

LIFE AT THE FENCELINE

Understanding Cumulative Health Hazards in Environmental Justice Communities

THE PROBLEM

In Louisville and across the United States, industrial and commercial facilities that can cause catastrophic harm through explosions or toxic releases operate often without the knowledge of the residents, business owners, schools, and medical facilities nearby. Serious chemical releases at the approximately 12,500 high-risk facilities that are part of the US Environmental Protection Agency's "Risk Management Plan" (RMP) program because they use or store highly hazardous chemicals are frighteningly common. From 2004–2013 there were over 1,500 reported chemical releases or explosions at RMP facilities that caused over \$2 billion in property damage, evacuation or "shelter in place" of half a million people, 17,099 injuries, and 58 deaths (US EPA).

It is important to note that additional facilities not included in EPA's RMP program may also put the community and workers at risk of a chemical release or explosion. In March 2011, two workers were killed and two more injured at one such facility as the result of a fire and explosion at the Carbide Industries chemical manufacturing facility in the Rubbertown area of west Louisville. The U.S. Chemical Safety Board concluded that company failed to act on safety issues and that the incident could have been prevented, stating: "The accident was a case study into the tragic, predictable consequences of running equipment to failure when repeated safety incidents over many years warn of impending failure" (US Chemical Safety Board).



Members and allies of Rubbertown Emergency Action (REACT) work to stop toxic air pollution and other chemical hazards in Louisville.



Two-thirds of people in Louisville live near high-risk chemical facilities, a common situation in communities like those studied for this report.

Many communities like Louisville with concentrations of high-risk chemical facilities face multiple hazards, including potential chemical disasters, lack of access to healthy foods, daily exposure to toxic chemicals released into the air by industrial facilities, and even chemical exposures from everyday products in their homes. These health hazards are often amplified by other factors such as

RESEARCH FINDINGS

Details on the study methodology are included in the full report *Life at the Fenceline: Understanding Cumulative Health Hazards in Environmental Justice Communities*, available at www.ej4all.org/life-at-the-fenceline.

Overall findings for the nine communities studied are:

1. In most of the areas researched, large majorities of the population live in fenceline zones around highly hazardous facilities, and most schools and medical institutions are located in these zones, at much greater rates than nationally.
2. Fenceline zones around hazardous facilities are disproportionately Black, Latino, and impoverished, and face multiple health hazards and risks.

lack of access to health care; lack of quality public services and infrastructure; higher rates of diseases like diabetes and asthma; and stress from poverty, unemployment, and crime, among other factors.

Rubbertown Emergency Action (REACT) in Louisville, and community organizations in eight other areas of the US, worked together through the Environmental Justice Health Alliance for Chemical Policy Reform (EJHA) to research who lives in the “fenceline” zones (within three miles) near high-risk RMP facilities, what hazards they face, and possible solutions. The research addressed several interconnected issues:

- Who lives in fenceline zones near high-risk chemical facilities included in the EPA’s RMP program?
- What cancer risks and potential for respiratory illness related to toxic air pollution exposure (from both RMP facilities and other sources) do the people living in these fenceline zones face?
- What is the demographic profile of people living in areas within the fenceline zones that have Low Incomes and Low Access to healthy foods (known as LILA areas), two key indicators of unequal risks and health impacts?
- Where are important institutions, such as schools, hospitals and nursing facilities, and dollar stores (which in many areas are the only source of household products and food, and can contribute chemical exposures from the products they sell, or could choose to support health by selling nontoxic products and healthy foods) located in fenceline zones?

3. The most vulnerable neighborhoods—areas that are both low income and have low access to healthy foods—are even more heavily and disproportionately impacted.

Specific research findings for Louisville appear on page 4.

Cancer and Respiratory Hazard Data

In our findings, cancer risk from toxic air pollution, and potential for respiratory illness from air pollution, are based on EPA’s National Air Toxics Assessment data, including the Respiratory Hazard Index (RHI). For a full explanation, see Appendix A (Methodology) of the full report.

SOLUTIONS: What can be done to address these health and safety risks?

