



Charlie Crist  
Governor

Ana M. Viamonte Ros, M.D., M.P.H.  
State Surgeon General

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### INTEROFFICE MEMORANDUM

**DATE:** October 6, 2009

**TO:** Lisa Conti, D.V.M., M.P.H., Dipl. ACVPM, CEHP  
Director, Division of Environmental Health

**THROUGH:** James D. Boyd, C.P.A., M.B.A., Inspector General

**THROUGH:** Michael J. Bennett, C.I.A., Director of Auditing

**FROM:** Mark H. Boehmer, C.P.A., Senior Management Analyst II

**SUBJECT:** Report No. CS-10-001- Consulting Services Engagement to the  
*Childhood Lead Poisoning Prevention Program*

### INFORMATION ONLY

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Our office initiated an internal audit of the Florida Department of Health (DOH), Childhood Lead Poisoning Prevention Program (Program) in September 2008, for the period of January 1, 2007 through December 31, 2007. We postponed completion of the audit in January 2009 because of scheduling issues. When ready to resume, we learned significant changes were underway to improve the Program. We evaluated the best approach to complete our project. We concluded our office could best serve the Program by reviewing the proposed changes through a consulting engagement to identify areas of possible weakness. Our current plan is to re-initiate an internal audit of the Program at a later time using a more current audit period. This future audit has been included in our *Three-Year Audit Plan*.

Thus, the purpose of this consulting engagement was to provide forward-looking analysis by reviewing the proposed new procedures to identify areas of concern in the planned process that came to our attention.

We obtained an understanding of management's current plans to improve the process of identifying elevated blood lead level cases, tracking and assigning case management, including related environmental health investigations, and reporting of results of case management related to the Program.

The suggestions labeled Management Consideration within this memorandum are areas we feel should be discussed by management and staff to further enhance or strengthen the proposed process changes. Our suggestions are specifically meant to be broad-based areas for consideration where we feel weakness(es) may still exist. Specific process enhancements should be a management decision. As such, management is not required to respond to this memorandum, nor is required to develop a corrective action plan to address areas of concern. However, the topics mentioned in this memorandum may be considered by our office in any future audit that we conduct of the Program.

We conducted this consulting services engagement in conformance with *International Standards for the Professional Practice of Internal Auditing*, issued by the Institute of Internal Auditors (January 2009), as provided by Section 20.055(5)(a), *Florida Statutes*, and as recommended by Quality Standards for Audits by Offices of Inspector General (*Principles and Standards for Offices of Inspectors General*, Association of Inspectors General, 2004 Green Book Revision).

### **Introduction**

Section 20.055(2), *Florida Statutes*, charges each Office of the Inspector General responsibility to provide a central point for coordination of activities that promote accountability, integrity, and efficiency in government. That responsibility includes reviewing the actions taken by DOH to improve program performance and meet program standards, and making recommendations for improvement, if necessary. That responsibility also includes reviewing rules relating to DOH's programs, to make recommendations concerning their impact.

Our fieldwork took place July through August 2009 at DOH headquarters in Tallahassee. The engagement was conducted by Office of the Inspector General audit staff Mark H. Boehmer, Certified Public Accountant, Senior Management Analyst II, under the supervision of Michael J. Bennett, Certified Internal Auditor, Director of Auditing.

### **Background**

This consulting services engagement involved the Lead Poisoning Prevention Program Office (Program Office) housed within the Bureau of Environmental Public Health Medicine, under DOH's Division of Environmental Health. The Program Office oversees the Adult Blood Lead Epidemiology Surveillance Program (ABLES) and Childhood Lead Poisoning Prevention Program (Program).

Lead Poisoning is included in DOH's Division of Disease Control's rules as a Notifiable Condition to be Reported. Also, the Merlin<sup>®</sup> Reporting System (Merlin<sup>®</sup>) is Division of Disease Control, Bureau of Epidemiology's web-based system for the reporting, management, and epidemiological analysis of all communicable disease information. Therefore, references are made in this report to the Division of Disease Control as well.

