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State of New Jersey

DEPARTMENT OF HEALTH

DIVISION OF EPIDEMIOLOGY, ENVIRONMENTAL AND OCCUPATIONAL HEALTH

PO BOX 369

TRENTON, N.J. 08625-0369

www.nj.gov/health

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

SHEREEF M. ELNAHAL, MD, MBA
Acting Commissioner

October 11, 2018

The Mya Lin Terry Foundation
c/o Kelly Terry
1637 Finderne Street
Oakhurst, NJ 07755

Dear Mrs. Terry:

This letter is a follow-up to your recent emails in June and August of this year, in which you expressed your continued concern regarding the number of childhood cancers for both Ocean Township, Monmouth County and the Oakhurst section of this Township. This letter will also serve as a follow-up to our letter dated July 10, 2013 in which we presented analysis results. I would like to say again how sorry I am to hear how cancer has affected your family and other families in your community. I can't imagine how difficult this must be for everyone in the community especially the affected families.

You had mentioned in your emails that you had become aware of several childhood cancers diagnosed in 2016 to 2018. The New Jersey State Cancer Registry (NJSCR) receives reports on all cancers that are diagnosed among New Jersey residents including reports on New Jersey residents from six other states. Currently, NJSCR is complete up to the year 2015. This response will present the updated Standardized Incidence ratio (SIR) from 1990-2015 for both Oakhurst-Census Designated Place (CDP) and Ocean Township.

As you are aware, the SIR analysis is the standard method used by the Centers for Disease Control and Prevention (CDC) and other states to evaluate cancer incidence in particular geographic areas. Please refer to the attached SIR fact sheet for a description of this type of analysis. SIR analysis of a geographic location requires precise age-specific population data, which is available for municipalities as well census designated places (CDP). Because Oakhurst-CDP is a census designated place, we are able to perform this type of analysis for it as well as for Ocean Township. Additionally, each case included in the calculation of the SIR analysis must be verified from the NJSCR to ensure accurate diagnosis and residential location.

Ocean Township

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For Ocean Township, the analysis of all childhood cancer types combined as well as the subtypes leukemia and lymphoma, revealed that the number of cases was similar to the number that would be expected at the 95% confidence level for both age groups (0-14 & 0-19) and for both time periods (1990-2015 & 2000-2015).

**Standardized Incidence Ratio (SIR) Analysis
Ocean Township, NJ (Monmouth County)
Male and Female Combined**

1990-2015, Children Ages 0-19					2000-2015, Children Ages 0-19				
	Obs	Exp	SIR	95% CI		Obs	Exp	SIR	95% CI
All Sites	32	34.1	0.94	0.64 - 1.33	All Sites	19	21.7	0.87	0.53 - 1.37
Leukemia	11	8.6	1.28	0.64 - 2.29	Leukemia	8	5.5	1.45	0.63 - 2.86
Lymphoma	6	5.6	1.07	0.39 - 2.34	Lymphoma	^	3.5	^	^ - ^
CNS	7	6.1	1.15	0.46 - 2.37	CNS	5	3.9	1.28	0.41 - 3.00

1990-2015, Children Ages 0-14					2000-2015, Children Ages 0-14				
	Obs	Exp	SIR	95% CI		Obs	Exp	SIR	95% CI
All Sites	25	23.3	1.07	0.69 - 1.58	All Sites	16	14.7	1.09	0.62 - 1.76
Leukemia	9	7.2	1.25	0.57 - 2.37	Leukemia	7	4.6	1.52	0.61 - 3.13
Lymphoma	5	2.8	1.81	0.58 - 4.22	Lymphoma	^	1.7	^	^ - ^
CNS	7	5.0	1.41	0.57 - 2.91	CNS	5	3.1	1.6	0.51 - 3.73

Average annual rates are per 100,000 and age-adjusted to the 2000 US population standard.
Classification of Childhood Cancer - ICCC site recode ICD-O-3/WHO 2008.
Data source: New Jersey State Cancer Registry, New Jersey Department of Health.
^ Data suppressed when fewer than 5 cases to ensure statistical reliability and confidentiality.
95% CI- Confidence Interval

Oakhurst-CDP

For Oakhurst-CDP, the analysis revealed that the number of all childhood cancers cases combined was similar to the number that would be expected at the 95% confidence level for both age groups (0-14 & 0-19) and for both time periods (1990-2015 & 2000-2015). The total counts of all childhood cancers combined for Oakhurst-CDP, was less than five which prevents us from displaying the counts or SIR results. Based on the age-specific population of Oakhurst-CDP the calculated expected number of total childhood cancers from 1990-2015 was 4.3 cases for ages 0-14 and 6.4 cases for ages 0-19. The Oakhurst-CDP childhood (ages 0-14 and 0-19) counts for leukemia and lymphoma were each less than 5 and analysis would not yield statistically reliable results.

