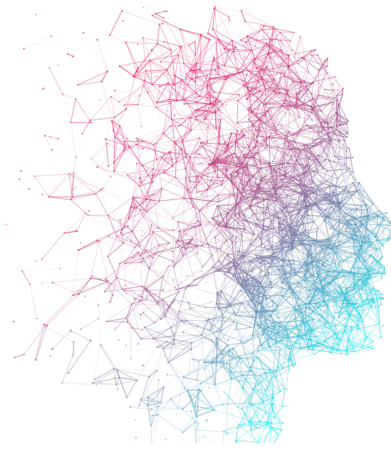


Developing Artificial Intelligence (AI) Policies for Public Health Organizations

A Template and Guidance



January 2025



Developing Artificial Intelligence (AI) Policies for Public Health Organizations

A Template and Guidance

Acknowledgements

This overall project, which included several components — this document, *AI Policy Template and Guidance*, supplemental documents, a literature review, and a policy analysis — was a collaborative effort between the Kansas Health Institute (KHI), Health Resources in Action (HRiA), and the Wichita State University Community Engagement Institute (WSU CEI). Each organization played a distinct role based on the specific project component. The individuals listed below contributed to the development of supplemental documents that informed this *AI Template and Guidance* and provided valuable feedback that shaped its final form. For additional information about the roles of all partners, please refer to *Appendix D* on page 62.

Authors

Tatiana Lin, M.A.

*Director of Business Strategy and Innovation,
Kansas Health Institute*

Emma Uridge, M.P.H.

*Analyst,
Kansas Health Institute*

Shelby C. Rowell, M.P.A.

*Analyst,
Kansas Health Institute*

Erika Gaitan, M.S.W.

*Associate Director,
Community Impact,
Health Resources in Action*

Ben Wood, M.P.H.

*Senior Director,
Policy and Practice,
Health Resources in Action*

Contributors

Kate Holmes, M.P.H.

*Associate Director, Health and Racial Equity,
Health Resources in Action*

Taylor Carter, M.P.H.

*Public Health Program Specialist,
Wichita State University
Community Engagement Institute*

Linda Sheppard, J.D.

*Team Leader,
Kansas Health Institute*

Emily Brinkman, M.P.H., R.D., L.D.

*Public Health Program Specialist,
Wichita State University
Community Engagement Institute*

Aaron Davis, M.P.A., M.B.A.

*Director, Center for Public Health Initiatives,
Wichita State University,
Community Engagement Institute*

Stewart Cole

*Graphic Designer
Kansas Health Institute*

Reviewers

We sincerely thank all reviewers for their valuable feedback and insights that have greatly contributed to enhancing this document. While their input has been invaluable in shaping the final product, the authors assume full responsibility for its content and conclusions. The list of reviewers is presented in alphabetical order.

April M. Klein, M.P.H.

*Senior Public Health Analyst,
National Network of Public Health Institutes;*

Chuck Akin

Vice President, CDC Information Technology, ICF;

Dawn Hunter, J.D., M.P.H.

Founder & CEO, The Dawn Lab;

Eddie Kirkland

Principal Data Scientist, ICF;

James Husband, M.P.H.

Health Equity Coordinator, Louisiana Public Health Institute;

Jamie Pina, Ph.D., M.S.P.H., FAMIA

*Senior Director, Center for Data Modernization Solutions,
RTI International;*

Jennifer Edwards, Ph.D.

Director of Workforce Programs & Initiatives, Trailhead Institute;

John Auerbach

Senior Vice President, Health, ICF;

Justin Snair

*Managing Partner & Senior Principal Consultant,
SGNL Solutions; CEO, Prepr.ai;*

Leila Doty

*Privacy and AI Analyst, Information Technology Department,
City of San José;*

Loren Milliken, M.P.H., M.S.W.

*Public Health Analyst,
National Network of Public Health Institutes;*

Michelle C. Ozah, B.S.P.H., M.S.W.

Social & Health Disparities, Louisiana Public Health Institute;

Nitisha Tripathy, M.P.P.A.

Innovation Fellow, MetroLab Network;

Vistrit Choudhary, M.P.P.,

*Health Policy Coordinator,
Southern Illinois University School of Medicine*

Disclosure Statement

AI technology is evolving rapidly, and with it, policies and best practices continue to adapt. This *AI Policy Template and Guidance* is intended to foster and enrich policy discussions by providing a foundation for thoughtful engagement. It should not be viewed as a substitute for comprehensive, context-specific policy frameworks or expert consultation. Regular updates and revisions are recommended to ensure alignment with the latest advancements and societal needs.

The information in this document is provided in good faith, but under no circumstances shall we have any liability to any user for any loss or damage incurred as a result of using the provisions or relying on the information in the template. This *AI Template and Guidance* also contains links to other content belonging to or originating from third parties or links to other content belonging to or originating from third parties. However, we do not guarantee or assume responsibility for the accuracy or reliability of any information offered by these third parties. Authors make no representations or warranties of any kind, express or implied, as to the content included in the *AI Policy Template and Guidance*. Please note that the authors are not providing legal advice and are not intended as a substitute for advice that may be provided by an attorney.

This work is supported by funds made available from the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS), National Center for STLT Public Health Infrastructure and Workforce, through OE22-2203: Strengthening U.S. Public Health Infrastructure, Workforce, and Data Systems grant. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, CDC/HHS or the U.S. Government.

Purpose of AI Policy Template and Guidance.....7

Supplemental Materials.....9

Policy Template and Guidance Structure..... 11

 Key Definitions 13

Before Developing AI Policy 14

Section 1. Policy/Guidelines Purpose Statement 18

 Sample Purpose Statements..... 19

Section 2. Key Principles..... 20

 Sample Purpose Statements..... 21

Section 3: Scope of Policy/Guidelines 24

 Sample Provisions: Scope 25

Section 4. Data Privacy..... 26

 Why is Data Privacy important to include in your policy?..... 26

 Overview of Sample Provisions 27

 Sample Provisions: Data Privacy..... 28

Section 5. Bias Mitigation 30

 Why is Bias Mitigation important to include in your policy?..... 30

 Overview of Sample Provisions 33

 Sample Provisions: Bias Mitigation..... 33

Section 6. Human Oversight 37

 Why is Human Oversight important to include in your policy? 37

 Overview of Sample Provisions 39

 Sample Provisions: Human Oversight 39

Section 7. Transparency..... 42

 Why is Transparency important to include in your policy? 42

 Overview of Sample Provisions 44

 Sample Provisions: Transparency 44

Section 8. Community Engagement..... 46

 Why is Community Engagement important to include in your policy? 46

 Overview of Sample Provisions 47

 Sample Provisions: Community Engagement Stakeholder Input and Collaboration 48

Section 9. Training and Capacity Building..... 49

 Why is Training and Capacity Building important to include in your policy? 49

 Overview of Sample Provisions 50

Other Sections and Provisions51

Appendix A. Methodology 54

AI Policy Template and Guidance Development..... 54

 Literature Review and Policy Analysis..... 54

 Limitations..... 55

Appendix B: Identifying Problems and Solutions to Advance Mission Focused use of Gen AI 57

Appendix C: Questions When Procuring AI System 61

Appendix D. About the Project Team and Products 62

Appendix E. Sample Outline for AI Policy..... 63

Appendix F. Definitions 64

References..... 67

Purpose of AI Policy Template and Guidance

The rapid growth of Artificial Intelligence (AI) tools has prompted many sectors, including public health organizations, to explore or discuss — both formally and informally — how these tools could be used. AI holds transformative potential in public health practice, such as detecting emerging health trends and identifying potential disease outbreaks to drafting news releases, creating educational materials and developing personalized training resources. However, the "hype" phenomenon around AI could lead some organizations to adopt these tools too quickly, without clearly defining the rationale for or implications of their use. Conversely, some organizations may hesitate to explore AI tools due to the evolving nature of the field, limited AI literacy, lack of organizational buy-in, uncertain regulatory environments, or inadequate infrastructure. Opting to wait could create potential missed opportunities. To address these needs, a multipronged approach is essential. Developing policies or guidelines could be part of this strategy. However, if a policy is not carefully designed it could result in unforeseen negative impacts.

To assist public health organizations of all sizes and levels in crafting effective AI policies, integrating AI-related provisions into existing policies or guidelines, and fostering critical discussions before developing new policies, we created Developing Artificial Intelligence (AI) Policies for Public Health Organizations: A Template and Guidance. Recognizing that AI is not monolithic and encompasses a diverse range of technologies and methodologies, organizations should consider the intended use of AI and the specific type of AI that could support it when developing AI policies. We recommend avoiding the explicit specification of particular AI tools in policies, as these tools and the platforms they are built on are continually evolving.

This document focuses on publicly accessible AI systems, particularly those with generative AI capabilities. These systems often operate in less controlled environments and reach a wide audience, presenting unique challenges. Developed through a literature review, policy analysis, and expert input, the AI Policy Template and Guidance highlights the importance of establishing a clear vision for AI use. This vision should articulate the rationale, appropriate circumstances and strategies for leveraging AI, along with practical steps for its effective implementation. By translating the vision for AI into actionable steps, an organizational policy serves as a bridge between strategy and practice, enabling responsible, effective and sustainable AI integration while addressing potential concerns.

Although this *AI Policy Template and Guidance* focused on publicly accessible AI systems, some provisions, and especially guidance, is relevant to other types of AI systems. To guide the adaptation of provisions, we recommend evaluating whether the AI systems covered by the organization's policy share characteristics or considerations with publicly accessible AI systems, as well as understanding the organization's intended use of AI.

Concerns with AI systems often center on areas such as bias, data privacy, human oversight, transparency and community engagement. Addressing these areas in any AI policy requires consideration of the specific type of AI system, its use cases and associated risks (e.g., low- vs. high-risk applications). Provisions should be tailored to the system's type, characteristics and potential impact on privacy, security, fairness or society. For example, policies for publicly accessible generative AI (e.g., ChatGPT, Claude) might prioritize data de-identification to protect individual privacy, while policies focused on addressing the use of the AI systems with robust safeguards in place may not require the same measure.

After AI policy has been developed or AI-related provisions have been added to existing policies, it is essential for organizations to regularly review and update them. This ongoing process ensures AI-related provisions keep pace with the rapidly evolving AI landscape and the growing body of related research. This continued effort helps ensure policies remain current, effective and aligned with emerging best practices. While an annual review is recommended, several additional factors should be considered when determining the appropriate frequency to review AI policies. These include significant advancements or developments in AI technology, changes in legal or regulatory frameworks, internal changes such as the adoption of new AI systems or tools, and if there are any new emerging ethical concerns or risks associated with AI deployment.

Supplemental Materials

The project scope included an environmental scan that informed this *AI Policy Template and Guidance* development, comprising a literature review and policy analysis at both city and state levels. To learn more about the supplemental documents, refer to *Appendix D* on page 62.

- *Literature Review: Examining the Key Considerations for the Use of Artificial Intelligence in Public Health and Health Care*
- *Policy Analysis: City-Level Artificial Intelligence Policies and Guidelines*
- *Policy Analysis: State-Level Artificial Intelligence Policies and Provisions*

To supplement the information in this document and inform your organization's AI policy development, the authors also recommend that you refer to the [Department Of Labor Artificial Intelligence And Worker Well-Being Principles and Best Practices for Developers and Employers](#), published in October 2024. Additionally, they suggest referring to the [San Jose Handbook](#), which provides a comprehensive set of questions organizations can ask AI developers when selecting an AI system.

The research team used AI tools (e.g., ChatGPT-4o and Petal AI) to inform the development of the supplemental documents – specifically, the literature review and policy analysis – that contributed to the creation of this document, referred to as the *AI Policy Template and Guidance* hereafter. All content was subsequently reviewed and refined by the authors to ensure accuracy and quality.

Additionally, AI tools are referenced in hypothetical vignettes throughout the *AI Policy Template and Guidance*. The information provided in this document is not intended to endorse any specific AI tool, application or company and is offered solely as examples to illustrate concepts.



AI Template and Guidance

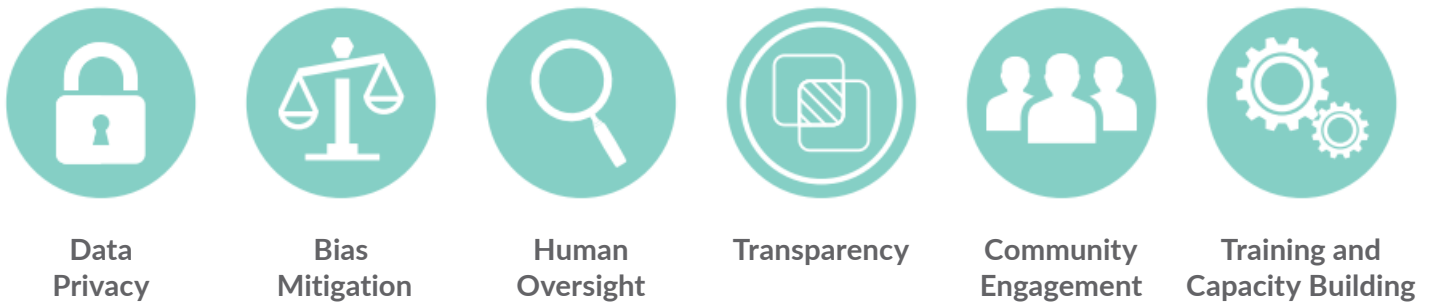


Template and Guidance Structure

The *AI Policy Template and Guidance* not only offers adaptable provisions for policy development but also provides context for each section, encouraging organizations to approach development in a thoughtful and proactive manner. It includes a series of questions (*Appendix B*, page 64) designed to guide organizations in self-reflection, helping to articulate a clear and well-considered rationale for AI use, while also fostering deeper organizational reflection on the best approach to AI policy development.

The development of the *AI Policy Template and Guidance* was informed by findings from an environmental scan, which included a review and analysis of policies from various cities and states across the country, a literature review and input from reviewers of these documents. (Methodology Section, *Appendix A*, page 61). Some provisions reflect current policy practices and standards, while others are informed by expert opinion and reflections within the literature review, acknowledging the evolving nature of the field. The listed provisions include citations for the policies from which they were sourced, whether provided verbatim or modified based on the environmental scan.

The *AI Policy Template and Guidance* is organized into sections typically included in AI policies (Figure 1, page 13). It begins with three sections: the purpose of the **policy**, **scope**, and **key principles**. Each of these three sections includes a brief overview and sample provisions. These are followed by six topic-specific sections:



Each topic-specific section is structured to include (Figure 1, page 13):

- **Purpose of the Section, titled “Why is [issue] important to include in your policy”:** This provides context on the issue, explains the rationale for including this section in the AI policy and highlights why these concerns are critical for public health.
- **Hypothetical Vignettes:** Each topic includes a hypothetical example of AI use, highlighting potential challenges organizations may encounter and illustrating how addressing these through strategies, policy solutions, emerging practices or formal guidelines could be beneficial.
- **Overview of Sample Provisions:** Provides a high-level summary of the types of provisions commonly included in this section.
- **Sample Provisions:** Offer example provisions that can be used as a starting point for drafting your own guidelines or policies. These are intended to inspire ideas and help shape the final content.

An example AI policy outline following the template structure is located in *Appendix E*, page 63. Definitions of commonly used terms are provided in *Appendix F*, page 64.

Other important areas, such as Authorship and Citation, Copyright, Environmentally Conscious Considerations, Acquisition of AI Tools, Evaluation and Quality Improvement, should be considered for inclusion in the policy. This *AI Policy Template and Guidance* document references these topics in *Other Sections and Provisions*, page 51. However, due to the limited information available on each of these sections in existing policies and literature, their inclusion as standalone, topic-specific sections was not feasible. It is important to note that including these topics in the *Other Sections and Provisions* does not imply that they are less significant than other areas addressed in the policy.

Figure 1. Key Elements of AI Policy Template and Guidance Structure



Key Definitions

Below are important definitions for understanding the structure of the template and content throughout this document. For the full list of definitions, please see *Appendix D*, page 64.

Artificial Intelligence (AI): A machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. AI systems use machine- and human-based inputs to perceive real and virtual environments; abstract such perceptions into models through analysis in an automated manner; and use model inference to formulate options for information or action.¹

AI System: Any data system, software, hardware, application, tool or utility that operates in whole or in part using AI.²

Equitable Use of AI: Refers to the development, deployment and application of artificial intelligence systems in a manner that ensures fairness, inclusivity and justice. This involves preventing bias and discrimination, providing equal access to the benefits of AI and ensuring that AI systems do not disproportionately disadvantage

or marginalize any individual or group. Equitable AI systems should promote social good, enhance opportunities for all and be transparent and accountable to users from diverse backgrounds. In practice, this means that data used to train AI models must be representative of diverse populations, and decision-making algorithms must be regularly audited for bias.³ Additionally, human oversight of AI-generated content is needed to prevent bias and discriminatory language.

