

The North Carolina Childhood Lead Poisoning Prevention Program

Ed Norman, MPH
North Carolina DHHS
Division of Public Health
Environmental Health Section
Program Manager
ed.norman@dhhs.nc.gov
(919) 218-6511



NC Childhood Lead Poisoning Prevention Program

State Childhood Lead Surveillance Team and Regional EHSs

Division of Public Health/Environmental Health Section

Data management

Coordinate training & response

Environmental investigation & sampling

Local Health Department EHSs/Lead Nurses

Blood Lead Testing

Environmental investigation & sampling

Clinical case management

Education

Primary Care Providers

Risk screening

Blood Lead Testing

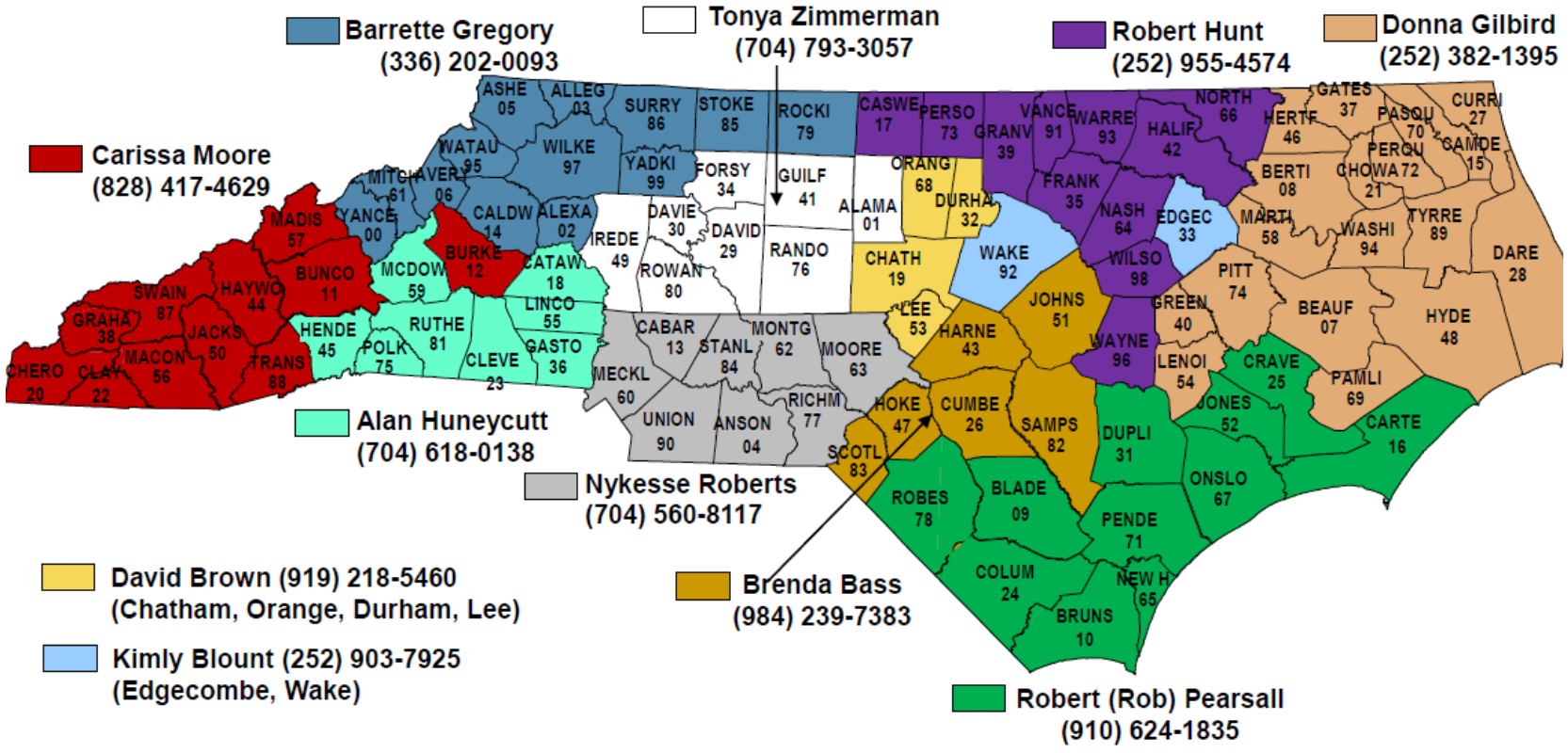
Clinical evaluation & interventions

NC Childhood Lead Poisoning Prevention Program

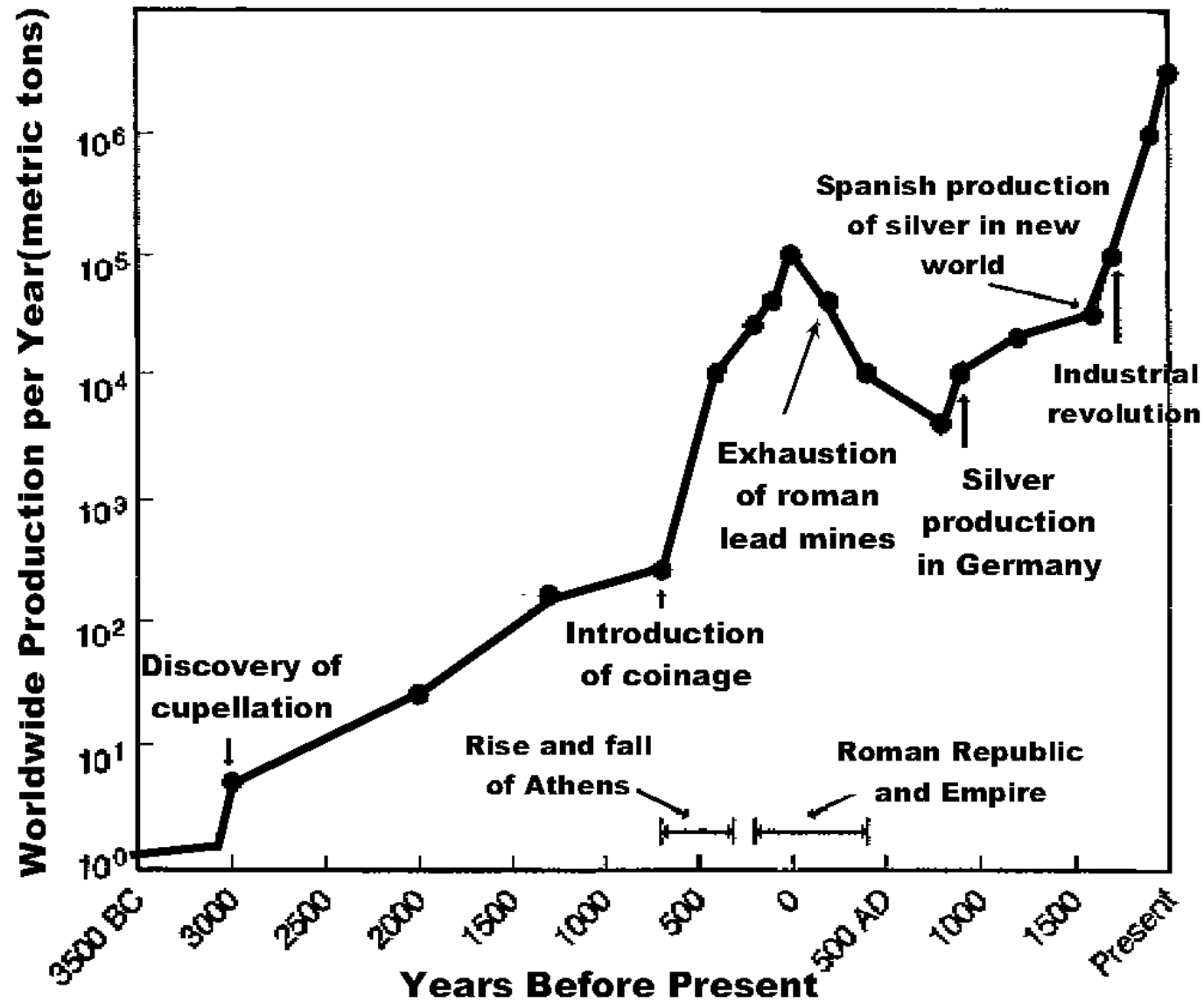
CDC grant-funded staff:

