



Feb. 12, 2025

Developing AI Policies for Public Health Organizations



Save the Date!

Navigating AI: Exploring Opportunities, Challenges, and Policy Development – Panel and Presentation

March 6, noon-1 p.m. CST

Featured Panel:

- **Justin Snair**, Managing Partner & Senior Principal Consultant, SGNL Solutions; CEO, Preppr.ai
- **Jamie Pina, Ph.D., M.S.P.H.**, FAMIA, Senior Director, Center for Data Modernization Solutions, RTI International.
- Panelist is pending



Webinar Speakers



Tatiana Lin, M.A.
*Director of Business
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Emma Uridge, M.P.H.
Analyst



Ben Wood, M.P.H.
*Senior Director,
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Agenda



Welcome

Overview: The AI Template and Guidance and Chatbot

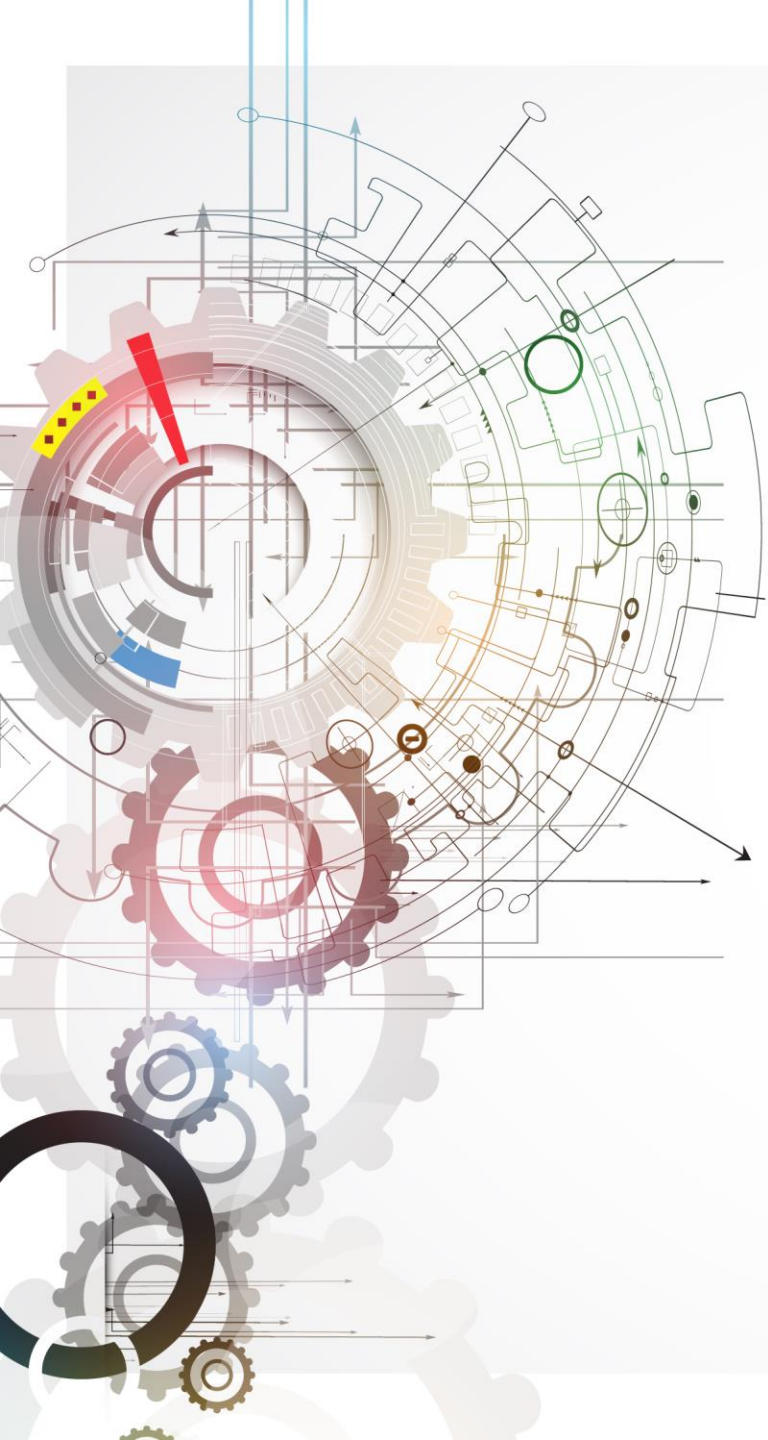
Preparing for AI Policy: Essential Pre-Development Activities

Unpacking the AI Template: Bias Mitigation

Unpacking the AI Template: Human Oversight

What Other Sections Could Be Included in AI Policy? A Brief Overview

Closing Comments



AI Template and Guidance Overview

Authors and Contributors

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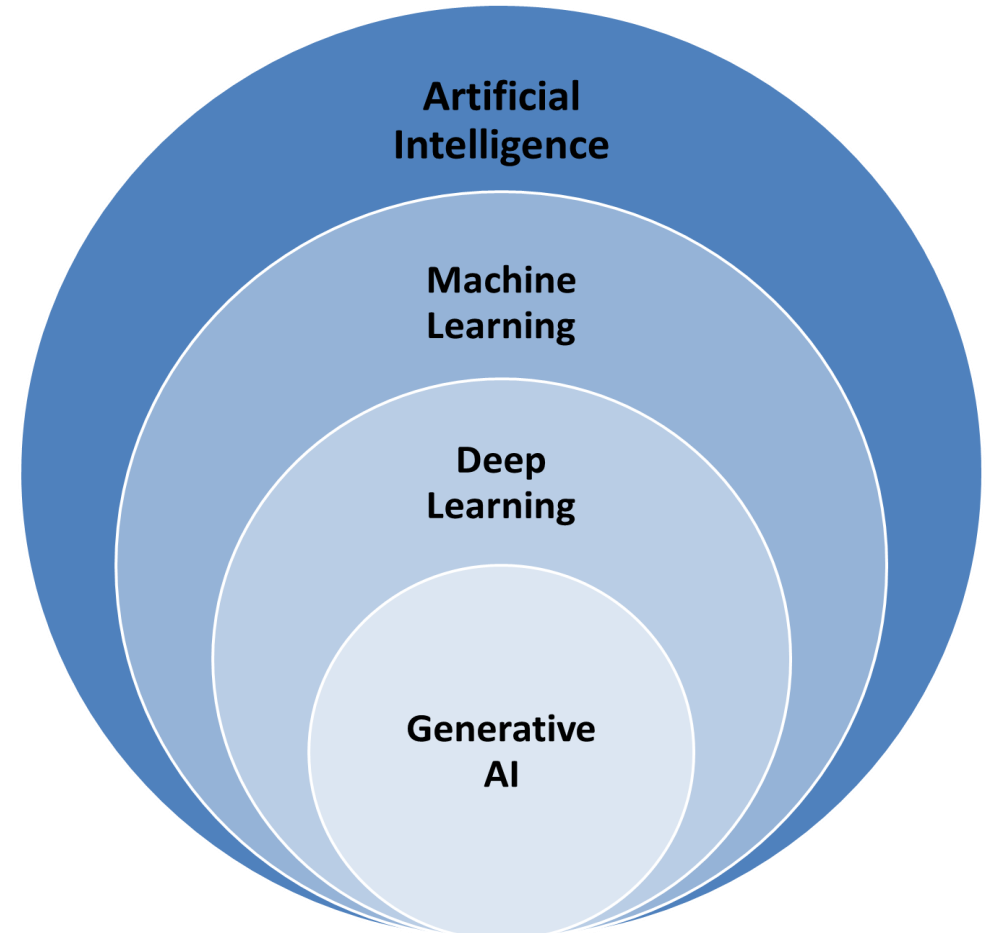
What is Artificial Intelligence (AI)?

Artificial Intelligence: It is the science and engineering of making machines that can simulate human intelligence to perform complex tasks.

