

TRIBAL PUBLIC HEALTH DATA ADVANCEMENT TOOLKIT

Data Modernization Questionnaire: Enterprise-wide Structures



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INTRODUCTION

The **Data Modernization Questionnaire** supports tribal public health authorities or tribally designated public health authorities with documenting roadblocks and opportunities related to data sharing and infrastructure within key public health activities. Tribal public health authorities or tribally designated public health authorities are henceforth referred to as “tribes” for the remainder of this document. The **Data Modernization Questionnaire** is split into two parts, **Enterprise-wide Structures** and **Program Structures**, which are described below.

Teams within tribal public health authorities (PHAs) and other tribal public health service organizations, if applicable, can discuss and fill out the questionnaire together. Tribes do NOT need to complete all questionnaire components. Instead, tribes may complete the questionnaire component(s) that best align with their organizational goals and objectives.

Participating tribes are encouraged to identify public health activities for which

- 1) data is actively collected and utilized,
- 2) data modernization efforts are already in progress, and
- 3) data modernization efforts are not started but may be of interest.

Enterprise-wide Structures

The **Enterprise-wide Structures** questionnaire is designed to focus on data modernization information that applies to the entire tribe and their public health activity(ies). It prompts tribes to reflect on roadblocks and opportunities within the following topic areas:

- **Data governance:** the internal standards, roles, processes, and policies that dictate data management, storage, integrity, security, sharing, and usage.
- **IT governance:** the internal standards, roles, processes, and policies that dictate IT management, strategy, operations, and security.
- **External policy:** guidelines adopted or proposed by external governments, parties, or organizations that may impact decision-making.

Program Structures

The **Program Structures** part focuses on technology and workforce. [This part of the questionnaire can be found here.](#)



DATA GOVERNANCE STRUCTURE

The goal of this section is to assist with the **identification of data governance roadblocks and opportunities**. **Data governance** can be defined as the standards, roles, processes, and policies that dictate data management, storage, integrity, security, sharing, and usage.

The following statements encourage consideration of **specific roadblocks and opportunities** related to data governance. Tribes are encouraged to reflect on **roadblocks** that may delay or prevent progress in carrying out public health activities and to describe **opportunities** that may be impactful, feasible, and/or relevant.

Roadblocks and opportunities may include:

- **Data governance processes:** processes to manage the availability, usability, integrity, and security of the data. This includes defining who within an organization has authority and control over data assets and how those data assets may be used.
- **Data standards:** documented agreements on the representation, format, definition, structuring, tagging, transmission, manipulation, use, and management of data.
- **Data architecture:** the overall structure of an organization's data and how the data flows to serve the organization's objectives. Particularly, data architecture addresses how data is managed from collection to transformation, distribution, and consumption.
- **Data quality:** characteristics and processes associated with measuring or improving the reliability and trustworthiness of data.
- **Data management:** the practice of collecting, keeping, and using data in a secure, efficient, and cost-effective manner.
- **Data sharing:** the process of making data resources available to multiple applications, users, or organizations.
- **Data privacy:** processes concerned with protecting sensitive health and individual data.
- **Data analytics:** the discovery, interpretation, and communication of meaningful patterns in public health data to support effective decision-making (e.g., data dashboards, ArcGIS, Tableau).



DATA GOVERNANCE PROCESSES

Data governance processes can be defined as processes to manage the availability, usability, integrity, and security of the data. This includes defining who within an organization has authority and control over data assets and how those data assets may be used.

