

# AHI PPS

TRANSFORMING  
the APPROACH  
to HEALTH CARE



Behavioral  
Health

Long Term  
Care

Hospitals

Public  
Health

Community  
Based  
Services

Primary  
Care

Home  
Health

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*AHI PPS*

*IT CHANGE MANAGEMENT STRATEGY*

*September, 2016*

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## I. INTRODUCTION

Adirondack Health Institute (AHI) is a PPS (Performing Provider System) of the New York State DSRIP (Delivery System Reform Incentive Payment) Program. DSRIP's purpose is to fundamentally restructure the health care delivery system by reinvesting in the Medicaid program, with the primary goal of reducing avoidable hospital use by 25% over 5 years. Up to \$6.42 billion dollars are allocated to this program with payouts based upon achieving predefined results in system transformation, clinical management and population health.

AHI PPS as the Lead Agency is responsible to maintain an infrastructure to accumulate information, to analyze and report on DSRIP activities—progress and metrics per DOH criteria, and to manage population health. Such reporting and analysis is done to document achievement of DSRIP milestones and metrics, and to justify incentive payments according to data and metrics reported. The current Change Management Strategy was created for PPS-wide HIT related projects in order to set expectations on how the approach to changes will be managed, what defines a change, the purpose and role of the change oversight function, and the overall change management process.

AHI PPS is in the process of defining and securing its longer-term IT infrastructure. The current infrastructure is limited primarily to data collection functions. Future infrastructure will include population health management functionality and other DSRIP-related solutions, including potentially a data warehouse and interfaces to be managed. Therefore, AHI PPS expects to update the Change Management strategy and process to accommodate a more sophisticated infrastructure and will update this document at that time.

The Change Management process is a clearly defined procedure to submit, review, approve and schedule requests for needed changes. The process ensures that changes to the IT environment are carefully considered and reviewed to minimize impact on users and services. The process allows for efficient and effective:

- Documentation
- Communication
- Implementation
- Risk mitigation of changes to the IT environment

## II. CHANGE MANAGEMENT APPROACH

The Change Management approach for the HIT related projects will ensure that all PPS-wide proposed changes are reviewed, and agreed upon so they can be properly implemented and communicated to stakeholders. The approach applies only to changes within the full scope of the PPS and is not applicable to individual entity changes.

The Change Management approach is not to be confused with the Change Management Process which will be detailed later in this document. The Change Management approach consists of three areas:

- Ensure changes are within scope and beneficial to the PPS
- Determine how the change will be implemented
- Manage the change as it is implemented

By using this approach methodology, change management oversight will focus its resources only on beneficial changes within the PPS scope.

### III. CHANGE MANAGEMENT PROCESS GOALS, OBJECTIVES AND SCOPE

#### A. Goals and Objectives

The goal of the change management process is to control the life cycle of all changes, enabling beneficial changes to be made with minimum disruption to IT services and user operations.

Objectives of the Change Management process are to manage changes that:

- Reduce risk exposure
- Minimize severity of any impact and disruption
- Align services with business needs
- Are recorded and evaluated, where authorized changes are prioritized, planned, tested, implemented, documented and reviewed in a controlled manner
- Use standardized methods and techniques for efficient and prompt handling of all changes to IT Services in order to meet agreed service levels and to prevent the occurrence of any change-related incidents
- Use appropriate communications to reflect visibility into changes
- Capture metrics and lessons learned to continuously improve the Change Management process

#### B. Scope

The following activities are *in-scope* of the Change Management process:

- Addition, modification, or removal of production IT services or supporting infrastructure or service delivery environment
- Addition, modification, or removal of any development, test, and production configuration items

The following activities are *out of scope* of the Change Management process:

- Service Requests (password resets, user account setup or modification, new report creation, web or database content updates, etc.)
- Support requests (e.g., Incident Management)
- Changes to individual desktop environments

- Changes to non-production infrastructure or applications that are NOT contained within the PPS’s standard configuration management database
- Activities required to develop, test and deploy the change