- Tena Hand, Data Manager
- Melanie Napier, PhD, Public Health Epidemiologist
- Samantha Sites, Public Health Epidemiologist
- Long-term contract: UNC Institute for the Environment (Health Education, Outreach & Training) Neasha Graves, Megan Lane & Mitierra Johnson)
- Jeff Smedley, Public Health Epidemiologist (EPA WIIN grant funded)

Children's Environmental Health Program Environmental Health Staff Regions



Effective: 06/01/22
Updated: 03/11/22



Historical record of industrial lead production in last 5,000 years

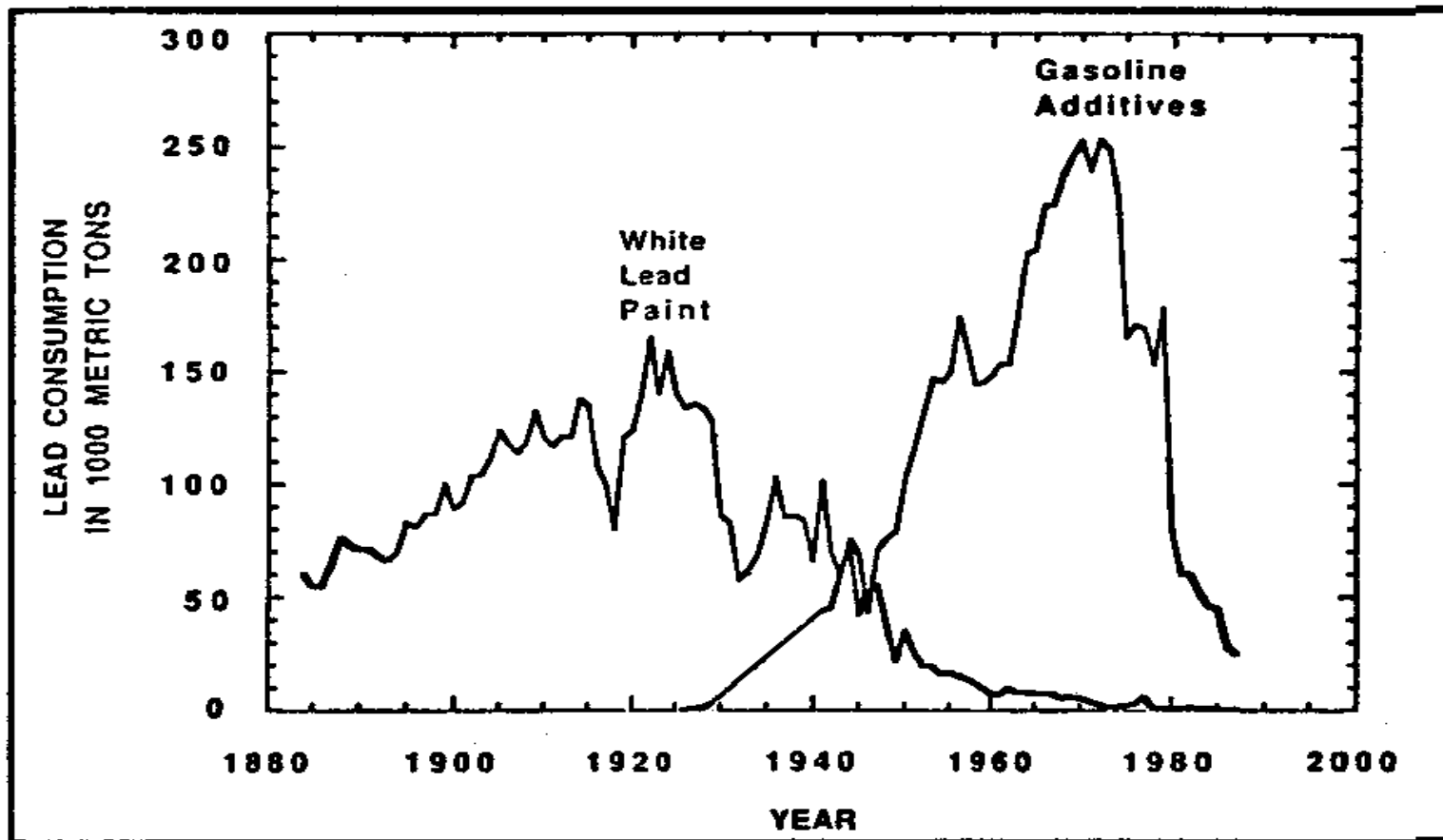


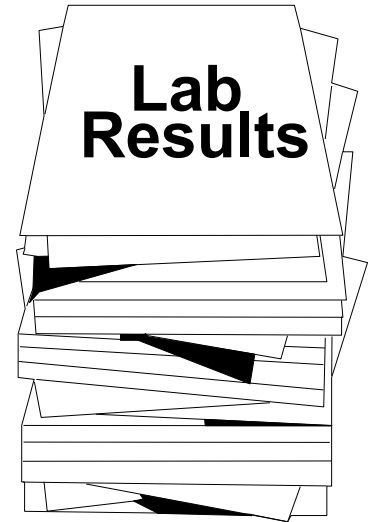
Figure 2. United States lead consumption, 1880-1987. Reprinted with permission from Clark S et al. Urban lead exposures of children in Cincinnati, Ohio. *Chemical Speciation and Bioavailability*. 1991;3:163-171. Copyright © 1991.

North Carolina Law

Laboratory reporting of all blood lead test results

Investigation of confirmed lead poisoning and EBL cases

Remediation for identified hazards for confirmed lead poisoning cases



2017 Amendments to North Carolina Law

Confirmed lead poisoning defined as: 10 $\mu\text{g}/\text{dL}$ or greater

Elevated blood lead level defined as: 5 $\mu\text{g}/\text{dL}$ or greater

12 months allowed for confirmation

Pregnant women included

6 new Medicaid funded regional positions

CDC Terminology

Reference Value:

3.5 $\mu\text{g}/\text{dL}$ or greater

North Carolina State Law

Elevated blood lead level (EBL):