In order to protect communities, workers, businesses, and the environment, the EJHA and REACT recommend that local, state, and federal governments:

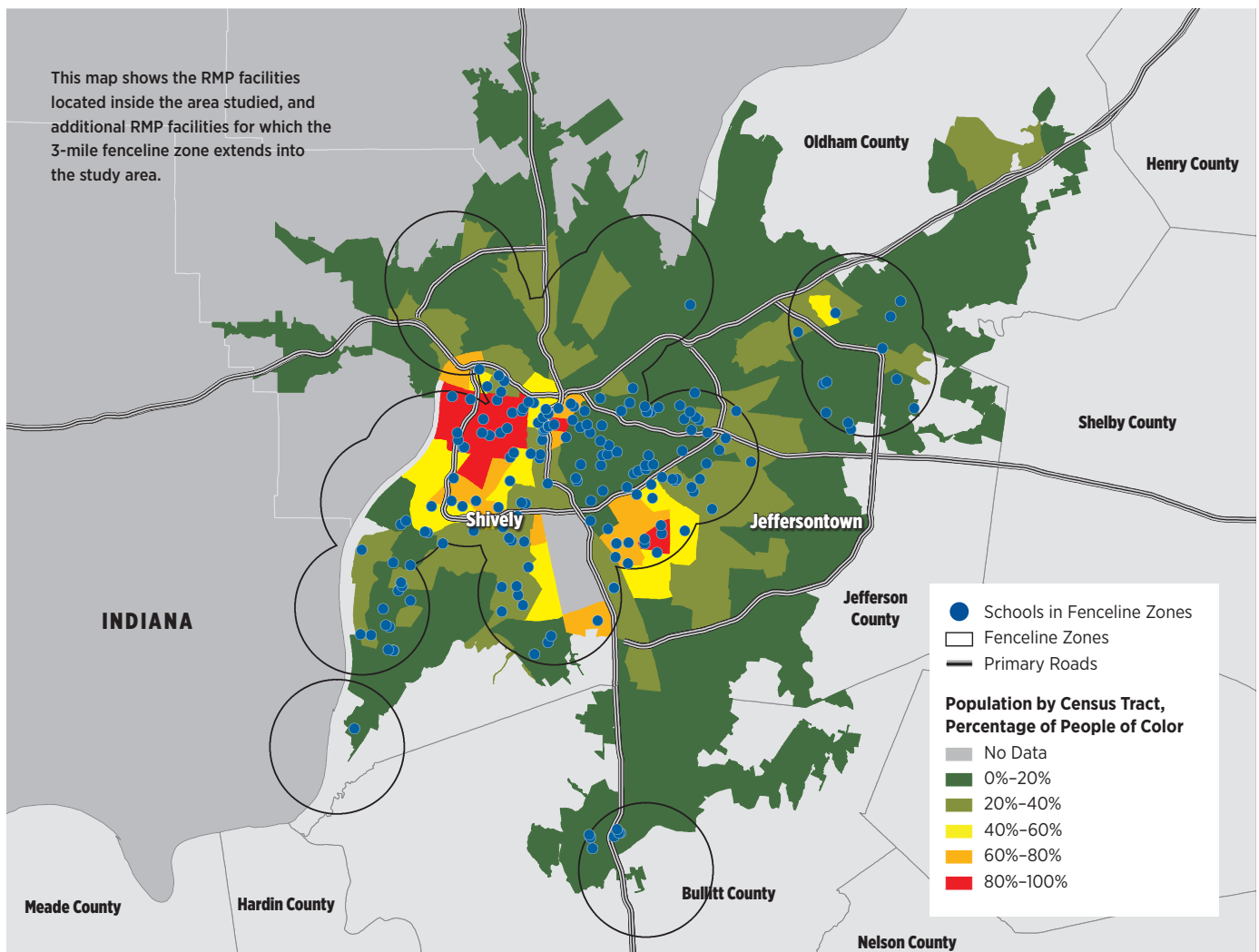
1. Require that facilities that use or store hazardous chemicals adopt safer chemicals and processes whenever possible;
2. Ensure that facilities share information on hazards and solutions, and emergency response plans, with fenceline communities and workers;
3. Require that polluting facilities continuously monitor, report, and reduce their fenceline-area emissions and health hazards;
4. Prevent the construction of new or expanded chemical facilities near homes and schools, and

the siting of new homes and schools near facilities that use or store hazardous chemicals;