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The New Jersey Department of Health (NJDOH) plans to revisit this analysis for both Ocean Township and Oakhurst-CDP as additional years of data become available. We would like to express that we use the word “expected” to refer to statewide comparisons and do not intend it to mean acceptability.

Sometimes childhood cancers, like other rare health events, do not occur evenly over time and place. This was seen in the review of incident childhood cancer cases for Oakhurst-CDP from 1990-2015 in that many years had passed with no cases diagnosed and then several cases were diagnosed in a relatively short period of time. Because of the known random variation that occurs with small numbers, it is important to ensure that the analysis covers an extended period of time.

Childhood cancers diagnosed each year in New Jersey and the United States, occur in lower numbers than adult cancers, and represent about one percent of all cancers. During recent years, the rates of newly diagnosed cancers among children have remained fairly stable in New Jersey and the United States. The mortality rates for most types of childhood cancers have steadily decreased in recent years, due to improvements in cancer treatments. This is noted in our recent report entitled *Childhood Cancer in New Jersey 1979-2013* (http://www.nj.gov/health/ces/documents/childhood_cancer79-13.pdf). Addendum data tables for this report entitled *Childhood Cancer Incidence in New Jersey by County, 1990-2014 can be located at* (https://nj.gov/health/ces/documents/reports/childhood_cancer90-14_county_tables.pdf),

Unlike cancers of adults, childhood cancers are not significantly related to lifestyle-related risk factors such as tobacco or alcohol use, poor diet, or not enough physical activity. Known risk factors for some childhood cancers include certain genetic conditions, prenatal diagnostic radiation exposure and previous cancer treatments. Possible risk factors for childhood cancer include prenatal exposure to certain medications, cancer-causing chemicals, neonatal infections and history of birth defects in relatives. These factors do not explain all childhood cancers, but research is underway to determine the causes and to improve survival.

You specifically mentioned your concern regarding possible environmental exposures in the close proximity to the Joe Palaia Park which is also the former location of the Deal Test site. The New Jersey Department of Environmental Protection (NJ DEP) is currently monitors all site and will be able to provide more detailed information. They can be reached at 866 DEP-WARN (866 337-5669). We also encourage you to reach out to your local health officer David A. Henry, regarding your environmental concerns in your area. The Monmouth County Regional Health Commission can be reached at 732-493-9520.

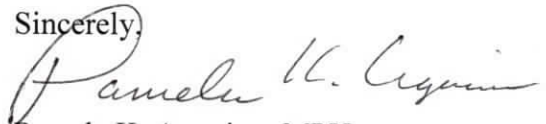
For your information, I have enclosed a copy of the National Cancer Institute (NCI) factsheet entitled *Cancer Clusters* (<https://www.cancer.gov/about-cancer/causes-prevention/risk/substances/cancer-clusters-fact-sheet>) and online excerpts from the American Cancer Society (ACS) entitled *Risk Factors and Causes of Childhood Cancer and How does chemotherapy affect the risk of second cancers?*

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As a courtesy, I wanted to let you know that I have moved to the New Jersey State Cancer Registry, Cancer Epidemiology Services. Raj Gona will be the new point person for the Environmental and Occupational Health Surveillance Program, Cancer Surveillance Unit. He can be reached at the Environmental and Occupational Health Surveillance Program Monday through Friday between 9:00 a.m. and 5:00 p.m. at (609) 826-4984.

So that we may be able to better assist future callers, we would appreciate your feedback by completing the enclosed form and mailing it in the postage paid envelope, also enclosed. Your assistance is greatly appreciated.

Sincerely,



Pamela K. Agovino, MPH
Research Scientist
Cancer Surveillance Unit

Enclosure

C:

David A. Henry, M.P.H., Health Officer
Monmouth County Reg Health Commission # 1

Raj P. Gona, MPH, MA, Research Scientist
New Jersey Department of Health
Environmental and Occupational Health Surveillance Program
Cancer Surveillance Unit

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