#### IV. TYPES OF CHANGES

TYPE OF CHANGE	DESCRIPTION
<b>STANDARD</b>	A pre-approved, low risk, frequently occurring, routine change that follows an established implementation procedure, e.g., backups.
<b>NORMAL</b>	A change that follows established review and approval workflow appropriate to its level of risk. Normal changes are categorized into low, medium, and high risk.
<b>EMERGENCY</b>	A change to resolve an outage or a pending outage or to address a security or regulatory issue. Often the change is recorded after it is performed rather than before, but it is always recorded. Emergency changes are vital in order to ensure that IT’s committed service levels are maintained. An Emergency change should not be used in order to bypass the appropriate lead-time for a change that has been entered into the system.
<b>MAJOR</b>	A change with sufficient institution-wide impact or risk that PPS Executive Leadership sign-off and an increased lead-time for submission to the CAB are warranted. Typically scheduled during established major maintenance windows.

##### A. Impact and Risk Assessment

All members of the CAB should evaluate the change based on impact, urgency, risk, benefits, and costs to determine priorities. Initial impact, risk and urgency can be suggested by the change initiator but may be modified in the change authorization process. AHI PPS does not expect to have a large volume of IT changes subject to this Change Management procedure, but intends to follow appropriate prioritization mechanisms for those changes that come before the CAB.

#### V. CHANGE SCHEDULING

Many changes may be grouped into one release and may be designed, tested, and released together if the amount of changes involved can be handled by the users, and there is little risk of interference between the changes. Changes will be scheduled to accommodate DSRIP needs, not IT’s convenience.

Change Management coordinates the production and distribution of a change schedule and projected service outage (PSO). The change schedule contains details of all the changes authorized for implementation and their proposed implementation dates. The PSO contains details of changes that will impact SLAs and IT service availability. These schedules are announced in advance to DSRIP users per the communication plan.

## A. Change Request Calendar

All business events and approved changes are displayed in the AHI IT Change Calendar, which is available on the shared drive and accessible to all IT staff.

## B. Standard Maintenance Windows

Standard maintenance windows are a predetermined period of time during which AHI PPS IT can reasonably perform proactive maintenance and enhancements to the IT environment.

All medium- and high-risk Normal changes should be performed within these windows unless mitigating circumstances require alternate scheduling (i.e., Emergency changes). Standard and low-risk changes are not subject to these scheduling restrictions. These default standard maintenance windows apply to all services:

8:00pm Tue – 8:00am Wed

8:00pm Wed – 8:00am Thu

8:00pm Thu – 8:00am Fri

5:00am Sat – 12:00pm Sun

## C. Change Freeze

The month following the last month of each quarter (i.e., January, April, July, October) is classified as a Change Freeze period, during which additional change restrictions and approval requirements apply. This Change Freeze period is in place since that is the time during which most data is collected and DOH reporting occurs.

No medium or high risk changes to critical services or major project deployments should occur during this time period. Exceptions require PPS Executive Leadership approval. Any low risk changes that impact critical services should receive additional scrutiny, with the change presented to the Change Advisory Board (CAB) for review as necessary.

If a change is unsuccessful during that period or results in an unplanned service interruption, CAB is notified by email. Additional communication may be needed to AHI PPS's DSRIP partners if the change is especially disruptive and may impact their ability to report essential data timely.

## VI. CHANGE MANAGEMENT TOOLS

AHI PPS IT Work Orders are the vehicle through which changes are requested. These Work Orders are submitted to the IT outsourcing organization, which in turn provides AHI PPS management with a regular report of changes requests for CAB consideration.

This change tracking tool helps ensure that:

- All of the requirements for a proposed change are collected and available for evaluating risk
- The change is scheduled for implementation

- Status updates are communicated to stakeholders (CAB, AHI PPS management, users, etc.)
- Change reports are used to govern the change process itself and provide change management with actionable feedback on change activity

## VII. CHANGE MANAGEMENT WORKFLOW

The Change Management Process for all DSRIP IT projects will follow the PPS standard change process. The CAB has overall responsibility for executing the change management process for each PPS change request.

