

First Report to the Environmental Protection Agency (EPA)
Arkansas People Participating in Lead Education (APPLE): Database Gathering and Database
Management

Report Date: 11/30/2010

The Arkansas People Participating in Lead Education (APPLE): Database Gathering and Database Management is a collaborative effort between the University of Arkansas for Medical Sciences (UAMS), the Arkansas Department of Health, and the Head Start Collaborative Office to identify and reduce lead poisoning in under-studied areas with high potential for undocumented, elevated blood-lead.

Grant activities include data gathering and database development, and education and outreach to medical doctors and parents in the targeted communities in which data monitoring and data gathering will be conducted.

As such the activities listed below cover efforts since July 1st, the start of the grant, to November 30th, 2010, in chronological order. When activities are a continued effort, this is indicated.

August and September, 2010: Hiring and Training for APPLE Research and Data Assistants

Brittney Roy was hired directly on the APPLE grant to work 10 hours per week as a research and data entry assistant. During the summer, the Arkansas Commitment Program in conjunction with the Arkansas Cancer Community Network supported Aja Nia Hearne was supported to work with Dr. Ferguson for the summer. Both received HIPPA training at the University of Arkansas for Medical Sciences and at the Arkansas Department of Health. They also received special training at the Arkansas Department of Health to work with what is called the ADH's 'Environmental Contaminant Database'. This tracks multiple contaminants. Usually, however, we call it the 'BLL Database' since that is what the majority of the data consists of. Sarah Luz was hired close to 10 hours a week at the Arkansas Department of Health to also work on the database, completing her HIPPA and database training through ADH. Brittney Roy and Sarah Luz are currently still entering data for both children and adults. Aja Nia Hearne has since left the group as her summer internship is complete.

Early July, 2010: Communication Letter and Lab Data Desired Document for Head Start Agencies

a) Partners worked on preparing a 'Communication Letter' to the Head Start Agencies in Arkansas. The letter describes the harmful effects of lead, the current grant effort of APPLE and the memorandum issued by the Head Start agency on mandated screening of all Head Start children. The letter also describes how to report data to the Arkansas Department of Health.

b) Partners worked on preparing a 'Lab Data Desired Document'. This document describes the various aspects of a lab report that are desired. It is recognized that often times many of this information is not collected, but we hope that in listing all these aspects, future screenings will record this information. The document also gives an e-mail and a telephone number for reporting BLL's to the Arkansas Department of Health.

July 23rd, 2010: Presentation to Small Group of Head Start Employees and Health Professionals.

A 60-minute presentation was given by Dr. Ferguson at the Head Start yearly conference held at the Embassy Suite in Little Rock. This presentation covered the following: 1) Sources of lead, 2) Health effects of lead, 3) Number of old homes in Arkansas, 4) Importance of lead screens for young children, and 5) Reporting BLL's to the Arkansas Department of Health. Close to 15 attendees were present, as there were simultaneous Head Start presentations at the Conference. A number of informational handouts, the 'Communication Letter' and the 'Lab Desired Document' were handed out and left on tables for other attendees to read.

July and August, 2010: Preparation of Databases for General Practitioners and Pediatricians in Arkansas

Brittney Roy and Aga Nia Hearne spent time preparing two databases for practitioners in the State, from various online listings (e.g., doctorsdig.com). The first database contains 1267 General Practitioners in various Cities of Arkansas. The second database contains 452 Pediatricians in the State. Unfortunately, there were no lists readily available. These lists contain names and addresses.

During the month of August we also contacted Sue A. Tedford, the executive director for the Arkansas State Board of Nurses to request their list of nurses. Unfortunately, there are about 5 different lists costing close to \$200 each (available at https://www.ark.org/nurse_roster/index.php). This is not in the APPLE budget and we will make one more plea to Mrs. Tedford to obtain these lists for free.

August and September, 2010: Calling and Communicating with Head Start Directors and Health Personnel.

Brittney Roy spent a significant amount of time contacting each Head Start Agency, and asking to speak to health personal in charge of collecting BLLs or recommending children to get lead screened. Ms. Roy explained the grant activities and reminded Head Start Directors of the 'Communication Letter' and 'Lab Data Desired Document' send out to Directors early that year. A log of contact and discussions was kept and can be found as a separate excel file titled Head Start StatusSeptember15-2010. The sheets under this file are organized as participating, unsure and no reply. Occasionally, individuals would request to speak to Dr. Ferguson to clarify grant activities and issues surrounding BLL reporting. Due to communication difficulties and a need to better explain reporting requirements and efforts under the grant, APPLE partners decided to halt this effort and have a discussion with Head Start Directors in person.

