Report on the U.S. Environmental Protection Agency Grant, 
*Building Capacity to Address Environmental Health Issues during Pregnancy*

The Ohio Department of Health
Bureau of Child and Family Health Services
January 28, 2010
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Executive Summary

The Ohio Department of Health (ODH) was awarded the grant, *Building Capacity to Address Environmental Health Issues during Pregnancy*, in the amount of $97,204 by the U.S. Environmental Protection Agency (EPA) in November 2007. The purpose of the grant was to address environmental health issues women face during the prenatal period; increase the capacity of health professionals; and ensure that pregnant women have access to information that will help them take actions to reduce environmental exposures. The objectives of ODH’s project included assessing prenatal care systems capacity to support an environmental risk reduction program; assessing provider awareness of environmental risks; training providers; following-up with providers to gauge behavior change and opinions of the risk assessment tool; and assessing the knowledge of women of childbearing age.

Prior to the development of the environmental risk assessment tool and program, a survey was mailed to 1000 Ohio physicians to determine their level of knowledge and practices in regards to environmental risk screening with women of childbearing age. At the pilot sites, system capacity and staff knowledge of environmental issues were measured by surveys. Information gained through these surveys indicated a need for a standardized risk assessment tool and increased education on environmental issues. Between November 2007 and October 2009, four pilot sites utilized ODH’s *Environmental Risk Assessment Tool*. The assessment tool was a one-page document with seventeen questions on nine environmental hazards (arsenic, cadmium, carbon monoxide, lead, mercury, mold, pesticides, radon and tobacco smoke) given to women of childbearing age. Each of the pilot sites received a two-hour training on the environmental hazards and how to use the environmental risk assessment tool, which was developed by ODH.

242 women of childbearing age participated by completing the *Environmental Risk Assessment Tool* and discussing their answers with their health care provider. To evaluate the program, surveys were mailed to 147 women, 26 percent of these women returned the survey. The survey results indicated that 84 percent of respondents felt they had learned something from filling out the risk assessment tool and discussing it with their health care provider, and 42 percent reported changing how they do things in their home based on the information they received. For
additional evaluation at the pilot sites, follow-up surveys were distributed to measure increases in system capacity and staff knowledge and practices.

ODH plans to revise the risk assessment tool based upon the results of the system, staff and client surveys. There is a potential to expand the program into all Child and Family Health Service Clinics, family planning clinics and ODH’s Healthy Homes program.
Program Planning

The Ohio Department of Health (ODH) was awarded a $97,204 *Building Capacity to Address Environmental Health Issues during Pregnancy* grant, by the U.S. Environmental Protection Agency (EPA). The grant period was November 2007-October 2009. The purpose of the grant was to address environmental health issues women face during the prenatal period; increase the capacity of health professionals; and ensure that pregnant women have access to information that will help them take actions to reduce environmental exposures. The key components of ODH’s project included assessing prenatal care systems capacity to support an environmental risk reduction program; assessing provider awareness of environmental risks; training providers; following-up with providers to gauge behavior change and opinions of the risk assessment tool; and assessing the knowledge of women of childbearing age.

ODH chose to focus on women of childbearing age, instead of only pregnant women, since almost half of all pregnancies are unintended and/or unplanned. As a result, some women may not be aware that they are pregnant and continue working with hazardous substances, smoking or engaging in other unhealthy behaviors. This means an environmental risk assessment at a woman’s first prenatal visit may be too late. The critical time when the baby is first developing may have passed and environmental agents could already have caused birth defects, cancer or other health problems. For that reason, ODH decided that the best approach was to assess environmental risk and educate women of childbearing age on how to reduce their exposure to environmental hazards.

An advisory committee, with membership of various program areas in the Bureau of Child and Family Health Services, was established at the beginning of the grant process (Appendix 1). The committee met on a bi-weekly basis to discuss grant issues and to provide input on how to proceed with the project. To guide their activities, the advisory committee followed the work plan/timeline that was submitted with the grant application. Meeting notes were kept for each meeting.
One of the first activities of the advisory committee was to hire an intermittent staff member to serve as grant coordinator. The hiring process was slow and the grant coordinator did not start until August 2008. While hiring a grant coordinator, the advisory committee was able to conduct a literature review and begin work on the provider survey.

**Provider Survey**

To gauge the level of knowledge and practices of Ohio physicians in regards to environmental risk screening with women of reproductive age, a survey (Appendix 2) was mailed to a random sample of 500 OB/GYN and 500 family practice physicians. The random sample was taken from a comprehensive list of Ohio OB/GYN and family practice physicians that was obtained from the state licensing board. The overall return rate was 37 percent. While results were analyzed by specialty and geographic location (rural, suburban, metropolitan), these analyses did not reveal any notable differences. Therefore, the following results are based upon respondents as a whole.

Overall, the respondents reported spending very little time assessing and educating clients on environmental risk. One-third of respondents spend no time assessing a patient’s environmental risk and 52 percent spend only one to two minutes. When asked about time spent educating patients about environmental risks, 36 percent of respondents spend no time and 46 percent spend one to two minutes. The majority of the respondents ask women, whether pregnant or not, about tobacco use and secondhand smoke exposure and pregnant women are questioned about mercury exposure by 38 percent of respondents. Respondents very rarely question any patient about exposure to arsenic, carbon monoxide, lead, mold, pesticides or radon. Based upon the responses, there is a need for education on arsenic, pesticides and radon exposure.

The respondents indicated that the main barriers to educating clients were: a lack of time during patient visits, a lack of printed material to give the patient, unclear screening guidelines and a lack of knowledge about environmental risk. They also reported that they wanted to know more about specific environmental risks, how to get brochures or other information and what to do if a patient is exposed to an environmental risk. Two-thirds of respondents either did not have or did not know if they had literature about environmental risks in their office. If they did have
literature available, it mainly addressed tobacco use, secondhand smoke and lead. Approximately half of the respondents did not view assessing and educating patients about environmental risks as a priority.

Pilot Sites
It was determined that Child and Family Health Services (CFHS) prenatal and family planning clinics would serve as pilot sites for this project. CFHS clinics offer public health and safety net clinical services to low income families and children in Ohio. The goal of the clinics is to eliminate health disparities, improve birth outcomes and improve the health status of women, infants and children. Four CFHS clinics were selected based on geographical location and need as determined by multiple indicators, such as prenatal smoking and low birth weight rates. Of the four pilot sites, three were in metropolitan areas, while one was in a rural, Appalachian area. Within the four pilot sites, there were eight clinics who participated in the program. The four pilot sites were: Athens County CFHS Program (two clinics – Ohio University and Planned Parenthood of Southeast Ohio), Lucas County Regional Health District CFHS Program (two clinics – Toledo and Western Lucas Co.), Public Health of Dayton and Montgomery County CFHS Program (three clinics) and Stark County Health Department CFHS Program (one clinic).