Generative AI: The class of AI models that emulate the structure and characteristics of input data to generate derived synthetic content. This can include images, videos, audio, text and other digital content.⁴ Unlike human cognition, generative AI does not perform reasoning, make decisions or "think." Instead, generative AI operates based on patterns and correlations in the data it has been trained on and produces content accordingly, without understanding or intention.

Before Developing AI Policy

The next three sections outline three key activities that public health organizations can undertake to lay a solid foundation for AI policy development and subsequent AI implementation. These activities include:

1. Practicing Naming Problems and Solutions to Advance Mission-Focused Use of AI
2. The Role of Change Management During AI Implementation
3. Adapting Sample Provisions to Your Policy

Activity 1.

Identifying Problems and Solutions for Mission-Focused AI Use

As public health organizations develop policies for how AI will be used to address public health challenges facing their communities and for more routine workflow purposes, pausing to reflect on those decisions will support ethical and equity focused practices. This practice will help guide the development of policies that align with the organization's core mission and values. It will also help establish clarity on the issues the organization aims to address with AI systems, as well as potential concerns, which will help define the types of AI uses that could be employed. This, in turn, will guide the structuring of the AI policy to support and appropriately safeguard AI utilization.

To support this reflection process, this AI Policy Template and Guidance offers an activity, referred to as “Identifying Problems and Solutions for Mission-Focused AI Use.” It was developed based on the Massachusetts Department of Public Health’s [Racial Equity Reframing Tool](#) and the framework provided by Justin Snair, Managing Partner & Senior Principal Consultant at SGNL Solutions and CEO of Prepr.ai. The summary of the activity is provided below, with the full version available in Appendix B, page 57.

We recommend beginning the activity with a candid assessment of how your organization is doing in meeting public health needs of the community.

- First, you should identify gaps between community demands and your capacity to meet them, with a focus on non-technological solutions first.
- The next step is to determine whether these gaps can be addressed through improved human or organizational processes before exploring the need for technological solutions.
- Once this step is complete, evaluate whether traditional systems or AI can address the remaining gaps, and assess your organization’s readiness to responsibly adopt and manage these tools. **If AI is identified as a potential tool, it is crucial to evaluate its alignment with your organization’s values, mission and ethical standards. AI must address the identified gaps while being scalable and financially sustainable to enhance your capacity to serve your community responsibly and effectively.**
- Finally, “urgency” as described in *Figure 2*, page 16 should only be created after this groundwork has been laid. By clearly articulating the problems AI can solve, the benefits it offers and the steps your organization has taken to prepare, you can transition more effectively to policy development and AI experimentation.

As new issues or problems emerge, the organization should revisit this activity to inform the decision of whether to approach them with technological or non-technological solutions. This approach to identifying problems and solutions for mission focused AI use is also applicable to addressing internal organizational needs.

Activity 2.

The Role of Change Management During AI Implementation

The implementation of AI in organizational processes and systems may bring increased anxiety about the change and create fear of job loss or automation. Historically, technological advancements in certain sectors have resulted in job loss or hardship for workers in underserved communities.^{5,6} Addressing these fears and reinforcing a commitment to using AI as a tool to enhance or complement the work of employees rather than replace them for the sake of efficiency can positively impact job satisfaction and overall well-being for both current and future employees.⁷

Recognizing the transformative impact AI may have on the public health field and beyond, organizations are encouraged to adopt a change management approach to effectively address these transitions. **After completing Activity 1:**

Identifying Problems and Solutions for Mission-Focused AI Use, organizations can integrate change-management practices into the AI implementation process. One model that can inform these efforts is Kotter's *8 Steps for Leading Change*.⁸ While this model was not designed specifically for AI-related change management, it offers a clear, systematic approach to organizational change that can be adapted for AI. The steps outlined in the model emphasize creating urgency, building a coalition and communicating a compelling vision, all of which could help organizations gain buy in, overcome resistance and maintain momentum. The authors of this *AI Policy Template and Guidance* have preserved the eight core steps of the model, providing examples of how organizations can adapt and approach the use of AI (Figure 2).

Figure 2. Kotter's 8 Steps for Leading Change Model: 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

After engaging in Activity 1, the *"Identifying Problem and Solutions for Mission-Focused AI Use"* and Activity 2, *"The Role of Change Management During AI Implementation,"* use the insights gained to adapt the sample provisions included in this document or create new ones. Additionally, when making decisions about what to include in your AI policy, consider factors such as the

relevance of provisions to the type of AI the organization plans to use, the risks associated with potential use, the regulatory environment and organizational capacity.

The following list of questions can be used as guidance when reviewing and deciding which provisions from these templates to include and how to adapt them:

1. Are the provisions consistent with the organization's core values and public health mission?
2. Do the provisions reflect the organization's current and/or future commitment to equity, inclusivity and non-discrimination in public health?
3. Are the provisions applicable to the types of AI systems the organization plans to use?
4. What potential impacts might these provisions have on staff, partners and communities?
5. How will the provisions promote trust and transparency with the public, particularly among communities that could be disproportionately impacted if AI outputs have bias?
6. Can these provisions be integrated into existing organizational workflows without causing major disruptions or inefficiencies?
7. Does the organization have sufficient expertise, financial, human and technical resources to implement these provisions, or is there a need to involve external experts for staff training and auditability for AI?



Section 1

Policy/ Guidelines Purpose Statement

Key principles in AI policy play a critical role in ensuring that it is used ethically and responsibly. These principles should be aligned with the organization's mission, vision and values, fostering accountability, transparency and security. It is important to highlight the organization's commitment to uphold these principles through specific provisions and safeguards embedded within the policy. The use of AI should not only reflect core values but also contribute to the broader goals of ethical governance and responsible technology use. By clearly articulating how these principles will be upheld, organizations demonstrate a proactive approach to maintaining ethical standards in AI deployment.

To assist organizations in selecting the AI principles that best align with their mission, vision and organizational values, the following guiding questions can help ensure that the chosen principles reflect the agency's ethical commitments and practical considerations for responsible AI use.

- 1.** Does your organization already have existing policies that guide the use of technology, and if so, how could those be adapted or expanded to address the specific considerations and challenges associated with AI?

2. How do the agency's mission and vision influence the selection of principles for AI governance?
3. Which principles can address the ethical and equity challenges of AI use in the agency's specific context, promoting the protection and inclusion of disproportionately affected communities?
4. What operational and organizational priorities (e.g., equity, innovation, security) should be embedded into the principles?
5. How should the principles be structured to remain adaptable as AI technologies and organizational needs evolve?

The purpose statement of an AI policy should be carefully crafted to align with the organization's broader vision and mission, ensuring that the use of AI technologies supports its strategic goals and clearly defines the objectives behind seeking AI solutions. The statement also should emphasize the organization's intent to leverage AI responsibly so that its use aligns with the broader mission of improving public health. Additionally, it should highlight the importance of ethical considerations, such as transparency,

accountability and fairness, making clear that the organization is committed to using AI in ways that protect public trust and maintain integrity in decision-making.⁹

The purpose statement should also communicate the organization's commitment to inclusivity and equity in AI deployment.¹⁰ Furthermore, it should underscore the intention to establish safeguards and frameworks for mitigating risks associated with AI, such as data privacy concerns and other unintended consequences.

SAMPLE Purpose Statements

- The purpose of this regulation is to establish guidelines and principles for the responsible and ethical use of Artificial Intelligence (AI) technologies within [organization]. This document outlines how the organization can harness the potential of AI to enhance public services, improve efficiency and drive innovation, while ensuring that its deployment upholds the values of transparency, accountability, fairness, privacy and inclusivity.¹¹
- The purpose of this policy is to set forth requirements and guidance that [organization] users must adhere to when acquiring and using solutions that meet the definition of generative artificial intelligence (AI).¹²
- The purpose of this policy is to provide a framework and guidelines for the use of artificial intelligence (AI) in [organization] to help address the different risks associated with AI. There are a variety of benefits that result from using AI systems, but there must be guidelines in place for them to be used responsibly. The [organization] is committed to safe and responsible uses of AI by its employees.
- The [organization] established the Ethical Artificial Intelligence (AI) Policy to affirm [organization] commitment to responsible and ethical use of AI through the principles that ensure transparency, fairness, accountability and the protection of individual rights in all AI-related activities conducted by [organization]. Being intentional in our adoption and use of AI technologies will drive innovation, support increased efficiencies in operations and improve experiences for community engagement.¹³



Section 2

Key Principles

Key principles in AI policy play a critical role in ensuring that it is used ethically and responsibly. These principles should be aligned with the organization's mission, vision and values, fostering accountability, transparency and security. It is important to highlight the organization's commitment to uphold these principles through specific provisions and safeguards embedded within the policy. The use of AI should not only reflect core values but also contribute to the broader goals of ethical governance and responsible technology use. By clearly articulating how these principles will be upheld, organizations demonstrate a proactive approach to maintaining ethical standards in AI deployment.

To assist organizations in selecting the AI principles that best align with their mission, vision and organizational values, the following guiding questions can help ensure that the chosen principles reflect the agency's ethical commitments and practical considerations for responsible AI use.

- 1.** Does your organization already have existing policies that guide the use of technology, and if so, how could those be adapted or expanded to address the specific considerations and challenges associated with AI?
- 2.** How do the agency's mission and vision influence the selection of principles for AI governance?
- 3.** Which principles can address the ethical and equity challenges of AI use in the agency's specific context, promoting the protection and inclusion of disproportionately affected communities?
- 4.** What operational and organizational priorities (e.g., equity, innovation, security) should be embedded into the principles?
- 5.** How should the principles be structured to remain adaptable as AI technologies and organizational needs evolve?

Sample Key Principles

Principle	Description
Empowerment	The use of AI should support the work of staff to deliver better, safer, more efficient and equitable services and products to our residents.¹⁴ We trust employees to do the right thing, given the right tools and guidance.¹⁵
Equity	We are stewards of the public's health and will use Generative AI to support and uplift our communities.¹⁶ Everything we do, regardless of the tools, is a reflection of the [organization] and ourselves. We acknowledge that AI systems have the potential to perpetuate inequities, discrimination, harm and bias against residents, and the [organization] will commit to using an equity lens to examine the burdens, benefits and unintended consequences of Generative AI.¹⁷ We recognize that Generative AI technologies are shaped by the data and systems that create them, and as such, they can inadvertently reinforce or amplify existing social inequities, including, but not limited to, racism. We acknowledge that Generative AI introduces concerns about job security and job displacement, and we recognize that appropriate support must be provided to staff in the face of emerging technologies.¹⁸
Explainability and Interpretability	The [organization] recognizes the importance of leveraging AI systems, models and outputs that are both interpretable and explainable. We acknowledge that while achieving full explainability for all AI systems, particularly those based on complex models, remains a significant challenge, we are committed to prioritizing transparency and interpretability as much as possible and where it is most critical. Our approach emphasizes ensuring a clear understanding of AI recommendations in areas such as hiring, resource allocation or other impactful applications where explainability is essential for accountability, fairness, building trust and supporting users in effectively interpreting AI outputs, so they can make informed decisions and clearly explain their reasoning.
Inclusion and Respect	The use and development of AI should support the development of work that repairs damage done to racial and ethnic minorities, people of all genders and sexual orientations, people of all ages, people with disabilities and others. Our work should uplift these communities and connect them more effectively with the resources they need to thrive.¹⁹ AI should be leveraged to foster more inclusive and respectful workplaces by creating opportunities that empower individuals with diverse abilities and backgrounds. By addressing barriers that may limit participation or access, AI can help organizations build environments where everyone can contribute meaningfully and equitably. These contributions should be integrated into workplace practices and policies.

Principle	Description
Intent and Responsibility	Only people have intent and are responsible for the outcomes of their decisions. Responsibility rests with people.²⁰ AI systems do not possess intent, judgment or moral understanding. They are tools created and guided by humans, who bear full accountability for their deployment and impacts.
Transparency and Accountability	We embrace the possibilities of technology and community. <i>We acknowledge that we do not have all the answers, nor can we foresee all the consequences.</i> We are committed to being open and transparent about when and how we use generative AI and to monitor its impacts. We build trust and we gain the ability to learn collectively.²¹ Another policy included the sentence in italics listed above, followed by an additional sentence below: <i>"We recognize further research into this technology may reveal issues that require more restrictions on its use."</i>²² Maintaining public trust and transparency is essential. AI use must support this goal and improve the functioning of government.²³ Generative AI is a tool. We are responsible for the outcomes of our tools. For example, if autocorrect unintentionally changes a word, changing the meaning of something we wrote, we are still responsible for the text. Technology supports our work; it does not excuse our judgment or accountability.²⁴
Environmentally Conscious	We recognize that AI technologies have the potential to be beneficial to the environment and ecosystems, and in order for those benefits to be realized, potential harms to and negative impacts on the environment and ecosystems should not be ignored but instead addressed.²⁵ We recognize that AI technologies impact resource use and the environment, and we are committed to collaborating with others to ensure they do not disproportionately affect environmental justice communities. We recognize the potential environmental impacts of AI systems include increased energy and water consumption, electronic waste generation, and resource-intensive hardware production.²⁶ Wherever possible, we will collaborate with AI developers to ensure that environmental considerations — such as minimizing energy consumption, reducing water usage, and promoting sustainable practices — are integrated into the AI technologies we adopt. We will routinely use environmental health tracking tools to understand the impact and other potential environmental factors related to expanding AI usage. Where applicable, we will leverage AI to advance environmental health objectives, particularly those focusing on addressing the needs of populations who already experience barriers to health due to social, physical, or environmental factors. We aim to align the use of AI with our broader commitment to environmental responsibility, transparency and sustainability practices.

Principle	Description
Balancing Risk and Innovation	We understand that there is value in the use of technology, particularly new Generative AI, but there are also risks, some of which will not be apparent or fully understood upfront. We embrace a culture of responsible experimentation, where we consider potential implications with the use of AI tools. ²⁷
Privacy and Security	Every technology tool that we use has an impact on the security of our overall environment, and the privacy and digital rights of our residents.²⁸ The [organization] values data privacy and understands the importance of protecting personal information. We work to ensure that policies and standard operating procedures that reduce privacy risk are in place, and are applied to the AI system throughout development, testing, deployment and use to the greatest extent possible.²⁹
Workforce Sustainability	The use of AI tools will be focused on the primary goal of augmenting, rather than replacing, human workers. [Organization] will prioritize AI solutions that enhance the capacity, efficiency and decision-making capabilities of staff, ensuring that AI complements human expertise and skills. AI systems will assist, complement and enable workers, while also improving quality.³⁰ Provide professional development opportunities for staff to adapt to the potential impacts of AI implementation on their roles. [Organization] will seek to adapt job training and education to support a diverse workforce and help provide access to opportunities that AI creates.³¹
Public Purpose	The best known of these new tools are developed for commercial purposes. While they can be adapted for mission-driven work by public professionals, it is important to maintain service to the public at the center of our work.³² [Organization] believes in the power of AI to promote the public's health and support the public health workforce.



Section 3

Scope of Policy/ Guidelines

The scope section of an AI policy typically defines who the policy applies to, such as employees, departments or third-party vendors, and what specific activities, systems or processes it governs. An AI policy outlines the boundaries of AI use within the organization, detailing any important exceptions or areas not covered by the policy's scope. Additionally, it may specify any geographical or functional limitations. For instance, the City of Seattle's Generative AI policy applies to all city departments, as well as vendors, contractors and volunteers operating on behalf of the city.³³

To illustrate the importance of defining who the policy applies to, consider these examples of potential assumptions or oversights if these steps are not taken:

- Some departments within the organization may assume that the AI policy does not apply to them because they operate under a different branch, such as administration or within remote satellite offices. For example, a human resources department might assume that the AI policy doesn't apply to their recruitment tools because they view the tools as part of a specific hiring function.
- Contractors or third-party vendors might assume that the AI policy doesn't apply to them because they are not considered direct employees of the organization. This could lead to gaps in compliance.
- A department might decide that their use of AI in certain tasks is "harmless" and does not need to be included in the policy. For example, an analytics team may assume their use of AI for data analysis is

not critical enough to be regulated under the AI policy because it is seen as non-critical or purely for internal use.

