

Center for Medicare & Medicaid Services (CMS) Continuous Improvement Plan

Version 1.0

Prepared by__ Aquilent, Inc.

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CMS Continuous Improvement Plan

1 Introduction

This document is to provide guidance on the process for the Continuous Analysis & Improvement as well as Change Management across online properties owned or controlled by the Centers for Medicare and Medicaid Services (CMS) Office of Communications (OC) Web and New Media Group (WNMG).

All changes, including technical, content, and UX/design, will follow this process. The WNMG Continuous Improvement Plan (hereafter “the Plan”) is the owner of coordination and collaboration between groups and subcontractors working with WNMG on WNMG-owned online projects.

This document will be maintained and updated to reflect the changing needs of WNMG as well as the depth and breadth of WNMG online projects. Project-specific appendices will be created to provide specific points of contact and unambiguous guidance on a project-by-project basis.

1.1 Background

WNMG has a diversity of projects and online properties therefore the Plan is intentionally high-level, providing direction and support. A collection of appendices for individual projects and online properties (hereafter referred to as “sites”) will provide project-/site-specific documentation and guidance.

NOTE: The Plan combines and replaces the preceding version of the WNMG Change Management Plan (CMP). As a result it is expected that the Plan will be revised and may expand its scope based on continuous improvement and change management needs identified through other WNMG projects.

1.2 Continuous Improvement and Change Management Approach

To ensure that this plan serves the needs of WNMG as well as the consumers of WNMG sites, the following principals were adopted:

1.2.1 Iterative

Iterative process allows for the measured and incremental implementation of pre-defined tasks. It is comprised of cycles with finite start and end dates, called iterations and sprints. Iterations are worked on by project teams to reduce overall risk to the project by building on smaller releases rather than one long project where requirements may change over time. Iterations may map directly to a release schedule and are made up of pre-determined number of contiguous sprints in which groupings of prioritized tasks are carried out. WNMG employs the Agile development process which is iterative and supports this approach.

1.2.2 Consumer-Focused

The needs and experience of the user is a driving force in all decision-making related to the site, including development, design and testing. The site is also informed by industry best practices

and by the Obama Administration's Building a 21st Century Digital Government directive, Digital Government Strategy, and related initiatives.

1.2.3 Metrics-Based

Metrics are quantitative data (e.g. search and web logs) or feedback (e.g. ACSI/American Customer Satisfaction Index user data) gathered to evaluate site performance and identify specific areas for improvement. Metrics can describe all aspects of site ranging from server environment and performance to user experience. They take into account the quality of the user experience and the goals of the product or project. This data allows for the measurable and continuous optimization of the digital experience including the identification and tracking of key performance indicators (KPIs) that can be used to gauge the effectiveness of site changes.

NOTE: From the standpoint of Change Management, issue tracking tools (e.g. JIRA) not only allow for the creation and tracking of 'tickets' through workflows, they also produce rich quantitative data relating to both individual tickets and the larger project.

1.2.4 Repeatable

In order to be successful, Continuous Analysis & Improvement and Change Management approaches require repeatable processes that can be easily understood, adopted, and analyzed.

2 Improvement Sources

There are a variety of sources for continuous improvement direction including user feedback/input, formal usability testing results, site metrics, site audits and heuristic reviews, and change control, governance, and program management bodies.

2.1 Feedback/Input

Feedback and input sources include users, stakeholders, and project teams.

NOTE: For all of 3.1 Feedback/Input, see Appendix 1: Sources of Feedback & Input for detailed listings.

2.1.1 Users

User feedback and input provides key information about what aspects of the site work or need improvement, the questions or concerns that users bring with them to the site, and users goals and/or expectations relating to the site. User feedback and input are captured by through variety of tools including:

- Page- and site-level level feedback surveys (e.g. the Voice of the Consumer tool or PollDaddy)
- Call Center interactions
- Online help (e.g. live chat) interactions
- Social Media interactions

- Persistent and ad-hoc surveys (general or issue-specific)
- Email (potentially from webmaster inboxes or other accountholders identified on the site)

2.1.2 Stakeholders

Stakeholder feedback provides political guidance as well as tactical direction and drives site improvements. Stakeholders include agency-level stakeholders as well as official-stakeholders from outside of the agency:

- The White House
- The Department of Health and Human Services (HHS)
- Other federal agencies/departments (e.g. the Social Security Administration)

2.1.3 Project Teams

Communication between project teams is essential to continuous site improvement. Project teams may be they functional or organizational (and may overlap). Project team roles are defined in Section 3.

