

# AI Prompt Templates for Public Health Professionals

## Key Principle: Provide Your Knowledge and Information

**Critical Step:** Always include your specific knowledge, data, requirements, or context to improve AI output quality. The AI performs best when you provide:

- Your professional expertise and experience
- Specific data, statistics, or facts you know
- Organizational requirements or constraints
- Target audience details and preferences
- Previous work or examples to build upon
- Technical specifications or standards to follow

**Example of providing a baseline:** Instead of asking "Create an immunization program overview," provide: "Based on our state's 2024 vaccination rates (78% measles, 65% HPV) and CDC guidelines, create an immunization program overview that addresses our specific coverage gaps and targets parents of adolescents aged 11-17."

## How to Use This Guide

These prompt templates work best when combined with the AI Profile Instructions. The profile instructions set your AI's baseline behavior, while these prompts provide specific task guidance.

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## General Prompt Structure

### Effective Prompt Formula to Generate Output:

None

Role Definition + Context + Your Knowledge/Information + Task + Output Format + Constraints

Refine your results by adding more context and knowledge in follow-up prompts, then regenerate until the output meets your specific requirements.

## Example Structure:

- **Role:** "You are a [specific expert role]..."
- **Context:** "Working with [audience] on [topic/project]..."
- **Your Knowledge:** "Here is my information/expertise: [provide specific details, data, experience, requirements]..."
- **Task:** "Please [specific action]..."
- **Format:** "Structure your response with [specific format]..."
- **Constraints:** "Keep it under [limit], avoid [unwanted elements]..."

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## Public Health Content Templates

### SEO Optimization (Proven Template)

None

You are an SEO optimization expert with proven experience supporting public health organizations in improving search visibility and content performance.

Context: [Provide your website's current performance data, target audience details, and specific goals]

Your Knowledge: Our organization focuses on [specific services], serves [specific populations], and competes for keywords like [current keywords]. Our main challenges are [specific issues].

Task: Review the URL: [INSERT URL] and develop a comprehensive SEO content package.

Include these sections:

1. SEO Page Title (60 characters max)
2. Meta Description (150-160 characters)
3. Target Keywords (primary and secondary, including long-tail)
4. H1 and H2 Headings with clear hierarchy
5. Content Recommendations (structure, readability, CTAs)
6. Image Alt Text Suggestions
7. Internal/External Linking Opportunities

## 8. Schema Markup Recommendations

Target Audience: Public health agency staff, informatics teams, state/local health departments

## Newsletter/Content Summarization

None

You are a public health communications specialist experienced in creating accessible summaries for professional audiences.

Your Knowledge: Here is our newsletter content: [paste full newsletter]. Our readers are primarily [specific roles] who need [specific information types]. Our organization's voice is [describe style/tone].

Task: Create:

1. 3-4 main topic summaries for website archive (50 words each)
2. SEO-optimized descriptions for each topic
3. Social media sharing descriptions (Twitter/LinkedIn appropriate)

Audience: Public health professionals, IIS managers, surveillance coordinators

Tone: Professional but accessible, avoid technical jargon without explanation

## Research and Literature Review

None

You are a public health informatics researcher with expertise in systematic information gathering.

Knowledge: include what you can offer as a guideline for the AI tool.

Task: Research [specific topic] and provide:

1. Key findings summary (bullet points)
2. Current trends and developments
3. Relevant statistics (with clear source requirements)
4. Knowledge gaps identified
5. Recommended next research steps

Important: Mark any information as "verify with primary sources" when uncertain. Do not invent statistics or references.

## Document Review and Editing

None

You are an experienced public health editor specializing in professional communications.

Knowledge: include what you can offer as a guideline for the AI tool.

Task: Review this document for:

1. Clarity and flow
2. Audience appropriateness for [specify audience]
3. Technical accuracy concerns to flag for human review
4. Suggested structural improvements
5. Tone consistency

Provide specific line-edit suggestions while maintaining the author's professional voice and expertise.

## Programming and Development Templates

### Code Review and Optimization

None

You are a senior software developer with experience in public health informatics systems.

Knowledge: include what you can offer as a guideline for the AI tool.

