



Development of a District Environmental Health Report

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Abstract

The central goal of the North Central Health District (NCHD) Environmental Health Section is to provide controls for, and the prevention of, potential hazards to the public through assessment, continuous surveillance, education, and program enforcement. The North Central Health District's Environmental Section is structured to analyze and moderate environmental conditions that could bring potential harm to the public. Utilizing the Digital Health System (DHD), also known as the Environmental Health Information System (EHIS), the data for each of the section's services were generated and analyzed using Excel and other Microsoft features to provide an overview of the work provided by the environmentalists, identify common violations, and provide a baseline assessment for quality assurance initiatives.

Introduction

The Environmental Health Section of the NCHD chose to replicate the 2012 Georgia Environmental Health Indicators Report by using the EHIS to generate report specific only to the NCHD. The intent of this work was to provide the NCHD with a "community environmental health profile" and better determine how to establish priorities and direct resources on a local level.

Throughout the course of nine weeks, we composed the initial Environmental Health Report for the North Central Health District, which contained detailed information on past and present environmental health functions of the North Central Health District. The programs utilized and assessed during the creation of the Environmental Health Report included food service, on-site sewage management systems, non-public water, public swimming pools, tourist accommodations, chemical hazards, healthy homes and lead poisoning prevention, rabies control, and the recently implemented tattoo studios program.

