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MEMORANDUM

To: Individuals Interested in MDPH's Public Health Activities Related to Type 1 Diabetes

From: Suzanne K. Condon, Associate Commissioner
Director, Bureau of Environmental Health

Subject: Status Report/Update on Type 1 Diabetes Investigation in Weston, Wellesley, and Newton

Date: May 22, 2013

The purpose of this memorandum is to provide an update on the Massachusetts Department of Public Health's (MDPH) Bureau of Environmental Health's (BEH) exploratory investigation of the prevalence of type 1 diabetes among children and adolescents in Weston, Wellesley, and Newton.

As you may be aware, BEH released a report entitled *Review of the Prevalence of Type 1 Diabetes among Children and Adolescents in Weston, Wellesley, and Newton* in February 2012. The report along with a fact sheet summarizing the findings is available on the MDPH website at: http://www.mass.gov/dph/environmental_health under News & Updates. This report highlighted certain areas of interest based on the distribution of where children and adolescents with type 1 diabetes reside. As a result, follow-up work by MDPH/BEH will focus on three census tracts in Weston and Wellesley.

Based on report recommendations, BEH is currently reviewing environmental sites in the three census tracts in Wellesley and Weston to evaluate the potential for exposure to contaminants associated with these sites and any potential relationship to disease prevalence. In addition to this analysis, we will evaluate on a statewide basis the variability in the prevalence of type 1 diabetes, by community, by examining the most current BEH Environmental Public Health Tracking (EPHT) data (for grades K – 8). EPHT data for the 2012-2013 school year are still being collected from school nurses across the state; once collection is complete, BEH will begin the data analysis.

A summary of activities that have been completed since the release of the 2012 report follows.

Environmental Site Review

- Using a Geographical Information System, for those children and adolescents with type 1 diabetes residing in the three census tracts of interest in Weston and Wellesley, their address at diagnosis, current address, and previous addresses reported in the three census tracts were mapped.

- Sites within the three census tracts were then selected for closer evaluation if they met one of the following criteria:
 1. The site is included in the Massachusetts Department of Environmental Protection's (MassDEP) disposal site database (for sites regulated under the Massachusetts Contingency Plan, Chapter 21E, the state's Superfund law) and is located in close proximity to either the address at diagnosis, current address, or previous address for a child/adolescent with T1D included in the 2012 MDPH investigation;
 2. The chemical spill or release that resulted in the property being regulated under Chapter 21E is associated with a school in the three communities;
 3. The site is a CERCLIS site (that is, is regulated under federal Superfund law) and is located in one of the three communities.

CAP staff have spent approximately 60 person-days reviewing site files at MassDEP's Northeast Regional Office in Wilmington, MA. To facilitate data abstraction from the files, CAP developed an abstract form to record information on the types of disposal sites, their location, and what is known about potential contamination associated with the sites. Data from the forms have been compiled in a spreadsheet. This information is currently being evaluated to assess the likelihood of exposure to site-related contamination, particularly in relation to where children with T1D live.

Evaluation of Rights-of-Way

BEH was also asked to investigate proximity of the residences of children/adolescents with T1D to rights-of-way within the communities. To address this request, CAP staff is developing a map of the rights-of-way within the communities, to assess whether it appears that the residences of children/adolescents with T1D are clustered along the rights-of-way.

If individuals are not already on the MDPH mailing list for updates on BEH activities related to type 1 diabetes in children and adolescents in Massachusetts, please call 617-624-5757 and ask for the Community Assessment Program to be included for future updates.