- An external-facing project or a partnership with another organization may not immediately

be considered within the scope of the policy, even though AI is being used. For example, AI tools used in public outreach programs or joint research projects with universities may be inadvertently left out of the policy scope.

SAMPLE Provisions | Scope

- This policy applies to all [departments and/or divisions] of [organization] and *does not* pertain to [contractor, department and/or], which are considered outside of this policy's scope due to [reason].
- This document applies to all use of [type of AI] by a [organization] staff member, contractor, volunteer or other person while performing a role for the [organization] (collectively "users"). This document does not apply to users of [type of AI] for personal purposes or business purposes unassociated with the [organization].³⁴
- While AI is a broad and deep topic, this policy is currently concerned with solutions that use a specific type of AI called Generative AI.³⁵
- Departments may provide additional rules on the usage of Generative AI. Users should consult their manager if there are additional rules specific to their department.³⁶
- This policy applies to the design, development and deployment of AI for all cases where AI functionality is known to be included, such as new tools for existing products, new products being considered for use, or where AI technology is developed by [organization] employees, contractors, partner agencies or other stakeholders.³⁷



Section 4

Data Privacy

Why is Data Privacy Important to Include In Your Policy?

Data privacy is crucial in AI policies for public health organizations to protect sensitive health information and maintain public trust. These organizations handle vast amounts of confidential data, including medical records, financial information and demographic details. The necessary safeguards depend on the specific AI system in use and the type of information being processed. For example, many guidelines and policies adopted by organizations, cities and other localities include provisions that prohibit the submission of sensitive data to publicly accessible generative AI tools. This prohibition also extends to include sensitive information within prompts used by these tools.³⁸ This is due to concerns that these systems could expose proprietary or sensitive information to unauthorized parties. As of November 2024, there is no universally adopted standard in the United States mandating AI systems to disclose how they utilize input data; however, several jurisdictions have introduced regulations to enhance transparency in AI operations.

Additionally, for non-public data, numerous policies and guidelines require that AI tools undergo an assessment by a designated party (e.g., Information Security and Data Privacy Officer) to ensure that no risks are present. Employees using AI systems should receive robust training and education on their organization's internal data privacy policies before utilizing any AI tools. Furthermore, the organization must maintain data privacy, to the extent they are required to, in order to maintain compliance with all applicable state and federal health policy laws.

DATA PRIVACY VIGNETTE

Addressing Data Privacy Issues When Using Publicly Available Generative AI Tools for Developing FAQ (Hypothetical)

Note: The vignettes serve as examples in practice to illustrate potential AI challenges, strategies, policy solutions and emerging practices.

Description: A city health department decided to utilize a publicly available AI tool, such as ChatGPT, to draft public health outreach materials, including FAQ sheets on flu vaccines and emergency preparedness guides. They wanted to make sure that data privacy issues were addressed in material creation. To ensure data privacy, the organization implemented the following strategies:

- **Training and Education:** Employees were trained on how to craft prompts that did not include sensitive or non-public information. For example:
 1. **Allowed Prompt:** “Create a flu vaccine FAQ for a general audience, including common myths and facts.”
 2. **Prohibited Prompt:** “Using this patient’s anonymized health history, draft vaccine-specific advice.”
- **Input Verification:** Before using AI, staff ensured the data in their prompts were drawn exclusively from public sources or pre-approved content. For instance, information from CDC guidelines or publicly available research studies was used to frame queries.
- **Evaluation Not Required for Public Use:** Since the tool did not access internal systems or handle sensitive health data, a formal evaluation by the Information Security and Data Privacy Officer was deemed unnecessary. The department ensured compliance by restricting inputs to non-sensitive content.
- **Transparency:** All AI-generated content was reviewed by department experts to ensure accuracy and appropriateness before being used in public-facing materials.
- **Monitoring and Accountability:** The department established a log for AI usage, tracking prompts and the resulting outputs. This ensured accountability and provided documentation in case of future audits.

Overview of Sample Provisions

The sample data privacy provisions are designed to ensure that AI tools employed within the organization safeguard confidential and sensitive information. These provisions stipulate that restricted data must not be uploaded to AI systems unless it has received proper authorization and clearance for handling such confidential information. Furthermore, the provisions provide several guidelines, including the ability for individuals to opt out of data collection, establish separate accounts for official purposes, and comply with internal privacy policies and procedures.



SAMPLE Provisions | Data Privacy

Confidentiality, Data Security and Legal Compliance

- [Organization] prohibits the uploading of any protected, sensitive or personally identifiable information (PII) that is protected by federal or state privacy laws.³⁹
- [Organization] will ensure no information restricted by laws, regulations or internal policies is uploaded. [Insert applicable laws or policies here], governs sensitive information disclosure and should be followed.
- [Organization] prohibits users from ever transmitting personal, sensitive or protected information to Generative AI tools. Data transmitted to AI systems should always be suitable for public release, in compliance with applicable legal and regulatory frameworks.⁴⁰
- [Organization] will only always use data and prompts that are appropriate for public disclosure. The information input into the Generative AI tools may be subject to public records requests.⁴¹

Handling Sensitive and Identifying Information

- [Organization] requires employees to protect personally identifying, confidential and financial information of individuals and organizations. This includes following laws, policies and procedures to safeguard against unauthorized access.⁴²
- [Organization] prohibits the inclusion of confidential information or uploads in AI prompts. This includes personal identifiers like people's faces, voices, IDs, license plates, medical records and other sensitive details, unless explicit consent has been given.⁴³
- [Organization] will consult with IT or relevant departments to establish secure methods for working with such information using AI tools if the use case involves sensitive data.⁴⁴

Data Management, Privacy and Security Practices

- [Organization] will opt out of data collection whenever possible. Many AI services provide the option to prevent the retention of your data and ensure it is not used to train future models.⁴⁵
 - [Organization] will create a separate Generative AI system account for official use to ensure work-related inputs are kept distinct from personal records.⁴⁶
 - [Organization] will require employees to establish a separate Generative AI system account using their organization's credentials and not use personal accounts for work-related purposes.
 - [Organization] will comply with all records retention requirements in accordance with their jurisdiction or professional standards.
-

Reporting, Consultation and Compliance with Policies

- [Organization] will consult with [list role here] before using Generative AI tools. Staff should also review internal and external policies, such as the [list specific policy].
 - [Organization] requires any unauthorized collection or disclosure of identifying information to be reported to the appropriate authority in accordance with [identify relevant policy].⁴⁷
 - [Organization] will require Generative AI users to adhere to the standards and principles outlined in the [list policy].
-



Section 5

Bias Mitigation

Why is Bias Mitigation Important to Include In Your Policy?

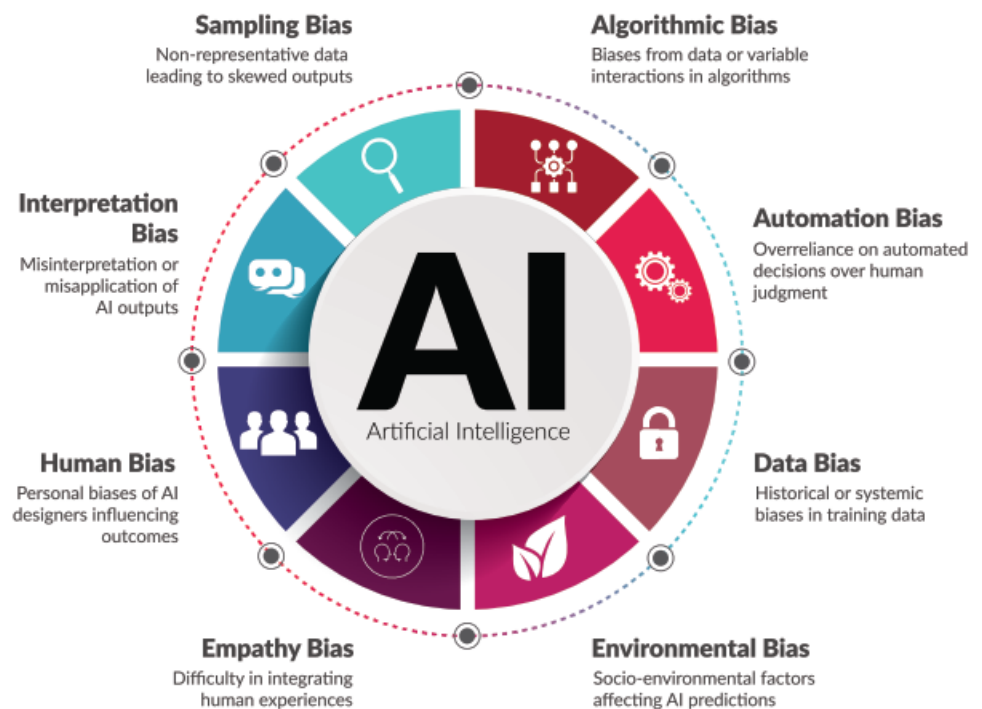
Bias can exist in AI systems due to the nature of how these technologies are developed, trained and deployed.⁴⁸ AI systems rely heavily on data to learn and make decisions. Any bias present in the training data can be absorbed by the algorithm, leading to biased outcomes.^{49,50} The presence and extent of bias will vary depending on the specific AI system and its development process. Bias in AI can stem from several sources as described in *Figure 3*, page 31, and listed below.

1. **Algorithmic Bias:** Algorithms can inadvertently amplify biases present in the data or develop their own biases through unintended interactions between variables.⁵¹
2. **Automation Bias:** In addition to the bias that could be introduced during AI system development, there is also the risk of automation bias. People often perceive automated decisions as more accurate than human judgment, leading them to overlook errors or disregard their own reasoning.⁵²
3. **Data Bias:** The data used to train AI models may reflect historical, societal or systemic biases. If the data is skewed or unrepresentative of certain groups, AI will learn these patterns and perpetuate them. Moreover, biases are not solely limited to outdated norms or circumstances. Data that **are** narrowly focused or constrained by the perspective of specific users may also reinforce and entrench current societal norms or circumstances. This can result in AI systems that inadvertently limit adaptability or perpetuate a limited view of the world, rather than reflecting the full diversity and dynamism of evolving trends and realities.^{53,54}
4. **Environmental Bias:** Refers to the influence of socio-environmental factors, such as social determinants of health (income, education and living conditions) and physical environmental conditions (urban vs. rural settings), on data collection and AI predictions. This bias can lead to inequitable outcomes if these variables are not adequately represented or integrated into AI models.⁵⁵

5. Empathy Bias: Empathy bias arises from the difficulty of integrating subjective human experiences and qualitative elements into AI systems. This includes the system's reliance on quantitative data, which may overlook nuanced experiences, fail to consider individual patient preferences and circumstances, and the challenge of incorporating personal stories to enhance fairness and relevance in AI outcomes.⁵⁶

6. Human Bias: The individuals designing or deploying AI systems may unintentionally embed their own biases in the models. Decisions about which data to include, how to label them, or how to structure the algorithm can all be influenced by human perspectives, leading to biased outcomes.^{57,58}

Figure 3. Types of Biases in AI Systems



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

7. Interpretation Bias: Arises when the outputs of AI systems are misconstrued or misapplied.⁵⁹

8. Sampling or Exclusion Bias: When the data collected are not representative of the entire population, it can lead to skewed AI outputs. For instance, if an AI system is trained primarily on data from urban populations, it may not perform well for rural populations.^{60,61}

In public health, equity and fairness are essential to ensuring that interventions and services reach all communities effectively, regardless of race, socioeconomic status or geographic location. If AI systems produce biased results, they can undermine these goals and potentially perpetuate existing disparities by failing to be relevant or applicable to communities of interest.⁶²

To address any negative implications of potential bias, it is essential for public health organizations to put in place comprehensive AI policies or guidelines and build staff

capacity to implement solutions that effectively address these issues.⁶³ These provisions should create mechanisms that empower users to recognize and address bias in AI input and outputs. Public health organizations should be aware of the types of biases that AI systems can produce and carefully consider these biases when deciding on AI use cases. It is essential to assess fairness in AI outputs and develop strategies to identify

and mitigate any potential biases. By critically reviewing AI-generated content, users can prevent potential misinformation generated by AI systems and make more informed, balanced decisions. Public health organizations should also explore ways to engage with developers to provide input on the training and development of AI systems, ensuring that these technologies align with ethical and equitable public health outcomes.^{64,65}

BIAS MITIGATION VIGNETTE

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

Note: The vignettes serve as examples in practice to illustrate potential AI challenges, strategies, policy solutions and emerging practices.

Description: A public health organization used generative AI to develop health education materials on food and nutrition, tailored to diverse cultural and socioeconomic groups. They began the process by clearly defining the purpose of using AI and its intended applications. The organization decided to employ AI to create materials in multiple languages, addressing the limited language proficiency of staff, and to brainstorm innovative ideas for tailoring these materials to meet the needs of their audiences. To identify potential biases, the organization shared AI-generated outputs with representatives from community organizations who served on an advisory panel. The representatives gave input into the development of the materials (or to the program). Feedback from these representatives indicated that the AI-generated content showed a bias toward western health norms, resulting in dietary recommendations that overlooked local food preferences and cultural practices.

In response to these identified biases, the organization implemented the following strategies focused on prompt engineering and staff training:

- **Culturally Inclusive Prompt Engineering:** Staff were trained to design prompts that explicitly incorporated local health disparities, cultural preferences and community-specific health needs. Rather than using generic prompts, staff crafted targeted prompts that requested content aligned with local dietary practices and relevant health behaviors, guiding AI to generate more inclusive outputs.
- **Bias Awareness and Sensitivity Training:** Staff received training to recognize and address potential biases in AI outputs, covering various bias types such as data and societal biases. This training helped staff identify western-centric assumptions in health recommendations and ensure that AI outputs better aligned with community values.
- **Regular Feedback Loops with Community Representatives:** Staff established ongoing feedback sessions with community representatives to refine prompts based on input from local perspectives. This continuous feedback loop improved the accuracy and cultural relevance of AI-generated content over time.

Overview of Sample Provisions

Policies designed to address potential biases in AI typically include provisions such as verifying AI-generated content for accuracy through multiple sources, engaging subject matter experts (SMEs) to review and mitigate biases, and ensuring staff are trained to identify and address bias in AI outputs. Provisions also discuss prompt engineering, where the user verifies the input to receive accurate and bias-free information from existing data. These policies also emphasize independent validation of AI content, careful attention to inclusive language and tone, and conducting bias assessments before and after procurement. Additionally, transparency, ongoing monitoring and feedback mechanisms are vital to addressing bias concerns and providing stakeholders with avenues to challenge potentially biased outcomes. establish separate accounts for official purposes, and comply with internal privacy policies and procedures.

SAMPLE Provisions | Bias Mitigation

Bias Identification

- [Organization] acknowledges that Generative AI systems can reflect the cultural, social and economic biases of the source material used to train them.
- [Organization] commits to develop and use participatory frameworks that involve public health experts and diverse community representatives, throughout the AI lifecycle to ensure the outputs align with local needs and are culturally appropriate.⁶⁶
- [Organization] will engage underrepresented communities in bias identification efforts, ensuring that their perspectives are integral to reviewing AI outputs, especially in sectors like public health where such biases can exacerbate disparities.⁶⁷
- [Organization] will engage with individuals in underrepresented communities to better understand their perspectives on text-generated content.⁶⁸
- [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.^{69,70}
- [Organization] will validate AI-generated content, e.g., through trusted publications and websites.⁷¹
- [Organization] will engage subject matter experts (SMEs) to regularly review AI outputs for potential biases and offer recommendations to address them.
- [Organization] will verify that the information is accurate by independently researching claims made by AI.⁷²
- [Organization] will establish guidance to identify inaccurate information, including links and references to events or facts and bias in the positions or information.⁷³

Bias Awareness and Mitigation Training/Capacity Building

- **[Organization]** will provide staff with a clear explanation of what bias in AI systems means. This includes different types of biases (e.g., data bias, algorithmic bias and societal bias).
- **[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.⁷⁴ This training should cover how to critically assess AI-generated recommendations or decisions. This training should emphasize the role of staff in recognizing when AI outputs may disproportionately affect specific groups and how to offer corrective measures. It should also address the trade-offs between algorithmic fairness and accuracy to prepare staff for making nuanced decisions in the field.⁷⁵

Minimization of Bias in Prompt Engineering

Individuals are encouraged to use prompts that are neutral and inclusive that avoid assumptions or stereotypes, while also being tailored for specific populations and community contexts. This practice will ensure more fair and equitable AI-generated responses across diverse contexts and populations. Addressing bias in prompts can assist the user in generating more relevant and inclusive content, as described below in *Figure 4*, page 35.