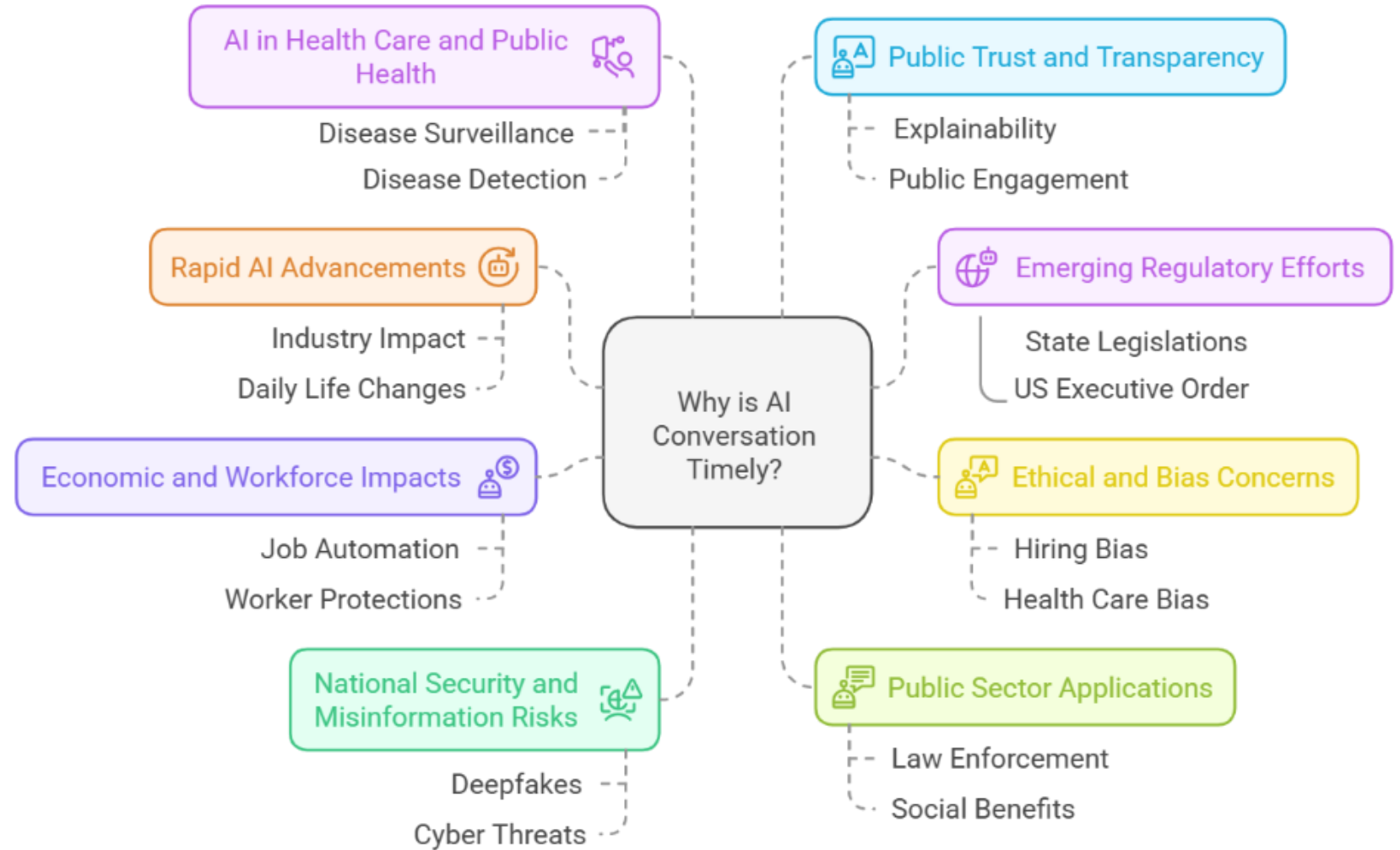
Machine Learning: A way for computers to learn from data and improve over time.

Deep Learning: A type of neural network with many layers, used for more complex tasks.

Generative AI: AI that creates new content, like text, images, or sound.



Why is AI Conversation Timely?



AI Template and Guidance Webpage

Supplemental Materials

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Developing Artificial Intelligence (AI) Policies for Public Health Organizations: A Template and Guidance

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Developing Artificial Intelligence (AI) Policies for Public Health Organizations

A Template and Guidance

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- [Literature Review AI in Public Health](#)
- [City-Level AI Policies and Guidelines](#)
- [State-Level AI Policies and Provisions](#)

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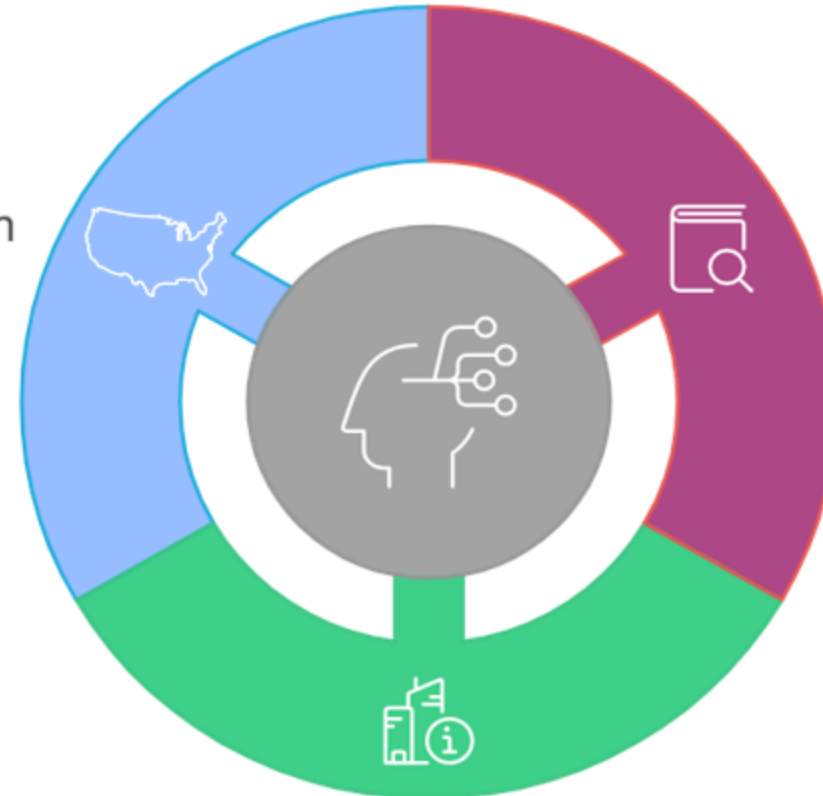
- Aging
- Artificial Intelligence in Public Health
- Health Disparities and Equity
- People with Disabilities
- Population Health
- Public Health
- Region 7 Public Health Innovation Hub
- Rural Health

Chatbot

Supplemental Materials

State-Level Policies

Includes a review of 152 state bills from 36 states and Washington, D.C.



Literature Review

Provides a summary of considerations for AI in public health, through 10 research questions and an analysis of 96 articles

City-Level Policies

Includes a review of AI policies and guidelines across 14 cities covering 13 topics

AI Template and Guidance: Overview



Audience

Public health
organizations, other
stakeholders



Purpose

Assists public health
organizations in AI
policy development



Scope

Publicly accessible AI
systems, particularly those
with generative AI
capabilities

AI Template and Guidance: Overview

Recommends to clearly define the rationale and intended use of AI before developing policies.



Recommends to consider ethical and operational impacts of AI.



Emphasizes that AI is not monolithic—acknowledge various technologies and methodologies.