1. Rate our tribe’s level of agreement with each **roadblock** statement related to **data governance processes**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to data governance processes. | | |
| Our tribe does not have formal, written, or fully established data governance processes to guide our tribe’s major data decisions (e.g., informal processes, undocumented processes). | | |
| Our tribe does not have a designated individual/ group of people to oversee data governance (e.g., data governance committee, Chief Data Officer, etc.). | | |
| Our tribe does not have sufficient leadership and/or program-level support for data governance processes. | | |
| Our staff has limited capacity or skill set(s) to implement data governance processes. | | |
| Our tribe has competing priorities that take precedence over data governance process efforts. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to implement data governance processes. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **data governance processes** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **data governance processes**, what are key accomplishments or lessons learned we would like to document? (optional)

2. Describe our tribe’s **opportunities** related to **data governance processes** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Establish, document, and implement an organization-wide data governance process to guide our tribe’s major data decisions. | | |
| Develop strategies to prioritize data governance within our tribe (e.g., establishing workgroups to champion data governance). | | |
| Include information security and cybersecurity as core priorities and activities in our IT and data governance and strategies. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities of data governance processes to leadership and programs to obtain buy-in. | | |
| Provide staff with continuous learning and development opportunities on data governance processes. | | |
| Designate an individual/group of people to oversee data governance (e.g., data governance committee, Chief Data Officer, etc.). | | |
| Other, please specify: | | |

a. Considering our **opportunities** to institute **data governance processes**, what additional considerations or contexts does our tribe need to address? (optional)

DATA STANDARDS

Data standards can be described as documented agreements on the representation, format, definition, structuring, tagging, transmission, manipulation, use, and management of data.

3. Rate our tribe’s level of agreement with each **roadblock** statement below related to **data standards**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to data standards. | | |
| Our tribe has not fully adopted terminology consistent with nationally recognized clinical/public health data systems, if applicable (e.g., LOINC, SNOMED, ICD, CPT, CVX, CDC PHIN VADS). | | |
| Our tribe has not fully adopted nationally recognized health message/content standards, if applicable (e.g., HL7 version 2, CDA, or FHIR). | | |
| Our tribe does not have sufficient leadership and/or program-level support to implement data standards. | | |
| Our staff has limited capacity or skill set(s) to implement data standards. | | |
| Our tribe has competing priorities that take precedence over implementing data standards. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to implement data standards. | | |
| Other, please specify: | | |

- a. Considering the **roadblocks** to our **data standards** above, what additional considerations or contexts does our tribe need to address? (optional)
-

b. Considering our efforts to institute **data standards**, what are key accomplishments or lessons learned we would like to document? (optional)

4. Describe our tribe’s **opportunities** related to **data standards** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Adopt terminology consistent with nationally recognized clinical/public health data systems, if applicable (e.g., LOINC, SNOMED, ICD, CPT, CVX, CDC PHIN VADS). | | |
| Adopt nationally recognized health message/content standards, if applicable (e.g., HL7 version 2, CDA, or FHIR). | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for implementing data standards to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on data standards. | | |
| Other, please specify: | | |

a. Considering our **opportunities** to institute **data standards**, what additional considerations or contexts does our tribe need to address? (optional)

DATA ARCHITECTURE

Data architecture can be described as the overall structure of an organization’s data and how the data flows to serve the organization’s objectives. Particularly, data architecture addresses how data is managed from collection to transformation, distribution, and consumption.

5. Rate our tribe’s level of agreement with each **roadblock** statement below related to **data architecture**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to data architecture. | | |
| Our tribe has roadblocks with the bidirectional exchange of data between our tribal public health data systems and external data providers. | | |
| Our tribe has roadblocks in transforming and mapping varied and unstructured data into a unified structured or semi-structured data model. | | |
| Our tribe does not have sufficient leadership and/or program-level support to implement or improve data architecture. | | |
| Our staff has limited capacity or skill set(s) to implement or improve data architecture. | | |
| Our tribe has competing priorities that take precedence over implementing or improving data architecture. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to implement or improve data architecture. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **data architecture** above, what additional considerations or contexts does our tribe need to address? (optional)

- b. Considering our efforts to institute **data architecture**, what are key accomplishments or lessons learned we would like to document? (optional)
-

