

**LEAD POISONING AMONG
YOUNG CHILDREN IN MONROE
COUNTY
A NEEDS ASSESSMENT, PROJECTION
MODEL, AND NEXT STEPS**

**One South Washington Street
Rochester, NY 14614-1125**

**111 Pine Street
Albany, NY 12207-2737**

May 2002



*Research to drive informed decisions.
Expertise to create effective solutions.*

LEAD POISONING AMONG YOUNG CHILDREN IN MONROE COUNTY

A NEEDS ASSESSMENT, PROJECTION MODEL, AND NEXT STEPS

Prepared for:
Monroe County Department of Health

Sarah Boyce, MSPH
Project Director

One South Washington Street
Rochester, NY 14614-1125
(716) 325-6360

111 Pine Street
Albany, NY 12207-2737
(518) 432-9428

www.cgr.org

May 2002

© Copyright CGR Inc. 2002 All Rights Reserved

LEAD POISONING AMONG YOUNG CHILDREN IN MONROE COUNTY: A NEEDS ASSESSMENT, PROJECTION MODEL, AND NEXT STEPS

SUMMARY

CGR was engaged by the Monroe County Department of Health (DOH) to (1) conduct a needs assessment to determine the extent of lead poisoning in the Monroe County community; (2) develop a model to forecast the incidence of lead poisoning; (3) identify options for reducing lead poisoning; and (4) describe next steps for the County and other stakeholders. The County would ultimately like to develop a strategic plan to help leverage both public and private funding for this effort, and to use the funding in the most efficient and effective manner.

9% of screened children under 6 are found to have elevated blood lead levels in Monroe County

In 2000, 14,819 Monroe County children under age 6 were screened for elevated blood lead levels. **Of those screened, 1,319, or 9%, had blood lead levels at or above 10 µg/dL, a level considered dangerous in young children.** This countywide rate is substantially higher than the statewide average of 5.8% (1999 data). However, it should be noted that the state and the county are using different data sources and methodology, which render this comparison less useful.

CGR obtained countywide blood lead screening data from the County DOH Lead Program for 1993-2000. The needs assessment presented in this report is based on a subset of the County's dataset. The nature of the analysis conducted by CGR required the use of screening data for which the child's address information was also known. Since a primary focus of this analysis was the geographic location of children with elevated blood lead levels, only those data with geographic identifying information could be used for that portion of the analysis. In 2000, 90% (13,273) of the screening records contained address information, and 1,274 (9.6%) of these records revealed elevated blood lead levels (levels at or above 10 µg/dL).

National Task Force

In 1997, President Clinton created a Task Force on Environmental Health Risks and Safety Risks to Children. The Task Force was charged with recommending a strategy to eliminate childhood lead poisoning in the United States by 2010 (President's Task Force, 2000). The report identifies a 10-year plan to create 2.3 million lead safe homes nationwide for low-income families with children.

While the Task Force's plan provides a framework for reducing one of the nation's most significant public health threats, due to resource requirements and the current economic and policy environment, it is not realistic to expect that *every* house in the United States or in a defined local community will be made completely lead safe by the year 2010, despite the various federal, state and local initiatives currently in place. However, if *targeted strategies* are developed and implemented at the local level, it may be possible to create enough lead safe housing for families with young children.

Targeted Strategies

An important consideration in designing and implementing an approach to reduce lead poisoning among children in Monroe County is the targeting of limited resources. Such targeting ensures that appropriate prevention strategies are used for the variety of needs among different neighborhoods and towns.

In this study, CGR categorizes Census Tracts in Monroe County into four levels of need for improved lead safety: extreme, high, medium and low. Community characteristics associated with elevated blood lead levels were used to categorize the tracts into extreme, high, moderate, and low risk areas. Among the extreme- and high-risk census tracts, target areas were selected that show the greatest need for an aggressive prevention strategy. Specific to each risk category, and described in detail in the body of this report, CGR developed a list of future directions that could be considered.

Link between elevated lead and public assistance

Since 90% of children referred to the County DOH for environmental follow-up due to high blood lead levels between 1995 and 1999 were found to be in families on public assistance,

prevalence of PA cases could be another useful factor to include in a future targeting analysis.

Projections for children with elevated blood levels in the City of Rochester were estimated under different scenarios

Using available data from the Monroe County Health Department, the projected number of children with elevated blood levels in the City of Rochester was calculated for the years 2001-2010 under different scenarios. Only the City of Rochester, rather than the full county, was included in this portion of the analysis due to data limitations. The current downward trend in the number of children testing higher than 10µg/dL is encouraging. However, the model developed by CGR shows that an effort targeted to the highest risk neighborhoods could have an even greater impact on reducing the number of children testing high for blood lead levels over time compared to an effort spread evenly across the entire city.

CGR offers following observations for consideration by the county's decision-makers prior to the initiation of a strategic planning process to reduce the incidence of lead poisoning among children under the age of 6:

Need to identify leadership organization

Lead poisoning prevention is not the primary focus of any single agency or incorporated organization in Monroe County. If the Rochester community seeks to make lead poisoning prevention a top priority, the community must commit to finding a clear leader with adequate authority and resources to coordinate the activities of the various stakeholders (Improving Kids' Environment, 2000).

Leaders in the lead poisoning prevention effort must keep themselves apprised of the latest scientific findings, technologies, and policies on the topic.

Establish a Timeline and Identify Benchmarks for Success

While no strategy to reduce and ultimately eliminate lead poisoning will work overnight, the community must develop a timeline for various strategic approaches. Defining success in the efforts against lead poisoning will be a moving target. Stakeholders must be sure to be responsive to new research on the level of blood lead considered dangerous, on clearance testing standards, on technology related to abatement and interim controls, and any other developments.

**Collaboration is
Essential**

The lead poisoning problem must also be placed in a broader context. The solution must have a multi-disciplinary and multi-agency community plan and solution. The community must evaluate the role of lead poisoning prevention as part of community-wide health and housing policy. Substantial reduction of lead risk will only occur if the general public, and especially persons involved in the housing industry, become more knowledgeable and active in this arena. A more informed public will be more likely to participate in implementing and supporting funding and solutions to the problem. A more informed public will also be more likely to demand lead-safe work practices in their homes and communities.

The need for improvements in lead safety is well documented in this report, and the community's hot spots, or areas most in need, are illustrated in a series of maps. CGR recommends that the next step is to create an infrastructure that will allow for a coordinated effort, with all relevant stakeholders playing an active role, and with a pragmatic approach to financing strategies appropriate to different neighborhoods. The next steps should focus on maintaining all secondary prevention (managing poisoned children) strategies, while increasing primary prevention (managing the housing stock) activities. With the momentum underway, the community must show its commitment to taking necessary steps to move the effort forward on a comprehensive but timely basis.

Contributing Staff

Kimberly Hood, Research Associate

Patty Malgieri, President and CEO

TABLE OF CONTENTS

Summary	i
Table of Contents	vi
Acknowledgments.....	x
Introduction.....	1
Methodology	2
Background Research.....	2
Interviews	3
Focus Groups	3
Data Analysis.....	3
The Lead Poisoning Problem in the U.S.	4
Magnitude of the Problem	5
What's being done?	6
Federal Actions.....	6
Presidential Task Force	6
1992 Housing and Community Development Act	7
New HUD Regulations	7
HUD Lead Paint Hazard Control Program	8
State Actions	8
Healthy Neighborhoods	9
Local Actions	9
County DOH LEADTRACK Database	10
HUD Lead Paint Hazard Control Grant.....	11
Rochester Housing Authority	12
DSS Housing Unit	12
Rochester Lead Free Coalition	13
Movement Toward Coordination of Local Actions.....	13
Focus Group Results	13
Key issues raised by participants	13
Shifts in Perspective Needed.....	15
Needs Assessment for Monroe County.....	16
Description of Current Housing Stock	17

Public Housing Stock.....	17
Publicly Owned Housing.....	17
Section 8 Housing	18
Private Housing stock	18
Physical Characteristics of Monroe County Housing Stock	18
Locations of Housing Stock at-risk for Lead	19
Location of Households at Risk with Children ages 6 and under	20
Identification of Target Neighborhoods	21
Overview of Study Areas for Analysis	22
Children Under 6 and Households with Children Under 6 in Housing Built Before 1950.....	28
Summary of Lead Risk Based on Housing and Population Characteristics in Monroe County.....	29
Criteria for Identification of Target Neighborhoods.....	29
Neighborhoods Grouped into Extreme-risk, High-risk, Moderate-risk, and Low-risk..	31
Grouping Methodology.....	31
Extreme Risk Target Area.....	35
Rochester Projection Model Of Number of Lead Poisoned Children	36
Methodology Based on President’s Task Force	36
Modifications made to accommodate local data	36
National Model Assumptions.....	37
Methodology for Local Model.....	39
Screening Rates	41
Model Assumption	42
Model Results:.....	42
Seven Scenarios	42
Rochester Model Implications	51
Options For Future Directions In Neighborhoods With Increasing Levels of Risk	52
Options for Low-Risk Communities.....	53
Options for Moderate-Risk Neighborhoods and Towns.....	54
Options for High-Risk Neighborhoods.....	55
Options for Extreme-Risk neighborhoods.....	57
Potential Barriers	58

Political Will.....	58
Mobility of the Population at Risk.....	59
Liability issue.....	59
Financial	60
Lack of State Legislation and Leadership	61
Unintended Consequences	62
Accountability.....	62
Recommendations For Next Steps.....	62
Identify or Create a Coordinating Body.....	63
Leadership	63
Operate at a Neighborhood Level	63
Coordinating Body Must Have Authority, Accountability, and Community Buy-In..	65
Identify and Aggressively Pursue Funding Opportunities.....	66
Community Reinvestment Act (CRA)	67
Local Industry and Foundations.....	67
Paint Manufacturers.....	68
Medicaid and Other Health Insurers.....	68
Un-obligated TANF Funds.....	69
Community Development Block Grant (CDBG)	69
HOME Program.....	70
Energy Saving Programs/Window Efficiency	70
Tax on Paint Sales	70
Develop and Encourage Use of Financial Incentives	70
Property Tax Reduction.....	71
Income Tax Credits.....	71
Interest Free Loans	71
Build Contracting Community Capacity	72
HUD Training	72
EPA Training	72
Training Under HUD Grant	73
Housing Council to Coordinate Local Training Activities	73
HUD Lead Hazard Reduction Practices	74
Contractor Incentives.....	74
Landlord Incentives	74
Evaluate City and County Roles in Housing Inspections	74
Local Regulation	75
Develop Educational Campaign	76
Establish Benchmarks for Success.....	77
Approaches Used in Other Communities	78
Conclusions	79
Opportunities to Reduce Lead Poisoning Exist.....	79
Strategies Should be Targeted.....	79

Establish a Timeline	80
Collaboration is Essential	80
References	81
Appendix A: Terminology	83
Key Terms Used in HUD Regulations	83
Appendix B: Needs Assessment	85
Appendix C: Neighborhood and Town Profiles.....	117
Appendix D: Summary of Focus Group Findings	158
Focus Group Results	159
Key issues raised by housing providers	159
Landlord Perspective.....	161

ACKNOWLEDGMENTS

We would like to thank the many people who gave their time to meet with us and share their knowledge either on an individual basis, in a focus group, or in meetings. The level of energy and concern surrounding the lead poisoning issue is substantial. We appreciate the candid and thoughtful responses we received from individuals representing City and County government agencies, the medical community, private landlords, and members of the Rochester Lead Free Coalition.

We would also like to thank Bret Garwood at the Housing Council for his important role in the Needs Assessment and Target Neighborhoods Identification work for this report.

Thanks to Allison Lee, intern at the Public Interest Law Office of Rochester, for gathering information on activities in other cities.

Katrina Smith Korfmacher, PhD, provided helpful analysis on the societal costs of lead poisoning.

HSBC Bank generously provided additional financial support for this project.

Staff Team

Kimberly Hood was a key staff person in each stage of the project, from conceptualization, to data gathering and analysis, to report writing. Her thoroughness and natural curiosity were great assets throughout the course of the project.

Patricia K. Malgieri provided helpful guidance and advice throughout the project.

INTRODUCTION

CGR was engaged by the Monroe County Department of Health (DOH) to (1) conduct a needs assessment to determine the extent of lead poisoning in the Monroe County community; (2) develop a model to forecast the incidence of lead poisoning; (3) identify options for reducing lead poisoning; and (4) describe next steps for the County and other stakeholders. The County would ultimately like to develop a strategic plan to help leverage both public and private funding for this effort, and to use the funding in the most efficient and effective manner.

CGR subcontracted with the Housing Council to provide research services, primarily on components (1) and (2).

To make all housing in Rochester lead safe would cost \$605 million to \$5.6 billion

To make all City of Rochester housing stock lead safe could require as much as \$605 million to \$5.6 billion in funding, with additional funding necessary for the many older housing units in the villages and towns of the county. The lower figure (\$605 million) assumes a total of approximately 80,000 housing units built before 1950 (though even those units built between 1950 and 1978 are at risk), and assumes a cost of \$7,557 per unit (based on the Rochester Housing Authority's experience with making housing units lead-safe prior to the implementation of the HUD regulations in January 2002). The higher figure assumes a cost of \$70,000 per unit; the amount estimated by the Rochester Housing Authority for full gutting and rehabilitation of a typical 3-bedroom city or Rochester house under the current HUD regulations.

Additional costs for relocating families during the work process could total \$7,000 per family (\$150 per day, for 45 days according to Monroe County DOH and DSS estimates).

These costs do not account for the cost to society of lead poisoned children who grow up to be less than fully productive adults. While such societal costs are much more difficult to quantify and beyond the scope of this project, research has definitively linked lead poisoning to numerous health and behavioral problems. The most extensively researched cost is the reduction in lifetime earnings as a result of children whose IQ has

been lowered by lead poisoning. The most recent estimates suggest that the children poisoned by lead in Monroe County in 2000 will earn a total of \$132.8 million less than if they had not been poisoned (Grosse et al., 2002).¹ In addition, research suggests that 20% of all children with blood lead levels over 25 ug/dL will need an average of three years of special education (Schwartz, 1994). This implies that children poisoned by lead in Monroe County in 2000 will require between \$500,000 and \$1 million dollars in excess special education costs.²

Such exorbitant cost estimates illustrate the need for the lead poisoning problem to be placed in a broader community-wide policy context, including both the health and housing perspectives.

METHODOLOGY

Background Research

CGR evaluated national and local scientific studies on the lead poisoning issue to determine the most salient factors leading to lead poisoning. CGR also tapped into research conducted by national organizations such as the Alliance to End Childhood Poisoning, and federal agencies such as the Department of

¹ This calculation assumes 2,747 children with BLL over 10 mg/DL (2,681 Rochester city children, which account for 97.6% of County cases). Cost estimates are based on the net present value of earnings discounted at a rate of 3 %, assuming an average BLL of 15 for the 2,681 Monroe County children who had blood lead levels above 10 mg/dL in 2000. Grosse et al. (2002) calculate a loss of \$3720 per child per increase of 1 mg/dL. If these children's average blood lead levels were reduced from 15 to 2 (Grosse's estimate of the background lead level), the total gain in present value would be $13 * \$3720 * 2,747 = \$132,844,920$.

² In 2000, 69 children had elevations recorded above 25 mg/dL. This number is almost certainly low due to the lack of universal testing. The average number of children with EBL over 25 between 1996 and 2000 was 129. The calculation uses the most recently available statewide average cost of a year of special education (1998-9), which was \$12,733 per year. The formula, derived from Schwartz (1994) does not include special education costs for the much larger number of children who have EBLs below 25. Thus, the range of \$527,146 to \$985,534 is likely to significantly underestimate the county-wide special education costs of lead poisoning.

Housing and Urban Development (HUD). A summary of important lead-related terminology can be found in Appendix A.

Interviews

CGR identified local agencies, both governmental and non-profit, that are actively engaged in efforts to reduce the incidence of lead poisoning in Monroe County. In order to identify and evaluate the goals and objectives of these various stakeholders, CGR conducted interviews with staff of the County Department of Health, County Department of Planning & Development, City Department of Community Development, the Housing Council, and the Rochester Lead Free Coalition. CGR also attended several meetings of the Rochester Lead Free Coalition and its subcommittees.

Focus Groups

In addition to the individual interviews noted above, CGR also held two focus groups, one with 10 city landlords, and one with representatives from three local housing related agencies: the Rochester Housing Authority (RHA), the Monroe County Department of Social Services (MCDSS), and the Housing Council.

Data Analysis

Working with the Housing Council, CGR conducted a data-driven needs assessment to determine the extent of the lead poisoning problem in Monroe County, and to identify neighborhoods where residents, in particular children under age six, are most at risk of being lead poisoned.

A goal of the federal government is to eliminate lead poisoning nationwide by the year 2010. Using national data and a series of assumptions regarding the U.S. housing stock, a Presidential Task Force created in 1997 developed a model to demonstrate how the number of lead poisoned children could be reduced to zero over a ten year period. Using local data, CGR and the Housing Council replicated this model for the City of Rochester. For a variety of reasons outlined in a subsequent portion of the report, we found that many of the assumptions made in the national model are not applicable within the City of Rochester. Nonetheless, the model is helpful for demonstrating the potential impact of various strategies, as discussed later in the report.

THE LEAD POISONING PROBLEM IN THE U.S.

Lead is a highly toxic substance, and research has shown that children who are exposed to lead have a significantly increased risk of developing potentially long-lasting cognitive, physiological, and behavioral problems. Traditionally, the medical community has been concerned about children whose tests indicated blood lead levels of 20 $\mu\text{g}/\text{dL}$ or higher. Over time, scientific research has shown that lower and lower blood lead levels are harmful, and current research indicates that blood lead levels as low as 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) can adversely affect a child's health and development. Further, research may continue to evolve to show that "no lead" is the ideal goal. However, all adults in industrialized countries currently have some level of lead in their body systems, so a goal of no lead may take generations to attain.

Total exposure to lead is down, but lower levels have been shown to be toxic.

During the past two decades, sources of lead and children's total exposure to lead have been reduced due to the phase-out of leaded gasoline, leaded paint, and of lead from food and beverage cans, drinking water, and other sources. However, children continue to be lead poisoned, and current research shows that exposure to reduced levels of lead is still harmful to young children. While the number and percentage of children who would be considered lead poisoned under the outdated standard of blood lead levels at or above 20 $\mu\text{g}/\text{dL}$ declines, the rate of decline experienced under the current standard of 10 $\mu\text{g}/\text{dL}$ is much less. Therefore, **childhood lead poisoning remains a serious public health threat, especially in our inner cities, older suburban towns and villages, and rural areas.**

The lead problem is unique in many ways, and draws stakeholders from both a public health and housing/environmental perspective. Decision makers must balance the need for affordable housing with the need to protect the health and safety of the nation's children. While federal policy leads the way and calls for the complete elimination of lead hazards by 2010, many states and local governments find that they lack effective policies and strategies to eliminate lead from the environment. Scientists continue to debate the appropriate standard to be used to

determine elevated blood lead levels (EBL), as well as the safest methods of reducing exposure to lead. A shift has occurred from secondary prevention (taking action *after* a child has been exposed to lead and identified as having EBL) to primary prevention (preventing exposure in the first place). This report is intended to assist the community's decision makers as they develop a comprehensive and coordinated approach to eliminate the problem of lead poisoning among children in Monroe County.

Magnitude of the Problem

One million children nationwide are lead poisoned.

IN 1990, HUD estimated that as many as 64 million housing units nationwide contained lead paint. While lead paint was not outlawed until 1978, it is estimated that 86% to 95% of all lead paint is in housing units built *before 1960*.

While 60% of the nation's housing stock contains lead paint, nationwide about 4.4% of all children under 6 have blood lead levels above 10 $\mu\text{g}/\text{dL}$. Therefore, as many as one million children in the United States are estimated to be lead poisoned.

In New York State, the number of children with blood levels of 20 $\mu\text{g}/\text{dL}$ or higher (the old standard) decreased from 1,111 in 1996 to 601 in 1999 statewide. This is certainly good progress. **Nonetheless, according to the state DOH, 5.8% of all children tested in 1999 had a blood lead level of 10 $\mu\text{g}/\text{dL}$ or higher.** For reasons unidentified, the state DOH data reflect a lower rate of lead poisoned children in Monroe County than the County data do. Therefore, we expect that the state uses a different methodology to generate these estimates, and the Monroe County data are not directly comparable.

Across New York State, children with high blood lead levels are most likely to live in low-income areas. Further, while most of the children with high blood levels were found in urban areas, children with elevated readings were found in virtually every county in New York State. (NYS DOH, 2001).

In Monroe County in 2000, 14,819 unduplicated children were screened for blood lead levels. **Of those screened, 1,319, or 9%, had blood lead levels at or above 10 $\mu\text{g}/\text{dL}$, a level considered dangerous in young children.** This is a substantially higher rate than the statewide average. However, it

should be noted that the state and the county are using different data sources and methodology, which render this comparison less useful.

While CGR obtained countywide blood lead screening data for 1993 – 2000, CGR used a reduced sample of screening data for the majority of the analysis in this report, including only those screens completed on a child for which the Monroe County DOH also had address information. According to the Monroe County DOH, missing addresses are a random occurrence. However, if a child is found to have elevated blood lead levels the DOH must conduct a home inspection. To do so, the agency must obtain the child's address. Therefore, those children with addresses may be somewhat more likely to have elevated blood lead levels than those without address information.

Since a primary focus of this analysis was the geographic location of children with elevated blood lead levels, only those data with geographic identifying information could be used for that portion of the analysis. **In examining the 2000 screening data that included address information, 13,273 screens were conducted on children under age 6, and 9.6% of these screens revealed blood lead levels at or above 10 µg/dL.**

What's being done?

Various actions are underway at the national, state, and local levels to address the lead poisoning problem. At the federal level, HUD regulations establish a framework for reducing/eliminating lead hazards, though it is up to state and local policy makers to implement the HUD regulations. As a result, actions at the state and local levels vary tremendously.

Federal Actions

Presidential Task Force

The 1997 Presidential Task Force identified a number of ways in which the federal government has acted to reduce and ultimately eliminate childhood lead poisoning. Several agencies including the Department of Housing and Urban Development (HUD), the Department of Health and Human Services, the Environmental Protection Agency, Department of Justice, Consumer Product Safety Commission, Occupational Safety and Health

Administration, Department of the Treasury, Department of Energy, and Department of Defense have programs or specific duties related to reducing lead poisoning. Below we highlight several federal policies that have either shaped current practices in Monroe County, or will be important to consider as Monroe County moves forward in developing a strategic approach to end lead poisoning.

1992 Housing and Community Development Act

The federal 1992 Housing and Community Development Act mandated the creation of an infrastructure that would correct lead paint hazards in housing. The developing infrastructure includes several important components and provides resources for local governments:

- ❖ Grant programs active in over 200 cities;
- ❖ Training for workers to conduct housing rehabilitation, remodeling, renovation, and maintenance in a lead safe manner;
- ❖ Licensing of inspectors and abatement contractors;
- ❖ Compliance with lead safety laws and regulations; and
- ❖ Disclosure of potential lead paint in homes during sale or lease process.

New HUD Regulations

HUD's new Lead safe Housing Rule (24 CFR Part 35, "*Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance*"), is designed to protect children from lead based paint hazards in housing that is financially assisted by the federal government or being sold by the federal government. The final deadline for compliance was January 10, 2002, at which time greater emphasis was placed on reducing lead in house dust than was previously done. The regulation requires lead safe work practices if a painted surface is disturbed. If the painted surface involved in renovation or other work is found to contain lead, any further abatement work must be completed by a certified abatement worker, and supervised by a certified lead based paint abatement supervisor, to ensure that work is conducted in a lead safe manner.

Previous HUD regulations did not require cleanup or clearance testing, but under the new regulation, post-work clearance testing is always required. Someone who was not involved in performing the hazard control work must complete the clearance examination, and the individual must be certified or licensed as a lead based paint inspector, risk assessor, or clearance technician.

The following types of pre-1978 housing are covered by the regulation: federally-owned housing being sold; housing receiving a federal subsidy that is associated with the property (project-based assistance); public housing; housing occupied by a family receiving a tenant-based subsidy; multifamily housing for which mortgage assistance is being sought; and housing receiving federal assistance for rehabilitation, reducing homelessness, and other special needs.

HUD Lead Paint Hazard Control Program

The Housing and Urban Development (HUD) Lead Paint Hazard Control Grant Program provides competitive grant dollars for a variety of reasons including: (1) to stimulate collaboration among stakeholders in a community, (2) to provide dollars for low-income, privately-owned homes, (3) to increase abatement and inspection capacity, and (4) to train low-income residents to conduct lead abatement work. Monroe County DOH received a three-year Lead Paint Hazard Control grant in 1998. Monroe County's participation in the grant is described in more detail later in the report. A recent (2001) application to HUD for additional funding was denied. County representatives were told that the funding was denied because the County had not made enough progress in lead abatement of housing units. Their goal was to abate 60 housing units, and at the time of re-application for funding (March 2001), only 17 housing units were completed. However, all 60 units were completed by December 2001. Monroe County DOH is in the process of submitting a new application (due June 2002), and believes that many of the "growing pains" of the initial grant period have been resolved.

State Actions

New York State reports that it has made substantial progress in prevention and early detection of lead poisoning, based on screening data collected between 1996 and 1999. New York State requires children to be tested for EBL at 12 and 24 months of age. Screening rates among the cohort of children born between 1994 and 1997 are approximately 61%, significantly higher than the

national rate of 20%. Children covered by Medicaid are screened at even higher rates; 70% of children under age six who were covered by Medicaid were screened in 1998.

The New York State DOH Childhood Lead Poisoning Prevention Program has partnered with local health departments to address the issue of lead poisoning. Except for education efforts, the partnership activities consist primarily of secondary prevention efforts, including case management for poisoned children, data analysis, and medical management of lead cases, and interim housing for the families of lead poisoned children during lead hazard removal from their homes.

New York State DOH also works with housing agencies to conduct more primary-prevention oriented activities. However, local health departments conduct environmental assessments only in the homes of children with blood levels at or above 20 µg/dL, instead of 10 µg/dL. In addition, new child care facilities must be assessed for lead prior to licensure, and the state DOH is working with the Division of Housing and Community Renewal to ensure that 40,000 individuals are trained to assist in lead hazard evaluation for housing that receives federal assistance.

New York State does not have state regulations in place that mirror the new federal HUD regulations. Therefore, landlords, contractors, and service providers are concerned about how, from a practical standpoint, the HUD regulations will actually be carried out. The state should move towards developing regulations that mirror the federal regulations.

Healthy Neighborhoods

Under the NYS Healthy Neighborhoods program, between 1996 and 1999 32,414 housing units were assessed for potential lead hazards statewide. This program targets geographic areas where children might be at high risk for lead poisoning due to the socio-demographic and economic characteristics of the neighborhood. Monroe County had a Healthy Neighborhoods Program starting in the mid 1980s, and ending approximately four years ago.

Local Actions

To understand the magnitude and the depth of local efforts to reduce/eliminate lead hazards, CGR interviewed and/or held focus groups with the following stakeholders:

- ❖ County DOH Lead Poisoning Prevention Program staff;
- ❖ County DOH HUD Lead Paint Hazard Control Program staff;
- ❖ The Rochester Lead Free Coalition;
- ❖ County Community Development Block Grant Program Staff;
- ❖ The Housing Council;
- ❖ Rochester Housing Authority;
- ❖ DSS Housing Unit staff;
- ❖ City Department of Community Development staff; and
- ❖ Landlords owning properties in the City of Rochester.

Community residents are important stakeholders in the fight against lead poisoning, and residents may play different or even multiple roles in the prevention of lead poisoning depending on their status as a homeowner, renter, parent/caregiver, or activist. Several stakeholders recommended that CGR hold focus groups in the community to learn more about residents' attitudes and perceptions surrounding lead poisoning prevention. While CGR identifies residents as important stakeholders and discusses potential roles of community residents in its recommendations section, it was outside the scope of this study to conduct focus groups or interviews with significant numbers of community residents.

CGR identified the following efforts at the local level:

County DOH LEADTRACK
Database

The presentation of clear and compelling data on the incidence of lead poisoning among children under six at the local level is a critical component in (1) engaging the various stakeholders listed above in the fight against lead poisoning, and (2) in developing actions or a series of actions to eliminate lead hazards. Since 1993, the County DOH has maintained a comprehensive database on children's blood lead level screening results, including address information and other socio-demographic information.

The County DOH has indicated that it is willing to generate reports based on the LEADTRACK database in response to individual requests.

County DOH also maintains a “lead safe” registry of homes. The registry is comprised of those homes that have been made “lead safe” through federal funds, and the list is shared with MCDSS and other community-based organizations that provide housing assistance. It could be beneficial to share such a list with the community at large as well. However, wide distribution of the list could be problematic when “interim controls” have been used in some of the remediation efforts, and it is unclear whether a hazard will exist in the future. If the list is shared with the community at large, it would need to be accompanied by a clear definition of “lead-safe.”

HUD Lead Paint Hazard Control Grant

In 1998, the County DOH received a three-year, \$1.7 million grant from HUD to target 60 housing units for lead hazard remediation. The funding provided for three major activity areas: (1) lead abatement, (2) outreach and education, and (3) worker training.

A major conclusion of the three year grant was that using EBL children as a guidepost for the identification of houses in need of abatement activities is not ideal for several reasons.

- (1) Using EBL children to identify houses is a secondary, not primary, prevention approach to lead safe housing.
- (2) Abatement activities that occur while children reside in a house can result in higher EBL levels.
- (3) Re-locating families during abatement activities is expensive, and our community does not have sufficient temporary housing to meet this need. Further, families are not always willing to live in the temporary housing made available to them.

For the above reasons, the grant written for the 2002-2004 period was structured differently. Instead of targeting houses with EBL children, the grant dollars would cover abatement activities in vacant HUD homes. The 2002-2004 grant would have provided \$1.2 million to cover the cost of lead abatement activities in up to 120 homes. In this way, the City would leverage the County’s

HUD and other dollars for an on-going activity. The 2002-2004 grant proposal was not funded, but the County will resubmit for 2003-2005.

Rochester Housing Authority

RHA maintains and provides public housing to a large population of low income tenants whose socioeconomic and demographic characteristics render their children at high risk for lead poisoning. The Housing Authority has ensured that all public housing in the Rochester community has been made lead-safe. The current challenge is ensuring that privately-owned housing units financed through Section 8 vouchers be made lead-safe.

DSS Housing Unit

The County DSS Housing Unit was created to serve the emergency needs of the homeless and the housing needs of low-income residents. Between 1995 and 1999, 2,554 children were referred to the Monroe County DOH Lead Program for environmental intervention after tests revealed blood lead levels of 20 mg/dL or higher. Of these children, 90% were from families receiving Public Assistance benefits from DSS.³ Therefore, DSS serves a population at high-risk of lead poisoning. This fact could be used to help improve “targeting” of neighborhoods for lead safety activities, as is discussed in more depth later in the report.

The DSS Housing Unit, in conjunction with the City of Rochester and the County Health Department, operates a Rent Withholding Program. Rental payments of units that are in violation of code compliance (including lead violations) are withheld until such violations are corrected. This is a useful component of a primary prevention strategy. The DSS Housing Unit should be encouraged to continue to identify mechanisms through which primary prevention of lead poisoning might occur.

In 1999 DSS established a direct rent program, whereby landlords who qualified (based on geographic location and passing a Quality Housing Inspection conducted by a City of Rochester Property Conservation inspector using the HUD quality standards as the inspection criteria⁴), were eligible to receive rent payment directly from DSS.

³ Monroe County Health Department Lead Program, 2001.

⁴ Includes a visual paint inspection.

Rochester Lead Free Coalition

The Rochester Lead Free Coalition (<http://www.leadfreerochester.org/>) formed approximately a year ago to address the “silent monster” of childhood lead poisoning. Coalition membership is diverse and includes representatives of governmental and nongovernmental entities, including various health and human service providers, housing and environmental organizations, community activists, schools, and local businesses.

The Rochester Lead Free Coalition has been a driving force in the local effort to promote primary prevention in the form of mass education, improved legislation, and most importantly, better housing. The Coalition’s mission is to *provide leadership and advocacy in a local effort to empower the community and its residents to prevent the lead poisoning of children by creating an environment that is free of lead hazards.*

Movement Toward Coordination of Local Actions

While a number of local entities have active roles in addressing lead poisoning, there is still a lack of coordination between the various stakeholders. While it is too early to measure the implications of the recently enacted HUD lead safe housing rule, the legislation may serve as a call to action to bring stakeholders together. The new legislation along with increasing momentum in the activist community have the potential motivate public officials, private homeowners, contractors, and community activists to work to improve the Monroe County housing stock and reduce the risk of lead poisoning.

Focus Group Results

Many organizations and individuals in the Rochester community have shown a strong interest in reducing lead poisoning. CGR held focus groups with several important stakeholders, and the key findings and perspectives are described below, with a more detailed focus group summary provided in Appendix D. Note: CGR has simply summarized the comments and issues raised by the providers, and has not attempted to verify their accuracy.

CGR held two focus groups: one with agencies that provide temporary housing for families, including those families that are relocated due to lead safety issues, and one with landlords owning properties in the City of Rochester.

Key issues raised by participants

After describing the programs and services they provide, participants discussed their respective agency’s role regarding lead,

and their views about what can be done to combat lead poisoning in Monroe County. Key issues addressed focused on the following:

- 1) State of public housing and Section 8 housing with regard to lead;
- 2) The potential economic consequences, including the landlords' potential responses, of the HUD regulations that went into effect in January 2002;
- 3) Disagreement with magnitude of the problem/where does responsibility rest?
 - ❖ As a result of the abatement efforts that occurred during the mid- to late 1990s, the vast majority of the **public housing stock** in the County has been made lead safe. The challenge today is finding safe, effective, and affordable means of identifying and abating lead among **privately owned housing stock**.
 - ❖ Landlords, contractors, and service providers are concerned about how, from a practical standpoint, the HUD regulations will actually be carried out, especially when New York State **does not have** state regulations that mirror the new federal regulations.
 - ❖ The HUD regulations may have a “chilling effect,” and ultimately result in a shortage of rental properties for low-income renters.
 - ❖ Landlords “want to do the right thing” and “don’t want to see sick kids,” but they are unaware of funding or financial incentives available to them to remove lead.
 - ❖ Liability issues are changing the way many landlords and service providers do business. Discussions about liability and the potential for lawsuits often included comments such as “it’s only a matter of time before one of us [landlords] gets sued,” “when

it happens, you're going to see a whole bunch of landlords fold up shop," and "we're afraid."

- ❖ The City, the County, and the Federal Government *all* need to be involved in solving the problem of lead poisoning which has far-reaching social and economic consequences. Right now, it's left largely to private landlords to deal with the problem, a problem that they didn't create, but one they have inherited. Parents/caregivers and the community must also assume responsibility for protecting children from lead poisoning.
- ❖ Creative and effective financial incentives could go a long way in getting landlords to address lead hazards. E.g., low-interest home improvement loans, or reduced property taxes for a period of time.

The number of people and agencies working to reduce lead hazards and prevent lead poisoning in the community is vast, however better coordination and communication among the stakeholders is necessary.

Shifts in Perspective Needed

Shift from secondary to primary prevention

Nationally, the focus on lead poisoning has shifted from a reactive, or secondary approach to a preventive, or primary approach. This involves several changes, **including a shift from testing children to testing housing units before children are poisoned.** An increase in testing rates for both children and housing units should be a priority for all communities. Secondary prevention approaches have several limitations: many children with EBL are never identified, action occurs only until after exposure occurs, response is focused on a single housing unit, and treatment options for a poisoned child are very limited.

The Alliance to End Childhood Lead Poisoning calls for several shifts in perspective, including:

- ❖ Make safe, decent, affordable housing a national priority;

- ❖ Adopt a “healthy homes” approach (lead is interrelated with other housing-related health issues such as water damage and its impact on mold and therefore on asthma).
- ❖ Shift the focus from individual housing units to communities; and
- ❖ Factor lead safety into decisions and activities related to high-risk communities.

Need to identify neighborhoods with greatest need

A community-wide risk assessment that identifies hot spots can lead to an approach that not only addresses neighborhoods with the greatest need, but also might lead to a community-wide focus on revitalization that could help generate a climate of continued maintenance.

The HUD Consolidated Plan process requires that local governments receiving federal funding must prioritize the housing needs within a community. This requirement is another incentive for the Monroe County community to identify the most high-risk neighborhoods for lead poisoning.

From a policy perspective, making houses lead safe requires that lead safety be incorporated into a variety of programmatic and policy decisions regarding the highest risk neighborhoods. An important factor in the policy framework is the fact that there are not enough dollars currently available to fully abate all houses at-risk in a reasonable period of time. A strategy to make the housing stock of Monroe County lead safe will require a multi-faceted, creative, and well-planned approach.

NEEDS ASSESSMENT FOR MONROE COUNTY

The purpose of this needs assessment is to illustrate areas in Monroe County where a large number of properties are suspected to contain lead hazards, and therefore where children are at greater risk for exposure to lead based paint hazards. Past research (Lanphear, 1998) shows that certain community characteristics are highly predictive of elevated blood lead levels among children.

Description of Current Housing Stock

These characteristics include the age of housing, renter/owner status, poverty, race, and educational attainment. In performing the needs assessment, these characteristics and others, including the condition of housing and mobility rates, were analyzed for areas in Monroe County.

In terms of its size/number of units, the City of Rochester's housing stock has remained relatively constant since 1950, with the number of housing units declining by only 1.4% while the City's population has declined by 33.9%.

Year	Population	Housing Units	Occupancy Rate
1950	332,488	101,231	98.3%
1990	231,636	101,154	92.5%
2000	219,773	99,789	89.2%

Source: City of Rochester Consolidated Community Development Program, 2000-2001; Census Bureau.

Public Housing Stock

The public housing stock nationwide, including in Monroe County, has been made increasingly lead safe due to millions of dollars of funding provided by HUD and other federally funded programs such as the Community Development Block Grant (CDBG). Title X, described earlier, provided guidelines for communities to establish a framework that would eliminate lead paint hazards, particularly in public housing. The status of the Rochester community public housing stock is described below.

Publicly Owned Housing

The Rochester Housing Authority owns approximately 2,700 units. Between 1991 and March 2001, the Rochester Housing Authority identified 868 units that had potential for lead paint, due to housing and tenant characteristics. The approximately 1,832 units that were not considered at-risk were either built after 1978, or were designated for elderly persons and therefore not subject to HUD regulations.

Using an XRF machine, the RHA tested the 868 units considered at-risk, and found that 348 (40%) tested positive for lead-based paint. The average per unit cost for abatement, relocation, and

clearance testing to make these 348 units lead safe was \$7,557 (this was the cost prior to enactment of the new HUD rule, which will require more rigorous, and likely more expensive, work practices). According to RHA staff, very little encapsulation was done on these 348 units. In most cases, the lead paint was removed from the house entirely. Following abatement, a first set of wipe tests were done to determine if the unit was clean enough for contractors to go in and safely work. Once the contractors completed their work, a second wipe test was done to determine if the unit was lead safe.

Section 8 Housing

The RHA manages 6,700 Section 8 rent vouchers (subsidies which are tenant-based rather than project- or unit-based). Approximately 2,300 landlords receive Section 8 payments on behalf of their tenants. These housing units are privately owned, but the tenants receive federal subsidies, rendering the properties subject to the HUD lead guidelines that became effective locally in January 2002.

Private Housing stock

Much of the privately owned housing stock does not come into contact with federal funding, either through rent subsidies or other mechanisms (approximately 80,000 units). These houses generally will not be under the jurisdiction of the upcoming HUD lead guidelines. However, in some cases federal funding is used to make renovations to private housing units; in this case the HUD guidelines will apply. For example, the Monroe County DOH remediated approximately 60 privately owned housing units in 2000-2001 using HUD grant dollars. Private housing units include both owner-occupied units, and units owned privately but rented out.

Physical Characteristics of Monroe County Housing Stock

Children residing in properties built before 1950 are at increased risk of elevated blood lead levels (Lanphear, 1998). Figure 1 (Appendix B) shows the number of properties, apartment buildings and units built before 1950 for municipalities in Monroe County. Information on the year built for properties in the Town of Sweden and Village of Brockport was not available.

- ❖ There are 82,780 known residential properties built before 1950 in Monroe County. Eighty-two percent of all properties built before 1950 are located in the City of Rochester, Brighton, Greece or Irondequoit.

- ❖ 59% of properties built before 1950 are located in the City of Rochester although only 26% of all residential properties are located in the City. Therefore, properties built before 1950 in Monroe County are more than twice as likely to be located in the City than in the remainder of Monroe County.
- ❖ Outside the City, Irondequoit (8,666), Greece (6,291) and Brighton (4,340) have the highest number of properties built before 1950.
- ❖ There are 1,718 known apartment buildings (residential structures with four or more units) built before 1950 located in the City of Rochester. Only 105 apartment buildings were built outside the City before 1950.
- ❖ There are 96,799 known residential units in one to three family structures built before 1950 in Monroe County.
- ❖ 63% of these units are located in the City of Rochester although only 30% of all residential units in 1 to 3 unit structures are located in the City. Therefore, units in 1 to 3 family structures built before 1950 in Monroe County are more than twice as likely to be located in the City than in the remainder of Monroe County.

Figure 2 shows the boundaries of municipalities in Monroe County and Figure 3 shows the boundaries of Planning Sectors in the City of Rochester. Sector boundaries were estimated using aggregated census tracts and differ slightly from the actual boundaries of the planning sectors.

Locations of Housing Stock at-risk for Lead

Many areas in Monroe County have an extremely high proportion of residential properties built before lead was restricted as a household paint additive in 1978. Figure 4 shows the percent of properties built before 1950 for all census tracts and villages in Monroe County. The map is shown in more detail for regions where a majority of residential properties were built before 1950 in Figure 5.