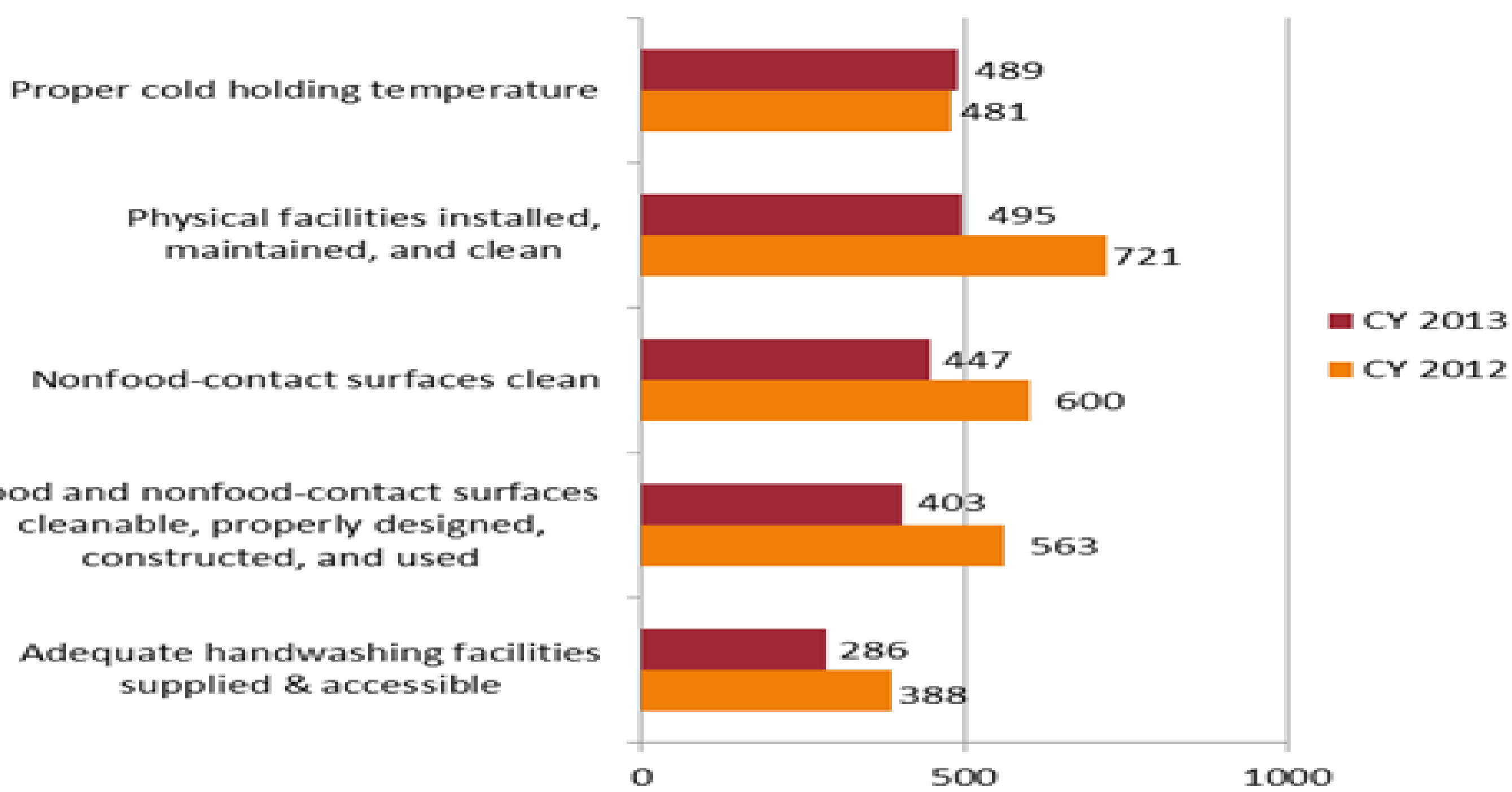
Methods

Quantitative data was extracted, reviewed, filtered, and analyzed from the Environmental Health Information System (EHIS), also known as Digital Health Department (DHD) to generate principal, cited critical violations from 2012 and 2013 for the Environmental Health Section of the North Central Health District. Additional