6. Describe our tribe’s **opportunities** related to **data architecture** processes using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Utilize message or data integration services (e.g., integration engines) to enable the electronic bidirectional exchange of data between our tribal public health data systems and external data providers (e.g., state health department, county health department, Tribal Epidemiology Centers (TECs)). | | |
| Utilize data engineering processes (e.g., extract-transform-load or extract-load-transform processes) to enable the transformation and mapping of varied and unstructured data into a unified structured or semi-structured data model. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for implementing data architecture to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on data architecture. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **data architecture**, what additional considerations or contexts does our tribe need to address? (optional)
-

DATA QUALITY AND MANAGEMENT

Data quality can be described as characteristics and processes associated with measuring or improving the reliability and trustworthiness of data. **Data management** can be described as the practice of collecting, keeping, and using data in a secure, efficient, and cost-effective manner.

7. Rate our tribe's level of agreement with each **roadblock** statement below related to **data quality and management**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to data quality and management. | | |
| Our tribe does not have a formal, written, or fully established policy or protocol to manage data quality (e.g., timeliness, completeness, accuracy, post-collection reconciliation). | | |
| Our tribe has policies or protocols to manage data quality but does not fully adhere to them. | | |
| Our tribe does not have a formal, written, or fully established policy or protocol to manage our data lifecycle (e.g., data creation, data collection, data management, data usage, data sharing, retention policies and system backups, and disposition of records). | | |
| Our tribe does not have a formal, written, or fully established data management framework, including governance, processes, standards, and technology, that unifies our tribal data. | | |
| Our tribe does not have sufficient leadership and/or program-level support for data quality and management. | | |
| Our staff has limited capacity or skill set(s) to pursue data quality and management efforts. | | |
| Our tribe has competing priorities that take precedence over data quality and management. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to pursue data quality and management efforts. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **data quality and mangement** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **data quality and management**, what are key accomplishments or lessons learned we would like to document? (optional)

8. Describe our tribe’s **data quality and management opportunities** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Establish and standardize policies or protocols to manage data quality, such as timeliness, completeness, and accuracy. | | |
| Establish and standardize policies or protocols to manage our data lifecycle (e.g., data creation or collection, management, usage, publication, data sharing, retention policies and system backups, and disposition of records). | | |
| Establish a data management framework, including governance, processes, standards, and technology, that unifies our tribal data. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for improved data quality and management to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on data quality and management. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **data quality and management**, what additional considerations or contexts does our tribe need to address? (optional)

INTERNAL DATA SHARING

Data sharing can be described as the process of making data resources available to multiple applications, users, or organizations. Please use the box below to clarify our definition of the term ‘internal’ as it applies to this section (optional):

9. Rate our tribe’s level of agreement with each **roadblock** statement below related to **internal data sharing**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Our tribe does not have roadblocks related to internal data sharing. | | |
| Our tribe does not have formal, written, or fully established policies and protocols governing data sharing internally (e.g., Tribal Resolutions, MOUs, DUAs, and BAAs among our public health programs or broader tribal health organizations). | | |
| Our tribe has not fully adopted a standard procedure for establishing, monitoring, and renewing Tribal Resolutions, MOUs, DUAs, and/or BAAs with internal partners. | | |
| Our tribe has roadblocks in establishing data sharing applications for internal partners. | | |
| Our tribe does not have sufficient leadership and/or program support for internal data sharing. | | |
| Our staff has limited capacity or skill set(s) to pursue internal data sharing efforts. | | |
| Our tribe has competing priorities that take precedence over internal data sharing. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to pursue internal data sharing efforts. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **internal data sharing** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **internal data sharing**, what are key accomplishments or lessons learned we would like to document? (optional)

10. Describe our tribe’s **opportunities** related to **internal data sharing** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Establish and standardize policies and protocols governing data sharing and exchange internally (e.g., Tribal Resolutions, MOUs, DUAs, and BAAs among our public health programs or our broader tribal health organization). | | |
| Adopt a standard procedure for establishing, monitoring, and renewing Tribal Resolutions, MOUs, DUAs, and/or BAAs with internal partners. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for internal data sharing to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on internal data sharing. | | |
| Other, please specify: | | |

a. Considering our **opportunities** to institute **internal data sharing**, what additional considerations or contexts does our tribe need to address? (optional)