- ❖ The highest percentage of housing units built before 1950 occur in City of Rochester census tracts surrounding the Central Business District. More than 90% of the residential properties in those census tracts were built before 1950.
- ❖ More than 50% of housing units in each City of Rochester census tract were built before 1950.
- ❖ Towns and villages with high proportions of pre-1950 housing units include: the Villages of Pittsford, Fairport and East Rochester; and the Towns of Brighton, Greece, and northern Irondequoit.
- ❖ In the City, every Neighborhood Planning Sector except Sectors 1 and 5 had more than 84% of the properties built before 1950. Outside the City of Rochester, the highest proportions of housing units built before 1950 exist in the Village of Pittsford (69%) and East Rochester (63%). Figure 6 through 9 compare the percentages of residential properties built before 1950 for all municipalities in Monroe County and for City of Rochester Planning Sectors.

Location of Households at Risk with Children ages 6 and under

Blood lead level screening test data from the Monroe County Health Department from 1993 and 2000 was used to calculate the percent of screened children with EBL (higher than 10 $\mu\text{g}/\text{dL}$) for each census tract in Monroe County. Figure 10 shows these results. The map is shown in more detail for the City of Rochester in Figure 11.

While ideally we would like to look at the incidence of lead poisoning each year, the geographic patterns are not consistent, and the sample is too small to be reliable for such a short period of time. In addition, a variety of biasing factors such as school campaigns or other awareness raising campaigns in selected neighborhoods could lead to increased testing in some geographic areas and not others. Therefore, the Housing Council and CGR opted to analyze the 1993-2000 data aggregately.

More than 20% of the children living in census tracts immediately surrounding the Central Business District tested above 10 μ g/dL.

- ❖ More than 5% of all children tested had elevated blood lead levels in every census tract in the City of Rochester except one (in Cobbs Hill).
- ❖ In three neighborhoods, 30% or more of the screens conducted between 1993 and 2000 indicated elevated blood lead levels.
- ❖ In the City, every Planning Sector except Sector 1 had more than 10% of the children tested between 1993 and 2000 with elevated blood lead levels (see Figure 12).
- ❖ Outside the City of Rochester, 9% or less of children tested had elevated blood levels in each census tract.
- ❖ Among suburban Monroe County towns, those adjacent to the City had the highest EBL rates (see Figure 13). Irondequoit had the highest percent of children with EBL (4.3%). Penfield (2.3%), and Pittsford (2.6%) had the lowest rates of children with EBL.
- ❖ The rate of children tested varies substantially by Town. Towns with the highest percent of children tested also had relatively higher EBL rates. Examples include the rural towns of: Mendon (6.4%), and Parma (7.7%) (see Figure 14). Ogden (2.3%) had the lowest rate of children with elevated blood lead levels.
- ❖ The highest rates of elevated blood lead levels among children coincide with the areas where a more than 90% percent of residential properties were built before 1950.

IDENTIFICATION OF TARGET NEIGHBORHOODS

An important consideration in designing and implementing an effective strategy to reduce lead poisoning among children in

Monroe County is the targeting of limited resources. Such targeting ensures that appropriate prevention strategies are used for the variety of needs among different neighborhoods and towns. Targeting the most aggressive and expensive prevention strategies to areas with the greatest risk will also result in the most substantial reduction in children with elevated blood lead levels as shown in the forecast model later in the report. This section describes how census tracts in Monroe County were categorized for targeting.

Overview of Study Areas for Analysis

Census tracts that contain a majority of housing built before 1950 were selected for further analysis because these areas have high proportions of properties suspected to contain lead based paint. Census tracts were aggregated due to changes in tract definitions between 1990 and 2000. The aggregated tracts are referred to as Study Areas, and include neighborhoods in the City and portions of towns outside the city.

The Lanphear (1998) study used regression analysis and Monroe County level data to identify the housing and population characteristics statistically associated with elevated blood lead levels. These characteristics include:

- ❖ age of housing;
- ❖ tenure (owner/renter);
- ❖ race;
- ❖ income;
- ❖ educational attainment; and
- ❖ housing value.

In order to characterize and evaluate the Study Areas, we used Lanphear's variables as well as the following:

- ❖ number of children under 6 years old;
- ❖ number of households with children;
- ❖ lead screening results;

- ❖ population density;
- ❖ condition of residential properties;
- ❖ requests for services; and
- ❖ information on household mobility.

A one-page profile of each Study Area is provided in Appendix C. Figures that map all the characteristics listed above for all areas in Monroe County are provided in Appendix B.

Neighborhoods in the City of Rochester where the proportion of residential properties built before 1950 is greater than 70% also display high rates of characteristics associated with high blood lead levels in children, including: a high percentage of the population that is black or other minority, low housing values, low income, low owner occupancy rates and low high school graduation rates. This is especially true in neighborhoods surrounding the Central Business District. The crescent around the Central Business District also displays higher rates of mobility and properties in fair or poor condition.

The results of the Health Department Screening Program confirm the association of these characteristics with elevated blood lead levels in children. More than 25% of screens between 1993 and 2000 in census tracts surrounding the Central Business District showed EBL. Neighborhoods outside the crescent and census tracts in towns outside the City where a majority of housing was built before 1950 did not display other characteristics associated with high blood lead levels in children, and had relatively low percentages of EBL among screens.

The results of characteristics listed above that have not already been discussed in the needs assessment are briefly summarized below.

- ❖ Tenure (owner/renter): The majority of properties in Edgerton, POD (People of Dutchtown), CHAC (Charles House Area Coalition), BEST (Bullshead Neighbors Eager to Stand Together), Marketview Heights and Atlantic-University are cared for by investor owners and not owner

occupants (see Figure 19 in Appendix B). Owner-occupancy rates are especially low in neighborhoods around the Central Business District. However, some of these areas have low owner occupancy rates due to large apartment buildings built after 1950, such as in Atlantic-University and the South Wedge (see Figure 20).

- ❖ **Race:** The areas in the crescent around downtown Rochester have the highest percentages of black and other minority residents (see Figures 21 and 22).
- ❖ **Income:** The crescent also has the highest proportion of low-income families, defined as families below 30% of the median family income (MFI). The area north of downtown has the highest percent of low-income families (see Figure 23). Figure 24 shows the neighborhoods with high proportions of families below 80% of the median family income, which is how HUD defines “low-income” families.
- ❖ **Educational Attainment:** In the crescent, more than 40% of the population over 25 did not have a high school diploma or GED in 1990 (see Figure 25).
- ❖ **Housing Value:** The median sale price for single-family homes is lowest in the City of Rochester compared to suburban Monroe County. In 2000, the median sale price for single family homes in Rochester was \$49,000. The median sale price in Rochester is more than \$20,000 lower than East Rochester, which had the second lowest median sale price (see Figure 26). In the City of Rochester, the lowest housing values are in Genesee-Jefferson, Susan B. Anthony, Upper Falls and Marketview Heights neighborhoods (see Figure 27).
- ❖ **Condition of Residential Properties:** The study areas with a majority of investor-owned properties also have the highest percent of properties listed in fair or poor condition. It should be noted that property condition information is based on comparisons between properties in the same tax assessment district, and not based on comparisons countywide (see Figure 28).

- ❖ Requests for Services: Calls to the Housing Council Hotline from tenants concerned about code violations were analyzed to provide further insight into the condition of properties in study neighborhoods. The highest number of calls per-capita occurs in Study Areas surrounding the Central Business District excluding the South Wedge, Strong, Elwanger-Barry, and Upper Monroe neighborhoods (see Figure 29).
- ❖ Mobility Among Households: In 2000, more than 10 eviction proceedings were filed in City Court per 100 housing units in the southern 14621, Edgerton, Upper Falls, North Marketview Heights, Susan B. Anthony, Beechwood and Culver-Winton Neighborhoods (see Figure 30). In areas of high mobility, children can be exposed to more properties with lead based paint hazards.

Summary tables that compare all the study areas, and profile the levels of need are located below.

The data presented in the tables were obtained from the following sources: Properties Owned by Investors, Condition and Average Assessed Values: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001; Lead Screening: The Monroe County Health Department Lead Screening Program data on blood lead level screening tests conducted between 1993 and 2000. Owner Occupancy Rate and Population, US Census 2000; Income and Education: US Census 1990; Mobility: Daily Record City Landlord/Tenant Court Proceedings, 1999 and 2000

PROFILE OF STUDY AREA	Properties Built Pre-1950	Percent of Children Testing Above 10µg/DL	Owner Occupancy Rate	Percent Black	House-holds with Children < 6 Years Old	Families Below 80% median income	Population > 25 not Graduating High School	Averaged 2000 Assessed Value of Single Family Homes
City of Rochester	87%	24%	40%	39%	8%	53%	31%	\$53,141
14621 (North)	78%	17%	37%	35%	8%	53%	43%	\$45,891
14621 (South)	97%	29%	38%	54%	11%	70%	51%	\$30,075
19th Ward	98%	23%	59%	69%	8%	39%	22%	\$55,146
Atlantic-University	83%	13%	12%	15%	3%	41%	16%	\$89,694
Beechwood	97%	29%	37%	58%	11%	67%	30%	\$43,950
Charlotte	63%	7%	56%	5%	9%	32%	23%	\$71,366
Cobbs Hill	78%	4%	47%	5%	4%	17%	8%	\$149,727
Corn Hill	53%	18%	27%	55%	6%	57%	29%	\$78,021
Culver-Winton and Browncroft	86%	10%	63%	13%	9%	33%	17%	\$72,742
Edgerton	95%	25%	31%	38%	10%	73%	42%	\$30,092
Elwanger-Barry/Swillburg	96%	15%	62%	12%	8%	43%	21%	\$70,916
Genesee-Jefferson and Plymouth-Exchange	96%	34%	37%	92%	9%	67%	46%	\$28,711
Homestead Heights	90%	20%	65%	41%	10%	42%	25%	\$55,094
Inner Loop-Alexander	87%	19%	9%	30%	5%	51%	21%	\$54,953
Maplewood (East)	97%	15%	47%	25%	11%	42%	20%	\$52,826
Maplewood (West)	60%	7%	57%	16%	11%	36%	22%	\$58,392
Mayors Heights	84%	29%	29%	90%	9%	73%	50%	\$31,517
North Marketview Hts.	91%	29%	34%	60%	12%	76%	53%	\$28,641
Northland-Lyceum	64%	13%	61%	34%	9%	48%	35%	\$51,963
Park Avenue	97%	12%	19%	5%	2%	30%	10%	\$127,619
Pearl-Meigs-Monroe	93%	20%	19%	21%	5%	51%	19%	\$54,857
POD/CHAC/ BEST	99%	29%	34%	54%	10%	65%	44%	\$32,437
South Marketview Heights	85%	28%	14%	68%	11%	78%	53%	\$29,185
South Wedge	97%	22%	22%	32%	7%	66%	27%	\$57,186
Strong	74%	7%	35%	9%	6%	49%	18%	\$76,969
Susan B. Anthony	91%	34%	22%	86%	11%	70%	46%	\$28,888
UNIT and Lyell-Otis	68%	11%	60%	27%	9%	50%	38%	\$50,291
Upper Falls	81%	32%	17%	60%	11%	80%	56%	\$26,793
Upper Monroe	95%	19%	33%	9%	7%	32%	16%	\$92,344
Monroe County Outside City of Rochester	22%	3%	76%	3%	7%	21%	15%	Not Available
Brighton (East)	51%	6%	71%	2%	6%	12%	9%	Not Available
Brighton (North)	69%	3%	64%	3%	7%	14%	7%	Not Available
East Rochester (East)	53%	6%	60%	1%	9%	39%	23%	Not Available
East Rochester (West)	72%	3%	66%	1%	7%	34%	23%	Not Available
Fairport	54%	6%	69%	1%	8%	27%	14%	Not Available
Greece (East)	36%	3%	71%	3%	7%	32%	18%	Not Available
Greece (Southeast)	80%	2%	79%	2%	9%	27%	20%	Not Available
Irondequoit (NE)	65%	4%	91%	2%	7%	24%	20%	Not Available
Irondequoit (South)	67%	4%	89%	3%	10%	25%	20%	Not Available
Irondequoit (West)	68%	5%	80%	3%	7%	23%	19%	Not Available
Pittsford (North)	23%	3%	78%	1%	6%	12%	6%	Not Available
Monroe County	39%	17%	65%	14%	8%	30%	20%	Not Available

ESTIMATED NEED	Households with Children < 6 in Pre-1950 Housing Per 100 Units	Properties Built Before 1950	Households with Children < 6 Residing in Pre-1950 Housing	Children < 6 Residing in Pre-1950 Housing
City of Rochester	7	48970	6457	18108
14621 (North)	6	1798	334	898
14621 (South)	9	4483	603	2150
19th Ward	7	5513	542	1722
Atlantic-University	2	417	50	91
Beechwood	9	1996	308	927
Charlotte	5	1622	223	454
Cobbs Hill	3	856	69	123
Corn Hill	3	238	43	104
Culver-Winton and Browncroft	7	3462	401	860
Edgerton	8	3131	394	1242
Elwanger-Barry and Swillburg	7	1518	143	319
Genesee-Jefferson & Plymouth-Exchange	7	2258	277	997
Homestead Heights	9	1120	138	354
Inner Loop-Alexander	4	155	42	74
Maplewood (East)	9	3583	538	1526
Maplewood (West)	6	989	160	315
Mayors Heights	6	314	39	126
North Marketview Hts.	9	1944	323	1012
Northland-Lyceum	5	1977	227	622
Park Avenue	2	1490	120	190
Pearl-Meigs-Monroe	4	495	47	123
POD/CHAC/BEST	8	2388	314	1035
South Marketview Hts.	8	359	91	290
South Wedge	7	1148	241	524
Strong	4	919	119	199
Susan B. Anthony	8	275	61	182
UNIT and Lyell-Otis	6	1588	188	481
Upper Falls	7	715	175	564
Upper Monroe	6	676	90	167
Monroe County Outside City of Rochester	2	33810	3046	7310
Brighton (East)	3	1587	131	316
Brighton (North)	5	1639	178	415
East Rochester (East)	4	508	55	127
East Rochester (West)	5	874	79	179
Fairport	4	911	107	236
Greece (East)	3	2155	212	477
Greece (SE)	7	1702	175	406
Irondequoit (NE)	4	1833	125	323
Irondequoit (South)	6	1173	121	270
Irondequoit (West)	5	2106	179	436
Pittsford (North)	1	951	79	192
Monroe County	3	82780	9503	25418

Children Under 6 and Households with Children Under 6 in Housing Built Before 1950

Since children under the age of 6 are at greatest risk for lead poisoning, high-risk housing units with young children are of special concern (see table above).

Often the highest proportions of households with children under 6 are located in areas with the highest percent of housing built before 1950, where the greatest risk of lead hazards exists. This is especially true for neighborhoods north of downtown Rochester, as well as in Edgerton and Maplewood. In these areas, more than 90% of the housing was built before 1950, and more than 10% of the households have children under 6 years old. The percent of households where children under 6 years old are present is shown in Figure 15.

- ❖ An estimated 25,418 *children* under 6 years old reside in properties built before 1950 in Monroe County.
- ❖ 71% of Monroe County children who live in pre-1950 housing reside in the City of Rochester, although only 36% of all Monroe County children under 6 years old live in the City.
- ❖ An estimated 9,503 *households* with children under 6 years old reside in properties built before 1950 in Monroe County. The location of households and children residing in housing built before 1950 is depicted in Figure 16. These households are concentrated around the central business district.
- ❖ The number of households with children living in properties built before 1950 was normalized by the number of housing units for all areas in Monroe County. Figure 17 shows the likelihood that a housing unit in a study area was built before 1950 and contains a child under 6 years old. Households with children under 6 residing in housing built before 1950 are concentrated in the southern portion of 14621, Edgerton, Maplewood, Beechwood, Susan B. Anthony, POD, CHAC and Best, Homestead Heights, and Marketview Heights.

*Summary of Lead Risk
Based on Housing and
Population
Characteristics in
Monroe County*

In summary, 82,780 known residential properties in Monroe County were built before 1950, those most likely to contain lead based paint. An estimated 9,503 households with children under 6 years old and a total of 25,418 children under 6 years old reside in these properties. The likelihood that a child lives in a property that contains lead based paint varies throughout the County. This likelihood is highest in the City of Rochester, especially in neighborhoods in the crescent surrounding the Central Business District. These areas also display the characteristics associated with elevated blood lead levels, including: concentration of minority residents, high percentage of families in poverty, a large proportion of the population that does not receive a high school diploma, low housing values, low owner occupancy rates, and high population densities.

**Criteria for
Identification of
Target
Neighborhoods**

Data collected in the needs assessment analysis were used to evaluate the risk of lead poisoning among children for each census tract in Monroe County. Community characteristics associated with elevated blood lead levels were used to categorize the tracts into extreme, high, moderate, and low risk areas.

The characteristics described below are highly associated with elevated blood lead levels. The neighborhoods selected through this analysis as highest risk corresponded highly with the neighborhoods that had high proportions of EBL children based on the County DOH data. However, the model is designed to identify neighborhoods with various levels of risk for lead poisoning, rather than to identify the neighborhoods that currently have high proportions of children with lead poisoning.

Among the extreme- and high-risk census tracts, target areas were selected that show the greatest need for an aggressive prevention strategy. The community characteristics utilized were ordered according to their importance in predicting elevated blood lead levels (Lanphear, 1998), and included:

- ❖ Location in the City of Rochester: All census tracts in the City were automatically considered as at least moderate risk areas because living in the City was the highest predictor of elevated blood lead levels in children under 6 years old.

- ❖ Percent of population that is black (US Census 2000): Black children were more likely to have elevated blood lead levels than other children.
- ❖ Percent of residential properties built before 1950 (Tax Assessment data 2001): Living in an older property increases the likelihood that a child under six years old will have an elevated blood lead level.
- ❖ Housing value as measured by the average full-value assessment of single-family homes for census tracts in the City: The average sale price of single family homes for towns was used for census tracts outside the City because of the variety of assessment practices used, which made comparisons impossible (City Tax Assessment data 2001 and Greater Rochester Association of Realtors' Sales Report 2001). Children living in low valued properties are more likely to have an elevated blood lead level than those living in higher valued properties.
- ❖ Family income as measured by the percent of families below 50% of the Area Median Family Income (U.S. Census 1990): Children in low income families are more likely to have an elevated blood lead level than children in higher income families.
- ❖ Educational attainment as measured by the percent of population over 25 years old without a high school diploma or GED (U.S. Census 1990): Census tracts where the educational attainment is low have higher rates of children with elevated blood lead levels.
- ❖ Housing tenure as measured by the owner occupancy rate (U.S. Census 2000): Children living in rental housing are more likely to have elevated blood lead levels than the children of owner occupants.

An additional factor that might be considered for future analysis is the proportion of children receiving public assistance at a census tract level. Since 90% of children referred to the County HD because of elevated blood lead levels turned out to be in families that receive public assistance benefits, an indicator for receipt of

public assistance could help officials target at-risk children with improved accuracy. Such an analysis was beyond the scope of this report, but would be a useful next step.

Neighborhoods Grouped into Extreme-risk, High-risk, Moderate-risk, and Low-risk

National and local health data indicate that children with different social and housing characteristics face different levels of risk for lead poisoning. These results show a need for different strategies to respond to the highly variable risks for lead poisoning in different types of housing, and in different neighborhoods. The Alliance to End Childhood Lead Poisoning, a national advocacy organization, calls for a need to focus limited resources on the housing stock that shows the highest risk for lead hazards; those homes that are older, economically distressed, and in poor condition (AECLP, “Analysis of the Housing Stock”). AECLP analysis indicates that approximately 10% of the U.S. housing stock is in the most distressed and marginal condition, and requires the most attention for lead risks. In addition, the Alliance points out that housing that is in reasonably stable condition today, may worsen over the next decade. Therefore, focusing all efforts on the very worst housing stock is not enough; officials must identify strategies for housing stock that is slightly better than the most distressed category, to prevent that stock from worsening.

Grouping Methodology

The community characteristics described earlier were evaluated for Monroe County census tracts in order to categorize areas for targeting. All census tracts were ranked into terciles for each community characteristic evaluated, where the highest, middle and lowest one-third of census tracts were grouped as described below:

Extreme Risk

Extreme Risk areas are census tracts where the likelihood of lead poisoning among children is the greatest and where aggressive abatement strategies will have the most substantial impact in reducing the number of children with elevated blood lead levels, according the Rochester forecast model. These census tracts were located in the City, **and were tracts where more than 35% of the screens between 1993 and 2000 showed elevated blood lead levels and/or ranked in the highest tercile for all six of**

the community characteristics evaluated⁵. A total of 12 census tracts were designated as Extreme Risk.

High Risk

High Risk Areas are census tracts that ranked in the highest tercile for at least five of the six community characteristics evaluated. A total of 33 tracts located in the City of Rochester were designated High Risk Areas. All of these tracts are located around the Central Business District, especially to the north and west of downtown Rochester.

Moderate Risk

Moderate Risk Areas included the remaining census tracts in the City of Rochester and 19 tracts outside the City. These 19 tracts often ranked consistently in the middle tercile for all the community characteristics evaluated. In almost all cases these tracts had only one characteristic that ranked in the lowest tercile. Sixty-six tracts were designated as Moderate Risk Areas, including those in the City of Rochester near the borders of Greece, Gates, Irondequoit, and Brighton, tracts in the inner-ring suburbs and the villages of Brockport and East Rochester.

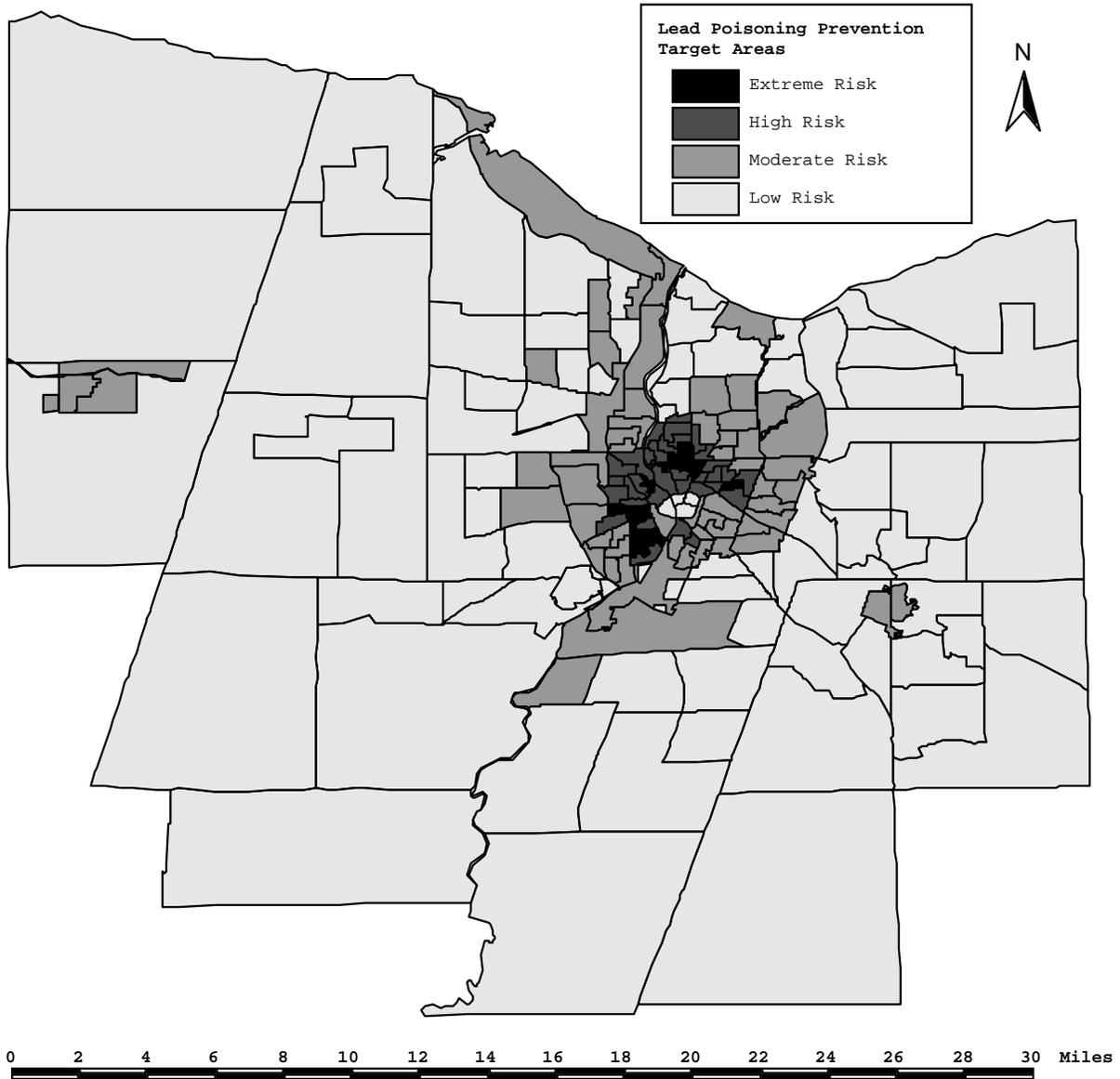
Low Risk

Rarely did the Low Risk census tracts rank in the highest tercile for any of the community characteristics associated with elevated blood lead levels. In those cases it was usually due to the presence of a large affordable housing complex built after 1978. A total of 74 tracts were designated Low Risk Areas.

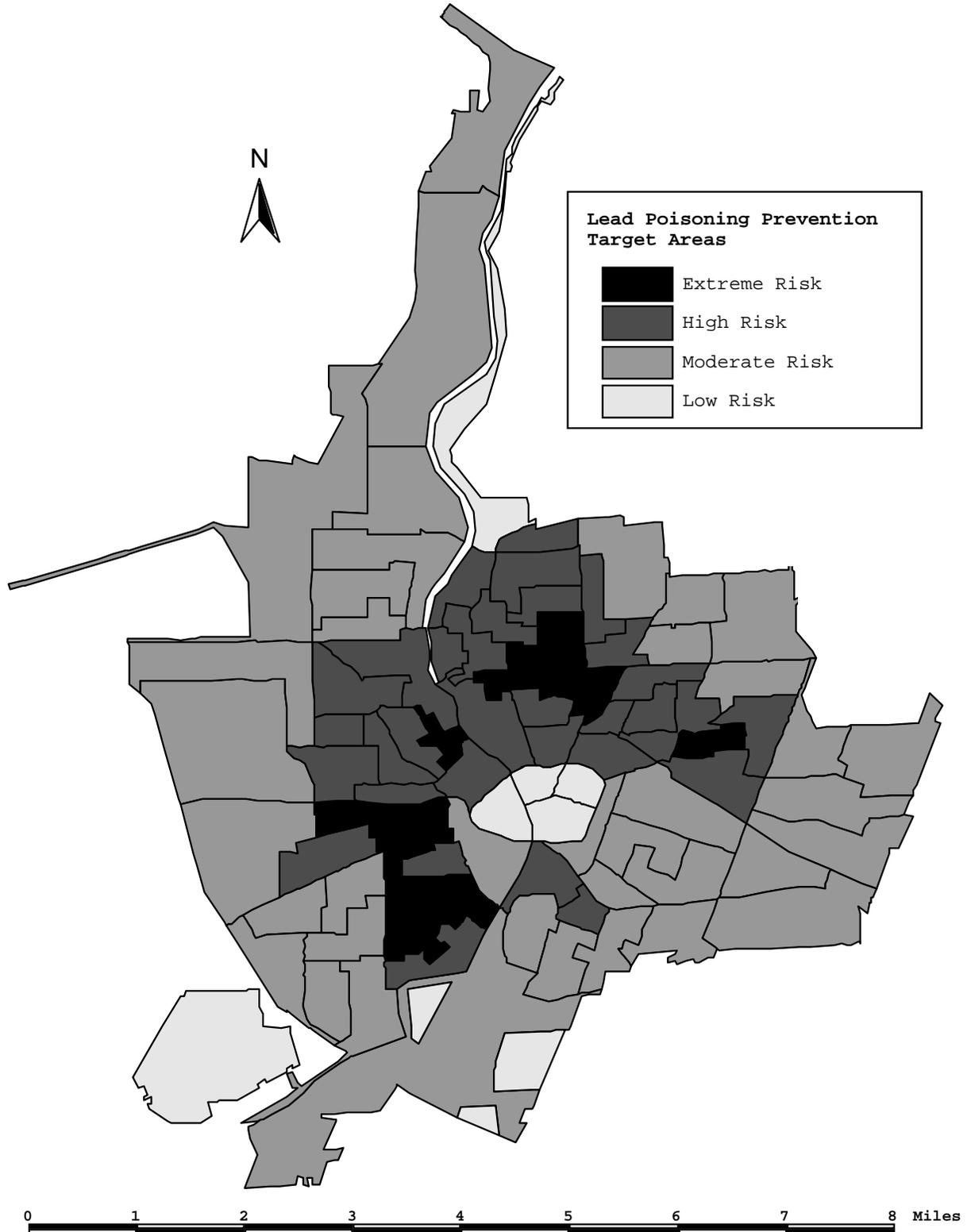
The two maps below show the location of the census tract categories in Monroe County and the City of Rochester.

⁵ Census Tract 13 had more than 35% of screens showing EBL. However, the number of screens completed in this tract was very low overall, and the tract did not rank in the highest tercile for all community characteristics. Therefore, this tract was not included in the extreme risk category, but rather in the high-risk category.

Lead Poisoning Prevention Target Area Categories for Census Tracts in Monroe County



Lead Poisoning Prevention Target Area Categories for Census Tracts in the City of Rochester



Extreme Risk Target Area

The table below gives information on the community characteristics associated with elevated blood lead levels in children for the twelve census tracts designated as Extreme Risk Target Areas. In addition, the actual results for children under 6 tested between 1993 and 2000 are given. Three of the Target Area census tracts were located in the Genesee-Jefferson and Plymouth-Exchange neighborhoods. Two were located in the southern portion of 14621. The remaining were located in the Beechwood, Upper Falls, North Marketview Heights, Edgerton, Susan B. Anthony, and the POD, CHAC and BEST neighborhoods. Detailed information about these neighborhoods is provided in Appendix C.

Census Tract	Screens Tested Above 10µg/dL	Average Assessed Value of Single Family Homes	Residential Properties Built Before 1950	Families Below 50% MFI	Population Over 25 without High School Diploma or GED	Owner Occupancy Rate	Black Population	Study Area
7.00	33.3%	\$25,916	94.3%	62.5%	52.1%	17.2%	59.7%	Upper Falls
15.00	35.5%	\$22,009	94.7%	68.1%	62.1%	33.6%	59.8%	N. Marketview Hts.
16.00	33.4%	\$32,304	98.1%	70.9%	47.4%	30.7%	38.3%	Edgerton
49.00	32.0%	\$25,738	95.8%	49.8%	49.4%	38.1%	54.1%	South 14621
52.00	34.7%	\$22,739	97.4%	58.8%	60.5%	38.1%	54.1%	South 14621
57.00	36.0%	\$35,792	98.4%	62.0%	39.4%	37.4%	58.3%	Beechwood
64.00	39.4%	\$26,418	98.2%	47.8%	50.3%	37.2%	91.7%	Genesee-Jefferson & Plymouth-Exchange
65.00	35.5%	\$29,562	89.9%	51.0%	41.8%	37.2%	91.7%	Genesee-Jefferson & Plymouth-Exchange
66.00	32.9%	\$30,913	97.7%	43.5%	44.9%	37.2%	91.7%	Genesee-Jefferson & Plymouth-Exchange
96.01	34.4%	\$28,888	90.8%	61.5%	46.4%	21.6%	86.4%	Susan B. Anthony
96.02	32.7%	\$26,968	96.8%	55.4%	46.6%	34.1%	54.2%	POD/CHAC/BEST

ROCHESTER PROJECTION MODEL OF NUMBER OF LEAD POISONED CHILDREN

Methodology Based on President's Task Force

In 1997, President Clinton created a Task Force on Environmental Health Risks and Safety Risks to Children. The Task Force was charged with recommending strategies, including a strategy to eliminate childhood lead poisoning in the United States as a major public health problem by 2010 (President's Task Force, 2000). The report identifies a 10-year plan to create 2.3 million lead safe homes for low-income families with children. The four primary components of the strategy are as follows:

1. Act before children are poisoned;
2. Identify and care for lead poisoned children;
3. Conduct research; and
4. Measure progress and refine lead poisoning prevention strategies.

Modifications made to accommodate local data

The projection model is for the City of Rochester, not for the full County of Monroe. Some of the data used in the projection was available only for the city.

Some of the data sources used in the national model were collected on a sample basis, rendering them useful for national analysis, but not useable at a small geographic level, such as a City or County. Therefore, the NHANES II data that provides information on children under age 6, blood lead levels, age of home, and poverty information could not be used in the Monroe County analysis.

Instead of using the NHANES data used in the Task Force model, CGR and the Housing Council used local data from the County DOH lead registry on children under age 6 screened for EBL between 1993-2000. These data included the child's address,

which was the basis for assigning household median income (relying on the 1990 median income of the Census tract in which the house was located -- 2000 Census information on income is not yet available), and the basis from which the Housing Council was able to determine the age of the housing unit.

The national model utilized American Housing Survey⁶ data to estimate the average number of children per household, given certain household characteristics. Again, this data source provides sample data only, and the Rochester area is not one of the sample study locations. Therefore, 2000 Census Bureau data was used to estimate the number of children under the age of 6 in various census tracts in Monroe County.

National Model Assumptions

The national study model included several assumptions, some of which apply to the local model, while others do not. Differences in the national assumptions and our local experience resulted in the Rochester model looking somewhat different, though the availability of local data suggests a more accurate and reliable projection for this community than a similar model relying only on national data. The key differences between CGR's assumptions and those of the Presidential Task Force are described below.

1. The national study model provided data on children testing above both 10 $\mu\text{g}/\text{dL}$, and 15 $\mu\text{g}/\text{dL}$. The projection model used data on children testing above 10 $\mu\text{g}/\text{dL}$, and CGR used the same criteria in the Rochester model projection.
2. According to American Housing Survey data, in 1993 20.4% of low-income children under 6 in high-risk pre-1940 housing had elevated blood levels (above 10 $\mu\text{g}/\text{dL}$) nationwide. Further, 9.8% of low-income children in a high-risk house built between 1940 and 1959 had EBL (Task Force Report, Table 17). **In Rochester, 32.1% of all children under 6 living in pre-1950 housing had**

⁶ The American Housing Survey is conducted by the Bureau of the Census for the Department of Housing and Urban Development (HUD).

blood lead levels above 10 $\mu\text{g}/\text{dL}$ in 1993.

Although these comparisons are not precisely comparable given differences in the age of housing, they indicate that the Rochester community has a disproportionately higher rate of lead poisoning among children.

3. Eliminating high-risk housing eliminates childhood lead poisoning.
4. Nationally, high-risk housing stock (pre-1960) declined from 31.7 million units in 1989 to 24.0 million units in 1999, a decrease of 24.2%. **The number of units in Rochester's pre-1950 housing stock declined by only 2.2% between 1990 and 2000, or less than one-tenth the national rate.**
5. Nationally, the number of units in the low-risk housing stock increased from 49.5 million units in 1989 to 67.1 million units nationally in 1999, an increase of 36%.
6. Nationally, 1.85% of high-risk houses (pre-1960) undergo window replacement *annually*, based on data from the national Residential Energy Consumption Survey.
7. Window replacement is equivalent to rehabilitation to remove lead paint exposure in the national study assumptions.
8. Nationally, nearly 1.0% of high-risk houses (pre-1960) are demolished *annually*. Between July 1993 and June 1999, the City of Rochester demolished 641 vacant properties, or 107 per year (City of Rochester Consolidated Community Development Program, 2000, p.126). With approximately 50,000 **properties** built before 1950 in the City as of 2001 (see earlier table), **in Rochester the annual rate of demolition among all high-risk (pre-1950) properties is approximately 0.2%, or one-fifth**

Rochester's demolition rate is one-fifth the national rate.

the national rate used in the Task Force's projections.

9. The national model assumes that the lead poisoning prevalence in older low-risk units is approximately equal to the prevalence in post-1974 units, and they indicate that this assumption may underestimate the lead poisoning prevalence in older low-risk homes.
10. The Rochester model assumes, as does the national model, that the current downward trend in the number of children found to be lead-poisoned will continue to drop as it has over the last ten years. The results of this assumption are shown in the baseline model below (scenario 1).

Methodology for Local Model

Three primary sources of data were used to develop the Rochester forecast model for lead poisoning incidence: (1) County DOH data on blood lead level tests among children under 6 years old from 1993 through 2000, (2) U.S. Census information on population and housing from 1990 and 2000, and (3) City of Rochester Tax Assessment Records from 2001.

CGR sought to replicate the methodology used by the Presidential Task Force to project annual estimates for the number of lead poisoned children in the City of Rochester. Key data elements and assumptions used in CGR's model are described below.

- ❖ Information described in detail below was collected and analyzed for the City of Rochester. Suburban Monroe County was excluded due to limitations on the availability of property level information that could be attached to the MCHD blood lead level testing results data.
- ❖ The number of children under 6 and the number of housing units were tabulated for each City census tract for both 1990 and 2000 using the U.S. Census of Population and Housing.
- ❖ Linear projections for the number of children under 6 and the number of housing units for the years 2001

through 2010 were calculated, and the average number of children under 6 per housing unit was calculated.

- ❖ The number of housing units built before 1950 was calculated using City of Rochester Tax Assessment Data from 2001, with projections made through 2010. The percent of the housing stock comprised of pre-1950 housing was then calculated for each year, 2000-2010.
- ❖ Property-level data on census tract, year of construction, tenure (owner or renter-occupied), and assessed value were attached to the Monroe County DOH data on blood lead level test results from 1993 through 2000 using the property address of the child tested. This resulted in a working database of 65,000 observations.
- ❖ The percent of children under 6 residing in pre-1950 housing testing above 10 μ g/dL was calculated for each census tract in the City of Rochester.
- ❖ A logarithmic trend was calculated for the percent of children testing above 10 μ g/dL for the years 2001 through 2010.
- ❖ The projected number of children under 6 residing in pre-1950 housing with blood lead levels at or above 10 μ g/dL was calculated for 2001-2010 using the following formula: (total children < 6) * (% of housing units built <1950) * (percent of children < 6 living in <1950 housing testing at or above 10 μ g/dL).
- ❖ The same methodology was used to create projections for selected neighborhoods in the City where housing units pose an extreme risk of causing lead poisoning.

The Rochester projection model estimates the number of children expected to be newly lead poisoned each year. Another approach would be to model the number of houses that have lead-risk in them over time. Given resource constraints, it is unrealistic to think that all lead can be removed from Monroe County's housing

stock in the next 10 years. Therefore it may be more practical to **estimate the reduction in the number of children poisoned each year.** It may be possible to create enough lead safe housing for families with young children and reduce the incidence of lead poisoning without eliminating lead from *all* housing.

Model projections for number of lead poisoned children are higher than the number actually identified through screenings

The results below show the number of children projected to have elevated blood levels each year between 2001 and 2010. Projections are presented under seven different intervention scenarios. **The number of children estimated to have lead poisoning over the projection period is based on the number of children living in certain housing conditions, and the proportion of children in those conditions who historically test high for blood lead. In other words, the projections are not based on the number of children found to be lead poisoned from actual County DOH screening data.**

Nonetheless, we compared the actual number of children with EBL in 2000 to the projected number of children for 2001, and found a discrepancy. To accommodate the discrepancy, we present low and high-end projections, reflecting the original projection model and the projection model modified to reflect the actual number of children poisoned in 2000. Interestingly, the 2001 projection is very close to the 1999 actual data, and nearly all of the discrepancy can be explained by the lack of a 100% screening rate.

There is a bigger discrepancy between the 2000 actual data and the 2001 projection. Some of the discrepancy can be explained by the lack of a 100% screening rate in the city and county, and some can be explained by a model assumption described below.

Screening Rates

While the screening rates for elevated blood lead levels are relatively high in the city and county when compared to statewide averages, they are still not 100%. Screening rates statewide among the cohort of children born between 1994 and 1997 are approximately 61%, significantly higher than the national rate of 20%. Children covered by Medicaid are screened at even higher rates; 70% of children under age six who were covered by Medicaid were screened in 1998.

In the City of Rochester as well as zip codes 14612 and 14615, the screening rates in 1995 through 1997 for children ages 1 and 2 were approximately 80% (Monroe County Maternal/Child Health Report Card, 2000). In other areas of the county, and for children ages 3 through 6, screening rates were lower. Therefore, by definition, some lead poisoned children remain undetected. As a result, the number of children in the projection model is higher than the number we would calculate if we simply used the DOH data. **Therefore, we present two sets of projections, high and low. We show a trend line calculated with the actual 2000 number of children found to be poisoned as a starting point as a low end estimate for our projection model. This low end is used in three of the seven scenarios presented below.**

Model Assumption

As stated earlier, the model uses actual Monroe County DOH rates of lead poisoning (at the Census tract level) between 1993 and 2000, and uses the rate trend as part of the projection of children that could be lead poisoned in the future. CGR and the Housing Council did not have data on the age of children tested in the DOH database. However, because of the state law requiring that children be tested at 12 and 24 months of age, we expect that a disproportionate number of screens in the database are on children in those age categories. We then take the rates of poisoning and apply them in the future to all children ages 0 through 5. If children ages 1 and 2 have a higher rate of poisoning generally than older children, the model may overstate the expected incidence of lead poisoning. **Therefore, we consider the main projection model to be a high-end estimate of the number of children likely to be poisoned over time. The true number of poisoned children is unknown, both in the past and in the future. However, the truth likely lies somewhere in between our high and low estimates.**

Model Results: Seven Scenarios

Seven scenarios are presented below. Scenarios one through three show a baseline projection of lead poisoned children citywide, as well as the impact of making additional homes lead safe under two sets of assumptions. These three scenarios show both the high and low end projections.