5. Require publicly accessible, formal health-impact assessments and mitigation plans to gauge the cumulative impact of hazardous chemical exposures on fenceline communities;
6. Strengthen the enforcement of existing environmental and workplace health and safety regulations.

In addition, dollar store chains should implement broad policies to remove hazardous chemicals from the products they sell, stock fresh and healthy foods, and source safer products and foods locally and regionally.

Hazardous Facility Fenceline Zones, Schools, and Race in Louisville



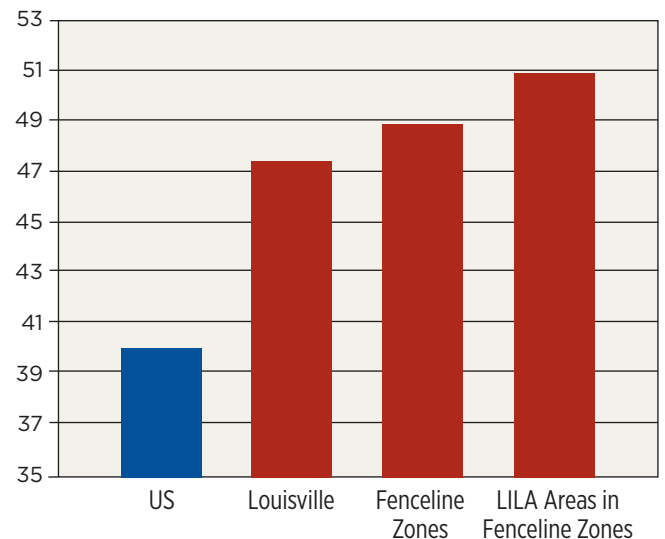
RESULTS: LOUISVILLE, KENTUCKY

There are 23 RMP facilities located in Louisville.

