



MITA Data Management Strategy

The Agency of Human Services (AHS) Data Governance Manual that follows will serve as the Vermont MITA Data Management Strategy, demonstrating the principle of reuse. The MITA Data Management Strategy will be kept current with the most recent version of the Manual.



AHS Data Governance

Manual

VERSION: 1.3

TABLE OF CONTENTS

1.0	Introduction to the Data Governance Manual.....	5
1.1	Document Purpose.....	5
1.2	Document Format	5
1.3	Intended Audience.....	5
2.0	Data Governance Glossary	5
3.0	AHS Data Governance Value Statement	6
3.1	Guiding Principles	6
3.2	Vision Statement.....	6
3.3	Mission Statement.....	6
3.4	Success Metrics	6
3.5	AHS Data Governance Roadmap	7
4.0	Data Governance Policy Development Process.....	8
4.1	Overview	8
5.0	Data Governance Policy Implementation Process	9
5.1	Overview	9
6.0	Data Management Policies	10
	Appendix A: Policy Development Procedure	1
1.0	Introduction.....	1
2.0	Scope.....	1
3.0	Workflow	2
4.0	Policy Development Procedure	2
4.1	Stakeholder Submits Policy Proposal.....	2
4.2	Perform DGO Review of Proposed Policy.....	3
4.3	Perform DGC Review of Proposed Policy	3
4.4	Conduct Policy Analysis	4
4.5	Conduct Policy Drafting.....	4
4.6	DGO Preparation for DGC Meeting	4
4.7	Perform DGC Review of Draft Policy	5
4.8	Escalate Policy to AHS Executive Governance Team	5
4.9	DGC Processes Policy	5
4.10	DGO Processes Policy.....	6

Appendix B: Policy Implementation Procedure.....1

TABLE OF FIGURES

Figure 1: AHS Data Governance Road Map Table.....7
Figure 2: Policy Development Process Diagram8
Figure 3: Policy Development Process Steps Table.....8
Figure 4: Policy Implementation Process Diagram.....9
Figure 5: Policy Implementation Process Steps Table10
Figure 6: Initial Data Management Policies Table.....11
Figure 7: Policy Development Workflow Diagram..... A-2

DOCUMENT REVISION HISTORY

Date	Version	Description	Author
June 15, 2018	1.0	Updated to meet SoV standards, including language and formatting.	Chelsea Carriveau, Craig A. Benson
June 27, 2018	1.1	Fixed appendix footers; corrected section numbering; added policy implementation procedure as Appendix B; adjusted formatting to official standard (including ADA standard)	Craig A. Benson
July 17, 2018	1.2	Updated Policy Development diagram and procedure to reflect appropriate legal review.	Craig A. Benson
April 12, 2019	1.3	Updated Success Metrics to reflect a new Statement of Intent.	Dianne Whalen

1.0 Introduction to the Data Governance Manual

1.1 DOCUMENT PURPOSE

The purpose of the Data Governance Manual is two-fold:

1. To describe how the AHS DGC and DGO should operate, administer, and manage the creation of a unified set of AHS data management policies, processes, and procedures describing how AHS will store, extract, share, manage, and organize the data under its stewardship.
2. To serve as the reference source for all data management policies developed by the DGC for implementation across AHS departments.

1.2 DOCUMENT FORMAT

In addition to this Introduction, this Manual has three main sections:

- Section 3.0: Data Governance Value Statement, which presents the AHS data governance mission, vision, guiding principles, and roadmap.
- Section 4.0: Data Governance Policy Development Process, which elaborates the standard, repeatable process to be used by the DGC for developing policies.
- Section 5.0: Data Governance Policy Implementation Process, which elaborates the standard, repeatable process to be used for the implementation of DGC established policies across AHS departments.
- Section 6.0: Data Management Policies, which contains the recommended policies from the DGO.

Additionally, this manual contains two appendices:

- Appendix A: Policy Development Procedure, which contains the steps necessary to draft new Data Governance policies.
- Appendix B: Policy Implementation Procedure, which contains the steps necessary to implement approved Data Governance policies.