1. *Identify:* Identify the need for a change (Stakeholder, user, project manager, PPS management)—Change requestor submits proposed change (RFC—Request for Change) to CAB via the IT Work Order, with a preliminary analysis on the impact of the change to risk, cost, schedule, and scope.
2. *Evaluate:* Evaluate the change (CAB)—CAB will review the requestor’s preliminary analysis on the impact of the change to risk, cost, schedule, and scope and seek clarification from the change requestor if needed.
3. *Approve:* Obtain decision on change request—CAB will discuss the proposed change and decide whether it will be approved based on all submitted information.
  - a. If change requires a budget modification (AHI PPS Finance Committee and Board)—CAB via IT&DS forwards for Finance committee and Board approval.
4. *Assign, Schedule, Implement:* Implement change (IT Outsourcing or AHI designee)—If a change is approved, the project manager updates project documentation as necessary. The IT change is made, user communications are issued. .
5. *Review:* Evaluate the change results, determine lessons learned, and update Change Management process as needed.

The following list is an example of information to capture and record for a proposed change. The level of detail collected depends on the size and impact of the change. Some information is recorded when the change request is initiated and some is collected or updated as the RFC (Request for Change) progresses through its life cycle. Some information is recorded directly on the IT Work Order and details of the change may be recorded in other documents. The IT Work Order is simple, especially at the beginning of implementing change management to encourage compliance with the process.

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|---|---|
| <ul style="list-style-type: none"> <li>• Unique identifier that can be coded for type of change (such as hardware, software, application), network, site, technology, etc.</li> <li>• Cross-reference to related incident ID or problem ID, if necessary</li> <li>• Description of change, including procedures for preparation,</li> </ul> | <ul style="list-style-type: none"> <li>implementation, verification, and remediation</li> <li>• Items to be changed</li> <li>• Reason for change</li> <li>• Effect of not implementing the change</li> <li>• Contact information for the initiator</li> </ul> |
|---|---|

- Date and time when the change was initiated
- Change type (normal, emergency, major, standard)
- Priority
- Risk assessment (high, medium, low risk)
- Potential users impacted
- Back-out or remediation plan
- Impact assessment and evaluation—resources and capacity, cost, benefits
- CAB decision and recommendations accompanying the decision
- Authorization signature, date, time (could be electronic)
- Target baseline or release to incorporate change into
- Scheduled implementation time (change window, release window, or date and time)
- Contact information for change implementer
- Change implementation details (success/fail/remediation)
- Actual implementation date and time
- Review date(s), review results (including cross-reference to new RFC where necessary), closure summary

## VIII. ROLES & RESPONSIBILITIES

### A. Change Requester

The Change Requester is the person submitting and owning the Change Request. Their responsibilities include:

- Secure appropriate business approval for the Change prior to starting the Change Management Process
- Complete the IT Work Order, in collaboration with the Change Implementer (see below)
- Communicate status of the change to users or other stakeholders as necessary

### B. Implementer/Assignee

The Change Implementer/Assignee implements and monitors the change (Requester and Implementer can be same person). AHI PPS currently outsources IT functions, so the implementer/assignee and Change Manager are likely resourced from that organization. The implementer's responsibilities include:

- Assist the Change Requester with IT Work Order change request as necessary
- Build and test the change
- Create the implementation plan, test plan and back-out plan
- Upon approval, deploy the change during the time scheduled
- Execute the back out plan if required

### C. Change Advisory Board (CAB)

- Change Advisory Board (CAB) participants are responsible for reviewing and recommending actions on all except Emergency Changes (ECAB has responsibility for that approval), and any proposed Change Management process improvement. Refer to “CAB Membership and CAB Meetings” section for expectations and responsibilities. Where agreement is not reached, CAB escalates to the PPS Executive Leadership for resolution.
- Review all changes discussed at the CAB meeting prior to attending the meeting (meetings can be virtual or face-to-face; approvals can be electronic)
- Review the change from a process and governance standpoint to assure that all foreseeable risks have been identified and mitigated, and that compensatory techniques are in place for any elements of exposure (things that could go wrong)
- Authorize changes to be included on the list of standard changes
- Review and prioritize all changes including Emergency Changes
- Aid the Change Manager(s) to approve, assess and prioritize and schedule RFCs
- Provide resolution to conflicting RFCs
- Understand and use the process, procedures, work instructions, required documentation and tools as designed
- Ensure that the Change Management process operates effectively and efficiently
- Ensure that the Change Management Key Performance Indicators are tracked and met
- Aid the Process Owner in evaluating and improving the process and tool(s)
- Conduct post-change implementation review