- **[Organization]** will establish a process within your **[organization or team]** to review and finalize prompts before use.
- **[Organization]** will create guidance for users to actively reflect on personal assumptions or perspectives that may introduce bias into their prompts. Incorporate culturally inclusive design practices, ensuring that AI prompts and outputs are free from assumptions based on race, gender or socioeconomic status. Replace any charged or loaded terms with neutral alternatives. Encourage prompts that seek multiple viewpoints.⁷⁶
- **[Organization]** will ensure prompts and AI inputs consider unique public health challenges, local health disparities and socioeconomic factors to avoid the replication of biases present in non-representative data.⁷⁷
- **[Organization]** will ensure prompts account for social determinants of health, fostering an AI output that supports holistic and equitable public health interventions.⁷⁸

Language and Tone in AI Output

- **[Organization]** will ensure that Generative AI outputs align with vocabulary or tone consistent with the **[organization]** and its values.⁷⁹
- **[Organization]** will create a process to provide connections to inaccurate or biased outputs back into the AI system to more effectively train the system to recognize future bias.
- **[Organization]** will develop processes to ensure inclusive and neutral language in AI-generated output, paying special attention to language stereotypically associated with a specific race or gender. Use gender-neutral language. Avoid using gender-specific pronouns (he, she) and job titles (fireman, firewoman). Instead, opt for inclusive terms such as "they" and "firefighter."⁸⁰
- **[Organization]** will avoid using adjectives that may be associated with a specific gender, such as "aggressive" or "nurturing." Use neutral descriptors like "results-driven" or "collaborative."⁸¹

Figure 4. Prompt Engineering to Address Potential Bias

Example Generic Prompt	What is Potential Risk for Bias?
"Create a list of healthy meals for adults to reduce the risk of heart disease."	The prompt could produce biased outputs by favoring foods from specific cultures, ignoring diverse dietary needs, and suggesting expensive or inaccessible ingredients. The output may exclude individuals with dietary restrictions, cultural preferences or limited resources, potentially perpetuating health inequities.
Example of a 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). Include multiple perspectives to ensure cultural adaptability, and highlight indigenous or local foods where applicable."	This approach significantly reduces potential biases by promoting inclusivity and accessibility, though it may not completely eliminate biases. Individuals aiming to reduce bias in AI-generated content should provide nuanced community context for more relevant and culturally specific messaging.

Source: Kansas Health Institute.

Bias Evaluation in AI Systems

- **[Organization]** will develop or use existing equity-based metrics to evaluate the performance of AI systems to ensure that they do not unintentionally exacerbate existing inequities, especially in underserved populations.
- **[Organization]** will partner with third-party organizations or ethics boards to conduct unbiased reviews of AI systems and their impacts, ensuring an objective perspective on potential bias.
- **[Organization]** will evaluate AI systems through an equity lens for potential impacts such as discrimination and unintended harms arising from data, human or algorithmic bias to the extent possible.^{82,83} The user should also note inequitable outputs that arise from incomplete data sets that are missing information from underrepresented communities.
- **[Organization]** will document the steps **[list entity]** will take to evaluate AI-generated content to ensure that its output is accurate and free of discrimination and bias against protected classes.⁸⁴
- **[Organization]** requires continuous, independent bias auditing throughout the lifecycle of AI deployment beyond the initial evaluation. This should include regular assessments of outputs for emerging biases and their unintended effects on various demographic groups. Periodic reviews should be mandatory, including adjustments for newly identified biases that arise post-implementation.⁸⁵
- **[Organization]** will work with all AI stakeholders involved in the development, deployment and utilization of the AI system to prepare the necessary documentation needed prior to the bias audit taking place.

Accountability and Governance in Monitoring and Addressing Bias in AI

- [Organization] will define who is responsible for regular audits, with a focus on equity and social justice of decisions based on AI outputs.⁸⁶
 - [Organization] will create channels for staff, users and affected communities to provide feedback about AI-generated content. This can help identify bias-related concerns and encourage ongoing improvements.
 - [Organization] will provide an appeals mechanism and process for those affected by AI-generated decisions, enabling users or stakeholders to challenge decisions they believe are biased or harmful.
 - A new position, Chief Grievance Redressal Officer for AI (CGRO-AI), shall be established to independently receive, investigate and address complaints related to bias, discrimination or unintended harm caused by AI systems. To ensure impartiality and sustained operation, the office will be funded through a protected line item in the budget that cannot be altered or reduced by executive actions.
-

Transparency and Communication About Known Biases and Mitigation Steps

- [Organization] will establish guidelines for staff members to maintain transparent documentation regarding their usage of AI systems, including any known limitations or biases. This includes communicating with stakeholders about how AI systems are used and any steps taken to mitigate bias.



Section 6

Human Oversight

Why is Human Oversight Important to Include in Your Policy?

Although AI systems present significant potential to enhance public health initiatives, they are not without limitations. Human oversight remains crucial to detect and mitigate errors, biases or unintended consequences that AI-generated outcomes may introduce. Ensuring that AI serves as a reliable tool for equitable, accurate and effective public health interventions requires continuous validation by human experts. AI algorithms can generate outputs that appear sophisticated and credible; however, it is imperative that humans verify their accuracy and relevance. Ultimately, the responsibility for decision-making based on AI-generated data lies with human professionals.

Human oversight plays a crucial role in ensuring effectiveness and safety in public health initiatives. As public health systems increasingly rely on technology, data and automated processes, human judgment remains essential for interpreting complex situations, addressing ethical concerns and making informed decisions. Human oversight allows for adaptability in responding to unpredictable health crises, ensures accountability and promotes the continuous evaluation of policies and interventions.⁸⁷ Without this critical layer of oversight, automated systems could overlook important contextual factors, leading to unintended consequences that may compromise the well-being of populations. Therefore, integrating human oversight is vital to maintain trust, responsiveness and effectiveness in public health strategies.⁸⁸

HUMAN OVERSIGHT VIGNETTE

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

Note: The vignettes serve as examples in practice to illustrate potential AI challenges, strategies, policy solutions and emerging practices.

Description: A state health department employee utilized Generative AI to compare medical marijuana regulations across several neighboring states, aiming to highlight variations in policy related to qualifying medical conditions, prescription requirements and age restrictions. They began by clearly defining the purpose of using AI for this task. The request from the legislature required a quick turnaround, prompting the use of AI to efficiently compare policies across jurisdictions.

Initially, the AI-generated comparisons were released without thorough human review, which led to issues with accuracy and completeness. For instance, AI overlooked nuanced distinctions in policy language, such as specific patient eligibility requirements and differences in approved medical conditions, leading to misinterpretation of the actual regulatory provisions.

Strategies: In response to these oversight issues, the organization implemented the following corrective strategies:

- **Training on Policy-Specific Biases and Legal Nuances:** Staff with policy analysis responsibilities engaged in professional development to recognize common policy interpretation biases, such as oversimplifying qualifying conditions or overlooking restrictive clauses. This training enabled them to identify and

correct AI-generated summaries that failed to capture critical policy subtleties, ensuring that the output more accurately represented the language and intent of each state's law.

- **State-Specific Prompt Engineering:** Staff with policy analysis responsibilities created prompts that contained the legal language and contextual variances among states, explicitly guiding AI to focus on state-specific terminologies and legal definitions. Rather than using general prompts, they developed nuanced prompts that directed AI to identify specific qualifying conditions and restrictions unique to each state.
- **Ongoing Validation Through Expert Review Panels:** A review panel composed of health care professionals, legal experts and policy advisors was established to verify the AI-generated outputs. By including experts from various states, the organization created a feedback loop, ensuring that comparisons were validated against real-world regulations and perspectives. This continuous review process increased the reliability and precision of AI's policy analysis over time. For organizations that do not have the capacity to form a panel of experts outside the state, consider forming an internal quality assurance team with expertise in the subject matter.

Overview of Sample Provisions

Examples of provisions included in the policies related to human oversight are: defining clear responsibilities for human operators in monitoring AI systems and intervening when necessary; prohibiting fully automated decision-making in critical areas like service eligibility; establishing accountability through regular audits, oversight committees and ethical procurement standards; requiring human validation of AI-generated content for accuracy and bias; and protecting employees who report concerns about the misuse or unethical behavior of AI systems. These provisions promote the use of AI that is transparent and ethical and includes accountability.

SAMPLE Provisions | Human Oversight

Oversight Processes and Protocols

- [Organization] will establish human oversight protocols and practices for regular system testing and maintenance for feedback and continuous improvement.
- [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.

Human Operator Responsibilities and Intervention

- [Organization] will clearly define the roles and responsibilities of human operators in utilizing AI systems, including training requirements and obligations for monitoring and intervening in system decisions.^{89,90}
- [Organization] will establish effective and timely human intervention processes to adequately address any AI challenges.⁹¹
- [Organization] prohibits the full automation of decisions without human review, especially pertaining to whether individuals qualify for services or benefits.⁹²

Accountability and Oversight

- [Organization] commits to ensuring the development of AI-related processes within [our organization] that involve thorough oversight and promote responsible AI use.
- [Organization] will create accountability and oversight strategies and procedures for the use and acquisition of AI. These strategies and procedures should include, but are not limited to, implementing ethical procurement standards, regular audits and evaluations of AI systems and use; engagement with an advisory board or the community through feedback mechanisms; and establishing an internal oversight team to evaluate responsible AI practices and activities.⁹³
- [Organization] will establish a governance board or committee responsible for overseeing Artificial Intelligence/Machine Learning risk management.⁹⁴
- [Organization] documents the steps the department will take to evaluate AI-generated content to ensure that its output is accurate and free of discrimination and bias against all populations, but especially against protected classes.⁹⁵
- [Organization] requires AI systems reviews to be documented, with the documentation retained according to the appropriate records retention schedule.⁹⁶
- [Organization] will implement a process to evaluate AI systems for potential impacts on constitutional and legal rights. Human oversight and decision-making mechanisms should be established to ensure the protection of public interest and adherence to legal and ethical standards.
- [Organization] conducts structured assessments to verify that AI systems used by the public health agency align with agency objectives, legal requirements and established standards.
- [Organization] requires human oversight for all final decisions. [Organization] will establish levels of oversight and review based upon use and risk to ensure accountability, legal compliance and alignment with [Organization's] mission and goals.

Error Investigation and Responsibility

- [Organization] will establish processes for investigating and addressing errors in AI use, ensuring a fair assessment of accountability. Employees should not be held responsible for errors beyond their control, and the organization must provide transparent support systems.⁹⁷
- [Organization] will clearly define staff responsibility for the outcomes of Generative AI used for work purposes. Organizations must provide appropriate safeguards, training and support to minimize unfair burdens on individuals. While the consequences of Generative AI use remain a human responsibility and cannot be deferred to the software or system, collaborative processes should ensure employees are not unfairly held accountable for errors beyond their control.⁹⁸

AI Content Validation and Review

- [Organization] will establish responsibilities and protocols for staff members to verify that the information is accurate to mitigate biases and misinformation.⁹⁹
- [Organization] will provide a thorough review by verifying and fact-checking content created by Generative AI through multiple sources. The [organization] will promote accuracy and strive to eliminate instances of bias, offensive, inaccurate or harmful material if it has been produced by AI.^{100,101}
- [Organization] requires human review of AI outputs prior to each use in an official [organization] capacity.^{102,103} The review processes shall be documented by owning [entity] and shall demonstrate how the review was conducted to adhere to the principles outlined in this document.¹⁰⁴
- [Organization] will ensure human oversight and alternatives in decision-making when using AI systems within the [organization]. Establish clear processes for error review, appeals and escalation to maintain public trust and transparency.

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.¹⁰⁵

Alignment with Regulatory and Legislative Guidance

- [Organization] actively monitors legislation, rules and regulations, and task force and commission recommendations related to AI. Align internal policies with established regulations, standards and safeguards to maintain human oversight and mitigate potential harm within the public health agency.

Section 7

Transparency

Why is Transparency Important to Include in Your Policy?

Transparency, a concept with diverse interpretations, is crucial in the development and deployment of AI systems. Research highlights that people increasingly desire a clear understanding of how AI systems function and the processes underlying their decision-making. Within the context of this *AI Policy Template and Guidance*, transparency specifically refers to an organization's duty to openly disclose its use of AI technologies. This proactive disclosure promotes trust and ensures accountability in organizational practices.

Facilitating transparency in AI usage within an organization is crucial for maintaining both staff and public trust, as well as fostering responsible and ethical use of AI technology. Transparency allows stakeholders to understand how AI systems are being applied, including the specific tasks for which they are used. Additionally, it helps align AI practices with stakeholder values, ensuring that AI is used in ways that are consistent with broader societal, ethical and organizational expectations. However, ensuring full transparency can be challenging, as organizations may not always be fully aware of how the AI systems function or how they generate outputs.

Despite these challenges, organizations can still disclose how AI systems are being used and highlight the role of human oversight in safeguarding accuracy, fairness and alignment of AI outputs with both organizational values and stakeholder interests. The following are the reasons for advancing transparency in AI use within organizations:

- **Trust Building:** Transparency helps build trust among users, stakeholders and public health organizations by providing clear information on how AI systems are being used and the decision-making processes involved.
- **Legitimacy in Public Sector Decision-Making:** Transparency in how AI is used in public sector decision-making increases the legitimacy of AI use, making the public more accepting of decisions informed by AI.

- **Accountability:** Transparency ensures that public health organizations are held accountable for the use of AI-generated content, particularly when ethical issues like data privacy, fairness, health equity or public risk communication are involved.
- **Compliance with Regulations:** Transparency ensures that the organization complies with relevant legal and regulatory requirements related to AI, such as data protection laws, health information confidentiality and public health ethics.
- **Improved Oversight:** Transparency enables better oversight of AI systems used in public health, allowing both internal and external bodies to audit and assess AI systems.
- **Improved Multi-Stakeholder Collaboration:** Transparency helps foster collaboration among regulators, developers and users by enabling cross-sectoral engagement, where AI's capabilities and risks can be discussed and evaluated openly.
- **Mitigating Automation Bias:** Clear and transparent explanations about AI's role in public health decision-making help mitigate automation bias. This ensures that the organization and the public do not over-rely on AI systems and that human oversight remains central, especially in situations where AI recommendations may not fully capture the complexities of public health risks or response.

TRANSPARENCY VIGNETTE

Disclosing AI Use When Developing Public Comment Summaries for Air Quality Regulation (Hypothetical)

Note: The vignettes serve as examples in practice to illustrate potential AI challenges, strategies, policy solutions and emerging practices.

Description: The state environmental health division employed generative AI to analyze and summarize anonymous public comments on a proposed air quality regulation.

Strategies: To maintain transparency in the creation and application of these AI-generated summaries, the state environmental health division implemented the following strategies:

- **Process Documentation:** They published a detailed report of the steps used to conduct the summary analysis through the AI system, including the exact prompts employed to generate outputs. This allowed the public to understand the methods guiding AI's interpretations.
- **Inclusion of Original Comments:** To facilitate verification and comparison, each summary included a selection of original public comments. This helped stakeholders assess the accuracy of AI's summarizations against the original language and intent of the comments.
- **Quality Assurance and Limitations:** The division outlined the quality assurance measures and explained how staff reviewed the AI-generated outputs to promote accuracy. Additionally, they listed known limitations of the process.
- **Public Engagement:** A public webinar was hosted to share the results and provide insights into the AI's role in the regulatory process. This session enabled the division to directly address questions, clarify methodologies and discuss the potential and limitations of using AI in regulatory decision-making.

Overview of Sample Provisions

Some provisions typically included in policies to ensure transparency and accountability in AI usage include the requirement that any AI-generated content in reports, emails or documents must be clearly disclosed, including the AI tool used, its purpose and confirmation of human oversight. These provisions aim to foster trust by promoting transparency and enabling public scrutiny to catch potential errors. Additionally, policies often require the transparency of AI system selection, design and deployment, with specific transparency requirements built into contracts. There is also a focus on data and algorithm disclosure, particularly in cases involving automated employment decision tools, where individuals must be informed about the data collected and the criteria used. AI can assist with generating job descriptions and assessing an applicant's capabilities with those of the described role.

Provisions also include requirements for regular bias audits and impact assessments for AI-driven tools in employment to ensure fairness and non-discrimination, with audit results made publicly available. Moreover, public services must disclose AI involvement in decision-making processes, providing transparency in areas that affect residents' access to essential services.