System Capacity and Staff Practices
In an effort to determine the system capacity in regards to environmental health issues, site visits were conducted. Two ODH staff members traveled to the four pilot sites, held discussion groups and asked clinic staff to fill out a questionnaire (Appendix 3) about their clinic system. In all clinics, it was reported that there was no system in the clinic to track whether clients are screened and treated for environmental risks. Not having the time to screen patients for environmental risk was a concern that was mentioned during the discussion. Also, the clinics reported that they needed a standardized environmental screening checklist, a list of websites with additional information and a workbook on how to screen and refer women for environmental exposures. The clinics perceived smoking as the greatest risk for women of childbearing age. Information on the typical timeline and flow of a patient visit and how often patients are seen was also collected during the site visit.
At the conclusion of the site visit, staff members were asked to fill out a questionnaire (Appendix 4) about their knowledge of environmental health issues and their personal practices in screening and treating women with environmental exposures. Staff members reported that they generally spent one to two minutes assessing a patient’s environmental risk and one to two minutes educating patients about environmental hazards. However, this time is primarily spent on screening for tobacco use. Staff responded that they did not have sufficient time to assess a client’s environmental risk, did not have the necessary resources and did not know where to refer clients who were at risk. Other barriers, to environmental risk screening, were identified including: low client education level, a lack of materials in languages other than English (specifically Spanish) and unclear screening guidelines. Staff members also indicated that they believe environmental exposures are important risk factors for women of reproductive age.

Development of Assessment Tool
The system capacity and staff surveys indicated a need for a standardized risk assessment tool. An initial literature review was conducted and did not yield any existing assessment tools that included all the environmental risks that ODH wanted to include. Overall, there was a lack of assessment tools with a focus on women of childbearing age. Therefore, the results from the physician survey, site assessment and staff assessment were used to develop a new environmental risk assessment tool. In addition, assessment tools from other agencies were reviewed for format and content ideas. The format of ODH’s assessment tool was influenced by the Rhode Island Department of Health’s Women’s Health Screening and Referral Program-Care Questionnaire. The content of ODH’s assessment tool was based on information gained from a literature review and a review of assessment tools from the National Center for Health Housing, Healthy Homes Maintenance Checklist and Pediatric Environmental home Assessment; University of Nebraska-Lincoln Extension, Identifying Moisture and Mold Sources in Houses; the U.S. EPA, Asthma Home Environment Checklist; the Community Environmental Health Resource Center, Visual Survey Report; Ohio Department of Job and Family Services, Prenatal Risk Assessment Form; and the Stark County Health Department, Social Work Assessment.

Once the draft assessment tool was developed, it was field tested at two clinics. Respondents indicated that the assessment tool had clear instructions and was easy to both read and
understand. Most respondents completed the assessment tool in less than five minutes and indicated that the number of questions included was appropriate. While there were no questions that the women felt uncomfortable answering, respondents felt they did not learn anything new about environmental risks from filling out the assessment tool.

The final version of the *Environmental Risk Assessment Tool* focused on nine environmental hazards. The hazards included: arsenic, cadmium, carbon monoxide, lead, mercury, mold, pesticides, radon and tobacco smoke. The assessment tool was one-page in length and consisted of seventeen questions (Appendix 5). The right side of the assessment tool had a sidebar of suggested follow-up actions for the health care provider. The assessment tool was available in English and Spanish.

**Program Implementation**

Staff at each pilot site participated in a two-hour training program which was (Appendix 6) created to educate the staff on environmental hazards and provide instruction on how to use the *Environmental Risk Assessment Tool*. For each of the nine environmental hazards included on the tool, exposure routes, health effects and preventive measures were discussed. Resource manuals, literature and supplies were provided to each of the pilot sites (Appendix 7). Several of the pieces of literature were provided in both English and Spanish.

Once the clinic staff had been trained and the clinic had received their supplies, the pilot sites began to use the assessment tool. Women of childbearing age were given a copy of the environmental risk assessment tool when they signed-in at the clinic. They filled out the assessment while waiting to be seen by their health care provider. The health care provider reviewed the client’s answers and based upon their responses, provided the appropriate education, brochures and/or supplies. The assessment tool was distributed to women between Mar. 6, 2009 and Dec. 4, 2009.
Program Evaluation

Results of the *Environmental Risk Assessment Tool*

The program had 242 participants. The age of the women who participated in the program ranged from 14- to 55- years-old. The average age was 24-years-old. Fifteen women took advantage of the availability of a Spanish version of the *Environmental Risk Assessment Tool.* Based upon the participants’ responses:

- 72% were pregnant
- 72% did not have and did not live with someone who had a hazardous job
- 44% had not had their home tested for radon and 49% did not know if their home had been tested for radon
- 63% did not use well water
- 71% did not have a deck, patio furniture, bench or picnic table made of wood that was built before 2004
- 45% had someone who smoked in their home/car
- 95% had a working smoke detector
- 48% did not have a working CO alarm
- 31% did have a working CO alarm
- 81% did not use gas appliances to heat their home
- 55% did not live in or regularly visit a home built before 1978
- 95% did not have lead poisoning and did not have children with lead poisoning
- 95% did not use traditional folk remedies and/or cosmetics
- 94% did not eat more than 12 ounces of cooked fish per week, 1 can of albacore tuna per week, or fish from Ohio lakes/rivers
- 68% did not have mercury thermometers, neon or compact fluorescent light (CFL) bulbs in their home
- 83% had not noticed any leaks, damp areas, stains, discoloration, mildew or a strong musty smell in their home
- 65% did not use pesticides in or around their home
- 61% rent their home
**System Capacity and Staff Practices**

Once the program had been in use for six months, ODH conducted an evaluation of the pilot sites’ system capacity in regards to environmental health issues. ODH staff made site visits to the four pilot sites, held discussion groups and asked staff to fill out questionnaires (Appendix 8) about their clinic system. The clinics had created an office system to track whether clients are screened for and educated about environmental risks. The types of support that they deemed the most successful were the standardized environmental screening checklist, e-mail/telephone consultation with ODH, the listing of community environmental risk reduction resources and the workbook on how to screen and refer women for environmental risks. However, there were still barriers to screening for environmental risk among women of childbearing age. The clinics reported a lack of personnel, a lack of time for appointments and budget issues. Smoking and secondhand smoke are still perceived by the clinics to be the greatest environmental risks for women of childbearing age.