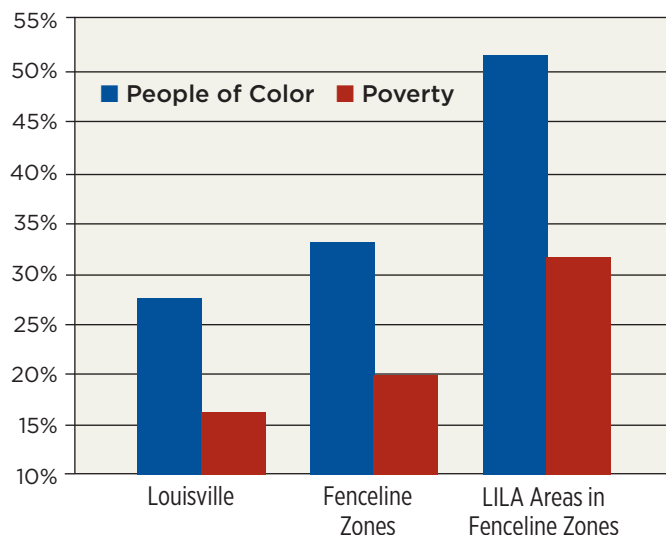
KEY FINDINGS

- Almost 606,000 people, or 67% of Louisville residents, live within 3 miles of an RMP facility, a 72% increase over the national rate.
- Ninety-two percent of Louisville residents who live in low-income/low food access (LILA) areas also live within a fenceline zone, a rate 37% greater than for all residents.
- The potential for suffering respiratory illness from toxic air pollution exposure is 9% higher for those in low-income/low food access areas within fenceline zones compared to Louisville overall, while cancer risks for those living in these areas are 7% greater.
- The percentage of people living in poverty within 3 miles of an RMP facility is 23% greater than for Louisville overall. This difference increases substantially to 94% greater for low-income/low food access areas within the fenceline zones.
- The average household income for those living in low-income/low food access areas within fenceline zones is 41% lower than for all those living in Louisville.
- While Blacks make up 18% of Louisville's population, 23% of people living within 3 miles of an RMP facility are Black, a 28% increase over their overall county representation. Strikingly, in low-income/low food access areas within fenceline zones, Blacks make up 39% of the population, more than twice the city rate.
- All of Louisville's 23 RMP facilities have at least one dollar store located within 3 miles, and 73% of all dollar stores are located within 3 miles of an RMP facility.
- More than two-thirds (67%) of Louisville schools are located within 3 miles of an RMP facility, as are 88% of medical facilities.

