in the analysis.

Q: Dorothy Vura-Weis, Assistant Health Officer, San Mateo County Health Department: Regarding environmental assessment/intervention: Environmental assessment by a clinical interview, education on identifying/controlling/avoiding triggers is listed as effective, and a "visual assessment of the home or school", but "demonstrating the use of environmental controls in the home" was not. This seems inconsistent. Does this mean that if a health worker is in the home making an assessment, they shouldn't also demonstrate how to control triggers? Is this a substantive issue, or just related to how the slides were worded?

A: It's important to keep in mind the distinction between what the data shows and how we interpret the data. Our **analysis** showed that programs that "assess environmental trigger exposure in a basic clinical interview" (vs. assessed environmental trigger exposure through analysis of physical samples) were more likely to have a positive impact on health outcomes. Our **analysis** also showed that programs that did not conduct a skin test or blood test to determine trigger sensitivity were more likely to improve health outcomes, and that "not demonstrating the use of environmental controls in the home" is more likely to improve health outcomes. These are all findings based on **analysis** of the data.

There could be many ways to interpret these findings and additional analysis might help us better understand the data – it might be that *most* programs that are using skin or blood tests are not using them effectively, or are not doing something else (that we don't yet know) that is important to success. When we look across the data and consider the breadth of programs that we currently know about, our **interpretation** is that using basic methods to identify exposure (e.g. interviews) can be at least as likely to lead to positive health outcomes as using more resource intensive methods (e.g. physical sampling). Particularly for programs that have limited resources, this might be a helpful consideration.

Q: Dorothy Vura-Weis, Assistant Health Officer, San Mateo County Health Department: Did you receive enough information on the educational background of program staff involved in home visits (RN's, PHN's, Home Health Nurses, Respiratory Care Practitioners, Community Health Workers) and the effectiveness of program components?

A: We have information on the educational background of program staff, although this factor did not come through as significant in our initial, bivariate analysis. (i.e., the data we have did not demonstrate that this was a significant factor [positive or negative] in improving health outcomes.)

Similarly, the data did not demonstrate statistical significance related to any specific program component, (i.e., the data did not show that any single component was a significant factor [positive or negative] in improving health outcomes.)

Q: Matt Sadof MD, Baystate Children's Hospital: Can I submit a data analysis of our program in Springfield? I also just published a paper to come out in the Annals of Allergy Asthma in a few months and Immunology that looks at sustainability of the Inner-city Asthma Intervention (ICAI) sites after the Center for Disease Control (CDC) grant funding ended. It supports your observation that community links and local funding was very important.

A: It is good to hear that you had similar findings. At this time, we do not have a plan for incorporating additional programs into our analysis, but we would be happy to receive information about your work in the event that this changes. To submit information, please go to our website, asthma.umich.edu/AHOP and send a submission form. We will put it in our files and follow up with you if we decide to add programs at a later date.

Q: Matt Sadof MD, Baystate Children's Hospital: The information provided in the AHOP presentation is just the kind of valuable, practical information that practitioners in the field need to decide how to plan with limited funding and implement asthma programs based on successful practices. Local practitioners need more of these kinds of studies.

A: Glad it was helpful!

Q: Phillip Bouton, Program Manager, Healthy Homes Program, Columbus Health Department: Would you please explain what the following finding covers: "Not demonstrating the use of environmental controls in the home." Does this include provision of supplies and services such as vacuum cleaners, cleaning, or mold remediation?

A: The short answer is no, this does not include the provision of supplies or services. In the actual survey, "demonstrating the use of environmental controls in the home" was clarified by saying "*for example, show how to clean, show how to vacuum, show how to store food in containers.*" Whether programs "Provided materials to control asthma triggers" was a separate question, as was "Provided direct remediation services."