SAMPLE Provisions | Transparency

Disclosure of AI Usage

- [Organization] will ensure that the development, use and deployment of AI systems are evaluated for and compliant with all laws and regulations prior to use, and make documentation related to the use, purpose, information collected, location and impact of AI systems publicly available.¹⁰⁶
- [Organization] discloses use of AI in reports, documents, software, emails or other communications where outputs produced by a Generative AI system are used substantially in the final product.¹⁰⁷ This could include a note in documents or communications that specifies: *This content was generated using [specify the AI tool used], for the purpose of [state the intended purpose of the AI]. Human oversight was applied to review and verify the output.*
- [Organization] references AI usage when it is used for significant communications with the public or for other important purposes.¹⁰⁸
- [Organization] clearly acknowledges when AI is incorporated into a product or output. This often involves a citation that acknowledges AI's role in the creation of a product.^{109,110,111,112,113}
- [Organization] will disclose AI usage in accordance with the risk level of the AI system. High-risk AI systems must include detailed documentation of model decision-making processes, while lower-risk systems may require simpler disclosures.¹¹⁴

Responsibility and Accountability

- [Organization] will adopt practices that value transparency and accountability in the use of AI systems.¹¹⁵
 - [Organization] prioritizes transparency and explainability in the selection, design, development and deployment of AI technology.¹¹⁶
 - [Organization] will establish transparency requirements in solicitation contracts for AI systems.¹¹⁷
-

Employment Transparency

- [Organization] will ensure that notices are sent to candidates or employees about the use of automated employment decision tools, job qualifications and characteristics used in the assessment and information about the type of data collected for the tool.¹¹⁸
 - [Organization] conducts regular impact and bias audits on AI-driven tools used in hiring and promotion decisions within the public health agency. Make audit results publicly accessible to ensure transparency and accountability in recruitment and career advancement practices.
 - [Organization] provides employees and job applicants, upon request, with information detailing how their data is collected, processed and used by AI systems in hiring and promotion processes.
-

Public Services and AI

- [Organization] will publish regular, detailed reports on how AI is integrated into service delivery within the public health agency. Include the role of AI in decision-making processes and any identified impact related to fairness, bias or equity.
 - [Organization] maintains an up-to-date, publicly accessible inventory of all AI systems used in service delivery. In the interest of transparency, ensure the inventory describes the systems' capabilities and decision-making processes in addition to how it is being utilized by the public health agency.
 - [Organization] will notify individuals when AI systems are used in decisions affecting public benefits or access to services. Provide clear options for individuals to appeal AI-based decisions to human reviewers, promoting fairness and protecting individual rights.
-



Section 8

Community Engagement

Why is Community Engagement Important to Include in Your Policy?

While many public health organizations may not develop AI systems themselves, they increasingly rely on Generative AI tools. As these tools become more integrated into public health operations, it is essential that policies include provisions for community engagement to ensure AI applications align with public needs and maintain public trust. Currently, most AI policies have limited focus on community involvement, highlighting a critical gap that requires greater attention.

To address public concerns about potential risks related to data privacy, transparency and bias in AI tools, involving community members in discussions about the use of these tools, can build stronger trust and accountability. Additionally, seeking community feedback on AI-generated outputs can provide valuable insights, helping agencies consider content that is more inclusive, equitable and relevant to diverse populations.

Public health organizations are uniquely well-positioned to engage communities due to their longstanding roles in addressing health needs at local, state and national levels. They have built trust over time through their involvement in direct service delivery, health education and crisis response, often working closely with communities to understand and address specific health concerns. This established relationship provides public health organizations with a deep understanding of the social, cultural and economic factors that impact health outcomes, enabling them to effectively communicate and collaborate with diverse populations.

This trust enables them to effectively engage communities, inform them about how AI is being used and gather valuable insights from the public on AI-generated outputs, ensuring these technologies are inclusive and aligned with community needs.

COMMUNITY ENGAGEMENT VIGNETTE

Soliciting Community Input When Developing Questionnaires for Community Surveys and Focus Groups on Behavioral Health Priorities (Hypothetical)

Note: The vignettes serve as examples in practice to illustrate potential AI challenges, strategies, policy solutions and emerging practices.

Description: A city health department leveraged AI to develop and refine survey questionnaires and focus group guides to capture community perspectives on behavioral health. They began by clearly defining the purpose of using AI for this task, deciding to use it to suggest innovative ways to frame questions and make them clearer and more accessible.

To promote accuracy and community alignment, they centered their approach on three key strategies:

1. **Transparent Documentation and Public Reporting:** The department maintained transparency by documenting each step in developing the AI-driven survey questions, including exact AI prompts and parameters used.
2. **Pilot Testing with Community Feedback:** They piloted the survey tools with diverse community members, gathering feedback on clarity, cultural sensitivity and accessibility. The pilot testing took place in community locations to reduce access barriers. Based on community responses, they adjusted language and question formats, promoting inclusivity and enhancing the questions' relevance to local behavioral health interests and needs.
3. **Community Engagement:** The department hosted a community forum to present the final survey tools, explain AI's role and the role of staff members in implementation and oversight. They also answered questions to strengthen trust and invited direct engagement on the project's purpose and methodology.

Overview of Sample Provisions

AI policies should include provisions for actively engaging community organizations and stakeholders, particularly those representing groups potentially affected by AI outputs, to gain diverse perspectives and feedback. These policies should also emphasize conducting educational sessions to inform the public about how AI is being utilized within organizations providing public health services, fostering transparency and ensuring the technology aligns with ethical and societal needs.

SAMPLE Provisions | Community Engagement

Stakeholder Input and Collaboration

- **[Organization]** will establish internal AI working groups to gather input from a broad range of stakeholders, including public health experts, advocacy groups, academic institutions and community organizations of varying sizes and focuses. Input from this group can guide the ethical implementation of AI systems within the agency.
- **[Organization]** will ensure that any internal task forces or working groups focused on AI policy include representatives from community advocacy organizations representing a diverse range of populations by race and ethnicity, LGBTQ+ individuals, persons with disabilities, and others related to the public health issue being addressed.
- **[Organization]** will engage with community organizations that represent groups that might be referenced or impacted by this content. Getting their perspective in a respectful way can help you identify when content might be hurtful, discriminatory or misinterpreted.¹¹⁹
- **[Organization]** will use a series of probing questions with the community to co-create an understanding of whether the use of AI will be beneficial to those most impacted by inequities to facilitate engagement, diagnose issues and develop solutions. Consider the following questions: Who benefits? Who pays or is harmed? Who leads? Who decides?
- **[Organization]** will actively engage with stakeholders, such as users, experts, policymakers and community organizations, to solicit diverse perspectives and feedback on the AI technology under consideration or currently used. We will seek to foster collaboration and share knowledge to address ethical challenges and ensure that AI technologies benefit society as a whole.¹²⁰
- **[Organization]** will conduct educational sessions for the public that explain how AI is used in public health and within your organization.



Section 9

Training and Capacity Building

Why is Training and Capacity Building Important to Include in Your Policy?

AI policy should include provisions for capacity building of staff in the ethical use of Generative AI to encourage responsible use of AI tools among public health organizations. As AI becomes increasingly embedded in public health practices, it is critical that staff are equipped with the knowledge and skills to use these technologies ethically and effectively. Without a thorough understanding of key competencies — such as recognizing potential biases, identifying ethical use cases and knowing how to support and mitigate bias, staff may either struggle to use AI or fail to use it efficiently. This gap in understanding could lead to unintended consequences, such as reinforcing inequities or generating outputs that do not adequately serve diverse populations.

This capacity building effort aligns with existing public health priorities that already emphasize the importance of continuous professional development and skills enhancement. Many public health programs focus on developing workforce competencies in areas such as health equity, evidence-based decision-making, and the use of technology for data analysis. Incorporating AI-specific training into these ongoing efforts ensures that the workforce can remain at the forefront of technological innovation while upholding public health ethics and equity principles.

By embedding AI training into broader capacity-building initiatives, public health organizations can maintain consistency in their approach to workforce development. The training can complement existing public health education programs by focusing on the practical and ethical use of AI, thereby strengthening the agency's overall capabilities. The training should include both technical skills and ethical considerations as central components, ensuring that staff is not only prepared to use AI tools effectively, but is also empowered to identify when the use of AI might raise ethical concerns. Additionally, AI training should be an ongoing process, with continuous learning opportunities provided to help staff stay updated on new tools, best practices and evolving ethical guidelines. In addition to conducting training, it is essential to track how much training has been provided, evaluate its effectiveness, and incorporate lessons learned into ongoing training and refresher sessions.

Overview of Sample Provisions

An AI policy for staff capacity building should include provisions for comprehensive training programs that promote AI literacy, ethical use and privacy protection. It should ensure employees can identify biases, understand AI limitations and make informed decisions when using AI tools. Ongoing education and interdisciplinary collaboration with technical experts are essential to integrate AI effectively in public health operations.

SAMPLE Provisions | Training and Capacity Building

- **[Organization]** will provide training programs and resources to employees involved in AI system development and utilization, promoting AI literacy, ethical considerations, privacy protection and responsible AI practices.¹²¹
- **[Organization]** must implement comprehensive training programs to ensure staff members are equipped with the knowledge and skills to responsibly and effectively utilize generative AI technologies.
- All staff at the **[organization]** must receive basic training on foundational AI concepts, including how AI products operate, their limitations and methods for interpreting AI outputs without requiring advanced technical expertise.
- Training programs at the **[organization]** must include modules on recognizing and addressing biases in AI outputs to prevent biased data from influencing public health decisions, particularly in serving diverse populations.
- Training at the **[organization]** must address the ethical use of AI, emphasizing privacy, data security and adherence to applicable regulations, such as HIPAA, General Data Protection Regulation (GDPR), and other relevant data protection laws.
- Staff at the **[organization]** must be trained to understand the risks and limitations of AI tools in decision-making and evaluate when to rely on AI outputs versus when human judgment or additional validation is required, especially in high-stakes public health contexts.
- Hands-on training should be provided to ensure staff at the **[organization]** are proficient in using Generative AI tools for various public health functions, such as developing materials or analyzing data.
- **[Organization]** must establish programs for continuous education, enabling staff to stay updated on advancements in AI technology, emerging best practices and evolving regulations.
- Staff at the **[organization]** should receive training on effective collaboration with technical experts, such as data scientists, to ensure that public health insights are accurately integrated into AI models and outputs.
- Mechanisms at the **[organization]** must be established to regularly evaluate the effectiveness of training programs and ensure compliance, adjusting training content as needed to address gaps or advancements in AI-related public health applications.

Other Sections and Provisions

In addition to the sections previously mentioned, the policies could also encompass additional areas. In the development of this *AI Template and Guidance*, more limited information was identified for each of these sections, and as a result, they are presented in a more concise manner than the preceding sections. It is important to note that these sections could be further considered for inclusion in your organizational policy as more research and examples arise.

Section	Description
Authorship and Citation	The issue of authorship in the context of AI-generated content raises critical questions about responsibility, transparency and legal rights. As AI tools become more prevalent in content creation, it is essential to clearly attribute any contributions made by these technologies. Human oversight remains crucial, as AI cannot assume responsibility for the accuracy or ethical implications of the content it generates. Authorship attribution not only ensures transparency but also helps distinguish human input from automated processes. Furthermore, under current copyright laws, works created solely by AI may not be eligible for protection, reinforcing the need for significant human involvement to secure copyright and ensure accountability. Example Provision: <i>When using AI to assist in creating content, users must ensure that substantial human authorship is involved and documented. Attribution should be provided in a clear manner, such as adding a note in the footer: "This article was generated with assistance from [AI tool] and edited by [Your Name]," ensuring that the human author retains responsibility for the final product.</i>
Copyright	The issue of copyright in relation to AI-generated content is complex and requires careful consideration. AI tools can create text, images and other materials, but under current legal standards, content created solely by AI may not be eligible for copyright protection. This emphasizes the need for human involvement in the creative process to secure copyright protection, as significant human authorship is often required. Example Provision: <i>Users must verify that AI-generated content does not infringe on existing copyrights. Additionally, content created solely by AI is not eligible for copyright protection under U.S. law. To ensure compliance, users should document the extent of human involvement and include a note, such as: "This image was created with assistance from [AI tool] and edited by [Your Name]," ensuring human authorship is clearly established.</i>

Section	Description
Environmentally Conscious Considerations	The environmental impact of AI includes, but is not limited to increased energy consumption, higher water usage, and greenhouse gas emissions associated with training, deploying and ongoing use of AI models.¹²² Different AI models vary significantly in their energy consumption based on factors such as their size, complexity, and usage. For example, a request made through ChatGPT, consumes 10 times the electricity of a Google Search.¹²³ As AI systems often require substantial computational resources, there is an increasing need to assess their environmental footprint. Provisions related to AI should emphasize the importance of balancing innovation with sustainability, encouraging the responsible use of AI technologies to minimize negative environmental consequences. Example Provisions: <i>[Organization] will use AI to advance environmental health objectives.¹²⁴</i> <i>[Organization] will collaborate with stakeholders, including governments, industry partners, and environmental organizations, to advocate for and develop solutions that enhance AI energy efficiency, prioritizing technologies with lower carbon footprints.</i> <i>[Organization] will leverage AI and other tools to analyze the potential public health impacts related to AI infrastructure, including data centers, and ongoing use of AI models.</i> <i>[Organization] will commit to engaging with local communities early and often during the planning and development of AI data centers and related infrastructure, ensuring their concerns are heard and addressed.</i> <i>[Organization] commits to staying up to date with the latest scientific and technological advancements, emerging research, and best practices related to the environmental impacts of AI. We will actively review and incorporate new findings into our policies and practices, and respond appropriately to address any identified risks or opportunities for improvement.</i>
Acquisition of Tools	The provisions for acquiring AI tools and models focus on ensuring ethical procurement, transparency and strict compliance with legal and regulatory frameworks. These provisions typically include regular audits, evaluations of AI systems, community engagement and the establishment of internal oversight teams to monitor responsible AI practices. Additionally, they emphasize the importance of working closely with IT departments to ensure compliance with security, privacy and acquisition laws. Processes for investigating errors and holding AI providers accountable, rather than employees, are also prioritized to reduce risk. For more information on the procurement of AI systems and tools, refer to the <i>City of San Jose AI Handbook</i>.¹²⁵ Example Provision: <i>Before acquiring any AI tool, city employees must seek approval from the IT department to ensure compliance with procurement laws, cybersecurity standards and data protection regulations. This includes submitting details on the AI tool's functionality, data sources and security protocols for review.</i>

Section	Description
Evaluation and Quality Improvement	The provisions for the evaluation and quality improvement of AI systems not only focus on ensuring compliance and performance but also address more nuanced aspects like transparency, bias mitigation and human oversight. They aim to create AI systems that are explainable and interpretable, so users can understand and trust their outputs. Furthermore, these provisions emphasize equity by evaluating AI systems through an ethical lens, actively working to prevent algorithmic discrimination or unintended harm and promoting the greatest good. Regular audits and reviews are vital to maintaining these standards. Human intervention is required to fact-check and validate AI outputs, especially in high-stakes scenarios such as decision-making or public communication. Another critical nuance is the acknowledgment of AI’s evolving nature—organizations must be prepared to update their practices in line with technological advancements and emerging ethical concerns. The proprietary nature of many AI systems adds another layer of complexity, as it often restricts access to critical information needed for evaluating AI models.¹²⁶ Example Provision: <i>The IT department will establish an ongoing evaluation and monitoring process to assess the effectiveness, fairness and safety of AI systems. Periodic audits will be conducted to identify and address any issues related to compliance, ethical considerations and potential algorithmic bias.</i> <i>The IT department, or equivalent, will conduct an annual impact assessment, with a requirement for reassessment if there are material changes to the AI system’s usage or data processing methods.</i>

Appendix A.

Methodology

AI Policy Template and Guidance Development

The *AI Policy Template and Guidance* structure were informed by the framework of existing AI policies to ensure that users have access to all the key components needed for inclusion in the AI policy template. To create an initial list of provisions and background for each section, the team used summaries from state and local policy analyses included in the following three documents:

- *Literature Review: Examining the Key Considerations for the Use of Artificial Intelligence in Public Health and Health Care*
- *Policy Analysis: City-Level Artificial Intelligence Policies and Guidelines*
- *Policy Analysis: State-Level Artificial Intelligence Policies and Provisions*

Next, the team reviewed these provisions and enhanced them based on the findings from the literature review. The provisions were grouped by subtopics within each category for easier navigation. The draft *AI Policy Template and Guidance* was reviewed by 14 reviewers representing public health institutions, the national public health association, academia, city government, a global consulting group, an AI developer, among others. The reviewers were given two weeks to provide feedback. All feedback was carefully considered, and, wherever possible, input from respondents was incorporated. The research team made determinations on how best to integrate the feedback while ensuring consistency with the project's goals.

