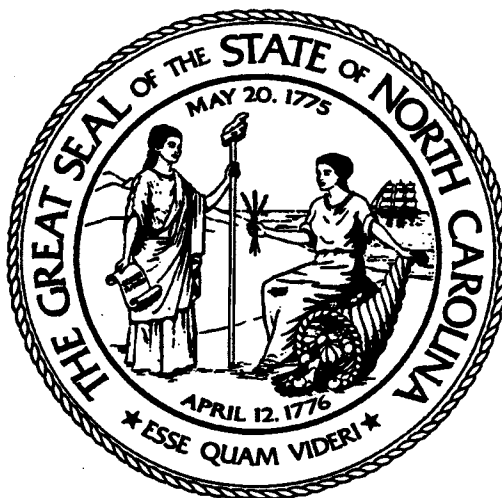


RA
410.54
.N8
N671
1994
c.2

LEGISLATIVE RESEARCH COMMISSION

COMMITTEE ON PUBLIC HEALTH

PLEASE DO NOT REMOVE FROM THE
LIBRARY WITHOUT CHECKING OUT.



LEGISLATIVE LIBRARY

REPORT TO THE 1993 GENERAL ASSEMBLY OF NORTH CAROLINA

1994 SESSION

LEGISLATIVE LIBRARY

**A LIMITED NUMBER OF COPIES OF THIS REPORT IS AVAILABLE
FOR DISTRIBUTION THROUGH THE LEGISLATIVE LIBRARY.**

**ROOMS 2126, 2226
STATE LEGISLATIVE BUILDING
RALEIGH, NORTH CAROLINA 27611
TELEPHONE: (919) 733-7778**

OR

**ROOM 500
LEGISLATIVE OFFICE BUILDING
RALEIGH, NORTH CAROLINA 27603-5925
TELEPHONE: (919) 733-9390**

TABLE OF CONTENTS

LETTER OF TRANSMITTAL..... i

LEGISLATIVE RESEARCH COMMISSION MEMBERSHIP..... ii

PREFACE..... 1

COMMITTEE PROCEEDINGS..... 3

FINDINGS AND RECOMMENDATIONS..... 10

APPENDICES

A. RELEVANT PORTIONS OF UNRATIFIED H.B. 1319 (2ND EDITION) OF THE 1993 SESSION, THE STUDIES BILL, AND HOUSE BILL #623, VERSION 1 AND VERSION 2 OF THE 1993 SESSION..... A-1

B. MEMBERSHIP OF THE LRC COMMITTEE ON PUBLIC HEALTH.. B-1

C. BLOOD LEAD LEVELS IN NORTH CAROLINA PAINTERS..... C-1

D. N.C. 1994 LEAD-BASED PAINT HAZARD REDUCTION PROGRAM-SUMMARY..... D-1

E. LISTING OF PERSONS AND ORGANIZATIONS MAKING PUBLIC COMMENTS TO THE COMMITTEE ON PUBLIC HEALTH..... E-1

F. LEGISLATIVE PROPOSAL I -- A BILL TO BE ENTITLED AN ACT TO REGULATE LEAD ABATEMENT IN ACCORDANCE WITH FEDERAL LAW..... F-1

G. LEGISLATIVE PROPOSAL II -- A BILL TO BE ENTITLED AN ACT TO AUTHORIZE THE COMMISSION FOR HEALTH SERVICES TO ADOPT RULES TO MINIMIZE THE RISK OF INJURY TO CHILDREN WHO USE PUBLIC SWIMMING POOLS AND A SECTION-BY-SECTION ANALYSIS OF THE BILL..... G-1

RA 410.54 .N8 N671 1994 C.2



STATE OF NORTH CAROLINA
LEGISLATIVE RESEARCH COMMISSION
STATE LEGISLATIVE BUILDING
RALEIGH 27611

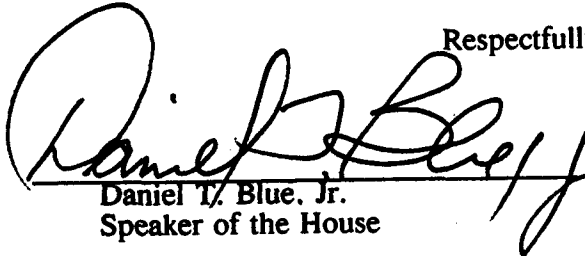


May 23, 1994

TO THE MEMBERS OF THE 1993 GENERAL ASSEMBLY (REGULAR SESSION 1994):

The Legislative Research Commission herewith submits to you for your consideration its interim report on Public Health. The report was prepared by the Legislative Research Commission's Committee on Public Health pursuant to G.S. 120-30.17(1).

Respectfully submitted,


Daniel T. Blue, Jr.
Speaker of the House


Marc Basnight
President Pro Tempore

Cochair
Legislative Research Commission



1993-1994

LEGISLATIVE RESEARCH COMMISSION

MEMBERSHIP

President Pro Tempore of
the Senate
Marc Basnight, Cochair

Senator Austin Allran
Senator Frank W. Ballance, Jr.
Senator R. L. Martin
Senator J. K. Sherron, Jr.
Senator Lura S. Tally

Speaker of the House of
Representatives
Daniel T. Blue, Jr., Cochair

Rep. Harold J. Brubaker
Rep. Marie W. Colton
Rep. W. Pete Cunningham
Rep. Bertha M. Holt
Rep. Vernon G. James



PREFACE

The Legislative Research Commission, established by Article 6B of Chapter 120 of the General Statutes, is the general purpose study group in the Legislative Branch of State Government. The Commission is cochaired by the Speaker of the House and the President Pro Tempore of the Senate and has five additional members appointed from each house of the General Assembly. Among the Commission's duties is that of making or causing to be made, upon the direction of the General Assembly, "such studies of and investigations into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner" (G.S. 120-30.17(1)).

The Legislative Research Commission, prompted by actions during the 1993 Session, has undertaken studies of numerous subjects. These studies were grouped into broad categories and each member of the Commission was given responsibility for one category of study. The Cochairs of the Legislative Research Commission, under the authority of G.S. 120-30.10(b) and (c), appointed committees consisting of members of the General Assembly and the public to conduct the studies. Cochairs, one from each house of the General Assembly, were designated for each committee.

The study of Public Health would have been authorized by Part IV of House Bill 1319 (2nd edition) which passed both chambers but inadvertently was among the bills not ratified at the end of the 1993 Session. Part II of House Bill 1319 would allow studies authorized by that Part for the Legislative Research Commission to consider House Bill #623 in determining the nature, scope and aspects of the study. Section 1 of House Bill #623 reads in part:

"The Legislative Research Commission may study the need to develop a State Lead Hazard Management Program including the following issues:

- (1) Establishment of a State program to assume

- responsibility and comply with federal regulations under Title VI of the Toxic Substances Control Act;
- (2) Certification of persons performing lead abatement activities and lead-based paint activities, including establishing and collecting lead certification fees as required under Title IV; and
 - (3) Creation of lead abatement permits and permit fees to support the program."

The relevant portions of House Bill 1319 and House Bill #623 are included in Appendix A. The Legislative Research Commission authorized this study under authority of G.S. 120-30.17(1) and grouped this study in its Health and Human Resources area under the direction of Representative Vernon G. James. The Committee was chaired by Senator Roy A. Cooper III and Representative Walter Watt Dickson. The full membership of the Committee is listed in Appendix B of this report. A Committee notebook containing the committee minutes and all information presented to the Committee is filed in the legislative library.

COMMITTEE PROCEEDINGS

After authorization by the Legislative Research Commission under authority of G.S. 120-30.17(1), the Legislative Research Commission's Committee on Public Health met on April 27, 1994, May 6, 1994 and May 13, 1994. At the initial meeting, the Committee adopted its budget and reviewed its duties which had been assigned by the Legislative Research Commission. The following are summaries of these three meetings.

April 27, 1994

Because of the limited time before interim report to the Legislative Research Commission for transmittal to the 1993 General Assembly, Regular Session 1994, the Committee determined to concentrate its efforts on HB 623 (V 2) (See Appendix A). This was the specific task assigned to the Committee by the Legislative Research Commission.

The Committee was instructed by DEHNR and the Department of Commerce about some of the reasons that DEHNR requested HB 623. PL 102-550 was signed into law October 23, 1992 whose title is the "Housing and Community Development Act of 1992". Of specific concern to the Committee is Title X - Residential Lead-Based Paint Hazard Reduction.

This title requires:

1. The Environmental Protection Agency to promulgate final regulations governing lead-based paint activities which are to contain standards for performing lead-based paint activities;
2. Workers to be trained, training programs to be accredited, and contractors to be certified;

The Lead-Based Paint Hazard Reduction Act of 1992 applies to:

1. Any housing constructed prior to 1978 (about 2,000,000 units in North Carolina);
2. Potentially 11,000+ State, federal and local government buildings;
3. Commercial buildings whose number may exceed 130,000; and

4. 6,066 bridges.

The states have the option to implement an EPA approved program for training and certification and work practice standards by 1996. Therefore the Department of Environment, Health and Natural Resources submitted HB 623, Version 1 to establish State administration.

For discussion and information, the Department of Environment, Health and Natural Resources provided a briefing book to the Committee. This book and other information helped the Committee understand the issues related to lead abatement and the State's response. This briefing book is on file with the Committee.

Lead is not a new issue for the State. Mr. Ed Norman, Director, Division of Environmental Health, DEHNR, presented background and informational data on lead poisoning and screening in the State. Major points of this presentation were:

.Large number of children tested fall between 10 and 20 micrograms per deciliter which are levels of exposure that can cause health effects in physical and mental development of children. Test results above 25 are considered to be high;

.Primary emphasis is to identify children, 6 months to 6 years of age, with lead poisoning early in order to address sources of exposure, reduce levels by health education, provide nutritional guidance, or environmental intervention and follow-up;

.Lead-based paint typically exists in structures built prior to 1960 but was allowed to be used until 1978;

.Primary concerns are also in soil and dust in or surrounding homes in which children reside and play. In addition, national data shows that as much as 20% of exposure may come from water, but no lead poisoning cases have been documented in N.C. in which water was the primary source;

.In 10/91 Center for Disease Control issued revised guidelines stating all children less than 6 years old should be tested for lead poisoning. In N.C. it is required that all children who are recipients of Medicaid and local health department services be tested for lead poisoning;

.Since 1/94 DEHNR offers lead screening at no cost to all children less than 6 years old in the State, with particular emphasis on children between 12 and 24 months; and

.Last year 1 out 10 children were tested. It is noted that more exposure exists in rural counties with higher rate in eastern N.C.