1.3 INTENDED AUDIENCE

The intended audience of the Data Governance Manual is AHS staff members in all AHS departments, and AHS Central Office.

2.0 Data Governance Glossary

The Data Governance Glossary is located on the AHS Data Governance SharePoint site. The link is as follows:

3.0 AHS Data Governance Value Statement

The following sub-sections contain the language developed and approved by AHS stakeholders in January 2018.

3.1 GUIDING PRINCIPLES

AHS is an ecosystem of interrelated and interdependent services.

1. Data should be a tool to enable a holistic and integrated view of AHS programs and services.
2. Data represents people and experiences.
3. Data is a shared asset.
4. Data should be leveraged to answer our questions about what works to improve outcomes and quality of services.
5. AHS is responsible for ethical use of data and ensuring data integrity and quality.
6. AHS manages data in order to minimize risk and maximize information for responsible investment of taxpayer dollars.
7. Data alone is insufficient for decision-making; to add value, data must be understood, carefully selected, manipulated, analyzed, and presented in context. Then, data can lead to insights, and insights can lead to action.

3.2 VISION STATEMENT

AHS culture supports the efficient use, sharing, and linking of quality data across AHS programs for effective decision-making at all organizational levels to improve outcomes, client experience, service delivery, and investment allocation across the service system.

3.3 MISSION STATEMENT

Foster a culture and embed a framework of accountability and responsibility for governing AHS data.

3.4 SUCCESS METRICS

Success metrics measure whether the policies have been adopted and operationalized; they also assess whether the policy is achieving the Council's vision and purpose of data governance, i.e., increase in data quality, data analytics, data sharing, and data use to drive decision-making. Metrics adopted early in the data governance process will likely focus on adoption and operation; however, as data governance in AHS matures, the Data Governance Council will place more emphasis on metrics that assess success in achieving the vision and purpose of data governance.

3.5 AHS DATA GOVERNANCE ROADMAP

The AHS Data Governance Roadmap was created based on the industry best practice Data Management Maturity Model to guide AHS in the incremental creation of an agency-wide data governance operation that is seamlessly transferable across department, initiative, and technology.

Figure 1: AHS Data Governance Road Map Table

Vision	AHS culture supports the efficient use, sharing, and linking of quality data across AHS programs for effective decision-making at all organizational levels in order to improve outcomes, client experience, service delivery, and investment allocation across the service system.		
Mission	Foster a culture and embed a framework of accountability and responsibility for governing AHS data.		
Phase	Phase 1 / Years 0 – 1	Phase 2 / Years 2 – 3	Phase 3 / Years 4 – 5
Timeframe	Present – July 31, 2019	August 1, 2019 – July 31, 2021	August 1, 2021 – July 31, 2023
	SHORT-TERM GOALS	MEDIUM-TERM GOALS	LONG-TERM GOALS
AHS DG Goals	1.1 Successfully transition from AHS DG Initiation to AHS DG Implementation.	2.1 Achieve DMM Model DG Capability Level 3: <i>Defined</i> .	3.1 Achieve DMM Model DG Capability Level 4: <i>Measured and</i> strive for DMM Model DG Capability Level 5: <i>Optimized</i> .
	1.2 Achieve DMM Model DG Capability Level 2: <i>Managed</i> .	2.2 All AHS departments have structures in place to implement DG policies locally.	3.2 All AHS department-level DG structures are meeting performance expectations.
	1.3 All AHS departments regularly and meaningfully participate in the Data Governance Council.	2.3 Develop and employ metrics to evaluate the effectiveness of AHS DG.	3.3 Use statistical key performance indicators and results to manage and refine AHS DG.
	1.4 Initiate change management activities.		

4.0 Data Governance Policy Development Process

4.1 OVERVIEW

The DGC will devise and utilize a repeatable, agile process for iterating through research and policy projects to achieve the AHS data governance vision and mission. The process will allow the DGC to prioritize the activities to be accomplished. The Policy Development Process consists of five high-level steps, as illustrated in Figure 4.1 and described below in Table 4.1.