2.2 Usability Testing

The goals of usability testing include identifying or validating user goals or top tasks, and identifying potential or existing concerns in order to improve site efficiency, productivity, and end-user satisfaction. Additionally, usability testing can identify or and validate areas of content or functionality to be considered for inclusion or modification.

Usability testing includes a diversity of techniques (some of which overlap with metrics collection) including:

- Surveys
- Focus groups
- Online card sorting (open, closed, and reverse)
- Moderated usability testing (or formal usability testing)
- A/B testing
- Multivariate testing
- Eye-tracking and heat mapping (overlaps with metrics)

See Appendix 2: Usability Testing Methods for a detailed listing.

2.3 Metrics

Metrics establish and prove the value of implementing good practices by quantifying key success measures (also referred to as key performance indicators or KPIs). They provide insight and direction during all project phases as well as objective means for historical analysis and long-term projection.

Any given site will produce a diversity of metrics, the most universal being:

- Search logs (inclusive of social media)

- Web logs (inclusive of social media)
- Quality and accessibility reporting
- Infrastructure monitoring data/reporting

See Appendix 3: Metrics for a detailed listing.

2.4 Site Audits and Heuristic Reviews

To ensure WNMG sites meet all of its objectives and to effectively measure the progress and success of the new site, site audits and heuristic reviews are conducted. Site audits and heuristic reviews are systematic evaluations performed to evaluate user performance, user satisfaction, and the usefulness of site features and functions. They may ask a specific question (e.g. is a particular phrase-of-art used consistently throughout the site?), evaluate a particular issue (e.g. navigability to or findability of key content), or serve as an overall quality assessment (e.g. a site-wide plain language – or plain writing – assessment).

- **Site audits** – usually cover an entire site or pre-identified sections of or paths through the site. They can be performed using automated tools, by individual team members (typically members of the Content, Quality, and/or Usability teams), or by a combination of the two.
- **Heuristic reviews** – are performed by individual team members (typically in teams of two or more made up of members of the Content, Quality, and/or Usability teams). As the name implies, heuristic reviews are based on experimentation, evaluation, and trial-and-error methods. They usually consist of reviewers attempting to complete pre-identified tasks (or assessing known issues) but without a pre-determined approach or path through the site.

Site audits and heuristic reviews should be performed on an ongoing basis (ideally at least quarterly) as well as on an ad-hoc basis when the need arises (e.g. before rolling out significant new content or functionality, or following changes of policy or strategic direction).

2.5 Change Control, Governance, and Program Management Office

Existing change control, governance, and program management bodies primarily serve to manage site-/project-related activities, but directives as well as procedural guidance from these bodies may provide direction for continuous improvement activities including:

- Prioritization of improvements
- Assignment of improvements to iterations/sprints
- Division of labor and responsibility across project teams
- Procedural and workflow guidance

See Appendix 4: Change Control, Governance, and Program Management Bodies for a detailed listing.

3 Roles

The key roles related to continuous site improvement are listed below beginning with Change Control Board (CCB) followed by an alphabetic listing of project teams. A Continuing

Improvement Lead (CIL) will be identified for each role (see appendix 5 for a specific listing) and will drive the Continuous Improvement Workflow outlined in section 4.