EXTERNAL DATA SHARING

Data sharing can be described as the process of making data resources available to multiple applications, users, or organizations. Please use the box below to clarify our definition of the term ‘external’ as it applies to this section (optional):

11. Rate our tribe’s level of agreement with each **roadblock** statement below related to **external data sharing**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to external data sharing. | | |
| Our tribe does not have formal, written, or fully established policies and protocols (e.g., MOUs, DUAs, and BAAs) governing data sharing and exchange with external partners. | | |
| Our tribe has not fully adopted a standard procedure for establishing, monitoring, and renewing MOUs, DUAs, and/or BAAs with external partners. | | |
| Our tribe has roadblocks in establishing data sharing applications for external partners. | | |
| Our tribe has roadblocks to maintaining tribal sovereignty. | | |
| Our tribe does not have sufficient leadership and/or program support for external data sharing. | | |
| Our staff has limited capacity or skill set(s) to pursue external data-sharing efforts. | | |
| Our tribe has competing priorities that take precedence over external data sharing. | | |

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Our tribe has limited funding and/or funding restrictions that impact our ability to pursue external data sharing efforts. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **external data sharing** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **external data sharing**, what are key accomplishments or lessons learned we would like to document? (optional)

12. Describe our tribe’s **opportunities** related to **external data sharing** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Establish and standardize policies and protocols (e.g., MOUs, DUAs, and BAAs) governing data sharing and exchange with external partners (e.g., state health department, county health department, Tribal Epidemiology Center (TECs)). | | |
| Adopt a standard procedure for establishing, monitoring, and renewing MOUs, DUAs, and/or BAAs with external partners. | | |
| Build, enhance, and continuously monitor relationships with external partners to support data sharing and exchange. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for external data sharing to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on external data sharing. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **external data sharing**, what additional considerations or contexts does our tribe need to address? (optional)

DATA PRIVACY

Data privacy can be described as processes concerned with protecting sensitive health and individual data.

13. Rate our tribe’s level of agreement with each **roadblock** statement below related to **data privacy**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to data privacy. | | |
| Our tribe has not fully established policies and protocols to ensure confidentiality and informed consent within our internal data systems. | | |
| Our tribe has not fully established mechanisms for data sharing that provide secure access to identified and/or de-identified data among our internal tribal public health systems. | | |
| Our tribe has not fully established mechanisms that provide protected, secure access to de-identified data for external partners. | | |
| Our tribe does not have sufficient leadership and/or program-level support for data privacy. | | |
| Our staff has limited capacity or skill set(s) to pursue data privacy efforts. | | |
| Our tribe has competing priorities that take precedence over data privacy. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to pursue data privacy efforts. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **data privacy** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **data privacy**, what are key accomplishments or lessons learned we would like to document? (optional)

14. Describe our tribe’s **opportunities** related to **data privacy** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Establish internal and external data policies and protocols to ensure confidentiality and informed consent. | | |
| Establish policies to preserve privacy when publishing or reporting data, such as not publishing data for small population groupings (e.g., small numbers policy). | | |
| Establish mechanisms for data sharing that provide secure access to identified and/or de-identified data both internally and externally. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for data privacy to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on data privacy. | | |
| Other, please specify: | | |

a. Considering our **opportunities** to institute **data privacy**, what additional considerations or contexts does our tribe need to address? (optional)

DATA ANALYTICS

Data analytics can be described as the discovery, interpretation, and communication of meaningful patterns in public health data to support effective decision-making (e.g., data dashboards, ArcGIS, Tableau).