During the discussion groups, clinic offered some suggestions on how to improve the program. It was suggested that the assessment tool be simplified by reducing the number of environmental hazards that are addressed on the assessment tool from nine to five. While the staff did not make specific suggestions on which hazards to eliminate, the results of the assessment tool will help guide this decision. There were two questions regarding well-water and gas cooking stoves that clinic staff recommended rewording. They also believed that it would be beneficial to focus on the family more and the home less since many of the clients move frequently.

Clinic staff also made recommendations regarding the literature that was provided. They indicated a preference for a brochure that addresses all the issues in one pamphlet, instead of providing clients with several different brochures. Additionally, the sites would like additional Spanish materials and requested a Spanish version of the DVD, “Make Your Home a Healthy Home”. The staff also pointed out that the clients’ interest in the carbon monoxide alarms and other free materials. There was concern expressed about having the ODH logo placed on the material. Staff, at the pilot site located in Appalachia, reported client concerns that the state would take their child/children if they did not answer the questions in a certain way.
At the conclusion of the site visit, staff members completed a questionnaire (Appendix 4) about their knowledge of environmental health issues and their personal practices in screening and treating women with environmental exposures. Responses show that the staff now spends more time assessing and educating clients, spending six to ten minutes assessing a client’s environmental risk and three to five minutes educating clients about environmental risks. The staff reported feeling confident in their ability to educate clients since they now have the resources they need and know where to refer clients who are at risk.

Staff also responded that it was easy to conduct an environmental risk assessment. Noting however, there are still barriers to screening for environmental exposures such as a lack of time during visits, client education level and insufficient reimbursement for their time. There are additional areas where the staff would like guidance. They want to know how to ask clients about environmental risk in a way so they are more likely to solicit accurate responses. Also, they would like to know how to better organize record keeping and client flow so that environmental risks are assessed, followed up and documented in a simple and efficient manner.

The original program plan intended for the assessment tool to be completed and reviewed during the first visit prenatal visit for pregnant women. However, staff reported that they often waited until second client visit to address environmental health issues since there are an abundance of issues to address during the first prenatal appointment.

Client Assessment
A follow-up survey (Appendix 9) was developed for the women who participated in the program to determine both their opinion of the Environmental Risk Assessment Tool and the time they spent with their health care provider discussing environmental risks. Clients were also asked if they had changed anything in their home or how they do things in their home based on the education on environmental risks they had received. The survey was submitted to ODH’s Institutional Review Board (IRB), which deemed the project exempt from review. A consent form was distributed with the assessment tool (Appendix 10) and minors were not included in the evaluation of the program.
Of the 242 women who participated in the program, 165 women agreed to participate in the evaluation of the program. Women under the age of eighteen or those who did not provide their age were not included in the evaluation. Surveys were mailed to 147 women, of which 38 returned surveys, making the return rate 26 percent. ODH provided an incentive (a reusable bag and stainless steel water bottle with the logo “Healthy Homes, Healthy Families”) for women who returned the survey.

According to the client survey, 58 percent of health care providers spent one to five minutes discussing environmental health issues with them and 26 percent spent six to ten minutes. The majority of clients reported that this seemed to be a sufficient amount of time. Clients were not typically referred to any outside organization (e.g. WIC). Results of the client survey included:

- 95% felt comfortable asking questions
- 24% had environmental risks identified
- 90% received brochures about environmental risks
- 55% received supplies for their home (CO alarm, radon test kit, lead check swabs)
  - 95% of clients who received supplies reported using them
- 42% reported changing how they do things in their home based on the information they received from their health care provider
- 84% felt they had learned something from filling out the Environmental Risk Assessment Tool and discussing it with their health care provider
- 92% of respondents would not change anything about their visit

Overall, the program seemed to be well received by the clients.

**Sustainability of Project**

ODH promoted the program to increase awareness and encourage others, such as private practice physicians and clinics, to use the Environmental Risk Assessment Tool. Presentations, on the tool, were made to the Ohio Lead Advisory Committee and the Ohio Partners for Birth Defect Prevention at their quarterly meetings. ODH also promoted the program at the 2009 Ohio Public Health Epidemiology Symposium. Also, ODH was selected to give a presentation on the
program at the 2009 National Environmental Public Health Conference in Atlanta, Georgia. The presentation was well received.

By making use of the U.S. EPA National Service Center for Environmental Publications and the Centers for Disease Control and Prevention’s free online resources and literature, the pilot sites are able to continue providing women of reproductive age with information on how to avoid/reduce their exposure to environmental hazards. The free resources will also assist with ODH’s efforts to expand the program to other sites with minimal funding. ODH will need to seek additional funding to continue to provide participants with carbon monoxide alarms, lead check swabs and radon test kits.

The Environmental Risk Assessment Tool will be revised based upon the results of the system, staff and client surveys. The number of environmental hazards included on the risk assessment tool may be reduced. Also, based on the confusion expressed by some patients, staff suggested rewording the questions regarding well water testing (#4) and the use of gas appliances to heat a home (#9).

ODH hopes to expand the program into all Child and Family Health Service Clinics. Family planning clinics have also been considered as other possible expansion sites. ODH also has plans to utilize the Environmental Risk Assessment Tool in ODH’s Healthy Homes program since several of the questions relate to healthy homes concepts. The questionnaire could be used during home visits to identify potential hazards and educate patients about environmental risks.
Appendix 1

Members of Advisory Committee

Jo Bouchard
Chief, Bureau of Child and Family Health Services

John Belt
Supervisor, Childhood Lead Poisoning Prevention

Amy Davis
Supervisor, Assessment & Planning

Lori Deacon
Supervisor, Maternal & Child Health

Melissa Mathias
Grant Coordinator (joined Aug. 2008)

Melody Sexton
Program Consultant, Childhood Lead Poisoning Prevention

Cynthia Shellhaas
Medical Director, Bureau of Child and Family Health Services
Appendix 2
Provider Survey

The Ohio Department of Health
Survey for Reproductive Environmental Risk Screening and Education

This survey is being conducted as part of an Environmental Protection Agency grant to address environmental risks to women of reproductive age. Please complete this survey by checking the appropriate box(es), and return to us in the enclosed business reply envelope.