Figure 2: Policy Development Process Diagram



Figure 3: Policy Development Process Steps Table

#	Step	Purpose	Responsible
1	Set and Approve Priorities	Review proposed policy and research projects; respond to requests for data and new mandates; agree on the need to take action given competing priorities and availability of resources; approve prioritization	DGC
2	Commission Projects	Scope data request and requirements; create a project team or work group to execute the task	DGC
3	Perform Analysis	Execute the task	DGO Workgroups
4	Present Results	Report findings to the DGC	DGO Workgroups

#	Step	Purpose	Responsible
5	Establish Policies	Determine need to modify existing or create new DG policies; if there is a need, repeat steps 3 – 5	DGC

5.0 Data Governance Policy Implementation Process

5.1 OVERVIEW

The DGC will devise and utilize a repeatable, agile process for iterating through the implementation of a policy at the AHS department level to help ensure that policies developed and approved by the DGC will be successfully put into practice within each AHS department. The Policy Implementation Process consists of five high-level steps, as illustrated in Figure 5.1 and described below in Table 5.1.

Figure 4: Policy Implementation Process Diagram



Figure 5: Policy Implementation Process Steps Table

#	Step	Purpose	Responsible
1	Establish Department-level Workgroup	A department-level Workgroup, comprised of members who possess experience and business knowledge related to a new policy, is established within an assigned department as directed by the DGO.	DGO
2	Develop Implementation Plan	The established Workgroup will collaborate to draft a written implementation plan for the adoption of an approved policy, at the department level.	Department-level Workgroup DGO (As necessary for support)
3	Pilot Implementation of Policy, and Review	The implementation plan will be leveraged to implement an approved policy at 1 – 2 departments. This will be considered the pilot implementation of a policy. Before finalization, and adoption across all AHS departments, the implementation plan’s success will be reviewed to determine if rework is needed. If no rework is necessary, the implementation plan will be finalized by the Workgroup.	Department-level Workgroup DGO (As necessary for support) 1 – 2 AHS Departments
4	Approve Implementation Plan	Upon Workgroup finalization of the implementation plan, the DGO will review and approve the implementation plan. Or if necessary, the DGO will return the implementation plan to the Workgroup for further development.	DGO Department-level Workgroup (As necessary)
5	Leverage Implementation Plan and Implement Policy at all Departments	Departments not included in the pilot will leverage the implementation plan developed by the Workgroup, tailoring procedures to their specific needs, and implement the policy.	DGO All AHS Departments

6.0 Data Management Policies

This section contains the suggested, and prioritized data management policies, as recommended by the DGO. Once data management policies have been drafted and approved, they will be stored on the AHS DG SharePoint site.

During its first year of AHS data governance, the development and approval of core data management policies will be prioritized. Following is a list of policies and their recommended priorities, based on the following definitions:

- Priority 1: (High) Proposed for immediate implementation
- Priority 2: (Medium) Proposed subsequent to high-priority policies
- Priority 3: (Low) Proposed subsequent to medium-priority policies

Figure 6: Initial Data Management Policies Table

ID	Policy Name	Brief Description	Priority	Status
01.001	Data Sharing Policy	A policy that establishes expectations to ensure clients are informed about the AHS' data sharing policies, are afforded the opportunity to provide their approval to share their personally identifiable data, and that only the minimum required client information is shared between entities. Establishing this policy enables individuals and entities to deliver services and benefits in the most effective and timely way and to avoid collection of duplicate or contradicting information.	1	In-process
01.002	Data Request Policy	A policy that establishes the expectations to ensure that clients are informed about the AHS' data sharing policies, are afforded the opportunity to provide their approval to share their personally identifiable data, and that only the minimum required client information is shared between entities. Establishing this policy enables individuals and entities to deliver services and benefits in the most effective and timely way and to avoid collection of duplicate or contradicting information.	1	In-process
01.003	Data Authorization	A policy that establishes the expectations across the AHS to standardize the processes associated with obtaining and verifying authorization to release information from its clients.	1	In-process
01.004	Roles and Responsibilities Definition	A policy which establishes the different data roles within each department (e.g. owner, custodian, stewards, manager, users, etc.).	1	Approved 12/14/2018