15. Rate our tribe’s level of agreement with each **roadblock** statement below related to **data analytics**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Our tribe does not have roadblocks related to data analytics. | | |
| Our tribe has roadblocks performing data analysis, visualization, or data synthesis. | | |
| Our tribe has roadblocks publishing de-identified data sets, data visualizations, or dashboards on public-facing website(s) and/or other channels. | | |
| Our tribe has roadblocks establishing applications for data analytics. | | |
| Our tribe does not have sufficient leadership and/or program-level support for data analytics. | | |
| Our staff has limited capacity or skill set(s) to pursue data analytics efforts. | | |
| Our tribe has competing priorities that take precedence over data analytics. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to pursue data analytics efforts. | | |
| Other, please specify: | | |

- a. Considering the **roadblocks** to our **data analytics** above, what additional considerations or contexts does our tribe need to address? (optional)
-

- b. Considering our efforts to institute **data analytics**, what are key accomplishments or lessons learned we would like to document? (optional)

16. Describe our tribe’s **opportunities** related to **data analytics** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Identify and leverage existing data analytics activities within our tribe to build new analytics and reporting opportunities. | | |
| Share aggregated data analytics, outputs, and reports with internal partners. | | |
| Share aggregated data analytics, outputs, and reports with external partners. | | |
| Share aggregated data analytics, outputs, and reports on public-facing channels (e.g., website, social media, etc.). | | |
| Utilize data analytics and data-driven decision-making to inform our public health activities. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for data analytics to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on the spectrum of data analytics methods and relevant applications in public health. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **data analytics**, what additional considerations or contexts does our tribe need to address? (optional)

INFORMATION TECHNOLOGY (IT) GOVERNANCE STRUCTURE

The goal of this section is to assist with the **identification of Information Technology (IT) governance roadblocks and opportunities**. **IT governance** can be defined as the standards, roles, processes, and policies that dictate IT management, strategy, operations, and security.

The following statements encourage consideration of **specific roadblocks and opportunities** related to IT governance. Tribes are encouraged to reflect on **roadblocks** that may delay or prevent progress in carrying out public health activities and to describe **opportunities** that may be impactful, feasible, and/or relevant.

Roadblocks and opportunities may include:

- **IT governance processes:** processes and decision-making mechanisms to direct and control the use of IT within an organization.
- **IT standards:** guidelines and specifications for the acquisition, utilization, or implementation of IT. These standards support interoperability, compatibility, and consistency across different IT systems.
- **IT management:** the monitoring and administration of an organization's IT, including hardware, software, and networks.
- **Information security:** protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction in order to provide integrity, confidentiality, and availability.
- **Cybersecurity:** the practice of protecting electronic information systems and the information they contain from exposure or loss resulting from a cyber-attack or data breach. This may include preventing damage, unauthorized use, and exploitation of electronic information systems, as well as restoring these systems in the event of an attack.



IT GOVERNANCE PROCESSES

IT governance processes are processes and decision-making mechanisms to direct and control the use of IT within an organization.

1. Rate our tribe’s level of agreement with each **roadblock** statement below related to IT governance processes.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to IT governance processes. | | |
| Our tribe does not have a formal, written, or fully established IT governance process to guide major information and system decisions. | | |
| Our tribe does not have formal, written, or fully established processes to guide technology investment decisions, such as when to invest in “off the shelf” software (e.g., Immunization information systems) versus building in-house applications (buy versus build). | | |
| Our tribe does not have a formal, written, or fully established innovation or technology improvement strategy to promote and govern our technology innovation efforts. | | |
| Our tribe does not have a designated individual/group of people to oversee IT governance. | | |
| Our tribe does not have sufficient leadership and/or program-level support for IT governance. | | |
| Our staff has limited capacity or skill set(s) to implement IT governance processes. | | |
| Our tribe has competing priorities that take precedence over IT governance efforts. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to pursue IT governance efforts. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **IT governance processes** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **IT governance processes**, what are key accomplishments or lessons learned we would like to document? (optional)