Table 1: Project Roles

Role	Definition
Change Control Board	<ul style="list-style-type: none"> Includes CMS WNMG and CSG Leadership Provides final approval on new features and politically sensitive issues
Continuous Improvement Lead (CIL)	<ul style="list-style-type: none"> Responsible for all activity within their discipline (including JIRA Ticket approval/rejection) Responsible for liaising between activities with their discipline and the PMO Manage JIRA workflow and issues within their component Evaluate issues for escalation to CCB
Accessibility	<ul style="list-style-type: none"> Verifies compliance with Section 508 and existing HHS and CMS standards Involved in all phases of the development lifecycle (analysis, design, implementation and support) Considers accessibility issues from the foundation up
Business Analyst	<ul style="list-style-type: none"> Responsible for documenting website functional and system requirements Works with major stakeholders and all work stream leads to identify necessary and desired site behavior Responsible for validation of requirements (with the QA/QC)
Content	<ul style="list-style-type: none"> Sources, creates, revises and seeks approval of all site content Creates taxonomy, keywords and metadata in conjunction with Information Architect (UX) and the Metrics & Analytics team Creates Content Strategy and ensures it is consistently implemented
Development	<ul style="list-style-type: none"> Performs technical work required for system functionality and supports efforts by the infrastructure and security teams Involved with any proposed site improvements to determine plausibility, level-of-effort, and prerequisites and/or dependencies for any improvement that requires development effort
Infrastructure	<ul style="list-style-type: none"> Builds the system's infrastructure, and installs and configures applications including the implementation and maintenance of

	<p>the WCMS</p> <ul style="list-style-type: none"> ▪ Supports the hosting environment
Security	<ul style="list-style-type: none"> ▪ Ensures the system meets CMS security requirements ▪ Generates documentation to support Authority to Operate (ATO) certification ▪ Participates in the audit and remediate any findings uncovered
Marketing & Publicity	<ul style="list-style-type: none"> ▪ Manages communications and outreach efforts including press/media inquiries ▪ Responsible for social media strategy
QA & QC	<ul style="list-style-type: none"> ▪ Measures and assures the quality of the site being delivered in order to ensure it meets consumer expectations
SEO & Analytics	<ul style="list-style-type: none"> ▪ Responsible for search and traffic logs as well as other quantitative site data ▪ Gathers quantitative data about potential areas for improvement ▪ Employs Search Engine Management (SEM) and Search Engine Optimization (SEO) in order to improve the findability
UX	<ul style="list-style-type: none"> ▪ Responsible for Information architecture (IA), usability testing, analysis, and recommendations ▪ Creates and maintains consumer audience personas, wireframes and functional specifications ▪ Assists in creation and consistent implementation of taxonomy and metadata
Visual Design	<ul style="list-style-type: none"> ▪ In conjunction with Stakeholders, creates site brand and ensures consistent implementation ▪ Creates, revises, and manages page mock-ups ▪ Develops electronic production files (HTML/CSS/Cut graphics) to support the development team

4 Workflow

The continuous improvement workflow ensures that changes are evaluated and implemented so that traceability and accountability are supported.

Using a JIRA workflow, issues will be controlled in a manner that:

- Allows broadest number of people to identify problems and make suggestions for improvement
- Improves communication amongst development, content and UX
- Empowers the Continuous Improvement Leads (CIL) to:
 - Determine issue ownership in weekly PMO meeting if needed
 - Determines if the JIRA ticket has value and moves the ticket forward or closes it within their areas of expertise
 - Escalates New Feature and significant or politically sensitive Improvements to the CCB
- CCB makes final decisions regarding site direction
- As CIL or CCB approve changes, the issue is placed in a path to follow resolution and sprint deployment.