5 $\mu\text{g}/\text{dL}$ or greater

Confirmed lead poisoning

10 $\mu\text{g}/\text{dL}$ or greater

Rule Amendment: Effective October 1, 2019

Amendment to Child Care Sanitation Rule .2816

Water testing at all licensed Child Care Centers

Required testing using EPA 3Ts Methodology

Follow-up testing, notification & mitigation

Session Law 2021-180: \$150 million Permanent Rules Effective April 1, 2023

Water testing required at all Public Schools

Lead-Based Paint & Asbestos inspection required

Mitigation funding for water, paint & asbestos

Children are at Greater Risk

Hand to
mouth
activity

Greater
sensitivity to
lead

Absorb more
lead



Childhood Lead Poisoning Cost to State

Direct medical and Public Health Costs

Special Education

Juvenile Justice

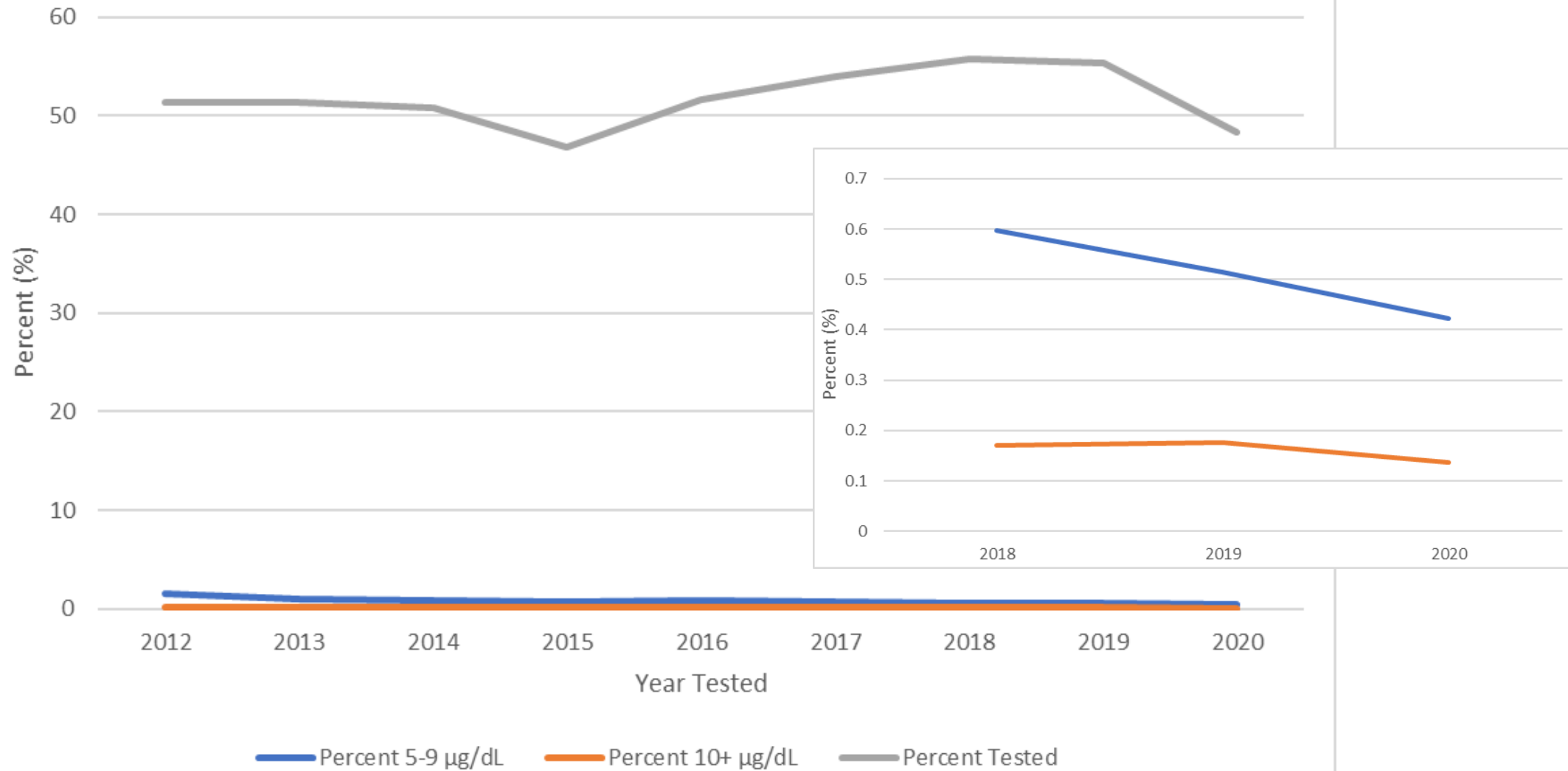