ID	Policy Name	Brief Description	Priority	Status
01.005	Data Governance Accountability	A policy that establishes the expectation of Data Governance language in job descriptions and performance expectations.	1	Approved 4/18/2019
04.001	Data Breach / Loss Policy	A policy that outlines the responsibilities of Departments for how, when, and to who communications should occur, in the event of a breach or a loss.	1	In-process
06.001	Person Definition	A policy that defines the data elements (attributes) and standards on what constitutes a person within the context of Human Services. This will effectively define the "Golden Record".	1	Proposed
06.002	Person Matching	A policy that details the steps, computations, comparisons and thresholds applied to person records for the purposes of de-duplication and Golden Record establishment.	1	Proposed
05.001	Data Security Policy	A policy that establishes how database roles, user groups, and password standards are applied for each application.	1	Proposed
TBD	Enterprise Data Architecture Steering Committee	A policy that establishes an Enterprise Data Architecture Steering Committee within the AHS DGO. This Steering Committee should oversee the enterprise data model, and its iterative projects. Ultimately, the enterprise data model should be reviewed, approved, and formally adopted by the DGC.	2	Proposed
TBD	Data Asset Inventory	A policy regarding data inventories that outlines what should be included in an inventory and how, when, how often, and by whom it should be updated.	2	Proposed
TBD	Data Policy Compliance Tracking	A policy that establishes the processes that will be used for monitoring compliance with its established policies and procedures.	2	Proposed

ID	Policy Name	Brief Description	Priority	Status
TBD	Data Stewardship	A policy that establishes the importance of data management practices which align with the Agency's responsibility for data stewardship.	2	Proposed
TBD	Data Integration Architecture	A policy that establishes the shared access, replication, and flow of data to ensure data quality and consistency, particularly for reference and master data.	2	Proposed
TBD	Data Quality Policy	A policy that establishes a framework for the scientific and statistical evaluation of data to determine quality levels of data across AHS.	2	Proposed
TBD	Data Masking Policy	A policy that outlines the approach to data masking which appropriately anonymizes sensitive client data and establishes acceptable use of masked client data in non-production environments.	2	Proposed
TBD	Data Sensitivity Classification	A policy that establishes a framework for classifying AHS data based on sensitivity levels.	2	Proposed
TBD	Database Recovery Policy	A policy that outlines the expectations of Departments within the Agency for database availability, backups, and recovery.	2	Proposed
TBD	Data Retention Policy	A policy that outlines the expectations of Departments within the Agency to retain data based on the data classification.	2	Proposed
TBD	Query, Analysis, and Reporting Processes and Procedures	A policy that establishes query, analysis, and reporting processes and procedures.	2	Proposed
TBD	Identify Reference and Master Data Sources and Contributors	A policy that establishes procedures for tracing the lineage of reference and master data to identify the original and interim source databases, files, applications, organizations, and individual roles that create and maintain the data.	2	Proposed

ID	Policy Name	Brief Description	Priority	Status
TBD	Establish "Golden" Records	A policy that establishes expectations for defining "golden" records (e.g., the agency's single source of truth for a piece of data).	2	Proposed
TBD	Data Encyclopedia	A policy establishing standard definitions of data elements, their meanings, and allowable values, for Data Encyclopedia creation.	2	Proposed
TBD	Unstructured Data Files (i.e. electronic files and physical records)	A policy that establishes procedures for storing, protecting, indexing, and establishing access to unstructured data files.	3	Proposed
TBD	New IT Project Data Policy	A policy that establishes data governance requirements for integration into IT procurements and major enhancements.	3	Proposed
TBD	Data Governance Training	A policy that establishes a training framework for the implementation of data governance policies, procedures, and projects.	3	Proposed
TBD	AHS DGC Collaboration with other State Data Governance Initiatives	A policy that establishes procedures for collaboration with other state data governance initiatives.	3	Proposed
TBD	Data Modeling and Architecture Standards	A policy that establishes data modeling and architecture standards, including naming conventions, definition standards, standard domains, and standard abbreviations.	3	Proposed
TBD	Metadata Management Policy	A policy that establishes clear goals and objectives for meta-data management and usage.	3	Proposed