The Florida Legislature enacted Chapter 2006-269, *Laws of Florida*. The Legislature found (among other findings) that a significant cause of lead poisoning in children is the ingestion of lead particles from deteriorating lead-based paint in older, poorly maintained residences; most children who live in older homes and who otherwise may be at risk for childhood lead poisoning were not tested for the presence of elevated lead levels in their blood; and, testing for elevated lead levels in the blood can lead to the mitigation or prevention of the harmful effects of childhood lead poisoning and may also prevent similar injuries to other children living in the same household. The law codified into Sections 381.982 through 381.985, *Florida Statutes*, the *Lead Poisoning Prevention Screening and Education Act*. Section 381.984, *Florida Statutes*, stipulates requirements for educational programs. Section 381.985, *Florida Statutes*, stipulates requirements for the screening program. This consulting engagement focused on the screening program described in Section 381.985, *Florida Statutes*.

The Program Office is seeking updates in Merlin<sup>®</sup> to include Lead Extended Data Screens. These were not available for our review as of July 27, 2009. The Program Office plans to “go live” in Merlin<sup>®</sup> with the first phase of the Lead Extended Data Screens by the end of September 2009. The screens will be available at that time for data input by county health department (CHD) case managers.

Section 381.985(1), *Florida Statutes*, requires that healthcare providers screen children for lead poisoning and elevated blood-lead levels within specified target populations at age 12 months and age 24 months or between the ages of 36 months and 72 months if not previously screened. Healthcare providers may either test for elevated blood lead levels themselves or by sending a child to a blood draw center and have the results analyzed by a laboratory. All blood lead level testing results must be reported to the Program Office.

We reviewed applicable law, rules, and DOH policies and procedures. The Program Office provided us the DRAFT *Lead Poisoning Screening & Case Management Field Guide* (Field Guide) dated July 7, 2009. The Field Guide is intended to be a companion to the *Childhood Lead Poisoning Screening and Case Management Guide* (Guide). The Program Office also provided us the DRAFT *Childhood Lead Poisoning Prevention Program Case Management Report Form* (Report Form) dated July 7, 2009, as a hard-copy representation of what the requested data will look like in Merlin<sup>®</sup>. We used these dated versions of draft documents to review and from which to make any comments or note areas of concern.

DOH's *Internal Operating Policy: Child 3* (IOP: Child 3) and its related *Technical Assistance: Child 4* (TAG: Child 4) were also under revision during our engagement. These policies are owned jointly by the Division of Family Health and Division of Environmental Health, Childhood Lead Poisoning Prevention Program. The Program Office's goal is to simultaneously release the approved Field Guide, revised IOP: Child 3 and TAG: Child 4, and new Merlin<sup>®</sup> Lead Extended Data Screens by the end of September 2009.

### **Management Considerations**

In order to further enhance the proposed changes to the process, we suggest the following areas receive additional review by management:

1. **Area of Concern** - Rule Number 64E-27.001, *Florida Administrative Code* (F.A.C.), was promulgated to establish the means by which and intervals at which children under six years of age are to be screened for lead poisoning and elevated blood lead levels, including guidelines for the medical follow-up and case management of those children. The Rule incorporates by reference the Guide, January 2008. The rule strictly references the January 2008 version of the Guide without providing for possible future updated versions.

**Management Consideration** - A future revision to the Program's Rule may provide for amendments of the Guide, using language such as “as may be amended.” Subsequent revisions to the Guide would not then necessitate revising Rule.

2. Area of Concern - The Program Office published the Guide. The Guide is intended to provide lead poisoning case management guidance to practitioners, labs, and DOH's own CHD personnel that provide case management and related elevated blood lead level environmental health investigations. The Program Office was also developing a DRAFT Field Guide as a companion to the Guide. The Field Guide is intended to provide policies, procedures, and suggested tools for lead poisoning case management to CHD case managers, physicians, and caregivers. However, the Program Office did not have an approved manual that addresses its policies, responsibilities, and processes within the Program Office. During our review, the Program Office was developing a DRAFT standard operating procedures manual, but the document was only in its very initial phase of development.