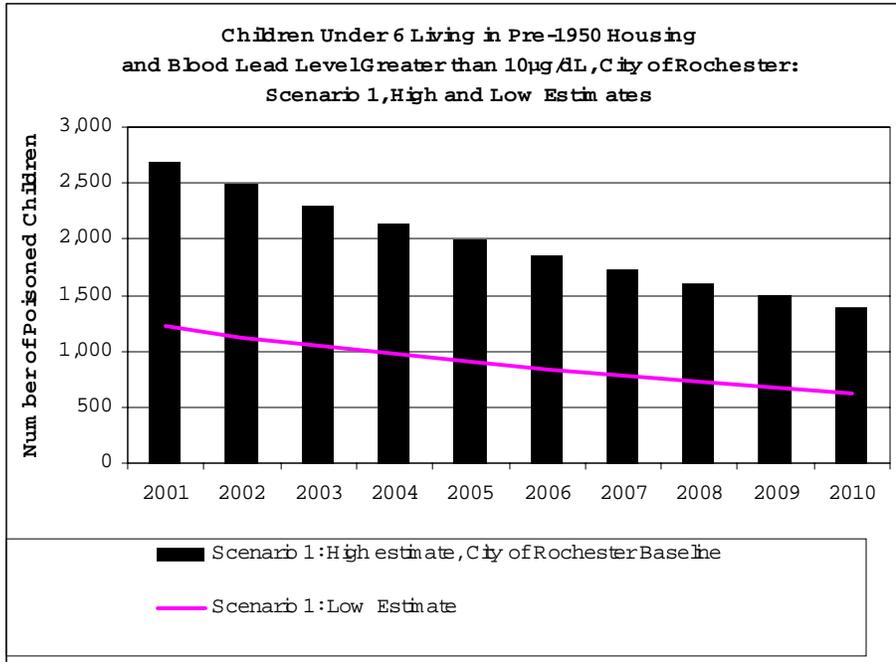
Scenarios four through six show a baseline projection of lead poisoned children in the extreme risk City of Rochester

neighborhoods described earlier, as well as the impact of making additional homes lead safe under two sets of assumptions. Scenarios four through six show only the high end projections due to data limitations.

Scenario seven shows the projected impact of the HUD rule that went into effect in January 2002, and compares this projection to the baseline citywide projection (scenario one).

Scenario 1: City of Rochester: Baseline—Based on the trend of children with EBL between 1993 and 2000, CGR estimated a

projected number of children likely to have EBL each year through 2010. The projection accounts for the variety of lead prevention activities already in place, and simply projects the current trend, were nothing to change substantially.



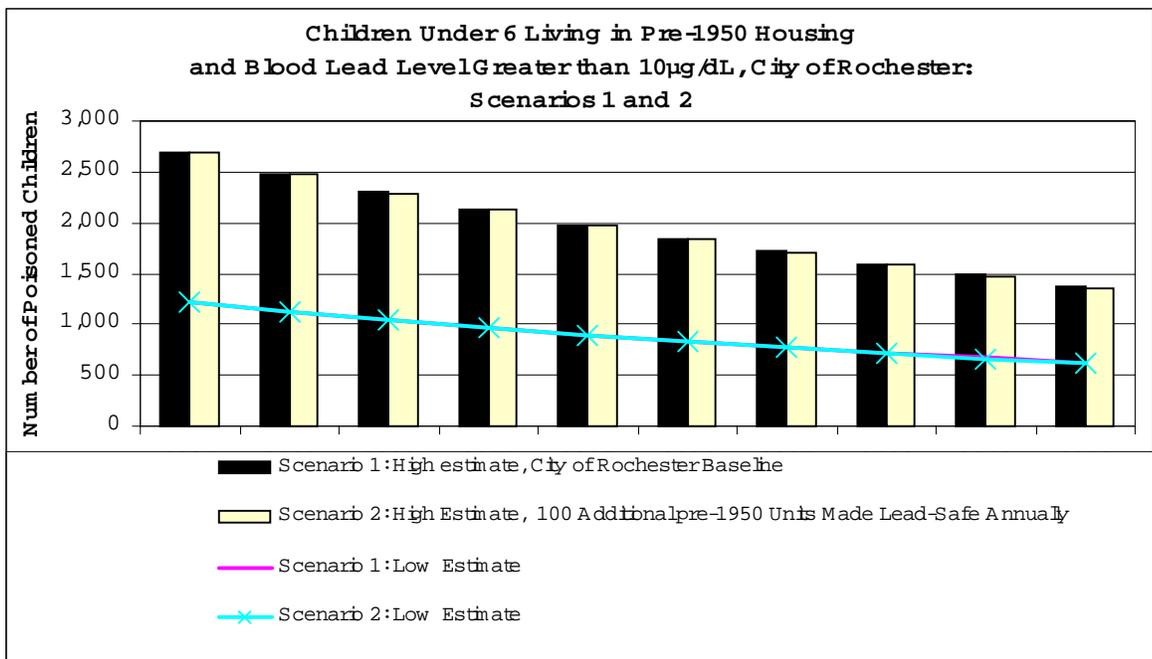
- ❖ If trends continue as they have over the last seven years, the number of children

estimated to have high blood lead levels in 2010 is 1,379 under the high estimate, and 626 under the low estimate, or a reduction by about 50% compared to 2001 under both estimates. This decrease in the rate of children with EBL is comparable to the findings of the Presidential Task Force, which predicted that the national rate would drop by 43% under current conditions.

Scenario 2: City of Rochester: 100 additional units made lead safe annually—This scenario assumes that current efforts continue, with the addition of 100 randomly selected housing units built before 1950 in the City of Rochester made lead safe annually. The annual impact on the number of children with blood lead levels over 10µg/dL was calculated: (Cumulative Number of Units Made Lead Safe) * (Children Under 6 Per Housing Units) * (Projected Percent of Children Testing Above 10µg/dL).

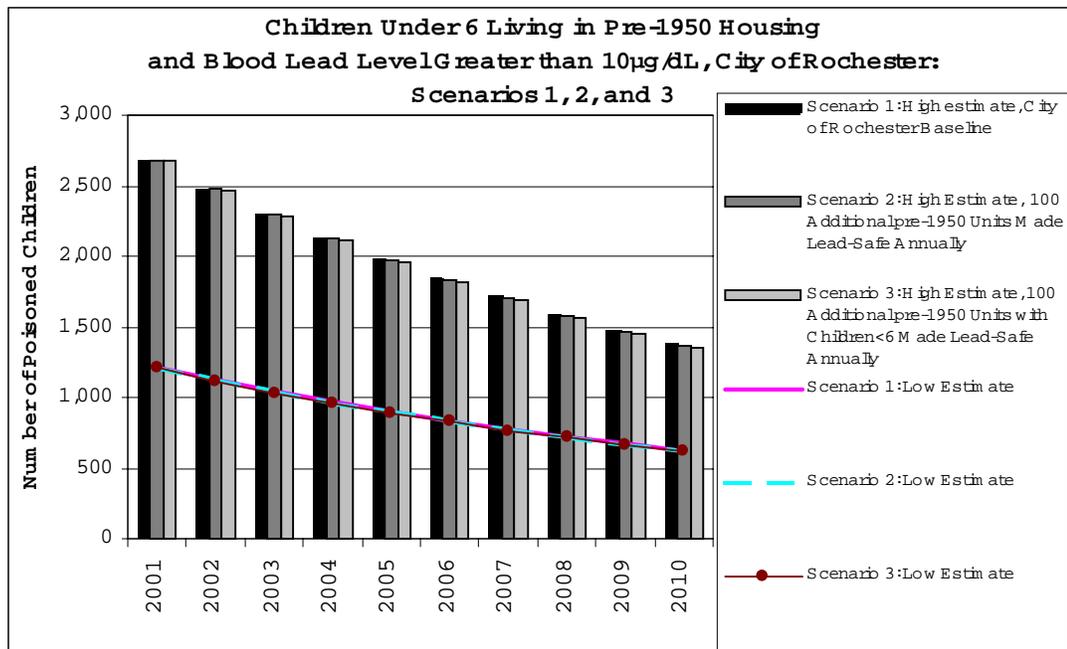
- ❖ Under this scenario, the number of EBL children is estimated to drop from 2,681 in 2001 to 1,363 in 2010. **Sixteen fewer children are expected to test positive for EBL compared to the baseline projection under the high estimate, and seven fewer children are expected to be poisoned under the low estimate.**

Note: the low estimate for both scenarios are presented in the accompanying graph, but because the numbers are so similar, the lines are nearly indistinguishable.



Scenario 3: City of Rochester: 100 additional units with children under 6 made lead safe annually—This scenario is similar to Scenario 2, but adds the criterion that at least one child under age 6 reside in each units made lead safe. The annual

impact on the number of children with blood lead levels over 10µg/dL was calculated by adding the number of children avoiding poisoning due to the units made safe in the current year plus the number

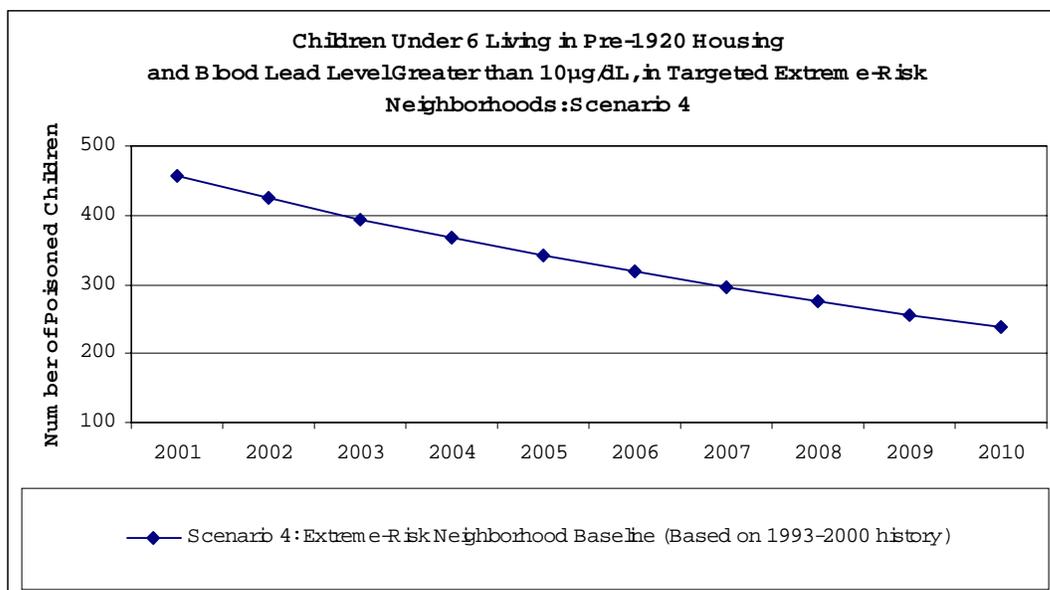


resulting from previous years' efforts: $[(100 \text{ Units Made Lead Safe in Current Year}) * (\text{Projected Percent of Children Testing Above } 10\mu\text{g/dL})] + [(\text{Cumulative Number of Units Made Lead Safe in Previous Years}) * (\text{Children Under 6 Per Housing Units}) * (\text{Projected Percent of Children Testing Above } 10\mu\text{g/dL})]$.

- ❖ Under this scenario, the number of EBL children is expected to decline from 2,681 in 2001 to 1,354 in 2010 under the high estimate, or **25 fewer EBL children compared to the baseline projection**. Under the low estimate, the drop will be from 1,217 to 614, or 12 fewer children with EBL compared to the low estimate baseline (scenario 1). Under either estimate, this is a small change in the number of poisoned children.

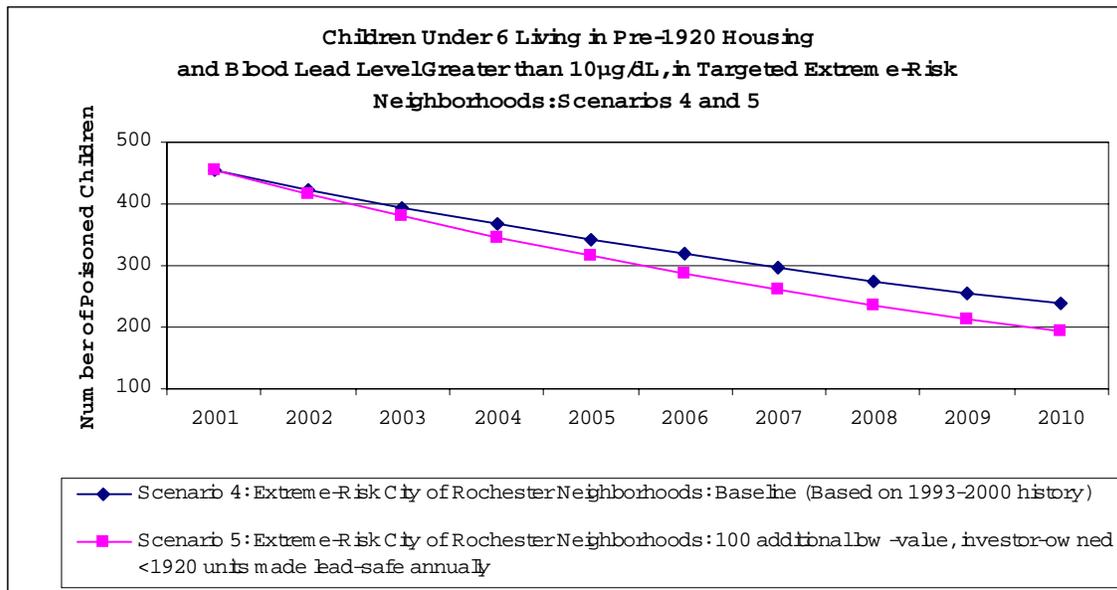
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Scenario 1: High estimate, City of Rochester Baseline	2,681	2,480	2,299	2,133	1,982	1,843	1,714	1,594	1,483	1,379	19,588
Scenario 1: Low Estimate	1,217	1,126	1,043	968	900	836	778	724	673	626	8,891
Scenario 2: High Estimate, 100 Additional pre-1950 Units Made Lead-Safe Annually	2,681	2,477	2,293	2,125	1,972	1,831	1,700	1,580	1,467	1,363	19,490
Scenario 2: Low Estimate	1,217	1,124	1,041	965	895	831	772	717	666	619	8,846
Scenario 3: High Estimate, 100 Additional pre- 1950 Units <u>with Children <6</u> Made Lead-Safe Annually	2,681	2,464	2,281	2,113	1,960	1,820	1,690	1,569	1,458	1,354	19,390
Scenario 3: Low Estimate	1,217	1,119	1,035	959	890	826	767	712	662	614	8,801

Scenario 4: Extreme-Risk City of Rochester Neighborhoods: Baseline—This scenario estimates the number of children likely to have high EBL through 2010 in the Extreme Risk neighborhoods identified earlier, given the trend data between 1993-2000. Based on current trends, 456 children are likely to have EBL in 2001 in these extreme risk neighborhoods. If trends continue as they currently have, 237 children will have EBL in 2010.



Scenario 5: Extreme-Risk City of Rochester Neighborhoods: 100 additional units made lead safe annually--This scenario is similar to Scenario 4, but the 100 units selected to be made lead safe are in one of the extreme-risk census tracts identified earlier, are low valued, investor owned, and built before 1920. CGR estimated the number of children likely to be spared lead poisoning as a result of the additional lead safe houses, and subtracted them from the baseline projection.

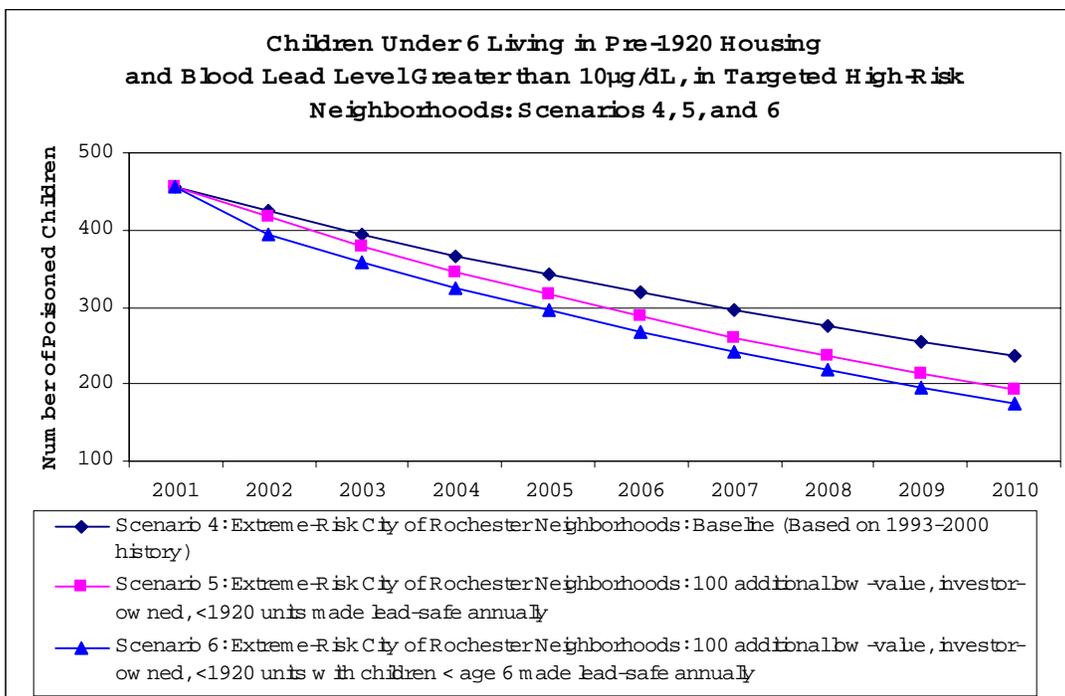
- ❖ Under this scenario, the number of EBL children is estimated to decrease from 456 in 2001 to 193 in 2010, or **44 fewer children than the 237 projected under the baseline estimate for the extreme risk neighborhoods.**



Scenario 6: Extreme-Risk City of Rochester Neighborhoods: 100 additional units with one or more children < age 6 made lead safe annually—This scenario is similar to Scenario 5, but

adds the criterion that a child under age 6 lives in the housing unit at the time the property is made lead safe.

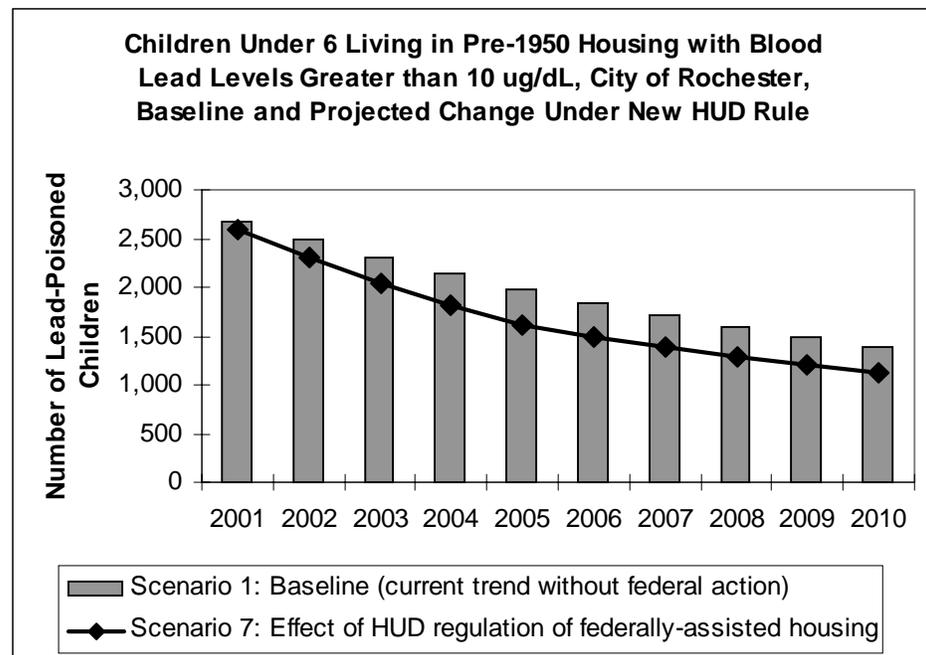
- ❖ Under this scenario, the number of EBL children is estimated to drop from 456 in 2001 to 175 in 2010, or 62



fewer EBL children compared to the 237 projected under the baseline estimate for extreme risk neighborhoods. Under the targeted approach, many more additional children avoid lead poisoning (62 versus 25).

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Scenario 4: Extreme-Risk City of Rochester Neighborhoods: Baseline (Based on 1993-2000 history)	456	424	394	367	342	318	296	275	256	237
Scenario 5: Extreme-Risk City of Rochester Neighborhoods: 100 additional low-value, investor-owned, <1920 units made lead-safe annually	456	416	380	346	316	287	261	237	214	193
Scenario 6: Extreme-Risk City of Rochester Neighborhoods: 100 additional low-value, investor-owned, <1920 units with children < age 6 made lead-safe annually	456	394	359	326	295	268	242	218	196	175

Scenario 7: County fully complies with HUD Rule for Federally-Assisted Housing Units. This estimate projects the reduction in the number of children with elevated blood lead levels if the County and all other stakeholders were to fully comply with the new HUD lead-based paint rule put in place in most communities in fall 2000, and effective in Monroe County in January 2002. Comparing the 2010 baseline results to the 2010 HUD rule results, the national estimate shows a reduction of 17.7% EBL children living in pre-1960 houses under the HUD rule compared to the baseline (135,000 versus 111,000). The Rochester model shows an 18.9% reduction in EBL children living in pre-1950 houses under 2010 HUD rule results compared to the 2010 baseline (from 1,379 to 1,118) (due to data limitations we have a different point of reference). The reduction estimated in the national model (17.7%) and in the Rochester model (18.9%) are quite similar.



Assumptions for HUD regulation impact estimates for City of Rochester:

1. The 2,556 public housing units have all been evaluated and made lead safe if necessary by the end of 2001.
2. The 4,103 tenant based Section 8 units will be made lead safe over a 4 year period beginning in 2002.
3. The 3,800 project based Section 8 units will be made lead safe over a 4 year period beginning in 2002.

4. The 4,100 units insured by HUD will be made lead safe over a 4 year period beginning in 2002.
5. All units described above are assumed to be pre-1950. 80% of all Rochester housing units were built before 1950. Information on year built was not readily available from the Buffalo HUD office.
6. Assumes that above numbers do not double count any units.

Children Under 6 Living in Pre-1950 Housing with EBL, City of Rochester Projection Model, Scenarios 1 and 7										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Scenario 1: Baseline (current trend without federal action)	2,681	2,480	2,299	2,133	1,982	1,843	1,714	1,594	1,483	1,379
Scenario 7: Effect of HUD regulation of federally-assisted housing	2,594	2,305	2,047	1,817	1,611	1,497	1,391	1,293	1,203	1,118

Rochester Model Implications

The national model does not apply equally to all communities

The Rochester model indicates that this community will not eliminate lead poisoning by the year 2010 as described in the HUD national projection model. The assumptions in the national model do not apply equally to all communities in the United States. Some communities have much lower proportions of older housing, and could possibly eliminate lead poisoning earlier than 2010. Other communities, especially those in the Northeast and northern Midwest, have much higher proportions of older housing, much of which has deteriorated over time due to low socio-economic status of the persons who own or rent them.

In the national Task Force model, one projection reaches a goal of zero children with elevated blood levels by the year 2010. That projection includes assumptions about a proposed (but not yet fully implemented) national 10-year plan that includes federal grants and private funding, outreach, and enforcement of lead safety laws on both privately funded and publicly funded activities.

Targeted strategies can help substantially reduce the number of lead poisoned children

While the current downward trend in the number of children testing higher than 10µg/dL is encouraging, **the Rochester model predicts that an effort targeted to the highest risk neighborhoods will have the greater impact on reducing the number of children testing positive for elevated blood lead levels over time.**

The City of Rochester (and likely the County of Monroe) has a baseline trend similar to the rest of the nation. If we are able to make all federally assisted housing units lead safe, we expect to reduce the number of lead poisoned children by an additional 18.9% by 2010 compared to the baseline model 2010 results. However, accomplishing this goal requires additional resources and trained professionals. There is no guarantee that the Rochester community will be able to fulfill the HUD lead based paint rule requirements in a timely manner.

OPTIONS FOR FUTURE DIRECTIONS IN NEIGHBORHOODS WITH INCREASING LEVELS OF RISK

Removing lead from homes involves substantial cost, and Monroe County has a relatively high number of homes with varying levels of lead risk. Therefore, CGR believes a pragmatic approach will target more aggressive efforts to neighborhoods with higher levels of risk.

A subsequent section in this report, “Recommendations for Next Steps” provides a number of specific steps the county and other stakeholders should consider as they move towards development of a strategic plan. That section also includes examples of actions used in other communities that could be replicated in Rochester. The current section outlines a framework the County and other stakeholders can use to strategically apply various options to the most appropriate neighborhoods.

An overall strategy to reduce lead poisoning in Monroe County should involve sub-strategies targeted to different types of homes and neighborhoods. Decisions about matching sub-strategies (or options for future directions) with neighborhoods and housing units should consider characteristics of the current residents of a

neighborhood or housing unit, including age, income level, and renter or owner status.

As described earlier in this report, CGR grouped City neighborhoods and suburban towns into four risk categories: low, moderate, high, and extreme. CGR used a cumulative approach to assign options to the different risk categories. In other words, some options can be applied to all neighborhoods and towns, such as educational campaigns. Other options should target geographic areas identified as moderate risk or worse. Further, the most labor intensive and expensive options should target those neighborhoods at the highest level of risk. Therefore, the following options for future directions become cumulative in their application as we discuss each individual risk category.

Options for Low-Risk Communities

The options described in this section apply to all levels of at-risk housing units countywide.

Continued Good Maintenance

Generally speaking, homes in low-risk communities require continued good maintenance on intact painted surfaces. However, even intact painted surfaces may harbor lead paint below the surface and could become dangerous if not maintained. Homes should be visually inspected on a regular basis for deterioration.

Lead safe Work Practices

Low-risk homes that undergo any remodeling or renovation work should follow lead safe work practices if the homes were built before 1978. Suggestions for encouraging lead safe work practices include providing lead safety information with every building permit issued, and providing lead safe work practices information wherever paint, sandpaper, and other remodeling supplies or equipment are sold.

Public Education Campaigns

Public education campaigns, described in more detail later in the report, will be applicable to all community residents with children. Even if a family's home was built after 1978, children can be exposed to lead in other settings—friends' homes, childcare settings, relatives' homes, etc. Education campaigns on lead poisoning can also include educational components targeted to EPA- and HUD-licensed contractors.

Tool Libraries as Source of Information

Many City neighborhoods and suburban towns have tool libraries and rental stores that provide power sanders, renovation

equipment, painting tools, and other items that indicate renovation of surfaces that could include lead paint. These venues would provide excellent opportunities for education regarding lead paint dangers and lead safe work practices.

Options for Moderate-Risk Neighborhoods and Towns

All of the strategies in this section apply to neighborhoods and towns considered moderate, high, or extreme-risk.

In addition to the application of all the options described above for low-risk neighborhoods and towns, moderate-risk areas should also consider testing for lead dust when the opportunity is available, such as at the time of sale of a property, or acquisition of a property by the City.

Involve/Train Community Members

A cost-effective approach, such as visual inspections and dust wipe sampling could be used, and residents who have been properly trained could collect these data. The County and other stakeholders should develop a mechanism to train community members to be certified lead inspectors to carry out these tasks.

The Alliance to End Childhood Lead Poisoning published an article entitled “The promise of Environmental Sampling and Right-to-Know Laws for At-Risk Communities” in Public Health Reports. The article discusses opportunities for community residents to become actively involved in identifying and documenting housing-related environmental health hazards, and to initiate corrective measures.

For example, community members and others can attend a one-day EPA/HUD developed sampling technician-training course. With a sufficient number of trained screeners, community residents could conduct targeted neighborhood assessment campaigns in extreme risk neighborhoods. Community members who desire more training can take the necessary training to become a certified lead inspector.

Explore Opportunities for Permanent Lead Control

Housing units in moderate-risk neighborhoods and towns are at risk of moving into the high or extreme-risk category over time as they age, especially if they are not properly maintained. Therefore, opportunities for permanent control measures such as

window replacement should be fully explored.

Moderate Risk Homeowner De-Leading Training

Massachusetts has a “moderate-risk” homeowner de-leading program. The program provides at-home training for owners and their agents (Massachusetts DOH, Childhood Lead Poisoning Program, 2002). The regulation took effect February 4, 2000, and allows people who are not licensed de-leaders to do moderate-risk de-leading work. Such a program could be evaluated for replication in Rochester.

Options for High-Risk Neighborhoods

All of the options in this section apply to neighborhoods and towns at high or extreme-risk. In addition to all of the strategies outlined above for low and moderate-risk neighborhoods, the following options should be considered for high-risk neighborhoods.

The approach to high-risk housing units is different, because these units are much more likely to result in a lead poisoned child if risks are not addressed through primary prevention efforts. These units and their specific risks for lead poisoning must be identified **before** a child tests high for blood lead levels.

Ensure Proper Functioning of Current Related Programs

Extreme-risk and high-risk neighborhoods will require similar approaches, including ensuring that programs already operating in these communities are functioning properly (empowerment zones, neighborhood revitalization, housing rehabilitation, code enforcement).

Maximum Lead Safeguards in Renovation

Lead hazard reduction in high and extreme-risk housing units must be conducted with maximum lead safe safeguards, since renovations can cause substantial lead risk due to the dust that is generated in the process.

Expand the Role of Code Enforcement

The County and City should consider expanding the role of code enforcement personnel in the strategies implemented for housing units in high-risk neighborhoods. Such enforcements could be targeted to units owned by landlords with tenants whose children have tested high for blood lead levels.

Special Financing Opportunities

Special financial resources should be made available to property owners with housing units in the high and extreme-risk neighborhoods.

In Manchester, CT, the City's Lead Abatement Program uses competitive incentive programs for tenants and landlords in "eligible" areas (areas at high risk for children with EBLs). Lead prevention aid is offered at three levels:

- ❖ Level 1: Maximum of \$5,000 per unit where no children are present. Funds are for repair/cleaning of windows, porches, floors, and soil.
- ❖ Level 2: Maximum of \$8,000 per unit for lead abatement, plus an additional \$2,000 for abating defective paint, creating cleanable surfaces, and other cleaning and abating necessary for friction and impact surfaces, where a child under the age of 6 is in residence.
- ❖ Level 3: Maximum of \$10,500 per unit for lead abatement, plus an additional \$2,000 for passing code regulations will be applied if a child with an elevated EBL is in residence.

Example of lead-focused use of CDBG and HOME grant funding

Funding for the Manchester program in the year 2001-2002 is primarily from HUD funds earmarked for lead hazard control, as well as education, training, and project management activities. The City of Manchester has pledged local matching funds of \$1,576,560. This money will support code enforcement, and correction (and the \$2,000 increments listed above), as well as other training and education. Manchester uses primarily the CDBG and HOME funding sources to support these efforts.

Other financing programs can be developed, such as loan programs sponsored by the City or County, as well as loans provided to low-income persons as required through the CRA (Community Reinvestment Act), described later in the report. It was beyond the scope of this study to conduct a comprehensive search of loan programs and other financing approaches used to address lead paint dangers.

All incentive programs should have extensive eligibility criteria. Location of a housing unit in a designated high or extreme-risk neighborhood could be a primary criterion for certain resources available to both owner-occupants and to landlords.

Options for Extreme-Risk neighborhoods

Aggressive Inspection and Testing Protocol

In addition to the strategies discussed above, extreme-risk neighborhoods should engage in the following:

The housing units in the extreme-risk neighborhoods need an aggressive inspection and testing protocol, since nearly half the tested children under the age of 6 in extreme-risk neighborhoods are shown to have elevated blood levels.

Involve/Train Community Members

In order to have a substantial impact on extreme-risk neighborhoods, community members must become involved, as stated in the moderate-risk section. In addition to identifying properties in need of attention for rehabilitation, this approach could also be used to help identify properties to be considered for demolition.

The Community Environmental Resource Center (CERC) is an EPA-funded organization, based in St. Louis, which provides support to community-based organizations interested in protecting children from environmental health hazards, including lead poisoning. CERC provides assistance to local groups who wish to address housing-related and community wide environmental health hazards.

Identify Priority Units

Neighborhoods at extreme-risk for lead poisoning must identify priority units within the neighborhood using characteristics such as the age of the house, code violations, presence of a young child, and presence of lead poisoned children. Ideally, all houses in the neighborhood will be screened under this process.

Target Discretionary Funds

Funds such as CDBG and HOME dollars should be targeted to extreme-risk neighborhoods to the extent possible.

PROPOSED STRATEGIES FOR MONROE COUNTY

Low Risk Neighborhoods and Towns	Moderate Risk	High Risk	Extreme Risk
	<ul style="list-style-type: none"> ❖ Continued good maintenance ❖ Lead safe work practices ❖ Public education Campaign ❖ Tool libraries and other locations as a source of information ❖ Low-risk homeowner de-leading training 		
	<ul style="list-style-type: none"> ❖ Opportunistic testing for lead dust ❖ Permanent control measures to prevent movement to higher risk categories 		
		<ul style="list-style-type: none"> ❖ Ensure programs already in community function properly ❖ Maximum lead safe safeguards during renovations ❖ Involve code enforcement ❖ Special financial incentives 	
			<ul style="list-style-type: none"> ❖ Aggressive inspection and testing protocol ❖ Identify priority units ❖ Involve community members ❖ Target discretionary funds to priority units

Potential Barriers

While the options described above could be beneficial to children at risk of lead exposure and poisoning, several barriers to action exist. Some barriers are under the control of local governments and agencies, while others are not. This section describes some of the primary potential barriers facing the community in its attempt to reduce, and ultimately eliminate, lead poisoning among young children.

Political Will

How does the community create political will for lead poisoning prevention? Some suggest the need to make the community at large feel there is a “crisis” in order to obtain adequate funding. The national focus on fighting terrorism in NYC has shifted policy focus away from many other important social issues, including lead poisoning prevention.

Nonetheless, the political system responds to public pressure. According to a national advocacy organization, in some communities, politicians see value in being perceived as “lead warriors.”

Research and persuasive data are necessary first steps to gaining political will. This report clearly documents the level of need in this community, and identifies the neighborhoods with the greatest level of need. The next step is to build the human-interest component; some communities have selected a “poster child,” but this must be done carefully so as not to exploit a child or family. Parents of lead poisoned children can mobilize around the issue and provide the energy necessary to gain political will.

Mobility of the Population at Risk

The population at highest risk of being lead poisoned is the lowest income population. Very low-income families have a high mobility rate as they frequently change residences within the City of Rochester. This mobility leads to increased opportunities for children in these families to be exposed to lead. Such mobility also makes it more difficult to trace the source of lead in a child found to be poisoned.

Liability issue

Historically, landlords, or any property owner, have been held legally responsible for injuries to children or adults in property that they own, hence the market for general liability insurance for homeowners. Lead poisoning causes injury to a child, and homes owned by landlords have the potential to serve as a source of such injury.

General liability insurance agents have informed the County DOH that the major insurance companies that write liability policies have successfully petitioned the NYS Insurance Department for permission to “exclude” coverage for lead poisoning, retroactive to about 1997. Landlords have an option to purchase a lead “rider,” but many landlords find it cost-prohibitive, with the vast majority opting *not* to purchase the additional coverage. Both City of Rochester and County of Monroe representatives have asked local insurance agents to inform their customers of this change, and to be sure that landlords understand they are without insurance for lead liability.

As described earlier, landlords expressed strong concern about liability issues. The NYS Court of Appeals ruled in November 2001 that if landlords know that paint is in poor condition, and know that their properties were built before 1978, then a case should not be thrown out, but should go to a jury to decide whether a landlord was negligent and contributed to a child being lead poisoned.

Financial

The cost of the various lead hazard reduction strategies is an important consideration for this community as it moves towards developing a strategic plan. Testing of housing units for the presence of lead is expensive when the number of housing units at risk is considered. Further, to remediate thousands of homes in the county would cost millions of dollars or more, as mentioned in the introduction.

Massachusetts and Boston as examples

Boston is an example of a city that has made good progress towards a lead-safe housing stock. The city has the important asset of state legislation requiring the owners of older housing to protect children under six years of age from lead hazards. While the public sector has contributed substantial financial resources to the issue of older housing, many financial incentives have been made available to encourage homeowners and landlords to take a portion of the responsibility as well. Deleading assistance programs include 0% deferred loans for owner-occupants of up to four-unit homes, and 3% investor and non-profit owners loans. Further, millions of dollars in state income deleading tax credits have gone to thousands of owners for bringing their homes into compliance with the state lead law.

This shared cost model, utilizing both public and private funds, will lead to faster progress than a public-only financing approach. Advocates in Boston have announced a goal to eliminate lead poisoning by 2005.

Relocation of Families During Renovation

Relocating people during renovations is expensive and difficult to navigate. Families may require several weeks of temporary housing during renovations, housing which is not currently available in sufficient amounts in this community. Using Lead Hazard Control Program Funds and estimated MCDSS in-kind placement costs, the County spent a combined total of \$196,018 dollars relocating 39 families to temporary housing during rehabilitations

under the HUD grant. Their approach for the new round of funding (which was denied) was to rehabilitate homes that are vacant, so as to avoid the whole problem of temporary relocation, an approach that leaders may wish to consider even absent renewed HUD funding.

**Some approaches
more costly than
others**

However, decision makers must also consider the extremely high costs of *not* taking action now. Clearly, some strategies are extremely costly, but there are also strategies related to education, promoting safe work practices, and housekeeping techniques that are much less costly to implement and have the potential to significantly reduce children's exposure to lead hazards. Cities such as Boston, MA, Manchester, CT, Baltimore, MD, and Milwaukee, WI have all taken creative approaches to identifying and pooling funding from various sources in order to tackle the more costly home rehabs and renovations. Monroe County must also work to identify and pool funds so that individuals and organizations that lack sufficient financial resources do not turn their backs on efforts to make the community lead safe.

*Lack of State
Legislation and
Leadership*

New York State does not have any legislation in place regarding lead contractor certification. Nor does the state have any legislation to protect local governments from liability in lead poisoning cases. The New York State Association of County Health Officers (NYSACHO) and the New York State Association of Counties (NYSAC) have asked the governor and the NYSDOH to introduce legislation that would clearly exempt local government from liability. In the last legislative session, no action was taken. NYSACHO has placed this on its top priority list for program bills in 2002, and many are hopeful that state legislative action will occur soon.

New York State does not have a state-run lead certification program. This lack of leadership at the state level pushes the responsibilities to the local level, where resources and protection from liability are lacking. If counties perceive that they become subject to liability when they take action on houses with lead risks, they may be less likely to be proactive on the issue. Therefore, the County should encourage NYSAC and NYSACHO to move forward aggressively in pursuing state legislation to protect counties in their efforts against lead poisoning.

Unintended Consequences

Increased Homeless Shelter Emergency Placements

While some efforts to reduce lead poisoning may seem appropriate at first glance, they may also lead to unintended negative consequences. For example, if stringent and costly requirements are placed on landlords in the City of Rochester, they may decide that it is in their best interest to cease their role as landlords. This could lead to fewer housing options for the lowest income residents, and could in turn increase the level of homelessness in our community. In the last several years placements for both individuals and families has increased substantially. Between 1997 and 2000 family placements in emergency homeless shelters increased countywide from 781 placements to 1,566. With placement numbers already on the rise, the city and county must consider the long-term and potentially far-reaching impacts of policy decisions surrounding lead poisoning.

Accountability

In developing strategies for different neighborhoods and for the County as a whole, the issue of accountability for outcomes is critical. In many cases, individual strategies will involve multiple stakeholders. While more stakeholders likely mean more resources, a lack of ultimate accountability can also lead to lack of concrete outcomes. For example, collaborative efforts with voluntary participants often possess a low level of accountability, while contract-based working relationships can clearly outline rewards or sanctions for specified outcomes.

RECOMMENDATIONS FOR NEXT STEPS

The level of need for protection against lead poisoning is well documented in this report, and the community's "hot spots," or areas most in need, have been documented based on reliable data.

The HUD Lead Hazard Control Program Grant (1998-2001) provided much-needed seed money to help the City and County establish a dialogue, to encourage the creation of the Rochester Lead Free Coalition with broad stakeholder membership (though some may still be missing from the table), to begin to understand the complex issues surrounding lead poisoning, and to understand the unique challenges inherent in making housing units lead safe.

The next step is to put an infrastructure in place that allows for a coordinated effort, with all relevant stakeholders playing an active role, and with a pragmatic approach to financing strategies appropriate to different neighborhoods. With the momentum underway, the community must show its commitment to taking the necessary steps to move the effort forward on a comprehensive but timely basis.

Identify or Create a Coordinating Body

Lead poisoning prevention is not the primary focus of any single agency or incorporated organization in Monroe County. If the Rochester community seeks to make lead poisoning prevention a top priority, the community must commit to finding a clear leader with adequate authority and resources to coordinate the activities of the various stakeholders (Improving Kids' Environment, Indiana State Task Force, 2000).

The Rochester Lead Free Coalition has developed substantially over the last year, and has a published mission and vision, a set of discrete objectives, and several active subcommittees. Under the leadership of Dr. David Broadbent, the Coalition represents diverse stakeholders. However, the Coalition is unincorporated, has received only a small amount of funding from a paint manufacturer (\$15,000), and relies on volunteers.

Leadership

Health or Housing Leadership?

An organization should be selected to “house” the lead poisoning prevention effort and a coordinating body, and to provide leadership for the effort. Organizations such as the United Way, the Housing Council, and others could be considered. In selecting such leadership, a key decision will be whether the representatives should be from the health care sphere or from the housing and environmental arena. Since lead poisoning cuts across a number of public policy issues, there is no prescribed ideal background for an individual to head such an organization. While lead poisoning is a health issue, the source of lead poisoning is more dominantly a housing/environmental issue. As perspective shifts from the health-related **result** of poisoning to the housing-related **cause** of poisoning, housing and environmental leadership may be preferable.

Operate at a Neighborhood Level

The coordinating body will need to not only operate with agencies at the city and county level and higher levels of government, but also at the neighborhood level. The needs assessment presented

**Neighborhood
Empowerment Teams
(NET)**

earlier emphasizes the different needs by neighborhood in the City of Rochester. In order to be effective at that geographic level, the coordinating body must tap into existing neighborhood resources.