Appendix A: Policy Development Procedure

1.0 Introduction

This procedure highlights the steps and activities necessary to develop new Data Governance policies. There are six primary role players in the policy development procedure:

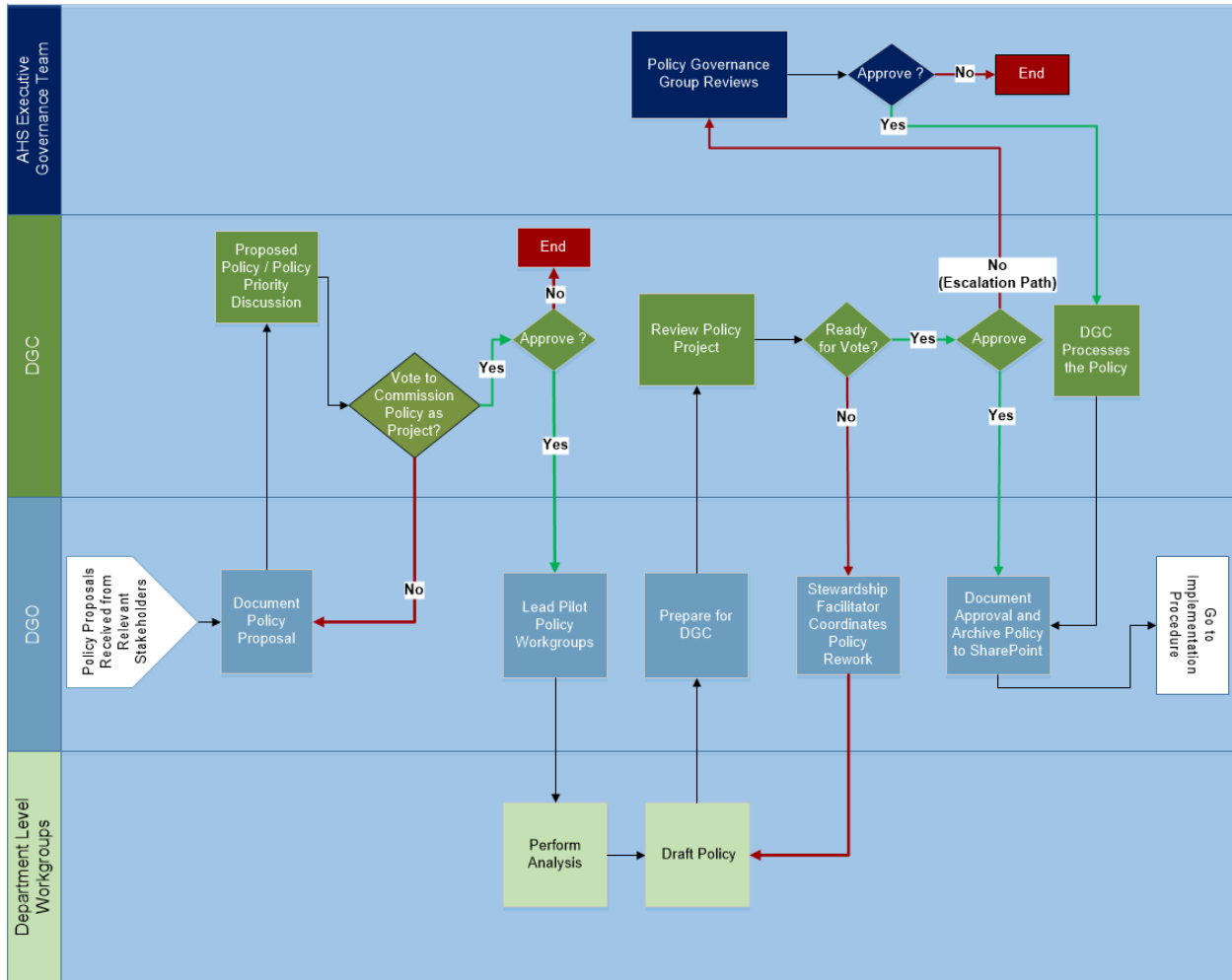
- Stakeholder Contributor
- Data Governance Operations DGO
- Department Workgroups
- AHS Central Office Legal
- Data Governance Council DGC
- AHS Executive Governance