September 9th, 2010: Discussion with Head Start Directors

Ann Patterson arranged for Dr. Ferguson to attend a meeting at the Head Start Collaborative office with about 8 Head Start Directors to address and answer issues surrounding the need for lead screens, and the need to report BLL's to the Arkansas Department of Health. Questions were raised on the completeness of data, the responsibility of Head Start to report versus the responsibility of the practitioners, and the time this effort would take. Other questions were raised on the need to report BLLs under 10 microgram/deciliter to the State Health Department. APPLE was aware of the varied differences in the data collection and recording formats between Head Start Agencies and their various needs and comfort levels in reporting this data. As a result, APPLE partners decided to take a step back and prepare a survey to the Head Start Agencies to address various issues that would assist APPLE with grant efforts and catering to Head Start needs.

October 7th, 2010 State Health Department Grand Rounds Presentation

Lori Simmons and Alesia Ferguson presented on many crucial issues to those who work at the State Health Department, College of Public Health and the health community in Arkansas. This Grand Rounds Presentation was held at the State Health Department and televised through local Health Clinics throughout the State. APPLE partners wanted others to understand the APPLE grant efforts and the importance of still screening children today and reporting BLLs. This presentation required research and clarification in various areas. This research also helps APPLE with future directions for lead efforts in the State. The following were presented:

- Forms of Lead, Main Routes of Uptake, Sources of Lead

- Current and Future Lead Laws and Standards (Highlighting the National Toxicology Program on the effects of low level exposures to lead)
- Health Effects of Lead (focus on low levels)
- History of BLL in the United States and its continued importance as a disease despite great strides
- CDC's Lead Surveillance Program and Database (STELLAR) and upcoming changes with the addition of a 7th table for healthy homes inspections in home of children with EBLs. Dr Ferguson with the help of Estella Sugawara-Adams was able to communicate with the CDC office and obtain their future plans for their lead surveillance program. Contact information is below
 - Qaiyim Harris
Project Manager/Business Analyst
Emergent Technologies Inc.
National Center for Environmental Health
Centers for Disease Control and Prevention
Ph: 770 488 7115
- Funded States Under the CDC Childhood Lead Poisoning Prevention Program (CLPP). We highlighted three programs in our general region: Texas, Louisiana, and Mississippi.
- History of Lead Efforts in the State of Arkansas (efforts at ADH, efforts from APPLE)
- Efforts under current APPLE grant through EPA Region 6
- Minnesota guidelines for screening (recommendations to assist practitioners), CDC guidelines for treatment, testing methods and approaches for lead (e.g., finger prick, capillary, FEP, ZPP)
- Discussion of the Medicaid program and the Early Period Screening, Diagnosis, and Treatment (EPSDT) Program under which lead screens are covered
- ADH's Environmental Contaminant (a.k.a. BLL) Database and effort to date
- Reporting Requirement and issues (reporting under 10micrograms/deciliter to ADH)
- ADEQ's program on lead and future transfer of program activities to ADH

October, 2010 to Present: Survey Monkey Results from Head Start

Deanna Howell of the Head Start Collaboration office prepared a survey in Survey Monkey for Head Start Directors to complete, with content assistance from Ann Patterson and Alesia Ferguson. This survey contains three sections: a) Agency information, B) Lead screening information, C) Lead screening results, for a total of 13 questions with some chronological subparts. To date, 13 agencies have completed the survey, some, however, with missing information. Another 8 agencies are left to respond. This information will be compiled once the surveys are complete to determine individual needs and

wealth or lack of wealth of information. An Excel summary file of results to date will be sent with this report.

July 1st to Present: Database Entries, Environmental assessments (entries for adults and children)

The main focus of the grant has been on data entry of lead screens in the ADH's 'Environmental Contaminant Database'. Our original intent was to enter lead screens for children, however EPA has also indicated an interest in adult exposure to lead. We are therefore entering BLL for children and adults. Keep in mind that parent's often take home exposure to their children or pregnant women or women of child rearing age are also at risk. Below are questions and answer to queries run on the database as of Novemeber 29th, 2010