Management Consideration - The Program Office should continue to develop and publish an approved standard operating policies and procedures document that addresses all policies, responsibilities, and processes within the office.

3. Area of Concern - The Guide, incorporated by reference in Rule Number 64E-27.001(1), F.A.C., lists timeframes for follow-up testing and case management, including timeframes for completion of an environmental health investigation:

<b>Class</b>	<b>Follow-up Testing Schedule</b>	<b>Conduct an investigation</b>	<b>Case Management Time Frame</b>
Class 1 10-14 $\mu\text{g}/\text{dL}$	Within 3 months	Consider an Environmental Health Investigation	Within 20 Business Days
Class 2 15-19 $\mu\text{g}/\text{dL}$	Within 2 months	Within 10 business days after a child has had a confirmed blood test followed by a blood lead test taken more than 3 months apart with a result in the same range.	Within 10 Business Days
Class 3 20-44 $\mu\text{g}/\text{dL}$	Within 1 month	Within 5 business days of any confirmed blood test.	Within 5 Business Days
Class 4 45-69 $\mu\text{g}/\text{dL}$	Repeat within 48 hours	Within 2 business days of any confirmed blood test.	Within 2 Business Days
Class 5 $\geq 70 \mu\text{g}/\text{dL}$	Admit to hospital	Within 2 business days of any confirmed blood test.	Within 2 Business Days

As blood lead level results of confirmed initial testing increases and becomes more critical, follow-up testing timeframes, as well as case management timeframes, become closer in interval.

The Guide's table of Case Management Guidelines (Appendix B of the Guide) provides conflicting guidance. As relates to Class 2 (15-19  $\mu\text{g}/\text{dL}$ ), follow-up testing is to be completed within 2 months (column 2). However, in Column 3 for Class 2, guidance explains a follow-up test shall be taken more than 3 months apart from the initial test.

The Guide's table of Case Management Guidelines (Appendix B of the Guide) explains that for Class 2, an environmental health investigation is to be completed within 10 business days after the follow-up blood test. The DRAFT Field Guide describes the investigation should be completed within 10 business days from the initial blood lead level test (Page 10).

There is no description in the Guide as to what the Case Management Time Frame column (Column 4) means. However, the DRAFT Field Guide characterizes this timeframe as meaning the timeframe for initial home visit and environmental health investigation to be completed from the initial blood lead level test.

Additionally, the Guide's table of Case Management Guidelines (Appendix B of the Guide) requires the initial home visit and environmental health investigation for Class 1 to be within 20 business days. The DRAFT Field Guide requires the timeframe for Class 1 to be within 10 business days.

Such conflicting guidance makes interpretation of case management and requirements for environmental health investigators difficult.

Management Consideration - The Program Office should consider taking appropriate steps to ensure the Guide and its companion Field Guide provide consistent published guidance that agrees with the Program Office's intent for timeframes for case management, including environmental health investigations.

4. Area of Concern - The DRAFT Field Guide includes as responsibilities of the environmental health investigator, that upon completion of an environmental health investigation the findings should be reported in the Lead Extended Data Screens in Merlin<sup>®</sup>. To do so, environmental health investigators will be permitted access to Merlin<sup>®</sup> to input information related to cases at the discretion of the local CHD.

Management Consideration – While we did not specifically review Merlin<sup>®</sup> access security controls, it is important that adequate controls are in place regarding access into any data system. The Bureau of Epidemiology should ensure security over access controls is in place for all users of Merlin<sup>®</sup>, including CHD case managers and environmental health investigators.

5. Area of Concern - For cases of  $\geq 15 \mu\text{g}/\text{dL}$ , the environmental health investigator is to conduct an Elevated Blood Lead Level Environmental Health Investigation (EHI) of the residence and/or child care facility, assess risk, and identify the lead source. Such an investigation is also recommended (but not required) for cases  $\geq 10\text{-}14 \mu\text{g}/\text{dL}$ . According to the DRAFT Field Guide, the environmental health investigator must document the findings and provide recommendations for reducing identified hazards. Also, the DRAFT Field Guide

states the investigation report is to be provided to the family and landlord (if applicable). The CHD case manager and/or the environmental health investigator is to re-key the results of the investigation report, including all information collected on the Report Form (Pages 39/42) of the environmental health investigation report into Merlin<sup>®</sup>. Program Office staff explained they need to be able to analyze the investigative report. Therefore, it is not currently feasible to have the report scanned and attached.

