



# AI IN PUBLIC HEALTH



## Harnessing AI for Logic Model Development:

Logic models serve as a great visual roadmap for public health programs, detailing inputs, activities, outputs, outcomes, and impacts. With the use of artificial intelligence (AI), public health professionals can streamline logic model development, making it more efficient and data driven. This guide shows how AI can be used to help identify the various sections.

**Disclaimer: Ensure compliance with your organization’s policies and grant requirements when using AI tools, as some may restrict or require disclosure of AI-assisted content. It is the user’s responsibility to ensure compliance with all applicable guidelines.**

### Example Logic Model Layout:



The example prompts in the table below are designed to help guide you through the process of responding to a blood lead exposure reduction grant opportunity. While these prompts are specific to lead exposure, they can easily be adapted for other public health topics. Think of them as starting points to help you frame the kinds of questions or prompts you can use when working with ChatGPT to develop a logic model for any grant application or program planning effort.

**Recommendation:** After working through each section (Who We Serve, Inputs, Activities, Outcomes, etc.), copy the outputs from ChatGPT into a separate Word document. Organize the information under clear headings that match the sections of the logic model. Once all sections are complete, use the "Overview" prompt at the bottom of the table in ChatGPT to create a summary table for your logic model.





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| Sections                        | Example Prompts  |
|---------------------------------|--|
| <b>Who We Serve</b>             | <ol style="list-style-type: none"><li>1. “Review the parameters outlined in this grant application. Provide a summary of who would be eligible to receive our lead exposure reduction services if we received this grant funding.” (then upload or copy/paste grant application details)</li><li>2. “Help me identify the primary groups that are directly affected by lead exposure who would benefit from our program service. Who should be prioritized for direct services?.”</li><li>3. “Which indirect groups, such as families or caregivers, might we include in our service population for this initiative?”</li><li>4. “How will reducing lead exposure in children and pregnant women indirectly affect other parts of the community? What organizations might experience secondary benefits from our lead exposure reduction program?”</li><li>5. “What broader community impacts might result from reducing lead hazards in older homes, and who would benefit indirectly from these changes?”</li></ol>  |
| <b>Inputs</b>                   | <ol style="list-style-type: none"><li>1. If you have context from previous yearly data or data that indicates how large your target population is, include that in this prompt: “Our goal is to reduce exposure to blood lead for our target population, which is estimated to be X families. What materials or supplies such a as lead testing kits, educational materials for parents, and remediation tools, will be needed to implement a lead exposure reduction program effectively and at scale?”</li><li>2. “What specialized skills, technology platforms (data collection systems, GIS mapping tools), and equipment will be needed to accurately identify high-risk homes, assessing environmental lead levels, and tracking progress over time?”</li><li>3. “Which key personnel are crucial for ensuring the successful implementation of our lead exposure reduction program?”</li><li>4. “Who are key external stakeholders that need to be actively engaged to mitigate environmental lead sources and sustain program efforts?”</li><li>5. “What existing public health, housing, and environmental data sources can be leveraged to pinpoint areas of highest risk and target our lead exposure interventions most effectively?”</li></ol> |
| <b>Activities &amp; Outputs</b> | <ol style="list-style-type: none"><li>1. “What actions need to be taken to get children under 6 tested for lead exposure?”</li><li>2. “How can we offer lead testing to families in our community?”</li><li>3. “What services can we offer to remove lead from homes where children live?”</li><li>4. “What are some ways we can teach parents about the dangers of lead and how to protect their children?”</li><li>5. “What are some measurable data outputs that can be reported out?”</li></ol>  |
| <b>Short Term Outcomes</b>      | <ol style="list-style-type: none"><li>1. “How will we know if more parents are aware of the dangers of lead exposure after attending our awareness sessions.”</li><li>2. “What would be some short-term outcomes we can expect from our home inspection efforts?”</li><li>3. “How will we know if families are starting to take steps to reduce lead exposure in their homes?”</li></ol>   |



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|                              | <ol style="list-style-type: none"> <li>4. “How can we track if families are following advice on reducing lead risk after our educational sessions?”</li> <li>5. “How can we know if our partnerships are helping to increase the number of families reached with these services?”</li> </ol>  |
| <b>Intermediate Outcomes</b> | <ol style="list-style-type: none"> <li>1. “What would be some intermediate outcomes to come from the lead exposure reduction program.”</li> <li>2. “What changes can we expect in how local health departments and partners are using data to make decisions about lead prevention?”</li> <li>3. “What are some improvements to expect in how local organizations are working together to address lead exposure?”</li> <li>4. “How can we identify/track if families have made permanent changes, like cleaning more often or fixing lead hazards.”</li> <li>5. “What are some ways to identify if data about lead exposure is being used more effectively to plan and improve programs?”</li> </ol>  |
| <b>Long Term Outcomes</b>    | <ol style="list-style-type: none"> <li>1. “What trends do we hope to observe in blood lead level statistics over time?”</li> <li>2. “What indicators will show that our program is positively affecting children’s overall health in the long run?”</li> <li>3. “How can we measure whether the community has sustained understanding of lead risks?”</li> <li>4. “What are some ways we can measure overall satisfaction and health outcomes in families as a result of our program?”</li> <li>5. “What would be some long-term changes in local policies related to lead exposure and child health?”</li> </ol>   |
| <b>Overview</b>              | <ol style="list-style-type: none"> <li>1. "Here is the information I've gathered for each section of a logic model related to our blood lead exposure reduction program. Please format it into a table with three columns: 'Section,' 'Summary of Outputs,' and 'Key Points.' Make sure the summaries are concise, and group similar outputs where appropriate. For each section, identify the key points we should emphasize in grant proposals or presentations. The sections to include are 'Who We Serve,' 'Inputs,' 'Activities &amp; Outputs,' 'Short-Term Outcomes,' 'Intermediate Outcomes,' and 'Long-Term Outcomes.' Additionally, ensure that the table is formatted in a way that can be easily copied into a Word document or presentation."</li> </ol> <p>Extra Refinements:</p> <ul style="list-style-type: none"> <li>- Ask ChatGPT to summarize and refine the outputs for clarity and brevity</li> <li>- Instruct ChatGPT to help identify highlights to emphasize during presentations or within the grant application</li> <li>- Request a format that can be easily copied into different software, which increases ease of use for health departments working with various document types.</li> </ul> |

