

Guidance for doing Community-Driven Analyses of Government Data: Insights from the CoDA study

The CoDA Environmental Health Study was created to answer health questions raised by Louisiana residents living near petrochemical facilities and other industrial sites using Medicaid, EPA, and state environmental data. The process below outlines the basic steps our team followed for communities, researchers, or organizations interested in developing a similar study.

Step 1: Start with Community Questions ([CoDA Final Report: Introduction – pp. 8–11; Community Concerns and Environmental Health History](#))

We began by listening to residents who had long raised concerns about living near industrial facilities. Many wanted answers about pollution exposure, cancer, respiratory illness, reproductive health, childhood health problems, and other conditions affecting families across generations.

Step 2: Gather Existing REsearch and Community Knowledge to Identify the Research Gap ([CoDA Final Report: Louisiana Communities’ Demands for More Relevant Environmental Health Research – pp. 8–11; Systematic Review of Industrial Pollution and Health in Louisiana](#))

We reviewed what studies had already been done and identified what was still missing. A major gap was that residents’ questions had not been fully answered using government health and environmental data in a way that communities could understand and help interpret. The use of government data was important, as that is the data that is used and trusted by state regulators and policy officials. This can occur throughout the project. For example, once our team had funding, we built upon this initial work by systematically reviewing the research literature on industrial pollution and health in Louisiana and hosting an environmental health conference.

Step 3: Develop a Research Plan ([CoDA Final Report: Methodological Approach – Methods Overview, pp. 13–14](#))

The team created a plan to study which health outcomes were more common in areas with higher industrial pollution exposure. This included deciding what data would be needed, what health outcomes to examine, and how community input would guide the process.

Step 4: Secure Funding and Build the Team ([CoDA Final Report: The CoDA Team – pp. 11–12](#))

Grant funding helped support the work. The project required a team with different skills, including project management, epidemiology, environmental health, GIS/mapping, Medicaid data analysis, community engagement, and qualitative research.

Step 5: Form a Community Advisory Board ([CoDA Final Report: Formal Advisory Board – pp. 21–22; The CoDA Team – p. 12](#))

A Formal Advisory Board (FAB) was created with members who lived in, or professional experience in, Louisiana communities affected by industrial pollution. FAB members helped guide recruitment, review materials, shape focus group plans, and make sure the project remained connected to community concerns. FAB members received compensation for their efforts.

Step 6: Access Government Data and Prepare for Analysis ([CoDA Final Report: Medicaid Data and Environmental Data Sections – pp. 14–19; Appendix A; Appendix C](#))

The team obtained Medicaid health data and environmental data from government sources, including EPA and Louisiana Department of Environmental Quality records. These datasets were used to compare health outcomes in areas with higher and lower industrial pollution exposure.

Step 7: Analyze Health and Pollution Patterns ([CoDA Final Report: Quantitative Data Analysis – pp. 19–21; Results – pp. 25–55; Appendix A; Appendix E](#))

Researchers analyzed whether certain health conditions were more common among people living closer to petrochemical facilities or in areas with higher modeled toxic air pollution. The team looked at child health, women’s health, pregnancy-related outcomes, adult health, and other conditions.

Step 8: Share Early Findings with Communities ([CoDA Final Report: Focus Groups – pp. 22–24](#))

Before finalizing the report, the team brought preliminary findings back to residents through in-person and virtual focus groups. These sessions allowed residents to ask questions, share lived experiences, challenge interpretations, and suggest additional analyses. Before beginning focus groups with Louisiana residents, the CoDA team obtained IRB approval to conduct the qualitative portion.

Step 9: Use Community Feedback to Refine the Quantitative Analyses ([CoDA Final Report: Focus Groups – pp. 22–24; Discussion – pp. 46–55](#))

The focus groups were iterative, each time data was further analyzed in response to focus groups. Participants were invited back to see the new data and give feedback. Focus group feedback helped the team better understand the meaning of the results. Residents identified patterns that matched their experiences and raised additional concerns about healthcare access, environmental monitoring, and long-term exposure.

Step 10: Prepare a Final Public Report ([CoDA Final Report: Discussion and Conclusions – pp. 46–55; Final Report Development Process](#))

The team combined the statistical findings with community interpretation into a final report. The goal was to make the results scientifically credible, community-informed, and useful for public health, policy, and advocacy conversations.

Step 11: Share Findings Publicly ([CoDA Final Report: Dissemination Activities: Conclusions – pp. 55–57](#))

The final step was to communicate findings through public-facing materials, presentations, community conversations, media outreach, peer-reviewed publications, and policy discussions. The purpose was not only to publish results, but to make sure communities could use the information.