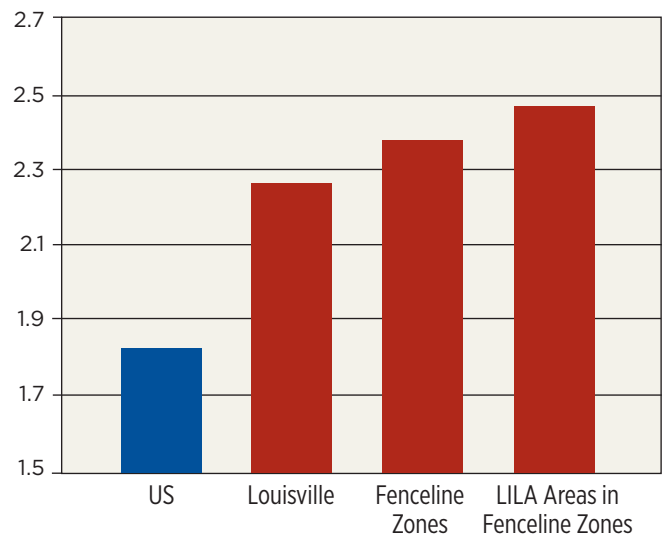
Cancer Risk from Air Pollution



Race and Poverty in Louisville

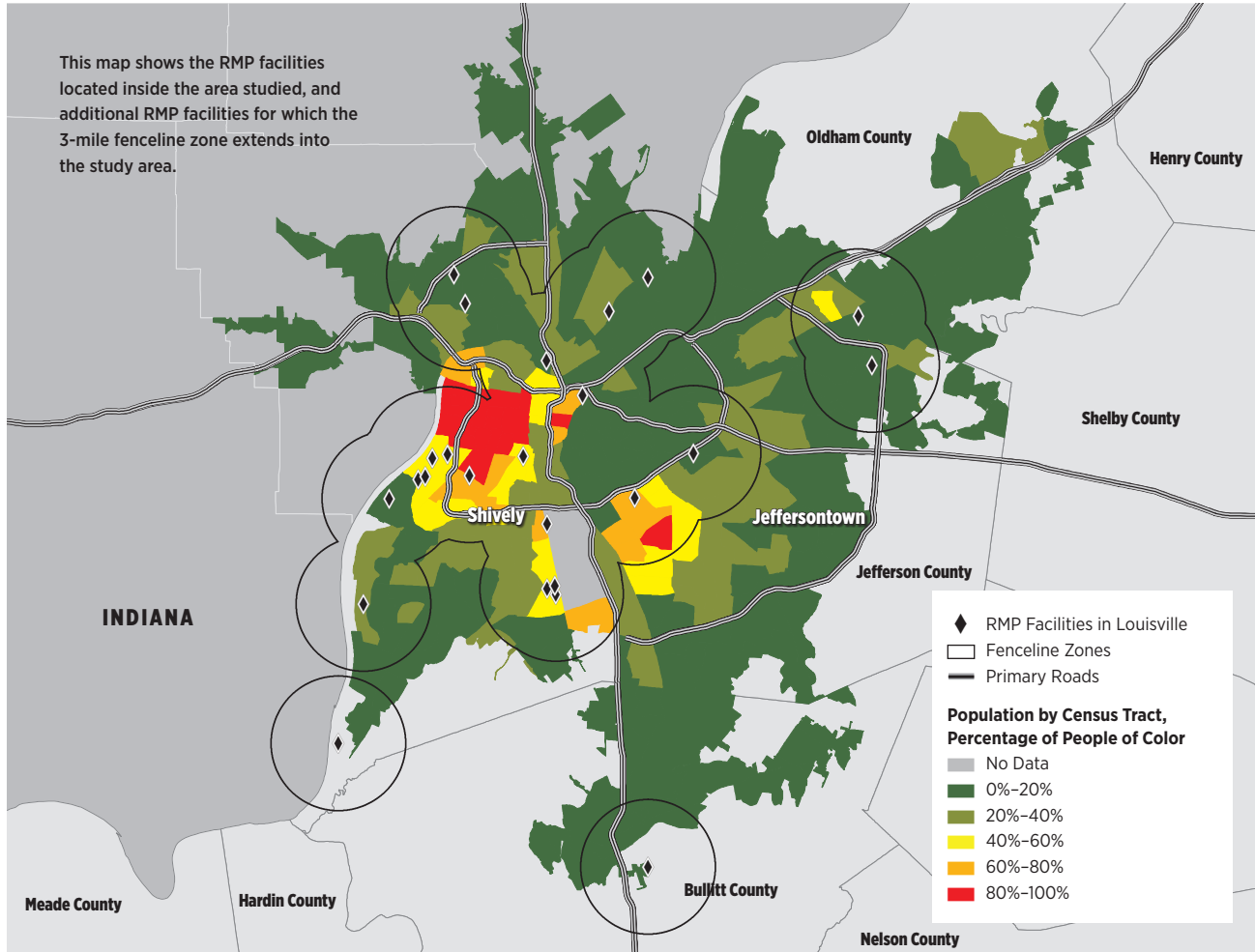


Respiratory Hazard from Air Pollution



Hazardous Facilities and Race in Louisville

For additional maps and other information about Louisville, visit <https://ej4all.org/life-at-the-fenceline>.



Louisville Data Summary

	Louisville Totals	Louisville 3 Mile Totals	Louisville 3 Mile LILA* Totals
Weighted Cancer	47.35	48.85	50.86
Weighted RHI	2.26	2.37	2.46
Percent Black	17.8%	22.5%	39.3%
Percent Hispanic	4.5%	4.8%	6.1%
Percent White	72.8%	67.5%	49.1%
Percent Children	22.6%	22.3%	23.9%
Percent Poverty	16.0%	19.6%	31.1%
Average Household Income	\$66,720	\$60,889	\$39,452
Average Home Value	\$181,660	\$170,253	\$103,050
Percent HS Graduate or Less	40.8%	43.1%	54.4%
Percent College Degree or More	26.8%	24.8%	13.9%

* LILA—Areas with Low-Income populations with Low Access to healthy foods.

Note: Highlighted numbers indicate a substantial difference from the full city or county, and the full 3-mile areas data.

Critical Institutions and Students in Louisville Fenceline Zones

	Louisville Totals	Louisville Fenceline Zones
Dollar Stores	105	77 (73%)
Medical Facilities	16	14 (88%)
Schools	343	230 (67%)
Students	165,613	106,549 (64%)

FIGHTING BACK

Community, worker, business, and health organizations in Kentucky and nationally are working to address these problems and implement safe, just, and sustainable solutions.