1. Are you actively practicing medicine?  
   □ Yes (please continue on to question #2)  
   □ No (please stop taking the survey now and return it to ODH)

2. Do you see women of reproductive age (15-44)?  
   □ Yes (please continue on to question #3)  
   □ No (please stop taking the survey now and return it to ODH)

3. Which of the following best describes your practice setting? *(check all that apply)*  
   □ Solo, or two physicians  
   □ Single Specialty Group  
   □ Multi-specialty Group  
   □ Health Maintenance Organization  
   □ Non-university/non-medical school affiliated hospital  
   □ University/medical school affiliated hospitals  
   □ State or local government funded clinic  
   □ Military facility  
   □ Other___________

4. Please indicate your practice specialty:  
   □ OB/GYN  
   □ Family Practice  
   □ General Practice  
   □ Other (Please specify)____________________

5. Which of the following best describes the community in which you practice?  
   □ Metropolitan  
   □ Suburban  
   □ Rural
6. In which decade did you graduate from medical school?

- □ 1940-1949
- □ 1950-1959
- □ 1960-1969
- □ 1970-1979
- □ 1980-1989
- □ 1990-1999
- □ 2000+

7. Approximately what percentage of your patients have the following categories of insurance coverage? *(should add up to 100%)*

- _____% Private Insurance (incl. HMO)
- _____% Medicaid/Medicare
- _____% Uninsured/Self Pay
- _____% Other

8. Please rate how strongly you agree or disagree with the following statements by placing a check mark in the appropriate box:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree Nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>A common source of mercury exposure in pregnant women comes from eating fish or shellfish.</td>
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<td>Mercury exposure in pregnant women is a risk factor for nervous system damage in the fetus.</td>
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<td>Exposure to radon gas is a risk factor for lung cancer.</td>
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<td>Radon testing is only recommended for homes with basements.</td>
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<td>Many homes built before 1978 have lead based paint.</td>
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<td>Pregnant women should have their blood tested for lead.</td>
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<td>The majority of pesticide exposures occur indoors.</td>
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<td>Second hand smoke exposure during pregnancy increases a woman’s risk of giving birth to a low-birth weight baby.</td>
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<td>Carbon monoxide exposure is rarely the result of heating or cooking equipment malfunction.</td>
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<td>Arsenic is often found in wood used in the building of outdoor</td>
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Symptoms of arsenic exposure include respiratory irritation and nausea.

Potential health effects and symptoms associated with mold exposures include allergic reactions, asthma, and other respiratory complaints.

9. On average, how many minutes per visit do you spend assessing a patient’s environmental risk?
   - None
   - 1-2
   - 3-5
   - 6-10
   - 11+
   - Unknown

10. On average, how many minutes per visit to you spend educating patients on environmental risk?
    - None
    - 1-2
    - 3-5
    - 6-10
    - 11+
    - Unknown

11. Are you familiar with either of the following Ohio Department of Health publications?
    - Prenatal Risk Assessments for Lead
    - Pregnancy Lead and Your Baby

12. Please mark which type of environmental health risks, if any, you question your patients about:

<table>
<thead>
<tr>
<th>a. All women of childbearing age</th>
<th>Lead</th>
<th>Mercury</th>
<th>Tobacco Use</th>
<th>Second Hand Smoke</th>
<th>Carbon Monoxide</th>
<th>Radon</th>
<th>Pesticide</th>
<th>Arsenic</th>
<th>Mold</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Women who are already pregnant</td>
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<td>c. Women who are thinking about becoming pregnant</td>
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<td>d. Patients who request evaluation</td>
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</table>
13. Is there literature in your office about environmental risks?
   - Yes
   - No (skip to question # 16)
   - Don’t know

14. If yes, where in your office is this literature placed? *(check all that apply)*
   - In the waiting room
   - In the exam rooms
   - Patients must ask for literature
   - Health care providers give literature to the patients
   - Other_____________________________________

15. What specific environmental risk(s) does this literature address?
   - Lead
   - Mercury
   - Tobacco use
   - Second-hand smoke
   - Carbon monoxide
   - Radon
   - Pesticides
   - Arsenic
   - Mold
   - Other (please specify)______________________

16. Please rate how strongly you agree or disagree with the following statements by placing a check mark in the appropriate box:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree Nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident in my ability to assess patients’ environmental risks.</td>
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<tr>
<td>I am confident in my ability to educate patients about environmental risks.</td>
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<tr>
<td>I know which questions to ask my patients if I want to find out if they are at risk of:</td>
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<tr>
<td>a. Lead Poisoning</td>
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<tr>
<td>b. Mercury Poisoning</td>
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<tr>
<td>c. Radon Exposure</td>
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<td>d. Arsenic Exposure</td>
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<td>e. Pesticide exposure</td>
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<tr>
<td>f. Tobacco/Smoke Exposure</td>
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<td>g. Carbon monoxide exposure</td>
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<tr>
<td>h. Mold Exposure</td>
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<tr>
<td>i. Other (please specify)______________________</td>
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<tr>
<td>It is easy to conduct environmental risk screening.</td>
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<tr>
<td>I know how to find information about</td>
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</tbody>
</table>
environmental risks and pregnancy.

I know where to get printed materials to help educate my patients about environmental risks.

Assessing a patient’s environmental risk is a priority for me during an office visit.

Educating patients about environmental risks is a priority for me.

I know where to refer patients who are at risk for dangerous environmental exposures.

The benefits of environmental screening outweigh the costs.

Educating my patients about environmental risks is effective.

17. Which of the following, if any, would you consider barriers to educating patients about environmental risk factors? (check all that apply)

- Lack of printed material to give the patient
- Patient education level
- Lack of knowledge about how to educate the patient
- Lack of materials at the appropriate reading level
- Do not receive sufficient reimbursement
- Lack of knowledge about environmental risks
- Lack of materials in languages other than English
- Cultural differences
- Lack of time during visit
- Cost
- Unclear screening guidelines
- Other_________________

18. Which of the following would you like to know more about? (check all that apply)

- Specific environmental risks (lead, arsenic, mercury, smoke, etc.)
- How to ask patients about environmental risk so you get true answers
- How to educate patients about environmental risk
- How to get brochures or other information to give to patients about environmental risk
- How to organize your office in terms of record keeping and patient flow so that environmental risk is assessed, followed up and documented at visits
- What to do if a patient is exposed to an environmental risk
- Where to refer a patient for additional assistance
- Other_________________
19. Would you use any of the following teaching tools to learn more about environmental risk for patients in your practice setting? (check all that apply)

- Audiocassette
- Video
- CD Rom
- DVD
- Website
- Conference Call
- Printed Materials (manual/brochure)
- On-site training
- Off-site training
- Other ______
Appendix 3
Pre-Project Clinic System Assessment

Discussion Guide for the Ohio Environmental Risk Pilot
Date__________

County
_____ Athens
_____ Lucas
_____ Montgomery
_____ Stark

For purposes of this discussion, indoor environmental risk is defined as potential exposure to harmful substances such as second hand smoke, lead, mercury, radon, carbon monoxide, indoor pesticides and other environmental toxins that may adversely affect birth outcomes.