### D. Emergency Change Advisory Board (ECAB)

When the need for emergency change arises, such as when there may not be time to convene the full CAB, a subset of the CAB called the emergency change advisory board (ECAB) is granted authority to make emergency decisions. ECAB responsibilities include:

- Aid the Change Manager(s) to approve, assess and prioritize and schedule emergency changes
- Understand and use the process, procedures, work instructions, required documentation and tools as designed
- Ensure all activities pertaining to the Emergency Changes are recorded in the Change Log

### E. Change Manager

The Change Manager is responsible for functional implementation and operation of the Change Management Process and its activities. Currently this role exists at the outsourcing organization. Change Manager’s responsibilities include:

- Validate the type and risk of the Change
- Escalate approval delay issues
- Ensure post-implementation reviews are conducted per the policy



- Ensure CMDB updates are completed
- If an unauthorized change is discovered, escalate to AHI PPS Liaison who may escalate to AHI PPS Management
- Report on Change Management activities

#### F. Process Owner

The Process Owner is accountable for the success and strategic development of the Change Management Process, accountable for ensuring that the process is being performed according to the agreed and documented process and is meeting the aims of the process definition. Responsibilities include:

- Coordinate impact assessment, planning and authorization of RFCs in cooperation with members of the CAB and ECAB
- Convene and facilitate ECAB meetings for all Emergency Changes
- Ensure Changes are added to the Change Schedule(s) and announcements are distributed
- Liaise with all necessary parties to coordinate change building, testing and implementation
- Close RFCs; compile and archive change requests
- Audit changes to ensure that:
  - Change was recorded correctly with work matching the RFC
  - Change had appropriate risk level
  - Configuration items were updated appropriately
  - Documentation was updated appropriately
- Change communication and notification
- Define Key Performance Indicators (KPIs) and other metrics of process operations and quality, to evaluate effectiveness and efficiency of the process; review KPIs and other results, and take required action
- Review implemented changes to ensure they have met their objectives
- Periodically audit and initiate improvements to the process, roles, responsibilities, tools and documentation to ensure compliance to policy and standards
- Function as a point of escalation when required

### IX. CHANGE MANAGEMENT POLICIES

Several policies guide the Change Management process:

- A single Change Management process is adhered to by all AHI IT groups
- Change consideration lead times are to be defined jointly by CAB and Process Owner; lead times may vary depending on change type

- All changes are logged, tracked, and managed in a single service management system from initiation through closure
- Only changes approved according to defined process requirements and procedures are implemented
- Where possible, changes should be scheduled into an established Maintenance Window
- Procedures are defined for the expedited approval and implementation of Emergency changes in response to Major Incidents, regulatory compliance, or security issues
- Assessment, evaluation and approval of all changes will include:
  - An objective assessment of potential business impact and risk
  - Documentation of any anticipated service interruptions
  - Meaningful documentation of communication needs, implementation and rollback plans, and testing requirements and results
- Post implementation reviews are conducted for
  - All Major Changes and Emergency changes
  - Changes that resulted in Major Incidents
  - Or at discretion of the Change Manager or Process Owner
- Incidents caused by a change must be linked to the appropriate Change Record.
- Standard changes are added to the standard change library upon approval by the CAB
- The purpose of the Change Advisory Board (CAB) is to mitigate risk by evaluating change requests from business, customer and end-user perspectives.

## **X. CHANGE MANAGEMENT GOVERNANCE**

### **A. CAB Functions**

The Change Advisory Board (CAB) is the keystone of the Change Management process. Its primary purpose is to mitigate risk to the AHI PPS community, the IT environment, and AHI IT by evaluating change requests from the perspective of business and end-user impact. The Change Advisory Board (CAB) is used for assessing all changes, and pre-authorizing the use of Standard Changes.