NET was established by Mayor Johnson in 1997 to work with residents to address local quality of life issues (City of Rochester, 1997). A Neighborhood Empowerment Team (NET) is assigned to each of the ten City of Rochester Planning Sectors. NET is designed to respond to neighborhood issues by teaming residents with city staff, including Rochester Police Department officers and lieutenants, to develop effective solutions. NET focuses on improving quality of life through five strategies:

1. Target problem areas to prevent and combat crime;
2. Stop code violations and upgrade neighborhoods through proactive enforcement;
3. Enhance communications with City Departments and coordinate municipal service delivery;
4. Maintain a forum for complaints and concerns; and
5. Empower individuals and neighborhoods by advocating, problem-solving, and expediting.

Through strategy number (2), NET is responsible for enforcement of property code violations in the City of Rochester.

**Neighbors Building
Neighborhoods
(NBN)**

Neighbors Building Neighborhoods (NBN) functions under the vision that the City has interdependent neighborhoods with citizens that are actively involved in planning for and creating their future. NBN has five primary goals.

1. To develop and maintain stable, healthy, and diverse neighborhoods;
2. To encourage the development of strengths, assets, and capacities of neighborhoods, residents, organizations, and institutions;
3. To provide a comprehensive, on-going process for citizen input;

4. To provide a foundation and context for the development of Rochester’s Comprehensive Plan (Renaissance 2010); and
5. To use the Campaigns outlined in the City’s Renaissance Plan as a guide for determining sector activities.

NBN has a broad base of support including the following: the business community (Kodak, Citibank, RG&E, Wegmans, Tops, and others), various institutions and foundations (University of Rochester, Rochester Institute of Technology, Rochester City School District, Monroe Community College, the Rochester Area Community Foundation, and others), the faith community and the non-profit community. Community participants contribute in-kind goods as well as financial contributions.

NBN sector committees also function as a “sounding board” for community involvement initiatives. Thus, the NBN initiative would be an ideal partner for a coordinating body for lead prevention.

*Coordinating Body
Must Have Authority,
Accountability, and
Community Buy-In*

The coordinating body must have (1) authority to accomplish objectives, (2) accountability to the appropriate stakeholders, and (3) must be seen as a team player to avoid becoming isolated from the myriad stakeholders involved.

Authority

The coordinating body will need sufficient authority (either regulatory or legal/statutory) to accomplish its objectives. Appropriate authority will give the coordinating body the ability to ensure activities are carried out as necessary in order to achieve desired results. A strategic plan is unlikely to be successfully implemented if the coordinating body does not have sufficient authority and enforcement ability to ensure tasks and responsibilities are carried out.

Governmental or Non-Governmental?

The question of authority raises the question of whether the coordinating body should be governmental or non-governmental. A governmental agency would have more formal authority to enforce certain actions through regulation and statutory code. However, a governmental agency may be perceived as less independent in its perspective and its ability to incorporate multiple stakeholders.

Either way, the coordinating body should certainly have adequate access to both governmental and non-governmental resources, and be assured of involvement from both.

Accountability

The coordinating body must be held accountable to myriad stakeholders on the issue of lead poisoning. Accountability can be established with a contractual arrangement, a funding arrangement, or with a structured communication and planning process.

In this case, with multiple stakeholders in the public and private sectors, a structured planning process is the most likely alternative to establish sufficient accountability among those involved. Clear expectations, objectives, and timelines will help keep all involved parties, including the coordinating body, accountable for their responsibilities. With the diversity of stakeholder involvement this report recommends, communication becomes more challenging, but also critically important.

Community Buy-In

An important objective of the coordinating body must be to bring together all stakeholders, including public and private entities; landlords, owner occupants, and renters; banks and other potential private business investors; human service agencies; and all levels of government.

The coordinating body must be seen as a group that can objectively listen to stakeholders with differing opinions, and incorporate all perspectives. Active participation from all stakeholders is crucial if the County is to move forward with an effort that targets higher risk neighborhoods and that draws on grass-roots efforts as well as private and public resources.

Identify and Aggressively Pursue Funding Opportunities

While the Monroe County DOH was not awarded a new round of funding under the HUD Lead Based Paint Hazard Control Program in 2001, the county is re-applying in 2002, and other funding sources exist to help make housing units in our county lead safe. While it's important to note that the county will meet the June 14, 2002 deadline for re-application, the grant should not be seen as the sole source of funding for the patchwork of strategies needed to reduce lead poisoning. Rather, a combination of governmental and non-governmental sources of funding should

be pursued, and a variety of current and potential funding sources are described below.

*Community
Reinvestment Act
(CRA)*

The federal Community Reinvestment Act (CRA), passed in 1977, requires lenders to provide credit to low and moderate-income neighborhoods in which they operate. Each insured depository institution's record in meeting credit needs of its entire community is periodically reviewed for compliance. However, the statute is only enforced when banks apply for a merger or expansion.

Because of the enforcement protocol, grassroots organizations have an opportunity to challenge bank-on-bank merger and expansion applications. Such applications have public comment periods, and if grassroots community groups are able to document a bank's failure to serve its entire community fairly, federal regulators must take action. While mergers and expansions may not occur frequently, they provide an opportunity for additional funding when they do occur.

Regardless of mergers or expansions, all banks operating in the Rochester community should be encouraged to develop low interest, affordable home renovation financing products that could be designed to include funding for lead hazard reduction. Further, grassroots community groups should become more aware of their opportunity to challenge financial institutions to provide funding under the CRA statute, if they are not currently in compliance with the regulation.

*Local Industry and
Foundations*

Kodak makes \$100,000 available to each Rochester City planning sector to make physical changes to the community. This funding has been committed for five years, and might be used, especially in the sectors with extreme risk neighborhoods, to make modifications to housing units that present lead dangers.

The private business community is involved in city and neighborhood affairs through the NBN initiative, as described earlier. However, individual businesses could be tapped for additional resources to target lead prevention directly. The April 9, 2002 announcement of Tom Golisano's donation of \$14 million to the Children's Hospital at Strong Memorial included the statement that "there is nothing more noble than caring for children." Golisano stated that "we owe it to our children to

provide them with the best possible care we can and provide it in the town where they live” (D&C, 2002). Requests for funding to a number of private businesses around town could follow on the heels of such statements and such tremendous generosity.

The Rochester Area Community Foundation (RACF) is an excellent potential source of funds. The Foundation tends to fund efforts that are preventive in nature.

Paint Manufacturers

The County should evaluate the benefit of participation in a class action lawsuit to obtain compensation from the paint industry, similar to the suits won against the tobacco industry. In 1999, Rhode Island became the first state to file a lawsuit against lead paint manufacturers. The Court denied the manufacturers’ motions to dismiss the suit, and the case is currently proceeding toward trial.

In addition to evaluating the benefit of a lawsuit, the County should explore the availability of funding from the industry outside of lawsuits, such as the funding received by the Rochester Lead Free Coalition from a paint manufacturer.

Medicaid and Other Health Insurers

An Indiana Task Force, “Improving Kids’ Environment,” has recommended a federal mandate requiring all Medicaid eligible children to be tested for elevated blood lead levels, and that all treatment services be Medicaid-reimbursed. New York State is currently developing similar legislation.

Rhode Island has a Medicaid-funded Window Replacement Program. Rhode Island included window replacement in homes with a lead poisoned child under their Section 1155 HCFA waiver. The cost of this program is estimated at \$1,830 per unit. Since windows are a primary source of lead paint, any source of funding that can be used for window replacement is money well spent.

Moreover, the health insurance community should support efforts by medical providers to test children, for parents to afford to have children tested, and for the relevant test results to go to appropriate actors so that corrective action can be taken, and progress can be measured.

Un-obligated TANF Funds

The State of New York has built up \$1.1 billion in un-obligated funds for Temporary Assistance to Need Families (TANF). The United Way of Greater Rochester has proposed that the UW be a vehicle to pass these dollars through to special needs in our community. One of the community needs they mention outright is the need for safe, affordable housing for low income working families. They would like to spend \$10,000 per house on 100 houses per year for two years, for a total of \$2,000,000. These dollars would be used for abatement of exposed lead paint in homes of low-income families, using a collaborative community approach.

Community Development Block Grant (CDBG)

The Community Development Block Grant (CDBG) program is designed to develop viable communities by expanding economic opportunities, providing decent housing, and creating suitable living environments, primarily for persons with low and moderate income levels (HUD, 2001). Funding levels are based on a formula that factors in population, poverty, and the age and density of housing, and the County's funding level has remained relatively constant over time.

CDBG funds are traditionally used for community development activities such as demolition, rehabilitation, public services, construction, and acquisition of property for public purposes.

The County of Monroe receives \$2,750,000 in annual CDBG funding for suburban towns, and completes approximately 200 projects per year, primarily for older residents. The City of Rochester will receive \$13.3 million in annual CDBG funds for the 2000-2003 Consolidated Community Development Program.

City of Rochester will use CDBG funds to reduce lead risk in housing

The City of Rochester has announced it will use CDBG funds of \$1 million in the upcoming fiscal year as part of a multi-year effort to reduce lead poisoning. The proposed "Lead Hazard Reduction Program" will focus on those components of a housing unit that post the most risk, including windows, entry doors, porches, and the bare soil around the foundation. The City will also perform paint stabilization in the remainder of the housing unit. The program will be designed to target the highest risk housing, but participation will be voluntary. It should be noted that all future funds spent with CDBG dollars will fall under the new HUD lead safe work practices rule.

HOME Program

The Home Investment Partnerships Program (HOME) is a HUD program designed to expand the supply of affordable housing for very low-income persons and households. The City of Rochester and Monroe County both receive HOME funds and work with housing developers to implement the program throughout the community.

HOME funds are used to develop rental housing, to rehabilitate housing, to help first-time homebuyers, for new construction, site acquisition, site improvements, demolition, and relocation. Jurisdictions such as the City of Rochester that participate in HOME must match the federal funds.

The City of Rochester will receive \$3.9 million in annual funding from the Federal HOME program under the 2000-2003 Consolidated Community Development Program.

In 2000, Monroe County was allocated \$1.1 million in HOME funds. The County uses a competitive application process to identify projects awarded HOME funding.

Energy Saving Programs/Window Efficiency

With windows being a prominent source of lead dust, coordination of any funding available for energy conservation that can be used to replace windows would be worthwhile. If efforts to make a home lead safe can include energy efficiency (primarily through window replacement), both owners and renters can benefit from operating cost savings, and any source of funding will serve a dual purpose. (Cavallo and Wendt, 1997).

Tax on Paint Sales

Advocacy groups have suggested a state tax on each gallon of paint sold, with the dollars targeted to lead poisoning prevention. A tax would likely require action at the state or federal level.

Develop and Encourage Use of Financial Incentives

Financial incentives can apply to neighborhoods and housing units at all levels of risk. Landlords as well as resident homeowners often use cost as the reason for a lack of attention to lead risk. Given that the landlords in our focus group indicated that any form of financial incentive would be utilized, the County and City should determine what forms of financial incentive they can provide, and what types of financial incentive they could lobby the state of New York to provide.

Property Tax Reduction The County and City can play a role in reducing property tax burdens born by private homeowners and landlords who implement lead hazard control activities. The reduction could be linked to the type of hazard control undertaken by the owner, and could be put in place for a certain period of time, perhaps five years, to encourage property owners to maintain productive ownership.

New York City

New York City has Tax Incentive J-51, which provides two benefits: (1) abatement of existing real estate taxes by between 4%-6% of the cost of the rehabilitation work for 12 years, and (2) a 34 year or 14 year exemption from any increase in real estate taxes resulting from the rehabilitation work.

Income Tax Credits

According to the Alliance to End Childhood Lead Poisoning, some states have enacted laws to permit state income tax credits for implementation of lead hazard control activities. With the downturn in the national and state economy, this approach may be more politically appealing than asking the state to provide funds as a budget line item.

Missouri

The Missouri State Senate has a bill (SB-409) to provide state tax credits to owners of certain child-occupied facilities who participate in a lead abatement project. The credit may be taken against income tax, franchise tax or financial institutions tax. Owners will receive a tax credit of fifty percent of the lead abatement costs.

Massachusetts

Massachusetts has a state income tax credit for up to \$1,500 for lead abatement activities, and up to \$500 for lead hazard control work. In 1994, 4,300 taxpayers took advantage of the credit. The credit was available for owner-occupants, renter-occupants, and rental property owners.

Interest Free Loans

In lieu of actual “free” dollars to provide to homeowners for making their properties lead safe, interest free loans from the City, County, or State could come into play. Landlords in our focus group welcomed any type of financial incentive, including interest free loans.

Build Contracting Community Capacity

Monroe County and other stakeholders must work together to build the capacity of workers in the painting and rehabilitation industry to carry out their work in a lead safe manner. A sufficient number of both risk assessors and abatement contractors must be trained to meet the needs of the community.

Contractors need to understand that lead poisoning is a concern not only for their clients, but also potentially for themselves and their own children if they return home each night covered in lead dust.

Currently, the lack of trained contractors results in a lack of competition for lead safe work practices, and renders the work more expensive for the County and City than it might be with a greater supply of trained workers.

Contractors may be reluctant to send their workers to training sessions because they not only lose a day of work from the employee, but if the employee becomes certified, the contractor may then lose a valuable employee to another company.

HUD Training

A number of training classes exist, designed by both HUD and the EPA. HUD has several free training courses in lead safe work practices for workers. The Rochester Housing Authority held the courses several times over the last year, but very few individuals participated.

EPA Training

The EPA encourages states to promote training and certification of sampling technicians and other lead workers to establish a sufficient supply of workers qualified to work under HUD's requirements.

Proper training need not be lengthy or expensive. The HUD and EPA training courses should be made available for free or at very low cost, and should be scheduled frequently and be well advertised. Further, perhaps an incentive could be developed to encourage attendance.

In addition to the training classes, a training video could be developed to demonstrate lead safe work practices, and could be used in community meetings, could be loaned from tool libraries, and made available for sale at a very low cost.

Training Under HUD Grant

One component of the three-year HUD grant that expired this year was to provide worker training and an apprenticeship program to train workers in lead safe practices. As part of the grant, 11 unemployed individuals were trained and received EPA certification in lead safe practices. In addition, another 29 workers were trained to be certified EPA lead workers or supervisors, and an additional 37 were trained in HUD lead-safe work practices. However, the County found this component to be logistically difficult, and does not plan to include such training in future applications. This small number of individuals shows that the community has a long road ahead to build sufficient capacity in the diverse contracting community.

Housing Council to Coordinate Local Training Activities

The Monroe County Health Department's Lead Poisoning Education Program has formally engaged the Housing Council to help the County coordinate an effort to increase the number of contractors, landlords and non-profit housing agency staff members trained and certified to address lead paint hazards and/or rehabilitate residential property. A total of five individuals will receive Lead Abatement Supervisor/Contractor Certification, four will receive Lead Abatement Worker Certification and twenty will receive Lead-Based Paint Interim Controls Training. After completion of the training participants must pass an EPA test in order to obtain the Lead Abatement Supervisor/Contractor or Lead Abatement Worker Certification.

The Housing Council will create a brochure that will integrate existing lead hazard information, and provide families with information on local contacts regarding lead poisoning and lead based paint hazards. The brochure will be distributed through existing Housing Council workshops and programs that work with at-risk families, including Landlord and Tenant Education, Emergency Shelter Services, Fair Housing Programs and the Rental Registry. In addition, the brochure will be sent in a series of bulk mailings to educate the community on lead hazards. Extreme-risk neighborhoods will be targeted for this effort. A total of 5,000 brochures will be produced and distributed under this proposal.

An important strategy in reducing risk is increasing the cleanliness of apartments. Materials with information on lead based paint

hazards and cleaning supply kits will be distributed to households. Low income households often cannot afford simple materials to maintain their unit and address housing hazards.

*HUD Lead Hazard
Reduction Practices*

The Rochester community should set a goal that the lead hazard reduction practices outlined in the HUD regulations effective locally in January 2002 will become common work practices in the residential contracting industry.

Contractor Incentives

Incentives for the contracting community could include a County list of contractors who have attended the one-day lead safe training, and the three-day abatement contractor course. Such a list could be placed in the yellow pages or other public locations.

Landlord Incentives

The Presidential Task Force report indicated that landlord motivation could be increased with some sort of “seal of approval” process that can show which units are lead safe. Landlords will want to have such certification if it is properly publicized. The state of Rhode Island, City of Milwaukee, and other jurisdictions have developed such certificates. With the Rochester City population decreasing, landlords may face a more difficult time finding renters; if this is the case, a certificate may help them attract renters. Conversely, Rochester property values have dropped substantially over the last decade, and if landlords are unable to take on additional debt for renovations, they will require federal subsidies or tax incentives.

**Evaluate City and
County Roles in
Housing
Inspections**

City of Rochester and suburban town code inspectors are in a number of housing units every day, for a variety of reasons. Inspectors have opportunities to conduct inspections in several instances including certificate of occupancy (C of O) inspections, DSS move-in and move-out inspections, DSS Quality Housing inspections, housing condition complaints from tenants, and requests for inspection by tenants or landlords.

The City Department of Community Development (DCD) is responsible for City planning, building code enforcement, real estate, zoning and housing activities. The DCD’s Bureau of Buildings and Zoning regulates the skilled building trades by issuing licenses, enforces new construction/reconstruction/major alteration regulations, and supports regulatory and licensing boards with staff resources (City of Rochester, 2002). DCD manages the

City's residential rehabilitation programs through its Bureau of Housing and Project Development. Currently, the City's NET offices are responsible for property code enforcement for non-compliant property owners.

Traditionally, lead paint inspection has been the responsibility of the County DOH. However, the city is reviewing its options regarding lead paint enforcement. The City should also consider focusing on lead hazard reduction as a funding priority in its Consolidated Plan.

The County DOH maintains a lead safe housing registry, and CGR recommends the County promote the sharing of this list with other interested parties.

Local Regulation

The County of Monroe will defer the issue of regulation to the towns and villages because of the "home rule" government structure in this state. However, the County should consider the appropriate treatment of lead risk and lead poisoning in the County Public Health Code.

While lead poisoning is a countywide issue, the majority of the lead risk in our community is in the City of Rochester. The City of Rochester should therefore consider its regulatory role in the lead prevention effort. Other cities have taken initiative by passing local ordinances. For example, in September 2001, New Orleans passed a municipal ordinance that requires lead based paint safety precautions. The ordinance gives the City health department the authority to halt unsafe work. (Alliance to End Childhood Lead Poisoning, 2001)

In another example, the City Council of Milwaukee passed a local ordinance requiring all housing units in two high-risk neighborhoods to be made lead safe after receiving a \$3 million lead hazard control grant from HUD. HUD funds and additional private funds are being used to reduce landlords' costs of ordinance compliance. So far one-fourth of the units in the targeted neighborhoods have been made lead safe. The program ultimately will result in 1,000 homes that are lead safe for children.

Develop Educational Campaign

Many of the steps families can take to protect their children against lead poisoning require little or no cost, and can be done by any home owner or resident.

Education campaigns for several groups of community residents should be developed, including

- (1) Landlords;
- (2) City residents in high-risk housing;
- (3) Homeowners or residents who wish to do their own home repair and improvement work;
- (4) Contractors; and
- (5) Day care providers, teachers, guidance counselors.

Education must be a key component of any strategy to reduce lead risk. The danger of lead is simply not on people's "radar screens," just as the dangers of drunk driving and shaken-baby syndrome were once not well understood.

Currently the County DOH conducts a lead poisoning awareness campaign. This could be used as a strong starting point for an expanded campaign.

The Alliance to End Childhood Lead Poisoning (AECLP) suggests three primary educational components:

1. Raise awareness and change attitudes—Education must be targeted to both the public at large as well as policy makers. The key messages are that young children in this country and in our community are still at risk for lead poisoning, prevention is the solution, peeling paint and the resulting dust are the most serious risks, and modest changes can prevent hazard.

2. Develop appropriate messages and materials for high-risk families—Families must take responsibility for the protection of their young children. Just as parents must understand the dangers of household medicines and cleaners as potential poisons, so must they understand the dangers of peeling paint. Parents need to be educated about hygiene, housecleaning, proper home maintenance,

and the steps they can take to notify landlords and local agencies about lead related hazards. In Monroe County, the fast growing Hispanic population warrants a need for all materials to be written in both English and Spanish.

3. Develop and provide training courses to build necessary skills—As a step to ensure that individuals about to engage in renovation are aware of lead safe practices, the County could distribute lead safe work practices information any time a building or renovation permit is issued. Similarly, literature could be distributed at retail and rental outlets, tool libraries, and other related establishments, especially when sanding and other paint removal products are loaned, rented, or sold.

EPA materials

The EPA has designed a number of educational materials to help parents, home owners, and others understand the importance of the lead issue, and to learn what they can do to protect children and themselves from lead. Any local educational campaign should draw on the EPA materials as a starting point.

Educational kits could be developed with testing supplies and cleaning supplies. The County and other stakeholders could work through settlement houses, the faith community, and other neighborhood organizations to distribute such kits. Programs such as Junior Empowerment Teams (JET) that target school-aged children could distribute such educational kits, especially to those children who have younger siblings at home. Other opportunities for distribution points include libraries, schools, recreation centers, and neighborhood health centers.

Establish Benchmarks for Success

Ultimate success would be the elimination of all lead from all housing units in the County, and the elimination of blood lead levels over 10 $\mu\text{g}/\text{dL}$ in all children under the age of 6.

The County and other stakeholders should establish benchmarks on which to measure progress on the lead poisoning issue. The benchmarks described below focus on testing rates and results, which provide outcome data. To measure the rates of success of primary prevention efforts would also be useful, but would require other approaches.

Three key benchmarks could serve as a starting point for measuring the rate of success in the Rochester community over time. Surely other benchmarks will be added as strategies are implemented with specific goals.

1. Testing rates—In New York State, state law requires that children be tested for lead poisoning at 12 and 24 months. While Rochester’s testing rates are high compared to the national average, they are still not comprehensive. Parents and the medical community should be encouraged to conduct more comprehensive blood lead level testing.

2. Testing results—The rates of children testing above 10 µg/dL varies tremendously by neighborhood in the city, and by town in the suburbs. The community should set incremental goals on the percentage of children under 6 testing high for blood lead levels, perhaps with more aggressive goals for lower risk neighborhoods and towns.

3. Number of homes tested—With the movement towards primary prevention, and a strategy to test homes for lead in extreme risk areas, a goal for the number of homes tested per year should be established.

Defining success in the efforts against lead poisoning will be a moving target. Stakeholders must be sure to be responsive to new research on the level of blood lead considered dangerous, on clearance testing standards, on technology related to abatement and interim controls, and any other developments.

Approaches Used in Other Communities

A detailed assessment of efforts undertaken in other communities was beyond the scope of this project. However, an intern in the Public Interest Law Office of Rochester compiled a summary of selected community actions. The Public Interest Law Office should be contacted for further information.

Opportunity for Monroe County to Become Model

Despite the variety of actions nationwide on lead prevention, The Alliance to End Childhood Lead Poisoning indicates that no single community has pulled together an ideal model that addresses *all* the salient issue surrounding lead poisoning and prevention.

Perhaps this provides an opportunity for Monroe County to lead the charge.

Relevant Rochester community stakeholders should consider a more in-depth study on activities used in other cities nationwide to address lead poisoning. While no community has an ideal model, there are certain to be lessons learned from other efforts.

CONCLUSIONS

This study is a first step towards a coordinated, comprehensive approach to reducing lead poisoning incidence in the Monroe County community. The study was designed to use County DOH data to stratify neighborhoods in the County by the proportion of children with lead poisoning, identify target areas, project future incidence of lead poisoning, and begin to identify strategies by which numerous stakeholders can assemble a unified approach. The study's scope did not include an exhaustive analysis of approaches used in other communities, though selected best practices were identified during the course of the study. The study also was not designed to provide specific tasks assigned to named stakeholders; such an approach would have been premature given the need for more broad preliminary steps such as creation of a central organization to address lead poisoning on a local level.

Opportunities to Reduce Lead Poisoning Exist

While it is not realistic to assume that a community can eliminate all lead in the environment, the opportunities to reduce the incidence of poisoning are numerous. Some are expensive, some are economical; some approaches apply to the entire community, others apply to specific target neighborhoods. The challenge for the Monroe County community will be to use the information in this report, along with the vast knowledge of many caring, committed individuals and organizations in this community to develop strategies that will use available resources in the most efficient and effective manner.

Strategies Should be Targeted

As discussed in the Rochester Projection Model analysis, the number of housing units at risk for lead hazards in the City is high. To make housing units lead safe without a targeted strategic approach is not nearly as effective as targeting the neighborhoods

that are most likely to present a hazard to young children in low-income families. The most rapid rate of improvement will occur if the community targets abatement and other strategies to those neighborhoods most in need. Neighborhood approaches must be multi-faceted and involve all relevant stakeholders.

Establish a Timeline

While no effort to reduce and ultimately eliminate lead poisoning will work overnight, the community must develop a timeline for various approaches. Education campaigns should begin in earnest as quickly as possible, as they have the potential to reach the widest audience, and to reach targeted audiences. Such a campaign can also set the stage for more aggressive strategies to come; putting the issue on the public's radar screen early will help set the stage for later efforts.

Collaboration is Essential

Lead risk reduction cannot be a stand-alone issue. Substantial reduction of lead risk will only occur if the general public and especially persons involved in the housing industry become more educated and active on the issue. In addition, lead safety must be incorporated into all activities that involve painted surfaces including maintenance, repainting, and rehabilitation. Incorporating lead safety into ongoing activities will reach the most units, and will do so in the most cost-effective manner. Broad incorporation of lead safe practices will also ensure that such efforts reach the private market, and not just those units that receive various forms of federal funding.

REFERENCES

Ahlbom, A and Norell, S. Introduction to Modern Epidemiology. Epidemiology Resources Inc., 1990.

Alliance to End Childhood Lead Poisoning, September/October 2001 Alliance Alert Newsletter.

Alliance to End Childhood Lead Poisoning, "The Promise of Environmental Sampling and Right-to-Know Laws for At-Risk Communities." November/December 2000.

Alliance to End Childhood Lead Poisoning, "Action Plan to Make High-Risk Housing Lead safe."

Cavallo, JD and Wendt, R. (1997). "Encasing Lead Hazards and Adding Energy Efficiency in Low-Income Housing." U.S. Department of Energy, Assistant Secretary for Energy Efficiency and Renewable Energy, Office of Building Technologies, under contract W-31-109-ENG-38.

City of Rochester. "Mayor Introduces NET Teams." City Hall, Rochester NY, Press release, 5/13/97.

Democrat and Chronicle. "Golisano Bolsters Kids Hospital." April 9, 2002, p. A1.

Grosse, SD, TD Matte, J Schwartz, RJ Jackson. (2002). "Economic Gains Resulting From the Reduction in Children's Exposure to Lead in the United States." Environmental Health Perspectives, 110 (6): 563:569.

Improving Kids' Environment Lead Poisoning Prevention Task Force, "Recommendations to Governor Frank O'Bannon," April 2000.

Massachusetts Department of Health. Childhood Poisoning Prevention Program. "Moderate-Risk Deleading: A New Option for Property Owners and their Agents." <http://www.state.ma.us/dph/clppp/mod.htm> (as of 5/20/02).

Monroe County Health Department. (2001). Application for HUD Lead-Based Paint Hazard Control Grant Program funding. Page 39.

NYS Department of Health. "Health Department Report Shows Dramatic Decline in New York State Childhood Lead Poisoning Cases." DOH News, May 25, 2001.

Schwartz J. (1994). "Societal Benefits of Reducing Lead Exposure." *Environmental Research*, 66: 105-124.

APPENDIX A: TERMINOLOGY

Key Terms Used in HUD Regulations

Primary Prevention: The process of controlling lead hazards to prevent exposure *before* a child is poisoned.

Secondary Prevention: The process of identifying children who have elevated blood lead levels through screening and controlling or eliminating the sources of further exposure.

Abatement: A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. (e.g., removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead-contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt.) *Note: The term “abatement” has historically had a broader meaning that includes all activities to reduce lead hazards.*

Complete Abatement: Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; record keeping; and, if applicable, reevaluation and on-going monitoring.

Clearance: Clearance involves a visual assessment and dust testing to determine if the area is safe for unprotected workers to enter and if the area is a safe place for young children to live.

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. (E.g., dust removal, paint film stabilization, treatment of friction and impact surfaces, installation of soil coverings such as grass or sod, and land use controls.)

Incidence of lead poisoning: Measures of incidence describe the frequency of occurrence of new cases of lead poisoning during a time period. (Ahlbom and Norell, 1990)

Lead-based paint hazard: A condition in which exposure to lead from lead-contaminated dust, lead-contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health. Lead-based paint hazards include deteriorated lead-based paint, lead dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control: Activities to control or eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Prevalence of lead poisoning: Measures of prevalence describe what proportion of the population is lead poisoned at one specific point in time. (Ahlbom and Norell, 1990).

Section 8 Housing: Section 8 housing choice vouchers, provided through the federal Housing and Urban Development (HUD) agency, allow very low-income families to choose and lease or purchase safe, decent, and affordable privately-owned rental housing.

CDBG: The Community Development Block Grant program is funded through the federal Housing and Urban Development (HUD) agency. The grant dollars are intended to ensure decent affordable housing for all, to provide services to the most vulnerable in our communities, and to create jobs and expand business opportunities. CDBG helps local governments tackle the most serious challenges facing their communities.

APPENDIX B: NEEDS ASSESSMENT

Figure 1: Housing Built Before 1950

	RESIDENTIAL PROPERTIES			HOUSING UNITS
	Number of Residential Structures with 1 to 3 Housing Units Built Before 1950	Number of Apartment Buildings (4 or More Housing Units) Built Before 1950	Total Residential Properties Built Before 1950	Number of Housing Units in 1-3 Unit Residential Structures Built Before 1950
City of Rochester	47,252	1,718	48,970	61,246
Sector 1	1,601	21	1,622	1,814
Sector 2	4,441	131	4,572	5,531
Sector 3	6,214	179	6,393	8,304
Sector 4	8,913	166	9,079	11,155
Sector 5	220	44	264	373
Sector 6	3,483	105	3,588	4,303
Sector 7	3,447	642	4,089	5,432
Sector 8	7,068	101	7,169	8,559
Sector 9	7,864	113	7,977	10,067
Sector 10	2,921	97	3,018	4,215
Towns in Monroe County	33,705	105	33,810	35,553
Brighton	4,330	10	4,340	4,385
Chili	947	2	949	1,029
Clarkson	348	1	349	379
East Rochester	1,397	11	1,408	1,663
Gates	1,739	2	1,741	1,785
Greece	6,287	4	6,291	6,362
Hamlin	579	1	580	624
Henrietta	592	5	597	628
Irondequoit	8,655	11	8,666	8,863
Mendon	641	6	647	709
Honeoye Falls Village	326	6	332	382
Remainder of Mendon	315	-	315	327
Ogden	830	7	837	958
Spencerport Village	350	7	357	431
Remainder of Ogden	480	-	480	527
Parma	880	8	888	956
Hilton Village	236	4	240	272
Remainder of Parma	644	4	648	684
Penfield	973	4	977	1,021
Perinton	1,665	17	1,682	1,941
Fairport Village	1,012	17	1,029	1,245
Remainder of Perinton	653	-	653	696
Pittsford	1,173	6	1,179	1,262
Pittsford Village	368	4	372	432
Remainder of Pittsford	805	2	807	830
Riga	399	3	402	452
Churchville Village	180	2	182	217
Remainder of Riga	219	1	220	235
Rush	309	-	309	336
Sweden	N/A	N/A	N/A	N/A
Brockport Village	N/A	N/A	N/A	N/A
Sweden	N/A	N/A	N/A	N/A
Webster	1,409	6	1,415	1,594
Webster Village	338	2	340	414
Remainder of Webster	1,071	4	1,075	1,180
Wheatland	552	1	553	606
Scottsville Village	238	1	239	264
Remainder of Wheatland	314	-	314	342
Monroe County Total	80,957	1,823	82,780	96,799

SOURCE: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001.

NOTE: Figure 1 shows the amount of housing built before 1950 for both residential structures and housing units. These are both important measures in developing a strategy to reduce lead poisoning among children. The number of residential properties built before 1950 describes the number of structures that may contain lead hazards for which rehabilitation projects may be recommended. The number of housing units built before 1950 can be used to better describe the housing stock as it impacts households because several families may live in a single residential structure.

The number of housing units in commercial residential structures (apartment buildings with 4 or more housing units) is not available. Therefore, the column that shows the number of housing units built before 1950 is limited to housing units in residential structures that contain fewer than 4 housing units.

Figure 2

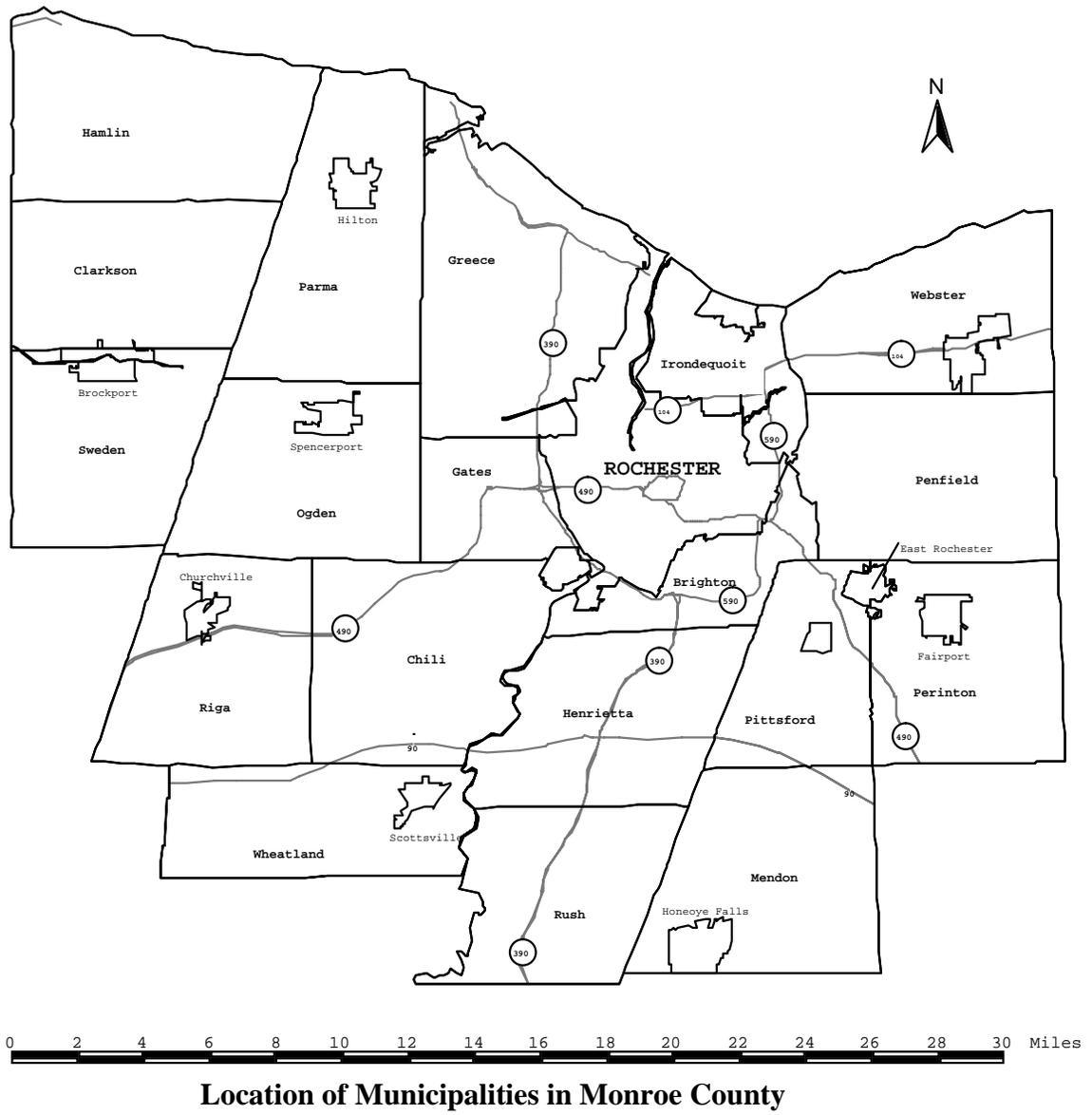


Figure 3
Location of Planning Sectors in the City of Rochester

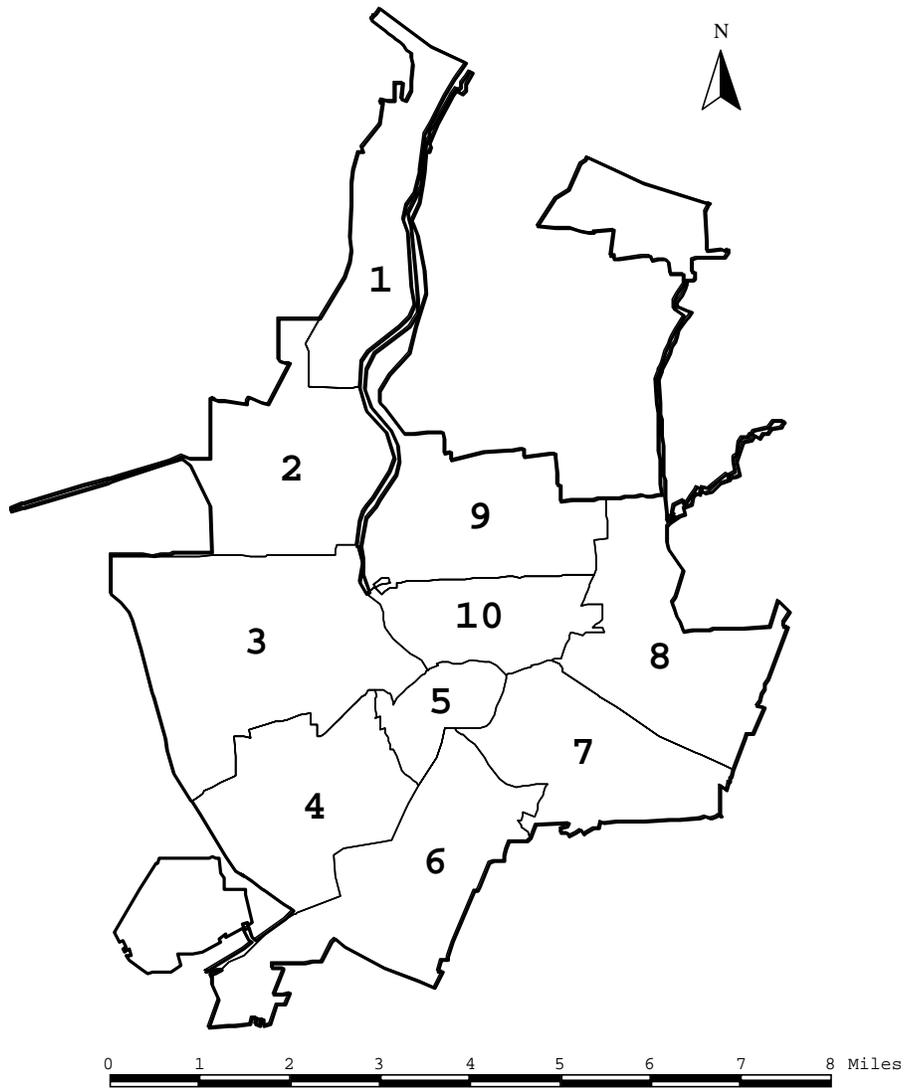
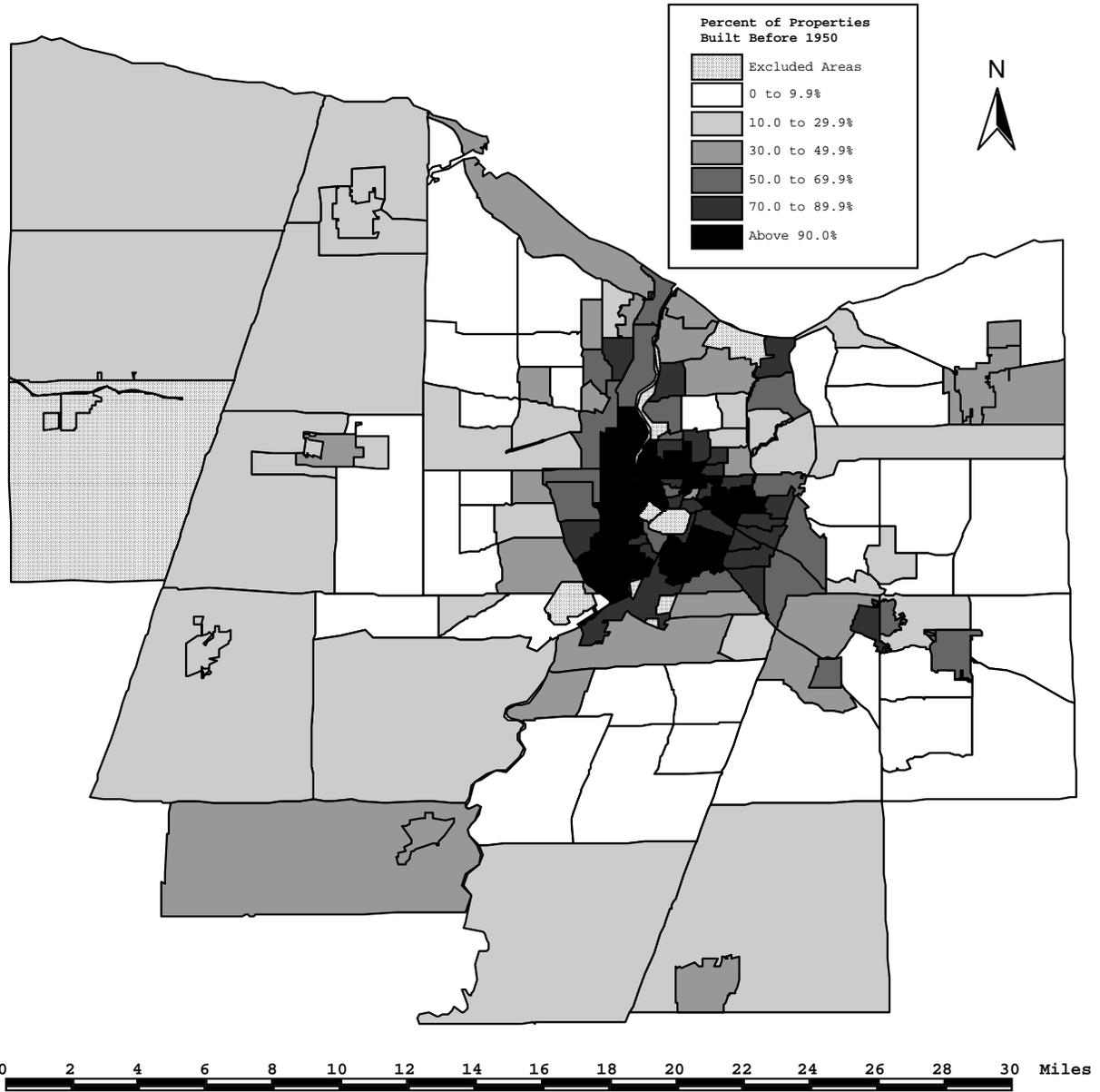
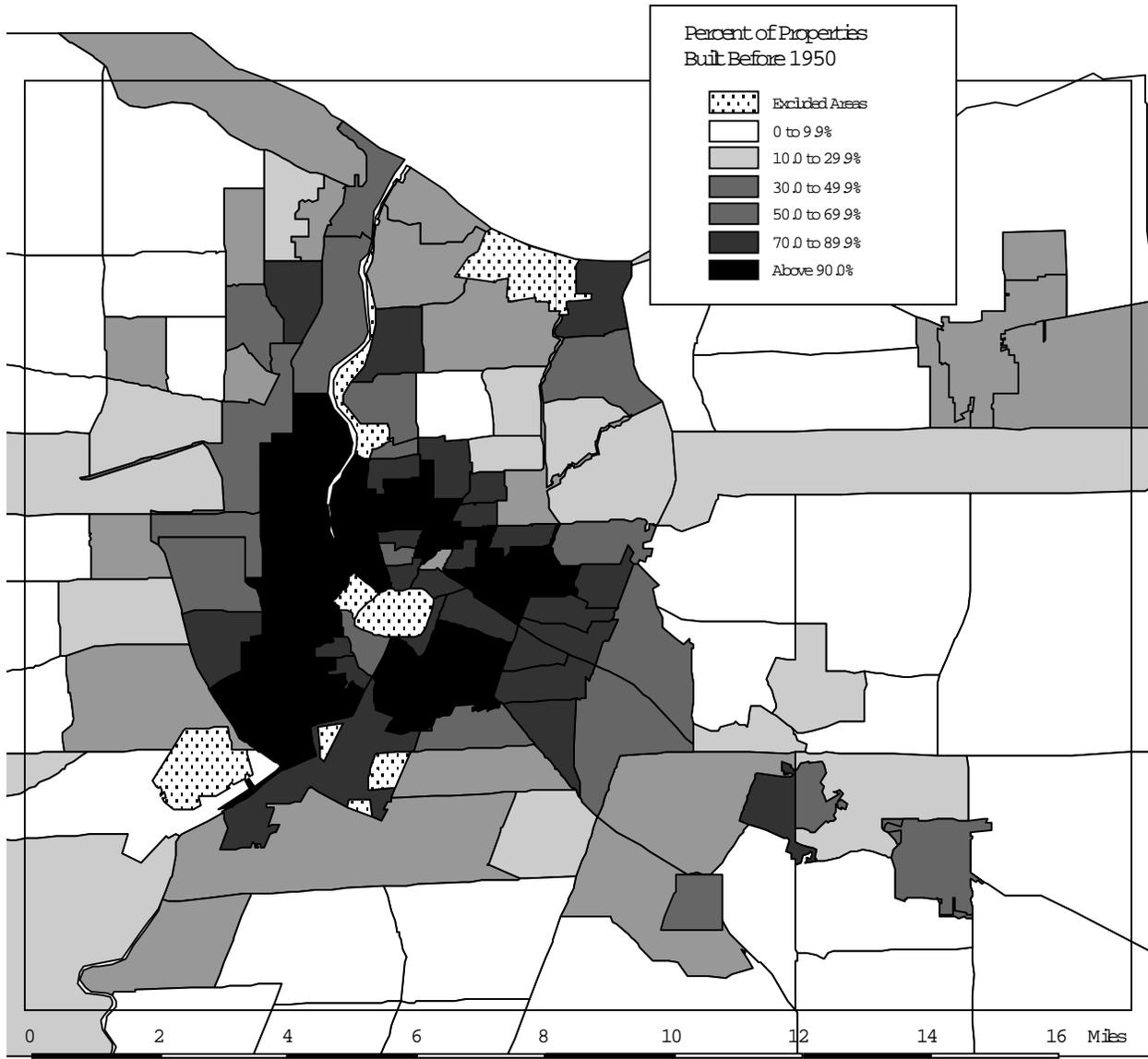