Fanny K. Ennever, PH.D., Department of Public Health Sciences, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, N.C., spoke to the Committee relative to a study Bowman Gray did for the Painting and Decorating Contractors of America. Dr. Ennever gave the Committee data from a study that was conducted on 127 painters to determine 1) what percentage of working painters in the State had blood lead levels more than 40 micrograms per deciliter and 2) what were the painting activities associated with raising the blood levels. The analyses indicated no painters tested had blood lead levels over 40 and secondly, there was no relationship between the work activities and their measured blood leads. (See Appendix C, Blood Lead Levels in North Carolina Painters, for additional detail).

Ms. Pam Wilson, Director, Division of Community Assistance, Department of Commerce, gave information on a \$4 million federal grant that was awarded to N.C., through HUD, to conduct abatement activities. (See Appendix D). Funds are from the U.S. Department of Housing and Urban Development's (HUD) Lead-based Paint (LBP) Hazard Reduction Program, Category I. North Carolina, through the Division of Community Assistance (DCA), NC Department of Commerce, was awarded four million dollars. DCA will provide four million dollars in matching funds from its Small Cities Community Development Block Grant (CDBG) program.

The HUD LBP funds will be used for:

- 1) Administration (10%)
- 2) Community Education

3) Local government LBP hazard reduction programs.

The majority of funds will go towards the local programs. Local governments will develop plans to reduce LBP hazards in homes of low income families.

Mr. Pat Curran, Division of Epidemiology, DEHNR, reviewed PL 102-550, "Title X - Residential Lead-Based Paint Hazard Reduction Act of 1992". Special attention was called to Sections 402 and 404 of the Act which are bases for HB 623. Following questions by the Committee, Mr. Curran explained that private contractors who conduct the abatement work are traditionally those trained in either hazard material or asbestos abatement. Methods of abating lead are similar to removing asbestos and similar equipment is used to protect facility and workers. It was further noted that a training course is available at the School of Public Health at UNC-Chapel Hill for lead abatement supervisors.

Doug Farquhar, J.D., Policy Specialist for Toxics of the National Conference of State Legislatures, gave a presentation on lead abatement programs in other states. It was noted that North Carolina faces the same type of problem related to lead abatement as do many other states. Statistics show that in the South, around 70% of housing was built before 1978, around 32% built before 1960 and 92% of lead was used in housing prior to 1960. Proposed state legislation would provide the states the authority to address and remediate poisoning over the long term to neutralize the problem; provide funding vital to keep programs alive (from fees or general funds); allow states to develop rules that reflect local concerns, economical and political; incorporate interests and specific needs of the population; provide for effective responses to specific concerns raised by training programs. Two years after the Environmental Protection Agency promulgates its regulations, in the absence of a state program, EPA will administer the program. Title X requires EPA to insure that individuals working in lead reduction activities are: 1)

properly trained; 2) that training programs are accredited; and 3) that contractors are certified. Concerns were voiced on costs and equitable distribution of the grant moneys.

The Committee solicited public comments from various groups interested and affected by lead abatement. Appendix E contains a listing of persons and organizations that addressed the Committee.

In summary, listed below are comments, concerns and observations discussed and evaluated by the Committee members at its first meeting.

1. The \$4 million grant is insufficient to abate all lead hazards and local governments would need ongoing support when the two year grant period has expired.
2. With the absence of federal regulations, HB 623 would present a "blank check" concept.
3. Fees for abatement activities would be a problem for low and moderate income families.
4. Concern that abatement activities will result in hazardous waste disposal problem.
5. Consensus that a real problem exists but perhaps more time and study is needed to properly address the issue.

May 6, 1994

At the second meeting, the Committee continued to receive information and discuss the issues and legislative options relative to the abatement of lead. Mr. Pat Curran, Division of Epidemiology, DEHNR, made a presentation that informed the Committee about the actual techniques of lead abatement. Some examples of lead abatement in housing were illustrated through a slide presentation. Also, the techniques of lead abatement in the old Capitol Building were shown to the Committee.

The Committee then discussed its options for recommendations to the 1993 General Assembly, Regular Session 1994. The options discussed were:

1. To continue Committee discussion with no recommendation to the 1993 General Assembly, Regular Session 1994, but with intent to recommend regulation to the 1995 General Assembly.
2. To recommend interim legislation to regulate lead abatement that would apply only to North Carolina's Lead-Based Paint Hazard Reduction Grant from the United States Department of Housing and Urban Development.

3. To recommend the language in HB 623 as originally requested by DEHNR and the Department of Commerce.

The Committee also considered a new issue at its second meeting. Senator Linda Gunter brought to the attention of the Committee the need for legislation to allow DEHNR by rule to address wading pool suction drain injuries.

In 1991, a 3-year-old girl sat on the uncapped drain of a wading pool in Durham and sustained severe internal injuries requiring surgical repair. The pool had a single drain through which water was continuously flowing and from which a protective antisuction cover had been removed.

Last summer, two more suction drain injuries occurred. In Raleigh, a 5-year-old girl sustained injuries similar to those of the child in Durham. In Monroe, another 5-year-old girl was injured -- although less severely because she was not sitting squarely on the drain. In both of these recent cases, the drain covers had been removed.

It is less critical that, when public pools are inspected, drain covers be examined to be certain they are securely fastened in place. This should also be done as part of the daily maintenance routine of all pool operators. Single drain pools are inherently unsafe. A recently enacted state statute allows operation of single-drain pools constructed or remodeled before May 1, 1993.

Senator Gunter requested the Committee to include a pool safety bill in its package of recommendations to the 1993 General Assembly, 1994 Regular Session. The purpose of Senator Gunter's bill on pool safety is to authorize the Commission for Health Services to adopt rules to abate suction injury hazards at public swimming pools and to immediately suspend the permit of any pool that fails to comply with the new rules which would take effect January 1, 1995.

May 13, 1994

The Committee discussed and approved, as amended, the report and the proposed recommendations to the 1993 General Assembly, 1994 Session.



FINDINGS AND RECOMMENDATIONS

The Legislative Research Commission's Committee on Public Health in North Carolina makes the following findings and recommendations:

RECOMMENDATION ONE

The Legislative Research Commission's Committee on Public Health in North Carolina makes the following findings and recommendations:

The Public Health Committee recommends that it continue its study related to lead abatement in accordance with Title X of PL 102-550 and federal regulations implementing this act. Further, that the Committee report its findings to the 1995 General Assembly with proposed legislation. In the interim it is recommended the General Assembly should enact A BILL TO BE ENTITLED AN ACT TO REGULATE LEAD ABATEMENT IN ACCORDANCE WITH FEDERAL LAW which shall be applicable only to North Carolina's Lead-Based Paint Hazard Reduction Grant from the United States Housing and Urban Development Category I.

FINDING

The Legislative Research Commission Committee on Public Health finds a definite and serious need for an appropriate lead abatement program to protect North Carolina's children. Such a need is supported both by the gravity of the public health risk itself as well as the necessity for any statutory enactment to embrace and be consistent with federal regulations promulgated by the U.S. Environmental Protection Agency.

The Committee met in late April 1994 in anticipation that proposed Environmental Protection Agency regulations governing lead abatement would have been released, as scheduled, prior thereto. The release of such proposed regulations appear to be

indefinitely delayed until at least sometime in the Fall 1994. Presently the Committee is concerned about the eventual cost of a lead abatement program and the parameters of enforcement provisions. Such information should become available after the release of the proposed federal regulations and after further study by this Committee.

Accordingly, the Legislative Research Commission's Committee on Public Health strongly requests that the State's Department of Environment, Health and Natural Resources maintain close communication with the Environmental Protection Agency and bring the substance of proposed EPA regulations before the Committee immediately upon their release, with the intent of submitting comprehensive legislation to the North Carolina General Assembly in its next long session convening in January 1995. The Committee believes such legislation should include training, certification, inspections and accreditation standards. Such legislation should comply with requirements necessary to maintain the \$4 million grant, or subsequent available funds, from the U.S. Department of Housing and Urban Development as well as criterion set forth by the EPA.

In the interim the Committee believes that legislation should be passed to allow certification of persons performing lead abatement activities under North Carolina's Lead-Based Paint Hazard Reduction Grant. This would serve the purposes of allowing the State to gain experience in this type of regulation while still allowing our citizens to benefit from additional lead abatement activities.

RECOMMENDATION TWO

The Committee on Public Health recommends that the 1993 General Assembly, Regular Session 1994, enact A BILL TO BE ENTITLED AN ACT TO AUTHORIZE THE COMMISSION FOR HEALTH SERVICES TO ADOPT RULES TO MINIMIZE THE RISK OF INJURY TO CHILDREN WHO

USE PUBLIC SWIMMING POOLS (See Appendix F).

In recent years four children in North Carolina have suffered suction-related injuries while playing in public wading pools. These injuries were severe in three of the four cases and in one recent case the injuries were so extensive as to be life-threatening and cause permanent physical damage to the child. It is the understanding of experts that all of the suction injuries have occurred in pools where only one outlet to the pump existed. Injuries are extremely unlikely on wading pools with double drains because covering one drain will not stop the flow of water which can enter through the other drain. Injuries are also very unlikely in single drain wading pools with surface skimmer outlets since any vacuum created by blocking the drain will be balanced by the skimmer unless someone has intentionally blocked the skimmer or closed the skimmer valve.

