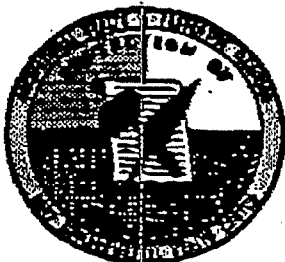


**FAX TRANSMITTAL**

# of pages 7

To <b>Mick Senus</b>	From <b>Craig Sakai</b>
Dept./Agency	Phone #
Fax # <b>(910) 451-5997</b>	Fax #

NSN 7540-01-317-7388 5099-101 GENERAL SERVICES ADMINISTRATION



**C O V E R**  
**S H E E T**  
**FAX**

**To:** Wade Jensen  
NAVFACHQ (CODE 42WI)

**Fax #:** (703) 325-0183

**Subject:** PRESENTATION AT THE ARMED FORCES EPIDEMIOLOGICAL BOARD (AFEB) MEETING ON 21-22 AUGUST, REGARDING MCB CAMP LEJEUNE HEALTH STUDY

**Date:** 14 August 1997

**Pages:** 6, including this cover sheet.

**COMMENTS:**

Wade,

Per our phoncon discussion, I am forwarding you a copy of the two-page abstract we submitted yesterday, via fax, to the AFEB. I am also forwarding a copy of the agenda for the subject meeting, which indicates our presentation has been scheduled for the afternoon of Thursday, 21 August.

Yesterday afternoon I faxed a copy of the abstract to Dr. Nancy Sonnenfeld, at ATSDR, after discussing with her our intent to present the issue to the AFEB. I asked her to let me know if she found anything objectionable. She objected to the one sentence that states that "essentially nothing was found [in the first study]" (which refers to the Adverse Pregnancy Outcomes study that ATSDR completed this year.) Dr. Hyman is changing the sentence to read something like "The only differences found were in small subgroup analysis." This refers to the ATSDR conclusion that for a subgroup - women over 35, who had had problems with previous pregnancies - a "statistically significant association" was found with exposure and the "small for gestational age" parameter. The subgroup consisted of four women.

Chet Arbnor says that 8 September is good with him for a meeting. He will schedule a conference room there. I am faxing him this same information.

From the desk of...

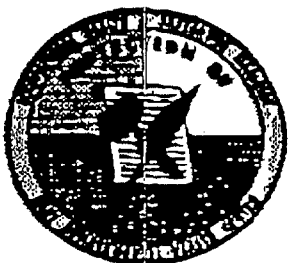
**Andrea E. Lunsford**  
Deputy Director for Environmental Programs  
Navy Environmental Health Center  
2510 Walmer Avenue  
Norfolk, Virginia 23513-2517

Very respectfully,  
Andrea

**CLW**

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Telephone: (757) 383-6654  
Fax: (757) 444-7261  
E-mail: [aelunsford@med.navy.mil](mailto:aelunsford@med.navy.mil)



C O V E R  
S H E E T

FAX

To: Chet Arbnor  
CNO N453G  
Fax #: (703) 602-2676  
Subject: PRESENTATION AT THE ARMED FORCES EPIDEMIOLOGICAL BOARD  
(AFEB) MEETING ON 21-22 AUGUST, REGARDING MCB CAMP LEJEUNE  
HEALTH STUDY  
Date: 14 August 1997  
Pages: 6, including this cover sheet.

COMMENTS:

Chet,

Per our phoncon discussion, I am forwarding you a copy of the two-page abstract we submitted yesterday, via fax, to the AFEB. I am also forwarding a copy of the agenda for the subject meeting, which indicates our presentation has been scheduled for the afternoon of Thursday, 21 August.

Yesterday afternoon I faxed a copy of the abstract to Dr. Nancy Sonnenfeld, at ATSDR, after discussing with her our intent to present the issue to the AFEB. I asked her to let me know if she found anything objectionable. She objected to the one sentence that states that "essentially nothing was found [in the first study]" (which refers to the Adverse Pregnancy Outcomes study that ATSDR completed this year.) Dr. Hyman is changing the sentence to read something like "The only differences found were in small subgroup analysis." This refers to the ATSDR conclusion that for a subgroup - women over 35, who had had problems with previous pregnancies - a "statistically significant association" was found with exposure and the "small for gestational age" parameter. The subgroup consisted of four women.