2.0 Scope

This procedure only details the development aspects of Data Governance policies. Policy implementation is detailed in a separate procedure.

3.0 Workflow

Figure 7: Policy Development Workflow Diagram



4.0 Policy Development Procedure

4.1 STAKEHOLDER SUBMITS POLICY PROPOSAL

Any AHS employee can propose development of a given Data Governance policy. Policy proposals should be submitted, by email, to the AHS Data Officer using the prescribed Data Governance Policy Proposal Template found on the AHS Data Governance SharePoint site. Policy proposals should include as much background information as possible as to why the policy is needed. Policy proposal submitters then assume the role of *Policy Stakeholder*.

All policy proposals received by the DGO at least two-weeks prior to the next scheduled DGC meeting will be included for DGC review. Policy proposals received less than two weeks prior to the next scheduled DGC meeting will be presented at the subsequent monthly DGC meeting.

4.2 PERFORM DGO REVIEW OF PROPOSED POLICY

Upon receipt of the policy proposal, the AHS Data Officer and the Data Steward Facilitator reviews it for content (completeness and justification). Incomplete or unjustified proposals will be returned to the Policy Stakeholder for more information and resubmission. This step is repeated until either the policy meets the requirements of the DGO or the Policy Stakeholder withdraws their proposal.

Completed and appropriately justified proposals will move forward in the procedure.

4.2.1 NOTIFY POLICY STAKEHOLDER

Within five business days of submission, the AHS Data Officer notifies the Policy Stakeholder by email that the policy proposal is accepted by the DGO and will be submitted to the DGC for review.

4.2.2 PREPARE PROPOSED POLICY FOR DGC MEETING

4.2.2.1 Update DGC Meeting Slide Deck

The AHS Data Officer will update the slide deck for the next DGC meeting to include details of the proposed policy.

4.2.2.2 Update DGC Meeting Agenda / Distribute Meeting Materials

The Data Governance Coordinator updates the DGC meeting agenda to include the proposed policy under the “New Business” category. Meeting materials are distributed to DGC members two weeks in advance of the next DGC meeting.

4.3 PERFORM DGC REVIEW OF PROPOSED POLICY

4.3.1 AHS DATA OFFICER PRESENTS POLICY PROPOSAL

The AHS Data Officer presents the proposed policy and discusses overall policy priorities with the DGC at the designated point in the DGC meeting agenda.

4.3.2 DGC MOTION TO VOTE TO COMMISSION THE POLICY PROJECT

A motion is made to vote to commission the proposed policy as a project based on exploring its feasibility.

If the motion is not seconded, no voting occurs, and the policy is returned to the DGO for rework (the procedure reverts to step 4.2).

If the motion is seconded, the DGC moves to a vote.

4.3.3 DGC VOTES ON COMMISSIONING THE POLICY PROJECT

The DGC Chair conducts a vote on commissioning the policy as a project.

4.3.4 NOTIFY POLICY STAKEHOLDER

Within two business days of the DGC vote, the AHS Data Officer notifies the Policy Stakeholder by email with the results of the DGC vote.

If the vote did not pass, the procedure ends.

If the vote passed, the procedure continues.