Following the injury in Wake County last summer, the Department of Environment, Health and Natural Resources investigated possible changes to the administrative rules to reduce the risk of suction injury at public wading pools. The Department was advised by its legal staff it did not have the authority to close single drain pools because the General Assembly passed in 1993 legislation that grandfathered in, for construction standards, all pools built before May 1, 1993. Therefore the Committee believes that the risk of serious injury to children compels immediate action by the 1993 General Assembly, Regular Session 1994.



APPENDIX A

HOUSE BILL 1319, 2ND EDITION

AN ACT TO AUTHORIZE STUDIES BY THE LEGISLATIVE RESEARCH COMMISSION, TO CREATE AND CONTINUE VARIOUS COMMITTEES AND COMMISSIONS, AND TO DIRECT VARIOUS STATE AGENCIES TO STUDY SPECIFIED ISSUES.

The General Assembly of North Carolina enacts:

PART I.-----TITLE

Section 1. This act shall be known as "The Studies Act of 1993".

PART II.-----LEGISLATIVE RESEARCH COMMISSION

Sec. 2.1. The Legislative Research Commission may study the topics listed below. Listed with each topic is the 1993 bill or resolution that originally proposed the issue or study and the name of the sponsor. The Commission may consider the original bill or resolution in determining the nature, scope, and aspects of the study.

The topics are:

". . ."

- (27) Development of a Lead Hazard Management Program in the State (H.B. 623 - Moore)

PART VI.-----PUBLIC HEALTH STUDY COMMISSION

(S.B. 69 - Cooper)

Sec. 6.1. Chapter 120 of the General Statutes is amended by adding the following new Article to read:

"ARTICLE 22.

"The Public Health Study Commission.

"§ 120-195. Commission created; purpose.

There is established the Public Health Study Commission. The Commission shall examine the public health system to determine its effectiveness and efficiency in assuring the delivery of public health services to the citizens of North Carolina.

"§ 120-196. Commission duties.

The Commission shall study the availability and accessibility of public health services to all citizens throughout the State. In conducting the study the Commission shall:

- (1) Determine whether the public health services currently available in each county or district health department conform to the mission and essential services established under G.S.

- 130A-1.1;
- (2) Study the work force needs of each county or district health department, including salary levels, professional credentials, and continuing education requirements, and determine the impact that shortages of public health professional personnel have on the delivery of public health services in county and district health departments;
 - (3) Review the status and needs of local health departments relative to facilities, and the need for the development of minimum standards governing the provision and maintenance of these facilities;
 - (4) Propose a long-range plan for funding the public health system, which plan shall include a review and evaluation of the current structure and financing of public health in North Carolina and any other recommendations the Commission deems appropriate based on its study activities; and
 - (5) Conduct any other studies or evaluations the Commission considers necessary to effectuate its purpose.

"§ 120-197. Commission membership; vacancies; terms.

(a) The Commission shall consist of 17 members, one of whom shall be the State Health Director. The Speaker of the House of Representatives shall appoint seven members, two of whom shall be selected from among the following: the UNC School of Public Health, the North Carolina Primary Care Association, the North Carolina Home Care Association, the North Carolina Pediatric Society, and the North Carolina Citizens for Public Health. Five of the Speaker's appointees shall be persons who are members of the House of Representatives at the time of their appointment, one of the five being the Representative who chairs the House standing committee related to health matters. The President Pro Tempore of the Senate shall appoint seven members, two of whom shall be selected from among the following: the North Carolina Health Directors' Association, the North Carolina Public Health Association, the Association of Public Health Nurses, the North Carolina Environmental Health Supervisors' Association, and the North Carolina Association of Public Health Educators. Five of the President Pro Tempore's appointees shall be persons who are members of the Senate at the time of their appointment, one of the five being the Senator who chairs the Senate standing committee related to health matters. The Governor shall appoint one member from either the North Carolina Medical Society or the North Carolina Hospital Association. The Lieutenant Governor shall appoint one member from either the North Carolina Association of County Commissioners or the Association of North Carolina Boards of Health.

(b) Vacancies shall be filled by the official who made the initial appointment using the same criteria as provided by this section. All initial appointments shall be made within one calendar month from the effective date of this Article.

(c) Legislative members appointed by the Speaker and the President Pro Tempore shall serve two-year terms. The public members initially appointed by the Speaker and the President Pro Tempore shall each serve a three-year term. The members initially appointed by the Governor and the Lieutenant Governor shall each serve a one-year term. Thereafter, the terms of all Commission members shall be for two years.

"§ 120-198. Commission meetings.

The Commission shall have its first meeting not later than 60 days after adjournment of the 1993 Regular Session of the 1993 General Assembly at the call of the President Pro Tempore of the Senate and the Speaker of the House of Representatives. The President Pro Tempore of the Senate and the Speaker of the House of Representatives shall each appoint one legislative member of the Commission to serve as cochair. The Commission shall meet upon the call of the cochairs.

"§ 120-199. Commission reimbursement.

The Commission members shall receive no salary as a result of serving on the Commission but shall receive necessary subsistence and travel expenses in accordance with G.S. 120-3.1, 138-5, and 138-6, as applicable.

"§ 120-200. Commission subcommittees; non-Commission membership.

The Commission cochairs may establish subcommittees for the purpose of making special studies pursuant to its duties, and may appoint non-Commission members to serve on each subcommittee as resource persons. Resource persons shall be voting members of the subcommittee and shall receive subsistence and travel expenses in accordance with G.S. 138-5 and G.S. 138-6.

"§ 120-201. Commission authority.

The Commission may obtain information and data from all State officers, agents, agencies, and departments, while in discharge of its duties, under G.S. 120-19, as if it were a committee of the General Assembly. The Commission also may call witnesses, compel testimony relevant to any matter properly before the Commission, and subpoena records and documents, provided that any patient record shall have patient identifying information removed. The provisions of G.S. 120-19.1 through G.S. 120-19.4 shall apply to the proceedings of the Commission as if it were a joint committee of the General Assembly. In addition to the other signatures required for the issuance of a subpoena under this section, the subpoena shall also be signed by the cochairs of the Commission. Any cost of providing information to the Commission not covered by G.S. 120-19.3 may be reimbursed by the Commission from funds appropriated to it for its continuing study.

"§ 120-202. Commission reports.

The Commission shall report to the General Assembly, the Governor, and the Lieutenant Governor the results of its study and recommendations. The Commission shall submit its written report not later than 30 days after the convening of each biennial session of the General Assembly.

"§ 120-203. Commission staff; meeting place.

The Commission may contract for clerical and professional staff or for any other services it may require in the course of its ongoing study.

The Commission may, with the approval of the Legislative Services Commission, meet in the State Legislative Building or the Legislative Office Building."

PART XI.-----APPROPRIATION FOR STUDIES

Sec. 11.1. From the appropriations to the General Assembly for studies, the Legislative Services Commission may allocate funds to conduct the studies authorized by this act.

PART XII.-----EFFECTIVE DATE

Sec. 12.1. This act is effective upon ratification. Part VI of this act is repealed on June 30, 1995.

GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1993

1

H

HOUSE BILL 623

(Public)

Short Title: Regulate Lead Abatement.

Sponsors: Representatives Moore; and Bowman.

Referred to: Environment.

March 29, 1993

1 A BILL TO BE ENTITLED
2 AN ACT TO REGULATE LEAD ABATEMENT IN ACCORDANCE WITH
3 FEDERAL LAW.

The General Assembly of North Carolina enacts:

5 Section 1. Chapter 130A of the General Statutes is amended by adding a
6 new Article to read:

7 "ARTICLE 20.

8 "Lead Hazard Management Program.

9 "§ 130A-460. Definitions.

10 As used in this Article, unless the context indicates otherwise:

- 11 (1) 'Deleading' means activities conducted by a person who offers to
12 eliminate lead-based paint of lead-based paint hazards or to plan
13 such activities.
- 14 (2) 'Lead abatement activities' means any set of measures designed to
15 permanently eliminate lead-based paint hazards.
- 16 (3) 'Lead-based paint' means paint or other surface coatings that
17 contain lead:
- 18 a. In excess of 1.0 milligrams per centimeter squared or five-
19 tenths percent (.5%) by weight;
- 20 b. In the case of paint or other surface coatings on target
21 housing, at a lower level as established by the United States
22 Secretary of Housing and Urban Development; or
- 23 c. At a level as established by the Administrator of the United
24 States Environmental Protection Agency.

(4) 'Lead-based paint activities' means the identification, inspection, risk-assessment, abatement, and demolition of lead-based paint or materials containing lead-based paint in target housing, public buildings constructed before 1978, commercial buildings, bridges, or other nonresidential structures or superstructures.

(5) 'Lead-based paint hazard' means any condition that causes exposure to lead from lead-contaminated dust, soil, or lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse effects to human health, as determined by the Commission.

(6) 'Lead Exposure Reduction Act' or 'LER' means the Lead-Based Paint Exposure Reduction Act, Pub.L.No. 102-550, 106 Stat. 3672, 3912-24 (1992).

(7) 'Target housing' means any housing constructed prior to 1978, unless the housing is for the elderly or persons with disabilities. However, target housing does include housing constructed prior to 1978 for the elderly or persons with disabilities if any child less than six years of age resides or is expected to reside in this housing. Target housing does not include any dwelling with no bedrooms.

"§ 130A-461. Certification of persons performing lead abatement activities and lead-based paint activities.

(a) No person shall commence or continue to perform lead abatement activities or lead-based paint activities, unless the person has been certified by the Department. The Commission shall adopt rules governing accreditation of training courses and certification of persons, which rules shall include categories of accreditation and appropriate education, experience, and training requirements for each category of certification.

(b) The following persons are exempt from the lead certification requirements of subsection (a) of this section:

(1) Persons performing renovation and remodeling activities that are exempt from the certification requirements contained in the regulations adopted pursuant to LER; and

(2) Employees of the Department and local health departments performing such activities under federal, State, or local regulations or rules.

"§ 130A-462. Lead management fees.

(a) The Department shall establish and collect lead certification fees. These fees shall be used to support the Lead Hazard Management Program. The annual fees shall not exceed one hundred dollars (\$100.00) for each certified person per category.