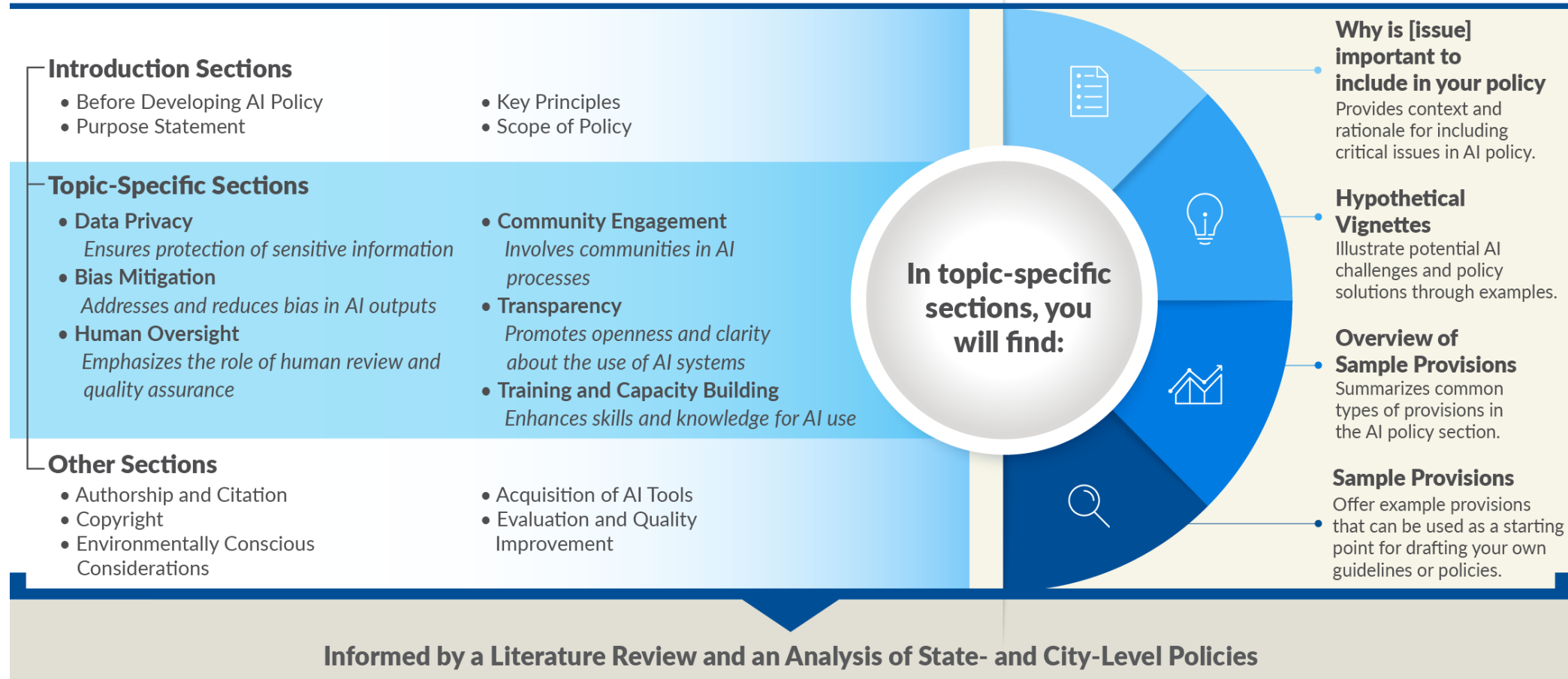
Recommends to ensure flexibility in policies to accommodate evolving AI technologies.

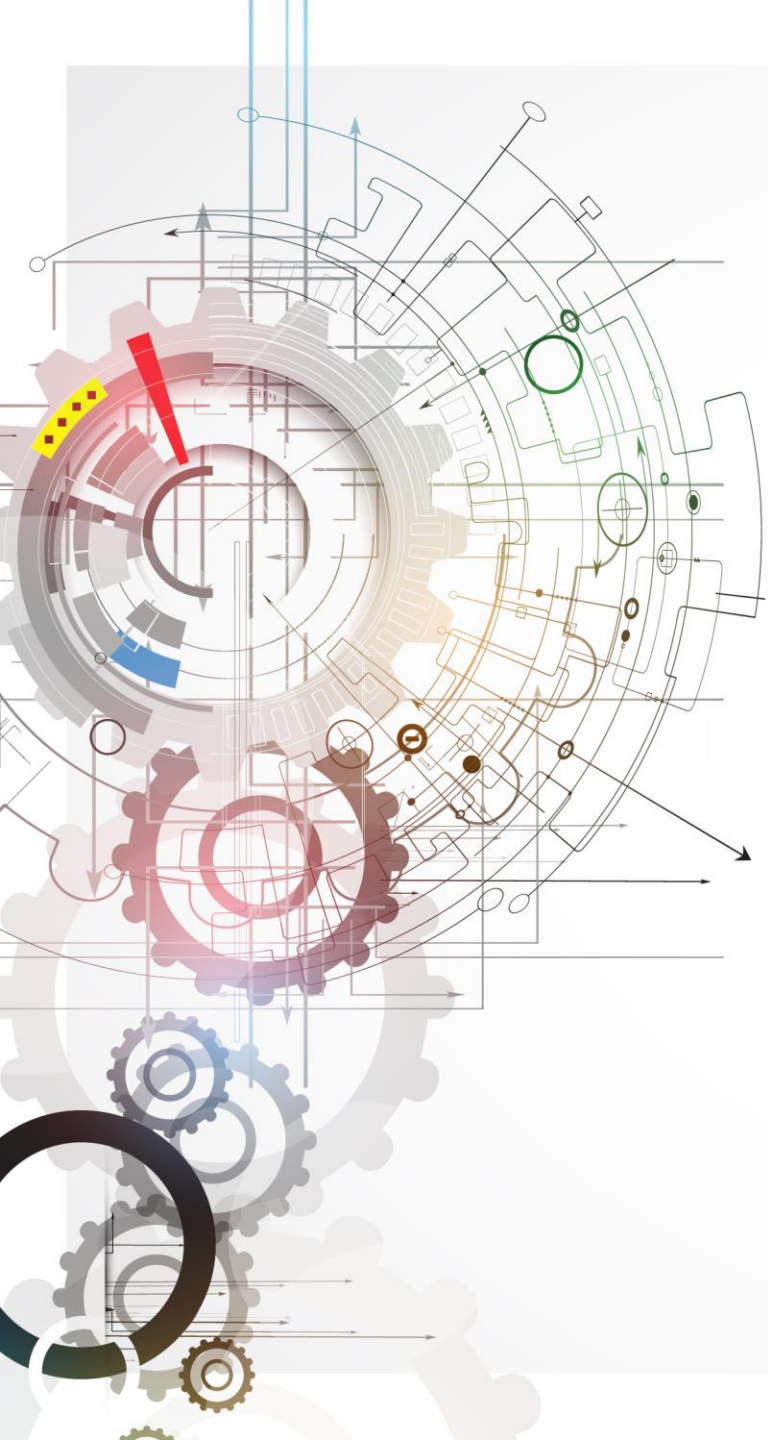


Advises against naming specific AI tools due to rapid evolution.