1. Number of total lead entries in the database:
 - 4167 entries total for lead, with 2684 entries since July 1st for lead.
2. Number of entries for children:
 - approx 2600 entries for lead
3. Number of entries for adults:
 - approx 2700 for lead
4. Total number of entries in the database:
 - 5300 total entries (the additional entries over 4167 are for other contaminants and that work is not included under these grant efforts)
5. What are the dates for the lead screens:
 - The lead screens entered into the database are for the years 2009 and 2010.
 - There are still 2007 and 2008 data sitting on the shelf to be entered along with more 2009 and 2010.
6. Number of elevated for adults and children:
 - Adults – 900 (25 micrograms/deciliter and above is considered elevated for adults),
 - Children – 84 (10 microgram/deciliter 10 and above is considered elevated for children)
7. Number recommended for environmental assessment.
 - ADH has recommend environmental assessment be completed for children with levels 20 micrograms/deciliter and above. Approx 20 assessments were recommended over the last year and a half)
8. Any datasets from the Head Starts: It is hard to tell exactly what is coming from the Head Starts as yet. Some may be coming directly from the doctors. Next year is the big push to get the information more directly from Head Starts.

The focus has shifted lately to getting the elevated levels entered for adults and children in the database. There is a lot of data to be entered still sitting on the shelf for all years. The stack is described as big with more information coming in. The data entry is going much faster since July 1st due to the grant efforts and the hiring of Brittney and Sarah for this effort.

Additional Related Activities

We have had various communications with health professionals and Head Start Agencies. In certain specific cases, we have mailed out packages to be given directly to children with elevated levels (two children from the Dumas area in Arkansas) (early October, 2010). For one of these children Dr. Ferguson specifically spoke with a local doctor to request follow-up for the child.

Our other grant for training and education through EPA AB 83405701-0 came to a close September, 2010. A final report was prepared and sent to Lim Benjamin in Washington. To support efforts for education and training, Dr. Ferguson continues to give reduced cost for RRP training to individuals. Close to 300 individuals have been trained under the new RRP for free or reduced cost of no more than \$135.

Recently Dr Ferguson participated with the city of Jacksonville (Theresa Watson, director for the Community Development) to submit a grant to HUD that would help over 400 families in need in the Jacksonville area. Dr Ferguson would be responsible for screening, education and healthy home assessments. That would help complement grant activities under EPA.

Meeting Timelines and Grant Objectives

As the Figure below indicates, we are well ahead of projected activities as listed. This figure was also a part of the Quality Management Plan submitted to EPA (Figure 2-2). As the last activity in the Figure indicates, this report will be posted on our website, once it is approved. We also need to investigate ways to expand the information on the website.

Project Activity/Months	1 to 6	7 to 12	13 to 18	19 to 24
Refine QAPP, train research/data assistants, refine data collection methods, refinement of database organization and methodologies	x	x		
Head Start notification and coordination	x	x	x	x
Organization of other parent outreach events/methods, doctor notification methods		x	x	x
Data entry and QA refinement	x	x	x	x
Integration with CDC STELLAR reporting system, as appropriate		x	x	x
Investigating methods to self-sustaining reporting system			x	x
Progress results to EPA (part website access)	x	x	x	x

Next Planned Steps for grant activities:

- Preparing letter and screening recommendations that get mailed to all practitioners using the gathered database. It has not been decided if we will obtain the nurses' database and also mail these documents to that group. Costs of mailing and stuffing envelopes at the lowest cost possible will be investigated.
- Investigating other forums to reach Medical Practitioners and Health Professionals.
- Continued effort with BLL entries. This is the main focus of the grant activities. Included under this effort will be to take a closer look at EBL's and tracking follow-ups.
- Working more one to one with Head Start Agencies on getting their data, once Survey Monkey Results are complete and issues are understood. This is another main focus of the grant activities.
- Efforts are underway to obtain an official letter from the State Health Department's legal department that explains that even when BLL below 10 microgram/deciliter are reported to ADH, no additional permission or HIPPA requirements are needed by the Head Start Agencies or any other person reporting. This will be distributed to the Head Start Agencies early next year as we

continue to work with them. This is one aspect holding them back giving us data. We had to use the ADH environmental Reporting document to show that any case manager is required to report EBL's, not just physicians.

- Expanding information and communication on the APPLE website.

Files Being Transferred along with this document:

1. Survey Monkey Results to Data
2. Communication Letter to Head Start
3. Lab Report Desired
4. Log of Communication with Head Start
5. State Health Department Presentation
6. Presentation to Head Start
7. Database of General Practitioners and Pediatricians
8. ADH Environmental Reporting document for lead screens

Yours Truly

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