(b) The Department shall establish and collect fees for the initial accreditation and annual reaccreditation of lead training courses. These fees shall be used to support the Lead Hazard Management Program. The fees shall not exceed one

~~thousand five hundred dollars (\$1,500) for initial accreditation and shall not exceed one hundred dollars (\$100.00) for annual reaccreditation.~~

3 "§ 130A-463. Lead abatement permits.

4 (a) Except as provided in subsection (b) of this section, no person shall engage in
5 lead abatement activities without a lead abatement permit issued by the Department.

6 The Commission shall adopt rules governing such permits.

7 (b) No permit shall be required for those renovation and remodeling activities that
8 are exempt under LER.

9 "§ 130A-464. Lead abatement permit fees.

10 The Department shall establish and collect an application fee for lead abatement
11 permits. These fees shall be used to support the Lead Hazard Management Program.
12 The fee shall not exceed one percent (1%) of the contracted price or ten cents (10¢)
13 per square foot or linear foot of lead-containing material to be abated, whichever
14 amount is greater.

15 "§ 130A-465. Commission to adopt rules.

16 For the protection of the public health, the Commission shall adopt rules to
17 implement this Article and LER."

18 Sec. 2. This act is effective upon ratification.



GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1993

H

2

HOUSE BILL 623
Committee Substitute Favorable 5/5/93

Short Title: Study Lead Abatement Program.

(Public)

Sponsors:

Referred to:

March 29, 1993

- 1 A BILL TO BE ENTITLED
2 AN ACT TO AUTHORIZE THE LEGISLATIVE RESEARCH COMMISSION TO
3 STUDY THE DEVELOPMENT OF A LEAD HAZARD MANAGEMENT
4 PROGRAM IN THIS STATE.
5 The General Assembly of North Carolina enacts:
6 Section 1. The Legislative Research Commission may study the need to
7 develop a State Lead Hazard Management Program including the following issues:
8 (1) Establishment of a State Program to assume responsibility and
9 comply with federal regulations under Title IV of the Toxic
10 Substances Control Act;
11 (2) Certification of persons performing lead abatement activities and
12 lead-based paint activities, including establishing and collecting
13 lead certification fees as required under Title IV; and
14 (3) Creation of lead abatement permits and permit fees to support the
15 program.
16 Sec. 2. The LRC Committee on the State Lead Hazard Management
17 Program shall report to the 1993 General Assembly, Regular Session 1994.
18 Sec. 3. There is appropriated from the General Fund to the Legislative
19 Research Commission the sum of five thousand dollars (\$5,000) for the 1993-94 fiscal
20 year to carry out the study of the State Lead Hazard Management Program.
21 Sec. 4. This act is effective upon ratification.



APPENDIX B

MEMBERSHIP OF LRC COMMITTEE ON PUBLIC HEALTH

REPRESENTATIVE VERNON G. JAMES, LRC MEMBER
1301 SALEM CHURCH ROAD
ELIZABETH CITY, NC 27909 - 919 330-4394

REP. W. W. "DUB" DICKSON
COCHAIR
718 AVONDALE ROAD
GASTONIA, NC 28054
704 864-1231

REP. JOHN R. GAMBLE
P. O. BOX 250
LINCOLNTON, NC 28093
704 735-5452

REP. KAREN E. GOTTOVI
116 MARTINGALE LANE
WILMINGTON, NC 28409
910 350-0190

REP. JAMES P. GREEN, SR.
176 BECKFORD DRIVE
HENDERSON, NC 27536
919 492-2161

REP. RICHARD T. MORGAN
570 PINEHURST SOUTH
PINEHURST, NC 28374
910 295-4575

REP. WAYNE SEXTON, SR.
123 IRVING ROAD
STONEVILLE, NC 27048
910 627-1418

HON. RUTH E. COOK
3309 RIDGECREST COURT
RALEIGH, NC 27607
919 787-6528

MR. ROBERT S. PARKER
DIR., NEW HANOVER CO
HEALTH DEPT, 2029 S 17TH ST
WILMINGTON, NC 28401
910 343-6590

SEN. ROY A. COOPER, III
COCHAIR
P. O. DRAWER 4538
ROCKY MOUNT, NC 27803
919 442-3115

SEN. PATRICK J. BALLANTINE
P. O. BOX 473
WILMINGTON, NC 28402
910 763-0673

SEN. WILBUR P. "WIB" GULLEY
P. O. BOX 3573
DURHAM, NC 27702
919 683-1584

SEN. JOSEPH E. JOHNSON
P. O. BOX 31507
RALEIGH, NC 27622
919 787-5200

DR. LEAH DEVLIN
DIR., WAKE CO HEALTH DEPT
P. O. BOX 14049
RALEIGH, NC 27620-4049
919 250-3800

HON. PARKS HELMS
2300 TWO FIRST UNION CNTR
CHARLOTTE, NC 28282
704 372-4884

MR. THOMAS O. MILLER
PUNGO DISTRICT HOSPITAL
210 EAST FRONT ST
BELHAVEN, NC 27810
919 943-2111

MR. HOOD L. RICHARDSON
208 SOUTH MARKET ST
WASHINGTON, NC 27889
919 975-3472



BLOOD LEAD LEVELS IN NORTH CAROLINA PAINTERS

Report of a study sponsored by: **Painting and Decorating Contractors of America**
3913 Old Lee Highway
Suite 33-B
Fairfax, Virginia 22030

Prepared by: **Fanny K. Ennever, Ph.D.**
Assistant Professor - Epidemiology
Department of Public Health Sciences
Bowman Gray School of Medicine of Wake Forest
University
Winston-Salem, NC 27157-1063

Daniel J. Zaccaro, M.S.
Biostatistician
Department of Public Health Sciences
Bowman Gray School of Medicine of Wake Forest
University
Winston-Salem, NC 27157-1063

Bradley T. Jones, Ph.D.
Assistant Professor of Chemistry
Wake Forest University
Winston-Salem, NC 27109

Date: **October 18, 1993**



SUMMARY

This report summarizes the results of a study that took place from April to September, 1993 to investigate blood lead levels in housepainters in North Carolina. A total of 127 painters were studied. Each participant filled out a questionnaire and gave a blood sample. The questionnaire covered the individual's work history, concentrating on paint-removal activities, and also covered potential non-occupational sources of lead exposure. The blood samples were analyzed for lead content using atomic absorption spectroscopy. The average blood lead level was 7.8 $\mu\text{g/dL}$. No blood lead samples were found to exceed the OSHA level of 40 $\mu\text{g/dL}$. The three highest samples had levels between 20 and 30 $\mu\text{g/dL}$; this represented 2.4% of the study population. Our analyses indicated that there was no statistical association between blood lead levels in these painters and their painting activities. In conclusion, current painting practices in this group of North Carolina painters do not appear to elevate blood lead levels above the OSHA limit.

INTRODUCTION

The purpose of this study was to investigate blood lead levels among painters, motivated by pending Federal regulations concerning protection of painters from lead. Published data on lead exposure in painters are sparse. Maizlish and Rudolph (1993) report that of 1,503 Californians with blood lead levels over 40 $\mu\text{g}/\text{dL}$, 9 were employed in the painting contractor industry (SIC Code 1721), and of 2,566 with blood lead levels between 25 and 40 $\mu\text{g}/\text{dL}$, 6 were employed in the painting contractor industry. Baser and Marion (1990) report that of 1,609 New Yorkers with blood lead levels over 40 $\mu\text{g}/\text{dL}$, 22 were employed in the painting contractor industry. Spaedy and Schubert (1988) report a case of a housepainter with a blood lead level of 71 $\mu\text{g}/\text{dL}$ and a history of paint removal in pre-1940 housing using flame and sanding. None of these reports provide information concerning the numbers of working painters with blood lead levels lower than 25 $\mu\text{g}/\text{dL}$, nor of the specific types and durations of paint removal activities that may influence blood lead levels in painters.

Thus, the motivation for the present study was to investigate a group of painters to determine (1) how many had blood lead levels exceeding 40 $\mu\text{g}/\text{dL}$ and (2) what activities were associated with increasing blood lead levels.

METHODS

Painters were recruited for this study through contractors. Harold E. Day, President of the Carolinas' Council PDCA, was responsible for setting up meetings for painters in a community to attend. At this meeting, the study was described and informed consent was obtained from each participant. The questionnaire was distributed and explained, and each participant filled one out. A copy of the questionnaire is provided as Appendix 1. A venous blood sample was obtained from each individual. Questionnaires and blood samples were assigned an identification number for each individual. Blood samples were kept on ice until delivery to the chemistry laboratory of Brad Jones, after which they were frozen at -40°C until analysis in containers shown to be free of lead contamination. Table 1 (page 5) shows the locations and numbers of participants for each meeting.

Blood lead analysis was performed by digesting small samples with nitric acid and determining the lead concentration using graphite furnace atomic absorption spectroscopy (Fernando et al. 1992). The accuracy of the measurements was ensured by analyzing a Standard Reference Material (SRM #95a: Pb in blood) with a certified concentration of lead, and lack of contamination was ensured by running samples of pure water in parallel with the blood samples. The detection limit of this system is $0.06 \mu\text{g/dL}$, well below the lower range of adult blood lead concentrations. Data from questionnaires was checked for consistency and entered into the SAS program (SAS Institute Inc., 1992) for analysis.

Table 1 — Sources of Painters Studied

Location	Date	Number of Painters
Winston-Salem, NC	4/29/93	28
Burlington, NC	5/13/93	15
Greensboro, NC	5/18/93	10
Rocky Mount, NC	6/17/93	33
Charlotte, NC	9/1/93	41
	Total	127

RESULTS

Tables 2 and 3 (page 7) list the characteristics of the painters in our study, based on answers to the questionnaires.