Lost future earnings

CDC Screening Guidelines

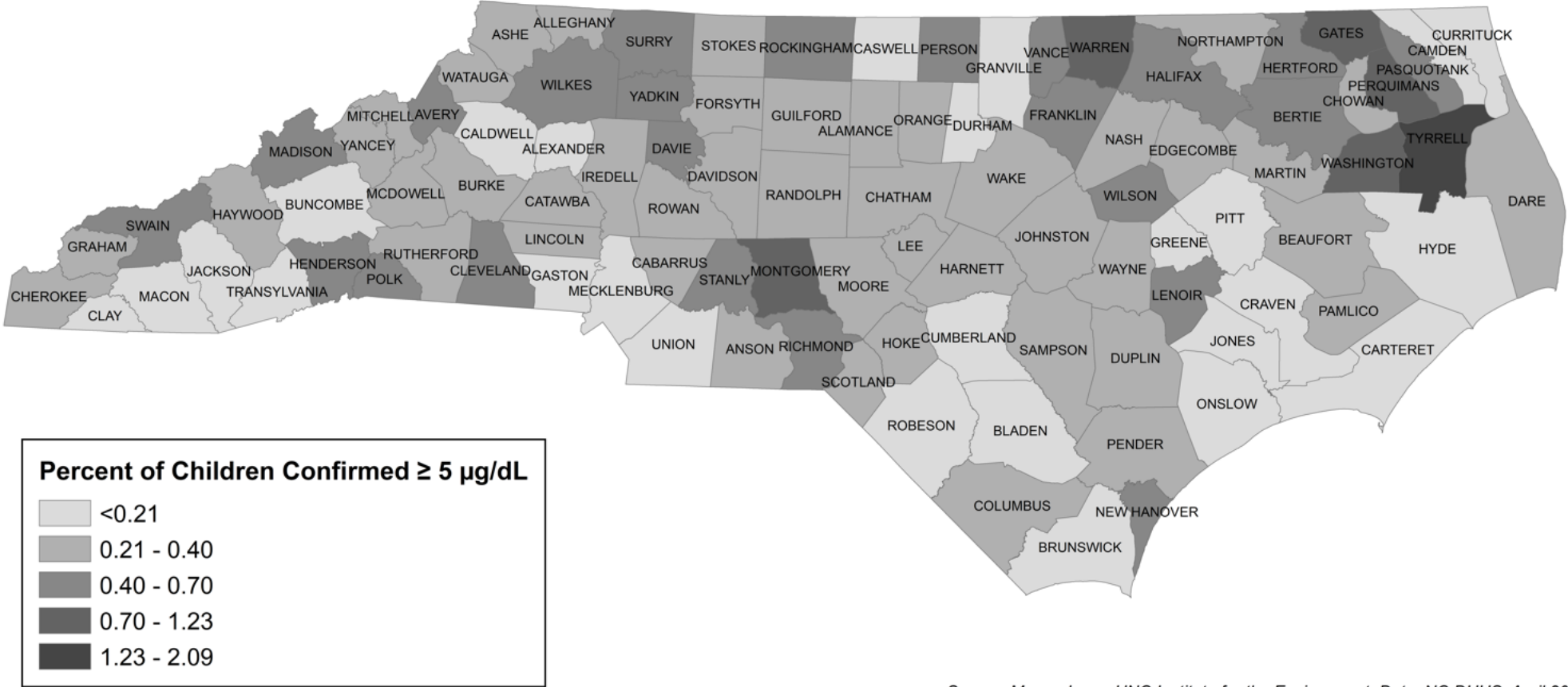
- Universal assessment/targeted screening at 12 and 24 months or at first entry before age 6
- In North Carolina, mandatory blood lead testing for Medicaid, WIC, & Health Choice
- Analysis at no charge through the State Laboratory



Percent of NC Children Tested for Lead Poisoning, 1- and 2-Year-Olds



Percent of North Carolina Children (6 months to under 6 years old) Confirmed to Have Blood Lead Levels $\geq 5 \mu\text{g}/\text{dL}$ between 2018-2021, by County



Source: Megan Lane, UNC Institute for the Environment; Data: NC DHHS, April 2023

Other State and Federal Lead Laws

Abatement
(EPA/DPH)

Renovation,
Repair, and
Painting (EPA, DPH)

Disclosure
(EPA/HUD)

Lead Hazard
Control (HUD)

Worker Protection
(OSHA)