Figure 4
Percent of Residential Properties Built Before 1950
for Census Tracts and Villages in Monroe County, New York



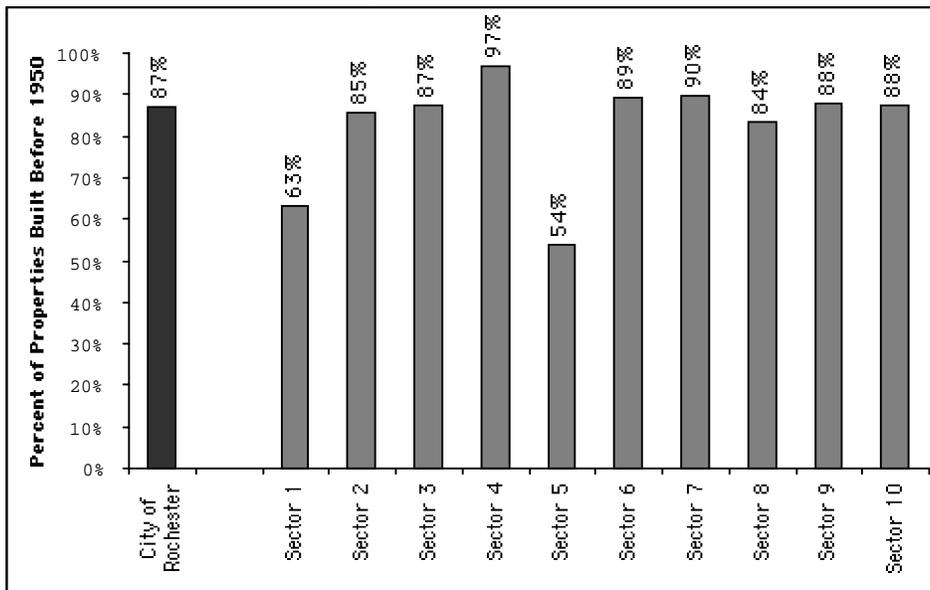
SOURCE: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001.

Figure 5
Detail of the Percent of Residential Properties Built Before 1950
for Census Tracts and Villages in Monroe County, New York



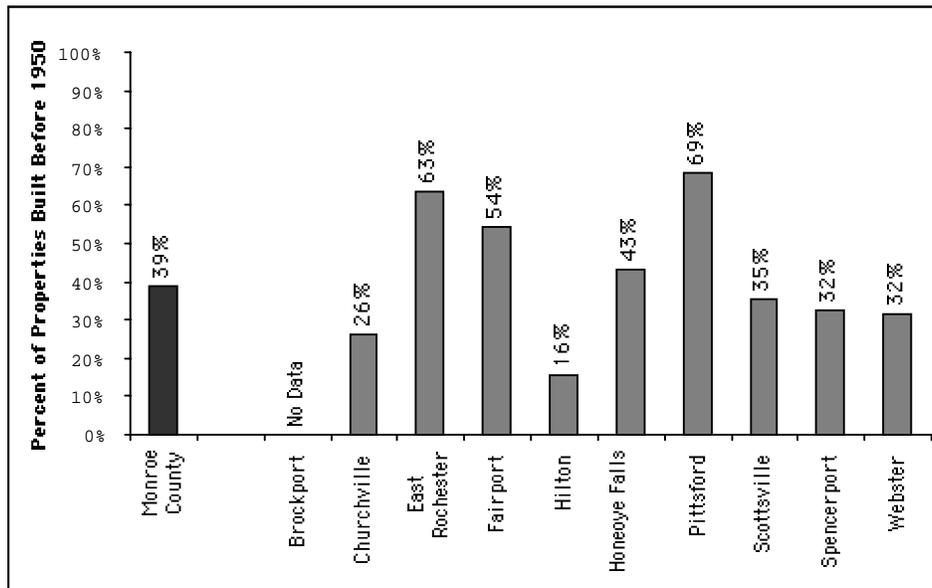
SOURCE: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001.

Figure 6
Percent of Residential Properties Built Before 1950
for the City of Rochester, New York



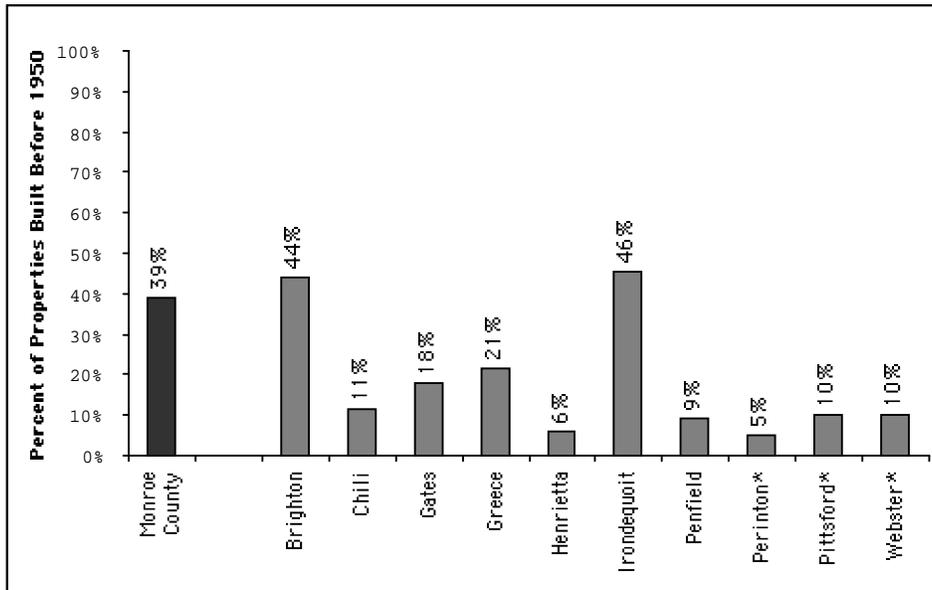
SOURCE: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001.

Figure 7
Percent of Residential Properties Built Before 1950
for Villages in Monroe County, New York



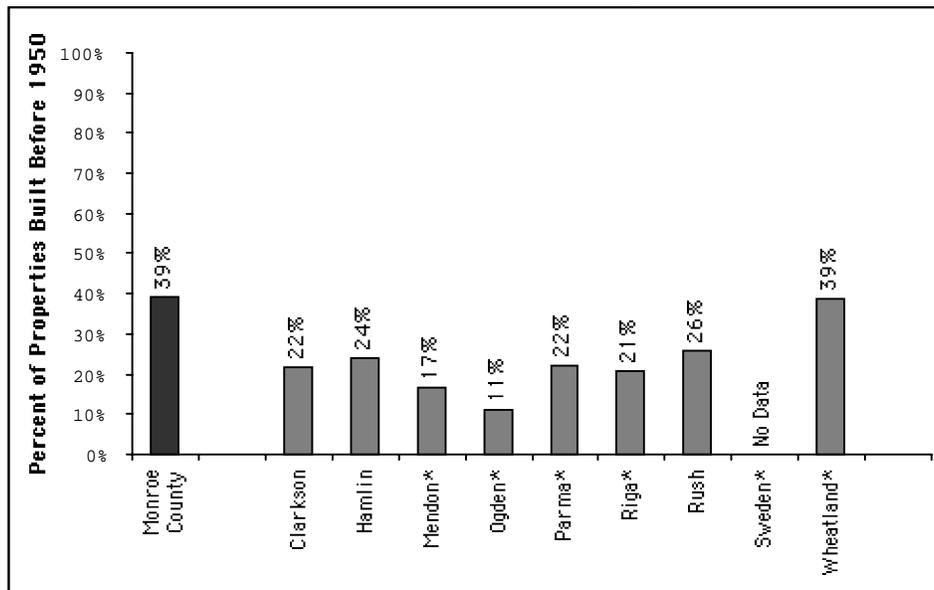
SOURCE: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001.

Figure 8
Percent of Residential Properties Built Before 1950
for Suburban Towns in Monroe County, New York



SOURCE: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001.

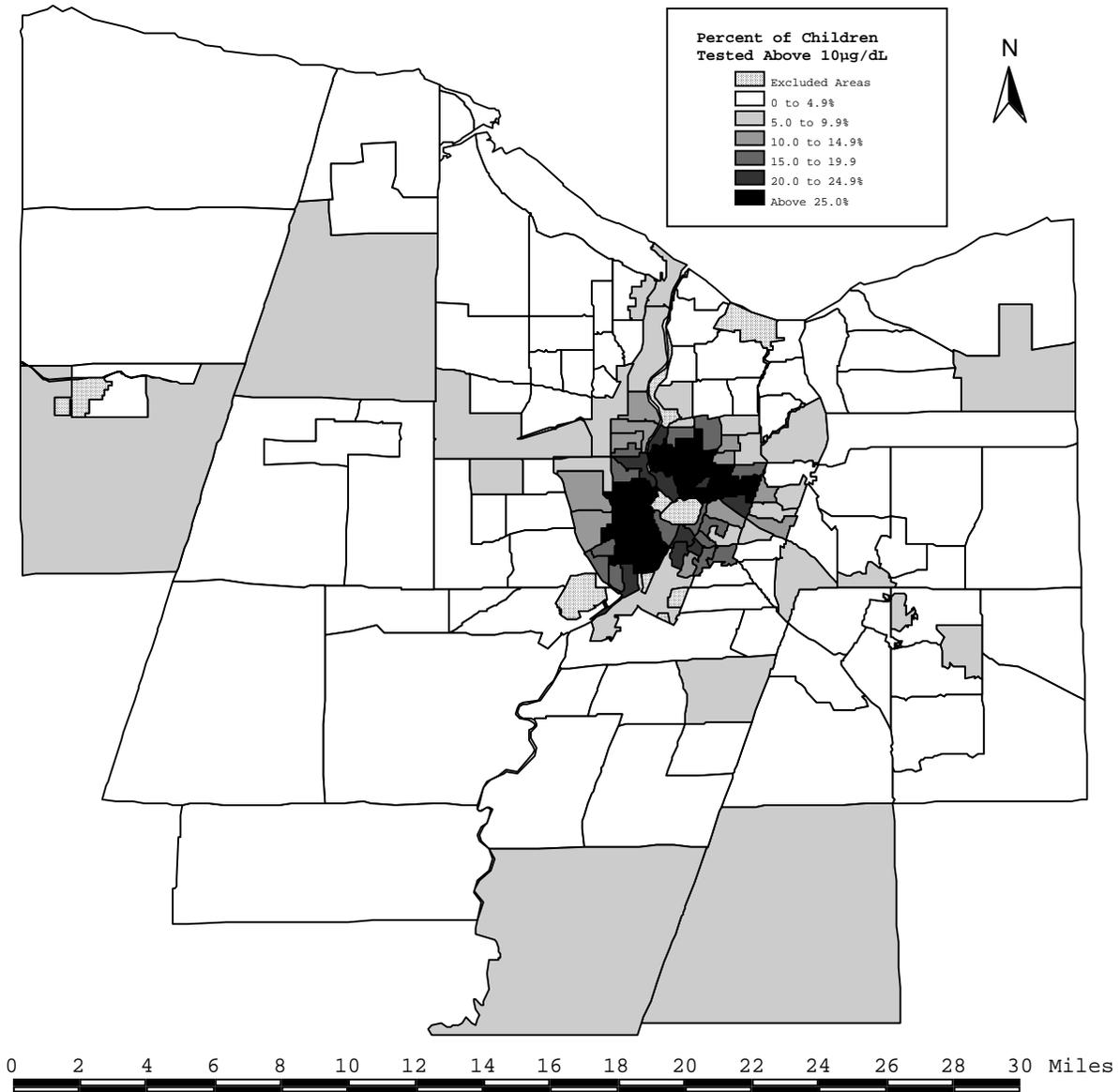
Figure 9
Percent of Residential Properties Built Before 1950
for Rural Towns in Monroe County, New York



SOURCE: Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory, 2001.

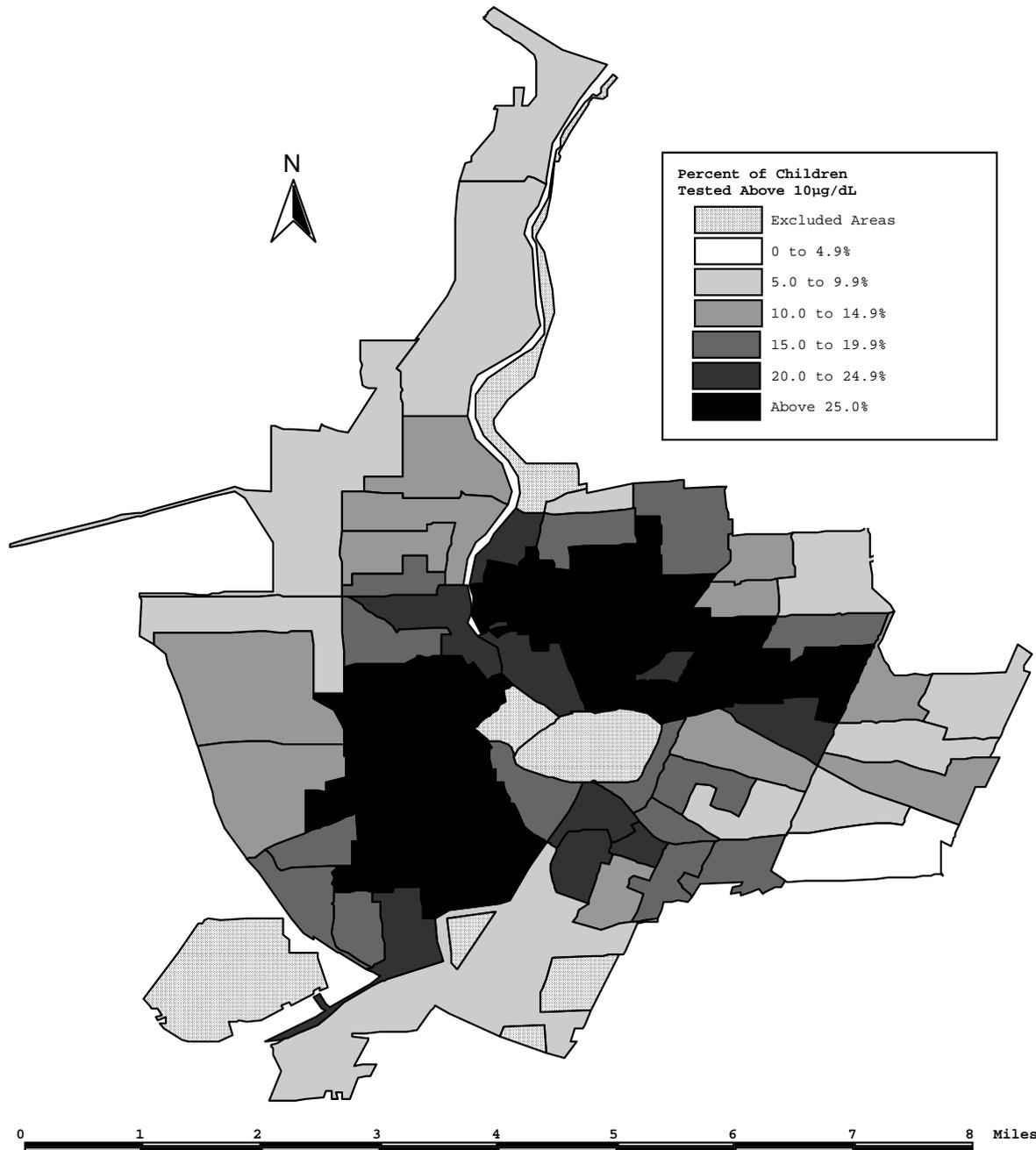
*NOTE: The percent of properties built before 1950 in these areas is shown for the towns outside villages that lie inside the towns. For example, Mendon numbers do not include properties in Honeoye Falls.

Figure 10
Percent of Blood Lead Level Screening Tests Above 10µg/dL
1993 - 2000



SOURCE: County of Monroe Health Department Lead Screening Program data on blood lead level screening test results among children between 1993 and 2000.

Figure 11
Percent of Blood Lead Level Screening Tests Above 10 μ g/dL
1993 - 2000



SOURCE: County of Monroe Health Department Lead Screening Program data on blood lead level screening test results among children between 1993 and 2000.

Percent of Blood Lead Level Screening Tests Above 10µg/dL, 1993 - 2000

Figure 12: City of Rochester and Planning Sectors

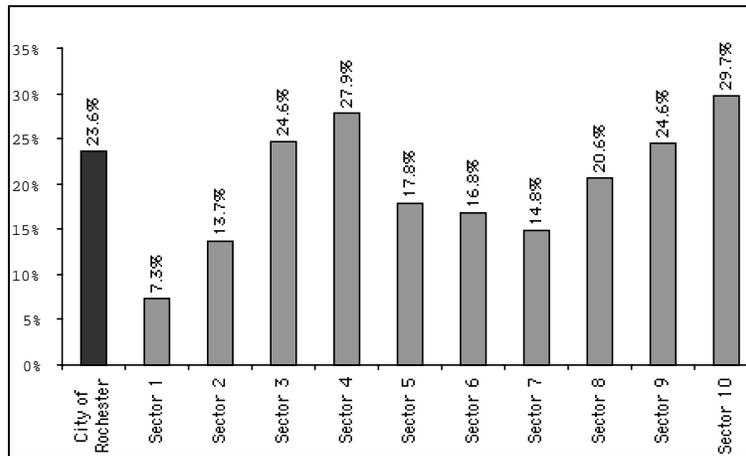


Figure 13: Suburban Towns

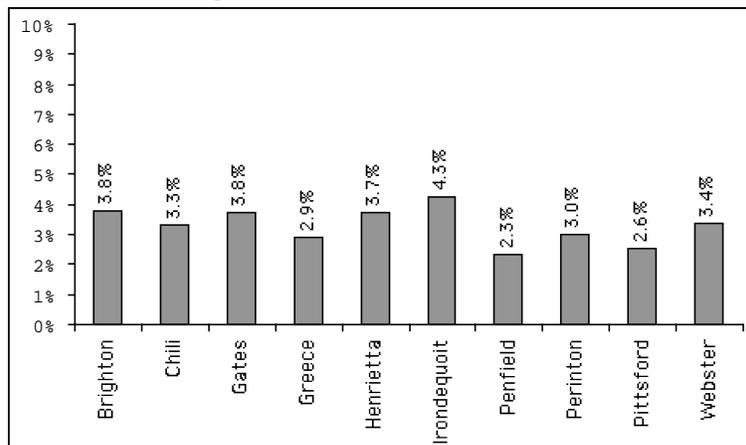
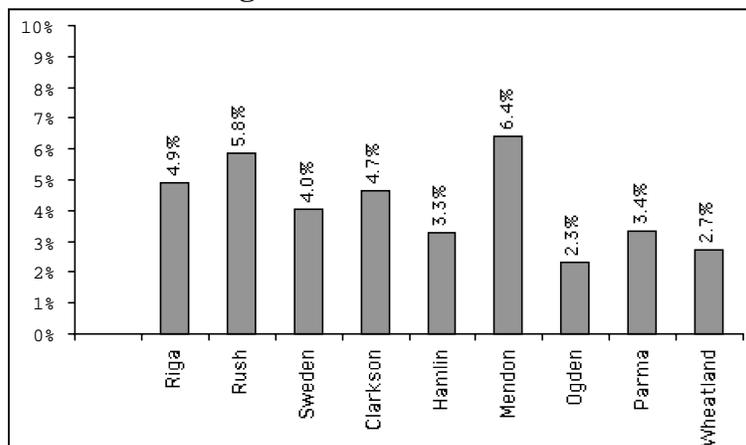


Figure 14: Rural Towns



SOURCE: County of Monroe Health Department Lead Screening Program data.

Designation of Study Areas in Monroe County Where a Majority of the Housing was Built Before 1950

Census tracts that contain a majority of housing built before 1950 were selected for further analysis because these areas have high proportions of properties suspected to contain lead based paint. Census tracts were aggregated due to changes in tract definitions between 1990 and 2000. The aggregated tracts are referred as Study Areas, and include neighborhoods in the city and portions of towns outside the city. The map below shows the names of the study areas:

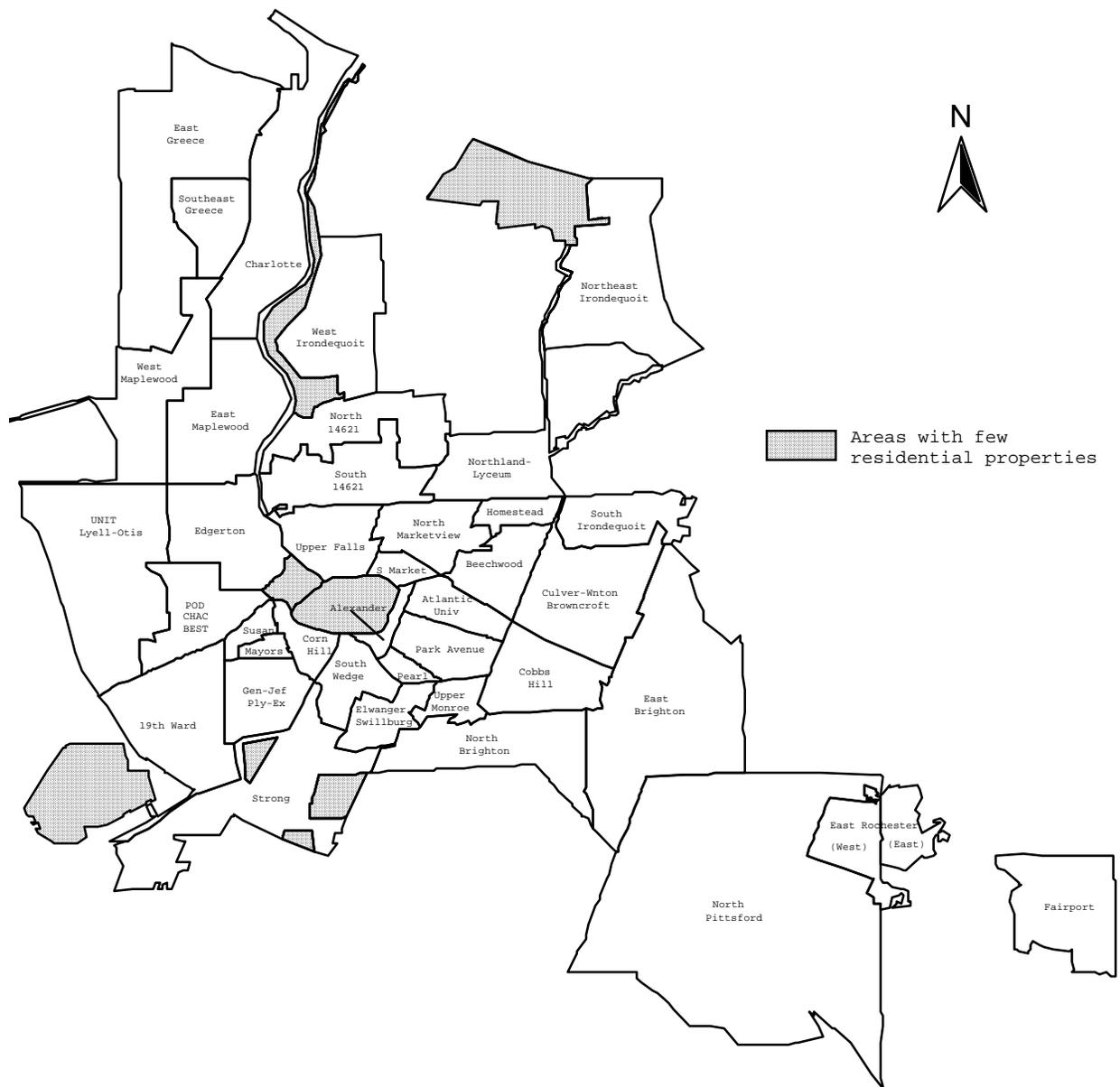
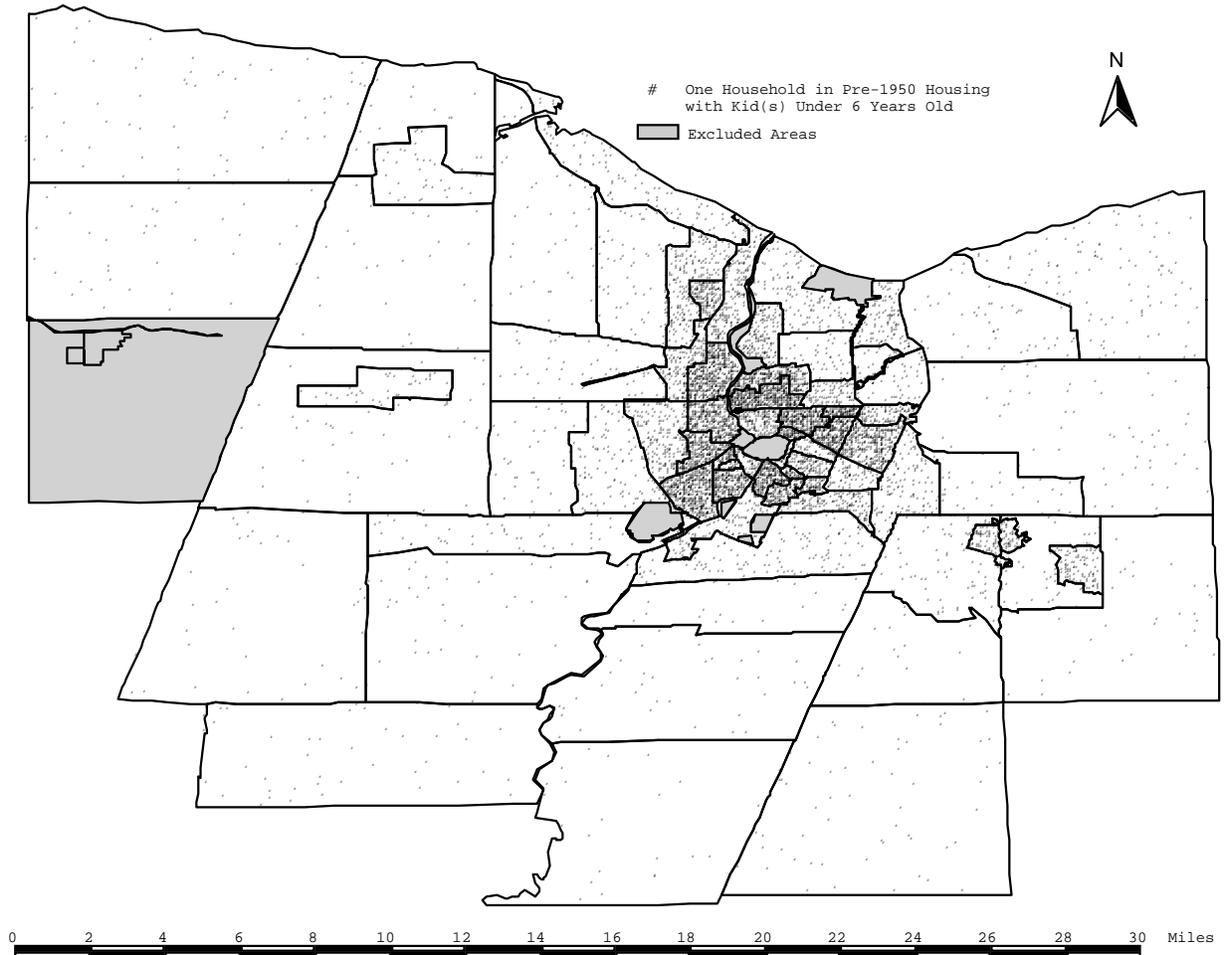


Figure 15
Percent of Households Where Children Under 6 Years Old are Present



SOURCE: US Census, 2000.

Figure 16
Location of Households with Children Under 6 Year Old Residing in Pre 1950 Housing

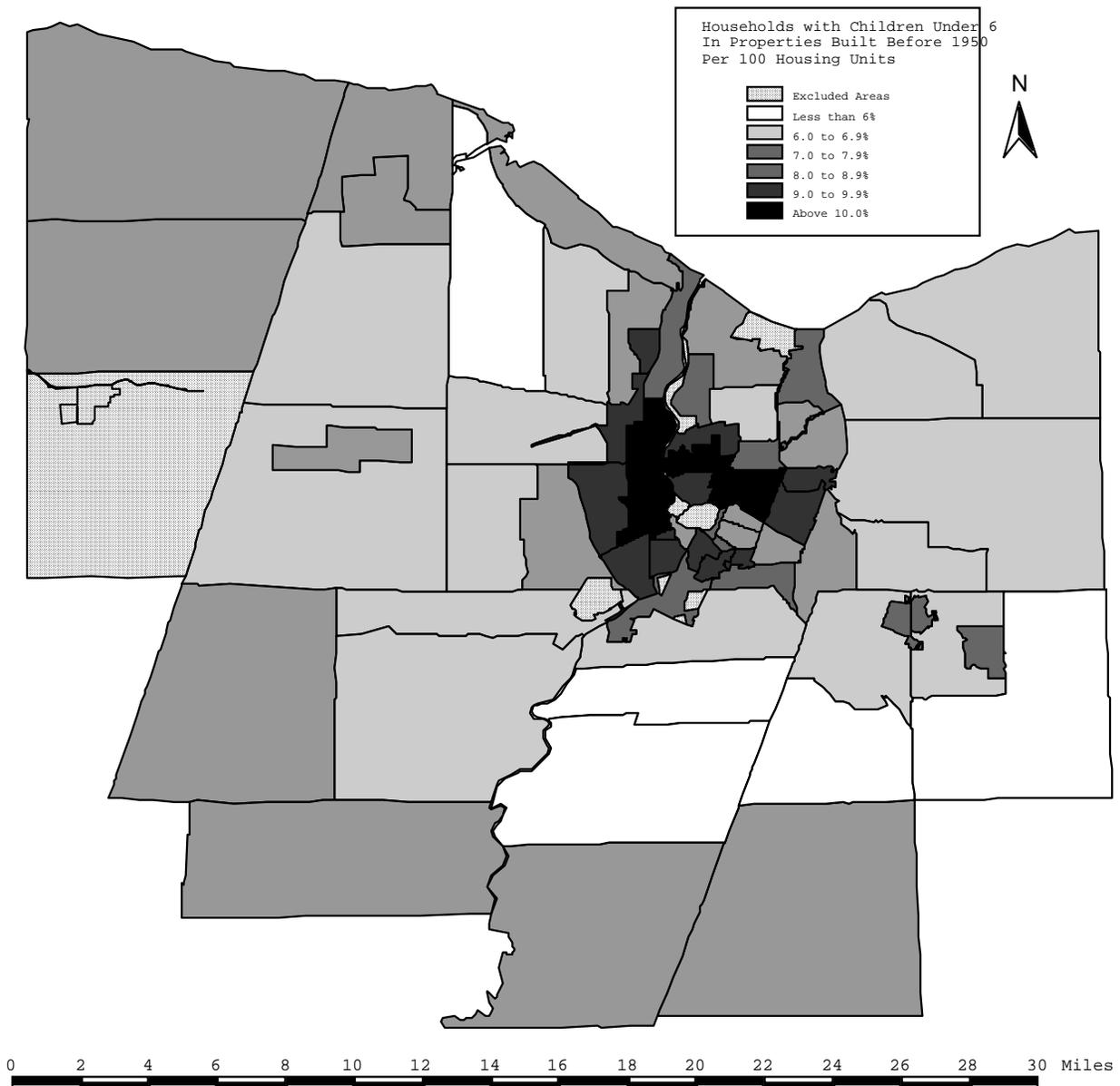


SOURCE: Monroe County and City of Rochester Tax Assessment Databases and Haines & Company Criss+Cross Real Estate Directory, 2000 and US Census, 2000.

NOTE: METHODOLOGY FOR FIGURES 16 & 17

The number of households with children under 6 years old and the number of children under 6 years old was estimated for each study area and neighborhood in Monroe County. In each area the number households with children under 6 and number of children under 6 was found using 2000 U.S. Census data. It was assumed that the probability that these households and children would live in pre-1950 housing would equal the percent of properties built before 1950 in the study area or neighborhood. The percent of properties built before 1950 was found using 2001 Monroe County and City of Rochester Tax Assessment data extracted from the Haines & Company Criss+Cross Real Estate Directory. The number of households with children under 6 residing in pre-1950 housing was estimated by multiplying the number of households with children under 6 by the percent of properties built before 1950. The number of children under 6 residing in pre-1950 housing was estimated by multiplying the number children under 6 by the percent of properties built before 1950.

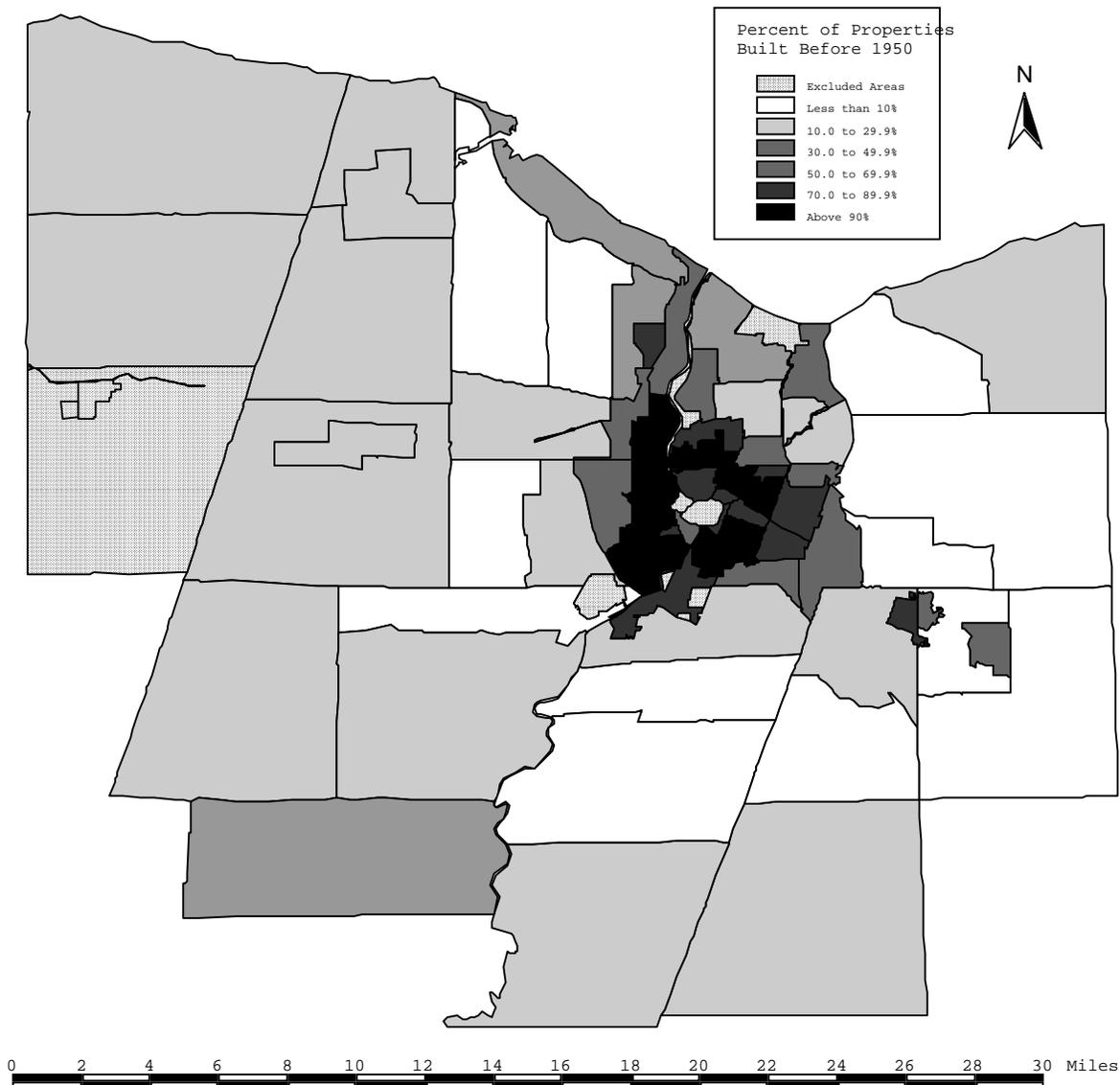
Figure 17
Estimated Number of Households with Children Under 6 Years Old
Residing in Housing Built Before 1950 Per 100 Housing Units



SOURCE: Monroe County and City of Rochester Tax Assessment Databases and Haines & Company Criss+Cross Real Estate Directory, 2000 and US Census, 2000.