Figure 1 (page 8) displays the distribution of blood lead values among the 127 painters. A listing of all blood lead levels is provided as Appendix 2. The mean blood lead level is $7.8 \mu\text{g/dL}$ with a standard deviation of $4.7 \mu\text{g/dL}$. As has been found in other surveys (Harlan 1988), blood lead levels were significantly higher in men than in women: means were $5.1 \mu\text{g/dL}$ for women and $7.9 \mu\text{g/dL}$ for men. There was also some indication that Blacks had higher blood lead levels than whites, as has also been found in other data (Harlan 1988), but the number of Blacks in the sample was too small to be certain that this was a real difference.

The most recent comprehensive data that are available on blood lead values in the general population of the United States were collected in 1980. The data from the National Health and Nutrition Examination Survey (NHANES) show that adult blood lead values have been dropping in concert with reduction in lead used in gasoline (Annest 1983). Over the period from 1976 to 1980, a reduction in lead usage in gasoline from 200,000 tons per year to 100,000 tons per year corresponded to a reduction in average adult blood lead levels from $15 \mu\text{g/dL}$ to $10 \mu\text{g/dL}$ (Annest 1983). A straight linear extrapolation would imply that complete elimination of the remaining 100,000 tons per year would reduce average blood lead levels to $5 \mu\text{g/dL}$. The averages used by Annest (1983) included both men and women. In the NHANES data, women's blood lead levels averaged about one-third less than men's (Harlan 1988). Therefore, a rough estimate of the minimum current average adult male blood lead levels is $6 \mu\text{g/dL}$, only slightly lower than the value of $7.9 \mu\text{g/dL}$ found for males in this study.

The distribution of values in Figure 1 appears to be approximately log-normal, that is, the data follow a normal curve if the X-axis is on a logarithmic scale. Blood lead values from the general population also show a log-normal distribution (Harlan 1988). Therefore, our statistical analyses used the logarithm of blood lead values as the dependent variable.

The answer to the first question we investigated, how many painters had blood lead levels exceeding $40 \mu\text{g/dL}$, is zero. Our statistical analyses considered how many painters with levels over $40 \mu\text{g/dL}$ we might have found if we had studied a larger population. Using the binomial theorem, we calculated that there was a 95% likelihood that the percent of individuals in this group with blood lead levels over $40 \mu\text{g/dL}$ was less than 2.4%, and extrapolating from the log-normal distribution, we calculate that the most likely percent is 0.02%.

The remaining statistical analyses were done to investigate which variables from the surveys had a relationship to blood lead levels. For example, to determine whether total years employed as a painter was related to blood lead, we calculated what percent of the variability in blood lead levels was explained by increasing time spent as a painter, and whether the association was statistically significant or could have just arisen by chance. Table 4 (page 9) lists the percent of variability explained and the significance of the association of each variable investigated.

In our analysis, we included variables that represented cumulative exposure (total years spent painting, total years spent painting multiplied by percent of time on repaint jobs) and variables that represented recent exposure (percent of time on repaint jobs, percent of time

Table 2 — Characteristics of Painters — I

Characteristic	Mean	Standard Deviation	Range
Age	39.1	12.6	18-73
Body mass index [weight (kg)]/[height (m)] ²	26.8	4.3	18.0-43.8
Years of schooling	11.4	2.3	<8 - 16
Years spent painting	18.1	11.3	1-53
Percent of time on repaint jobs	53.9	29.9	0-100
Percent of time spent burning off paint	2.0	4.2	0-25

Table 3 — Characteristics of Painters — II

Characteristic	Distribution	
Sex	120 Male 6 Female 1 Unknown	
Race	3 Black 121 White 1 Indian 2 Unknown	
Marital status	19 Single 81 Married 4 Separated 18 Divorced 3 Widowed 2 Unknown	
Smoking status	27 Never 29 Former 67 Current 4 Unknown	36 <21 cigarettes/day 25 21-40 cigarettes/day 6 >40 cigarettes/day
Other lead exposure from hobby or non-painting job	95 None 32 Possible	

Figure 1 — Distribution of Blood Lead Levels in 127 Painters

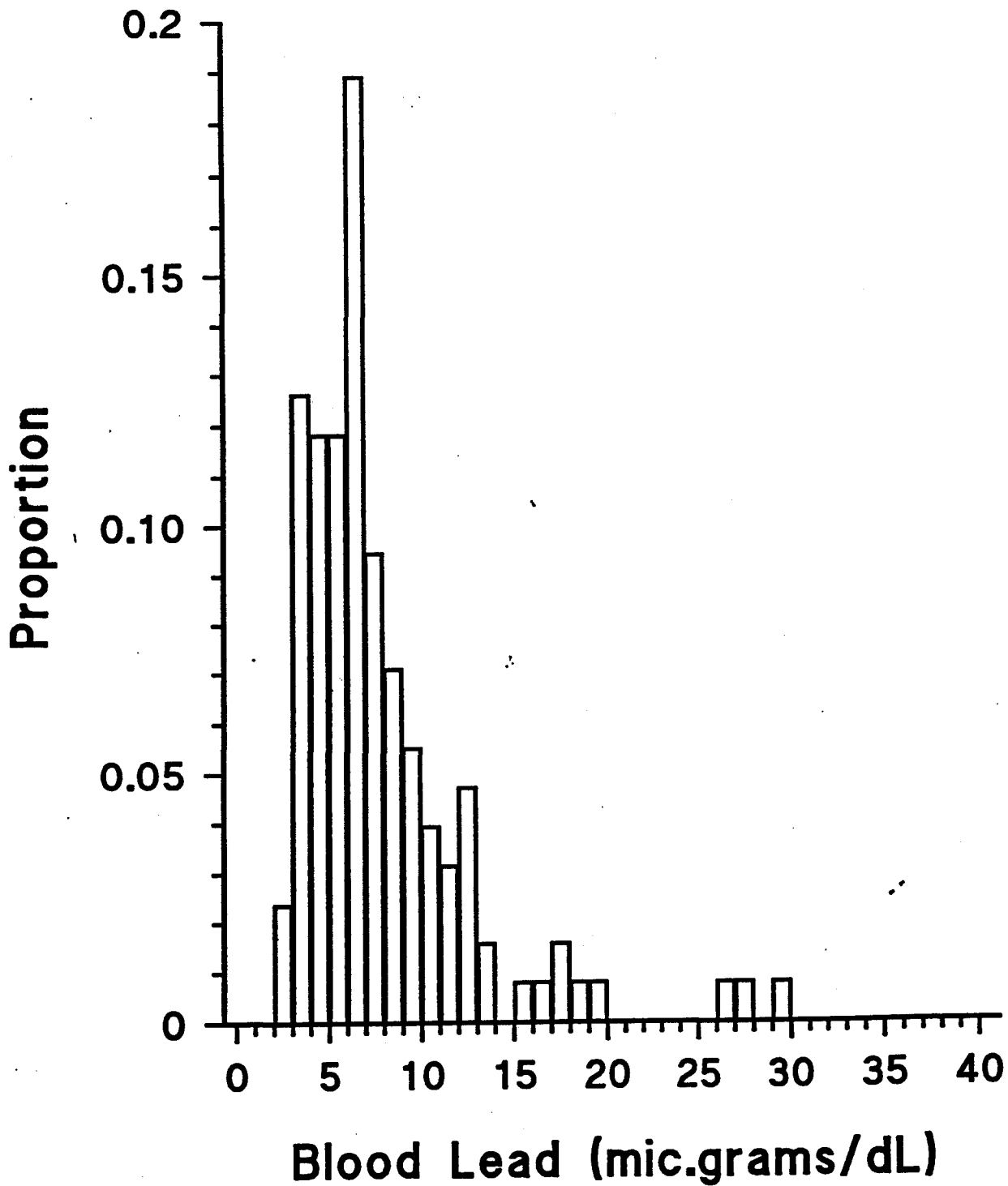


Table 4 — Relationship of Variables to Blood Lead Levels

Variable	Proportion of variability in blood lead levels explained by variable	Probability that association was due to chance*
Age	0.011	0.24
Years of schooling	0.055	0.23
Marital status	0.000043	0.94
Body mass index	0.00014	0.90
Cigarettes smoked per day	0.0078	0.40
Total cigarettes smoked in lifetime	0.0087	0.38
Years employed as a painter	0.021	0.11
Years employed as a painter multiplied by percent of time on repaint jobs	0.0023	0.60
Percent of time on repaint jobs	0.000048	0.94
Percent of time spent burning off paint	0.011	0.25

*An association is usually considered statistically significant only if the probability that the association was due to chance is 0.05 or less.

spent burning off paint). The common definition of a statistically significant association is that there is a probability of 0.05 or less that the association could have arisen by chance. None of the associations were statistically significant by this definition. We repeated the statistical analyses using only data from white males, because of the lower levels in females and higher levels in Blacks. This analysis also found no significant associations with any of the variables.

The variable that comes closest to being statistically significant is years employed as a painter. However, even if this variable were considered to be associated with blood lead levels, it only explains 2.1% of the variability in blood lead levels, leaving 97.9% controlled by other factors. To illustrate the scatter in the blood lead levels, Figure 2 (page 11) shows a plot of blood lead levels as a function of total years employed as a painter.

The three subjects with blood lead levels above 20 $\mu\text{g/dL}$ do not appear to be different in any way from the rest of the subjects. Table 5 (page 12) lists the characteristics of these three subjects, which are similar to the characteristics of the group as a whole (see Tables 2 and 3). The other jobs held by these individuals did not appear to be responsible for their exposure to lead. One of these individuals had a hobby of furniture refinishing; however, five other painters in our study also listed furniture refinishing as a hobby and did not have blood lead levels over 20 $\mu\text{g/dL}$. These three subjects were all seen in Winston-Salem; however, there is no explanation in the data collected as to why these three had the highest blood lead levels in the painters studied.