qualitative information and general understanding of an environmentalist's work was gathered by shadowing several NCHD environmentalists over a period of nine weeks.

Results

Food Service Program

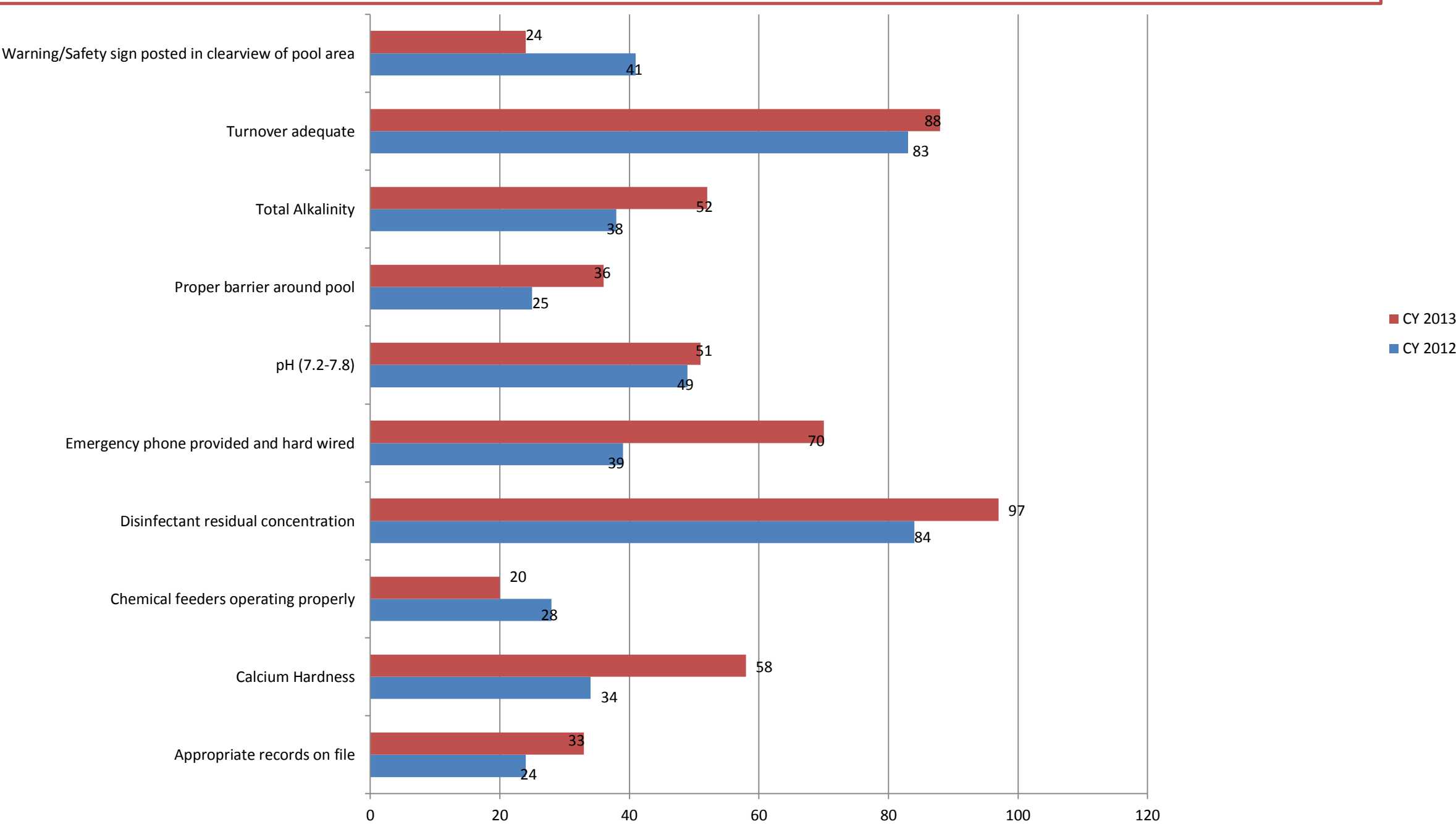
Number of NCHD –Designated Top 5 Categories of Food borne Illness Risk Factors (Recorded in EHIS Calendar Year 2012 and 2013)