Literature Review and Policy Analysis

To develop this *AI Policy Template and Guidance*, the project team conducted a literature review, as well as a review and analysis of proposed and enacted state policies, along with city-level policies. The literature review focused on questions related to mitigating bias in AI, data privacy, transparency, the impact on populations that already experience barriers to health due to economic, social and environmental conditions, AI use cases in public health, and ethical considerations. Most of the reviewed research

consisted of articles published within the past five years, primarily from the U.S., with some from international sources.

In addition to the literature review, the team conducted a policy analysis of AI-related policies and guidelines that have been introduced or passed at city and state levels. The policies were identified through several approaches, including outreach through social media channels such as LinkedIn, newsletters and electronic emails to state and national partners, including the National Association

of City and County Officials (NACCHO), Association of State and Territorial Health Officials (ASTHO), and the National Network of Public Health Institutes, among others. The team also searched for policies on websites such as ASTHO and the National Conference of State Legislatures (NCSL).

Additionally, the project experimented with using Generative AI (ChatGPT and Petal AI) for analysis and summarization of the literature and policies. The purpose of using Generative AI tools was to explore their capabilities in performing tasks such as literature reviews, policy analysis and capturing lessons learned. Protocols were developed for how to use ChatGPT for literature review and policy analysis, including specific guidelines for inputting data, generating summaries and refining outputs for consistency across reviewers. Similar protocols were used for Petal AI.

Quality assurance (QA) processes were implemented to ensure the accuracy and

relevance of the AI-generated content. Designated staff members across partner organizations were assigned a specific QA role, while a team of additional reviewers from participating organizations provided further review and validation of this document.

The authors took several key steps to ensure the accuracy and reliability of the AI-generated content during the QA process. First, the authors developed standard prompts to be able to answer research questions across the team, ensuring consistency across outputs. The authors then reviewed the AI-generated outputs, cross-referencing them against the source materials and the intended objectives of the *AI Policy Template and Guidance*. Discrepancies, omissions or potential misinterpretations were flagged for further review and, where necessary, re-generation of content with refined prompts and revision from the authors.

Limitations

There are two sets of limitations related to this *AI Policy Template and Guidance*. The first set pertains to the process used for drafting this document, while the second relates specifically to the limitations in the approach taken to develop the supplemental materials that informed this document.

Limitations: AI Policy Template and Guidance

One limitation is that although the provisions were tailored to the best possible extent for public health practice, they were primarily derived from city and state-level policies that did not explicitly focus on public health. To address this, the authors incorporated findings from the literature review specific to public health contexts and updated the provisions accordingly. However, some provisions may still not be fully adapted.

Another limitation is that while the areas included in the template were informed by the literature review and current policies, other important areas might also be relevant to include in the policies, and the provisions themselves might not be fully comprehensive. Additionally, the document includes a section on *Other Important Areas*, but it provides limited examples and context due to the limited availability of research and information in the current policies accessible to the research team. The document also includes hypothetical vignettes to illustrate potential challenges and solutions that could be addressed through AI policies and implementation practices. However, given the hypothetical nature of these examples, some nuances may not have been fully captured.

Finally, the document includes a list of definitions in *Appendix F*, page 64. However, there are no universally agreed-upon definitions in the field. To address this issue, the authors referenced multiple sources. As the field evolves, these definitions may change and require further refinement.

Limitations: Supplemental Documents

In addition to the limitations specific to the drafting of the document, there are several limitations related to the supplemental documents used to inform this work.

First, we conducted a selective literature review, focusing on targeted and relevant sources. This approach may have resulted in the omission of some articles related to the research questions, potentially limiting the comprehensiveness of the findings. The collection of policies was gathered from publicly available sources and solicitation from various partners, meaning other relevant policies may exist but were not captured in this analysis, thus affecting the breadth of the policy framework developed.

Furthermore, the use of Generative AI tools, such as ChatGPT and Petal AI, presents certain limitations. For example, some limitations noted included challenges in recognizing specialized terminology and phrases used in the articles and policies, which sometimes resulted in outputs that did not fully capture the intended meaning. The team addressed this issue by conducting manual reviews to correct AI-generated outputs, ensuring they aligned with the intended meaning, and by adding additional prompts to guide the tool toward producing more accurate and relevant results. For more information about the limitations of the supplemental documents, please refer directly to the documents.

Appendix B.

Identifying Problems and Solutions to Advance Mission Focused use of Gen AI

Rationale and Structure

As a matter of policy or routine practice, public health organizations should develop a thoughtful and well-considered rationale through engaging in a "Problem-and-Solutions activity" for using AI to address public health issues and routine workflow practices. This approach will support reflection, help ensure that equity and ethics are centered in regular decision-making on Generative AI use and create opportunities for continuous learning.

In addition to developing rationale at the organizational level, individuals are also encouraged to engage in this activity. The activity is structured by phase, with each phase accompanied by a brief overview and rationale, followed by a few questions. This reflection can occur at both organizational and individual levels. The [o] symbol after a question indicates it is applicable to the organizational level, while [i] indicates it is relevant to the individual level.

Overview

Convene a team that represents different departments and includes individuals who will be involved. Importantly, as a best practice, employees at all levels — not just management — should have input into the decision and be encouraged to actively participate in the process.

Discuss the questions listed below for each group of activities. The questions were adapted from the Massachusetts Department of Public Health's [Racial Equity Reframing Tool](#) and the framework provided by Justin Snair, Managing Partner & Senior Principal Consultant at SGNL Solutions and CEO of Prepr.ai. The racial equity tool supports public health to refocus

programs on underlying structural factors that lead to health inequities.

As you go through this process, document the responses thoroughly. The outcome of this activity should provide clarity about the issues the organization is currently grappling with, the factors contributing to these issues and the potential solutions that could be implemented. If non-technological solutions should also be considered, detail how the team envisions the benefits of AI use and the specific cases where it could be applied. The results of this activity will help inform the development of the AI policy and the change management practices needed for its implementation.

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? [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]**

Activity

continued

Step 3: Explore Technology Thoughtfully

Once foundational processes are optimized, begin evaluating whether technology could fill the remaining gaps. This exploration should be deliberate:

- Assess the types of technology that could be helpful — traditional systems or AI.
- Evaluate your organization's technical literacy and readiness to responsibly implement these solutions.

Questions:

3.1. How does/could Generative AI fit into the broader picture of the solution? [i] [o]

3.2. Would the use of Generative AI provide value? Is the solution to the problem something that could be done just as well and as quickly by humans, if not better? [i] [o]

Step 4: Assess AI Alignment

If AI emerges as a potential tool, ensure it aligns with your organization's values, mission and long-term sustainability. AI is not a one-time investment. It functions as a utility with costs that scale with usage. For AI to be a viable solution, your organization must be prepared to manage its ongoing costs — both operationally and financially. If AI cannot meet these criteria or lacks alignment with your organizational ethos, it may not be the appropriate solution.

Questions:

4.1. How does the proposed AI solution enhance our capabilities in a way that is ethical, sustainable and strategically beneficial for the organization? [i] [o]

4.2. What are some possible unintended consequences of using Generative AI in this case? [i] [o]

4.3. How will you know if these consequences happen? What guidelines should be in place to help safeguard against potential negative consequences? [i] [o]

Activity

continued

Step 5: Create Urgency Thoughtfully

Only after laying this groundwork should you begin creating urgency around AI adoption. Present the case clearly:

- Highlight the specific problems identified.
- Demonstrate how AI offers tangible solutions to these problems.
- Emphasize that the organization is prepared for AI adoption because it has addressed foundational issues and considered long-term sustainability.

Questions:

5.1. What actions are needed (the steps that will get you to the solution)? [i] [o]

5.2. What uses of Generative AI will advance those actions? [i] [o]

5.3. How will you know if the intended populations/groups are benefitting from your actions and use of Generative AI? [i] [o]

5.4. What organizational values should be reflected in current and future AI policies? [o]

Appendix C.

Questions When Procuring AI System

This *AI Policy Template and Guidance* does not provide specific instructions on AI-related considerations in procurement processes. The authors of this document recommend using the [San Jose AI Handbook](#), published on March 18, 2024, which includes a section on the *Protocol for a Request for Proposals* and the questions that should be asked at each step. The list below provides an overview of the detailed areas and a sample list of questions.

The protocol incorporates both technical and non-technical questions to evaluate vendor proposals effectively, structured across key areas such as:

1. **System Overview:** General purpose, data collection policies and user documentation.
 - Example: *"Can you provide a non-technical overview of how your AI system operates?"*
2. **Data and Model Description:** Details about training data, frequency of updates and testing methodologies.
 - Example: *"What data was used to train and test the AI system? How often is data added to the training set?"*
3. **Ethical Considerations:** Measures to address bias, fairness and harm prevention.
 - Example: *"How do you ensure your AI system treats individuals and groups fairly without unintended biases?"*
4. **System Reliability:** Handling of outliers, conditions for optimal performance and system limitations.
 - Example: *"What are the conditions under which your AI system performs poorly?"*
5. **Monitoring and Correction:** Mechanisms for identifying and rectifying issues.
 - Example: *"Can outputs be overridden by humans, and how does this inform future system calibration?"*
6. **Accessibility:** Integration with assistive technologies and considerations for users with disabilities.
 - Example: *"How does the system integrate with commonly used assistive technologies?"*

Appendix D.

About the Project Team and Products

The project was a collaboration between the Kansas Health Institute (KHI), Health Resources in Action (HRiA), and the Wichita State University Community Engagement Institute (WSU CEI).

As part of this project, three key documents were developed that were used to inform the development of the *Developing AI Policy for Public Health: Template and Guidance*.

Literature Review: Examining the Key Considerations for the Use of Artificial Intelligence in Public Health and Health Care

The literature review summarizes findings from existing research on the opportunities and challenges associated with AI. Key topics include bias, transparency, data privacy and the effects on diverse populations — issues frequently emphasized by the public health community and reflected in media and research publications. It addressed 10 research questions and examined 96 articles primarily published within the past five years, with most studies focusing on the U.S. context, supplemented by insights from international settings. Both peer-reviewed studies and grey literature were included in the review.

Policy Analysis: City-Level Artificial Intelligence Policies and Guidelines

The primary goal of the analysis of city-level AI policies and guidelines is to identify key themes and common provisions, with a specific focus on equity, ethical considerations, transparency, human oversight, and data privacy. This analysis aims to inform the development of the *AI Policy Template and Guidance*. The findings are based on a review of formal guidelines and policies

from 14 cities, issued between 2021 and 2024, regarding the responsible use of AI technologies.

Policy Analysis: State-Level Artificial Intelligence Policies and Provisions

This analysis of state-level legislation aims to identify key themes and common provisions within current state AI policies to enhance the language used in the *AI Policy Template and Guidance*. The analysis drew on data from the Artificial Intelligence Legislation Tracker by the National Conference of State Legislatures (NCSL) and the Public Health Infrastructure Legal Map by the Association of State and Territorial Health Officials (ASTHO). It focused on AI-specific legislation introduced during the 2023 and 2024 state legislative sessions. The summaries are based on information from 152 legislative documents.

Each organization played a distinct role throughout the process. KHI managed the project, developed the project design, conducted policy analysis and edited, formatted and provided design elements for each document. Shelby C. Rowell and Emma Uridge served as co-secondary authors on the publication, contributing equally to the work. Stewart Cole designed graphics and layout. HRiA informed the overall project design and assisted in the development of protocols and methodology. WSU CEI also provided input on the project design. The three organizations contributed to the literature review, with each organization assigned specific research questions. All organizations worked collaboratively to identify relevant literature and policies and contributed to the development of *Developing AI Policy for Public Health: Template and Guidance*, with KHI serving as the lead author.

Appendix E.

Sample Outline for AI Policy

1. Introduction and Context

- Overview of AI and its significance in the organization or locality.
- Reference to relevant legislative orders, collaborations, or ongoing initiatives.
- Establishes the goals for the AI policy, such as promoting innovation while addressing risks like bias and privacy concerns.

2. Purpose

- Clearly states the intent of the policy: ensuring responsible and ethical AI usage.
- Outlines the expected benefits and risks of AI, emphasizing transparency, accountability and security.
- Often aligns with principles like privacy, fairness and innovation.

3. Scope

- Defines the departments, teams and types of AI technologies to which the policy applies.
- Specifies whether the policy covers external stakeholders, contractors and vendors.

4. Definitions

- Provides clear definitions of key terms, such as “AI,” “Generative AI,” “Machine Learning,” “Data Privacy,” “Bias Audit,” “Sensitive Information,” etc.

5. Principles for AI Use

- Lists principles guiding AI usage.

6. Sections and Provisions

The list may include:

- Authorship
- Bias Mitigation
- Community Engagement
- Copyright
- Data Privacy
- Environmental Considerations
- Evaluation
- Governance
- Human Oversight
- Quality Improvement
- Training and Capacity Building
- Transparency.

7. Review and Updates

- Specifies how the policy will be reviewed and updated, including the frequency of revisions and who is responsible for overseeing these changes.

8. Related Policies and References

- Links to other relevant policies, regulations or guidelines that intersect with AI governance, such as cybersecurity policies or public record laws.

9. Contact and Support Information

- Provides contact details for departments or personnel responsible for AI oversight, policy enforcement and support.

Appendix F.

Definitions

The definitions provided are for informational purposes only and should not be considered legal advice. Please verify these definitions with local laws and regulations, as legal interpretations may vary based on jurisdiction. This list is not meant to be comprehensive. Other terms may be included in your policy or AI guidelines. Some of these terms are used throughout the *AI Policy Template and Guidance*, are linked in the online version and underlined in the printed copy. Other terms are helpful and commonly used definitions for understanding the AI landscape.

-
1. **Acceptable Use Policy (AUP):** A document that outlines the appropriate use of access to an agency's network, the internet, email or other resources.¹²⁷
 2. **AI-Generated Content:** Any content produced by Generative AI.¹²⁸
 3. **Algorithms:** A set of rules that a machine follows to generate an outcome or a decision.¹²⁹
 4. **Algorithmic Discrimination:** Occurs when automated systems contribute to unjustified different treatment or impacts disfavoring people based on characteristics such as race, ethnicity, gender, etc.^{130,131}
 5. **Anonymized Data:** Data that has been de-identified, or processed to remove personal identifiers, ensuring that individuals cannot be easily identified.^{132,133}
 6. **Artificial Intelligence (AI):** Software that can simulate human intelligence to perform analysis, reasoning, decision making or other complex tasks. AI is an umbrella term that covers different subfields such as robotics, computer vision, natural language processing and machine learning.^{134,135,136,137}
 7. **Artificial Intelligence (AI) Principles:** General codes of conduct guiding employees in their use of both generative and traditional AI technology, aligned with values and responsibilities to residents.^{138,139}
 8. **Automated Employment Decision Tool:** Any computational process derived from machine learning, statistical modeling, data analytics or artificial intelligence, that issues simplified output, including a score, classification or recommendation, used to substantially assist or replace discretionary decision-making for employment decisions that impact natural persons. This does not include tools that do not automate, support, substantially assist, or replace discretionary decision-making processes and that do not materially impact natural persons (e.g., junk email filters, firewalls, antivirus software, calculators, spreadsheets, databases or other data compilations).¹⁴⁰
-