Q: Aiko Allen, MS, Director, Health Promotion and Disease Prevention Division, Sedgwick County Health Department: I am interested in receiving an analysis of the health education data drawn from the surveys. What outcomes indicators will be developed that supports an understanding of the education strategies among the surveyed programs? I know that I will receive an analysis with qualifiers about whether this question was considered at the outset. Thank you in advance for describing your methodology as you select a framework in which to review the data you have available. As a health educator, I would like to see data broken down to differentiate between health promotion public health information (e.g., flyers, cards, media public service announcements) and actual health education programs where there are multi-session risk reduction activities and education that

led to documented behavior changes. As the two are often combined, I would like to know how the larger media education campaigns were combined with behavior change programs and their level of success. I would like to know how many interventions were planned with a public health, population-based approach that were culturally-specific. Where possible, it would be useful to know if messaging was carried by multiple partners and who they were. Where were community partners involved in construction of the messages? Thank you.

A: As mentioned during the Web cast, we plan to look more closely at the issue of education to better understand the kind of education that is being conducted. Our analysis is limited to the programmatic factors that were included in the survey (as listed in the program survey handout, distributed prior to the Web cast). For example, we can look at who provided education (e.g., health educator, nurse), who received education (e.g., child with asthma, health care provider, general public), what topics were addressed (e.g., trigger awareness, medication utilization), and settings (e.g., home, school, clinic). We can also evaluate by type of instruction (e.g., one-on-one, group, video), and programmatic goals (e.g. raise awareness, developing skills). Although we did not ask specifically about media campaigns we might be able to look at these other factors, as well as some of the qualitative information gathered, to determine that. We'll add that to our list for additional analysis.

Q: Melanie P. Desiderio, M.S., Environmental Grants Director, Erie County Department of Health: First let me say that the presentation this afternoon was very interesting and informative. I wonder if using only the 111 peer reviewed projects for the analysis of programmatic factors associated with positive health outcomes created a bias or weight toward the clinical aspects? I assume, perhaps incorrectly, that the majority of the published works would be authored or co-authored by clinicians.

A: This is a good point – during our next round of analysis we can look at whether the programs with the published literature were in fact more likely to be from clinical organizations.

Q: Melanie P. Desiderio, M.S., Environmental Grants Director, Erie County Department of Health: I would be interested in seeing:

- 1) A comparison of the data frequency tables – program strategies, environmental triggers, etc., for the 111 published vs. the 112 unpublished programs. Were they similar or significantly different in some way?
- 2) If an analysis of the programmatic factors associated with positive health outcomes results for the 112 would produce the same key themes or not.

A: We did conduct a basic comparison of the two groups and found quite a bit of difference. We plan to look more closely at this issue in the upcoming months.

- Q:** Deonna Farr, MPH: Did you include any pediatric programs and if so, was there a subgroup analysis performed to find out effective features of pediatric asthma programs?
- A:** There are many pediatric programs included – 62% of all programs (n = 223) reported targeting only children. We have not conducted a subgroup analysis on this group, but that is a good idea.
- Q:** Deonna Farr, MPH: Regarding clinical programs did any of the programs include the usage/development of asthma tracking systems (e.g., electronic medical records or disease management systems) as a component of their programs and were these systems found to have a positive effect on health outcomes (we are starting to implement an asthma tracking system for our clinic which we plan to use to help us focus our asthma education efforts, so this information would be greatly appreciated!). Thank you for hosting this conference in this manner, as a person working in a non-profit who sees patients daily it was great to be able to attend a free conference and not have to miss a day of seeing patients.
- A:** We have data on the number of programs that have conducted a clinical quality improvement program, but we did not ask specifically about tracking systems. However, the data did not demonstrate statistical significance related to any specific program component, (e.g., the data did not show that any single component – in this case clinical quality improvement, was a significant factor [positive or negative] in improving health outcomes).
- Q:** Laurie Stillman, Executive Director, Asthma Regional Council (ARC): When you spoke about how expensive interventions didn't seem to have much impact, you mostly referred to trigger assessments-such as taking dust samples or blood tests, not to actual home interventions such as IPM, mold or dust remediation, or using HEPA air filters and/or vacuums. Did you look at the effectiveness of these interventions? It appears counterintuitive (and certainly not consistent with larger scale studies like the Inner-City Asthma Study (ICAS)) that simply doing an assessment worked to reduce asthma triggers, but not making changes in the home.
- A:** Our analysis looked at each of the programmatic factors in the survey (as listed in the program survey handout, distributed prior to the Web cast) in relation to changes to health outcomes. In relation to home environmental interventions, this would include which environmental triggers were addressed (e.g., dust mites, cat/dog dander), the strategies used to address triggers (e.g., education, assessment of exposure, actions to change the home environment), whether and how environmental triggers were assessed (e.g., clinical interview, visual assessment, self-report, skin or blood test), and which actions were taken to change the home environment (e.g., provide materials to control triggers, demonstrate use of environmental controls, provide direct remediation). The data