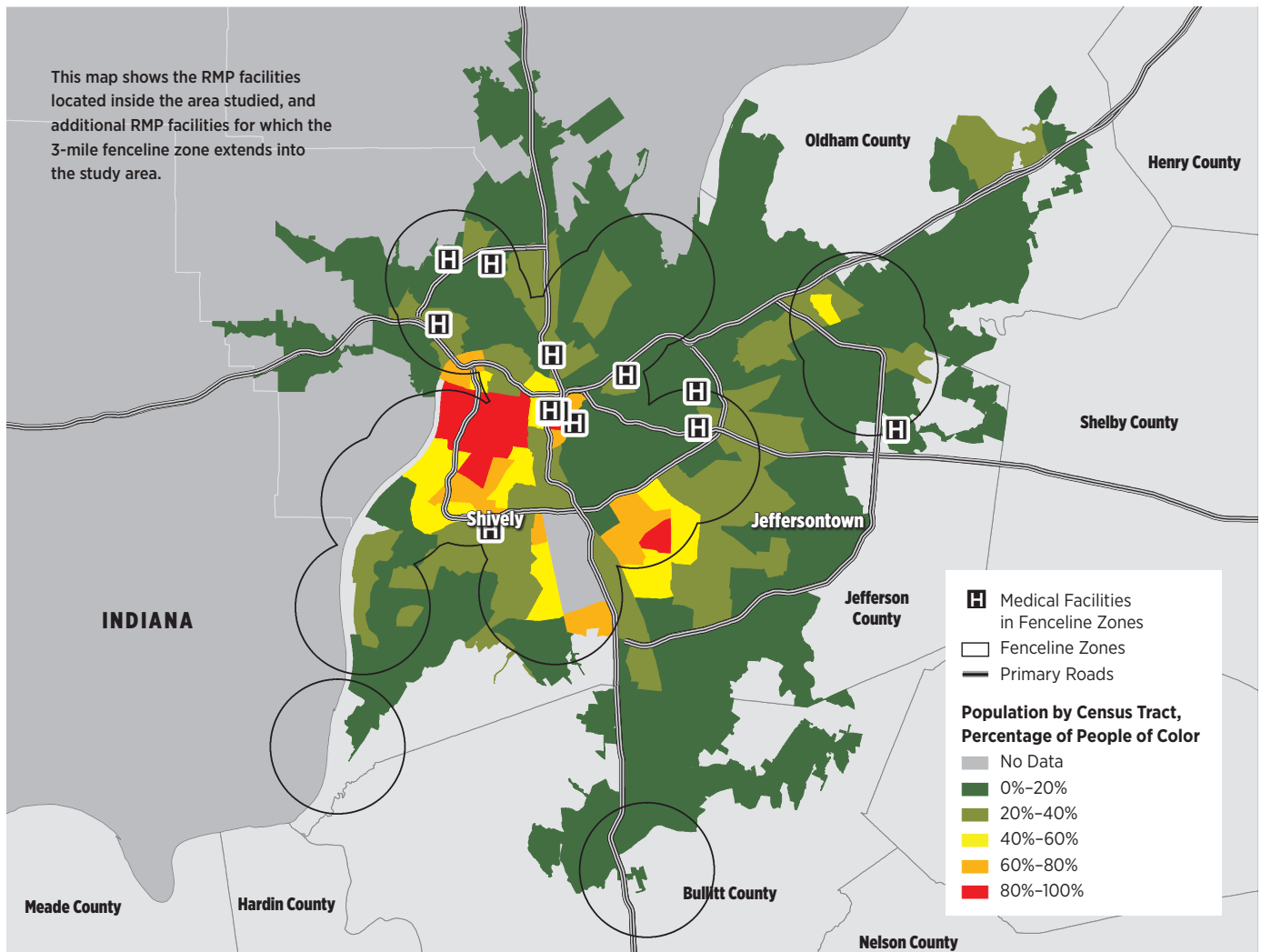
In Louisville, Rubbertown Emergency Action (REACT) works for strong laws to stop toxic air pollution from chemical plants; the protection of residents in the event

of a leak, fire or explosion in a chemical plant or railcar, and full disclosure and easy access to information concerning the impact of hazardous facilities on residents living nearby.

REACT is part of the national Environmental Justice Health Alliance for Chemical Policy Reform (EJHA), a network of grassroots organizations in more than 13 states that advocates for just, sustainable solutions to the health and environmental hazards faced by communities disproportionately impacted by toxic chemicals.

EJHA works to prevent chemical disasters by uniting communities at the fenceline of hazardous chemical facilities with national allies and experts to prevent catastrophic chemical releases from the nation's high-risk chemical facilities through information disclosure, community and worker involvement, and transition to safer chemicals and technologies.