Figure 2 — Scatter Plot of Blood Lead Levels Versus Years Spent Painting

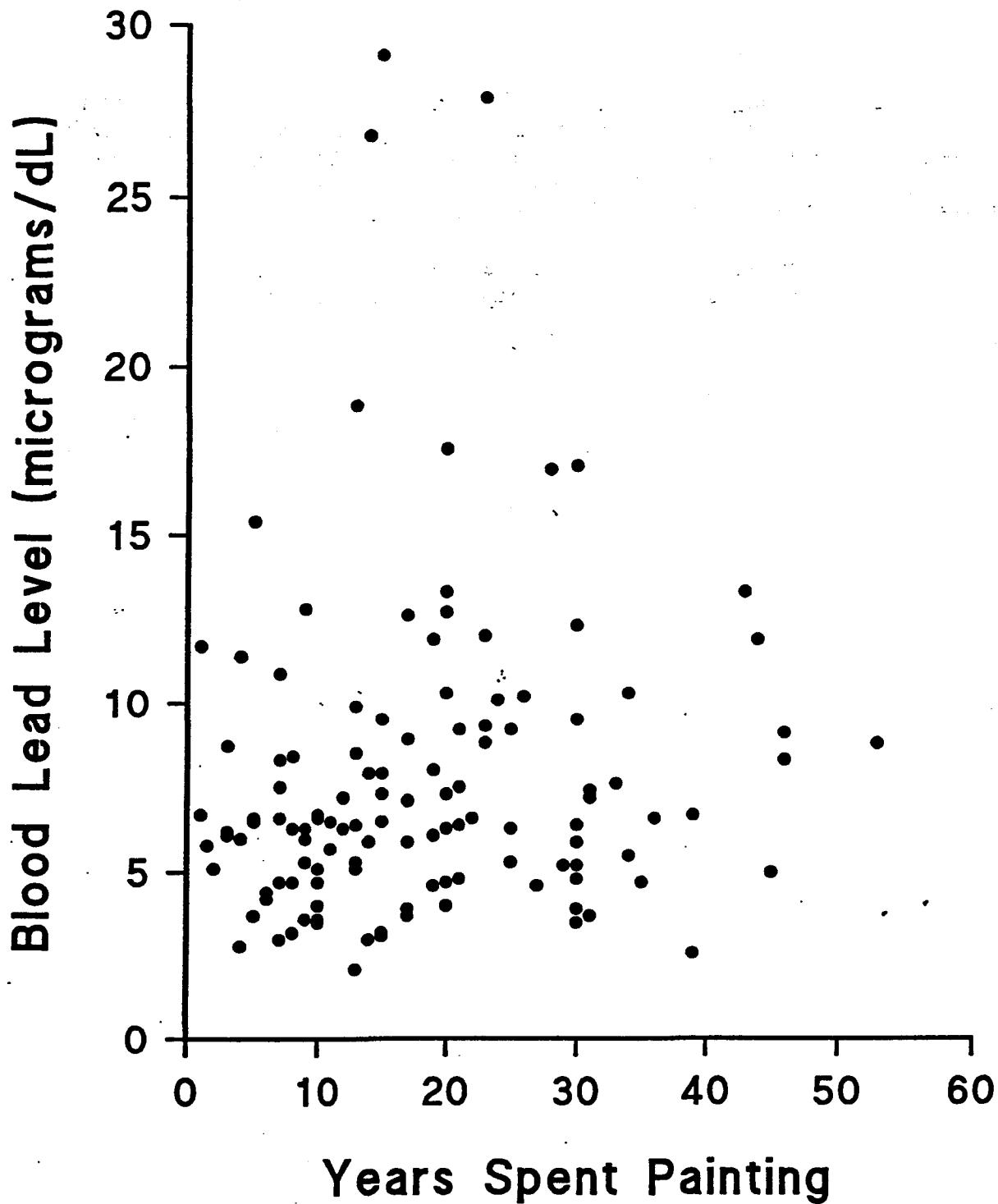


Table 5 — Characteristics of Painters with Blood Lead Levels Exceeding 20 $\mu\text{g/dL}$

	ID #	Blood lead level	ID #	Blood lead level	ID #	Blood lead level
Variable	01-21	27.8	01-22	29.1	01-27	26.7
Sex	Male		Male		Male	
Age	45		31		42	
Body Mass Index	32.4		19.8		24.4	
Years of schooling	16		9		16	
Marital status	Divorced		Married		Married	
Smoking	Current, 1 pack/day		Current, 1 pack/day		Former, quit at 25	
Years spent painting	23		15		14	
Percent of time on repaint jobs	75%		90%		95%	
Percent of time spent burning off paint	0%		2%		2%	
Other jobs	66-69: Army 65-70: Gen. Tel. 70-71: LA County Gen. Hospital		None		76-79: Teacher	
Hobbies	Refinishing furniture		None		None	

CONCLUSIONS

In the group of 127 painters studied, no individuals had blood lead levels over the OSHA limit of 40 $\mu\text{g}/\text{dL}$. There was no significant association between blood lead levels and reported painting activities.

REFERENCES

Annest JL. Trends in the blood lead levels of the US population. In: Rutter M, Jones RR (eds). *Lead versus Health*. Chichester and New York: John Wiley and Sons, 1983; pp 33-58.

Baser ME, Marion D. A statewide case registry for surveillance of occupational heavy metals absorption. *Am J Public Health* 1990; 80:162-164.

Fernando R, Calloway CP Jr, Jones BT. Continuum source atomic absorption spectroscopy in an air-acetylene flame with improved detection limits. *Anal Chem* 1992; 64:1556-1560.

Harlan WR. The relationship of blood lead levels to blood pressure in the U.S. population. *Environ Health Perspect* 1988; 78:9-13.

Maizlish N, Rudolph L. California adults with elevated blood lead levels, 1987 through 1990. *Am J Public Health* 1993; 83:402-405.

SAS Institute Inc., SAS® Technical Report P-229, *SAS/STAT® Software: Changes and Enhancements, Release 6.07*, Cary, NC: SAS Institute Inc., 1992. 620 pp.

Speady S, Schubert TT. Inorganic lead poisoning in an adult. *Am J Gastroenterol* 1988; 83:581-5583.

APPENDIX 1 — Questionnaire Used in the Study

LEAD EXPOSURE OF RESIDENTIAL PAINTERS AND PAPERHANGERS EPIDEMIOLOGIC SURVEY

Since you have agreed to let us test your blood for lead, we need to find out about your work history. It is totally your choice whether or not to answer these questions. If you choose not to answer some or all of these questions, it will not affect the medical care that you receive. Your answers are completely confidential and will become part of your study record. Thank you for your assistance and willingness to complete this survey.

A. This first section deals with questions about your background that will help us better understand the results of our survey.

1. How old are you?

_____ years

2. What is your race?

- Black
- White
- Other: _____

3. What is your sex?

- Male
- Female

4. How tall are you?

_____ feet _____ inches

5. What is your weight?

_____ pounds

6. Please circle the highest grade of schooling that you completed:

≤8	9	10	11	12	1	2	3	4	>4
Secondary School					College/Trade				

7. Are you currently:

- Married
- Separated
- Divorced
- Widowed
- Single, never been married

C-16

To be completed by study staff

ID Number: _____
(affix label)

B. This section asks about your work history and lead exposure

8. For each period of time that you were a painter or paperhanger, please answer the following questions about your usual work activities. Please use a different box for each period that your work pattern was very different (please ask for an additional sheet if you need more than two boxes):

Number of years _____, from 19__ to 19__					
What percent of your time over a typical year did you spend:					
Painting ____%	Paperhanging ____%	Residential jobs ____%	Commercial jobs ____%	New jobs ____%	Repaint jobs ____%
If you spent 1% time or more on repaint jobs, what percent of your time did you spend:					
Removing coatings (paint/varnish) by:					
Burning ____%	Chemical stripping ____%	Power sanding ____%	Hand sanding ____%	Scraping ____%	Pulling up carpet ____%
As you did these activities, did you use a dust mask:					
<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always
<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often
<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes
<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never
Were you able to wash your hands before eating:					
<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always
<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often
<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes
<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never

Number of years _____, from 19__ to 19__					
What percent of your time over a typical year did you spend:					
Painting ____%	Paperhanging ____%	Residential jobs ____%	Commercial jobs ____%	New jobs ____%	Repaint jobs ____%
If you spent 1% time or more on repaint jobs, what percent of your time did you spend:					
Removing coatings (paint/varnish) by:					
Burning ____%	Chemical stripping ____%	Power sanding ____%	Hand sanding ____%	Scraping ____%	Pulling up carpet ____%
As you did these activities, did you use a dust mask:					
<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always
<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often
<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes
<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never
Were you able to wash your hands before eating:					
<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always	<input type="checkbox"/> Always
<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often	<input type="checkbox"/> Often
<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Sometimes
<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never	<input type="checkbox"/> Never

9. Please list other jobs you have held or periods of unemployment:

From	To	Type of work	Any lead exposure?	
19 ____	19 ____		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	Explain:
19 ____	19 ____		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	Explain:
19 ____	19 ____		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	Explain:

10. Do you have any hobbies that might expose you to lead (such as welding, refinishing furniture, making fishing weights, jewelry, pottery, or stained glass, or repairing, painting, or racing cars)?

YES NO DON'T KNOW

If YES, please explain: _____

11. Do you know if your home tap water has a high lead content?

YES (level = _____) NO

12. Have you smoked at least 100 cigarettes in your entire life?

YES NO (no more questions to answer)

a. If YES, how old were you when you first started smoking cigarettes? _____ years old

b. On the average of the whole time you smoked, how many cigarettes did you smoke per day:

_____ cigarettes/day total _____ cigarettes/day while working

c. Do you smoke cigarettes now?