Key Elements of the AI Template and Guidance

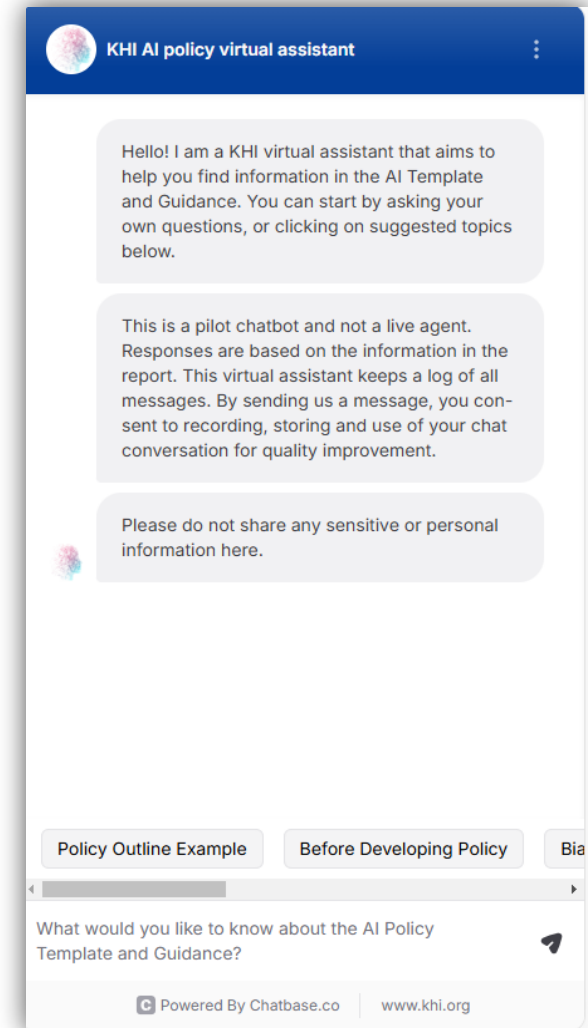




AI Policy Template and Guidance Chatbot

Purpose of the Chatbot

- **Increase accessibility** to the *Template and Guidance* and streamline information collection by users to inform the pilot period.
- **Assist users with finding information** most applicable to their needs and the needs of their organizations.



Programming Chatbot

- Scope and role
- Constraints
 - Exclusive reliance on the training data
- Persona
- Guidelines for interaction
 - Professionalism
 - Preferred language
- Pre-programmed responses for certain questions



Select Chatbot Uses in Public Health

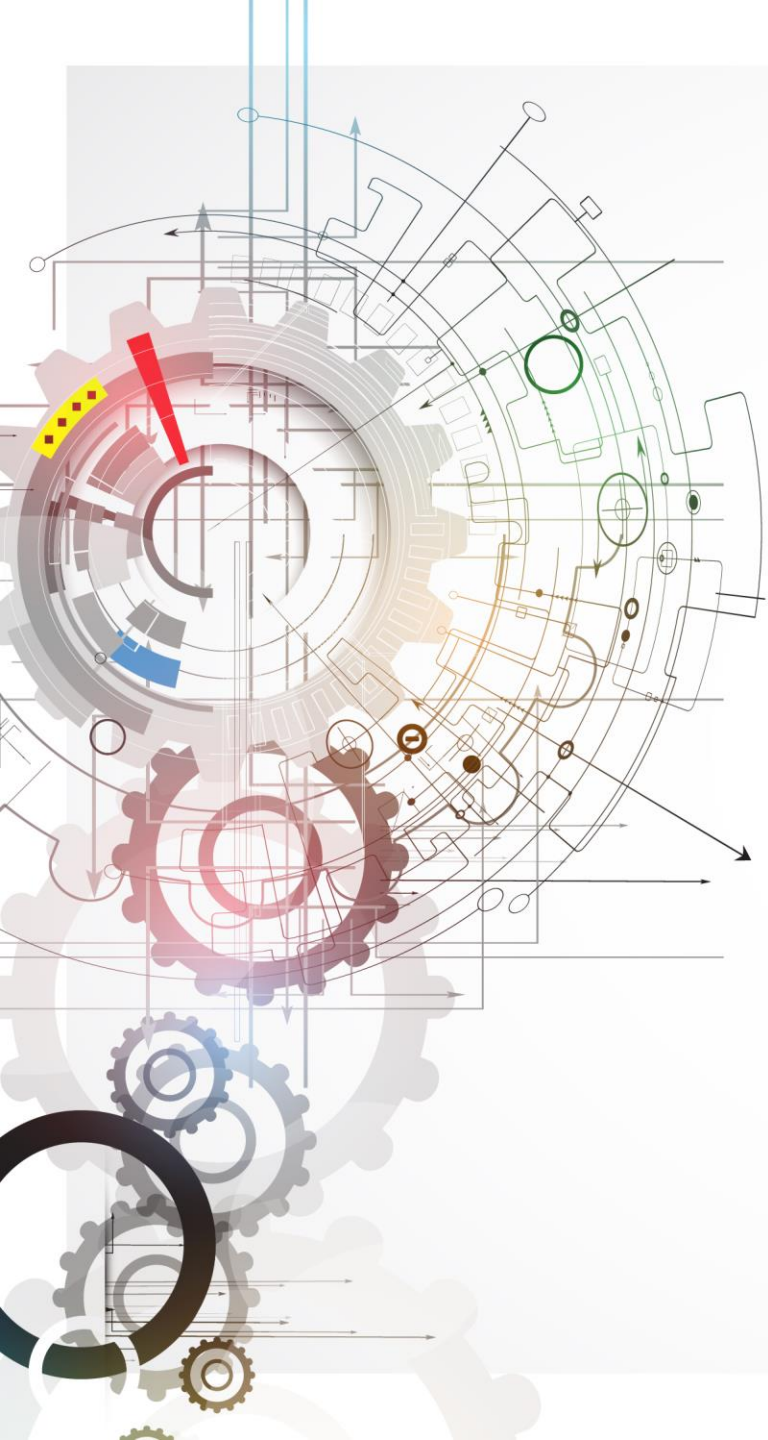


Increase accessibility to public health communication

- 24/7 information
- Supports multiple languages
- Easy access to materials on websites

Streamline administrative tasks

- Assist with FAQs and service navigation
- Extract specific information from large, technical resources



Pre-Work Activities

Moving at the Speed of Trust and Effectiveness

Public health practitioners understand the importance of ensuring quality, mitigating unintended consequences and maximizing benefits.



Moving at the Speed of Trust and Effectiveness

Pre-Work Activities

Practicing Naming Problems and Solutions to Advance Mission-Focused Use of AI



The Role of Change Management During AI Implementation



Adapting Sample Provisions to Your Policy

Activity #1: Practicing Naming Problems and Solutions to Advance Mission-Focused Use of AI

What issues are you trying to address?

How do you know that technological solutions are needed to solve the issues?

- Develop clarity around the problems, their causes and gaps.
- Assess whether technology can address those gaps.
- Assess AI's possible role.
- Guide the structuring of AI policy.

Activity #1: Practicing Naming Problems and Solutions to Advance Mission-Focused Use of AI

APPENDIX B: ACTIVITY

Activity

Step 1: Assess the Current State and Gaps

Begin with a candid look at your organization's public health needs, challenges and current strategies. Reflect honestly on what is working effectively and where your efforts fall short. Identify the gaps between the needs of your community and your organization's capacity to meet them.

Questions:

1.1. What's the problem you are trying to solve?

If this is a public health issue (e.g., more than a workflow and/or efficiency issue), what is the issue of interest? Are specific groups bearing a greater burden? [i] [o]

If this is a workflow and/or efficiency issue, are there workforce types or groups that may bear a greater burden? [o]

1.2. What's the cause of the problem? [i] [o]

1.3. What are the root causes of the problem (social or organizational policies, social determinants of health, etc.)?

By naming the underlying causes of the problem, it will be easier to understand how Generative AI tools may exacerbate or help address those problems. [i] [o]

1.4. What underlying factors contribute to our ability to meet the needs of our community? [i] [o]

Step 2: Optimize Processes

Before considering technology, determine if these gaps can be addressed through improved human or organizational processes. Often, there is untapped potential in enhancing collaboration, refining decision-making protocols and streamlining workflows. Strengthening these basics creates a solid foundation for any technological interventions that may need to be implemented.

Questions:

2.1. What specific gaps in collaboration, decision-making or workflows can be addressed? [o]

2.2. How can we optimize existing human and organizational processes to improve efficiency and effectiveness? [i] [o]

2.3. What's the solution to the problem (what programs, interventions, policy changes, etc., are needed)? [i] [o]

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Assess Current State

Identify problems and gaps



Explore Technology

Evaluate AI's role and value



Create Urgency

Drive action towards AI integration

1

3

5

2



Optimize Processes

Assess if gaps can be addressed through process fixes, tech or other strategies.