Task: Review this code for:

1. Functionality and logic errors
2. Security vulnerabilities (especially for health data)
3. Performance optimization opportunities
4. Code readability and documentation
5. HIPAA compliance considerations where applicable

Provide specific improvement recommendations with code examples. Flag any potential security risks for immediate attention.

Code Language: [specify language]

System Context: [public health application type]

### Database Query Development

None

You are a database developer specializing in public health data systems.

Knowledge: include what you can offer as a guideline for the AI tool.

Task: Help create a query that:

1. [Specific data requirement]
2. Follows HIPAA compliance best practices

3. Optimizes for performance with large datasets
4. Includes proper error handling

Requirements:

- Database type: [specify]
- Expected data volume: [specify]
- Performance requirements: [specify]
- Security constraints: [specify]

Provide the query with explanatory comments and performance considerations.

## System Integration Planning

None

You are a public health IT systems architect with experience in interoperability.

Knowledge: include what you can offer as a guideline for the AI tool.

Task: Plan integration between [System A] and [System B] considering:

1. Data mapping requirements
2. FHIR/HL7 standards compliance
3. Security and authentication protocols
4. Error handling and logging
5. Performance and scalability factors

Provide:

- High-level architecture diagram description
- Step-by-step implementation plan
- Risk assessment and mitigation strategies
- Testing and validation approaches

## API Documentation and Development

None

You are a technical writer and API developer focused on public health systems.

Knowledge: include what you can offer as a guideline for the AI tool.

Task: Create documentation for [API name] including:

1. Clear endpoint descriptions
2. Request/response examples
3. Error codes and handling
4. Authentication requirements
5. Rate limiting and usage guidelines
6. Integration examples for common use cases

Audience: Public health IT staff with varying technical expertise

Format: Clear, scannable documentation with practical examples

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## Before and After Examples

### Weak Prompt:

None

"Help me write a blog post about immunizations"

### Strong Prompt:

None

You are a public health communications specialist with expertise in immunization programs.

Knowledge: include what you can offer as a guideline for the AI tool.

Task: Create a blog post outline about childhood immunization schedules for parents and caregivers.

Requirements: (modify as need for your example)

- Address common concerns and misconceptions
- Include actionable next steps for parents
- Use plain language, avoid medical jargon
- Structure with clear headings and bullet points
- 800-1000 words target length
- Include credible source recommendations

Audience: Parents of children 0-5 years, varying education levels

Tone: Reassuring, authoritative, accessible

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## Prompt Refinement Tips

### Start Broad, Then Narrow:

1. **First prompt:** Get initial framework
2. **Follow-up prompts:** "Make this more technical for IT staff" or "Simplify this for general audience"
3. **Refinement prompts:** "Add more specific examples" or "Reduce length by 30%"

### Use Iterative Improvement:

- Ask: "What additional information would improve this response?"
- Request: "What assumptions are you making about the audience?"
- Test: "How would you adapt this for [different context]?"

### Quality Control Prompts:

- "Review this output for potential accuracy issues to flag for human verification"
- "Identify any claims that need source verification"
- "What aspects of this response might need subject matter expert review?"

## Common Pitfalls to Avoid

✗ **Too Vague:** "Help with SEO"

✓ **Specific:** "Audit this immunization informatics page for SEO improvements"

✗ **No Context:** "Write a summary"

✓ **Clear Context:** "Summarize for state health department decision-makers"

✗ **Missing Constraints:** "Create content"

✓ **Clear Constraints:** "Create 500-word content, professional tone, include 3 actionable steps"

✗ **Assuming Knowledge:** "Explain FHIR"

✓ **Specify Level:** "Explain FHIR for public health IT staff new to interoperability standards"

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## Integration with Profile Instructions

These prompt templates work best when your AI profile includes the standard instructions for:

- Original content creation
- Accuracy verification requirements
- Professional tone and language
- Public health context awareness

The profile instructions handle the "how to respond" while these prompts handle the "what to do."

Other prompts will be shared in the following blogs

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*All example prompts are original to this document, developed and refined through practical use cases and iterative testing. They are not directly sourced word-for-word from external prompt lists, but are consistent with best practices found in AI prompt guides for healthcare and public health. These templates were refined through multiple iterations, adjusting context and information to achieve optimal outputs. Adapt them for specific needs while maintaining focus on accuracy, professionalism, and actionable outcomes.*