AGE OF HOUSING

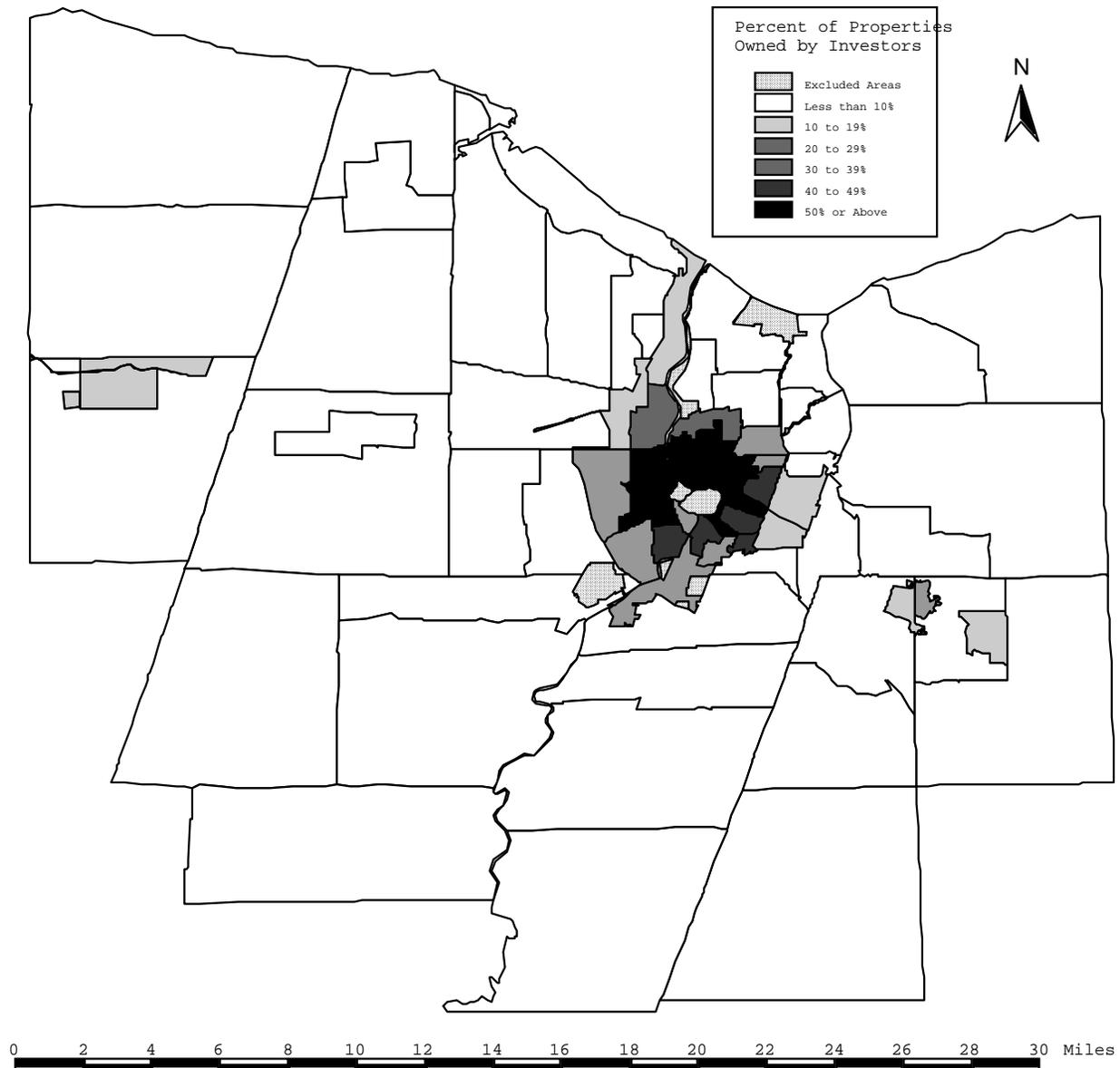
Figure 18
Percent of Residential Properties Built Before 1950



SOURCE: Monroe County and City of Rochester Tax Assessment Databases and Haines & Company Criss+Cross Real Estate Directory, 2000.

TENURE

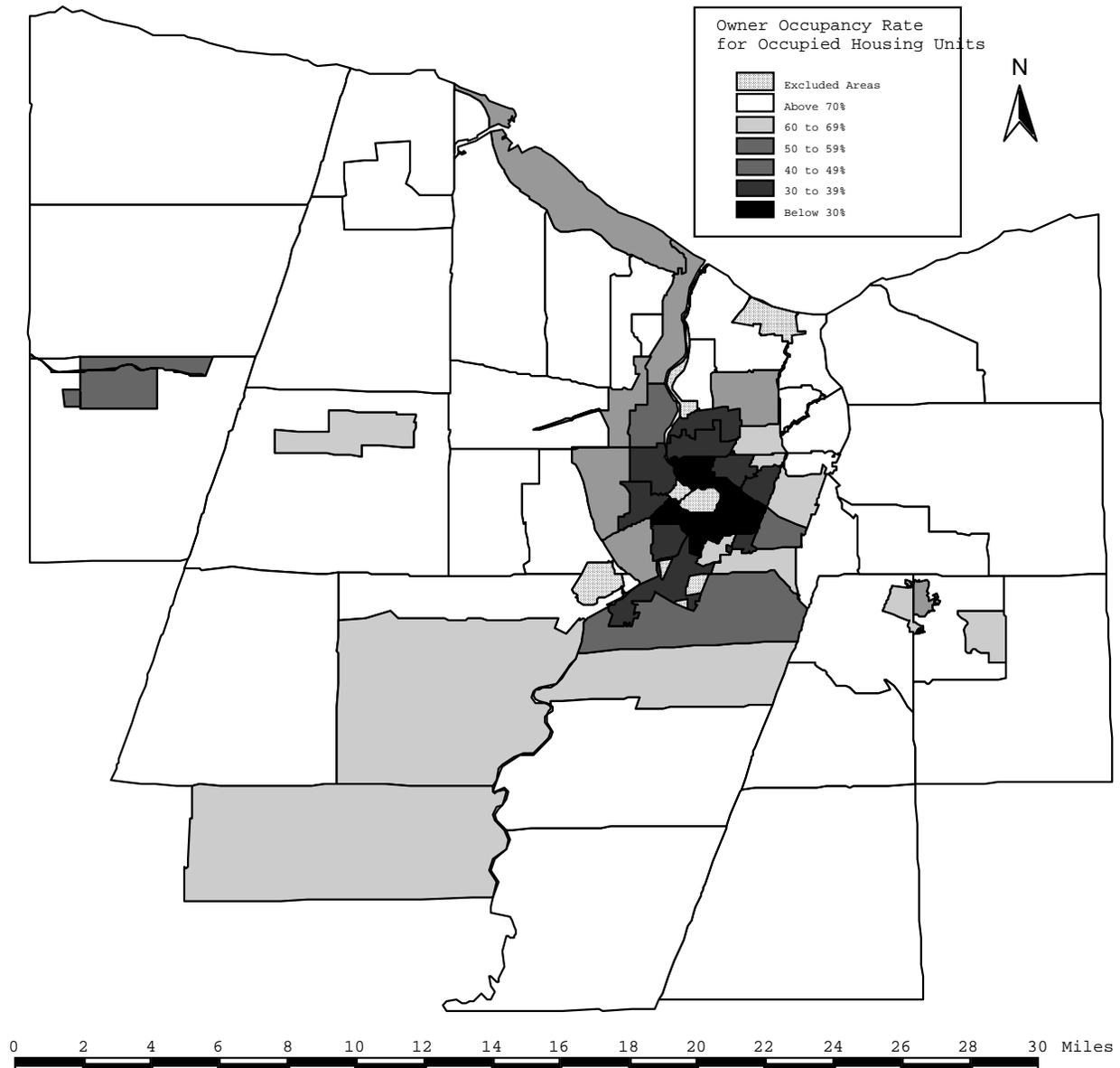
Figure 19
Percent of Residential Properties Owned by Investors



SOURCE: Monroe County and City of Rochester Tax Assessment Databases and Haines & Company Criss+Cross Real Estate Directory, 2000.

NOTE: The information shown by this map describes the tenure of the housing stock as a proportion of properties (not housing units) that are owned by investors. It is an important measure because it shows how much of the housing stock is cared for based by investors who do not live in the property rather than by owner-occupants.

Figure 20
Owner Occupancy Rate for Occupied Residential Units



SOURCE: US Census, 2000.

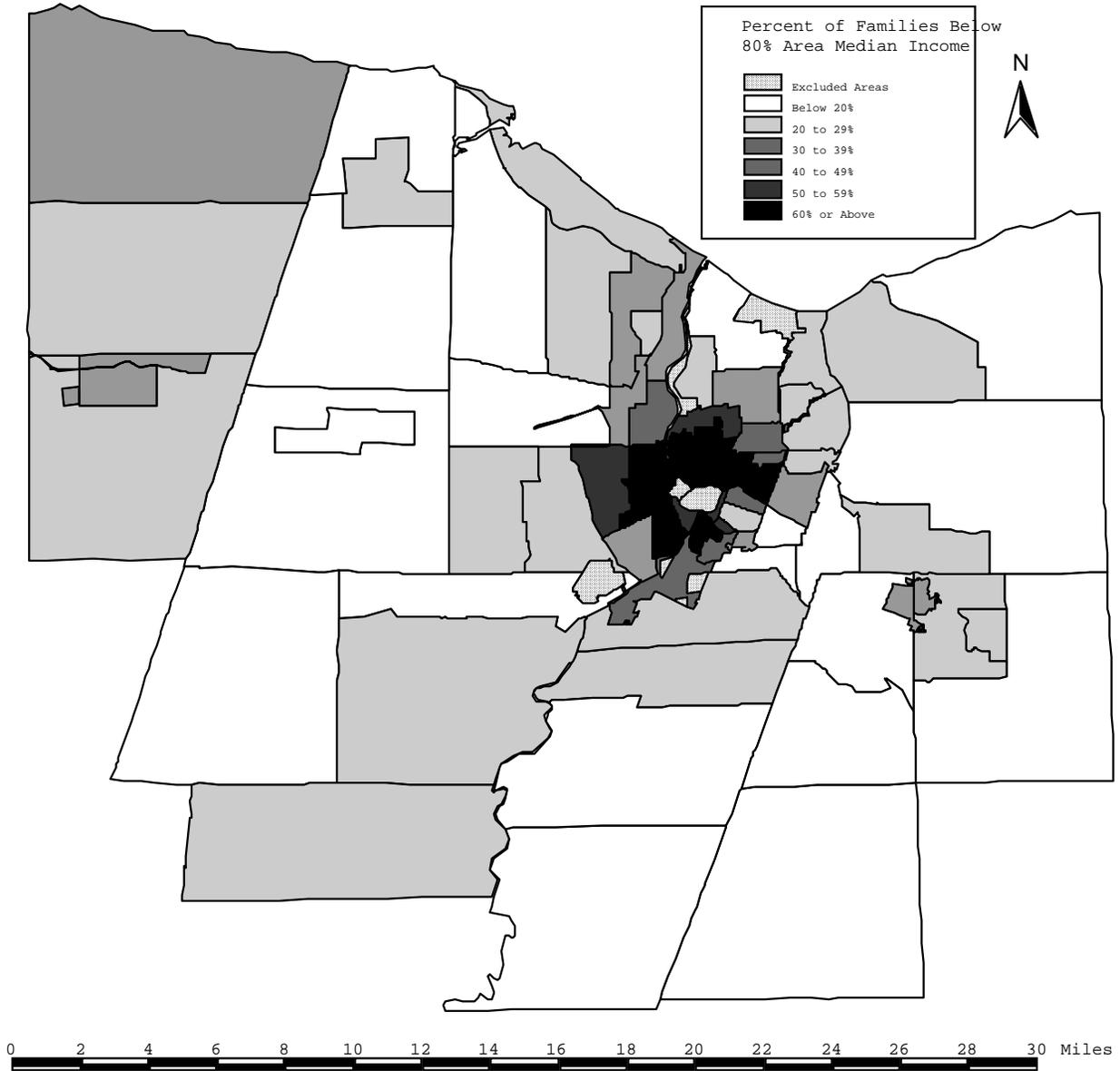
NOTE: According to Lanphear, a low owner occupancy rate is associated with higher rates of elevated blood lead levels among children under 6 years old. The information shown in this map describes tenure of housing units, rather than properties as shown in Figure 19.

Figure 22
Percent of Population Where Race is Non-White



SOURCE: US Census, 2000.

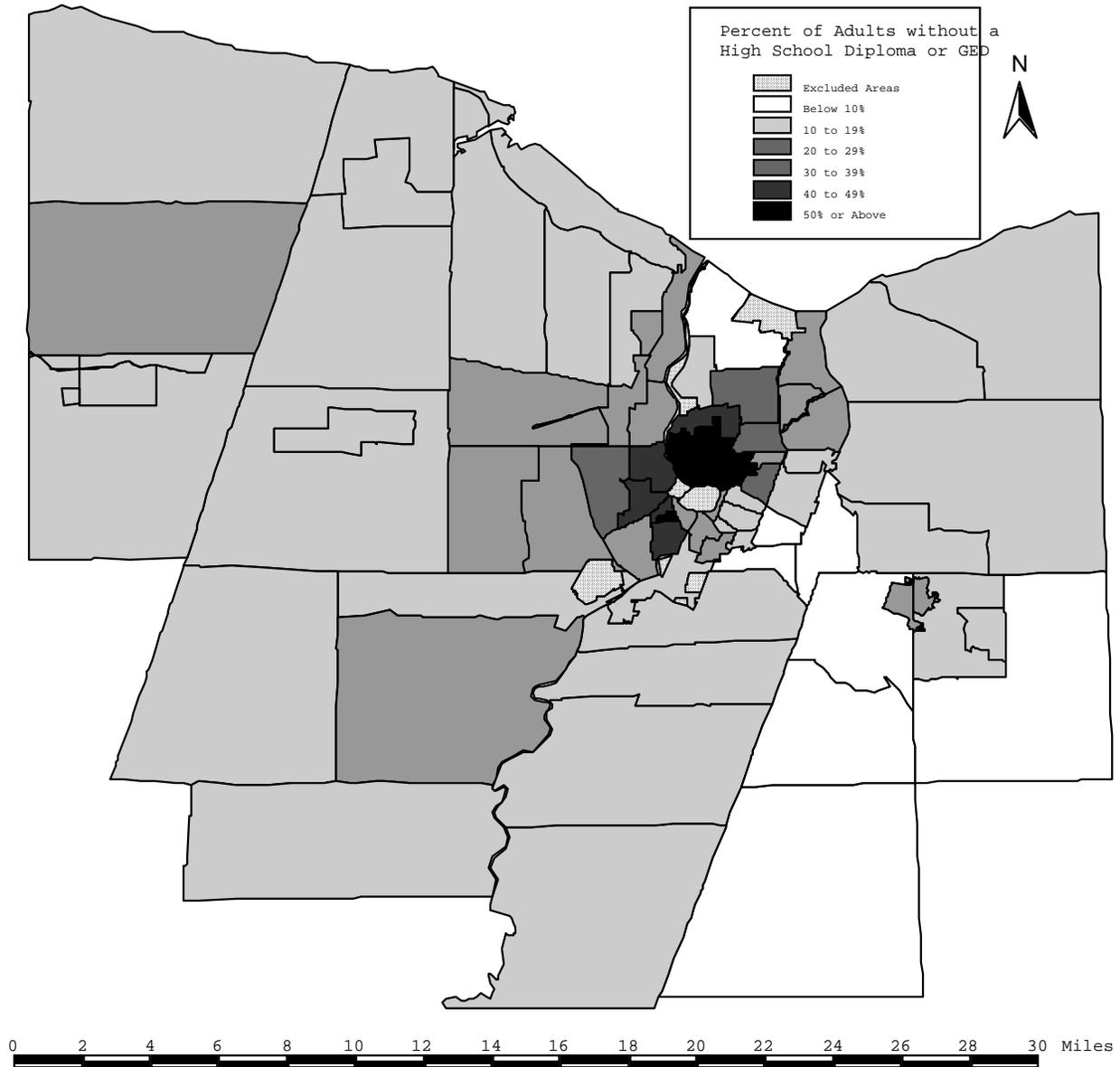
Figure 24
Percent of Families Below 80% of the Median Family Income



SOURCE: US Census, 1990.

EDUCATION

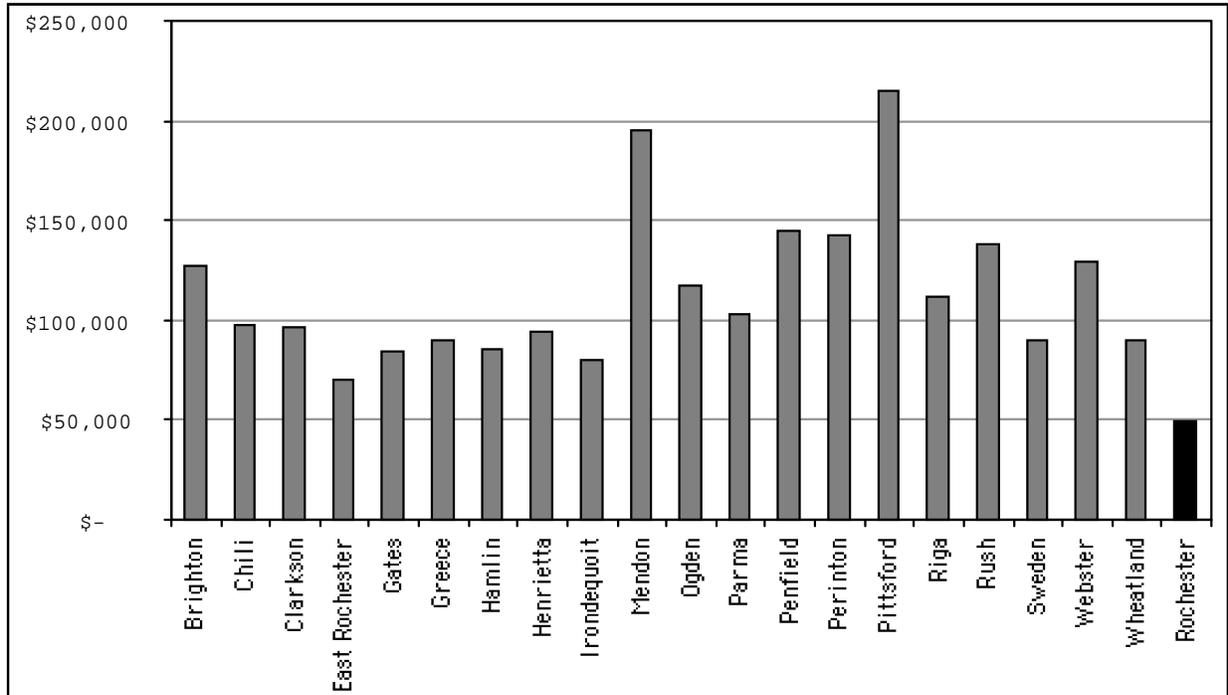
Figure 25
Percent of Population Over 25 Who Are Not High School Graduates



SOURCE: US Census, 1990.

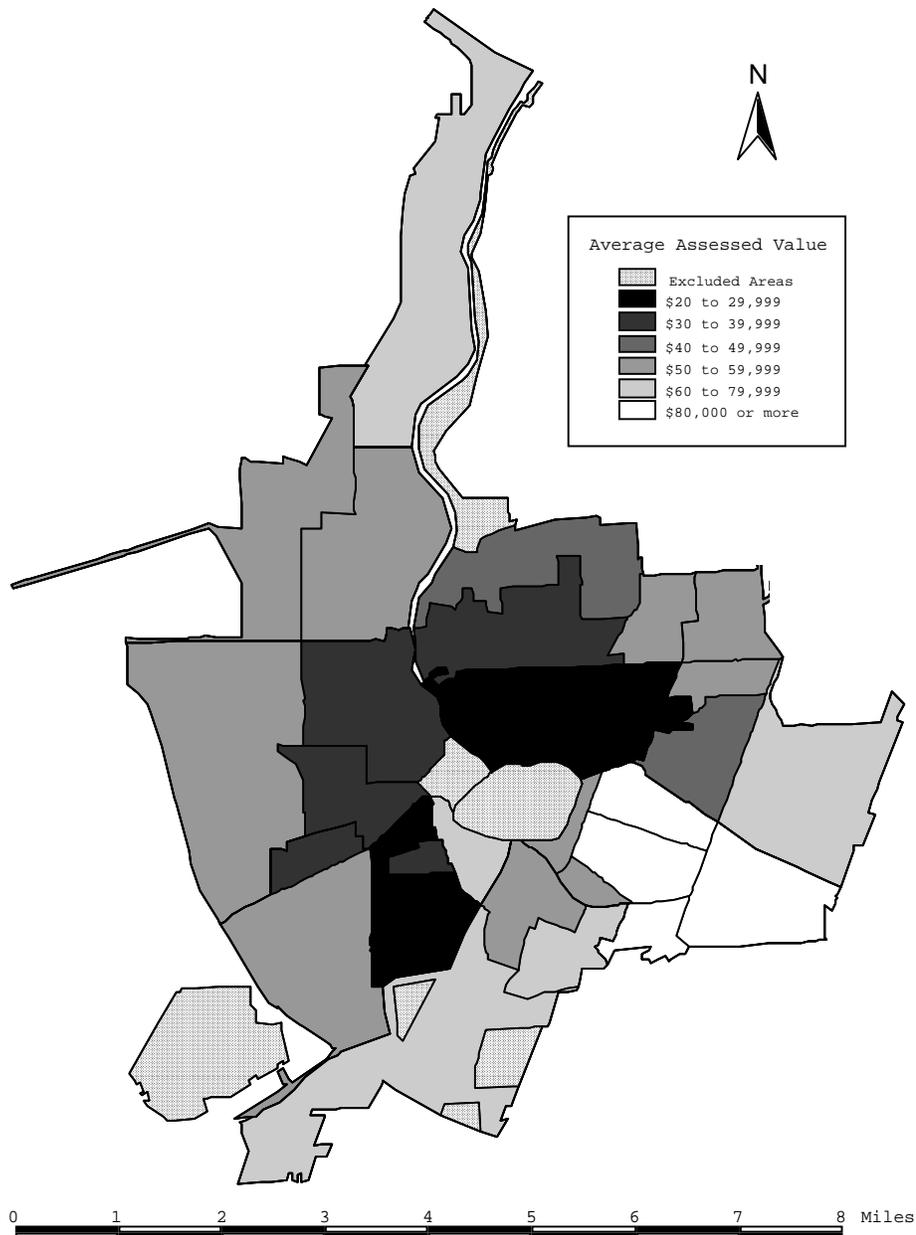
HOUSING VALUE

Figure 26
Median Sale Price for Existing Single Family Homes in 2000, by Municipality



SOURCE: Greater Rochester Association of Realtors (GRAR)

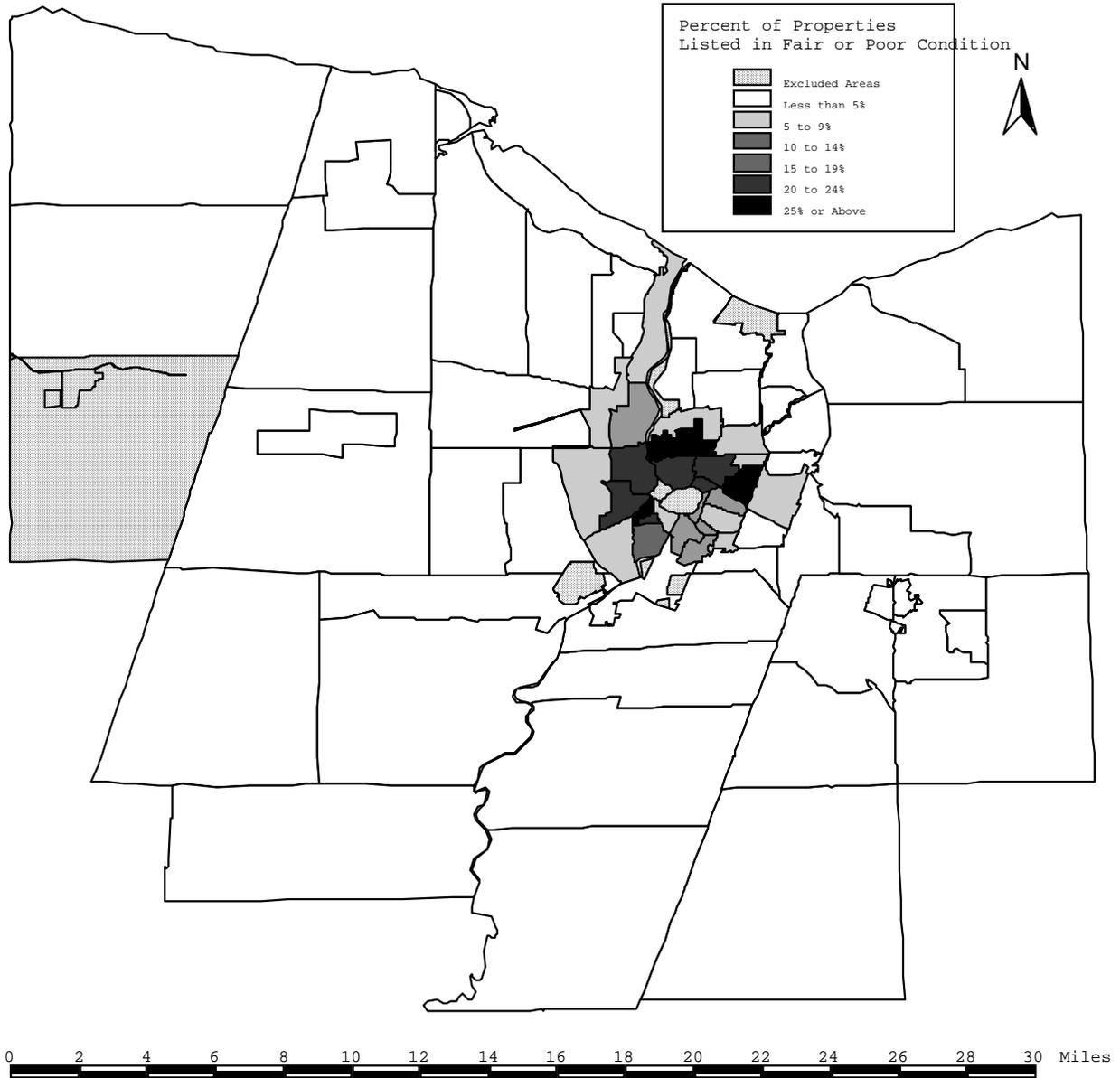
Figure 27
Average 2000 Assessed Value of Single Family Homes in Rochester by Study Area



SOURCE: Monroe County and City of Rochester Tax Assessment Databases and Haines & Company Criss+Cross Real Estate Directory, 2000.

CONDITION

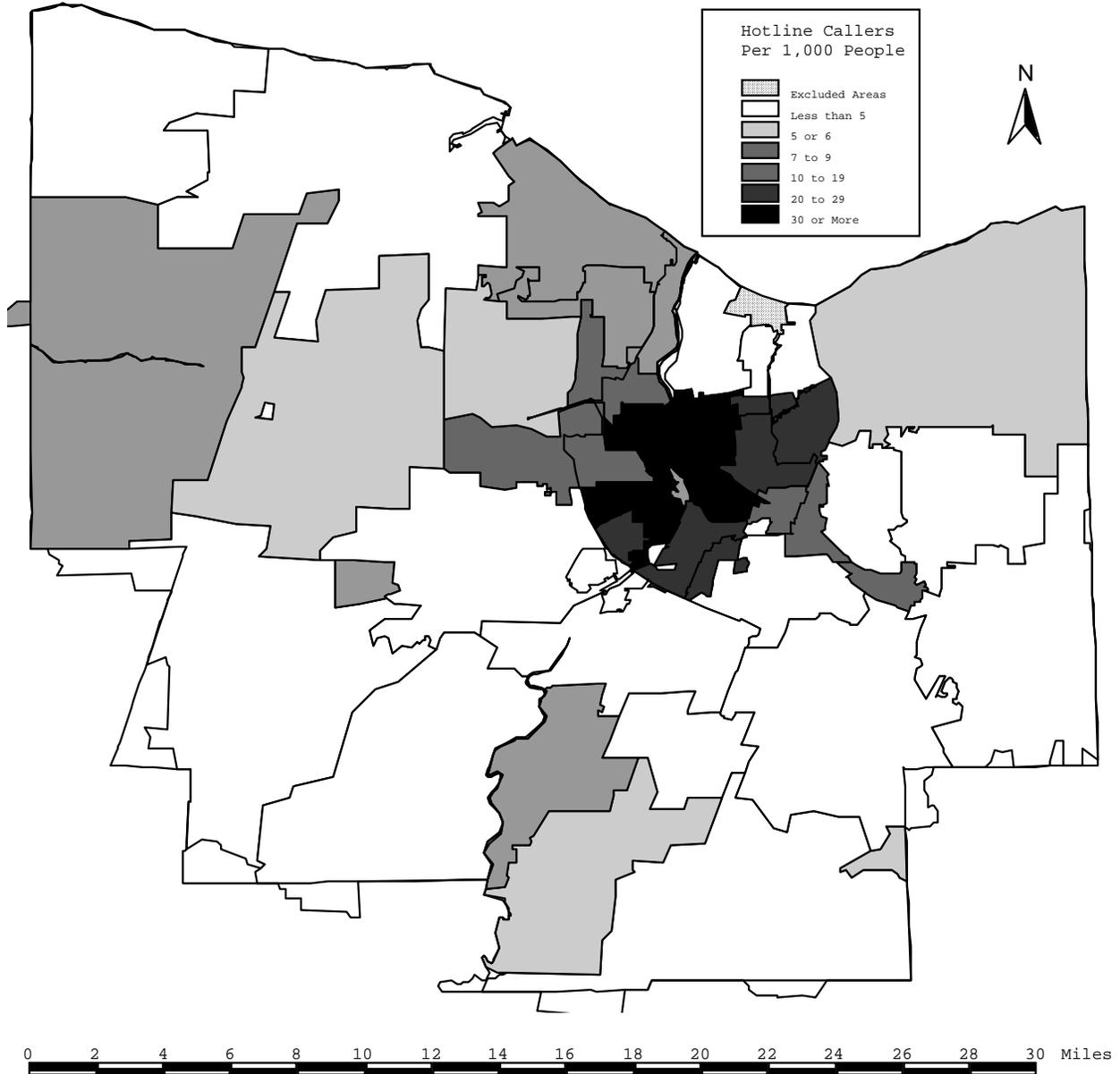
Figure 28
Percent of Residential Properties Listed in Fair or Poor Condition



SOURCE: Monroe County and City of Rochester Tax Assessment Databases and Haines & Company Criss+Cross Real Estate Directory, 2000.

REQUESTS FOR SERVICE THROUGH THE HOUSING HOTLINE

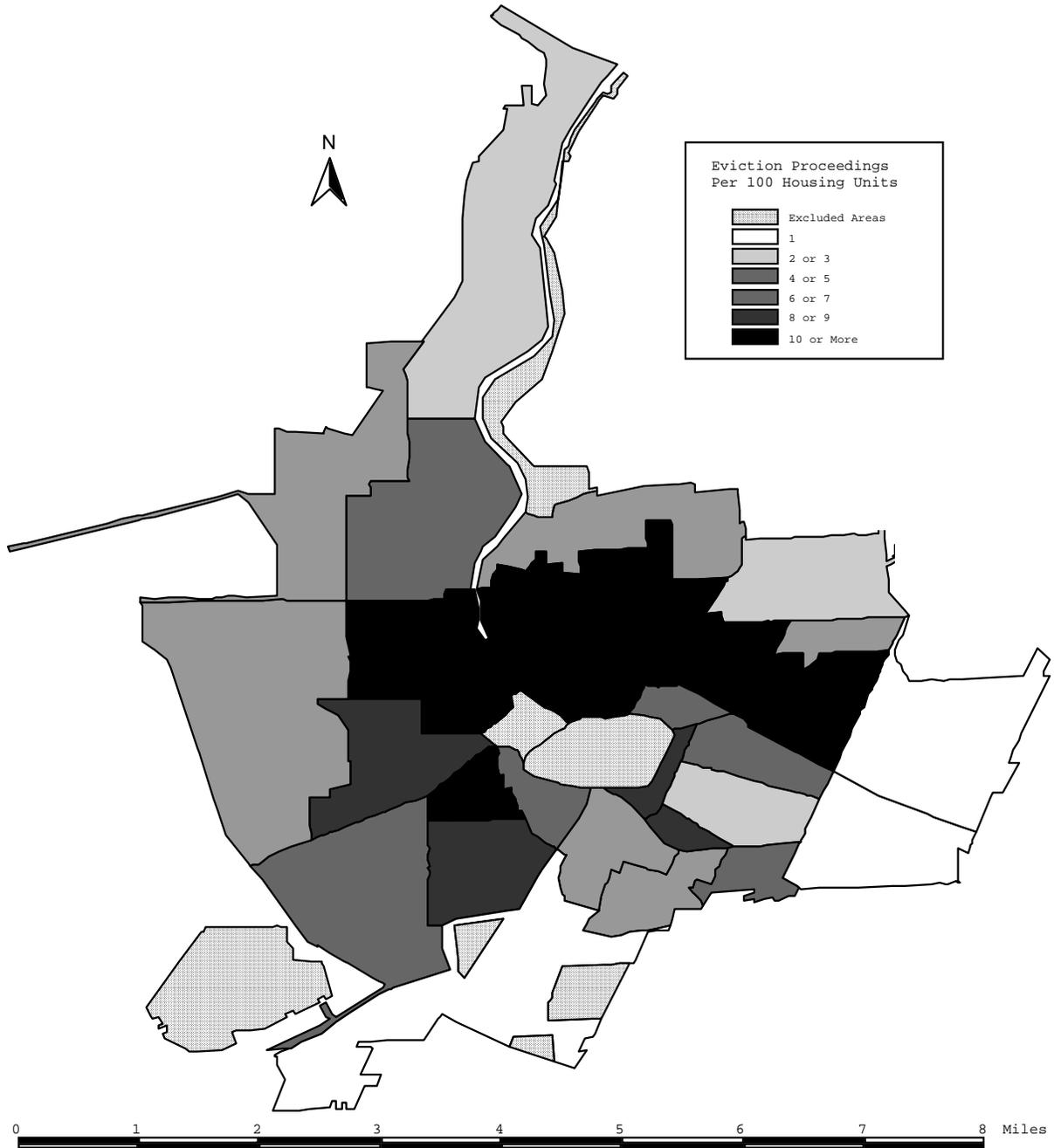
Figure 29
Per Capita Calls to the Housing Council Hotline by Zip Code in Monroe County



SOURCE: The Housing Council Housing Hotline Database for tenant callers between 9/1/99 and 8/31/01.

MOBILITY

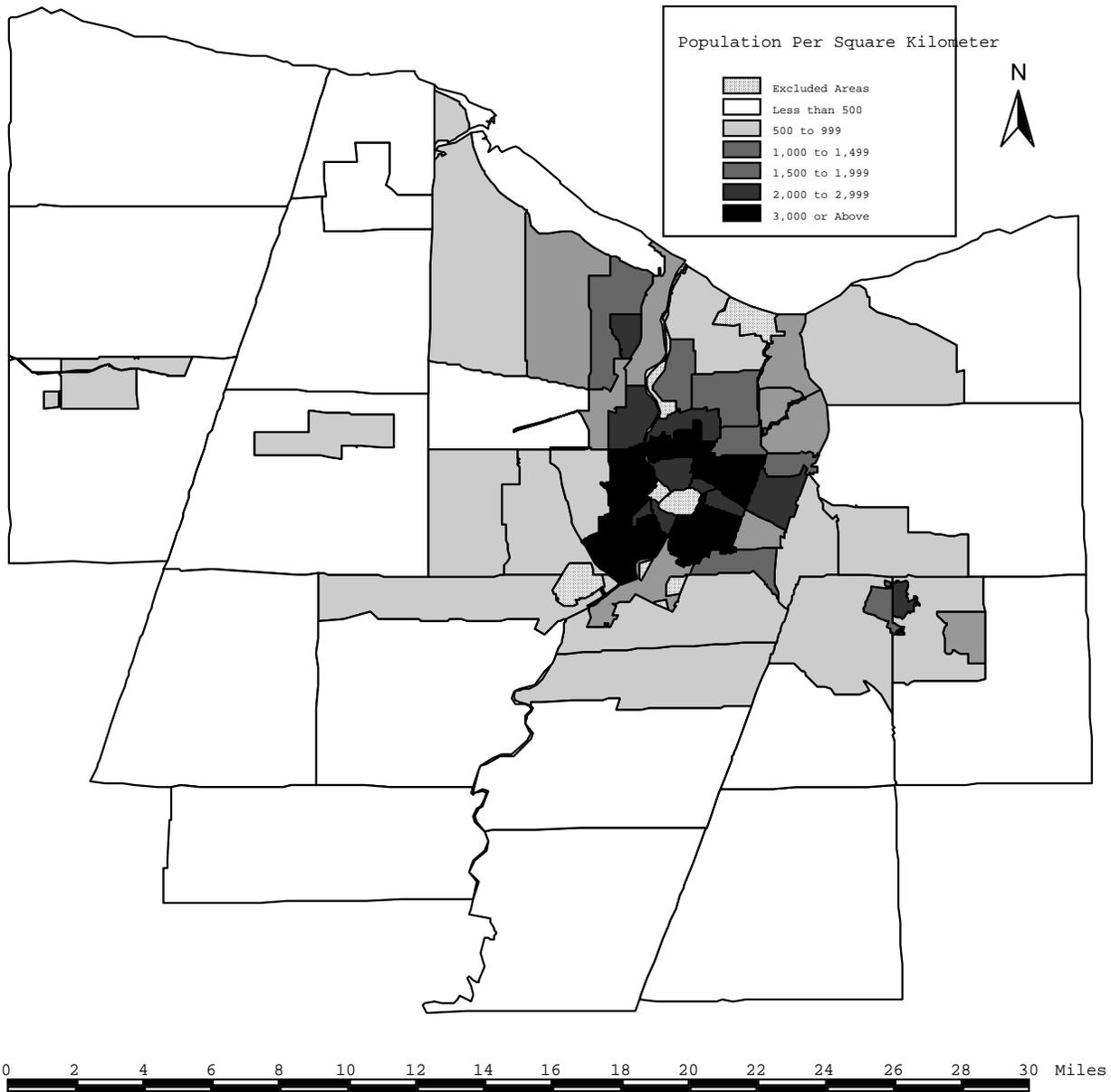
Figure 30
Eviction Proceedings Filed Per 100 Housing Units



SOURCE: Daily Record Landlord/Tenant Court Proceedings, 1999 and 2000.

POPULATION DENSITY

Figure 31
Population Per Square Kilometer



SOURCE: US Census 2000.