4



Assess AI Alignment

Ensure ethical and strategic fit

Activity #2: The Role of Change Management During AI Implementation

How will your organization address fears and reinforce a commitment to AI as a tool to complement and not replace the workforce?

- Change management practices are useful to manage transitions and disruptions.
- We offer an adaptation of *Kotter's 8 Steps for Leading Change* with specific AI-focused examples.
- Use this framework to build workforce collaboration and momentum as AI is considered and used.

Kotter's 8 Steps for Leading Change: Adapted for Applying AI in Public Health



Source: Kotter Inc. (n.d.). The 8-step process for leading change model. Adapted and examples provided by KHI for applying AI for Public Health Organizations.
Retrieved Nov. 22, 2024, from <https://www.kotterinc.com/methodology/8-steps/>

Activity #3: Adapting Sample Provisions to Your Policy

- The provisions in your organization's AI policy need to be **your own, fit your context and relevant to your work and mission.**
- The provisions we offer are based on literature and an analysis of existing policies but should be **adapted to your context.**

Considerations

Applicability

Core values and mission

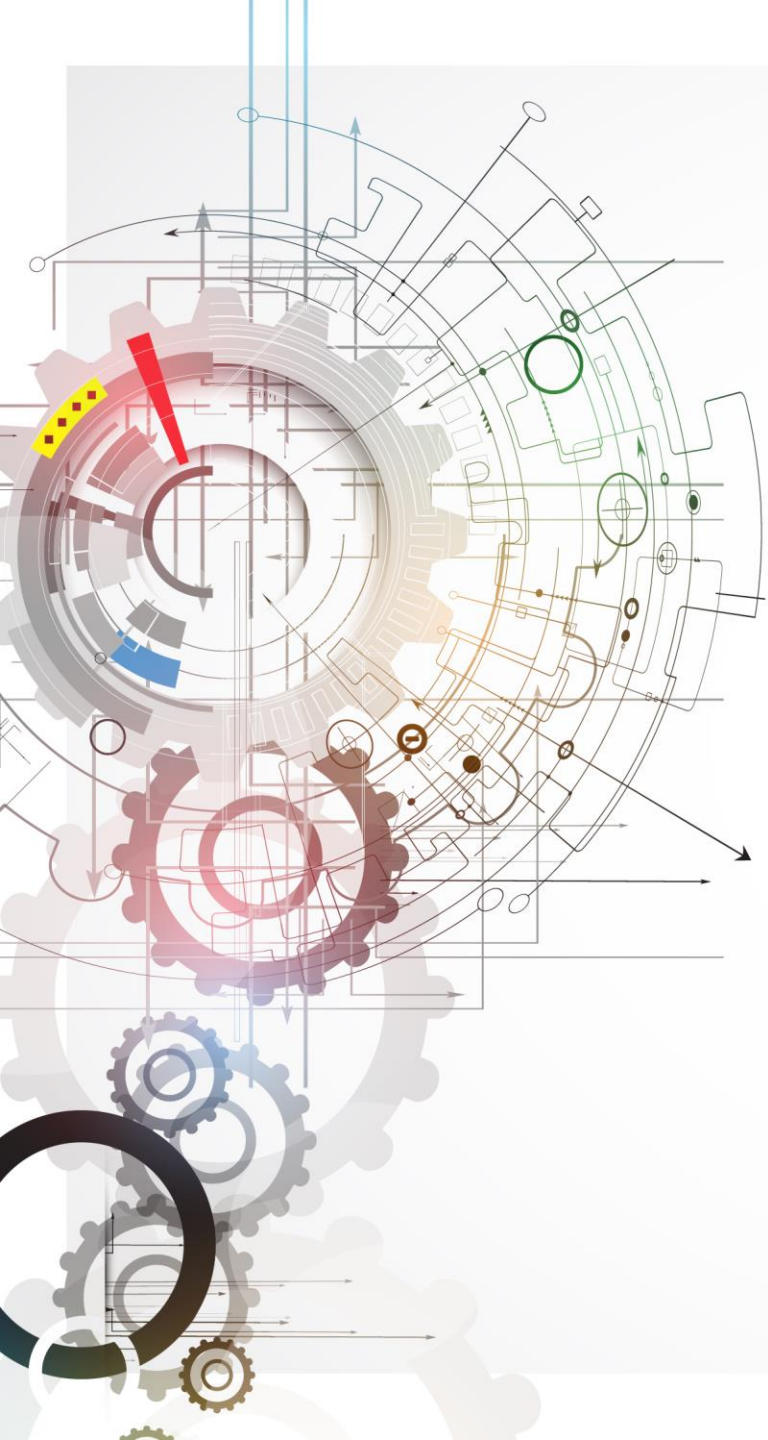
Commitment to equity, inclusivity, and non-discrimination