did not demonstrate a significant positive or negative relationship between improving health outcomes and providing materials to control triggers (e.g., air filters), or providing direct remediation of environmental triggers (e.g., mold or dust remediation). Again, as noted above, this is not to say that there are not programs that use these interventions and have been successful – this is looking across programs in the field.

Q: Laurie Stillman, Executive Director, Asthma Regional Council (ARC): In reading the report thus far, another finding that appeared perplexing was that environmental approaches didn't appear to do much for low income folks. Do you have a sense why? Clearly this has some negative implications for those health plans or organizations that are willing to invest in home interventions for their low income clients.

A: I assume you're referring to the emerging theme from the executive summary which states: "Depending on the health outcome of interest, programs designed to target certain populations are more or less likely to achieve positive health outcomes." This is one of several themes that we note as emerging themes because the data were not straightforward but clearly merit additional analysis. In this case, the data seemed to indicate that programs that were either designed to target or reached certain populations were either more or less likely to improve particular health outcomes – with mixed results. As the full report will show, for example:

Programs that improved:	Were more likely to:
Hospitalizations	Target a specific race/ethnic group.
Healthcare Utilization <i>[hospitalizations, ED/urgent care visits, and/or sick (unscheduled) office visits]</i>	Reach middle-income participants.
Quality of Life (QOL)	Target a specific race/ethnic group. Target Black/African-American population
School/ Work Loss	NOT target Hispanic/Latino population.
Symptoms	NOT target any specific socioeconomic group; or if did have a target, did NOT target a low-income population.
Lung function	NOT reach Hispanic/Latino participants.
Medication use	NOT target any specific socioeconomic group; or, if did have a target, did NOT target a low-income population.

Reach suburban, White, Black/African-American, American Indian/Alaskan Native, middle-income, or high-income participants.

As you can see, this is not straightforward and merits additional analysis. At the very least, it raises important questions about how well the field is addressing the needs of particular communities. There is clearly a need to better understand the data, which is why this was included as an *emerging* theme.

Q: Laurie Stillman, Executive Director, Asthma Regional Council (ARC): I was confused a bit by the issue of effective programs having a strong medical office component. Does that mean home visiting programs are not very worthwhile for clinical programs to invest in?

A: The **analysis** demonstrates that programs that (1) are managed by a clinical organization, (2) use a healthcare setting for program activities, (3) educate healthcare providers as part of the program strategy, (4) assess asthma trigger exposure through a clinical interview, or (5) collaborate with clinical agencies such as hospitals or health plans are more likely to improve health outcomes. Our **interpretation** of these combined findings is that it is important to pay attention to the clinical aspects of asthma. This is not to say that programs should necessarily have a strong office component, but that planners need to consider the clinical aspects of asthma in planning and implementing interventions. Although we did gather data about home visiting programs, the data did not demonstrate a significant association (either positive or negative) with positive changes to health outcomes. *However*, as our other findings indicate, programs that build community ties do appear to be more successful, and home visiting might be considered one strategy for building community ties.

Q: Laurie Stillman, Executive Director, Asthma Regional Council (ARC): Thank you for having these issues clarified. I have some concern about how this very comprehensive study will be interpreted by health organizations willing to invest in environmental home visiting programs. I worry that a take-away message may be that their asthma management programs should not prioritize environmental home visiting programs for their low income patients. Improving their medical quality assurance efforts should instead be the priority. Perhaps I'm reading the results incorrectly.

A: I understand your concerns. I think it is important to understand the limitations of the AHOP data and be careful in how we use it. The AHOP analysis is a broad-based analysis of activities in the field of asthma. It did not evaluate the effectiveness of particular programs, but rather looked across programs to determine common factors among successful programs. This should not be taken as an indication that other programmatic factors cannot be successful.