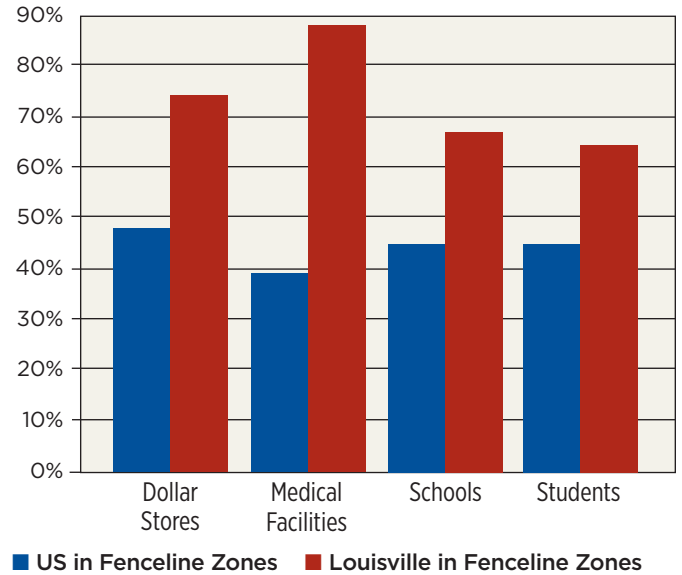
Hazardous Facility Fenceline Zones, Medical Facilities, and Race in Louisville



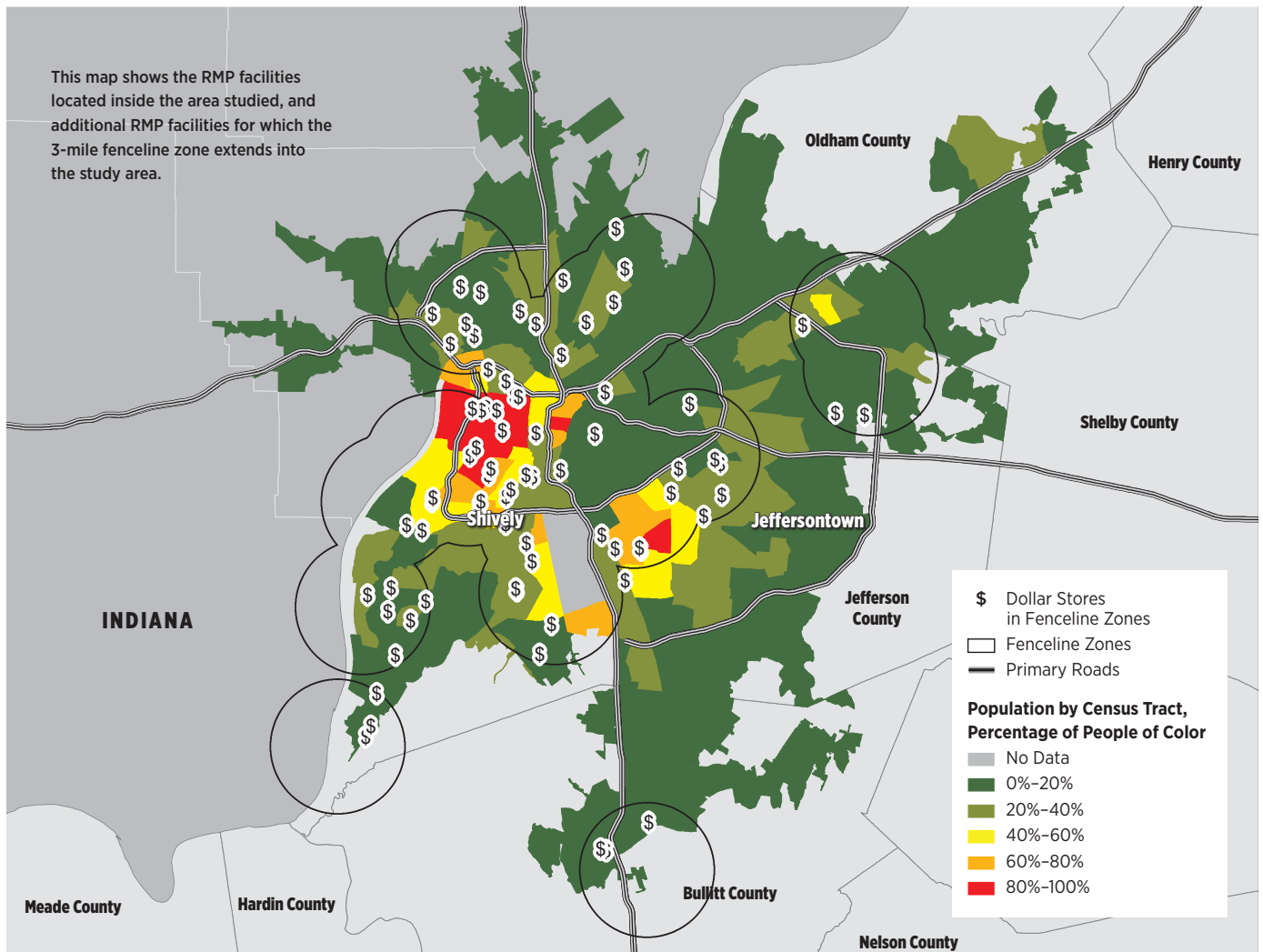
EJHA's Campaign for Healthier Solutions (CHS) works with discount retailers (dollar stores) to help them protect their customers and the communities in which they operate, and grow their businesses, by implementing corporate policies to phase out harmful chemicals in the products they sell, and by stocking safer products and healthier foods that support the communities in which their stores operate.