2. Describe our tribe’s **opportunities** related to **IT governance processes** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Establish an IT governance process to guide major information and system decisions. | | |
| Establish standard processes to guide technology investment decisions, such as “buy versus build” and reducing redundant services. | | |
| Establish an innovation or technology improvement strategy to promote and govern our technology innovation efforts. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for implementing IT governance to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on IT governance processes. | | |
| Designate an individual/group of people to oversee IT governance. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **IT governance processes**, what additional considerations or contexts does our tribe need to address? (optional)

IT STANDARDS

IT standards can be described as guidelines and specifications for the acquisition, utilization, or implementation of IT. These standards support interoperability, compatibility, and consistency across different IT systems.

3. Rate our tribe’s level of agreement with each **roadblock** statement below related to **IT standards**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to IT standards. | | |
| Our tribe does not have formal, written, or fully established processes to identify, adopt, and implement IT standards. | | |
| Our tribe has limited IT standards in place and does not have plans to adopt and implement more. | | |
| Our tribe has concerns that implementing IT standards will disrupt crucial public health activities. | | |
| Our tribe does not have sufficient leadership and/or program-level support for implementing IT standards. | | |
| Our staff has limited capacity or skill set(s) to implement IT standards. | | |
| Our tribe has competing priorities that take precedence over implementing IT standards. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to implement IT standards. | | |
| Other, please specify: | | |

- a. Considering the **roadblocks** to our **IT standards** above, what additional considerations or contexts does our tribe need to address? (optional)
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- b. Considering our efforts to institute **IT standards**, what are key accomplishments or lessons learned we would like to document? (optional)

4. Describe our tribe’s **opportunities** related to **IT standards** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Establish processes to identify, adopt, and use IT standards across our organization. | | |
| Identify, prioritize, and implement additional IT standards to complement those currently in place. | | |
| Collaborate with public health programs and staff to identify ways to implement IT standards with minimal disruption to activities. | | |
| Develop enterprise-wide communications about IT standards. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for implementing IT standards to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on IT standards. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **IT standards**, what additional considerations or contexts does our tribe need to address? (optional)

IT MANAGEMENT

IT management can be described as the monitoring and administration of an organization’s IT, including hardware, software, and networks.

5. Rate our tribe’s level of agreement with each **roadblock** statement below related to **IT management**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Our tribe does not have roadblocks related to IT management. | | |
| Our tribe does not have an up-to-date inventory of our data sets, applications, and information systems. | | |
| Our tribe does not have formal, written, or fully established processes for managing user accounts and access. | | |
| Our tribe does not have ways to monitor and manage our IT systems and resources. | | |
| Our tribe does not have sufficient leadership and/or program-level support for IT management. | | |
| Our staff has limited capacity or capability to pursue IT management efforts. | | |
| Our tribe has competing priorities that take precedence over IT management. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to pursue IT management efforts. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **IT management** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **IT management**, what are key accomplishments or lessons learned we would like to document? (optional)

6. Describe our tribe’s **opportunities** related to **IT management** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Conduct an inventory of our data sets, applications, and information systems. This can include a digital IT asset inventory management process to dynamically catalog and manage hardware and software assets, licenses, networks/network devices, configuration, processes, documentation, and other Health Information Technology (HIT) resources. | | |
| Establish processes, in collaboration with programs, for granting and managing user accounts and access to systems. | | |
| Establish and implement processes to monitor and manage our IT systems and resources, such as adopting Information Technology Infrastructure Library (ITIL) practices, implementing an IT Service Management support desk, etc. | | |
| Include IT management processes as core activities in our IT governance and strategies. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for implementing IT management to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities to staff on IT management. | | |

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Develop frequent enterprise-wide communications about IT management so that the organization stays up to date on IT activities. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **IT management**, what additional considerations or contexts does our tribe need to address? (optional)

INFORMATION SECURITY AND CYBERSECURITY

Information security can be described as protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction in order to provide integrity, confidentiality, and availability. **Cybersecurity** can be described as the practice of protecting electronic information systems and the information they contain from exposure or loss resulting from a cyber-attack or data breach. This may include preventing damage, unauthorized use, and exploitation of electronic information systems, as well as restoring these systems in the event of an attack.