The CAB process, including documentation as well as discussion and feedback, also enables representatives from AHI IT to provide technical validation and consultation as necessary to reduce the risk of unplanned service interruptions. Success of the CAB (and to a large degree, the entire Change Management process) is dependent on the active participation and contributions of its members.

- Regularly scheduled meetings are held and regular attendance/participation is expected; meetings are chaired by the Process Owner; minute-taking is rotated among members if a minute-taker is not available; information on changes to be considered is distributed one week prior to each meeting

- Standard meeting agenda can include:
  - RFCs to be assessed by CAB members-in structured and priority order
  - RFCs that have been assessed by CAB members
  - Review of failed changes, unauthorized changes, backed-out changes, or changes applied without reference to the CAB by incident management, problem management, or change management
  - Scheduling of changes and update of change schedule and projected service outage (PSO)
  - The change management process, including any amendments made to it during the period under discussion, as well as proposed changes
  - Review of change metrics on a monthly or quarterly basis
- Review and approval of all significant changes and other changes as necessary
- Assist with comprehensive service impact analysis
- Conduct Post Implementation Reviews
- Ensure complete and accurate documentation of change requests and communication of change status
- **Important:** The CAB is neither a forum nor a substitute for project planning and resource coordination

## B. Emergency CAB (ECAB) Functions

A sub-component of the CAB, the purpose of the ECAB is to facilitate Change Request approval when a change must occur before the next scheduled CAB meeting. The ECAB is responsible for approval of Emergency changes.

A meeting of the ECAB is initiated by the Process Owner, and typically will be accomplished via conference call or email. Participants should include the Process Owner, Change Manager, the individual responsible for implementing the change, and other CAB members as appropriate.

- ECABs are dynamically convened, consisting of those people who are involved in the effort to prevent service interruption or restore service during an outage.
- It is understood that documentation of the Emergency Change will occur prior to implementing the Change, unless the situation dictates otherwise, including adding the Change to the Change Schedule.
  - If it is not possible to document the Change before implementation, documentation will be completed as soon as possible and no later than 24 hours after the Change.
- All Emergency Changes will be reviewed at the next CAB meeting

## **XI. CHANGE REQUEST DOCUMENTATION**

All Change Requests require a detailed accounting of all services impacted or potentially impacted by the change implementation, and the degree to which their functionality will be affected or interrupted. Include any change or impact to the user experience.

### **A. Communications Plan**

All Change Requests require that communications be addressed. At a minimum, the following questions need to be answered by the communications plan for each Change Request, unless no communications are necessary:

- Who is the target audience?
- What is the message?
- What is the notification method?
- When will notification(s) be sent?

### **B. Back-out Plan**

All Change Requests require that back-out measures be addressed. A plan summary should be included in the Change Request.

Back-out plans should seek to minimize organizational impact of a failed Change. When possible, it is beneficial to predefine a “trigger” condition that initiates the back-out plan, or identify a specific point in the implementation timeline at which a back-out decision is made. In circumstances in which no back-out plan is feasible, every effort should be made to mitigate the potential risk of organizational impact if the change is unsuccessful.

The primary accountability for defining and, if necessary, engaging a back-out plan resides with the requester or implementer of an individual Change Request, or of the project with which the Change Request is associated.

### **C. Testing Plan**

All Change Requests require that testing be addressed. Change Management is responsible for confirming that a test plan, where feasible, exists.

As a rule, testing should be conducted whenever possible; it may include functional, QA, and user acceptance testing, or other testing as appropriate. Additionally, testing should be conducted as possible after a change has taken place as part of a typical implementation plan to ensure that impacted services are fully functional.

Ideally, the following information should be included in the Change Request ticket:

- Staff member(s) responsible for testing
- Dates during which testing occurred
- Details of testing environment, as appropriate

- Outcome of testing, with details as appropriate

## **XII. PROCESS IMPROVEMENT**

### **A. Process Improvement Program**

In order to continuously assess and improve the change management process, a process improvement program will be implemented. Process assessment will be performed on a semi-annual or annual basis. While improvement activities can take place any time, it is important that a full formal assessment is carried out regularly. The assessment will cover people, process, and technology:

- Audit a sample of changes for compliance to the process
- Audit the change management process for completeness, efficiency, and effectiveness
- Evaluate against the previous assessment period
- Benchmark against industry best practices
- Compare current status with CSFs
- Establish improvement actions
- Re-evaluate CSFs for next assessment period

Process assessment and the process improvement program must be:

- Formal
- Documented
- Continuous and periodic (various activities may have different intervals)
- Used by management for key business decisions
- A repeatable process for making changes

All the improvement actions established during process assessment must be documented in the PIP. The plan should list deliverables, due dates, implementation resources, and people responsible for completion. One useful technique for process improvement is the Deming cycle: Plan, Do, Check, Act.