YES NO (if NO, how old were you when you stopped smoking? _____ years old)

APPENDIX 2 — Listing of All Blood Lead Levels

ID #	Blood lead level	ID #	Blood lead level	ID #	Blood lead level	ID #	Blood lead level
04-01	2.1	06-03	4.8	04-07	6.5	02-04	9.2
05-03	2.6	01-08	4.8	05-24	6.6	01-04	9.3
05-36	2.8	01-06	5.0	04-28	6.6	05-08	9.5
01-03	3.0	04-04	5.1	04-06	6.6	05-30	9.5
05-35	3.0	05-28	5.1	05-32	6.6	05-26	9.9
04-29	3.1	01-10	5.1	01-14	6.6	02-15	10.1
04-14	3.2	03-08	5.2	01-15	6.7	05-17	10.2
03-01	3.2	04-33	5.2	05-29	6.7	05-12	10.3
01-07	3.5	02-02	5.3	04-26	6.7	06-01	10.3
05-27	3.5	03-05	5.3	02-10	7.1	04-31	10.9
05-37	3.5	05-06	5.3	02-08	7.2	05-23	11.4
04-32	3.6	05-16	5.5	03-04	7.2	04-25	11.7
02-07	3.6	05-21	5.7	01-24	7.3	01-16	11.9
02-09	3.7	02-03	5.8	05-04	7.3	01-19	11.9
04-21	3.7	04-16	5.9	05-11	7.4	01-25	12.0
05-33	3.7	01-26	5.9	04-17	7.5	01-02	12.3
05-18	3.9	01-23	5.9	01-05	7.5	03-06	12.6
04-27	3.9	04-24	6.0	01-01	7.6	05-09	12.7
04-02	3.9	04-22	6.0	06-02	7.8	05-07	12.7
02-05	4.0	04-18	6.1	01-18	7.9	01-28	12.8
05-31	4.0	01-09	6.1	05-10	7.9	05-02	13.3
04-20	4.0	01-17	6.2	02-14	8.0	04-08	13.3
05-13	4.2	02-01	6.3	05-15	8.3	01-12	15.4
03-09	4.4	05-19	6.3	01-13	8.3	04-30	16.9
03-07	4.6	05-38	6.3	04-13	8.4	05-01	17.0
04-11	4.6	04-15	6.3	04-23	8.5	01-20	17.5
04-12	4.7	02-06	6.3	04-19	8.7	02-13	18.8
02-11	4.7	04-09	6.4	04-05	8.8	04-03	19.0
03-02	4.7	05-34	6.4	05-14	8.8	01-27	26.7
05-22	4.7	01-11	6.4	05-05	8.9	01-21	27.8
03-03	4.7	03-10	6.5	05-20	9.1	01-22	29.1
02-12	4.7	05-25	6.5	04-10	9.2		

NC's 1994 Lead-based Paint Hazard Reduction Program
Summary

• FUNDS are from U.S. Department of Housing and Urban Development's (HUD) Lead-based Paint (LBP) Hazard Reduction Program, Category I. North Carolina, through the Division of Community Assistance (DCA), NC Department of Commerce, was awarded four million dollars. DCA will provide four million dollars in matching funds from its Small Cities Community Development Block Grant (CDBG) program.

The HUD LBP funds will be used for:

- 1) Administration (10%)
- 2) Community Education
- 3) Local government LBP hazard reduction programs.

The majority of funds will go towards the local programs. Local governments will develop plans to reduce LBP hazards in homes of low income families.

Eligible activities for the local government projects include risk assessments, inspection and testing for lead in homes, abatement, less than full abatement techniques (hazard reduction), temporary relocation of families, blood testing of children under six in affected homes, blood testing and air sampling of workers, supervisors, and contractors, housing rehabilitation specifically required to carry out abatement, pre and post hazard reduction wipe testing, engineering and architectural costs necessary to abatement, interim controls, community education programs, data collection, and liability insurance.

Ineligible expenses are 1) purchasing capital equipment except for X-ray fluorescence analyzers 2) chelation or other medical treatment 3) public housing, daycare facilities, and other public buildings

DCA predicts funds will go towards hazard reduction in about 400 units: fifteen rural projects of 10 units each and a few urban projects with a total of 250 units.

• The PURPOSE of the grant is to reduce lead-based paint hazards in homes of low income families in North Carolina. The program will:

- 1) Develop a primary prevention program for lead hazards. Homes containing LBP hazards will be abated whether or not children have already been poisoned in the home.
- 2) Benefit low and moderate income families with children under six living in communities and/or homes with LBP hazards.
- 3) Create an urban demonstration project using innovative and cost-effective hazard reduction strategies.
- 4) Expand community education activities that raise awareness of the problem.

- The PROCESS

DCA will develop grant applications for local governments to apply. Two types of funding will be offered:

Type I: Type I applicants must be apply for lead funds through a Small Cities CDBG application. They must combine housing rehabilitation, sewer, water, or street improvements with lead activities.

Type II: Type II funding is designed for areas in NC that are not eligible for the Small Cities CDBG program (entitlement cities) or the more urban areas of NC. The projects should be larger and demonstrate cost-effective methods of LBP hazard reduction. Type II projects will provide a model for the rest of the state.

- SCHEDULE:

<u>Activity</u>	<u>Completion Date</u>
- Division of Community Assistance (DCA) hires project manager	August 1994
- DCA designs applications for Type I and Type II funding	January - March 1994
- DCA sponsors workshops and provides some technical assistance	March - April 1994
- General Assembly passes legislation authorization for certification program	May - August 1994
- Local governments submit applications to DCA	May 31, 1994
- DCA rates applications	June 1 - September 1994
- DCA distributes funds to selected local governments as subgrantees	September 1994
- Subgrantees implement their LBP plans; the state provides technical assistance, monitors program, and works with subgrantees to educate the community on LBP hazards	September 1994 - 1997
- State and local agencies develop long term plans for funding, coordinate activities, and evaluate progress and results of lead hazard reduction activities	1994 - 1997
- Subgrantees follow-up hazard reduction work with blood lead level and dust wipe tests 6 and 12 months after abatement	1996
- Data collection, case study, LBP Hazard Reduction Program evaluation	October 1994 - 1997

For more information or questions, contact: Jennifer Taylor, Division of Community Assistance, 733-2850.

LEGISLATIVE RESEARCH COMMISSION'S
COMMITTEE ON PUBLIC HEALTH
APRIL 27, 1994 - 1 PM - RM 605, LOB

PUBLIC COMMENT

S P E A K E R S

PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS
<u>Pat Curran</u>	<u>Division of Epidemiology, Department of Environment, Health & Natural Resources</u>
<u>Pam Wilson</u>	<u>Division of Community Assistance Department of Commerce</u>
<u>Ed Norman</u>	<u>Division of Environmental Health Department of Environment, Health and Natural Resources</u>
<u>Fannie Ernever</u>	<u>Bowman Gray School of Medicine</u>
<u>Doug Farquhar</u>	<u>National Conference of State Legislatures</u>
<u>Sumter Cox</u>	<u>Painting Contractors, Inc.,</u>
<u>Bill Medford</u>	<u>Steel Structures Painting Council</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

LEGISLATIVE RESEARCH COMMISSION'S

COMMITTEE ON PUBLIC HEALTH
MAY 6, 1994 - 10 AM - RM 612, LOB

PUBLIC COMMENT

S P E A K E R S

PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS
<u>Harold E. Og</u>	<u>Painting and Decorating Contractors</u>
<u>Widgee Konegaj</u>	<u>Konegaj Paint + PDCA</u>
<u>Bill Rowe</u>	<u>NC Legal Services Res Ctr.</u>
<u>Pat Curran</u>	<u>DEHNR</u>
<u>Chris Hoke</u>	<u>"</u> <u>State Health Div.</u>
<u>Ron Levine</u>	<u>"</u>
<u>Ed Norman</u>	<u>"</u>
<u>Susan Perry</u>	<u>Asst. Sec.,</u> <u>Communities Develop</u>
<u>_____</u>	<u>_____</u>
<u>Ron Mace</u>	<u>Health + Hygiene, Greensboro</u>
<u>John Riblock</u>	<u>NC Child Advoc. Inst.</u>

LEGISLATIVE RESEARCH COMMISSION'S

COMMITTEE ON PUBLIC HEALTH
MAY 6, 1994 - 10 AM - RM 612, LOB

PUBLIC COMMENT

S P E A K E R S

PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

NAME

FIRM OR AGENCY AND ADDRESS

Linda Shaw

NC Housing Coalition



May 5, 1994

A BILL TO BE ENTITLED
AN ACT TO REGULATE LEAD ABATEMENT IN ACCORDANCE WITH FEDERAL LAW.
The General Assembly of North Carolina enacts:

Section 1. Chapter 130A of the General Statutes is amended by adding a new Article to read:

"ARTICLE 20.

"Lead Hazard Management Program.

"§ 130A-460. Definitions.

As used in this Article, unless the context indicates otherwise:

- (1) 'Deleading' means activities conducted by a person who offers to eliminate lead-based paint or lead-based paint hazards or to plan such activities.
- (2) 'Lead abatement activities' means any set of measures designed to permanently eliminate lead-based paint hazards.
- (3) 'Lead-based paint' means paint or other surface coatings that contain lead:
 - a. In excess of 1.0 milligrams per centimeter squared or five-tenths percent (.5%) by weight;
 - b. In the case of paint or other surface coatings on target housing, at a lower level as established by the United States Secretary of Housing and Urban Development; or
 - c. At a level as established by the Administrator of the United States Environmental Protection Agency.
- (4) 'Lead-based paint activities' means the identification, inspection, risk-assessment, abatement, and demolition of lead-based paint or materials containing lead-based paint in target housing, public buildings constructed before 1978, commercial buildings, bridges, or other nonresidential structures or superstructures.
- (5) 'Lead-based paint hazard' means any condition that causes exposure to lead from lead-contaminated dust, soil, or lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse effects to human health, as determined by the Commission.
- (6) 'Lead Exposure Reduction Act' or 'LER' means the Lead-Based Paint Exposure Reduction Act, Pub.L.No. 102-550, 106 Stat. 3672, 3912-24(1992).
- (7) 'Person' means as defined in G.S. 130A-313(9).
- (8) 'Target housing' means any housing constructed prior to 1978, unless the housing is for the elderly or persons with disabilities. However, target housing does include housing constructed prior

to 1978 for the elderly or persons with disabilities if any child less than six years of age resides or is expected to reside in this housing. Target housing does not include any dwelling with no bedrooms.

This section is applicable only to North Carolina's Lead-Based Paint Hazard Reduction Grant from United States Housing and Urban Development, Category I.
"§ 130A-461. Certification of Persons Performing Lead Abatement Activities and Lead-based Paint Activities and Accreditation of Training Courses.