9. **Auditability for AI:** AI where the outputs are explainable, monitored and validated on a regular basis.¹⁴¹
10. **Bias:** Systematic error or deviation in data, algorithms or decision-making that leads to unfair outcomes for specific groups.
11. **Bias Audit:** An impartial evaluation by an independent auditor. It includes testing of an automated employment decision tool to assess its disparate impact on persons of any component category required to be reported by employer.¹⁴²
12. **Bing AI:** AI software that allows users to interact with an intelligent chatbot and generate content, part of Microsoft's search engine.¹⁴³
13. **Chatbot:** AI software designed to mimic human conversation through text or voice interactions.¹⁴⁴
14. **ChatGPT:** A complex machine learning model (Generative Pre-trained Transformer) capable of natural language generation, producing human-like conversational dialogue.¹⁴⁵ Available versions include ChatGPT-3, 3.5, and 4o.
15. **Content:** Refers to text, emails, presentations, images, video, audio, architectural documents, diagrams and other forms of media.^{146,147}
16. **Contextual AI Tools:** This class of AI tools adapt outputs or performance based on specific requirements set by the user.¹⁴⁸
17. **Data Protection:** Measures and processes to ensure confidentiality, integrity and availability of data in compliance with relevant regulations.
18. **Deep Learning:** a form of machine learning in which the computer network rapidly teaches itself to understand a concept without human intervention by performing a large number of iterative calculations on an extremely large dataset.¹⁴⁹
19. **Environmental Justice Community:** Environmental Justice (EJ) Community refers to a population that experiences disproportionate exposure to environmental hazards and lacks equitable access to environmental benefits. These communities often include minority, low-income, tribal, or indigenous populations.¹⁵⁰
20. **Ethical Artificial Intelligence Policy:** Refers to the guidelines and principles established by policy to ensure the responsible and ethical use of AI technology. It includes transparency, fairness, accountability and the protection of individual rights.¹⁵¹
21. **Generative AI:** The class of AI models that emulate the structure and characteristics of input data to generate derived synthetic content. This can include images, videos, audio, text and other digital content.¹⁵² Unlike human cognition, generative AI does not perform reasoning, make decisions, or "think." Instead, it operates based on patterns and correlations in the data on which it has been trained and generates content accordingly, without understanding or intention.
22. **General-Purpose AI Systems:** The class of AI tools that can perform generally applicable functions such as image/speech recognition, audio/video generation, pattern detection, question answering, translation, etc., and is able to have multiple intended and unintended purposes.¹⁵³
23. **Hallucination:** The phenomenon in which generative AI systems produce an output that is nonsensical or untrue in response to the provided input or prompt. This phenomenon is further exacerbated when the model presents the incorrect or unverified information with high confidence and unsubstantiated authority.^{154,155}

- 24. Human in the Loop:** A process where outputs of Generative AI systems must be reviewed by humans before they are used in any official capacity. This review process ensures that the AI-generated outputs are checked for accuracy and alignment with the principles outlined in the policy.¹⁵⁶
- 25. Human Responsibility:** Refers to clearly defined roles and responsibilities for human operators when utilizing AI systems, including training and monitoring obligations.¹⁵⁷
- 26. Large Language Models (LLMs):** A type of machine learning model trained using large amounts of text data. These models learn nuanced patterns and structure of language. This allows the model to understand a user-generated prompt and provide a text response that is coherent. The responses are based on predicting the most likely word in a sequence of words, and as a result, the answers are not always contextually correct. Generative AI applications are built using these LLM.¹⁵⁸
- 27. Machine Learning (ML):** A subset of AI that focuses on developing algorithms and models that enable computers to learn from data and make predictions or decisions without being explicitly programmed.¹⁵⁹
- 28. Narrow or Weak AI:** AI systems designed to perform a specific task or a set of tasks. These systems excel at their programmed tasks but lack the ability to generalize beyond their specific domain. Examples include voice assistants, image recognition systems and recommendation algorithms.¹⁶⁰
- 29. Natural Language Processing (NLP):** AI's ability to understand, interpret and generate human language, involving tasks such as text classification, sentiment analysis, machine translation and question-answering systems.¹⁶¹
- 30. Personally Identifiable Information (PII):** Any data used to identify someone.¹⁶²
- 31. Prompt:** The input or query given to a Generative AI tool to elicit a specific response. Prompts can be natural language questions and can be refined to improve AI's response.¹⁶³
- 32. Prompt Engineering** involves formulating specific input prompts to guide AI models toward generating desired outputs. It is the art of asking the right questions in the right way to ensure the model provides useful and correct answers.¹⁶⁴
- 33. Protected Information** refers to any dataset or part of a dataset to which an agency is required or authorized to deny access pursuant to the (add) or any other applicable law.
- 34. Risk of Adverse Impact:** The potential harm caused by using the output of Generative AI for a decision, task or service, especially in terms of impacts on individuals or communities' rights, freedoms or access to services.^{165,166}
- 35. Sensitive Information:** Data that, if published in open format, could raise privacy, confidentiality or security concerns or could have the potential to jeopardize public health, safety or welfare, to an extent that it exceeds the potential public benefit of publishing that data.¹⁶⁷
- 36. Training Data:** The collection of data used to train a Generative AI tool. It may include publicly available or organization-specific data, depending on the AI system being used.¹⁶⁸
- 37. User(s):** Refers to staff, contractors or others using Generative AI for work purposes.

1. U.S. Department of Labor. (2024). *AI principles and best practices*. <https://www.dol.gov/sites/dolgov/files/general/ai/AI-Principles-Best-Practices.pdf>
2. U.S. Department of Labor. (2024). *AI principles and best practices*. <https://www.dol.gov/sites/dolgov/files/general/ai/AI-Principles-Best-Practices.pdf>
3. Friis, S., & Riley, J. (2023, September 29). *Eliminating algorithmic bias is just the beginning of equitable AI*. Harvard Business Review. <https://www.hbs.edu/faculty/Pages/item.aspx?num=65148>
4. U.S. Department of Labor. (2024). *AI principles and best practices*. <https://www.dol.gov/sites/dolgov/files/general/ai/AI-Principles-Best-Practices.pdf>
5. Min J, Kim Y, Lee S, Jang TW, Kim I, Song J. The fourth industrial revolution and its impact on occupational health and safety, worker's compensation and labor conditions. *Saf Health Work*. 2019;10(4):400-408. doi:10.1016/j.shaw.2019.09.005
6. National Institute for Occupational Safety and Health (NIOSH). (2022, February 15). *Technological job displacement and the future of work*. Centers for Disease Control and Prevention. <https://blogs.cdc.gov/niosh-science-blog/2022/02/15/tjd-fow/>
7. Möllmann, H. R., Frick, N. R. J., & Stieglitz, S. (2021). The rise of artificial intelligence – understanding the AI identity threat at the workplace. *Electronic Markets*, 31(4), 725–740. <https://doi.org/10.1007/s12525-021-00496-x>
8. Kotter Inc. (n.d.). The 8-step process for leading change. Adapted by KHI for Public Health Organizations. <https://www.kotterinc.com/methodology/8-steps/>
9. Fisher, S., & Rosella, L. (2022). Priorities for successful use of artificial intelligence by public health organizations. *BMC Public Health*, 22(1), 2146. <https://doi.org/10.1186/s12889-022-14422-z>
10. Thomasian, N. M., Eickhoff, C., & Adashi, E. Y. (2021). Advancing health equity with artificial intelligence. *Journal of Public Health Policy*, 42(4), 602–611. <https://doi.org/10.1057/s41271-021-00319-5>
11. City of Boise. (2023). *City use of artificial intelligence (AI) regulation (Regulation No. 4.30q)*. Boise, ID. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#:~:text=This%20document%20aims%20to%20harness%20the%20potential%20of,values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity.>
12. City of Clearlake. (2024). *Generative AI policy*. Clearlake, CA. <https://mccmeetingspublic.blob.core.usgovcloudapi.net/clearlakca-meet-2525f632061c4c79bcfdeede22a76fbf/ITEM-Attachment-001-e0bbb5d61e154e69ac4e2f8ca1a9a777.pdf>
13. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
14. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI (Version 1.1)*. Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
15. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
16. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
17. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
18. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
19. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI (Version 1.1)*. Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
20. Mayor's Office, City of Baltimore. (2024, March 20). *Mayoral Executive Order Establishing Principles and Policy Governing Use of Generative Artificial Intelligence*. Baltimore, MD. <https://www.baltimorecity.gov/sites/default/files/Generative%20AI%20Executive%20Order%20-%20Signed.pdf>
21. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI (Version 1.1)*. Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
22. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
23. Mayor's Office, City of Baltimore. (2024, March 20). *Mayoral Executive Order Establishing Principles and Policy Governing Use of Generative Artificial Intelligence*. Baltimore, MD. <https://www.baltimorecity.gov/sites/default/files/Generative%20AI%20Executive%20Order%20-%20Signed.pdf>
24. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
25. United Nations Educational, Scientific and Cultural Organization. (2021). *Recommendation on the ethics of artificial intelligence*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000381137>
26. United Nations Environment Programme. (2024, September). *AI has an environmental problem: Here's what the world can do about it*. Retrieved from <https://www.unep.org/news-and-stories/story/ai-has-environmental-problem-heres-what-world-can-do-about>

27. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI* (Version 1.1). Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
28. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI* (Version 1.1). Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
29. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
30. U.S. Department of Labor. (2024, October). *AI principles and best practices*. <https://www.dol.gov/sites/dolgov/files/general/ai/AI-Principles-Best-Practices.pdf>
31. The White House. (2023, October 30). *Executive order on the safe, secure, and trustworthy development and use of artificial intelligence*. <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/>
32. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI* (Version 1.1). Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
33. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
34. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
35. City of Clearlake. (2024). *Generative AI policy*. Clearlake, CA. <https://mccmeetingspublic.blob.core.usgovcloudapi.net/clearlakca-meet-2525f632061c4c79bcfdeede22a76fbf/ITEM-Attachment-001-e0bbb5d61e154e69ac4e2f8ca1a9a777.pdf>
36. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
37. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
38. Harvard University Information Technology (HUIT). (n.d.). *AI tools*. Harvard University. Retrieved April 27, 2024, from <https://huit.harvard.edu/ai/tools>
39. Mayor's Office, City of Baltimore. (2024, March 20). *Mayoral Executive Order Establishing Principles and Policy Governing Use of Generative Artificial Intelligence*. Baltimore, MD. <https://www.baltimorecity.gov/sites/default/files/Generative%20AI%20Executive%20Order%20-%20Signed.pdf>
40. Mayor's Office, City of Baltimore. (2024, March 20). *Mayoral Executive Order Establishing Principles and Policy Governing Use of Generative Artificial Intelligence*. Baltimore, MD. <https://www.baltimorecity.gov/sites/default/files/Generative%20AI%20Executive%20Order%20-%20Signed.pdf>
41. Mayor's Office, City of Baltimore. (2024, March 20). *Mayoral Executive Order Establishing Principles and Policy Governing Use of Generative Artificial Intelligence*. Baltimore, MD. <https://www.baltimorecity.gov/sites/default/files/Generative%20AI%20Executive%20Order%20-%20Signed.pdf>
42. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
43. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI* (Version 1.1). Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
44. City of Boise. (2023). *City use of artificial intelligence (AI) regulation* (Regulation No. 4.30q). Boise, ID, <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#:~:text=This%20document%20aims%20to%20harness%20the%20potential%20of,values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity.>
45. City of Clearlake. (2024). *Generative AI policy*. Clearlake, CA. <https://mccmeetingspublic.blob.core.usgovcloudapi.net/clearlakca-meet-2525f632061c4c79bcfdeede22a76fbf/ITEM-Attachment-001-e0bbb5d61e154e69ac4e2f8ca1a9a777.pdf>
46. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
47. New York City Office of Technology and Innovation. (2024). *Preliminary use guidance: Generative artificial intelligence* (Version effective 03/05/2024). City of New York. <https://www.nyc.gov/assets/oti/downloads/pdf/about/preliminary-use-guidance-general-artificial-intelligence.pdf>

48. Ferrara, E. (2024). Fairness and bias in artificial intelligence: A brief survey of sources, impacts, and mitigation strategies. *Sci*, 6(1), 3. <https://doi.org/10.3390/sci6010003>
49. Thomasian, N. M., Eickhoff, C., & Adashi, E. Y. (2021). Advancing health equity with artificial intelligence. *Journal of Public Health Policy*, 42(4), 602–611. <https://doi.org/10.1057/s41271-021-00319-5>
50. Flores, L., Kim, S., & Young, S. D. (2024). Addressing bias in artificial intelligence for public health surveillance. *Journal of Medical Ethics*, 50(3), 190–194. <https://doi.org/10.1136/jme-2022-108875>
51. Timmons, A., Duong, J. B., & Simo Fiallo, N. (2023). A Call to Action on Assessing and Mitigating Bias in AI Applications for Mental Health. *Perspectives on Psychological Science*, 18(5), 1062–1096.
52. Chander, A., Fjeld, J., Jobin, A., & Schwartz, P. M. (2022). The flaws of policies requiring human oversight of government algorithms. *Computer Law & Security Review*, 45, 105681
53. Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., & Galstyan, A. (2019). A Survey on Bias and Fairness in Machine Learning. *arXiv preprint arXiv:1908.09635*.
54. Hendricks-Sturup, R., Simmons, M., Anders, S., Aneni, K., Clayton, E. W., Coco, J., Collins, B., Heitman, E., Hussain, S., Joshi, K., Lemieux, J., Novak, L. L., Rubin, D. J., Shanker, A., Washington, T., Waters, G., Harris, J. W., Wagner, T., Yin, R., Yin, Z., & Malin, B. (2023). Developing ethics and equity principles, terms, and engagement tools to advance health equity and researcher diversity in AI and machine learning: Modified Delphi approach. *JMIR AI*, 2, e52888. <https://doi.org/10.2196/52888>
55. Dankwa-Mullan, I. (2024). Health equity and ethical considerations in using artificial intelligence in public health and medicine. *Preventing Chronic Disease, Centers for Disease Control and Prevention*. 21, E64. <https://doi.org/10.5888/pcd21.240245>
56. Dankwa-Mullan, I. (2024). Health equity and ethical considerations in using artificial intelligence in public health and medicine. *Preventing Chronic Disease, Centers for Disease Control and Prevention*. 21, E64. <https://doi.org/10.5888/pcd21.240245>
57. Alvarez, J. M., Bringas Colmenarejo, A., Elobaid, A., Fabbrizzi, S., Fahimi, M., Ferrara, A., Ghodsi, S., Mougan, C., Papageorgiou, I., Reyero, P., Russo, M., Scott, K. M., State, L., Zhao, X., & Ruggieri, S. (2024). Policy advice and best practices on bias and fairness in AI. *Ethics and Information Technology*, 26(31). <https://doi.org/10.1007/s10676-024-09746-w>
58. National Institute of Standards and Technology. (2023). *Towards a standard for identifying and managing bias in artificial intelligence* (NIST Special Publication 1270). <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1270.pdf>
59. National Institute of Standards and Technology. (2023). *Towards a standard for identifying and managing bias in artificial intelligence* (NIST Special Publication 1270). <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1270.pdf>
60. Hendricks-Sturup, R., Simmons, M., Anders, S., Aneni, K., Clayton, E. W., & Malin, B., et al. (2023). Developing ethics and equity principles, terms, and engagement tools to advance health equity and researcher diversity in AI and machine learning: Modified Delphi approach. *JMIR AI*, 2(1), e52888. <https://doi.org/10.2196/52888>
61. Dankwa-Mullan, I. (2024). Health equity and ethical considerations in using artificial intelligence in public health and medicine. *Preventing Chronic Disease*, 21, E64. <https://doi.org/10.5888/pcd21.240245>
62. Hendricks-Sturup, R., Simmons, M., Anders, S., Aneni, K., Clayton, E. W., & Malin, B., et al. (2023). Developing ethics and equity principles, terms, and engagement tools to advance health equity and researcher diversity in AI and machine learning: Modified Delphi approach. *JMIR AI*, 2(1), e52888. <https://doi.org/10.2196/52888>
63. Dankwa-Mullan, I. (2024). Health equity and ethical considerations in using artificial intelligence in public health and medicine. *Preventing Chronic Disease*, 21, E64. <https://doi.org/10.5888/pcd21.240245>
64. World Health Organization. (2021, June 28). *WHO issues first global report on AI in health and six guiding principles for its design and use*. World Health Organization. Retrieved December 6, 2024, from <https://www.who.int/news/item/28-06-2021-who-issues-first-global-report-on-ai-in-health-and-six-guiding-principles-for-its-design-and-use>
65. Dankwa-Mullan, I. (2024). Health equity and ethical considerations in using artificial intelligence in public health and medicine. *Preventing Chronic Disease*, 21, E64. <https://doi.org/10.5888/pcd21.240245>
66. Schwalbe, N., & Wahl, B. (2020). Artificial intelligence and the future of global health. *The Lancet*, 395. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30226-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30226-9/fulltext).
67. Flores, G., Kim, S., & Young, K. (2023). *Community-driven AI in public health: A participatory approach*. *Public Health Reports*, 138(3), 232–244.
68. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI* (Version 1.1). Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
69. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>