7. Rate our tribe’s level of agreement with each **roadblock** statement below related to **information security and cybersecurity**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to information security and cybersecurity. | | |
| Our tribe has limited technology and process controls in place to prevent unauthorized access to the network and data. | | |
| Our tribe does not have formal, written, or fully established reporting and remediation mechanisms in the event of a ransomware attack or data breach. | | |
| Our tribe does not have formal, written, or fully established processes to identify vulnerabilities, evaluate threats, and implement key security controls in software applications and/or apply server hardening techniques to improve the security and resiliency of our IT infrastructure. | | |
| Our tribe does not have sufficient leadership and/or program-level support for information security and cybersecurity. | | |
| Our staff has limited capacity or skill set(s) to implement information security and cybersecurity. | | |
| Our tribe has competing priorities that take precedence over information security and cybersecurity. | | |
| Our tribe has limited funding and/or funding restrictions that impact our ability to implement information security and cybersecurity. | | |
| Other, please specify: | | |

a. Considering the **roadblocks** to our **information security and cybersecurity** above, what additional considerations or contexts does our tribe need to address? (optional)

b. Considering our efforts to institute **information security and cybersecurity**, what are key accomplishments or lessons learned we would like to document? (optional)

8. Describe our tribe’s **opportunities** related to **information security and cybersecurity** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Establish processes to identify vulnerabilities, evaluate threats, and implement key security controls in software applications and/or apply system hardening techniques to improve the security and resiliency of our IT infrastructure. | | |
| Establish reporting mechanisms in the event of a suspected ransomware attack or data breach to initiate a response to limit damage. | | |
| Perform preventative processes to detect and mitigate security threats, performance issues, or non-compliance problems, such as Continuous Monitoring (CM), Independent Verification & Validation (IV&V), risk assessment, security tabletop exercises, etc. | | |
| Include information security and cybersecurity as core priorities and activities in our IT and data governance and strategies. | | |
| Define and communicate the advantages, limitations, impacts, and opportunities for implementing information security and cybersecurity to leadership and programs to obtain buy-in. | | |
| Provide continuous learning and development opportunities and prevention tactics to staff on cybersecurity. | | |

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Develop frequent enterprise-wide communications and reports about cybersecurity threats, prevention, and monitoring. | | |
| Other, please specify: | | |

- a. Considering our **opportunities** to institute **information security and cybersecurity**, what additional considerations or contexts does our tribe need to address? (optional)

EXTERNAL POLICY

The goal of this section is to assist with the **identification of external policy roadblocks and opportunities**. **External policy** can be defined as guidelines adopted or proposed by external governments, parties, or organizations that may impact decision-making.

The following statements encourage consideration of **specific roadblocks and opportunities** related to external policy. Tribes are encouraged to reflect on **roadblocks** that may delay or prevent progress in carrying out public health activities and to describe **opportunities** that may be impactful, feasible, and/or relevant.

Roadblocks and opportunities may include:

- **External legal or regulatory requirements:** laws or policies that govern data sharing and utilization between organizations.
- **External compliance requirements:** mandated reporting and/or programmatic guidelines to which organizations must adhere.

Please use the box below to clarify our definition of the term 'external' as it applies to this section (optional):



EXTERNAL LEGAL OR REGULATORY REQUIREMENTS

External legal or regulatory requirements can be described as laws or policies that govern data sharing and utilization between organizations.