(a) No person shall commence or continue to perform lead abatement activities or lead-based paint activities unless the person has been certified by the Department. No person shall be certified until the person has passed a State-administered examination. No person shall commence or continue to provide a training course in lead abatement activities or lead-based paint activities unless the course has been accredited by the Department. The Commission shall adopt rules governing accreditation of training courses and certification of persons. The rules shall include categories of training course accreditation and appropriate education, experience, and training requirements for each category of certification. The rules adopted by the Commission shall also establish an implementation schedule for accreditation and certification requirements.

(b) Persons performing renovation and remodeling activities that are exempt from the certification requirements contained in the regulations adopted pursuant to LER shall be exempt from the lead certification requirements of subsection (a) of this section.

This section is applicable only to North Carolina's Lead-Based Paint Hazard Reduction Grant from United States Housing and Urban Development, Category I.
"§ 130A-462. Lead management fees.

(a) The Department shall establish and collect annual lead certification fees and a lead examination fee. These fees shall be used to support the Lead Hazard Management Program. The annual certification fees shall not exceed one hundred dollars (\$100.00) for each certified person per category. The examination fee shall not exceed seventy-five dollars (\$75.00).

(b) The Department shall establish and collect fees for the initial accreditation and annual accreditation of lead training courses. These fees shall be used to support the Lead Hazard Management Program. The fees shall not exceed one thousand five hundred dollars (\$1,500.00) for initial accreditation and shall not exceed five hundred dollars (\$500.00) for annual reaccreditation."

This section is applicable only to North Carolina's Lead-Based Paint Hazard Reduction Grant from United States Housing and Urban Development, Category I.
"§ 130A-463. Commission to adopt rules.

For the protection of the public health, the Commission shall adopt rules to implement this Article and LER."

This section is applicable only to North Carolina's Lead-Based Paint Hazard Reduction Grant from United States Housing and Urban Development, Category I.

Sec. 2. This act is effective upon ratification.

SUMMARY

POOL SAFETY BILL
93-LNZ-206C(1.6)

PURPOSE

The purpose of Senator Gunter's bill on pool safety is to address a public health problem that poses a risk of serious harm to children who use public swimming pools. The bill authorizes the Commission for Health Services to adopt rules to abate suction injury hazards at public swimming pools and to immediately suspend the permit of any pool that fails to comply with the new rules. The new rules take effect January 1, 1995.

CONTENT

The "whereas" clauses of the bill explain why the State should take this action.

Section 1. This section amends the section of Chapter 130A that authorizes the Commission for Health Services to adopt rules. Modifications to §130A-282(4) do the following:

- a. Distinguish those rules that address design and construction matters (new subdivision 4) from those that address operation and safety matters (new subdivision 5). This distinction is important because subsection (b) of this section provides an exception to design and construction rules; and
- b. Clarify that rules pertaining to suction hazards are design and construction rules (as opposed to operation and safety rules).

Modifications to §130A-282(b) clarify that exceptions to subsection (a) apply only to pools constructed or remodeled before May 1, 1993 and only to construction and design rules other than those that address suction hazards. If this legislation is enacted, all public swimming pools will have to comply with the suction-hazard rules, regardless of when those pools were built or remodeled.

Sec. 2. This section amends the section of Chapter 130A that authorizes the suspension and revocation of permits by Secretary of the Department of Environment, Health, and Natural Resources. Subsection (d) of §130A-23 is amended by this bill to require the Department to immediately suspend the permit of any pool that fails to maintain minimum construction and design standards pertaining to the abatement of suction hazards.

Sec. 3. This directs the Commission for Health Services to adopt whatever temporary rules it deems necessary to minimize the risk of suction related injuries in this pool season.

Sec. 4. This directs the Department to disseminate information to local health departments, pool operators, and the general public about swimming pool hazards in general, and suction hazards in particular.

Sec. 5. This makes the act effective upon ratification.



GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1993

S

D

93-LNZ-206C(1.6)

(THIS IS A DRAFT AND NOT READY FOR INTRODUCTION)

Short Title: Pool Safety.

(Public)

Sponsors: Senator Gunter.

Referred to:

1 A BILL TO BE ENTITLED
2 AN ACT TO AUTHORIZE THE COMMISSION FOR HEALTH SERVICES TO ADOPT
3 RULES TO MINIMIZE THE RISK OF INJURY TO CHILDREN WHO USE PUBLIC
4 SWIMMING POOLS.
5 WHEREAS, in recent years four children in North Carolina
6 have suffered suction-related injuries while playing in public
7 wading pools. These injuries were severe in three of the four
8 cases and in one recent case the injuries were so extensive as to
9 be life-threatening and cause permanent physical damage to the
10 child; and
11 WHEREAS, the injuries to these children occurred in
12 public wading pools where there was a single drain only, only one
13 drain outlet to the pump, and the cover to the drain was not in
14 place; and
15 WHEREAS, although current standards require that drain
16 covers be secured, the covers are susceptible to easy and quick
17 removal, thus making it difficult for a pool operator to ensure
18 that the drain covers are in place at all times during pool
19 operation; and
20 WHEREAS, construction and design standards can be
21 established to minimize the risk of suction injuries without
22 requiring extensive remodeling to the pool, thus making the cost
23 of complying with these standards reasonable; and

1 WHEREAS, the cost of treatment for one serious suction
2 injury is many times greater than the cost to bring all pools to
3 minimum standards; and

4 WHEREAS, the General Assembly recognizes that the risk
5 of serious injury to children compels immediate action by the
6 State to minimize that risk; Now, therefore,
7 The General Assembly of North Carolina enacts:

8 Section 1. Effective January 1, 1995, G.S. 130A-282
9 reads as rewritten:

10 "§ 130A-282. Commission to adopt rules; exception.

11 (a) Rules Required. For protection of the public health and
12 safety, the Commission shall adopt and the Department shall
13 enforce rules concerning the construction and operation of public
14 swimming pools. The Commission shall classify public swimming
15 pools on the basis of size, usage, type, or any other appropriate
16 factor and shall adopt requirements for each classification. The
17 rules shall include requirements for:

18 (1) Submission and review of plans prior to
19 construction.

20 (2) Application, review, expiration, renewal, and
21 revocation or suspension of an operating permit.

22 (3) Inspection.

23 (4) Design and construction including materials, depth
24 and other dimensions, and standards for the
25 abatement of suction hazards. Construction and
26 operation including water source, water quality and
27 testing, materials, depth and other dimensions,
28 fencing, water treatment, chemical storage, toilet
29 and bath facilities, measures to ensure the
30 personal cleanliness of bathers, safety equipment
31 and other safety measures, and sewage and other
32 wastewater disposal.

33 (5) Operation and safety including water source, water
34 quality and testing, fencing, water treatment,
35 chemical storage, toilet and bath facilities,
36 measures to ensure the personal cleanliness of
37 bathers, safety equipment and other safety
38 measures, and sewage and other wastewater disposal.

39 (b) Exception. Public swimming pools constructed or remodeled
40 prior to May 1, 1993, that do not meet specific design and
41 construction requirements of the rules for public swimming pools
42 adopted by the Commission shall not be required to comply with
43 the design and construction requirements, requirements other than
44 requirements related to the abatement of suction hazards. Public

1 swimming pools constructed or remodeled prior to May 1, 1993,
2 shall comply with all other rules for public swimming pools
3 adopted by the Commission."

4 Sec. 2. Effective January 1, 1995, G.S. 130A-23 reads as
5 rewritten:

6 "§ 130A-23. Suspension and revocation of permits and program
7 participation.

8 (a) The Secretary may suspend or revoke a permit issued under
9 this Chapter upon a finding that a violation of the applicable
10 provisions of this Chapter, the rules of the Commission or a
11 condition imposed upon the permit has occurred. A permit may also
12 be suspended or revoked upon a finding that its issuance was
13 based upon incorrect or inadequate information that materially
14 affected the decision to issue the permit.

15 (b) The Secretary may suspend or revoke a person's
16 participation in a program administered under this Chapter upon a
17 finding that a violation of the applicable provisions of this
18 Chapter or the rules of the Commission has occurred. Program
19 participation may also be suspended or revoked upon a finding
20 that participation was based upon incorrect or inadequate
21 information that materially affected the decision to grant
22 program participation.

23 (c) A person shall be given notice that there has been a
24 tentative decision to suspend or revoke the permit or program
25 participation and that an administrative hearing will be held in
26 accordance with Chapter 150B of the General Statutes, the
27 Administrative Procedure Act, at which time the person may
28 challenge the tentative decision.

29 (d) A permit shall be suspended or revoked immediately if a
30 violation of the Chapter, the rules or a condition imposed upon
31 the permit presents an imminent hazard. An operation permit
32 issued pursuant to G.S. 130A-281 shall be immediately suspended
33 for failure of a public swimming pool to maintain minimum water
34 quality or safety standards or design and construction standards
35 pertaining to the abatement of suction hazards which result in an
36 unsafe condition. A permit issued pursuant to G.S. 130A-228 or
37 G.S. 130A-248 shall be revoked immediately for failure of a
38 market or a facility to maintain a minimum grade of C. The
39 Secretary shall immediately give notice of the suspension or
40 revocation and shall immediately file a petition for a contested
41 case in accordance with G.S. 150B-23."

42 Sec. 3. The Commission for Health Services shall adopt
43 whatever temporary rules it deems necessary to minimize the risk

1 of suction related injuries to children during the 1994 pool
2 season.

3 Sec. 4. The Department of Environment, Health, and
4 Natural Resources shall disseminate not later than 15 days after
5 ratification of this act written information designed to
6 adequately inform local health departments, public swimming pool
7 operators, and the general public of the presence of and ways to
8 avoid hazards related to the use and operation of public swimming
9 pools. This information shall include easily understandable
10 language relating to suction hazards in wading pools.

11 Sec. 5. This act is effective upon ratification.

12



LEGISLATIVE LIBRARY