Leadership
• Who is the main contact person between your office and the environmental risk project? (name, title, agency)

• Who is the person within the office that will be responsible for administering the program? (name, title, agency)

• Who is the person who will be attending the training and train other staff within the office? (name, title, contact information)

Data Collection (please check Yes or No for each of the following questions)
• Is there a system in your county to track whether CFHS clients are screened and treated for environmental risk?
  o Yes
  o No

• Is there a system in your office to track whether CFHS clients are screened and treated for environmental risk?
  o Yes
  o No

• What types of support does your clinic need to make this project successful? (please choose all that apply)
  o Assistance with technology (e.g. computer use)
  o Standardized environmental screening forms or checklists
  o Websites with additional information on environmental risks for women
o Email or telephone consultation with the state program
o In-person technical assistance from environmental risk experts
o Listings of community environmental risk reduction resources
o Reminder chart stickers
o Workbook or manual on how to screen and refer women for environmental risks
o Feedback on the clinic’s performance over time
o Other(s) (please list)

• Which of the following types of support would your clinic need most?
  o Assistance with technology (e.g. computer use)
  o Standardized environmental screening forms or checklists
  o Websites with additional information on environmental risks for women
  o Email or telephone consultation with the state program
  o In-person technical assistance from environmental risk experts
  o Listings of community environmental risk reduction resources
  o Reminder chart stickers
  o Workbook or manual on how to screen and refer women for environmental risks
  o Feedback on the clinic’s performance over time
  o Other(s) (please list)

Benefits / Reimbursement (please check Yes or No for each of the following questions)
• Does your clinic bill Medicaid for risk counseling?
  o Yes
  o No
    • If no, could your clinic bill Medicaid for risk counseling?
      • Yes
      • No

• Does your clinic currently bill Medicaid for any services?
  o Yes
  o No

Community Resources (please check Yes or No for each of the following questions)
• What do you perceive to be the greatest indoor environmental risks for your clients?
• Do your staff know about environmental risk resources and programs in your county?
  o Yes
    • Please list names of resources/programs: ____________________________
      ________________________________________________________________
  o No

• If YES, do they currently make regular referrals to these programs?
  o Yes
  o No
  o
Environmental Risk Partnerships (*please check Yes or No for each of the following questions*)

- Do your staff work with any other organizations involved in environmental risk control in your county or state?
  - Yes
  - No

  - If YES, please list the organizations:____________________________________
  - How do you work with these organizations?__________________________________

Office Operations & Client Contact

- Please describe what happens when a typical client comes into your office (*who they see first, second, third, etc; how long they spend with each staff member*)

- Who would be responsible for screening and treating pregnant women? (*please write in job title – e.g. WIC/HMG counselor, social worker, office staff, etc*)

- Who would be responsible for screening and treating non-pregnant women of reproductive age? (*please write in job title – e.g. WIC/HMG counselor, social worker, office staff, etc*)

- Who would be responsible for documenting an environmental risk reduction plan? (*please write in job title – e.g. WIC/HMG counselor, social worker, office staff, etc*)

- Who would be responsible for making referrals to community resources for environmental risk reduction? (*please write in job title – e.g. WIC/HMG counselor, social worker, office staff, etc*)

- Who would be responsible for making sure environmental risk reduction self-help materials are available and provided to clients? (*please write in job title – e.g. WIC/HMG counselor, social worker, office staff, etc*)

- Does the client see the same provider at every visit? (*please check one*)
  - Yes
  - No

- How often are clients seen during their pregnancy? (*please write in typical schedule – e.g. weekly, monthly, etc*)
• How often are clients seen during the postpartum period? (please write in typical schedule – e.g. weekly, monthly, etc) __________________________________________________________

• How much time do you think your staff would be able to devote to environmental risk assessment and reduction services during a typical client visit? (please write in the number of minutes) ______________________
Pre- and Post-Project Staff Assessment

**Pre-Post Test for Reproductive Environmental Risk Screening and Education**

**EVALUATING/TREATING ENVIRONMENTAL RISK IN YOUR WORKPLACE**

1. In general, which statement best describes your role in discussing reproductive environmental risks with your clients? *(please check one)*
   - [ ] I have primary responsibility for discussing reproductive environmental risks with my clients
   - [ ] I play a secondary role in discussing reproductive environmental risks with my clients
   - [ ] I am not involved in discussing reproductive environmental risks with my clients

2. At a client’s first visit, how often do the following activities happen? *(please check one box for each statement below)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>A client is asked about environmental risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client’s environmental risk status is recorded in her chart</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client receives information about potential environmental risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client is educated about environmental risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client at risk for environmental exposures is advised to reduce their risk</td>
<td></td>
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</tr>
<tr>
<td>There is an assessment of a client’s ability to reduce their environmental risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client receives information about how to reduce environmental risks</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
3. At follow-up visits, how often do the following activities happen? (*please check one box for each statement below*)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>A client is asked about environmental risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client’s environmental risk status is recorded in her chart</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client receives information about potential environmental risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client is educated about environmental risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client at risk is advised to reduce their risk</td>
<td></td>
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<tr>
<td>There is an assessment of a client’s ability to reduce their environmental risk</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A client receives information about how to reduce environmental risks</td>
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</tbody>
</table>

4. On average, how many minutes per visit do you spend assessing a client’s environmental risk?
   - None
   - 1-2
   - 3-5
   - 6-10
   - 11+
   - Unknown

5. On average, how many minutes per visit do you spend educating clients on environmental risk?
   - None
   - 1-2
   - 3-5
   - 6-10
   - 11+
   - Unknown
6. Please rate how strongly you agree or disagree with the following statements by placing a check mark in the appropriate box:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree Nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not have sufficient time during a client visit to assess a client’s environmental risk</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I am not required to assess a client’s environmental risk</td>
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<tr>
<td>I do not have the resources needed to assess a client’s environmental risk</td>
<td></td>
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<tr>
<td>I do not provide environmental risk screening because other providers outside my agency provide this.</td>
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<tr>
<td>Staff from my agency should be involved in delivering environmental risk education to my clients</td>
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</tr>
<tr>
<td>Addressing environmental risk is not a priority for me because I must focus on other health issues with my client</td>
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</tr>
<tr>
<td>Addressing environmental risk is not a priority for me because I have few clients who are at environmental risk.</td>
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<tr>
<td>I am confident in my ability to assess clients’ environmental risks</td>
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<tr>
<td>I am confident in my ability to educate clients about environmental risks</td>
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<tr>
<td>I know which questions to ask my clients if I want to find out if they are at risk of:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>a. Lead poisoning</td>
<td></td>
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</tr>
<tr>
<td>b. Mercury poisoning</td>
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</tr>
</tbody>
</table>
c. Radon exposure

d. Arsenic exposure

e. Pesticide exposure

f. Smoke exposure

g. Carbon monoxide exposure

h. Other (please specify)