EJHA is part of the Coming Clean collaborative, which works to reform the toxic chemical and fossil fuel industries so they are no longer a source of harm, and to secure the systemic changes necessary for clean production, safe renewable energy, and a sustainable economy to flourish.

Critical Institutions and Students in Louisville Fenceline Zones Compared to National Rate



Hazardous Facility Fenceline Zones, Dollar Stores, and Race in Louisville



LEARN MORE & GET INVOLVED

Visit www.ej4all.org/life-at-the-fenceline to:

- Read the full *Life at the Fenceline* report
- Check the interactive map to find out if where you, your family, and friends live, work, or go to school is near a dangerous chemical facility

Read EJHA reports on chemical facility risks and dollar store products:

- Who's In Danger: Race, Poverty, and Chemical Disasters
<https://ej4all.org/assets/media/documents/ej4all-Who'sInDangerReport.pdf>
- A Day Late and a Dollar Short: Discount Retailers are Falling Behind on Safer Chemicals
https://ej4all.org/assets/media/documents/Report_ADayLateAndADollarShort.pdf

Contact REACT at rubbertownstinks@gmail.com or search on Facebook for *REACT Rubbertown Emergency ACTION*.

Environmental Justice Health Alliance for Chemical Policy Reform

coming clean

CAMPAIGN FOR
**Healthier
Solutions**

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Coming Clean is a national environmental health and justice collaborative of 200 organizations working to reform the chemical and fossil fuels industries so they are no longer a source of harm, and to secure systemic changes that allow a safe chemical and clean energy economy to flourish. Learn more at www.comingcleaninc.org.

The Environmental Justice Health Alliance for Chemical Policy Reform supports diverse movement towards safe chemicals and clean energy that leaves no community or worker behind. EJHA is a network of grassroots environmental justice organizations in communities that are disproportionately impacted by toxic chemicals, from old contaminated sites, ongoing exposure to polluting facilities, and toxic chemicals in household products and foods. Learn more at www.ej4all.org.

The Campaign for Healthier Solutions, hosted by Coming Clean and EJHA, is made up of interested organizations, dollar store customers, and investors who seek to work with discount retailers to help them protect their customers and the communities in which they operate, and also grow their business, by implementing corporate policies to identify and phase out harmful chemicals in the products they sell. Learn more at www.nontoxicdollarstores.org.

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