Management Consideration - As funds become available, the Division of Environmental Health should consider the use of an electronic scanning or electronic tablet device as an efficient way to input information and data related to the environmental health inspection at the time of the inspection. Whether input initially into the *Environmental Health Database* (EHD) or directly into Merlin<sup>®</sup>, information from an investigation could then be entered only once, ensuring more accurate and timely entry.

6. Area of Concern - The DRAFT Field Guide explains a designated Screening and Case Management Coordinator (Case Reviewer) in the Program Office will use the information reported in Merlin<sup>®</sup> to conduct at least a quarterly review of case management activities, including timeliness, completeness, effectiveness, and resourcefulness of case management interventions. However, Program Office staff explained they had not yet firmed up the frequency of, or extent of responsibilities to fall under Case Management Review. The Program Office plans for the Case Reviewer to receive notification from Merlin<sup>®</sup> of more elevated, confirmed cases simultaneously with CHD case managers.

Management Consideration - The frequency and extent of any review of case management activities by the Program Office should add value to the CHD case manager's work, in addition to reviewing for completeness and providing other possible oversight. Management should consider having the Case Reviewer simultaneously review the more elevated cases and assist CHD Case Managers to better coordinate timely completion of case management so DOH may more quickly be able to earlier identify such cases.

7. Area of Concern - The DRAFT Field Guide explains an environmental health investigation must be conducted by an Environmental Protection Agency (EPA) certified lead risk assessor/inspector (Page 19). The Program Office was aware of at least 12 such inspectors at the time of our engagement. Certified inspectors do not reside in each county and must travel throughout the state. With the new Merlin<sup>®</sup> Lead Extended Data Screens, Program Office staff will have the same live (or current) access to immediately identify priority cases.

Management Consideration - The Program Office should consider providing value to the CHD case manager's work by coordinating such inspectors to priority cases. The Program Office may also help ensure that CHD case managers always have access to a complete and current list of these inspectors, including contact information.

8. Area of Concern – During fieldwork conducted in the early stages of the internal audit of the Program we initiated in September 2008, we learned there was a high incidence of blood lead level test results being submitted to CHD case managers in counties where a child did not reside. It was not clear whether the data was submitted incorrectly by the reporting practitioners and laboratories, or whether the data was changed at the Program Office. We interviewed numerous CHD case managers at that time that acknowledged this was a material problem. Some CHD case managers explained they returned such cases back to the Program Office. Other CHD case managers explained they spent large portions of their time trying to identify the correct county of the child's residence. In the latter situation, the CHD case manager would forward the test results to the correct county.

Furthermore, the Program Office explained that where CHDs experience problems with receiving the test results of children that do not reside in that county, those counties are able to reassign the cases to the appropriate county via a function in Merlin<sup>®</sup>. There is a function already built into Merlin<sup>®</sup> that enables a county to “reassign” a case that has been inadvertently assigned to them. The Program Office has no current plan to assist case managers to identify and redirect the case to the county of correct residence. Program Office staff explained it is expected that problems experienced in the past with CHDs receiving test results of children that do not reside in the CHD's county will be greatly reduced as the Program moves to Merlin<sup>®</sup>.

Management Consideration - The Program Office should consider providing value to the CHD case manager's work by coordinating and assisting CHD case managers to more quickly identify a child's elevated blood lead level test results that are inadvertently assigned to an incorrect county of residence. CHD case managers could then focus their time on case management responsibilities that reduce elevated blood lead levels in children that reside within the CHD case manager's jurisdiction. Also, by assisting CHD case managers with this issue, the Program Office would then be most aware of the extent of incorrect data, which may originate from reporting practitioners and laboratories. If determined by the Program Office to be an issue of incorrect source reporting of data, the Program Office could then pursue actions to require all applicable providers to more accurately report county of residence data.