Very respectfully,  
Andrea

CLW

From the desk of...

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Andrea E. Lunsford  
Deputy Director for Environmental Programs  
Navy Environmental Health Center  
2510 Walmer Avenue  
Norfolk, Virginia 23513-2817

Telephone: (757) 363-5554  
Fax: (757) 444-7261

**A Pilot Study To Investigate Childhood Leukemia Among Children Who Received In-Utero Exposure to PCE and TCE.**

Jeffrey Hyman and Andrea Lunsford  
Naval Environmental Health Center

**Background.**

Samples of water taken from the Camp Lejeune Marine Corps base between 1982 and 1985 revealed long term water contamination in two housing areas. One area received water containing up to 215 ppb of tetrachloroethylene (PCE). This may date from as early as 1958. A second area's water supply contained up to 1400 ppb of trichloroethylene (TCE), up to 4107 ppb of 1,2-dichloroethylene (1,2-DCE), and up to an estimated 35 ppb of benzene. It is not known when this contamination began. Contaminated water was not used after February of 1985.

Computerized birth certificate data is available from 1986. Using this data the Agency for Toxic Substances and Disease Registry (ATSDR) has identified 6,362 exposed and 5,898 unexposed births. They have completed an interim study in this population using the outcomes of mean birth weight and small for gestational age births. This study found essentially no difference between the exposed and unexposed populations.

ATSDR has requested \$1.9 million to conduct a study of childhood leukemia in this population, with most of the cases to be identified by a national advertising campaign. Before considering this type of comprehensive epidemiological study we have decided to conduct a pilot study.

**Goals.**

- Determine the number of cases of childhood leukemia (ages 0 to 19) among the cohort of children born at Camp Lejeune between 1968 and 1985.
- Determine the incidence of childhood leukemia among all Navy and Marine dependents for the years 1989 to 1994, using the ACTURS registry.

**Methods.**

We plan to use a variety of registries to locate as many cases as possible using the available identifiers: name, date of birth, address at birth. The registries to be used include:

- ACTURS (1989 to 1997)
- National Death Index (1968 to 1997)
- State Cancer Registries (including North Carolina, California, South Carolina, Texas, Pennsylvania, Illinois, and Florida)

**Expected Difficulties.**

- The actual number of cases is unknown.
- The social security numbers of the children are unknown.
- The available data bases will probably only identify about half of the cases
- Based on SEER rates, there are 8.7 expected cases in this population. Even if all cases are located, statistical power will be very low.
- Exposure data is poor. Contamination levels vary over time since water was drawn randomly changing mixture of wells. Some families lived at Camp Lejeune for only part of

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their pregnancies. There are no records of individual household water usage, so consumption will have to be estimated.

- This is a very transient population. Most of the expected cases will probably not have occurred at Camp Lejeune.
- Some of the families will probably have left the military before the cases were diagnosed.
- Some of the cases that occurred in military families were probably diagnosed by civilian oncologists, and will not appear in the ACTURS registry.

**Questions for the AFEB.**

Please consider and comment on the following:

1. Are there other approaches to this pilot study that we should consider?
2. Are there other databases that we should use to identify the cases?
3. Considering the expected sample size, quality of exposure data, Woburn results, projected cost, and possible scientific value of the proposed ATSDR study; what criteria should we use in evaluating the results of the pilot study to determine if the larger study should be conducted?

CLW

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- AGENDA -

# ARMED FORCES EPIDEMIOLOGICAL BOARD

WALTER REED ARMY INSTITUTE OF RESEARCH  
Building 40, Room 3092  
Washington, D.C.