Q: Amy D. Miller, Executive Director, Mobile C.A.R.E. Foundation: Did you uncover any barriers encountered with the community ties theme, specifically with community health workers during your research? Were there any strategies to counteract these barriers?

A: Although we did ask people about general barriers to their work, we did not ask people about barriers specific to using community health workers. In our next round of analysis we will consider reviewing the qualitative data regarding barriers to see whether there were any reported barriers related to use of community health workers.

Q: Becky James, Administrative Assistant, Southeast Health District Annex, Georgia Health Promotion: Great presentation! What exactly did you mean by having a "champion" for program in order to be more successful? Would this be an employee that focuses on asthma or a patient that has been successful in asthma management or something else? Thank you.

A: During our interviews, we defined champion to mean "someone who worked to build political and community support and enthusiasm for the program."

Q: Lynne Crabtree, Program Director, American Lung Association of Kansas: Were any of the interventions in public schools? Were the school-based projects as successful as the "other" community/government locations mentioned in your report? Our experience at ALA/Kansas is that it is much more difficult to partner with public schools - the school nurses are very eager to assist us but administrators view any asthma intervention as an encroachment on teaching the 3R's and therefore a hindrance to fully implementing "no child left behind." Thanks again for your hard work to document these findings.

A: Among the 220 programs that identified the setting where their program took place, 29 (22%) occurred within a school/school system, although we did not determine whether they were public or private schools.

In the analysis of key findings, data did not consistently show a significant association (either positive or negative) with success. However, there was some inconsistent data that seemed to relate to school-based programs. Over the coming months, we hope to conduct additional analysis of this data to better understand what it means.

Q: Jeremy A. Huber, AE-C, Investigating Public Health Sanitarian / Asthma Educator, Erie County Department of Health, Healthy Homes and Neighborhoods Program: Thanks for what was just a super presentation! I really enjoyed seeing what you found out about all of the programs out there, and it was very enlightening and relevant to my work! I'm wondering if some of the bias toward clinical involvement you mentioned could be due to the increased likelihood that programs that you looked at (those that published their data in peer-reviewed

forums) were clinical in nature. I would imagine non-clinical programs would find it intrinsically more difficult to say, just go and publish a paper than doctors and HMOs, who routinely do so.

A: This is a good point – during our next round of analysis we can look at whether the programs with the published literature were in fact more likely to be from clinical organizations.

Q: Jeremy A. Huber, AE-C, Investigating Public Health Sanitarian / Asthma Educator, Erie County Department of Health, Healthy Homes and Neighborhoods Program: I'm wondering if the non-involvement of Environmental Specialists, or specialists of any kind perhaps, would have been associated with the less stringent evaluation techniques which, as you say, were associated with greater but questionable program success. Maybe the more experts you have on your planning board, the more complete and objective your evaluation? What a wonderful project, though! So many opportunities to look at what works and what doesn't... I have such fun playing with my own statistics I can't imagine being able to look at the trends and correlations within the stats of 500 programs! Thanks again.

A: Good thought. Thanks.

Q: Cynthia Coopersmith, PVHS.org: Thanks so much for the wonderful Web cast presentation. It would be helpful to develop a standardized evaluation pre- and post- format that can be used by community based organizations to help them track the results of their outcomes - maybe even develop an Excel spreadsheet ready to go with the questions for entry later. This is of course something my institution required and is burdensome on a short budget. The quality of life format that I've used was developed from the Academy of Allergy, Asthma and Immunology (AAAI) survey and has been too broad in tracking/ although I am glad to have some QOL questions; but is very lengthy too/ I also track hospitalization, ER visits, school missed and days of work missed, and medications used, but ends up being 22 questions. So a simple concise standardized format would be great and then for future studies could be easier to assess. I wanted to add, through my 2 years experience teaching both outpatient community based classes and doing inpatient work in Pediatrics - what you have reported rings true to me.

A: Thanks. Although it is not within the scope of the AHOP project, I think these would be great things for the field to think about!

If you have further questions or comments about the study, you may contact Amy Friedman by email at ahop@umich.edu.