9. Area of Concern - CHD case managers will input data pertaining to the outcome of each elevated blood lead level result ( $\geq 10 \mu\text{g/dL}$ ), including results of case management, into Merlin<sup>®</sup>. The DRAFT Field Guide explains a designated Case Reviewer in the Program Office will use the information reported in Merlin<sup>®</sup> to conduct a quarterly review of case management activities, including timeliness, completeness, effectiveness, and resourcefulness of case management interventions. Program Office staff explained there is no current comparison of data for number of days between referrals and completed investigations to quickly identify outliers. Program Office staff explained funding has been set aside to create a report related to case management to identify timeliness.

Management Consideration - The Program Office should consider developing a timeliness report from Merlin<sup>®</sup> as soon as possible so that the Case Reviewer may have a tool to quickly identify case management outliers, thus improving the timeliness of completion of DOH's childhood lead poisoning case management responsibilities.

10. Area of Concern - The Centers for Disease Control and Prevention (CDC) Childhood Lead Poisoning Prevention Program is committed to the [Healthy People](#) goal of eliminating elevated blood lead levels in children by the year 2010. The Program Office has identified its own performance measures in the DRAFT Field Guide (Page 24) to include:

- 80% of childhood lead poisoning cases will receive complete case management services within required timeframes.
- 85% of childhood lead poisoning levels will return to < 10 µg/dL within expected time frames, as identified in the Guide.

Management Consideration - The Program Office should ensure its performance measures are indicative of and further the CDC's goals.

11. Area of Concern - Section 381.985(3), *Florida Statutes*, stipulates records of all screenings shall be indexed geographically and by owner, to determine the location of areas of relatively high incidence. Laboratories are currently required to report address information, including zip code, to DOH. The Program Office is to receive blood lead level test results of all screenings. In the future, as lead level test results data is uploaded into Merlin<sup>®</sup>, the Program Office has the unique ability and requirement to conduct analysis based on geographic location to determine areas of relatively high incidence. The Program Office was unable to document this process is currently in place. The Program Office has placed any current geographic analysis responsibility with the local CHDs. CHDs currently have access to county-specific maps identifying areas of risk. However, these maps were developed by the Division of Environmental Health, based on 2000 Census data reflecting geographic areas containing > 27% pre-1950 housing or ≥ 74% pre-1970 housing.

Management Consideration - The Program Office should consider using more current data, such as data collected in Merlin<sup>®</sup>, to identify persons at risk residing, or who have recently resided, in buildings or geographical areas in which significant numbers of cases of lead poisoning or elevated blood-lead levels have recently been reported. This will bring the Program Office into compliance with Section 381.985(2)(d), *Florida Statutes*. The ultimate goal is to collect relatively recent data of geographical areas where children have already been identified through screenings to identify geographic areas that could be further targeted. The Program Office could then pursue additional screening in those geographic areas to identify other children at risk and take additional actions to reduce any threat(s).

12. Area of Concern - Program Office staff explained there are currently two general means by which results of lead blood test results are reported to DOH's Program Office: 1) Electronic Lab Reporting (ELR); and, 2) other multiple non-standardized means. Some data received via ELR is uploaded by DOH's Division of Information Technology (IT) into Merlin<sup>®</sup>. Results received by non-standardized means are to be compiled by the Program Office and sent to CHDs.

IT is currently working towards developing a comma-separated values (CSV) format for data input. All of the non-standardized reporting of lab results would then be able to be manually re-formatted into this CSV file format and be uploaded by IT into Merlin<sup>®</sup>. This would also enable the Program Office to request that the non-standardized reporting entities begin reporting in this approved CSV format.

There is no projected completion date for having this project operational. Once a CSV format is accepted by IT and Merlin<sup>®</sup> import testing is completed for individual reporting entities, the Program Office will no longer send information from those reporting entities to CHDs. Please reference the flowchart (**EXHIBIT A**) of how blood lead level test results will be reported and flow with the introduction of the new Lead Extended Data Screens in Merlin<sup>®</sup> by the end of September 2009. Additionally, please reference the flowchart (**EXHIBIT B**) of the Program Office's plans for reporting and flow of blood lead level test results data in Merlin<sup>®</sup> with the introduction of an approved CSV format sometime in the future.