21-22 August 1997

Gerald F. Fletcher, M.D., President  
Col Vicky L. Fogelman, USAF, BSC, ATEB Executive Secretary

### Thursday, 21 August 1997

- |      |   |  |
|------|---|--|
| 0800 | Introduction and Administrative Announcements         | Dr. Fletcher<br>Dr. Mazzuchi<br>COL Fogelman |
| 0815 | Birth Defects Among Children of Gulf War Veterans     | Dr. Cowan                                    |
| 0900 | Follow-up on Naval Recruit Issues                     | LCDR Ryan                                    |
| 0925 | Adenovirus Surveillance                               | CDR Gray                                     |
| 0945 | BREAK   |  |
| 1000 | DoD Medical Response to Bioterrorism                  | COL Parker                                   |
| 1045 | Adenovirus Vaccine Update                             | LTC DeFraitas                                |
| 1115 | Physical Developmental Hazards in<br>Naval Workplaces | CDR Cassano                                  |
| 1200 | LUNCH (Box Lunches)                                   |  |

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**1300 Deployment Risk Assessment Methodology**

**MAJ Ruscio  
Dr. Burke**

**1300-1700 Subcommittee Time**

**A. Infectious Disease Subcommittee**

- DoD Immunization Survey Review

**Ms. Kasab**

- Decreased Dosage for Hepatitis B Vaccine

**COL Engler**

**B. Health Maintenance Subcommittee**

- Routine Clinical Services in MHSS

- Productivity Loss Among Heavy Drinkers  
- U.S. Military

**MAJ Fisher**

- Alcohol Prevention Programs - DoD and  
U.S. Navy

**Mr. Hartman  
CDR Beaugrand**

**C. Environmental/Occupational Health  
Subcommittee**

- Environmental Hazard Surveillance  
During Deployments

**Dr. Hyman  
Ms. Lunsford**

- Occupational Health Issues Aboard Naval Ships

**Friday, 22 August 1997**

**0800 DoD Global Surveillance Program for  
Emerging Infections**

**LTC Kelley**

**0845 Subcommittee Time**

**1130 AFEB Executive Meeting**

- Subcommittee Reports and Discussion/Action  
- Other Issues

**CLW**

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**1300 Adjourn**

DIRECTIONS:

From Baltimore, Dulles, or Washington Airports take the Beltway, I-495, to the Georgia Avenue exit.

To WRAIR:

From the Holiday Inn: Proceed south on Georgia Avenue to the entrance of the Walter Reed Army Medical Center on right. Follow map to WRAIR. Unless you have an assigned parking space, you are advised to park at the Forest Glen Annex and ride the shuttle bus. See schedule below.

From Washington: Proceed north on Georgia Avenue to the entrance to WRAMC on the left. You may proceed north on the Rock Creek Parkway until it turns into Beach Drive. Proceed through Rock Creek Park on Beach Drive and turn right on Sherrill Drive, which will take you to 16th Street. Turn left on 16th and immediately make a right into the WRAMC complex. Follow the map to WRAIR. If you do not have assigned parking, you are advised to ride the shuttle from Forest Glen. See schedule below.

To Forest Glen:

From Beltway take the Georgia Avenue exit. Proceed south to Linden Lane. Turn right and proceed to Forest Glen Annex. Turn left into parking area for the Commissary and Post Exchange. The shuttle departs from the area in front of the Commissary/Exchange complex.

Forest Glen Shuttle Schedule:

Shuttle service starts at 0600 and runs every 15 minutes until 0745 when it shifts to an every 30 minute schedule. The drop point is in front of the Walter Reed Army Medical Center. As the meeting on both days starts at 0800, the latest shuttle you should take is the 0715 bus. This will allow enough time to walk to WRAIR.

MESSAGES:

During the meeting you may receive telephone messages through the WRAIR Audiovisual Services at (202) 576-2106. The WRAIR Fax number is (202) 576-3114. Indicate on the Fax cover sheet that you are attending the AFEB meeting in Conference Room 3092 so that your Fax can be routed to you.

CLW

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