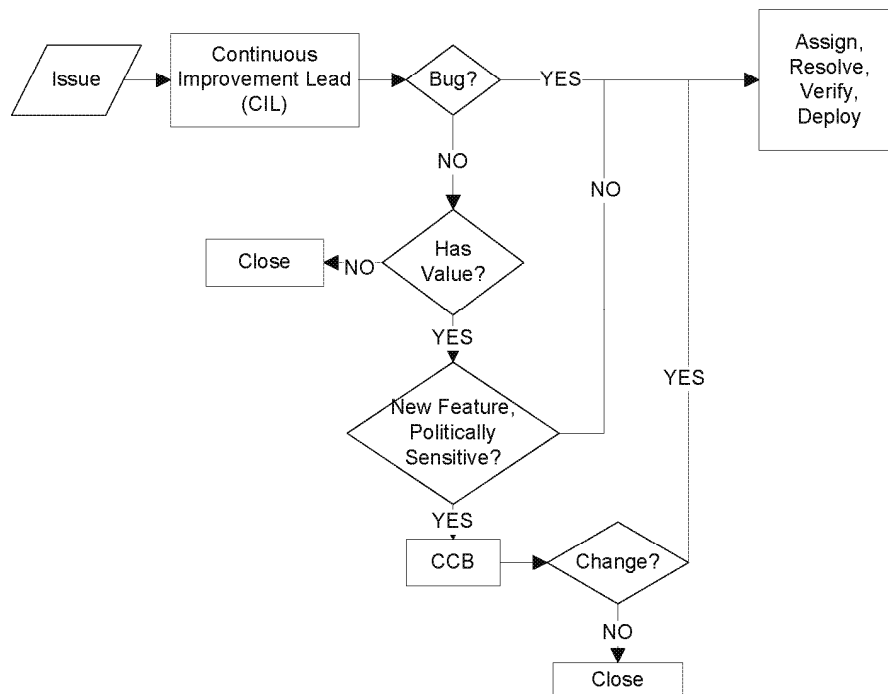


Figure 1: Continuous Improvement Workflow

4.1 Issue Types and Privileges

Issues will be categorized into the following Issue Types. The table below shows the definition of each issue type with examples, and identifies who can open and close the issue.

Table 2: Issue Types and Privileges

Issue Type	Definition	Examples	Can Create	Can Close
Bug	<ul style="list-style-type: none"> Website functionality is broken, not working as required or intended Content on Website is incorrect, typo Missing documentation 	<ul style="list-style-type: none"> Broken link Screen content cannot be seen Button not working Wrong feedback message appears Typo, misspelling, grammar Error 	User	CIL
Improvement	<ul style="list-style-type: none"> Website functionality change that improves performance or experience Editorial Change to improve message Documentation updates 	<ul style="list-style-type: none"> Opening external link in new window Reduce size of Help tab Cut paragraph down to bullet points Add explanation on screen 	User	CIL or CCB
New Feature	<ul style="list-style-type: none"> New Website functionality that may need new front-end or back-end technology New section or content area of site. 	<ul style="list-style-type: none"> Incorporate geo-location Incorporate syndication functionality Add comments to Article pages 	CIL or CCB	CCB

4.2 Issue Capture

Once an opportunity for site improvement has been identified, it is entered as an issue in JIRA. JIRA is a ticketing software application used for tracking purposes (<https://www.cms.gov>). (Note: Documentation will be stored in Confluence.)

JIRA Steps to Creating an Issue

Step	Description
Check for duplicate ticket	Search based on ticket number or key word
Create Issue	Select from top navigation; dialogue box appears
Project	Select appropriate project
Issue Type	Select issue type; options include bug, improvement or new feature
Summary [Title]	Enter title; clear concise and with key words
Priority	Select priority; defaults to Major; options include: <ul style="list-style-type: none"> Blocker – top priority change that adds system functionality missing from the site

	<ul style="list-style-type: none"> ▪ Critical – must have changes that provide users with additional functionality that are critical to the site experience ▪ Major – must have changes that provide users with additional functionality but aren't critical to the site experience ▪ Minor – nice to have changes that don't impact the user's experience on the site
Due Date	<ul style="list-style-type: none"> ▪ Enter due date as the date for next action on the ticket ▪ Used primarily to move an issue through content, ux, design and into development
Components	<ul style="list-style-type: none"> ▪ Assign one component (functional workstream) at a time. ▪ Example, if an issue impacts Content, UX, Design and Development, the issue should be assigned the Content component first. ▪ Upon completion of the Content task, the Content lead will reassign the issue to the next impacted workstream, UX, and remove the Content component. This will reassign the issue to the UX workstream.
Fix Version/s	Select sprint when issue will be fixed (CIL/PMO may change as needed)
Assignee	<ul style="list-style-type: none"> ▪ Is automatically assigned based on the Component selected ▪ CIL can assign an issue to anyone ▪ Most users cannot assign tickets to individuals
Environment	<ul style="list-style-type: none"> ▪ If bug, include browser information ▪ State if the issue is found in a non-production environment
Description:	<ul style="list-style-type: none"> ▪ What needs to change ▪ What is to be accomplished as a result of the change ▪ Business and/or technical reason for the change ▪ To include others in the ticket for their review, tracking or input, type "@firstname" and a list of JIRA users appears for selection.
Attachment	Including screenshots or supporting documentation as available
Linked Issues	If there are other issues that related to this issue, link them using this field
Click Create	n/a