Expertise and resources

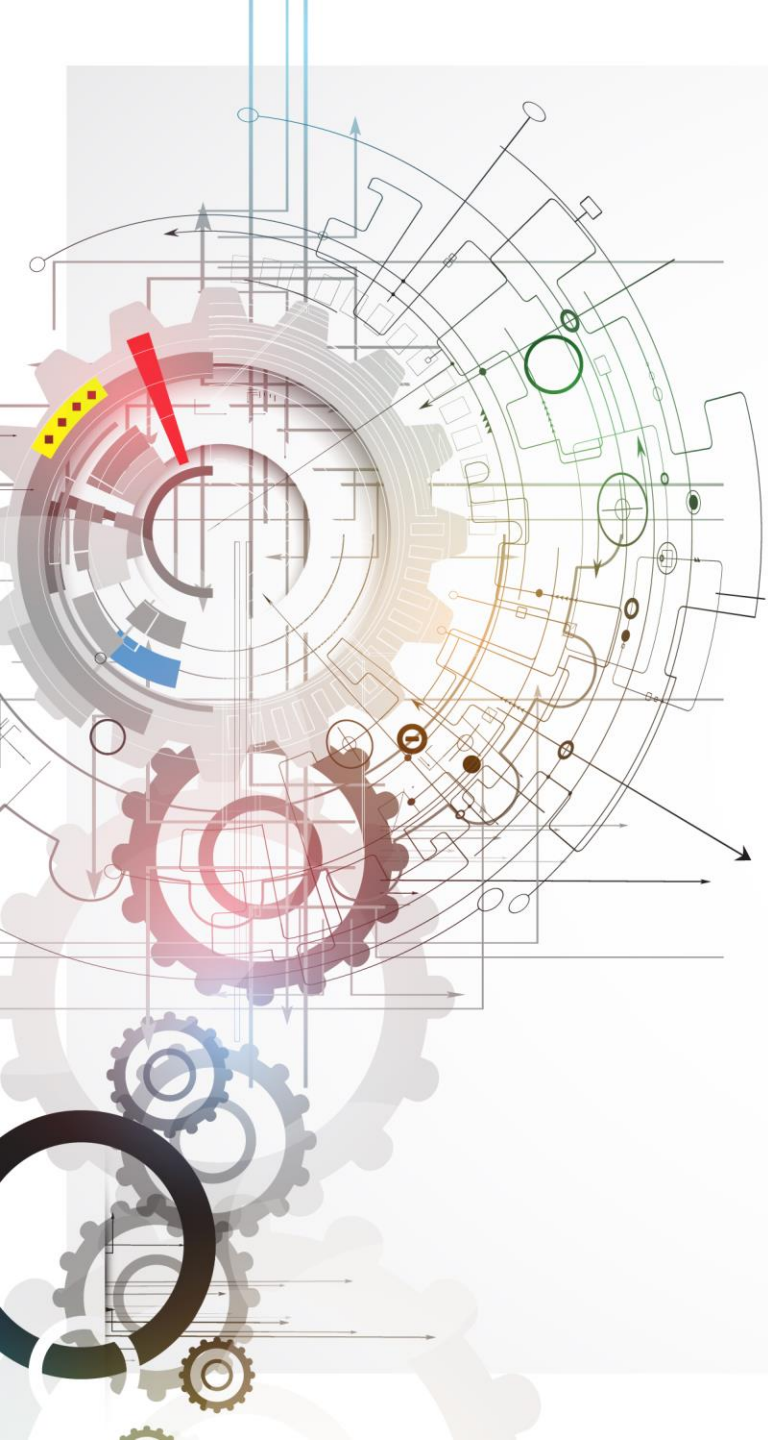
Integration into existing workflows

Potential impacts

Trust and transparency with public

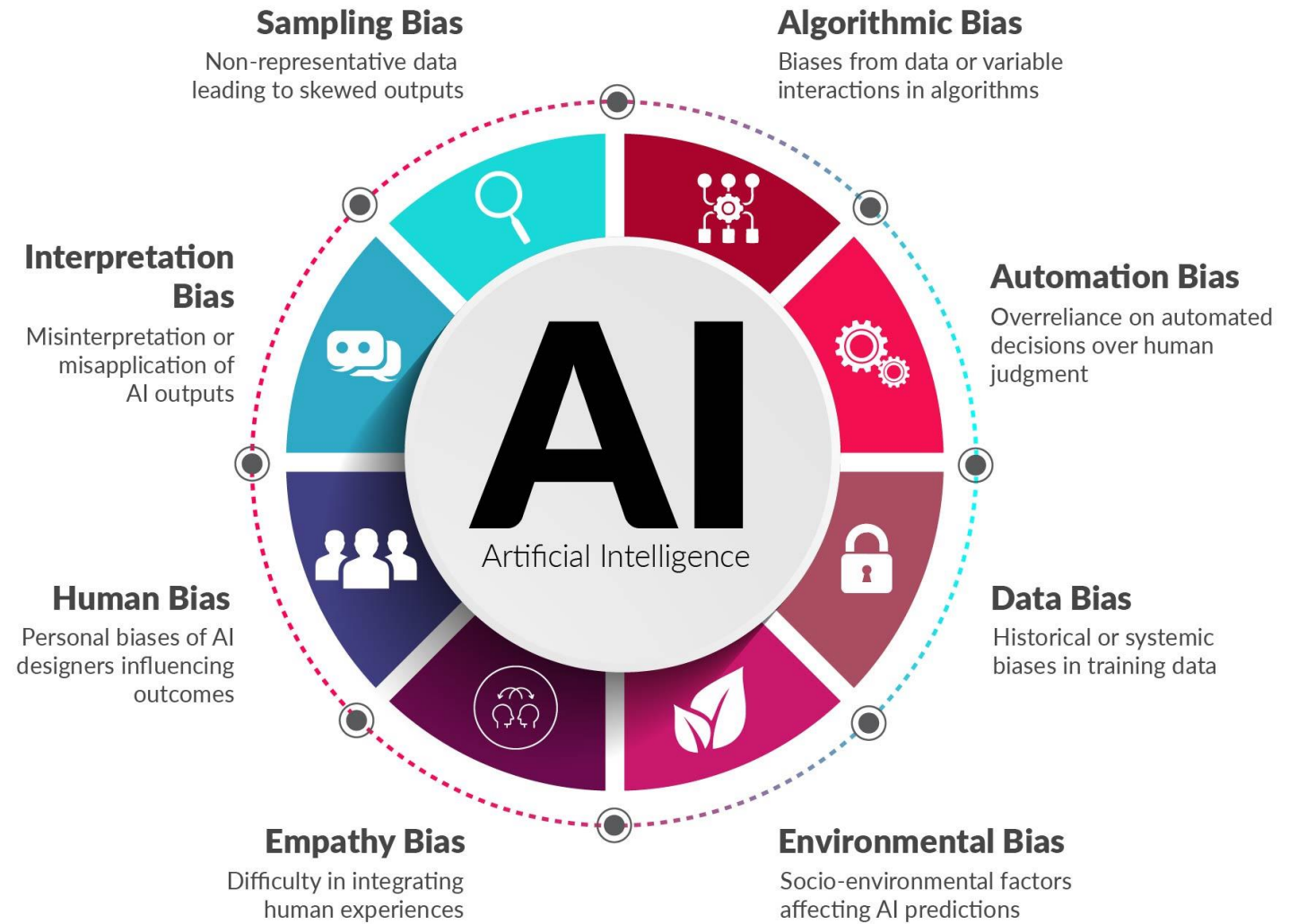


Sample Sections: Bias Mitigation and Human Oversight



Bias Mitigation

Types of Biases in AI Systems



Source: The visual was developed by the Kansas Health Institute based on the findings from the literature review.



Bias Mitigation



Why is Bias Mitigation Important to Include In Your Policy?

- Bias can exist in AI systems due to the nature of how they were developed and trained.
- AI systems rely heavily or exclusively on data to learn and make decisions.
- Any bias present in the training data can be absorbed by the algorithm, leading to biased outcomes.



Bias Mitigation



Vignette: *Addressing Cultural and Social Bias in AI-Generated Public Health Messaging (Hypothetical)*

Goal: Develop health education materials on food and nutrition.

Issue: AI outputs were generic and not tailored to different cultures.

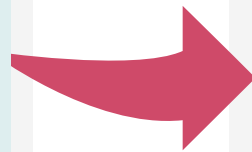
Strategies:

- Bias Awareness and Sensitivity
- Regular Feedback Loops with Community
- Culturally Inclusive Prompt Engineering

Minimize Bias by Engineering Neutral and Inclusive Prompts

Generic Prompt: “Create a list of healthy meals for adults to reduce the risk of heart disease.”

May favor foods from specific cultures, ignoring diverse dietary needs, suggesting expensive or inaccessible ingredients, exclude individuals with dietary restrictions, cultural preferences or limited resources.



Bias Reduction Approach: “Provide a culturally diverse, cost-conscious and inclusive list of dietary options to reduce the risk of heart disease. These should reflect geographic availability, individual dietary restrictions (e.g., allergies, religious practices, lifestyle choices), and the broader social determinants of health (e.g., income, education, food accessibility).”

This approach reduces potential biases by promoting inclusivity and accessibility. Individuals aiming to reduce bias in AI-generated content should provide nuanced community context for more relevant and culturally specific messaging.