4.4 CONDUCT POLICY ANALYSIS

The Data Stewardship Facilitator organizes relevant policy documentation and any supporting materials needed for analysis to begin.

The Data Stewardship Facilitator identifies pertinent department-level workgroup members, i.e. Legal Counsel, Data Stewards and Subject Matter Experts (SMEs) and communicates membership to the Data Governance Coordinator.

The Data Governance Coordinator schedules workgroup meetings and distributes all materials to workgroup members.

Policy analysis begins; this procedure section continues until the Data Stewardship Facilitator acknowledges the policy is ready to be drafted.

4.5 CONDUCT POLICY DRAFTING

Using the prescribed Policy template on the AHS Data Governance SharePoint site and following the prescribed Document and Content Management standards, a policy is drafted by the Data Stewardship Facilitator with content provided by the workgroup members.

The Data Governance Coordinator schedules workgroup meetings and distributes all materials to workgroup members.

Policy drafting begins; this procedure section continues until the Data Stewardship Facilitator acknowledges the policy is ready to be presented before the DGC.

4.6 DGO PREPARATION FOR DGC MEETING

The Data Stewardship Facilitator informs the AHS Data Officer of the finalized policy draft.

4.6.1 PREPARE POLICY DRAFT FOR DGC MEETING

All draft policies received by the DGO at least two-weeks prior to the next scheduled DGC meeting will be included for DGC review. Draft policies received less than two weeks prior to the next scheduled DGC meeting will be presented at the subsequent monthly DGC meeting.

4.6.1.1 Update DGC Meeting Slide Deck

The AHS Data Officer will update the slide deck for the next DGC meeting to include details of the policy draft.

4.6.1.2 Update DGC Meeting Agenda / Distribute Meeting Materials

The Data Governance Coordinator updates the DGC meeting agenda to include the policy draft item(s). Meeting materials are distributed to DGC members two weeks in advance of the next DGC meeting.

4.7 PERFORM DGC REVIEW OF DRAFT POLICY

4.8.1 AHS DATA OFFICER PRESENTS DRAFT POLICY

The AHS Data Officer presents the draft policy and discusses overall policy priorities with the DGC at the designated point in the DGC meeting agenda.

4.8.2 DGC MOTION TO VOTE ON THE POLICY

A motion is made to vote on the policy.

If the motion is not seconded, no voting occurs, and the policy is returned to the DGO for rework (the procedure reverts to step 4.5).

If the motion is passed, the DGC moves to a vote.

4.8.3 DGC VOTES TO IMPLEMENT THE POLICY PROJECT

The DGC Chair conducts a vote on the policy.

If the vote passed, the procedure continues at step 4.10.

If the vote did not pass, the policy is escalated to the AHS Executive Governance Team.

4.8 ESCALATE POLICY TO AHS EXECUTIVE GOVERNANCE TEAM

The Data Governance Coordinator sends the policy and any necessary supporting documentation to the AHS Secretary's Executive Assistant with instructions for the AHS Executive Governance Team to vote on the policy. The onus is on AHS Executive Governance Team members to review the policy with their respective DGC member(s) prior to their next meeting so they are prepared to vote.

4.8.1 AHS EXECUTIVE GOVERNANCE TEAM VOTES ON THE POLICY

The AHS Executive Governance Team Chair conducts a vote on the policy.

4.9 DGC PROCESSES POLICY

At the next scheduled DGC meeting, the DGC Chair acknowledges the status of the escalated policy with the DGC members.

If the vote passed, the procedure continues at step 4.11.

If the vote did not pass, the procedure ends.

4.10 DGO PROCESSES POLICY

The Data Governance Coordinator archives the policy to the Official Documents / Policies folder on the AHS Data Governance SharePoint site.

The AHS Data Officer communicates the new policy using the prescribed message in the AHS Data Governance Communication Plan.

The Policy Development Procedure ends.

The Policy Implementation Procedure begins.

Appendix B: Policy Implementation Procedure

(Forthcoming)