Figure 2: Example of JIRA Issue Form

4.3 Issue Review

The CIL and CCB will manage issues through the JIRA Agile Board. The Plan view allows CIL and CCB to create, prioritize and manage which issues get released during which sprints and which get put the backlog -- an ever-evolving list of bugs, improvements and new features entered. Issues that have not been assigned to a JIRA project sprint reside in the JIRA project backlog until a CIL allocates the issue to a specific sprint or determines it should be closed.

4.3.1 Assigning Issues to Sprints

JIRA automatically assigns each issue to the CIL based on the identification of project components for that individual issue (e.g., components may include Analytics, Compliance, Content, Design, etc.).

As shown in Figure 1: Continuous improvement workflow, CIL responsibilities include:

- Review each issue under their assigned components to understand the request and its value. Obtain clarification as needed. Consolidate issues that are related.
- If the issue is of the type “improvement”, but determines that it doesn’t add value, close the issue using “won’t fix” option for the Resolution.
- Determine whether the issue needs to be escalated to the CCB for approval before being assigned to a sprint. If the issue is a New Feature or Improvement that is politically sensitive or significant, escalate the issue to the CCB. See section 5 for CCB processes.

- The remaining Improvements and Bugs are assigned to the appropriate project sprint via use of the JIRA Agile Board – Plan View.
- Review the “priority field” and prioritize issues within each Sprint so the workstreams know where to focus their time and effort.
- Review each issue to ensure it is completed with the correct Issue Type, Priority, Fix Version, Component, Assignee is reflected. Add Comments with further direction that needs to be communicated to the workstream teams as they implement and deploy the issue.
- Include anyone that may want input or to be aware of the ticket in the Description using the @Name function in the Comment field.

4.3.2 Issue Assignment and Resolution

Once the issues are assigned to a Sprint, each workstream lead reviews their workstream issues on a regular basis and consolidates similar issues as appropriate. They assign issues to team members and track issues to completion for intended sprints.

As the Sprint ends, issues are Resolved for verification and Closed in JIRA, or moved to a future Sprint for completion upon agreement from the group of CILs.

4.4 Communication

Each workstream is holding daily/weekly SCRUMs. CILs will use these meetings to discuss various issues, obtain clarification, discuss sprint priorities and discuss whether CCB approval is needed.

Meetings where CIP/CCB issues are on the agenda include:

- Weekly PMO meeting for CIL and workstream leads (to be scheduled) regarding any issues that require discussion across multiple workstreams or CCB approval.
- Designated day of the technical SCRUM (i.e. every Wednesday)
- Weekly workstream SCRUMs
- CILs separately scheduled meeting
- Editorial Review meeting
- The sprint planning meeting, designed to finalize the sprint release.

5 Change Control Board (CCB) Approvals

CILs escalate any issue to the CCB that has an Issue Type of New Feature or Improvement that is significant or politically sensitive as outlined in Table 2.

NOTE: The Health Insurance Marketplace listing of CCB members can be found in Appendix 4: Change Control, Governance, and Program Management Office.

5.1 Responsibilities

The CCB responsibilities are:

- Approving or rejecting changes submitted based on business and/or technical impacts
- Ensuring all changes requested for the project fit with the site vision, brand, content strategy and technical architecture
- Setting priorities for changes that are implemented on the site based on business and/or technical need, project funding, etc.
- Meet weekly during the weekly lead PMO meeting to review and approve changes (meeting being scheduled)

5.2 CCB Approval Workflow

The approval process for a change is escalated to the CCB through the JIRA issue ticket. The steps are as follows:

- CIL will assign the change to the CCB component.
- The CCB member assigned as the default assignee for the CCB component will review the issue and assign it to the correct CCB member for evaluation and approval.