Bias Mitigation



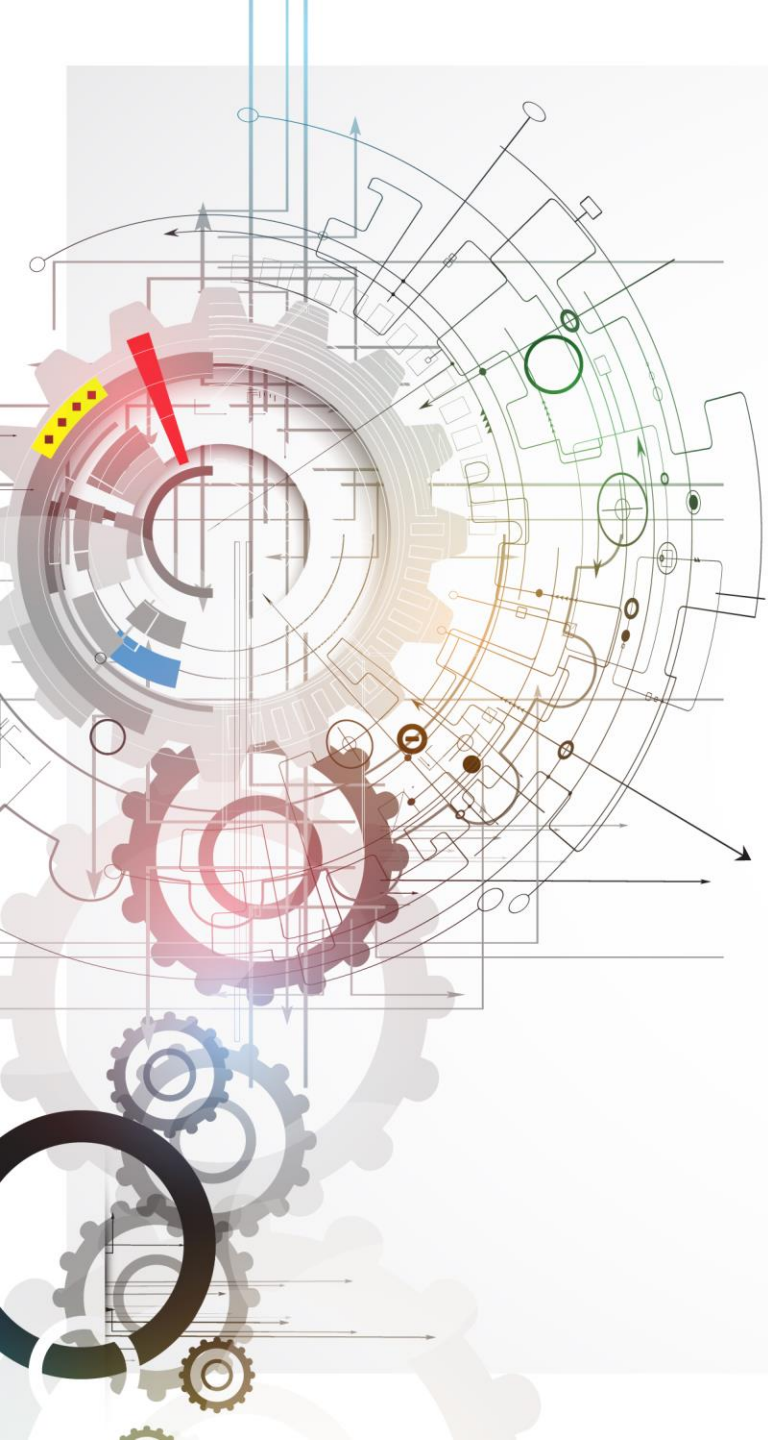
Bias Mitigation Provisions

- **Acknowledge inherent bias** in AI systems and be able to recognize biased outputs.
- **Evaluate or audit** AI systems and user behavior to mitigate bias.
- **Engineer prompts** that avoid assumptions or stereotypes. Tailor prompts for specific populations and contexts.



Bias Mitigation

Purpose		Vignette		Overview of Provisions		Sample Provisions	
Training/Capacity Building		[Organization] will require training for any staff members who use AI systems to identify potential biases in AI outputs, especially bias risks in public health.					
Prompt Engineering		[Organization] will create guidance for users to actively reflect on personal assumptions or perspectives that may introduce bias into their prompts.					
Bias Identification		[Organization] requires users to review, verify and fact-check through multiple sources the content generated by Generative AI for accuracy and to eliminate instances of bias, offensive, inaccurate or harmful material if it has been produced by AI.					
Transparency and Communication		[Organization] will establish guidelines for staff members to maintain transparent documentation regarding their usage of AI systems, including any known limitations or biases.					



Human Oversight



Human Oversight



Why is Human Oversight Important to Include In Your Policy?

- Helps detect and mitigate errors, biases or unintended consequences of AI-generated outcomes.
- Ensures that AI serves as a reliable tool for tailored, accurate and effective public health interventions - requires continuous validation by human experts.
- Reduces risk of automated systems overlooking important contextual factors that may compromise the well-being of populations.
- Maintains public trust, responsiveness and effectiveness in public health strategies.



Human Oversight



Vignette: *Assigning Human Responsibility to Verify AI-Generated Comparative Analysis of State Medical Marijuana Policies (Hypothetical)*

Goal: Use generative AI to conduct a policy review comparing medical marijuana legislation.

Issue: AI outputs missed critical legal nuances across the different policies.

Strategies:

- Training on Policy-Specific Biases and Legal Nuances
- State-Specific Prompt Engineering
- Ongoing Validation Through Expert Review



Human Oversight



Human Oversight Provisions in AI Policies:

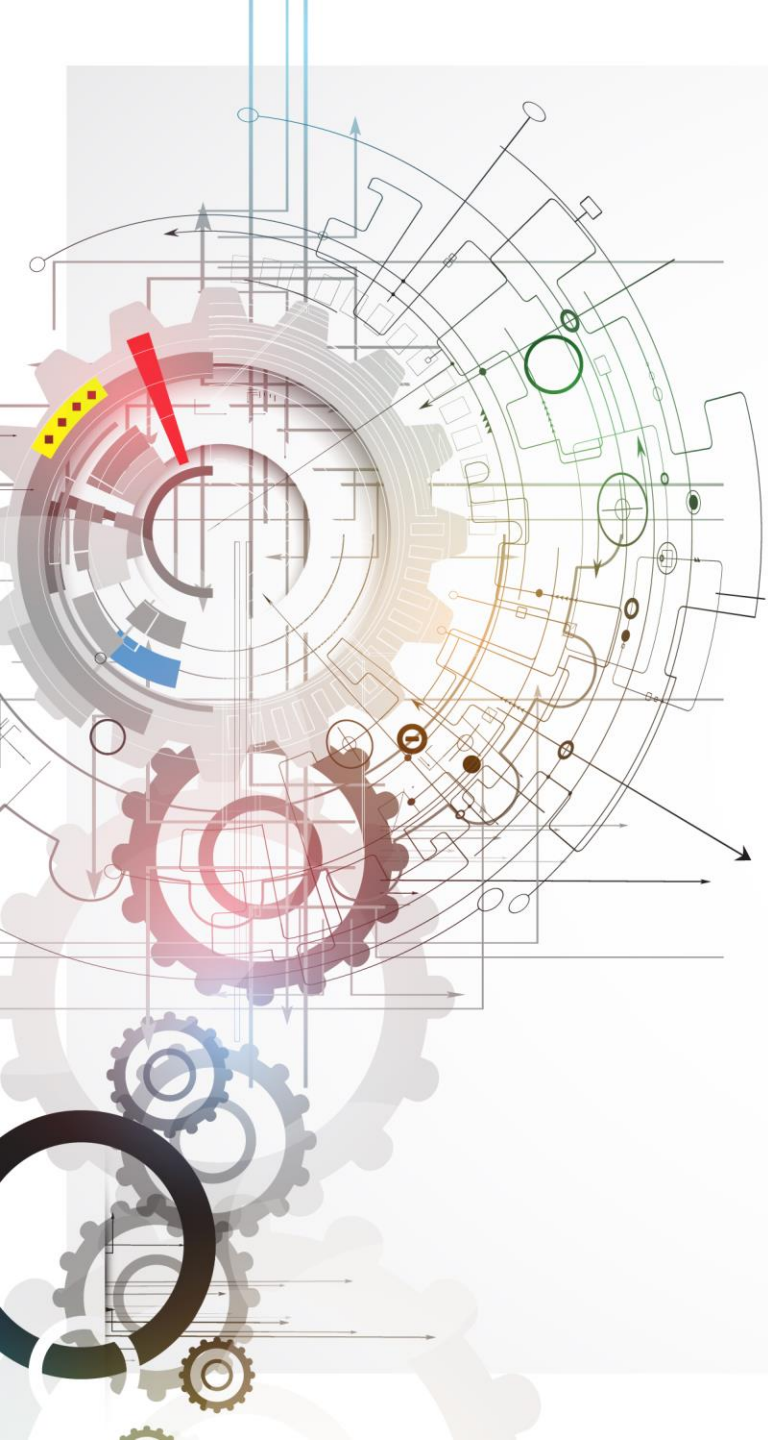
- **Prohibit Fully Automated Decisions:** No AI-only decisions in critical areas like service eligibility.
- **Accountability Measures:** Regular audits, oversight committees and ethical procurement standards.
- **Human Validation:** Required checks for accuracy and bias in AI-generated content.