APPENDIX C: NEIGHBORHOOD AND TOWN PROFILES

14621 (North)

Population

12,232

Housing Units

5,859

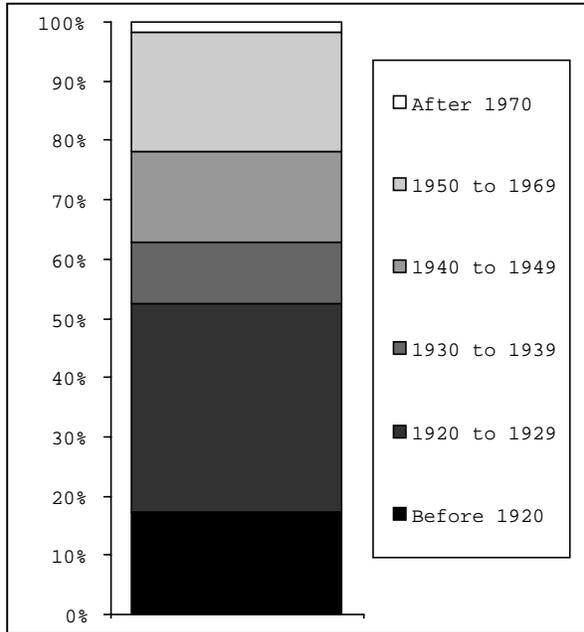
Households

5,308

Families

2,687

Age of Residential Properties



Neighborhood Profile

	14621 (North)
Presence of Lead	
Properties Built Before 1950	78%
Children Tested Above 10µg/dL	17%
Tenure	
Properties Owned by Investors	32%
Owner Occupancy Rate	37%
Population	
Percent Black	35%
Percent Minority	62%
Income	
Families Below 30% MFI	17%
Families Below 80% MFI	53%
Education	
Population Over 25 w/o High School Diploma	43%
Housing Value	
Average Assessed Value	\$45,891
Exposure Among Children	
Households with Children Under 6	8%
In Pre-1950 Housing Per 100 Units	6

Residential Properties Built Before 1950

1,798

Estimated Households with Children Under 6 In Pre-1950 Housing

334

Estimated Number of Children Under 6 In Pre-1950 Housing

898

14621 (South)

Population

17,740

Housing Units

7,040

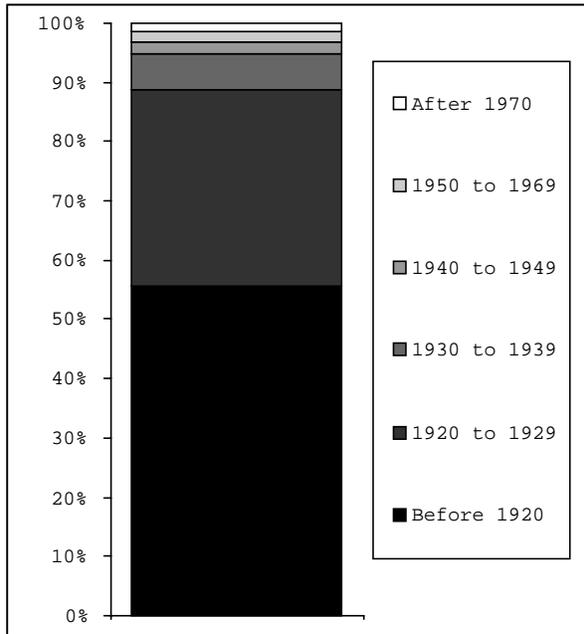
Households

5,718

Families

4,152

Age of Residential Properties



Neighborhood Profile

	14621 (South)
Presence of Lead	
Properties Built Before 1950	97%
Children Tested Above 10µg/dL	29%
Tenure	
Properties Owned by Investors	52%
Owner Occupancy Rate	38%
Population	
Percent Black	54%
Percent Minority	89%
Income	
Families Below 30% MFI	35%
Families Below 80% MFI	70%
Education	
Population Over 25 w/o High School Diploma	51%
Housing Value	
Average Assessed Value	\$30,075
Exposure Among Children	
Households with Children Under 6	11%
In Pre-1950 Housing Per 100 Units	9

Residential Properties Built Before 1950

4,483

Estimated Households with Children Under 6 In Pre-1950 Housing

603

Estimated Number of Children Under 6 In Pre-1950 Housing

2,150

19th Ward

Population

18,797

Housing Units

7,667

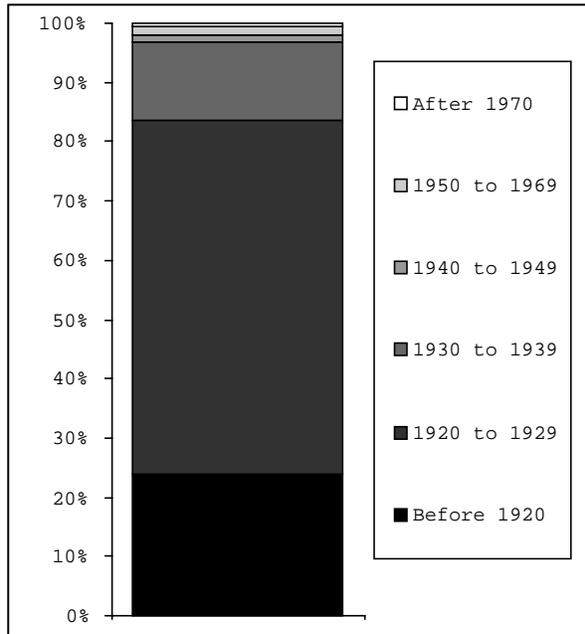
Households

6,937

Families

4,515

Age of Residential Properties



Neighborhood Profile

	19th Ward
Presence of Lead	
Properties Built Before 1950	98%
Children Tested Above 10ug/dL	23%
Tenure	
Properties Owned by Investors	29%
Owner Occupancy Rate	59%
Population	
Percent Black	69%
Percent Minority	75%
Income	
Families Below 30% MFI	11%
Families Below 80% MFI	39%
Education	
Population Over 25 w/o High School Diploma	22%
Housing Value	
Average Assessed Value	\$55,146
Exposure Among Children	
Households with Children Under 6	8%
In Pre-1950 Housing Per 100 Units	7

**Residential Properties
Built Before 1950**

5,513

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

542

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

1,722

Alexander

Population

1,503

Housing Units

1,096

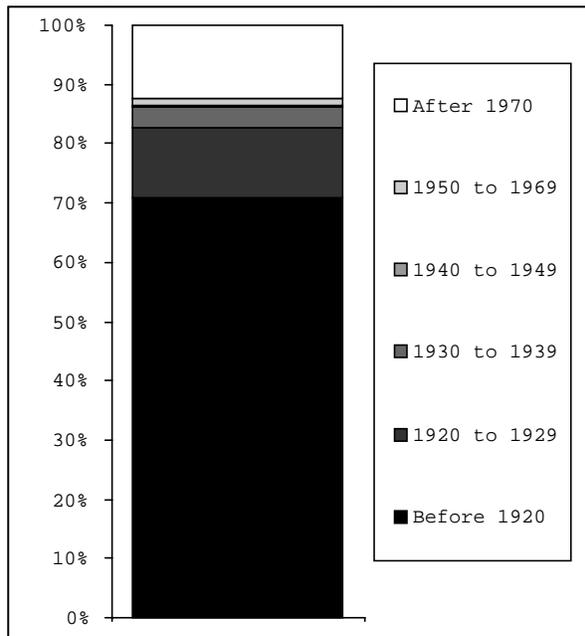
Households

991

Families

183

Age of Residential Properties



Neighborhood Profile

	Inner Loop-Alexander
Presence of Lead	
Properties Built Before 1950	87%
Children Tested Above 10ug/dL	19%
Tenure	
Properties Owned by Investors	55%
Owner Occupancy Rate	9%
Population	
Percent Black	30%
Percent Minority	42%
Income	
Families Below 30% MFI	7%
Families Below 80% MFI	51%
Education	
Population Over 25 w/o High School Diploma	21%
Housing Value	
Average Assessed Value	\$54,953
Exposure Among Children	
Households with Children Under 6	5%
In Pre-1950 Housing Per 100 Units	4

Residential Properties Built Before 1950

155

Estimated Households with Children Under 6 In Pre-1950 Housing

42

Estimated Number of Children Under 6 In Pre-1950 Housing

74

Atlantic-University

Population

3,335

Housing Units

2,257

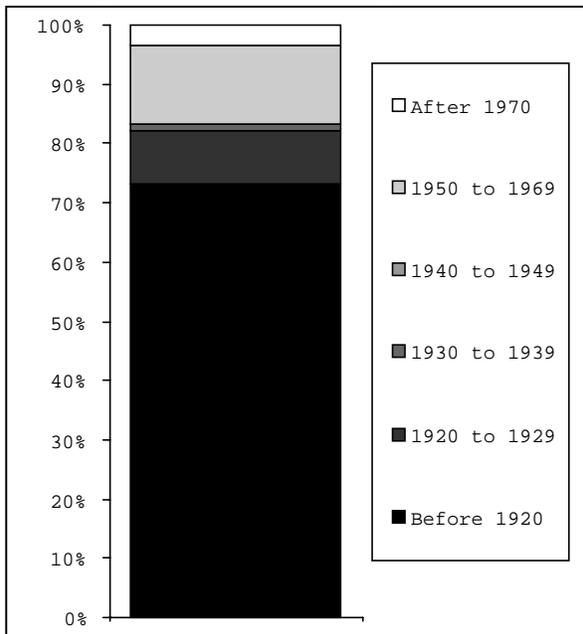
Households

2,032

Families

345

Age of Residential Properties



Neighborhood Profile

	Atlantic-University
Presence of Lead	
Properties Built Before 1950	83%
Children Tested Above 10µg/dL	13%
Tenure	
Properties Owned by Investors	52%
Owner Occupancy Rate	12%
Population	
Percent Black	15%
Percent Minority	22%
Income	
Families Below 30% MFI	24%
Families Below 80% MFI	41%
Education	
Population Over 25 w/o High School Diploma	16%
Housing Value	
Average Assessed Value	\$89,694
Exposure Among Children	
Households with Children Under 6	3%
In Pre-1950 Housing Per 100 Units	2

Residential Properties Built Before 1950

417

Estimated Households with Children Under 6 In Pre-1950 Housing

50

Estimated Number of Children Under 6 In Pre-1950 Housing

91

Beechwood

Population

7,750

Housing Units

3,316

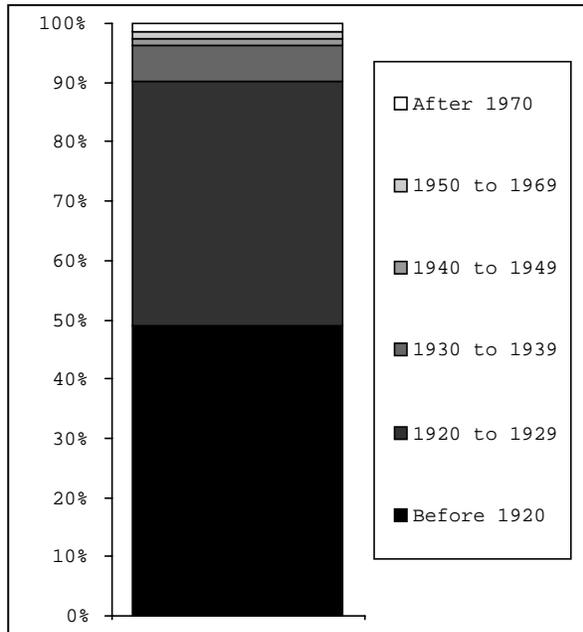
Households

2,786

Families

1,844

Age of Residential Properties



Neighborhood Profile

	Beechwood
Presence of Lead	
Properties Built Before 1950	97%
Children Tested Above 10µg/dL	29%
Tenure	
Properties Owned by Investors	49%
Owner Occupancy Rate	37%
Population	
Percent Black	58%
Percent Minority	75%
Income	
Families Below 30% MFI	30%
Families Below 80% MFI	67%
Education	
Population Over 25 w/o High School Diploma	30%
Housing Value	
Average Assessed Value	\$43,950
Exposure Among Children	
Households with Children Under 6	11%
In Pre-1950 Housing Per 100 Units	9

**Residential Properties
Built Before 1950**

1,996

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

308

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

927

Charlotte

Population

8,829

Housing Units

4,260

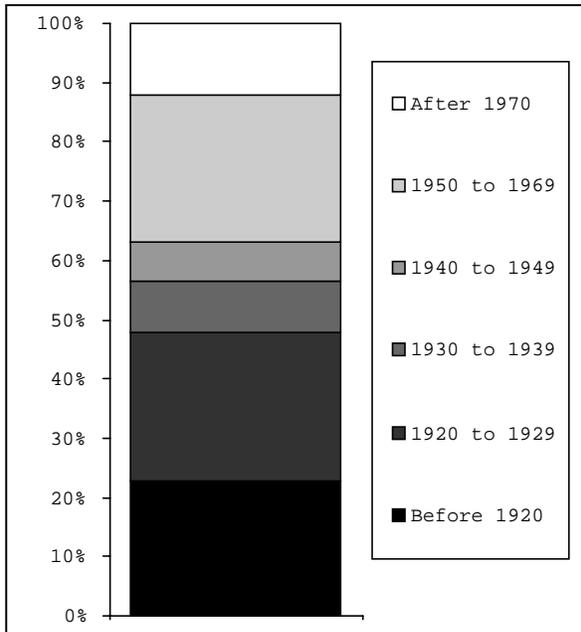
Households

4,031

Families

2,056

Age of Residential Properties



Neighborhood Profile

	Charlotte
Presence of Lead	
Properties Built Before 1950	63%
Children Tested Above 10µg/dL	7%
Tenure	
Properties Owned by Investors	17%
Owner Occupancy Rate	56%
Population	
Percent Black	5%
Percent Minority	12%
Income	
Families Below 30% MFI	7%
Families Below 80% MFI	32%
Education	
Population Over 25 w/o High School Diploma	23%
Housing Value	
Average Assessed Value	\$71,366
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	5

**Residential Properties
Built Before 1950**

1,622

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

223

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

454

Cobbs Hill

Population

4,020

Housing Units

2,404

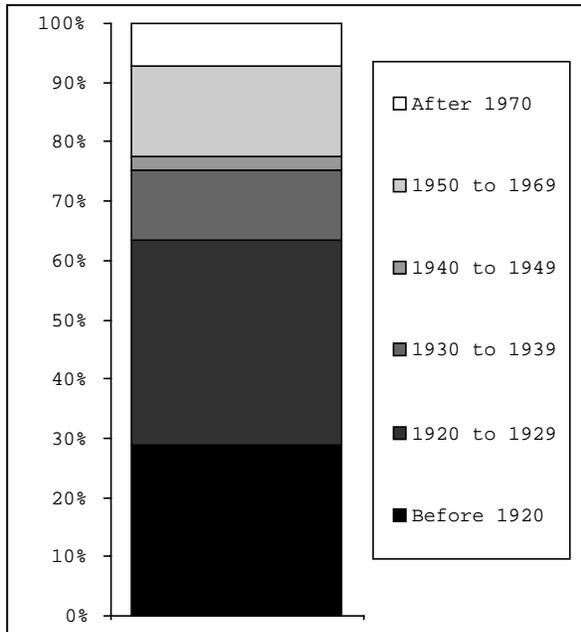
Households

2,224

Families

805

Age of Residential Properties



Neighborhood Profile

	Cobbs Hill
Presence of Lead	
Properties Built Before 1950	78%
Children Tested Above 10µg/dL	4%
Tenure	
Properties Owned by Investors	18%
Owner Occupancy Rate	47%
Population	
Percent Black	5%
Percent Minority	9%
Income	
Families Below 30% MFI	3%
Families Below 80% MFI	17%
Education	
Population Over 25 w/o High School Diploma	8%
Housing Value	
Average Assessed Value	\$149,727
Exposure Among Children	
Households with Children Under 6	4%
In Pre-1950 Housing Per 100 Units	3

Residential Properties Built Before 1950

856

Estimated Households with Children Under 6 In Pre-1950 Housing

69

Estimated Number of Children Under 6 In Pre-1950 Housing

123

Corn Hill

Population

2,655

Housing Units

1,440

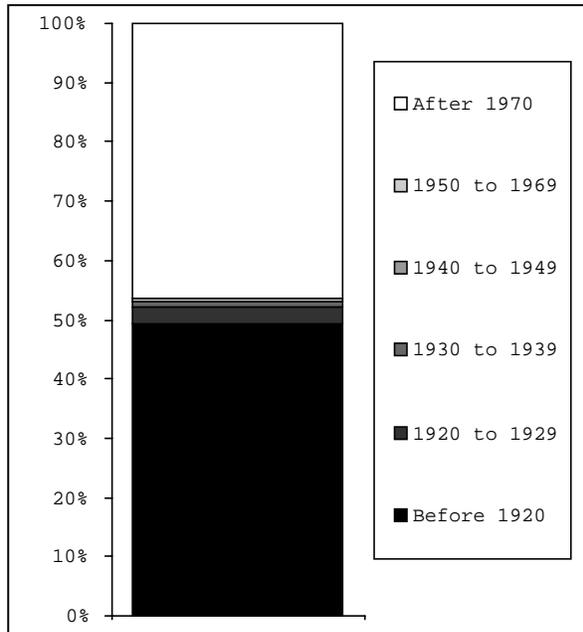
Households

1,348

Families

489

Age of Residential Properties



Neighborhood Profile

	Corn Hill
Presence of Lead	
Properties Built Before 1950	53%
Children Tested Above 10µg/dL	18%
Tenure	
Properties Owned by Investors	30%
Owner Occupancy Rate	27%
Population	
Percent Black	55%
Percent Minority	61%
Income	
Families Below 30% MFI	25%
Families Below 80% MFI	57%
Education	
Population Over 25 w/o High School Diploma	29%
Housing Value	
Average Assessed Value	\$78,021
Exposure Among Children	
Households with Children Under 6	6%
In Pre-1950 Housing Per 100 Units	3

Residential Properties Built Before 1950

238

Estimated Households with Children Under 6 In Pre-1950 Housing

43

Estimated Number of Children Under 6 In Pre-1950 Housing

104

Culver-Winton and Browncroft

Population

12,213

Housing Units

5,807

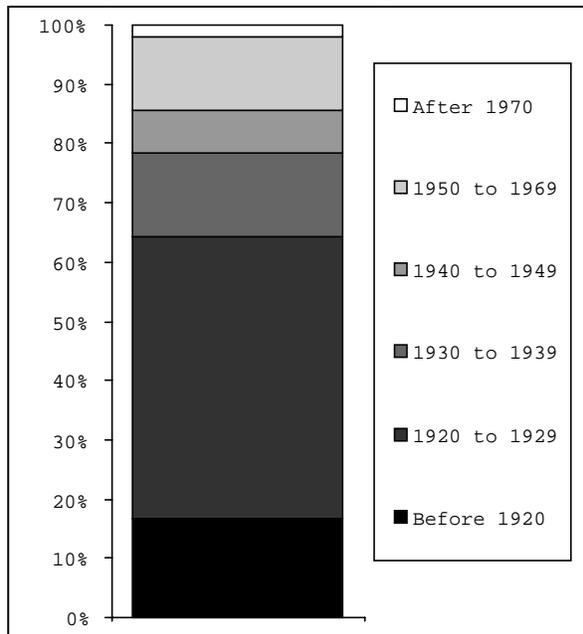
Households

5,515

Families

2,921

Age of Residential Properties



Neighborhood Profile

Culver-Winton and Browncroft	
Presence of Lead	
Properties Built Before 1950	86%
Children Tested Above 10µg/dL	10%
Tenure	
Properties Owned by Investors	18%
Owner Occupancy Rate	63%
Population	
Percent Black	13%
Percent Minority	20%
Income	
Families Below 30% MFI	6%
Families Below 80% MFI	33%
Education	
Population Over 25 w/o High School Diploma	17%
Housing Value	
Average Assessed Value	\$72,742
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	7

**Residential Properties
Built Before 1950**

3,462

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

401

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

860

Edgerton

Population

10,742

Housing Units

4,974

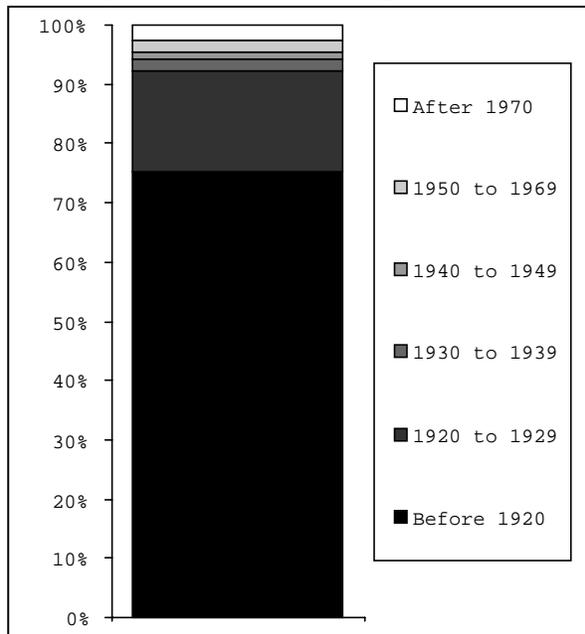
Households

4,076

Families

2,403

Age of Residential Properties



Neighborhood Profile

Edgerton	
Presence of Lead	
Properties Built Before 1950	95%
Children Tested Above 10µg/dL	25%
Tenure	
Properties Owned by Investors	56%
Owner Occupancy Rate	31%
Population	
Percent Black	38%
Percent Minority	63%
Income	
Families Below 30% MFI	34%
Families Below 80% MFI	73%
Education	
Population Over 25 w/o High School Diploma	42%
Housing Value	
Average Assessed Value	\$30,092
Exposure Among Children	
Households with Children Under 6	10%
In Pre-1950 Housing Per 100 Units	8

**Residential Properties
Built Before 1950**

3,131

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

394

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

1,242

Elwanger-Barry and Swillburg

Population

4,724

Housing Units

1,925

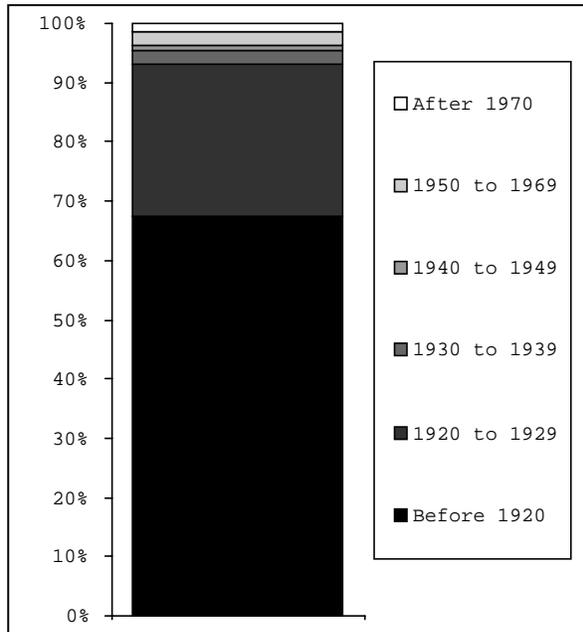
Households

1,806

Families

945

Age of Residential Properties



Neighborhood Profile

Elwanger-Barry and Swillburg	
Presence of Lead	
Properties Built Before 1950	96%
Children Tested Above 10µg/dL	15%
Tenure	
Properties Owned by Investors	26%
Owner Occupancy Rate	62%
Population	
Percent Black	12%
Percent Minority	22%
Income	
Families Below 30% MFI	14%
Families Below 80% MFI	43%
Education	
Population Over 25 w/o High School Diploma	21%
Housing Value	
Average Assessed Value	\$70,916
Exposure Among Children	
Households with Children Under 6	8%
In Pre-1950 Housing Per 100 Units	7

**Residential Properties
Built Before 1950**

1,518

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

143

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

319

Genesee-Jefferson and Plymouth-Exchange

Population

8,887

Housing Units

3,899

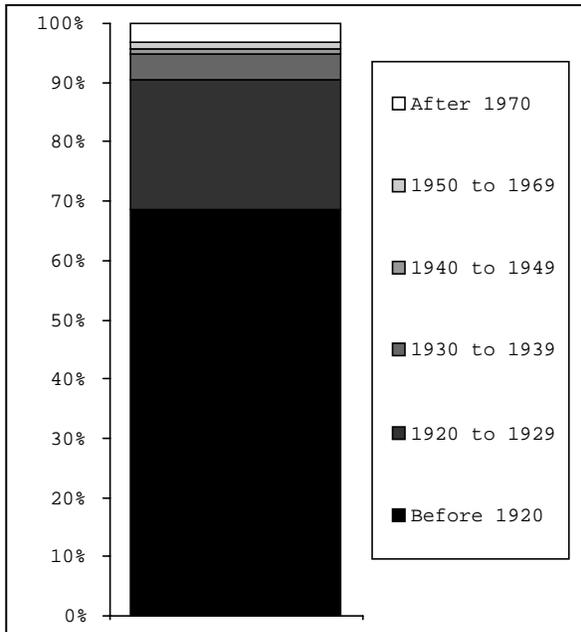
Households

3,261

Families

2,078

Age of Residential Properties



Neighborhood Profile

Genesee-Jefferson and Plymouth-Exchange	
Presence of Lead	
Properties Built Before 1950	96%
Children Tested Above 10µg/dL	34%
Tenure	
Properties Owned by Investors	49%
Owner Occupancy Rate	37%
Population	
Percent Black	92%
Percent Minority	97%
Income	
Families Below 30% MFI	32%
Families Below 80% MFI	67%
Education	
Population Over 25 w/o High School Diploma	46%
Housing Value	
Average Assessed Value	\$28,711
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	7

**Residential Properties
Built Before 1950**

2,258

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

277

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

997

Homestead Heights

Population

3,685

Housing Units

1,596

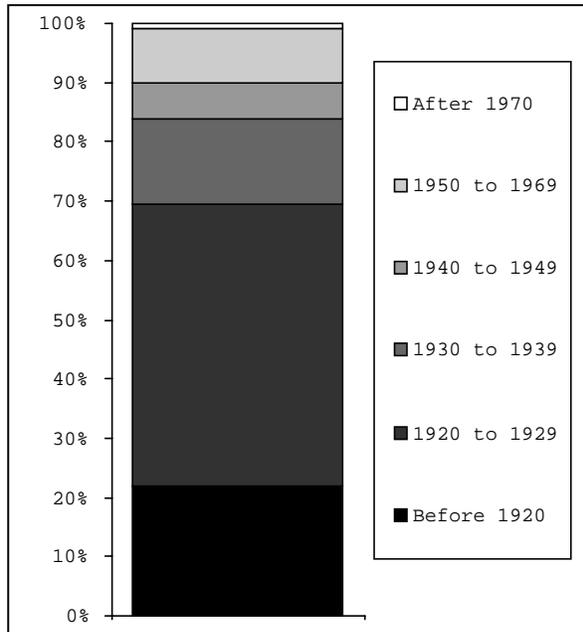
Households

1,464

Families

920

Age of Residential Properties



Neighborhood Profile

Homestead Heights	
Presence of Lead	
Properties Built Before 1950	90%
Children Tested Above 10µg/dL	20%
Tenure	
Properties Owned by Investors	27%
Owner Occupancy Rate	65%
Population	
Percent Black	41%
Percent Minority	55%
Income	
Families Below 30% MFI	18%
Families Below 80% MFI	42%
Education	
Population Over 25 w/o High School Diploma	25%
Housing Value	
Average Assessed Value	\$55,094
Exposure Among Children	
Households with Children Under 6	10%
In Pre-1950 Housing Per 100 Units	9

**Residential Properties
Built Before 1950**

1,120

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

138

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

354

Maplewood (East)

Population

13,946

Housing Units

5,811

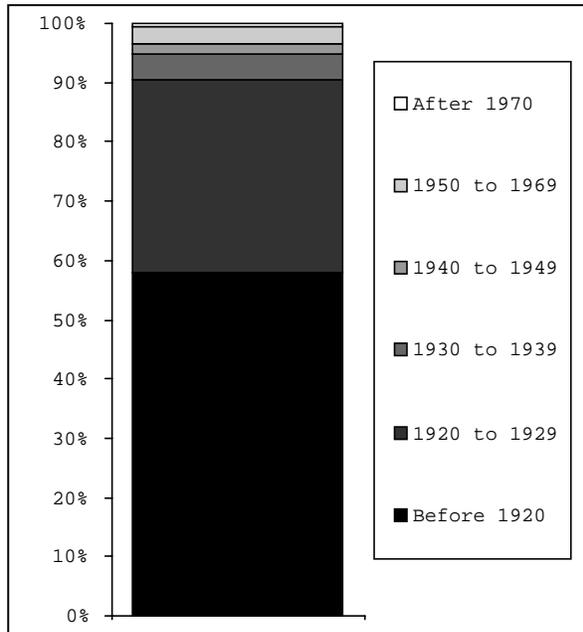
Households

5,200

Families

3,230

Age of Residential Properties



Neighborhood Profile

Maplewood (East)	
Presence of Lead	
Properties Built Before 1950	97%
Children Tested Above 10µg/dL	15%
Tenure	
Properties Owned by Investors	33%
Owner Occupancy Rate	47%
Population	
Percent Black	25%
Percent Minority	40%
Income	
Families Below 30% MFI	14%
Families Below 80% MFI	42%
Education	
Population Over 25 w/o High School Diploma	20%
Housing Value	
Average Assessed Value	\$52,826
Exposure Among Children	
Households with Children Under 6	11%
In Pre-1950 Housing Per 100 Units	9

**Residential Properties
Built Before 1950**

3,583

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

538

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

1,526

Maplewood (West)

Population

5,373

Housing Units

2,559

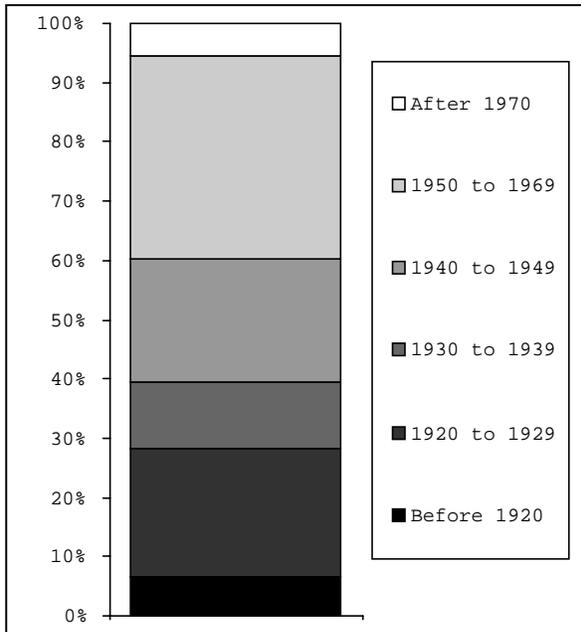
Households

2,421

Families

1,351

Age of Residential Properties



Neighborhood Profile

Maplewood (West)	
Presence of Lead	
Properties Built Before 1950	60%
Children Tested Above 10µg/dL	7%
Tenure	
Properties Owned by Investors	19%
Owner Occupancy Rate	57%
Population	
Percent Black	16%
Percent Minority	28%
Income	
Families Below 30% MFI	6%
Families Below 80% MFI	36%
Education	
Population Over 25 w/o High School Diploma	22%
Housing Value	
Average Assessed Value	\$58,392
Exposure Among Children	
Households with Children Under 6	11%
In Pre-1950 Housing Per 100 Units	6

**Residential Properties
Built Before 1950**

989

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

160

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

315

Mayors Heights

Population

1,426

Housing Units

670

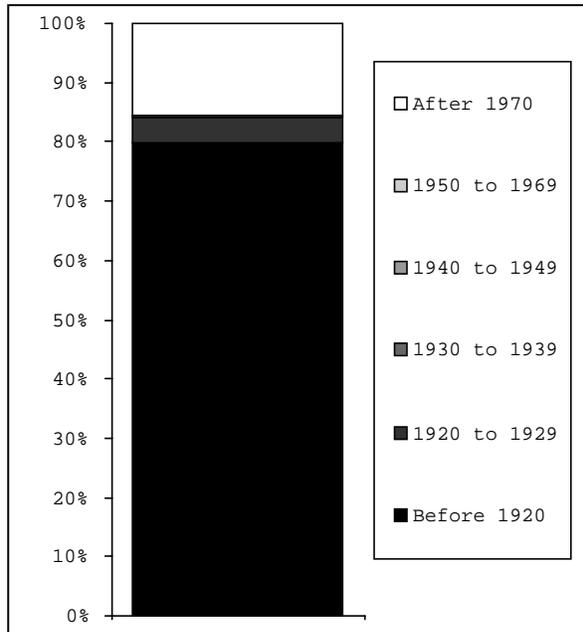
Households

530

Families

345

Age of Residential Properties



Neighborhood Profile

Mayors Heights	
Presence of Lead	
Properties Built Before 1950	84%
Children Tested Above 10µg/dL	29%
Tenure	
Properties Owned by Investors	54%
Owner Occupancy Rate	29%
Population	
Percent Black	90%
Percent Minority	97%
Income	
Families Below 30% MFI	47%
Families Below 80% MFI	73%
Education	
Population Over 25 w/o High School Diploma	50%
Housing Value	
Average Assessed Value	\$31,517
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	6

Residential Properties Built Before 1950

314

Estimated Households with Children Under 6 In Pre-1950 Housing

39

Estimated Number of Children Under 6 In Pre-1950 Housing

126

Marketview Heights (North)

Population

8,685

Housing Units

3,474

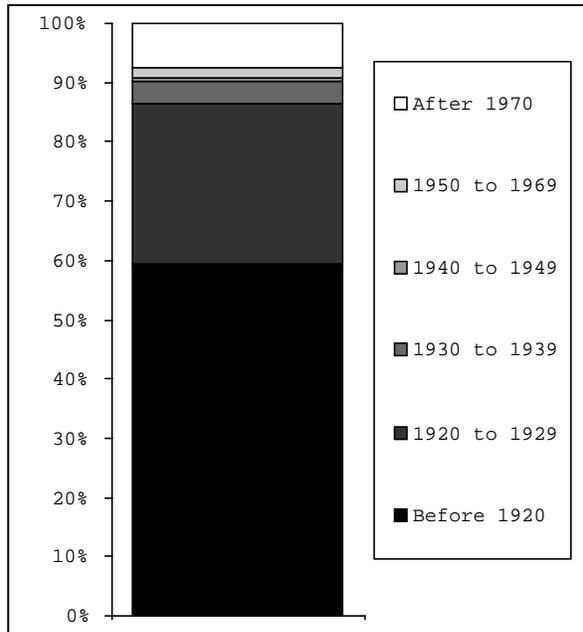
Households

2,905

Families

2,109

Age of Residential Properties



Neighborhood Profile

North Marketview Heights	
Presence of Lead	
Properties Built Before 1950	91%
Children Tested Above 10µg/dL	29%
Tenure	
Properties Owned by Investors	55%
Owner Occupancy Rate	34%
Population	
Percent Black	60%
Percent Minority	92%
Income	
Families Below 30% MFI	47%
Families Below 80% MFI	76%
Education	
Population Over 25 w/o High School Diploma	53%
Housing Value	
Average Assessed Value	\$28,641
Exposure Among Children	
Households with Children Under 6	12%
In Pre-1950 Housing Per 100 Units	9

**Residential Properties
Built Before 1950**

1,944

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

323

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

1,012

Marketview Heights (South)

Population

2,892

Housing Units

1,182

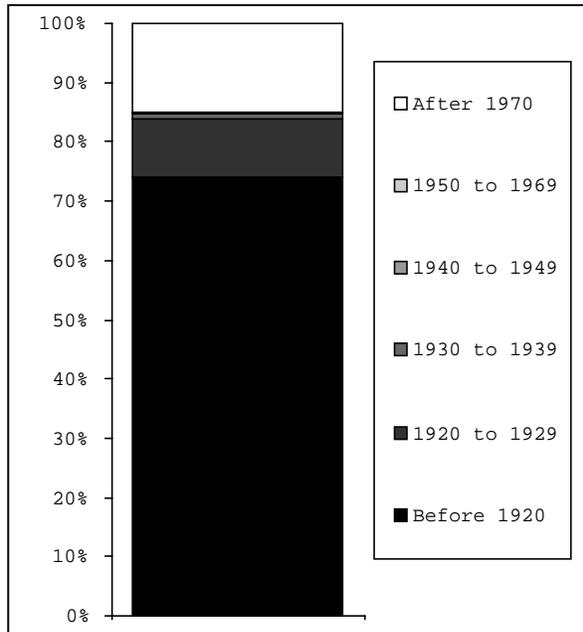
Households

1,012

Families

641

Age of Residential Properties



Neighborhood Profile

South Marketview Heights	
Presence of Lead	
Properties Built Before 1950	85%
Children Tested Above 10µg/dL	28%
Tenure	
Properties Owned by Investors	71%
Owner Occupancy Rate	14%
Population	
Percent Black	68%
Percent Minority	92%
Income	
Families Below 30% MFI	48%
Families Below 80% MFI	78%
Education	
Population Over 25 w/o High School Diploma	53%
Housing Value	
Average Assessed Value	\$29,185
Exposure Among Children	
Households with Children Under 6	11%
In Pre-1950 Housing Per 100 Units	8

**Residential Properties
Built Before 1950**

359

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

91

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

290

Northland-Lyceum

Population

9,961

Housing Units

4,193

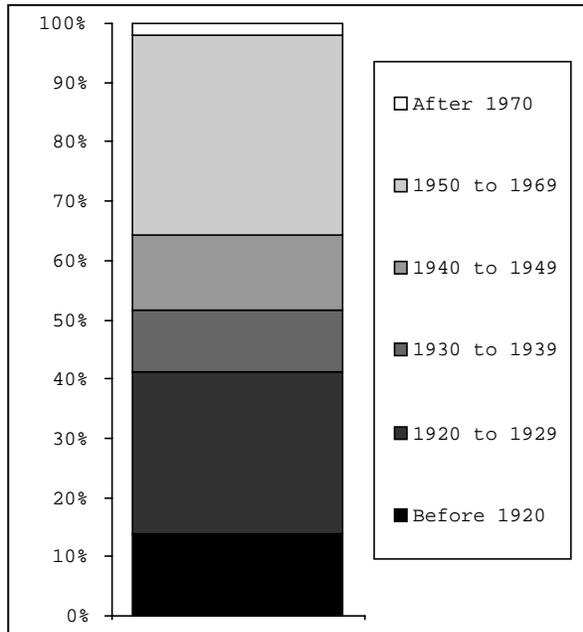
Households

3,893

Families

2,504

Age of Residential Properties



Neighborhood Profile

Northland-Lyceum	
Presence of Lead	
Properties Built Before 1950	64%
Children Tested Above 10µg/dL	13%
Tenure	
Properties Owned by Investors	24%
Owner Occupancy Rate	61%
Population	
Percent Black	34%
Percent Minority	58%
Income	
Families Below 30% MFI	13%
Families Below 80% MFI	48%
Education	
Population Over 25 w/o High School Diploma	35%
Housing Value	
Average Assessed Value	\$51,963
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	5

**Residential Properties
Built Before 1950**

1,977

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

227

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

622

Park Avenue

Population

8,414

Housing Units

5,279

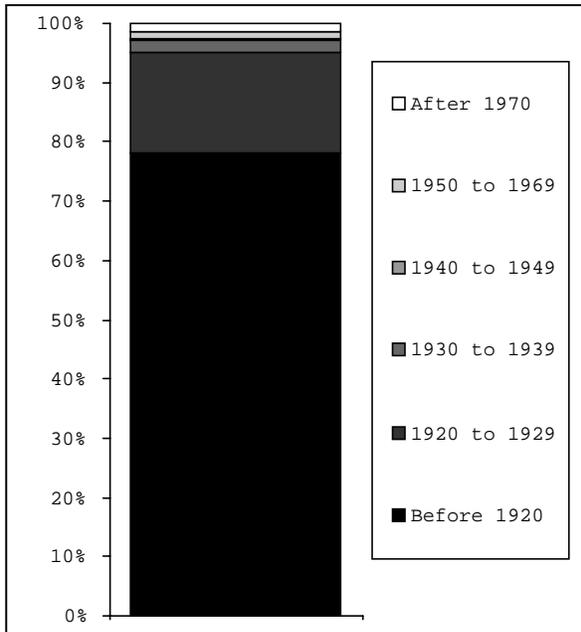
Households

5,024

Families

997

Age of Residential Properties



Neighborhood Profile

Park Avenue	
Presence of Lead	
Properties Built Before 1950	97%
Children Tested Above 10µg/dL	12%
Tenure	
Properties Owned by Investors	41%
Owner Occupancy Rate	19%
Population	
Percent Black	5%
Percent Minority	12%
Income	
Families Below 30% MFI	10%
Families Below 80% MFI	30%
Education	
Population Over 25 w/o High School Diploma	10%
Housing Value	
Average Assessed Value	\$127,619
Exposure Among Children	
Households with Children Under 6	2%
In Pre-1950 Housing Per 100 Units	2

**Residential Properties
Built Before 1950**

1,490

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

120

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

190

Pearl-Meigs-Monroe

Population

2,105

Housing Units

1,246

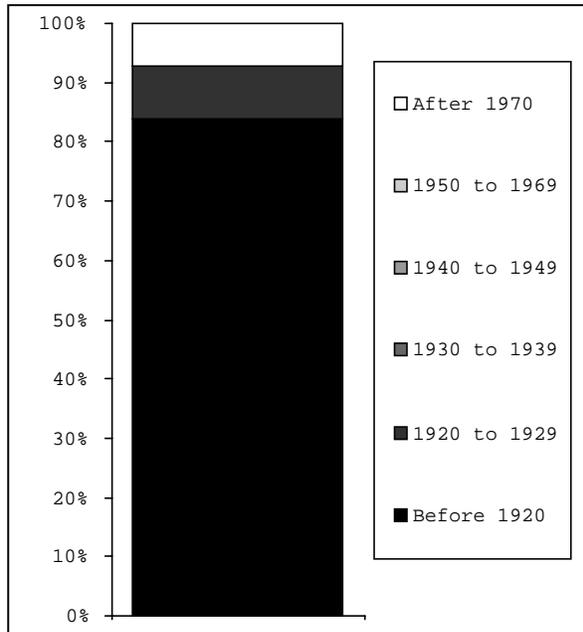
Households

1,112

Families

328

Age of Residential Properties



Neighborhood Profile

Pearl-Meigs-Monroe	
Presence of Lead	
Properties Built Before 1950	93%
Children Tested Above 10µg/dL	20%
Tenure	
Properties Owned by Investors	55%
Owner Occupancy Rate	19%
Population	
Percent Black	21%
Percent Minority	33%
Income	
Families Below 30% MFI	14%
Families Below 80% MFI	51%
Education	
Population Over 25 w/o High School Diploma	19%
Housing Value	
Average Assessed Value	\$54,857
Exposure Among Children	
Households with Children Under 6	5%
In Pre-1950 Housing Per 100 Units	4

**Residential Properties
Built Before 1950**

495

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

47

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

123

POD and CHAC and BEST

Population

9,014

Housing Units

3,936

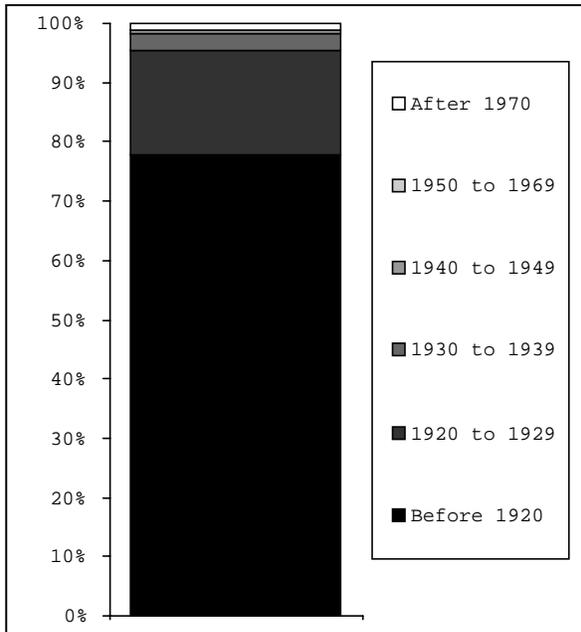
Households

3,239

Families

2,064

Age of Residential Properties



Neighborhood Profile

POD and CHAC and BEST	
Presence of Lead	
Properties Built Before 1950	99%
Children Tested Above 10µg/dL	29%
Tenure	
Properties Owned by Investors	53%
Owner Occupancy Rate	34%
Population	
Percent Black	54%
Percent Minority	74%
Income	
Families Below 30% MFI	34%
Families Below 80% MFI	65%
Education	
Population Over 25 w/o High School Diploma	44%
Housing Value	
Average Assessed Value	\$32,437
Exposure Among Children	
Households with Children Under 6	10%
In Pre-1950 Housing Per 100 Units	8