It is easy to conduct environmental risk screening

I know how to find information about environmental risk and pregnancy

I know where to get materials to help educate my clients about environmental risks

Assessing a client’s environmental risk is a priority for me during an office visit

Educating clients about environmental risks is a priority for me

I know where to refer clients who are at risk for dangerous environmental exposures

The benefits of environmental screening outweigh the costs

Educating my clients about environmental risks is effective

Environmental exposures are important risk factors for women of reproductive age

Women of reproductive age are receptive to environmental risk interventions
7. Please mark which type of screening, in any, you do with each group of clients:

<table>
<thead>
<tr>
<th></th>
<th>Lead</th>
<th>Mercury</th>
<th>Tobacco Abuse</th>
<th>Second Hand Smoke</th>
<th>Carbon Monoxide</th>
<th>Radon</th>
<th>Pesticides</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Women of childbearing age</td>
<td></td>
<td></td>
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<tr>
<td>b. Women who are already pregnant</td>
<td></td>
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<tr>
<td>c. Women who are thinking about becoming pregnant</td>
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<td></td>
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<tr>
<td>d. Client requests evaluation</td>
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</tbody>
</table>

8. Is there literature in your office about environmental risks?
   - ☐ Yes
   - ☐ No (skip to question 15)

9. If yes, where in your agency is this literature placed?
   - ☐ In the waiting room
   - ☐ In the exam rooms
   - ☐ Clients must ask for this literature
   - ☐ Health care providers give this literature to the clients
   - ☐ Clients do not have access to this literature
   - ☐ Other ________________

10. What specific environmental risks does this literature address?
   - ☐ Lead
   - ☐ Mercury
   - ☐ Tobacco
   - ☐ Second-hand smoke
   - ☐ Carbon Monoxide
   - ☐ Radon
   - ☐ Pesticides
OFFICE SYSTEMS & RECORD KEEPING

11. Which of the following office system and record keeping mechanisms do you currently use in your clinic to assist with the identification and tracking of clients who are at environmental risk?

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>A formally adopted clinical guideline for environmental risk</td>
<td></td>
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<tr>
<td>Client intake forms that ask the client about their environmental risk</td>
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</tr>
<tr>
<td>Chart stickers applied to charts of clients at environmental risk</td>
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</tr>
<tr>
<td>Instructions attached to client charts that guide staff through the steps of assessing environmental risk or environmental risk counseling</td>
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</tr>
<tr>
<td>Availability of self-help brochures for clients who are at environmental risk</td>
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<tr>
<td>Referral mechanisms for clients who require more intensive interventions to reduce their environmental risk</td>
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</tbody>
</table>

LEARNING MORE ABOUT ENVIRONMENTAL RISK

12. Have you received formal training on how to assess environmental risk in women of reproductive age?
   - Yes (Go to next question)
   - No (Skip the next question)

13. Where did you receive this training (check all that apply)?
   - Undergraduate or professional school
   - CEU accredited lecture program
   - In-service
   - Other (specify)__________

14. How much of your current method of counseling women of reproductive age about environmental risks was self taught (please check one)?
   - All
   - Most
   - Some
   - None
15. Which of the following, if any, would you consider barriers to educating patients about environmental risk factors (check all that apply)

☐ Lack of printed material to give the client
☐ Client education level
☐ Lack of knowledge about how to educate the client
☐ Lack of materials at the appropriate reading level
☐ Do not receive sufficient reimbursement
☐ Lack of knowledge about environmental risks
☐ Lack of time during a visit
☐ Cultural differences
☐ Lack of materials in languages other than English
☐ Cost
☐ Unclear screening guidelines
☐ Other

16. Which of the following would you like to know more about? (check all that apply)

☐ Specific environmental risks (lead, arsenic, mercury, smoke, etc.)
☐ How to ask clients about environmental risks so you get true answers
☐ How to educate clients about environmental risks
☐ How to get brochures or other information to give to clients about environmental risk
☐ How to organize your office in terms of record keeping and client flow so that environmental risks are assessed, followed up and documented at visits
☐ What to do if a client is exposed to an environmental risk
☐ Where to refer a client for additional assistance
☐ Other

17. Which of the following resources would you use to learn more about environmental risks for women of reproductive age?

☐ Audiocassette
☐ Video
☐ CD Rom
☐ DVD
☐ Website
☐ Conference Call
☐ Hard Copy (manual/brochure)
☐ On-site training
☐ Off-site training
☐ Other

PERSONAL CHARACTERISTICS

18. Gender

☐ Male
☐ Female
19. Are you Hispanic?
   □ Yes
   □ No

20. What is your race? (please check one or more races to indicate what you consider yourself to be.)
   □ American Indian or Alaska Native
   □ Asian
   □ Black or African American
   □ Native Hawaiian or Other Pacific Islander
   □ White
   □ Other (please specify) ________________________

21. Please indicate your professional training (please check all that apply)
   □ Registered Dietitian
   □ Physician
   □ Registered Nurse
   □ Nurse Practitioner
   □ Physicians Assistant
   □ Social Worker
   □ Other (please specify) ________________________

22. Please indicate the highest degree that you have attained (please check one)
   □ High school diploma
   □ Associates degree
   □ Bachelors degree
   □ Masters degree
   □ Doctorate
   □ Other _____________ -
Appendix 5
Environmental Risk Assessment Tool

Ohio Department of Health
Environmental Risk Assessment Tool

Date / / Name Date of birth / /

Please answer the following questions by placing a check mark next to your answer. Your responses will remain confidential.