Program Office staff explained that currently, and until a CSV format is developed and accepted by IT, blood lead level test results submitted via non-standardized means are compiled by the Program Office and sent to CHDs. The Program Office may still need to compile data received from smaller laboratories that report via paper. The goal of the Program Office is to report this data to the CHDs at least every two weeks in order to help the CHD ensure it has been notified of all cases relative to its area of jurisdiction. However, Program Office staff additionally explained they are not currently able to send out the data every two weeks because of staffing issues.

Rule Number 64D-3.029, F.A.C., requires all blood lead level test results to be reported to the Program Office electronically. As described above, some of the blood lead level test results submitted via non-standardized means and accepted by the Program Office are not in an electronic format. Rule Number 64D-3.047, F.A.C., provides for enforcement and penalties to any practitioner, hospital, or laboratory that fails to report a disease or condition as required by Chapter 64D-3, F.A.C. The Program Office has not utilized such methods where practitioners and laboratories do not report results in an electronic format.

Management Consideration - Until a CSV format is developed and accepted by IT and all test results are uploaded into Merlin<sup>®</sup>, the Program Office should ensure this data is transmitted to CHDs timely. This will provide a greater level of assurance that CHD case managers are notified of all cases relative to the CHD's area of jurisdiction.

Management Consideration - The Program Office should consider working with IT to develop a projected timeline and accelerate development of a CSV format. In order for the Program Office to operate the Program in accordance with DOH rule, once a CSV format is accepted and there is a means of receiving all blood lead level test results electronically, acceptance of hard-copy test results could cease. Alternatively, the Program Office could pursue enforcement and penalties pursuant to Rule Number 64D-3.047, F.A.C., when blood lead level test results are not received electronically.

13. Area of Concern – Rule Number 64D-3.029, F.A.C., requires all blood lead level test results be reported to the Program Office. Section 381.985(2), *Florida Statutes*, stipulates that in developing the screening program, priority shall be given to certain categories of children, including all children enrolled in the Medicaid program, to ensure they are screened at ages 12 months and 24 months, or if not previously screened, between the ages of 36 months and 72 months. Program Office staff explained that in the past, DOH had a *Memorandum of Understanding* with the Agency for Health Care Administration (AHCA) to obtain data so DOH could match data to ensure all children enrolled in the Medicaid program were screened. Program Office staff explained data matching is not currently performed by the Program Office due to limitations of existing data systems. The Program Office wants to automate the process to electronically match records in Merlin<sup>®</sup> against AHCA's Medicaid database. However, the Program Office added that funding is not currently available to accomplish this.

Management Consideration - The Program Office should consider re-initiating a process of matching available data from state records that may include Medicaid enrollees and Medicaid payments for children under six against lead level test results submitted to the Program Office from healthcare professionals. This will help identify children who are enrolled in Medicaid but for which no lead level test results have been received by the Program Office.

14. Area of Concern - The Guide explains healthcare providers should screen certain children, including those who are "Medicaid eligible" (Page 6), citing this as a federal requirement. This wording differs from Section 381.985(2)(a), *Florida Statutes*, which uses "enrolled" in Medicaid.

Management Consideration - The Guide, as incorporated into Rule, should agree with law. The Program Office could make the necessary adjustments to the Guide so that it is in agreement with *Florida Statutes*.

### **Closing Remarks**

We would like to thank management and staff of the Division Environmental Health, Bureau of Environmental Public Health Medicine, and particularly staff of the Childhood Lead Poisoning Prevention Program for providing their cooperation and assistance to us during the course of this consulting engagement.

JDB/mhb

cc: Carina Blackmore, D.V.M., Ph.D.  
Chief, Bureau of Environmental Public Health Medicine  
Julie K. Kurlfink  
Coordinator, Lead Poisoning Prevention Program Office