70. City and County of San Francisco. (2023). *San Francisco Generative AI Guidelines*. Revised November 9, 2023. San Francisco, CA. <https://www.sf.gov/sites/default/files/2023-11/Generative%20AI%20Guidelines%20-%20CCSF.pdf>
71. New York City Office of Technology and Innovation. (2024). *Preliminary use guidance: Generative artificial intelligence* (Version effective 03/05/2024). City of New York. <https://www.nyc.gov/assets/oti/downloads/pdf/about/preliminary-use-guidance-general-artificial-intelligence.pdf>
72. New York City Office of Technology and Innovation. (2024). *Preliminary use guidance: Generative artificial intelligence* (Version effective 03/05/2024). City of New York. <https://www.nyc.gov/assets/oti/downloads/pdf/about/preliminary-use-guidance-general-artificial-intelligence.pdf>
73. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI* (Version 1.1). Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
74. Schwalbe, N., & Wahl, B. (2020). *Artificial intelligence and the future of global health*. The Lancet, 395. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30226-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30226-9/fulltext)
75. Hickok, G. (2020). Ethics and artificial intelligence: Balancing fairness and accuracy. *AI Ethics Journal*, 2(1), 45-58.
76. Murphy, K., Di Ruggiero, E., Upshur, R., Willison, D. J., Malhotra, N., Cai, J. C., Malhotra, N., Lui, V., & Gibson, J. (2021). Artificial intelligence for good health: A scoping review of the ethics literature. *BMC Medical Ethics*, 22, Article 14. <https://doi.org/10.1186/s12910-021-00577-8>
77. Reddy, S., Allan, S., Coghlan, S., & Cooper, P. (2020). Governance of artificial intelligence in health care. *Journal of the American Medical Informatics Association*, 27(3), 491-497. <https://doi.org/10.1093/jamia/ocz192>
78. Reddy, S., Allan, S., Coghlan, S., & Cooper, P. (2020). Governance of artificial intelligence in health care. *Journal of the American Medical Informatics Association*, 27(3), 491-497. <https://doi.org/10.1093/jamia/ocz192>
79. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
80. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
81. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
82. City of Austin. (2024). *Resolution No. 20240215-024: Artificial Intelligence Guidelines*. Adopted February 15, 2024. Austin, TX. <https://services.austintexas.gov/edims/document.cfm?id=423858>
83. City of Austin. (2024). *Resolution No. 20240215-024: Artificial Intelligence Guidelines*. Adopted February 15, 2024. Austin, TX. <https://services.austintexas.gov/edims/document.cfm?id=423858>
84. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
85. Verma, A. A., Murray, J. F., Greiner, D. L., & Manrai, A. K. (2020). A framework for assessing equity in healthcare AI: Implementation, data use, and outcomes. *Nature Medicine*, 26(8), 1177-1182.
86. Murphy, K., Di Ruggiero, E., Upshur, R., Willison, D. J., Malhotra, N., Cai, J. C., Malhotra, N., Lui, V., & Gibson, J. (2021). Artificial intelligence for good health: A scoping review of the ethics literature. *BMC Medical Ethics*, 22, Article 14. <https://doi.org/10.1186/s12910-021-00577-8>
87. Dankwa-Mullan, I. (2024). Health equity and ethical considerations in using artificial intelligence in public health and medicine. *Preventing Chronic Disease*, 21, E64. <https://doi.org/10.5888/pcd21.240245>
88. Suarjana, I. W. G., Sudirham, I., Salam, I., & Aditama, M. H. R. (2023). Artificial intelligence in public health: The potential and ethical considerations of artificial intelligence in public health. *Journal of Public Health*, 45(4), e834-e835. <https://doi.org/10.1093/pubmed/fdad116>
89. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
90. Winfield, A. F., Michael, K., Pitt, J., & Evers, V. (2019). Machine Ethics: *The Design and Governance of Ethical AI and Autonomous Systems*. *Proceedings of the IEEE*, vol. 107, no. 3, pp. 509-517, March 2019, doi: 10.1109/JPROC.2019.2900622.
91. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
92. Mayor's Office, City of Baltimore. (2024, March 20). *Mayoral Executive Order Establishing Principles and Policy Governing Use of Generative Artificial Intelligence*. Baltimore, MD. <https://www.baltimorecity.gov/sites/default/files/Generative%20AI%20Executive%20Order%20-%20Signed.pdf>
93. City of Austin. (2024). *Resolution No. 20240215-024: Artificial Intelligence Guidelines*. Adopted February 15, 2024. Austin, TX. <https://services.austintexas.gov/edims/document.cfm?id=423858>
94. District of Columbia. (2024). *AI/ML Governance Policy*. Office of the Chief Technology Officer, Washington, DC. <https://octo.dc.gov/page/aiml-governance-policy>

95. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
96. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
97. City of Austin. (2024). *Resolution No. 20240215-024: Artificial Intelligence Guidelines*. Adopted February 15, 2024. Austin, TX. <https://services.austintexas.gov/edims/document.cfm?id=423858>
98. City of Clearlake. (2024). *Generative AI policy*. Clearlake, CA. <https://mccmeetingspublic.blob.core.usgovcloudapi.net/clearlakca-meet-2525f632061c4c79bcfdeede22a76fbf/ITEM-Attachment-001-e0bbb5d61e154e69ac4e2f8ca1a9a777.pdf>
99. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
100. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
101. City and County of San Francisco. (2023). *San Francisco Generative AI Guidelines*. Revised November 9, 2023. San Francisco, CA. <https://www.sf.gov/sites/default/files/2023-11/Generative%20AI%20Guidelines%20-%20CCSF.pdf>
102. City of Boise. (2023). *City use of artificial intelligence (AI) regulation (Regulation No. 4.30q)*. Boise, ID, Information Technology Department. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#:~:text=This%20document%20aims%20to%20harness%20the%20potential%20of,values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity.>
103. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
104. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
105. Fukuda-Parr, S., & Gibbons, E. (2021). *Emerging consensus on 'ethical AI': A human rights critique of stakeholder guidelines*.
106. City of Austin. (2024). *Resolution No. 20240215-024: Artificial Intelligence Guidelines*. Adopted February 15, 2024. Austin, TX. <https://services.austintexas.gov/edims/document.cfm?id=423858>
107. Mayor's Office, City of Baltimore. (2024, March 20). *Mayoral Executive Order Establishing Principles and Policy Governing Use of Generative Artificial Intelligence*. Baltimore, MD. <https://www.baltimorecity.gov/sites/default/files/Generative%20AI%20Executive%20Order%20-%20Signed.pdf>
108. City of Boise. (2023). *City use of artificial intelligence (AI) regulation (Regulation No. 4.30q)*. Boise, ID, Information Technology Department. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#:~:text=This%20document%20aims%20to%20harness%20the%20potential%20of,values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity.>
109. City of Clearlake. (2024). *Generative AI policy*. Clearlake, CA. <https://mccmeetingspublic.blob.core.usgovcloudapi.net/clearlakca-meet-2525f632061c4c79bcfdeede22a76fbf/ITEM-Attachment-001-e0bbb5d61e154e69ac4e2f8ca1a9a777.pdf>
110. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
111. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
112. City and County of San Francisco. (2023). *San Francisco Generative AI Guidelines*. Revised November 9, 2023. San Francisco, CA. <https://www.sf.gov/sites/default/files/2023-11/Generative%20AI%20Guidelines%20-%20CCSF.pdf>
113. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
114. Schmidt, P., Biessmann, F., & Teubner, T. (2020). Transparency and trust in artificial intelligence systems. *Journal of Decision Systems*, 29(4), 260–278. <https://doi.org/10.1080/12460125.2020.1819094>
115. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>

116. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
117. City of Austin. (2024). *Resolution No. 20240215-024: Artificial Intelligence Guidelines*. Adopted February 15, 2024. Austin, TX. <https://services.austintexas.gov/edims/document.cfm?id=423858>
118. City of New York. (2021). *Automated Employment Decision Tools*. New York, NY.
119. City of Boston. (2023, May 18). *City of Boston interim guidelines for using generative AI* (Version 1.1). Prepared by Santiago Garces, Chief Information Officer. Boston, MA. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
120. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
121. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
122. United Nations Environment Programme. (2024, September). *AI has an environmental problem: Here's what the world can do about it*. Retrieved from <https://www.unep.org/news-and-stories/story/ai-has-environmental-problem-heres-what-world-can-do-about>]
123. International Energy Agency. (2024). *Electricity 2024: Analysis and forecast to 2026* (p. 34). <https://iea.blob.core.windows.net/assets/6b2fd954-2017-408e-bf08-952fdd62118a/Electricity2024-Analysisandforecastto2026.pdf>
124. Safdie, S. (2024, May 30). *What is the environmental impact of AI?* Retrieved January 15, 2025, from <https://greenly.earth/en-us/blog/ecology-news/what-is-the-environmental-impact-of-ai>
125. City of San Jose. (2024). *San Jose AI Handbook*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/109904/638463850657330000>
126. 28. Rossi, F. (2018). Building trust in artificial intelligence. *Journal of International Affairs*, 72(1), 127-134. <https://www.jstor.org/stable/10.2307/26588348>
127. New York City Office of Technology and Innovation. (2024). *Preliminary use guidance: Generative artificial intelligence* (Version effective 03/05/2024). City of New York. <https://www.nyc.gov/assets/oti/downloads/pdf/about/preliminary-use-guidance-general-artificial-intelligence.pdf>
128. New York City Office of Technology and Innovation. (2024). *Preliminary use guidance: Generative artificial intelligence* (Version effective 03/05/2024). City of New York. <https://www.nyc.gov/assets/oti/downloads/pdf/about/preliminary-use-guidance-general-artificial-intelligence.pdf>
129. City and County of San Francisco. (2023). *San Francisco Generative AI Guidelines*. Revised November 9, 2023. San Francisco, CA. <https://www.sf.gov/sites/default/files/2023-11/Generative%20AI%20Guidelines%20-%20CCSF.pdf>
130. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
131. United States. Office of Science and Technology Policy. *Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People*, report, October 2022; (<https://digital.library.unt.edu/ark:/67531/metadc2289565/>). University of North Texas Libraries, UNT Digital Library, <https://digital.library.unt.edu>; crediting UNT Libraries Government Documents Department.
132. District of Columbia. (2024). *AI/ML Governance Policy*. Office of the Chief Technology Officer, Washington, DC. <https://octo.dc.gov/page/aiml-governance-policy>.
133. State of California. (2023, November). *Benefits and risks of generative artificial intelligence report*. State of California. https://www.govops.ca.gov/wp-content/uploads/sites/11/2023/11/GenAI-EO-1-Report_FINAL.pdf
134. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
135. Sacramento County Department of Health Services, Division of Public Health. (2024, August 28). *Responsible artificial intelligence (AI) use* (Policy No. 02-007). Sacramento County, CA.
136. Executive Office of the President, Office of Management and Budget. (2024, March 28). *Advancing governance, innovation, and risk management for agency use of artificial intelligence* (Memorandum No. M-24-10). <https://www.whitehouse.gov/wp-content/uploads/2024/03/M-24-10-AI-Governance.pdf>
137. Illinois Department of Innovation and Technology. (2024). *Guidelines for the Acceptable and Responsible Use of Artificial Intelligence in the State of Illinois*. State of Illinois. https://doi.illinois.gov/content/dam/soi/en/web/insurance/about-us/documents/SBE%2002-IT-Call%20Center_Attachment%20B.Information%20Technology%20Policies.pdf
138. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
139. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>

140. New York City Council. (2021). *A local law to amend the administrative code of the city of New York, in relation to automated employment decision tools* (Int. No. 1894-A). <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4344524&GUID=B051915D-A9AC-451E-81F8-6596032FA3F9&Options=ID%7CText%7C&Search=>
141. City and County of San Francisco. (2023). *San Francisco Generative AI Guidelines*. Revised November 9, 2023. San Francisco, CA. <https://www.sf.gov/sites/default/files/2023-11/Generative%20AI%20Guidelines%20-%20CCSF.pdf>
142. New York City Council. (2021). *A local law to amend the administrative code of the city of New York, in relation to automated employment decision tools* (Int. No. 1894-A). <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4344524&GUID=B051915D-A9AC-451E-81F8-6596032FA3F9&Options=ID%7CText%7C&Search=>
143. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
144. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
145. City of Lebanon. (2023, December 19). *Administrative Policies & Procedures: Use of Artificial Intelligence*. Lebanon, NH. <https://portal.laserfiche.com/Portal/DocView.aspx?id=242719&repo=r-5a00306c>
146. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
147. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
148. Brdiczka, O. (2019, February 28). *Contextual AI - The next frontier towards human-centric artificial intelligence*. Georgia Institute of Technology. <https://repository.gatech.edu/entities/publication/dafbd0ee-7c5e-4bf0-b300-db29b2e097ec/full>
149. Connecticut Department of Energy & Environmental Protection. (2024). *Environmental Justice Definitions*. State of Connecticut. <https://portal.ct.gov/deep/environmental-justice/environmental-justice-definitions>
150. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
151. U.S. Department of Labor. (2024, October). *AI principles and best practices*. <https://www.dol.gov/sites/dolgov/files/general/ai/AI-Principles-Best-Practices.pdf>
152. European Digital Rights (EDRI). (2022, May). *General-purpose AI and the AI Act* (p. 5). <https://artificialintelligenceact.eu/wp-content/uploads/2022/05/General-Purpose-AI-and-the-AI-Act.pdf>
153. Au Yeung, J., Kraljevic, Z., Luintel, A., Balston, A., Idowu, E., Dobson, R.J., and Teo, J. T. (2023) *AI chatbots not yet ready for clinical use*. *Frontiers in Digital Health*, vol. 5. pg. 60.
154. Lee, P., Bubeck S., Petro, J. (2023). *Benefits, limits, and risks of gpt-4 as an ai chatbot for medicine*. *New England Journal of Medicine*, vol. 388, no 13, pp. 1233-1239.
155. City of Seattle. (2023). *Generative artificial intelligence policy* (POL-209). Effective November 1, 2023. Seattle, WA. <https://www.seattle.gov/documents/Departments/SeattleIT/City-of-Seattle-Generative-Artificial-Intelligence-Policy.pdf>
156. City of Tempe. (2023, May 31). *Ethical artificial intelligence (AI) policy*. Tempe, AZ. <https://tempe.gitbook.io/data-policy-and-governance/data-policy/ethical-artificial-intelligence-ai-policy>
157. City and County of San Francisco. (2023). *San Francisco Generative AI Guidelines*. Revised November 9, 2023. San Francisco, CA. <https://www.sf.gov/sites/default/files/2023-11/Generative%20AI%20Guidelines%20-%20CCSF.pdf>
158. City of Boise. (2023). *City use of artificial intelligence (AI) regulation* (Regulation No. 4.30q). Boise, ID, Information Technology Department. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#:~:text=This%20document%20aims%20to%20harness%20the%20potential%20of,values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity>
159. City of Boise. (2023). *City use of artificial intelligence (AI) regulation* (Regulation No. 4.30q). Boise, ID, Information Technology Department. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#:~:text=This%20document%20aims%20to%20harness%20the%20potential%20of,values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity>
160. City of Boise. (2023). *City use of artificial intelligence (AI) regulation* (Regulation No. 4.30q). Boise, ID, Information Technology Department. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#:~:text=This%20document%20aims%20to%20harness%20the%20potential%20of,values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity>

- [of-artificial-intelligence-ai-regulation/#::~text=This%20document%20aims%20to%20harness%20the%20potential%20of.values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity](#)
161. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
 162. City of Boise. (2023). *City use of artificial intelligence (AI) regulation (Regulation No. 4.30q)*. Boise, ID, Information Technology Department. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#::~text=This%20document%20aims%20to%20harness%20the%20potential%20of.values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity>
 163. Mark, C. (2022). *Talking to Machines: Prompt Engineering & Injection. Towards Data Science, Data Science and Machine Learning Publication*. <https://towardsdatascience.com/talking-to-machines-prompt-engineering-injection-90e5018c94ee>
 164. City of Long Beach. (2024). *Generative AI guidance v1.1*. Long Beach, CA. <https://www.longbeach.gov/globalassets/smart-city/media-library/documents/generative-ai-guidance-v1-1>
 165. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>
 166. Sacramento County Department of Health Services, Division of Public Health. (2024, August 28). *Responsible artificial intelligence (AI) use (Policy No. 02-007)* Sacramento County, CA.
 167. City of Boise. (2023). *City use of artificial intelligence (AI) regulation (Regulation No. 4.30q)*. Boise, ID, Information Technology Department. <https://www.cityofboise.org/departments/human-resources/employee-policy-handbook/section-400-general-provisions/430q-city-use-of-artificial-intelligence-ai-regulation/#::~text=This%20document%20aims%20to%20harness%20the%20potential%20of.values%20of%20transparency%2C%20accountability%2C%20fairness%2C%20privacy%2C%20and%20inclusivity>.
 168. City of San Jose. (2023, September 23). *Generative AI Guidelines*. San Jose, CA. <https://www.sanjoseca.gov/home/showpublisheddocument/100095/638314083307070000>



Developing Artificial Intelligence (AI) Policies for Public Health Organizations

A Template and Guidance