1. Are you pregnant or do you plan on being pregnant within the next year?
   - Yes
   - No
   - Don't know

2. Does anyone who lives in your home work with (job or hobby) any of the following: pressure-treated wood, smelting, glass production, pesticides, soldering, welding, electroplating, pigments, plastics, auto repair, plumbing, stained glass, pottery making, renovation/restoration/construction, products of electrolysis, battery/machinery manufacturing, electrical apparatus catalysts, dental office?
   - Yes
   - No
   - Don't know

3. Has your home been tested for radon?
   - Yes
   - No
   - Don't know

4. If you use well water, has the water been tested for environmental hazards?
   - Yes
   - No
   - Not applicable

5. Do you have a deck, patio furniture, bench or picnic table made of wood that was built before 2004?
   - Yes
   - No
   - Don't know

6. Does anyone smoke in your home or car?
   - Yes
   - No
   - Don't know

7. Does your home have a working smoke detector?
   - Yes
   - No
   - Don't know

8. Does your home have a working carbon monoxide detector?
   - Yes
   - No
   - Don't know

9. Do you use your cooking stove/oven or a kerosene/gasoline space heater to heat your home?
   - Yes
   - No
   - Don't know

10. Do you live in or regularly visit a house built before 1978 that has been recently renovated/updated or has peeling/chipped paint?
    - Yes
    - No
    - Don't know

11. Have you or your children had lead poisoning or a high blood lead level?
    - Yes
    - No
    - Don't know

12. Do you use any traditional folk remedies or cosmetics (Azogue, Alkoh, Azecon, Bali goli, Ghazard, Greta, Pay-boo-ah)?
    - Yes
    - No
    - Don't know

13. Do you eat more than 12 ounces of cooked fish per week (typical serving is 3-6 oz), 1 can (6 oz) of albacore (white) tuna per week, or fish from Ohio lakes/streams?
    - Yes
    - No
    - Don't know

14. Do you have any mercury thermometers, neon or compact fluorescent light bulbs (energy-efficient bulbs) in your home?
    - Yes
    - No
    - Don't know

15. Have you noticed any leaks, damp areas, stains, discoloration, gray-black powder (mildew) or a strong musty smell in your home?
    - Yes
    - No
    - Don't know

16. Do you use pesticides (rat poison, bug sprays/baits; flea/tick sprays, powders and pet collars; weed killers) in or around your home?
    - Yes
    - No
    - Don't know

17. Do you rent or own your home/apartment?
    - Rent
    - Own
    - Other

For Office Use

All #s (Don't Know)
Follow suggestions

#2 (Y) Arsenic, cadmium, lead or mercury risk
- Provide education on above

#3 (No) Radon is the second-leading cause of lung cancer in the US.
- Suggest radon testing

#4 (No) Radon, lead, arsenic risk
- Suggest water test

#5 (Y) Arsenic risk
- Provide education on arsenic

#6 (Y) 2¹⁹Hb smoke, carbon monoxide, cadmium risk
- Provide education on above

#7, #8 (N) Safety concern
- Recommend installation of smoke and/or carbon monoxide detector

#9 (Y) Carbon monoxide exposure
- Provide education: ventilation

#10, #11 (Y) Lead risk
- Suggest lead risk assessment
- Provide education: wet cleaning
- Recommended diet high in calcium and iron

#12 (Y) Lead and mercury risk
- Provide education: cultural awareness

#13, #14 (Y) Mercury risk
- Provide education: fish consumption important, but avoid certain types
- Provide education: mercury clean up and recycling

#15 (Y) Mold risk
- Provide education: identify problem and clean up
- Refer to professional for large problems/no help available

#16 (Y) Pesticide exposure
- Provide education: IPM
- Willing to participate in evaluation

HEA-4728 1/09
Funded by the U.S. Environmental Protection Agency
Appendix 6
Training PowerPoint – Electronic Attachment
Appendix 7
Literature/Resources

General Environmental
“A Clean Home is a Healthy Home” (Channing-Bete Company)
http://www.channing-bete.com/
DVD & Brochure- “Make Your Home a Healthy Home” (Ohio Dept. of Health (ODH))
http://www.odh.ohio.gov/odhPrograms/cfhs/lead_ch/lead_cr.aspx (Brochure only)
Wallet Cards - “9 Things to Do Before Getting Pregnant” (March of Dimes)
http://www.marchofdimes.com/catalog/

Arsenic
“ToxFAQ for Arsenic” (Agency for Toxic Substances & Disease Registry (ATSDR))
http://www.atsdr.cdc.gov/tfacts2.html (Available in English & Spanish)

Cadmium
“ToxFAQ for Cadmium” (ATSDR)
http://www.atsdr.cdc.gov/tfacts5.html (Available in English & Spanish)

Carbon Monoxide
“Prevention Guidelines” (Centers for Disease Control and Prevention)
http://www.cdc.gov/co/guidelines.htm (available in several languages)

Lead
“Pregnancy, Lead and Your Baby” (ODH)
http://www.odh.ohio.gov/odhPrograms/cfhs/lead_ch/lead_cr.aspx
“Step-by-Step Cleaning to Control Lead Dust in Your Home” (ODH)

Mercury
“What You Need to Know about Mercury in Fish and Shellfish” (US Environmental Protection Agency)
http://www.epa.gov/waterscience/fish/advice/ (available in several languages)
“Fish for Your Health” (Ohio EPA)
http://web.epa.state.oh.us/dsw/fishadvisory/index.html (available in several languages)
“Information on Compact Fluorescent Light Bulbs and Mercury” (Energy Star)

Mold
“About Mold and Moisture” (US Dept. of Housing and Urban Development (HUD))
http://www.hud.gov/offices/lead/healthyhomes/mold.cfm
“A Brief Guide to Mold, Moisture and Your Home” (US EPA)
http://www.epa.gov/iaq/molds/moldguide.html (available in English & Spanish)
Pesticides/Integrated Pest Management

“Preventing Pests at Home” (US EPA)
http://www.epa.gov/oppfead1/Publications/preventpest.pdf (English)
http://www.epa.gov/oppfead1/Publications/prevpest-spanish.pdf (Spanish)

Radon

“About Radon” (HUD)
http://www.hud.gov/offices/lead/healthyhomes/radon.cfm
“Home Buyer’s and Seller’s Guide to Radon” (US EPA)
http://www.epa.gov/radon/pdfs/hmbuygud.pdf
“A Citizen’s Guide to Radon” (US EPA)
http://www.epa.gov/radon/pubs/citguide.html (available in English & Spanish)

Tobacco

“Quit Smoking for Baby and You” (Channing-Bete Company)
http://www.channing-bete.com/
“What’s in Cigarettes” Info Sheet (HealthEdco Company)
http://www.healthedco.com/storefrontB2CWEB/

Patient Referral List

Where to purchase CO detectors, radon tests, smoke alarms and lead tests
List of licensed lead, mold, and radon professionals
Mercury disposal site
List of certified water testing laboratories

Supplies

Carbon Monoxide Detectors (AC plug-in with battery backup)
Short-term Radon Test Kits
Lead Check Swabs
Appendix 8
Post-Project Clinic System Assessment

Follow-Up Discussion Guide for the Ohio Environmental Risk Pilot
Date: ____________________

County
____ Athens
____ Lucas
____ Montgomery
____ Stark

For purposes of this discussion, indoor environmental risk is defined as potential exposure to harmful substances such as second hand smoke, lead, mercury, radon, carbon monoxide, indoor pesticides and other environmental toxins that may adversely affect birth outcomes.