**Residential Properties
Built Before 1950**

2,388

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

314

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

1,035

South Wedge

Population

6,564

Housing Units

3,640

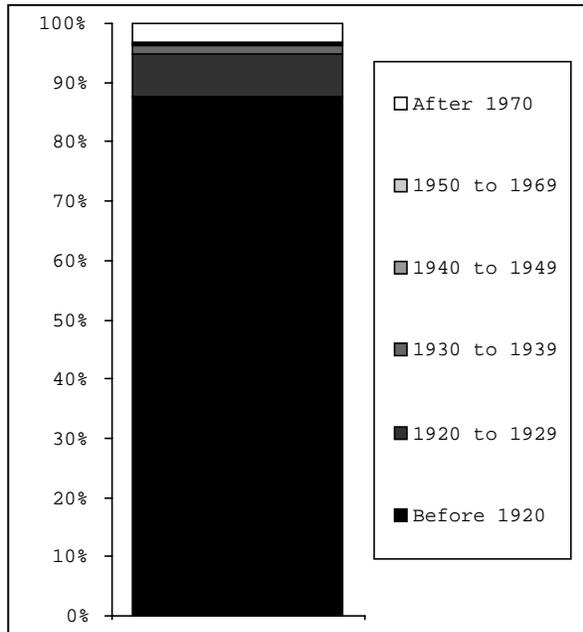
Households

3,363

Families

1,233

Age of Residential Properties



Neighborhood Profile

South Wedge	
Presence of Lead	
Properties Built Before 1950	97%
Children Tested Above 10µg/dL	22%
Tenure	
Properties Owned by Investors	45%
Owner Occupancy Rate	22%
Population	
Percent Black	32%
Percent Minority	45%
Income	
Families Below 30% MFI	25%
Families Below 80% MFI	66%
Education	
Population Over 25 w/o High School Diploma	27%
Housing Value	
Average Assessed Value	\$57,186
Exposure Among Children	
Households with Children Under 6	7%
In Pre-1950 Housing Per 100 Units	7

**Residential Properties
Built Before 1950**

1,148

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

241

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

524

Strong

Population

6,066

Housing Units

2,808

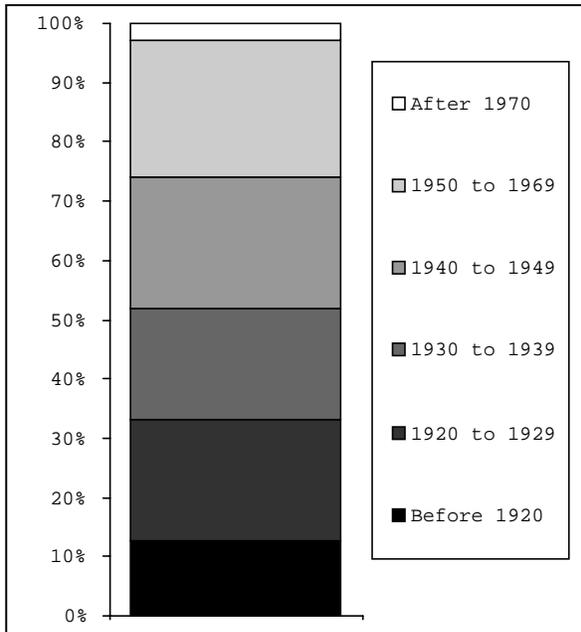
Households

2,708

Families

1,019

Age of Residential Properties



Neighborhood Profile

Strong	
Presence of Lead	
Properties Built Before 1950	74%
Children Tested Above 10µg/dL	7%
Tenure	
Properties Owned by Investors	23%
Owner Occupancy Rate	35%
Population	
Percent Black	9%
Percent Minority	27%
Income	
Families Below 30% MFI	9%
Families Below 80% MFI	49%
Education	
Population Over 25 w/o High School Diploma	18%
Housing Value	
Average Assessed Value	\$76,969
Exposure Among Children	
Households with Children Under 6	6%
In Pre-1950 Housing Per 100 Units	4

**Residential Properties
Built Before 1950**

919

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

119

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

199

Susan B. Anthony

Population

1,663

Housing Units

752

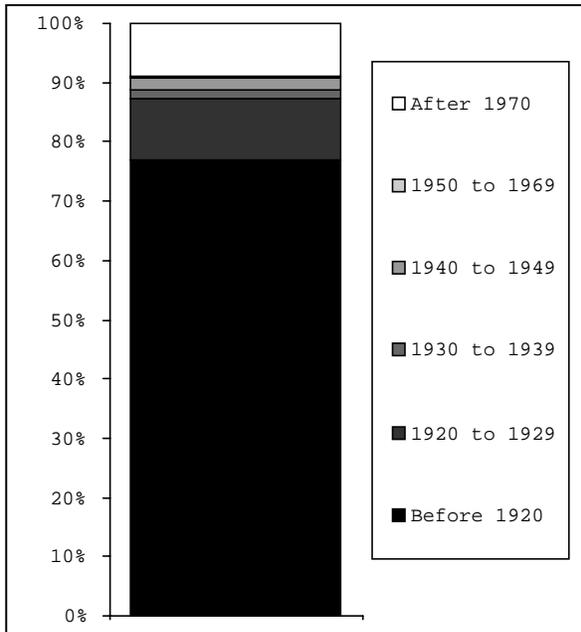
Households

617

Families

349

Age of Residential Properties



Neighborhood Profile

Susan B. Anthony	
Presence of Lead	
Properties Built Before 1950	91%
Children Tested Above 10µg/dL	34%
Tenure	
Properties Owned by Investors	57%
Owner Occupancy Rate	22%
Population	
Percent Black	86%
Percent Minority	93%
Income	
Families Below 30% MFI	50%
Families Below 80% MFI	70%
Education	
Population Over 25 w/o High School Diploma	46%
Housing Value	
Average Assessed Value	\$28,888
Exposure Among Children	
Households with Children Under 6	11%
In Pre-1950 Housing Per 100 Units	8

**Residential Properties
Built Before 1950**

275

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

61

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

182

UNIT and Lyell-Otis

Population

7,512

Housing Units

3,262

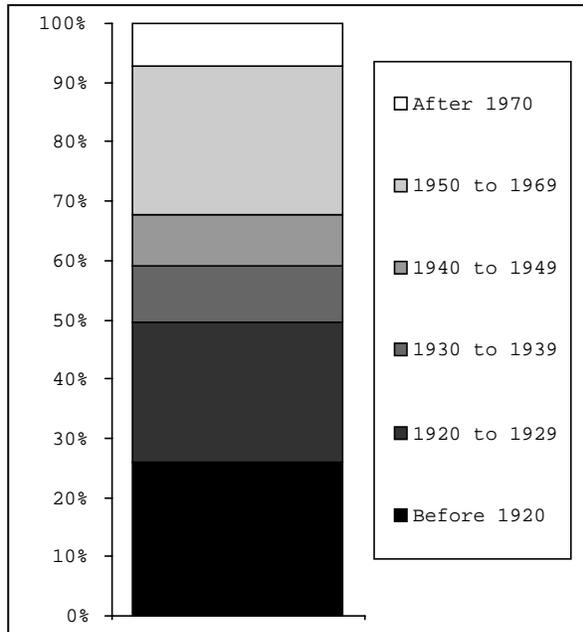
Households

3,036

Families

1,830

Age of Residential Properties



Neighborhood Profile

UNIT and Lyell-Otis	
Presence of Lead	
Properties Built Before 1950	68%
Children Tested Above 10µg/dL	11%
Tenure	
Properties Owned by Investors	26%
Owner Occupancy Rate	60%
Population	
Percent Black	27%
Percent Minority	45%
Income	
Families Below 30% MFI	16%
Families Below 80% MFI	50%
Education	
Population Over 25 w/o High School Diploma	38%
Housing Value	
Average Assessed Value	\$50,291
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	6

**Residential Properties
Built Before 1950**

1,588

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

188

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

481

Upper Falls

Population

5,566

Housing Units

2,355

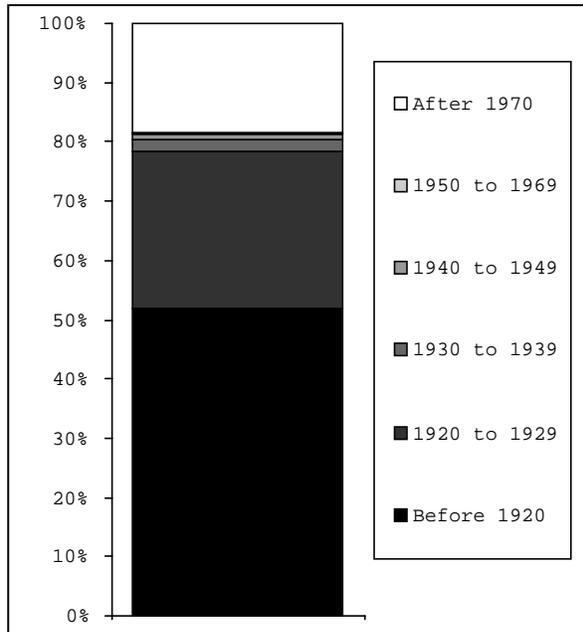
Households

2,015

Families

1,344

Age of Residential Properties



Neighborhood Profile

Upper Falls	
Presence of Lead	
Properties Built Before 1950	81%
Children Tested Above 10µg/dL	32%
Tenure	
Properties Owned by Investors	58%
Owner Occupancy Rate	17%
Population	
Percent Black	60%
Percent Minority	97%
Income	
Families Below 30% MFI	44%
Families Below 80% MFI	80%
Education	
Population Over 25 w/o High School Diploma	56%
Housing Value	
Average Assessed Value	\$26,793
Exposure Among Children	
Households with Children Under 6	11%
In Pre-1950 Housing Per 100 Units	7

**Residential Properties
Built Before 1950**

715

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

175

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

564

Upper Monroe

Population

3,128

Housing Units

1,487

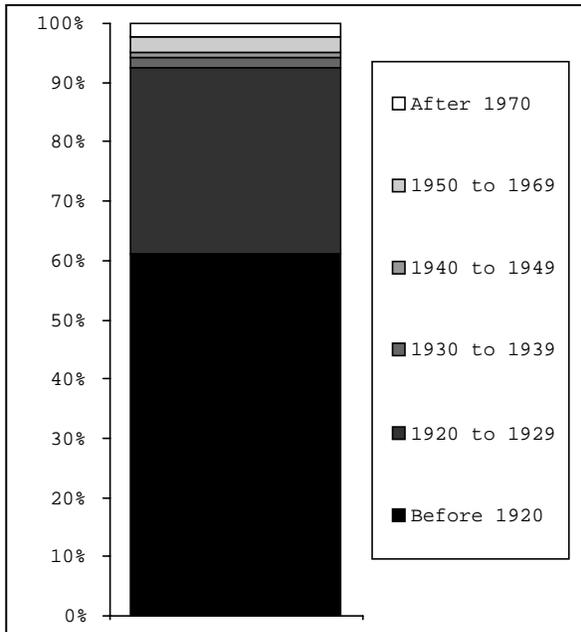
Households

1,385

Families

518

Age of Residential Properties



Neighborhood Profile

Upper Monroe	
Presence of Lead	
Properties Built Before 1950	95%
Children Tested Above 10µg/dL	19%
Tenure	
Properties Owned by Investors	44%
Owner Occupancy Rate	33%
Population	
Percent Black	9%
Percent Minority	18%
Income	
Families Below 30% MFI	13%
Families Below 80% MFI	32%
Education	
Population Over 25 w/o High School Diploma	16%
Housing Value	
Average Assessed Value	\$92,344
Exposure Among Children	
Households with Children Under 6	7%
In Pre-1950 Housing Per 100 Units	6

**Residential Properties
Built Before 1950**

676

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

90

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

167

Brighton (East)

Population

9,330

Housing Units

4,420

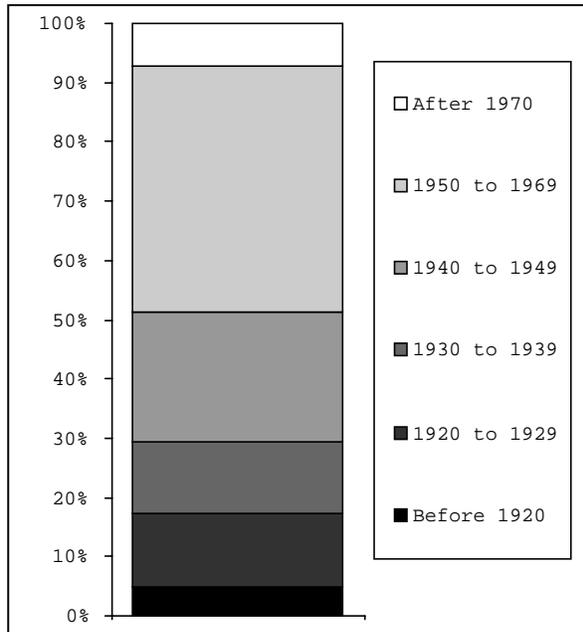
Households

4,171

Families

2,406

Age of Residential Properties



Neighborhood Profile

Brighton (East)	
Presence of Lead	
Properties Built Before 1950	51%
Children Tested Above 10µg/dL	5%
Tenure	
Properties Owned by Investors	7%
Owner Occupancy Rate	71%
Population	
Percent Black	2%
Percent Minority	6%
Income	
Families Below 30% MFI	1%
Families Below 80% MFI	12%
Education	
Population Over 25 w/o High School Diploma	9%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	6%
In Pre-1950 Housing Per 100 Units	3

**Residential Properties
Built Before 1950**

1,587

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

131

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

316

Brighton (North)

Population

8,153

Housing Units

3,769

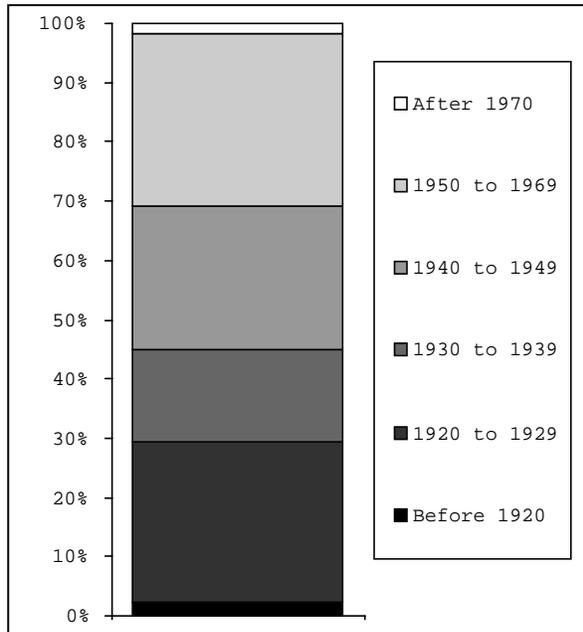
Households

3,572

Families

2,138

Age of Residential Properties



Neighborhood Profile

Brighton (North)	
Presence of Lead	
Properties Built Before 1950	69%
Children Tested Above 10µg/dL	4%
Tenure	
Properties Owned by Investors	5%
Owner Occupancy Rate	64%
Population	
Percent Black	3%
Percent Minority	14%
Income	
Families Below 30% MFI	3%
Families Below 80% MFI	14%
Education	
Population Over 25 w/o High School Diploma	7%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	7%
In Pre-1950 Housing Per 100 Units	5

Residential Properties Built Before 1950

1,639

Estimated Households with Children Under 6 In Pre-1950 Housing

178

Estimated Number of Children Under 6 In Pre-1950 Housing

415

East Rochester (East)

Population

2,886

Housing Units

1,259

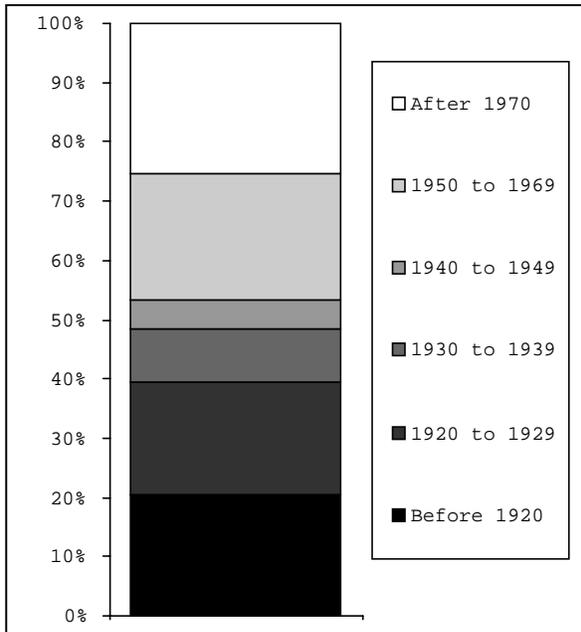
Households

1,186

Families

671

Age of Residential Properties



Neighborhood Profile

East Rochester (East)	
Presence of Lead	
Properties Built Before 1950	53%
Children Tested Above 10µg/dL	6%
Tenure	
Properties Owned by Investors	21%
Owner Occupancy Rate	60%
Population	
Percent Black	1%
Percent Minority	7%
Income	
Families Below 30% MFI	9%
Families Below 80% MFI	39%
Education	
Population Over 25 w/o High School Diploma	23%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	4

**Residential Properties
Built Before 1950**

508

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

55

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

127

East Rochester (West)

Population

3,756

Housing Units

1,654

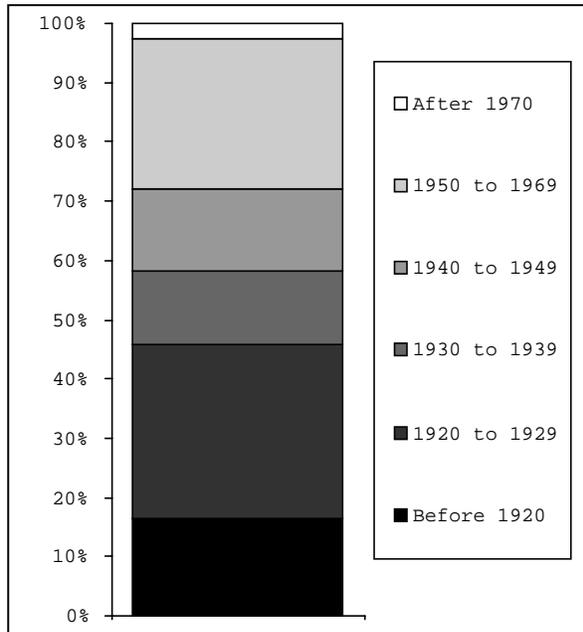
Households

1,585

Families

953

Age of Residential Properties



Neighborhood Profile

East Rochester (West)	
Presence of Lead	
Properties Built Before 1950	72%
Children Tested Above 10µg/dL	3%
Tenure	
Properties Owned by Investors	12%
Owner Occupancy Rate	66%
Population	
Percent Black	1%
Percent Minority	5%
Income	
Families Below 30% MFI	6%
Families Below 80% MFI	34%
Education	
Population Over 25 w/o High School Diploma	23%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	7%
In Pre-1950 Housing Per 100 Units	5

Residential Properties Built Before 1950

874

Estimated Households with Children Under 6 In Pre-1950 Housing

79

Estimated Number of Children Under 6 In Pre-1950 Housing

179

Fairport

Population

5,588

Housing Units

2,394

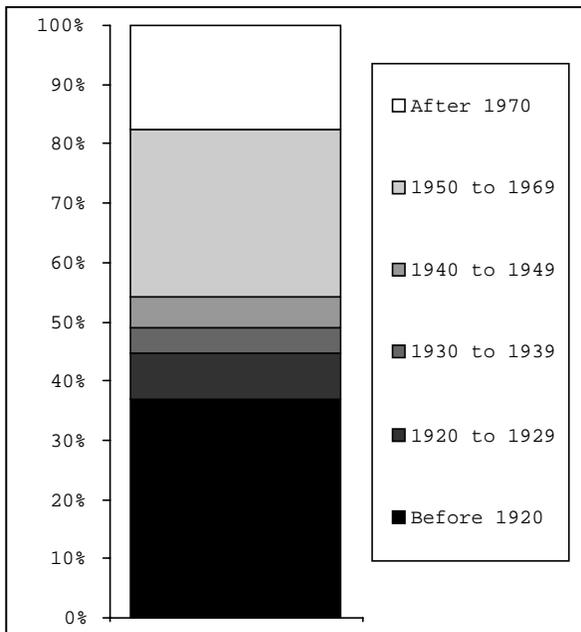
Households

2,330

Families

1,545

Age of Residential Properties



Neighborhood Profile

Fairport	
Presence of Lead	
Properties Built Before 1950	54%
Children Tested Above 10µg/dL	6%
Tenure	
Properties Owned by Investors	13%
Owner Occupancy Rate	69%
Population	
Percent Black	1%
Percent Minority	4%
Income	
Families Below 30% MFI	3%
Families Below 80% MFI	27%
Education	
Population Over 25 w/o High School Diploma	14%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	8%
In Pre-1950 Housing Per 100 Units	4

**Residential Properties
Built Before 1950**

911

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

107

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

236

Greece (East)

Population

18,595

Housing Units

8,295

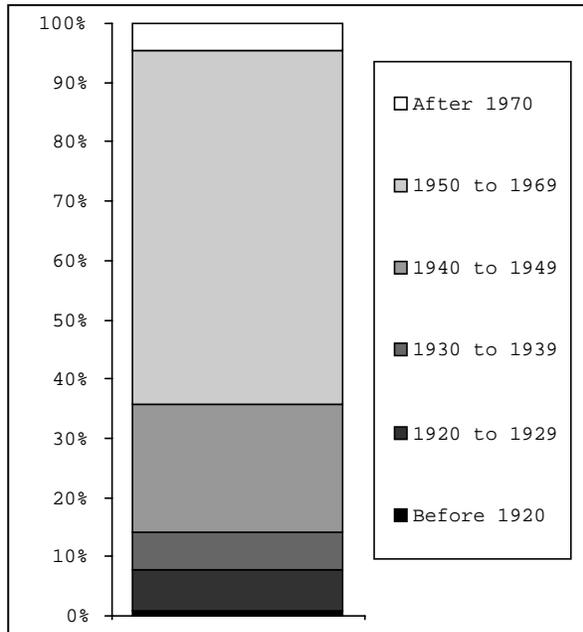
Households

7,953

Families

5,009

Age of Residential Properties



Neighborhood Profile

Greece (East)	
Presence of Lead	
Properties Built Before 1950	36%
Children Tested Above 10µg/dL	4%
Tenure	
Properties Owned by Investors	7%
Owner Occupancy Rate	71%
Population	
Percent Black	3%
Percent Minority	9%
Income	
Families Below 30% MFI	3%
Families Below 80% MFI	32%
Education	
Population Over 25 w/o High School Diploma	18%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	7%
In Pre-1950 Housing Per 100 Units	3

**Residential Properties
Built Before 1950**

2,155

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

212

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

477

Greece (Southeast)

Population

6,038

Housing Units

2,477

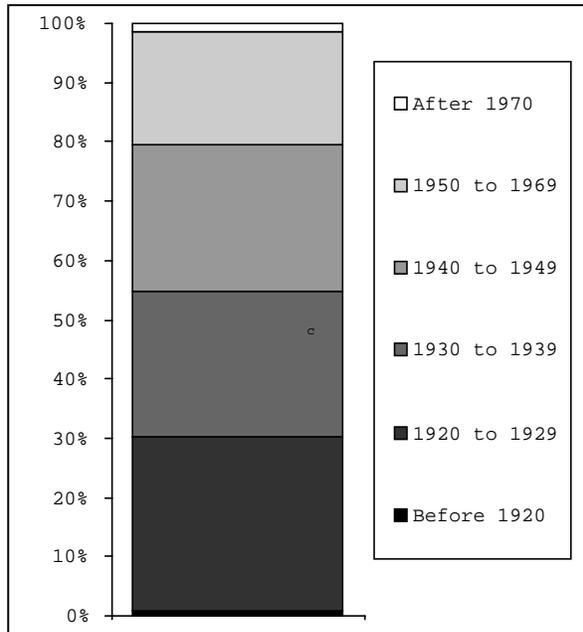
Households

2,395

Families

1,550

Age of Residential Properties



Neighborhood Profile

Greece (Southeast)	
Presence of Lead	
Properties Built Before 1950	80%
Children Tested Above 10µg/dL	3%
Tenure	
Properties Owned by Investors	8%
Owner Occupancy Rate	79%
Population	
Percent Black	2%
Percent Minority	7%
Income	
Families Below 30% MFI	4%
Families Below 80% MFI	27%
Education	
Population Over 25 w/o High School Diploma	20%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	9%
In Pre-1950 Housing Per 100 Units	7

Residential Properties Built Before 1950

1,702

Estimated Households with Children Under 6 In Pre-1950 Housing

175

Estimated Number of Children Under 6 In Pre-1950 Housing

406

Irondequoit (Northeast)

Population

6,818

Housing Units

2,999

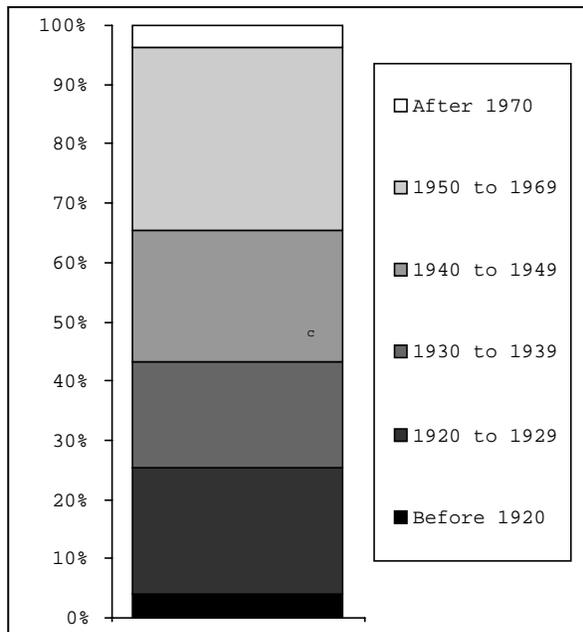
Households

2,873

Families

1,866

Age of Residential Properties



Neighborhood Profile

Irondequoit (Northeast)	
Presence of Lead	
Properties Built Before 1950	65%
Children Tested Above 10µg/dL	5%
Tenure	
Properties Owned by Investors	7%
Owner Occupancy Rate	91%
Population	
Percent Black	2%
Percent Minority	5%
Income	
Families Below 30% MFI	2%
Families Below 80% MFI	24%
Education	
Population Over 25 w/o High School Diploma	20%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	7%
In Pre-1950 Housing Per 100 Units	4

Residential Properties Built Before 1950

1,833

Estimated Households with Children Under 6 In Pre-1950 Housing

125

Estimated Number of Children Under 6 In Pre-1950 Housing

323

Irondequoit (South)

Population

4,431

Housing Units

1,913

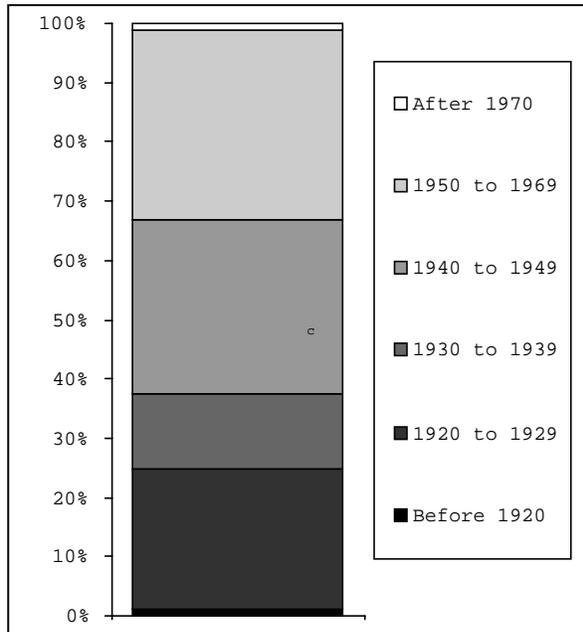
Households

1,872

Families

1,197

Age of Residential Properties



Neighborhood Profile

Irondequoit (South)	
Presence of Lead	
Properties Built Before 1950	67%
Children Tested Above 10µg/dL	4%
Tenure	
Properties Owned by Investors	6%
Owner Occupancy Rate	89%
Population	
Percent Black	3%
Percent Minority	7%
Income	
Families Below 30% MFI	4%
Families Below 80% MFI	25%
Education	
Population Over 25 w/o High School Diploma	20%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	10%
In Pre-1950 Housing Per 100 Units	6

Residential Properties Built Before 1950

1,173

Estimated Households with Children Under 6 In Pre-1950 Housing

121

Estimated Number of Children Under 6 In Pre-1950 Housing

270

Irondequoit (West)

Population

9,020

Housing Units

3,862

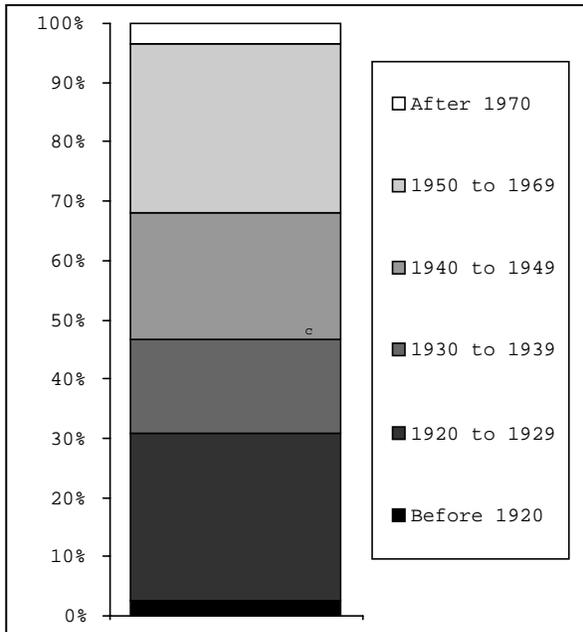
Households

3,744

Families

2,457

Age of Residential Properties



Neighborhood Profile

Irondequoit (West)	
Presence of Lead	
Properties Built Before 1950	68%
Children Tested Above 10µg/dL	5%
Tenure	
Properties Owned by Investors	5%
Owner Occupancy Rate	80%
Population	
Percent Black	3%
Percent Minority	8%
Income	
Families Below 30% MFI	2%
Families Below 80% MFI	23%
Education	
Population Over 25 w/o High School Diploma	19%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	7%
In Pre-1950 Housing Per 100 Units	5

**Residential Properties
Built Before 1950**

2,106

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

179

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

436

Pittsford (North)

Population

14,719

Housing Units

5,521

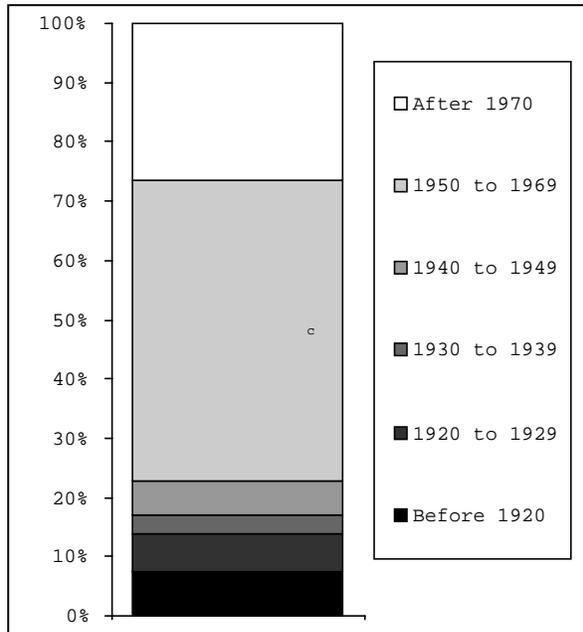
Households

5,333

Families

3,681

Age of Residential Properties



Neighborhood Profile

Pittsford (North)	
Presence of Lead	
Properties Built Before 1950	23%
Children Tested Above 10µg/dL	3%
Tenure	
Properties Owned by Investors	6%
Owner Occupancy Rate	78%
Population	
Percent Black	1%
Percent Minority	7%
Income	
Families Below 30% MFI	1%
Families Below 80% MFI	12%
Education	
Population Over 25 w/o High School Diploma	6%
Housing Value	
Average Assessed Value	Not Available
Exposure Among Children	
Households with Children Under 6	6%
In Pre-1950 Housing Per 100 Units	1

**Residential Properties
Built Before 1950**

951

**Estimated Households with
Children Under 6
In Pre-1950 Housing**

79

**Estimated Number of
Children Under 6
In Pre-1950 Housing**

192

APPENDIX D: SUMMARY OF FOCUS GROUP FINDINGS

Focus Group Results

In order to provide broad stakeholder perspective, CGR held two focus groups: one with agencies that provide temporary housing for families, including those families that are relocated due to lead safety issues, and one with landlords owning properties in the city of Rochester.

Both focus groups were moderated by CGR staff using a semi-structured focus group protocol. The Housing Council provided recruitment assistance to CGR.

Staff from the Rochester Housing Authority, the Housing Council, and County DSS provided their perspectives on a variety of housing issues, particularly issues related to lead and ideas for effective strategies to combat lead poisoning in Monroe County. After describing the programs and services they provide (see main report), participants discussed their respective agency's role regarding lead, and their views about what can be done to combat lead poisoning in Monroe County.

What follows is a summary of comments made by participants, in their own words. CGR has simply summarized the comments and issues raised by the providers, and has not attempted to verify their accuracy.

Key issues raised by housing providers

Key issues addressed focused on the following:

- 1) State of public housing and Section 8 housing with regard to lead;
- 2) The potential economic consequences, including the landlords' potential responses, of the HUD regulations that go into effect in January 2002;

3) Disagreement with magnitude of the problem/where does responsibility rest?

- ❖ For the most part, the public housing stock in Monroe County has been made lead safe due to HUD regulations enacted in the early 1990s that required testing (visual inspections with follow-up XRF testing), then abatement. Focus group participants noted that it was “pretty clear cut” in terms of what had to be done under the Federal regulations, and that as a result of the abatement efforts that occurred during the mid- to late 1990s, the vast majority of the public housing stock in the county has been made “lead safe.”
- ❖ Participants noted that HUD regulations leave as many questions unanswered as answered concerning “lead safe” work practices and how, from a practical standpoint, the regulations will actually be carried out, especially when New York State does not have state regulations that mirror the new federal regulations.
- ❖ Participants expressed concern over the potential “chilling effect” once the HUD regulations go into effect in January 2002, and noted the following:

The new regulations may kill a lot of the Community Development Block Grant money/efforts if you have to look for lead before you touch anything else in a house—anything that touches lead paint, people won't do.

Why are we trying to meet unobtainable goals?

There is an immediate need for state legislation that holds the County harmless.

The new HUD regulations are taking a bad situation and making it worse.

In January, inspectors won't be able to tell a landlord with peeling paint in his window well to scrape and remove it. Instead, work has to be performed by someone who is certified in lead safe work practices. An eight-hour lead safe work practices training course has been offered to the landlords, but not many come to it because they are afraid that doing the work themselves opens them up to even greater liability.

As of January 10, 2002, in order to qualify for housing subsidies, families will have to live in lead safe housing. This means that families that can't find lead safe housing will end up losing their subsidy.

- ❖ Participants believe that lead poisoning prevention requires a multifaceted **community response**:

The health care providers seem to have a firm grasp in the health side of the issues, but they know nothing about the housing side. They need to know more about the housing stock.

Why are landlords being subject to regulations that aren't applied to homeowners?

We need to educate more people about lead poisoning. We need to do this community-wide-- in the city and the suburbs. Use television and radio commercials.

- ❖ Providers are fearful that it will become increasingly difficult to entice landlords to rent to Section 8 tenants.

RHA is able to reward landlords financially for various conditions, and would like to reward them for lead safe units. Currently they provide higher rent when extra amenities are provided to tenants. RHA currently is able to fail houses and tenants/landlords based on housekeeping. The problem with adding lead inspections to their usual inspections is that it's time consuming and they currently get only \$150 for each inspection. We must keep the economics of the problem in mind.

Provide market supports—reward landlords for lead safe properties. Perhaps find ways to help them get insurance.

Many landlords have negative equity in their rental units. In the worst cases, they owe more on the property than it's worth. How long before [the landlords] just walk away from these properties?

Landlord Perspective

The primary objective of the second focus group CGR conducted was to obtain the landlords' perspective on what is needed to/what would be effective when addressing lead hazards in Monroe County, and in particular, to explore ways in which landlords might become involved in the process of eliminating lead hazards.

The ten landlords who participated in the two-hour focus group owned between one and several hundred rental units throughout

various parts of the City of Rochester, and about half rent to low-income tenants including Section 8 and DSS tenants.

Since many homes with lead risks are rental units, the landlords' perspective and willingness to commit resources are important to consider when developing a strategy to reduce lead.

What follows is a summary of comments made by participants, in their own words. CGR has simply summarized the comments and issues raised by the landlords, and has not attempted to verify their accuracy.

- ❖ Participants were asked: “As a landlord, what comes to mind when you hear *lead paint?*” and responded with the following:

Liability- we can't get insurance. We've inherited a problem and its liability.

If someone moves in with already high blood lead levels, the current landlord can be held liable.

A nightmare.

We want to do the right thing, most of us live in the city, most of us have children of our own. It's not that we don't care about lead and making our units safe, we just face a number of obstacles that make it difficult and not always possible to do the right thing.

As a landlord, you want to do the right thing; you don't want to see sick kids.

- ❖ Landlords viewed the following as obstacles to “doing the right thing”:

Doors/windows/sashes are very expensive to replace; there's a cost factor [in getting rid of lead].

ROI in the city just is not there, especially in average or below average neighborhoods.

It costs about \$2,000 to make a unit lead safe.

What do you do with families when you're making a property lead safe?

- ❖ Particularly frustrating to the landlords is the inability to identify where is a child actually being poisoned.

Currently, there is an inability to identify the principle source of lead.

The city still has leaded pipes carrying drinking water from the mains to the houses. I'd like to see a map of where the city still has lead pipes. Old houses also still have lead drain piping in them.

Why is [lead] always the landlord's responsibility?

Is there any way that the County can share a tenant's lead history with a landlord?

We need to look at the point at which a property changes hands. Landlords are buying properties that contain lead when purchased—it's not the landlord who is putting the lead in the house. But, it's the landlord who inherits the liability. Could a cut-off point be determined for whose responsibility the lead becomes? Could banks become involved at the point of sale and become enforcers to make something happen? At some point, lead impacts whether or not banks will loan money. Could the banks tell their inspectors to check for lead and then could banks provide the financing to do the work to properly treat the problem?

With EPA contamination, liability goes back to the original owners. That doesn't happen with lead.

The paint industry was unknowingly putting something bad [lead] in paint. Therefore, the paint industry and government should step in and take part of the onus off of the landlords.

- ❖ A few of the landlords indicated they have had their properties inspected by the County DOH after a child has tested positive for EBL. Those who had been through the process were dissatisfied with the process itself, and noted that they “want to do the right thing,” but feel the process sometimes creates barriers to doing so.

It's frustrating that a Department of Health inspection occurs without the landlord present.

There is a time factor that can be a problem if you're a hands-on landlord and do repair work yourself, which many of us do. [Following an inspection] we get a letter from the County that tells us we have 30 days to do the work. Sometimes 30 days just isn't enough time. It's not that we won't do the work; it just might take more than 30 days if it is to be done right.

We want to be able to do things right (to actually get rid of hazards and not just do some quick-fix), but we have to have enough time to do it right.

If a landlord can develop a good rapport with the inspector, the landlord may be able to get some extra time, understand what the real issue is, and ultimately do a better job addressing the problem.

Participants indicated that they would like more/better communication with the County when a child tests positive for elevated blood lead levels. Several of the landlords felt the letter sent out by the County informing landlords that a child tested positive was “loaded with legal language that is difficult to understand” and that in general, the letter sets up an adversarial relationship between the landlord and the County.

- ❖ In response to lead issues and fearful of potential liability suits, some landlords indicated they have changed the way they do business.

I'm now only buying houses with brick or siding

I buy cheap buildings and totally rehab them.

All of the landlords indicated they complied with tenant notification requirements related to lead hazard risk.

- ❖ Economic Issues and Financial Incentives to Remove Lead:

If there is money out there to help us, I don't know about it. [The majority of participants agreed with this comment.]

Landlords indicated that they are not aware of any funding or financial incentives available for them to cover costs of lead removal/safety activities. When asked what kinds of incentives landlords were likely to respond to, they were quick to provided the following suggestions:

Low interest/no interest loans.

Right now, \$.30 of every rental dollar collected goes to taxes. If we were told “Do x, y, and z, then we'll reduce your taxes for a period of time,” that could be very effective.

Tax credit equal to a proportion of the amount you invest in making property lead safe.

Why not reduce assessments? Every time [a landlord] fixes up a house the assessment goes up. We're not rewarding people who fix up their properties.

The County and the City could reduce property taxes.

The federal government could offer a dollar-for-dollar tax credit—they've done it in lots of other areas. But any type of tax credit should be a simple tax credit.

From a bank's perspective, if a landlord can't keep up and ultimately goes out of business, the banks suffer because they hold the mortgages.

The City has a vested interest in finding ways to increase property values—once values go up the City is able to collect more in taxes.

Look at the entire scope of what the government is asking landlords to do/to take responsibility for, and realize that the government is passing the entire economic burden on to the landlord.

The [federal] government is already giving money to the county to offset the costs of removing lead, so this becomes a social vs. economic issue. Lead is broader than an individual issue.

❖ Other issues:

The homes that the City obtains through HUD foreclosures are homes that the City has grant funds to rehabilitate. Couldn't these homes be used as temporary housing when other landlords have to rehab and kick tenants out for that period?

The County and the City have to start talking to each other.

The City is tearing down houses and rebuilding but the City is not taking care of the problems that caused the homes to go into complete disrepair to begin with.

There is no organization that provides a governing body or a voice for landlords, nothing comparable to a real estate board. Therefore, when we get whacked with a problem like lead, all the landlords scatter. We have no ability to sit together and collectively figure things out.

I'd like to see a government program that provides liability insurance- like flood insurance- where the government makes the insurance available, but you have to pay for it yourself.

Could landlords self-insure through dues?

- ❖ Who should be involved in the solution?

City, County, Feds.

Everyone has a little piece of it. It's a community issue.

If as a nation we want to get rid of lead hazards, then the government should step in. This is a broader social issue, it's not just our City's issue.

Parents need to assume some responsibility too.