### **B. Post-Implementation Review**

When completing a post implementation review regarding changes, be prepared to answer the following questions:

- What aspects of the change were successful?
- What specific aspects of the change did not go as expected, and why?
- What was the end-user impact?
- Did the change meet its objectives? Were resources and cost as planned?
- What are the action items that require follow-up?
- What are the lessons learned for future improvement?

### **XIII. KEY PERFORMANCE INDICATORS**

AHI IT will focus on a few select Key Performance Indicators (KPIs) to measure the success and efficiency of the Change Management process. As the Change Management process matures, KPIs may change to focus on different areas that need improvement. Meaningful measurements provide management with actionable feedback that results in timely and accurate decision-making. For example, reporting on the number of changes is meaningless. Reporting on the ratio of authorized changes implemented versus RFCs received provides an efficiency rating. If this rating is low, management can easily see that changes are not being processed in an efficient or effective manner and then take timely action to correct the deficiencies causing this. Some possible KPIs:

- Number of changes implemented by type
- Reduction in the number and percentage of emergency changes
- Reduction in the number of failed changes / increase change success rate
- Number / percentage of changes where approval exceeded the lead time

#### **A. Critical Success Factors/KPIs**

##### **Reduced adverse impact of changes on the business**

- Percentage decrease in Incidents related to changes
- Percentage decrease in work effort after the change
- Customer satisfaction survey after a Change occurs targeting the specific user community affected by the Change

##### **Changes implemented in a timely manner**

- Amount of time expected to complete a change versus the amount of time it actually took to complete the change (Standard Change workflows including a predetermined amount of time to complete the Change) per IT Work Order tracking tool
- Average time by status and category to complete a change, i.e., Standard Change—open/close, Normal Change—open/close, Emergency Change, per IT Work Order tracking tool
- Number of Changes rescheduled versus the number of changes meeting a schedule, per IT Work Order tracking tool

##### **Improved communication and collaboration internally and externally**

- Customer satisfaction survey after a change occurs targeting the specific user community affected by the change. Internal surveys are included to collect the level of satisfaction throughout IT.
- Number of add, remove and changes to the IT Change Calendar
- Post-implementation review to include lessons learned and whether a workflow needs to be modified (CAB meeting notes and IT Work Order tracking tool)

## B. Management Reports

Management Reports are generated for DSRIP PPS management. They provide information to managers on the quality and performance of the Change Management process and to identify areas for improvement.

Process reporting is performed on a monthly or quarterly basis. The report is intended for change management staff as well as AHI PPS management. The report should present summary information in the form of a dashboard or a balanced scorecard, by rolling up collected KPIs. The report should include trend analysis and potential process issues. The "raw" data of periodic KPI measurements provides little value to management, but it can be included as backup information. Some potential process measures:

- People's satisfaction with the speed, clarity, and ease of use
- Number and percentage of changes that follow formal change management procedures
- Ratio of planned versus unplanned changes (standard, emergency)
- Ratio of accepted to rejected change requests
- Number of changes recorded and tracked using automated tools
- Time to execute a change (from initiation through each stage in the lifecycle of a change, ending in completion)
- Cost against budget

## XIV. CONCLUSION

Change management is one of the most important service management processes. Any organization-no matter its size-will experience a large volume of changes in order to accommodate new business requirements, to correct faults in the infrastructure or the services, or for other reasons (such as legal requirements). All changes have a disruptive potential for the business, hence controlling the release of changes is critical. Change management is even more effective in reducing service disruptions in concert with other service management processes, in particular configuration management, release management, problem management, and incident management.