Leadership
• Who is the main contact person between your office and the environmental risk project? (name, title, agency)

• Who is the person within the office that is responsible for administering the program? (name, title, agency)

• Did you attend the training?
  o Yes
  o No

• Did you train any other staff within the office?
  o Yes
  o No

Data Collection (please check Yes or No for each of the following questions)
• Is there a system in your county to track whether CFHS clients are screened and treated for environmental risk?
  o Yes
  o No

• Is there a system in your office to track whether CFHS clients are screened and treated for environmental risk?
  o Yes
  o No
What types of support helped your clinic to make this project successful?  (*please choose all that apply*)
- Assistance with technology (e.g. computer use)
- Standardized environmental screening forms or checklists
- Websites with additional information on environmental risks for women
- Email or telephone consultation with the state program
- In-person technical assistance from environmental risk experts
- Listings of community environmental risk reduction resources
- Reminder chart stickers
- Workbook or manual on how to screen and refer women for environmental risks
- Feedback on the clinic’s performance over time
- Other(s) (*please list*)

Which of the following types of support were the most helpful?
- Assistance with technology (e.g. computer use)
- Standardized environmental screening forms or checklists
- Websites with additional information on environmental risks for women
- Email or telephone consultation with the state program
- In-person technical assistance from environmental risk experts
- Listings of community environmental risk reduction resources
- Reminder chart stickers
- Workbook or manual on how to screen and refer women for environmental risks
- Feedback on the clinic’s performance over time
- Other(s) (*please list*)

What types of support would you want in the future if the project continued?

Benefits / Reimbursement (*please check Yes or No for each of the following questions*)
- Does your clinic bill Medicaid for risk counseling?
  - Yes
  - No
    - If no, could your clinic bill Medicaid for risk counseling?
      - Yes
      - No
- Does your clinic currently bill Medicaid for any services?
  - Yes
  - No

Community Resources (*please check Yes or No for each of the following questions*)
- What do you perceive to be the greatest indoor environmental risks for your clients?
• Does your staff know about environmental risk resources and programs in your county?
  o Yes
    ▪ Please list names of resources/programs: _______________________________
      _______________________________
  o No

• If YES, do they currently make regular referrals to these programs?
  o Yes
  o No

Environmental Risk Partnerships *(please check Yes or No for each of the following questions)*
• Does your staff work with any other organizations involved in environmental risk control in your county or state?
  o Yes
  o No
    ▪ If YES, please list the organizations: _______________________________
      _______________________________
• How do you work with these organizations? _______________________________

Office Operations & Client Contact
• Please describe what happens when a typical client comes into your office *(who they see first, second, third, etc; how long they spend with each staff member)*
  _______________________________________________________________________
  _______________________________________________________________________
  _______________________________________________________________________

• Who is responsible for screening and treating pregnant women? *(please write in job title – e.g WIC/HMG counselor, social worker, office staff, etc)*
  _______________________________________________________________________

• Who is responsible for screening and treating non-pregnant women of reproductive age? *(please write in job title – e.g WIC/HMG counselor, social worker, office staff, etc)*
  _______________________________________________________________________

• Who is responsible for documenting an environmental risk reduction plan? *(please write in job title – e.g WIC/HMG counselor, social worker, office staff, etc)*
  _______________________________________________________________________

• Who is responsible for making referrals to community resources for environmental risk reduction? *(please write in job title – e.g WIC/HMG counselor, social worker, office staff, etc)*
  _______________________________________________________________________
• Who is responsible for making sure the environmental risk reduction self-help materials were available and provided to clients? *(please write in job title – e.g WIC/HMG counselor, social worker, office staff, etc)*

__________________________________________________________________________

• Does the client see the same provider at every visit? *(please check one)*
  
  o Yes
  
  o No

• How often are clients seen during their pregnancy? *(please write in typical schedule – e.g. weekly, monthly, etc)* ________________________________

• How often are clients seen during the postpartum period? *(please write in typical schedule – e.g. weekly, monthly, etc)* ________________________________

• How much time has the staff been able to devote to the environmental risk assessment and reduction services during a typical client visit? *(please write in the number of minutes)* ________________________________

• Would you like to continue using the environmental risk assessment tool in your clinic?
  
  o Yes
  
  o No
  
  o Please explain your answer:
    
    __________________________________________________________________________
    
    __________________________________________________________________________
    
    __________________________________________________________________________
Appendix 9
Client Assessment

Ohio Department of Health
Survey

Are you pregnant now or do you plan on becoming pregnant in the next year?
□ Yes □ No

At the clinic visit when you filled out the questionnaire, were there any environmental risks identified based on your answers?
□ Yes □ No

How much time did your doctor or nurse spend discussing environmental health issues with you?
□ None □ 1-5 minutes □ 6-10 minutes □ More than 10 minutes

Did this seem like a sufficient amount of time?
□ Too little □ Just right □ Too much

Did you feel comfortable asking questions?
□ Yes □ No

Did you receive any brochures/written information about environmental risks during your visit?
□ Yes □ No

Did you receive any supplies for your home (carbon monoxide detectors, radon test kits, lead check swabs) during your visit?
□ Yes □ No

If you did receive supplies, have you used any of them?
□ Yes □ No

Have you changed anything in your home or how you do things based on the information you received from your doctor or nurse?
□ Yes □ No

Were you referred to any agencies/organizations?
□ Yes □ No
If yes, where were you referred?

Overall, do you feel that you learned anything from filling out the environmental health questionnaire and discussing it with your doctor or nurse?
□ Yes □ No
Is there anything that you would have changed about your visit?
☐ Yes    ☐ No
If yes, what would you change?
__________________________________________________________
______________________________________________________________________________
Appendix 10
Evaluation Consent Form

Dear Participant:

The Ohio Department of Health, with the U.S. Environmental Protection Agency, is trying to provide information to women of childbearing age on environmental hazards and how to avoid them. This is to help women protect themselves and any future children. We invite you to participate in this project by completing the attached questionnaire. Filling out the questionnaire is optional. If you do complete it, your health care provider will review your answers with you and provide education and materials if needed.

The Ohio Department of Health will be evaluating this project by mailing surveys or calling participants in mid to late summer 2009. Participants in the evaluation will receive a thank you gift once the survey has been completed. If you are willing to participate in the evaluation of this project, please fill out the following information:

Name: ________________________________
Phone #: ______________________________
Address: _______________________________________

If you have any questions or concerns, please contact Melissa Mathias at 614-466-4113 or melissa.mathias@odh.ohio.gov.

Sincerely,
Ohio Department of Health
Bureau of Child & Family Health Services