1. Rate our tribe’s level of agreement with each **roadblock** statement below related to **external legal or regulatory requirements**.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to external legal or regulatory requirements. | | |
| Our tribe encounters roadblocks with external policies, regulations, and/or state laws that limit data sharing. | | |
| External entities have not collaborated with our tribe to establish or revise existing policies and/or regulations. | | |
| Our tribe receives data from external partners, but the data is limited or not useful (e.g., outdated/old, American Indian/Alaska Native is classified in an “other” category, data categorized by zip codes and/or county-level as opposed to by tribal reservation boundaries). | | |
| Our staff has limited capacity or skill set(s) needed to evaluate external policies that may impact our public health data. | | |
| Our tribe has competing priorities that take precedence over evaluating external policies that may impact our public health data. | | |
| Other, please specify: | | |

- a. Considering the **roadblocks** to our **external legal or regulatory requirements** above, what additional considerations or contexts does our tribe need to address? (optional)
-

b. Considering our efforts to institute **external legal or regulatory requirements**, what are key accomplishments or lessons learned we would like to document? (optional)

2. Describe our tribe’s **opportunities** related to **external legal or regulatory requirements** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Establish relationships and data sharing agreements to increase data accessibility and/or data quality (e.g., partnering with state and/or local health agencies, Tribal Epidemiology Centers (TECs), state health universities, health care providers). | | |
| Establish relationships that facilitate partnering on data policy development or revision, including state and/or local health agencies, Tribal Epidemiology Centers (TECs), state health universities, health care providers or participating in tribal health boards, councils, or organizations. | | |
| Participate in efforts to enact policy change (e.g., attendance at committee hearings). | | |
| Engage with Tribal Epidemiology Centers (TECs), Tribal Liaison Officers, and other federal points of contact (e.g., IHS, 638 facilities, and CDC). | | |
| Provide continuous learning and development opportunities to staff on legal and regulatory requirements. | | |
| Other, please specify: | | |

a. Considering our **opportunities** to institute **external legal or regulatory requirements**, what additional considerations or contexts does our tribe need to address? (optional)

EXTERNAL COMPLIANCE REQUIREMENTS

External compliance requirements can be described as mandated reporting and/or programmatic guidelines to which organizations must adhere.

3. Rate our tribe’s level of agreement with each roadblocks statement below related to external compliance requirements.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|---|----------|-------------------------------------|
| Our tribe does not have roadblocks related to external compliance requirements. | | |
| Our tribe does not comply or does not know if we are compliant with mandated reporting requirements (e.g., disease surveillance, vital records). | | |
| Our tribe has roadblocks meeting quality standards for mandated reporting requirements. | | |
| Our tribe has roadblocks meeting timelines for mandated reporting requirements. | | |
| Our tribe has roadblocks meeting programmatic reporting requirements (e.g., performance measures) as a condition of funds awarded (e.g., grants, cooperative agreements, etc.). | | |
| Our staff has limited capacity or skill set(s) needed to assess reporting requirements and align or revise our data to meet these requirements. | | |
| Our tribe has competing priorities that take precedence over assessing reporting requirements to align or revise our data to meet these requirements. | | |
| Other, please specify: | | |

- a. Considering the roadblocks to our external compliance requirements above, what additional considerations or contexts does our tribe need to address? (optional)
-

b. Considering our efforts to institute **external compliance requirements**, what are key accomplishments or lessons learned we would like to document? (optional)

4. Describe our tribe’s **opportunities** related to **external compliance requirements** using the table below.

| | RESPONSE | CONTEXT FOR OUR RESPONSE (OPTIONAL) |
|--|----------|-------------------------------------|
| Participate in tribal health boards, councils, or organizations. | | |
| Engage with Tribal Epidemiology Centers (TECs), Tribal Liaison Officers, and other federal points of contact (e.g., IHS, 638 facilities, and CDC). | | |
| Establish or enhance relationships with other tribes/tribal organizations to share best practices and experiences. | | |
| Establish or enhance relationships with state and/or local health agencies to share best practices and experiences. | | |
| Provide continuous learning and development opportunities to staff on compliance requirements. | | |
| Other, please specify: | | |

a. Considering our **opportunities** to institute **external compliance requirements**, what additional considerations or contexts does our tribe need to address? (optional)