Note: The graphs show a reduction in cited critical violations. It is our hope that this is a result of an emphasis on public health education of risk factors by Environmental Health staff.

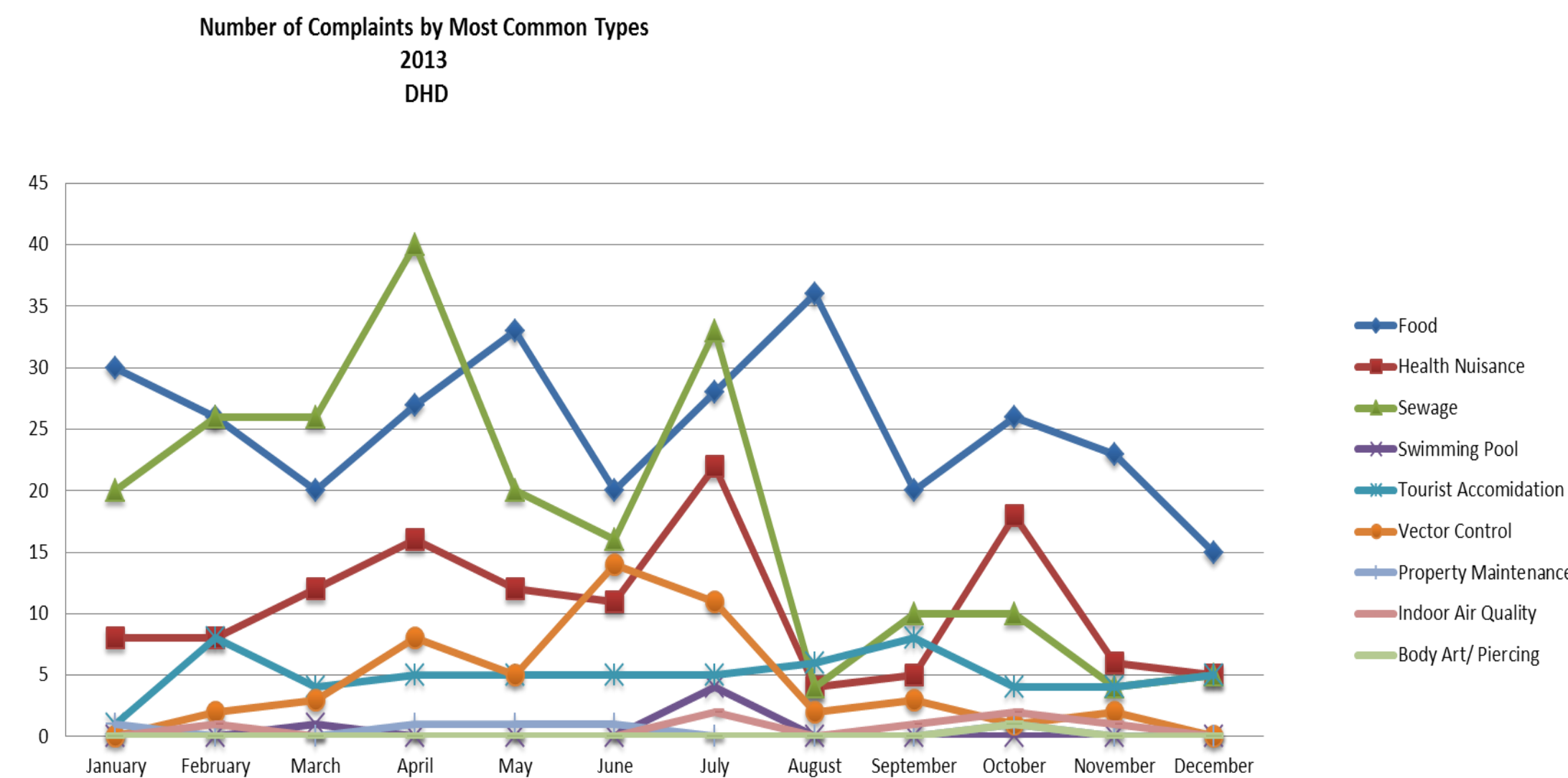
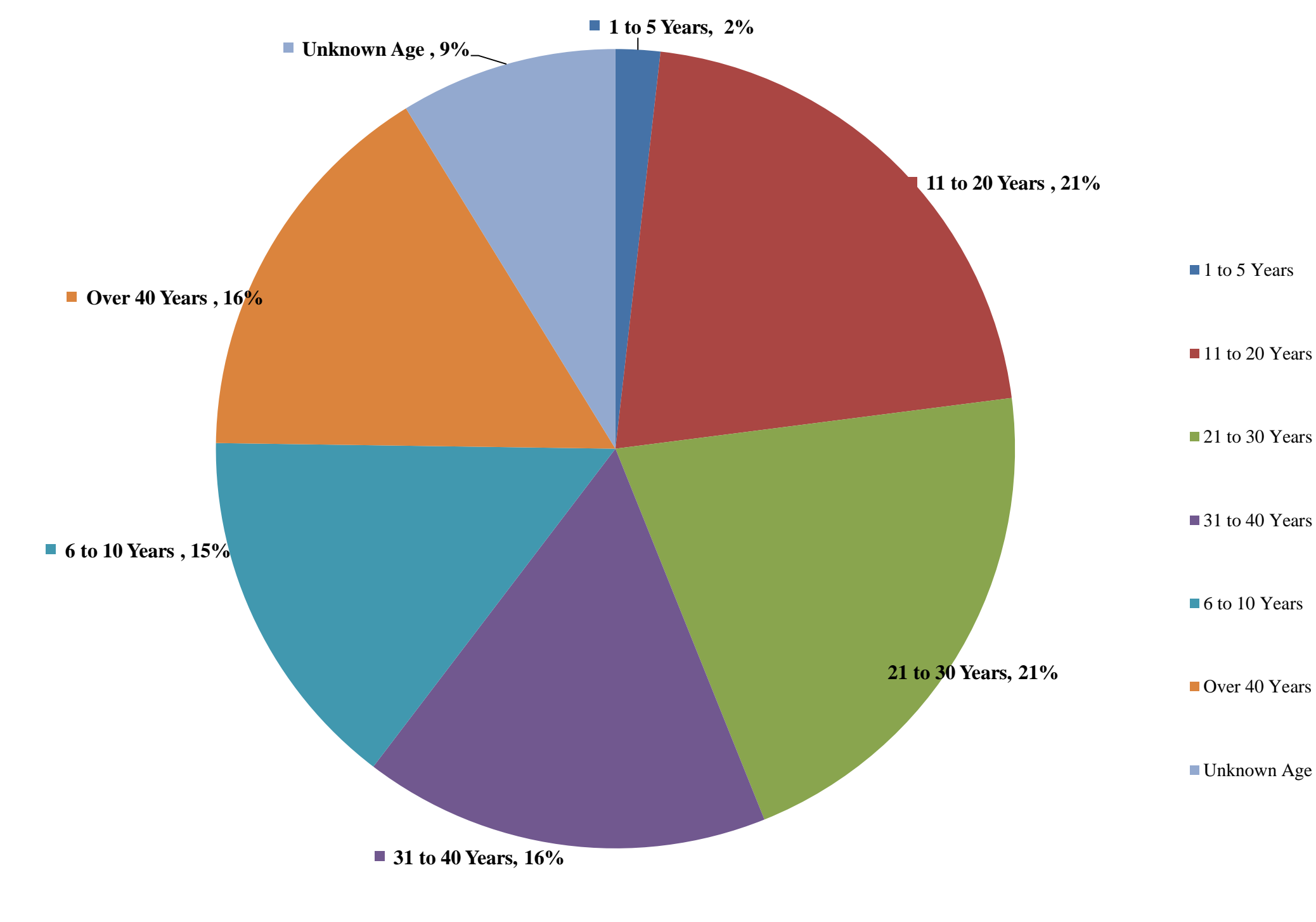
Public Swimming Pools