Ensures AI use is transparent, ethical and accountable.



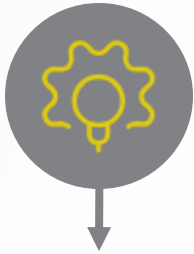
Human Oversight

Purpose	Vignette	Overview of Provisions	Sample Provisions
Oversight Processes and Protocols	[Organization] will develop oversight processes for AI use dependent on the task's risk level. Activities deemed low risk will be overseen by the user, while tasks classified as higher risk will follow the established quality assurance process.		
Accountability and Oversight	[Organization] prohibits the full automation of decisions without human review, especially pertaining to whether individuals qualify for services or benefits.		
Error Investigation and Responsibility	[Organization] will establish processes for investigating and addressing errors in AI use, ensuring a fair assessment of accountability...		
Whistleblower Protections for AI-Related Concerns	[Organization] will ensure that employees are protected when they raise concerns about the misuse of AI, biased outputs or unethical use of AI-generated content, ensuring these issues are not ignored, suppressed or used as the basis for adverse employment decisions, in accordance with existing law.		

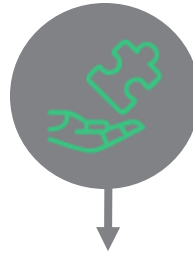


Other Sections and Provision in AI Policy Development

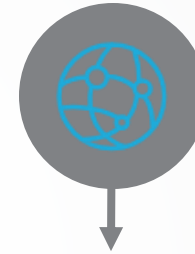
Why Include 'Other Sections and Provisions?'



**Address emerging
and critical AI
considerations**



**Fill policy
gaps**



**Forward-thinking
approach to AI
governance**



Other Sections and Provisions

AI Authorship & Copyright

Who takes credit for AI-generated content?

Environmentally Conscious Considerations

Recognizing the environmental impact of AI and aligning use with sustainability goals.

Acquisition of AI Tools

Ensuring ethical and legally compliant AI procurement.

Evaluation and Quality Improvement

Ongoing monitoring to ensure AI effectiveness.

Why These Sections Matter

AI Authorship & Copyright

Misuse of AI-generated content can create legal and ethical concerns.

Environmental Impact

AI's carbon footprint is growing, and organizations must balance innovation with sustainability.

Acquisition of Tools

AI tools should meet ethical, security and transparency standards before adoption.

Ongoing Evaluation

AI policies should not be “set and forget.” Regular audits ensure AI remains ethical and effective.

Environmentally Conscious Considerations

Considerations

- **Environmental Impact:** Increased energy consumption, higher water usage and greenhouse gas emissions associated with training, deploying and ongoing use of AI models.
- **Variation in Energy Use:** Different AI models vary significantly in their energy consumption based on factors such as their size, complexity and usage.

Provisions

- Emphasize the importance of balancing innovation with sustainability.
- Encourage the responsible use of AI technologies to minimize negative environmental consequences.

Focus of Example Provisions: Environmentally Conscious Considerations



Advancing environmental health objectives using AI



Collaborating with stakeholders to improve AI energy efficiency and reduce carbon footprints



Assessing public health impacts of AI infrastructure, including data centers



Engaging local communities in AI-related infrastructure planning



Staying updated on scientific advancements and best practices related to AI's environmental impact



Other Sections and Provisions

- Authorship and Citation
- Copyright
- Environmentally Conscious Considerations
- Acquisition of AI Tools
- Evaluation and Quality Improvement

In Summary

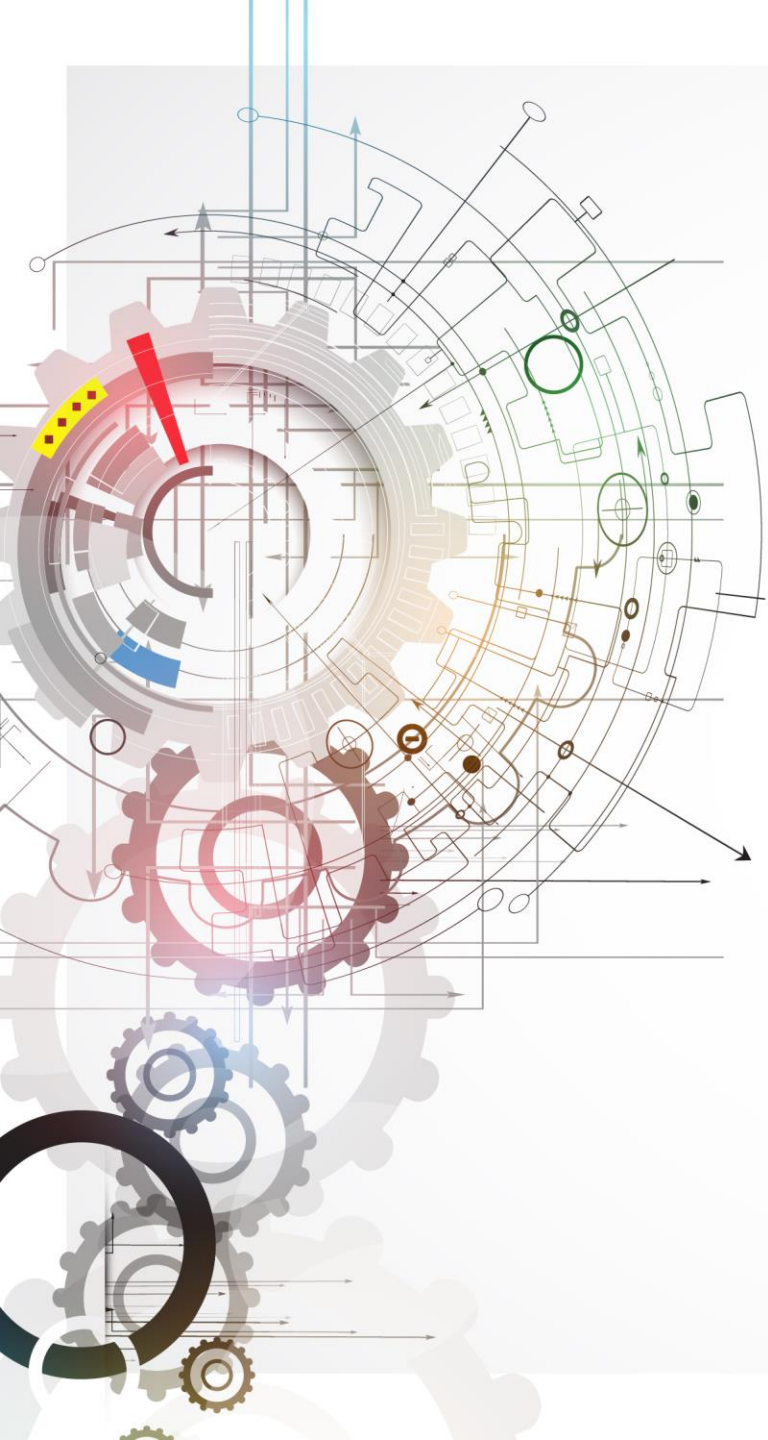


- The use of AI should be **strategic** and based on a clear rationale.
- AI policies should be **adaptive**—technology evolves, and so should guidelines or policies.
- **Transparency and accountability** must be built into every step of AI adoption.
- Ethical AI is not just about avoiding harm but **actively promoting good**.
- **Regular reviews and updates** will ensure policies stay relevant as AI advances.

**We Value Your
Feedback!**



bit.ly/3CUVglo



THANK YOU!

Resources

Lin, T. Y., Uridge, E. and Rowell, S. C. , Gaitan, E., & Wood, B. (January 28, 2025). ***Developing Artificial Intelligence (AI) Policies for Public Health Organizations: A Template and Guidance***. Kansas Health Institute. <https://www.khi.org/articles/developing-artificial-intelligence-ai-policies-for-public-health-organizations-a-template-and-guidance/>

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