NCHD EH Section Swimming Pool Cited Critical Violations During Inspections Recorded in Georgia DHD Calendar Year 2012 -2013



On-Site Sewage Management System Failures

NCHD EH Section Percentage by Age of On-Site System Failures Recorded in Georgia DHD Calendar Year 2013 (N= 444)



Discussion

This Environmental Health Report provides the NCHD with a baseline against which the District can compare future improvements and growth in each of the provided programs, recognize gaps in service delivery or completed documentation, and highlights strengths of the team. The development of the first report of the NCHD Environmental Health Section provides fundamental insights, including, but not limited to, the following:

Food Service Program: The graphs show a reduction in cited critical violations, which might be a result of an emphasis on public health education of risk factors by Environmental Health staff of the District.

Public Swimming Pools: The graphs indicate an increase of cited critical violations in 2013, which might be due to a decrease of average number of days to first investigation and average number of days to abatement or referral in 2012.

On-Site Sewage Management System Failures: The graph demonstrates the success of the NCHD OSSM System program as the majority of failures (approximately 53%) occur in systems over 20 years old. The NCHD EHS staff have a continual effort for providing education to the homeowner regarding proper maintenance of OSSM systems.

NCHD Environmental Complaints: The graph indicates the most common categories of complaints managed by district environmentalists.

Limitations/Challenges

1. Sufficient knowledge of DHD/EHIS performance metrics is required for data filtration and creation of tables and graphs of cited critical violations.
2. Errors with data entry and document completion were found during the development of this report.

Conclusion/Recommendations

This Environmental Health Report will be used as a baseline reference for measuring change in processes and outcomes for the Environmental Health Section of the District. The report can be replicated in other public health districts of Georgia.

Acknowledgment

We would like to extend our deepest gratitude to Carla Coley, the Director of Environmental Health Section of the North Central Health District, Dr. Jimmie Smith, the Academic Advisor and Liaison of Mercer University's Public Health Department, and Tim Callahan, the Director of the Evaluation and Support Program of the Environmental Health Section of Georgia Department of Public Health for their unwavering support throughout the course of the compilation, creation, and development of the first Environmental Health Report for the North Central Health District's Environmental Health Section. Without their guidance and insights, this unprecedented report of environmental health indicators would not have been completed.