5.2.1 Evaluating a Change

The appropriate CCB member(s) reviews the change, evaluates business and technical impacts and requests more information as needed.

- Assignee to update the Comment field with the business and technical impacts, and includes other members of the CCB using the @firstname feature.
- If the assignee has questions, ask the question via the Comment field within the ticket:
- If the assignee wants to share the status of the ticket with others:
 - Add a comment and then select the icon in the right corner of a folder with an arrow pointing right
 - Add the user name or email and a note if desired
 - Click Share
- The assignment of the ticket doesn't change until the assignee task is complete (e.g., a discussion about plan of action doesn't shift assignment between respondents)

5.2.2 Approving a Change

- The approval response is captured via the Comment's field in each JIRA ticket so that the approver name and date of approval is automatically captured.
- At the time the ticket is approved or rejected, the Comments should include the following information:
 - Business impacts
 - Technical impacts
 - Any additional information needed and the associated answers
 - Risks
 - Approval response (approve/reject)
 - If rejected, why
 - If approved, what changes are needed (technical, content, documentation)

Once the approval is made, the assignee reclassifies the Component of the ticket to the next workstream impacted, i.e. UX if the change needs UX input). The ticket then follows the standard process as outlined in section 4.3.2.

Appendix 1: Sources of Feedback & Input

This appendix serves to identify the sources of feedback and input for continuous site improvement for the Health Insurance Marketplace (HealthCare.gov) site.

- Accessibility Team
- Analytics Team
- Business Analyst Team
- Call Center(s)
- ChartBeat
- CMS
- WNMG (CMS)
- Content Team
- Development Team
- Infrastructure & Security Team
- HHS
- ASPA
- Major Stakeholders
- Marketing & Publicity Team(s)
- Metrics & Analytics Team(s)
- Other Government Agencies
- QA & QC Team(s)
- SEM & SEO Team(s)
- SMEs
- UX Team

To validate usability, content organization, and visual design, Aquilent recommends conducting two iterations of usability testing throughout the design lifecycle. The first round of usability testing should use an interactive IA prototype based on wireframes. The second round should use a high-fidelity prototype, which includes the visual design.

- Visual Design Team
- PollDaddy
- White House

Appendix 2: Usability Testing Methods

This appendix serves to identify the usability testing methods available for use by the Usability, Content, and Marketing teams supporting the Health Insurance Marketplace (HealthCare.gov) site. Usability testing methods are listed in order of use for a typical User-Centered Design project.

A. Surveys

Online surveys are the most efficient way to gather data about user experiences, opinions, preferences, and concerns from a large number of site visitors. Tools like SurveyMonkey (<http://www.surveymonkey.com/>) and SurveyGizmo (<http://www.surveygizmo.com/>) can be used for online surveys. Participants usually access a survey by following a URL, and they do not need to install anything on their computers to take the survey. Survey tools automatically collect and tally participants' responses and present the survey results graphically using charts and tables.

Before online surveys are initiated, interviews with a small number of participants can be conducted to ensure survey questions are easy to understand and relevant as well as to gather interviewees' suggestions and feedback. Sometimes online surveys are also conducted after site user interviews so that information collected from the interviewees can be validated / tested with a larger group.

B. Focus Groups

A method of research in which quantitative data is derived from collecting views from a group of participations about their perceptions and experiences using a site. There is a variety of types, ranging from one group observing another and recording interactions to online testing. They are particularly useful in gathering data from specific geographical areas to determine marketability in that area prior to a launch.

C. Online Card Sorting (Open, Closed, & Reverse)

Card sorting is used to learn about relationships between information and to define and evaluate user interface hierarchies, information architectures, or branching structures with parent-child relationships. It allows for better understanding of users' expectations about how content items and features will be grouped and which content categories or labels users misunderstand or do not understand. This approach can also help to evaluate how well a secondary or tertiary category fits within the primary category and how well content and functionality items fit with each other in a particular category.

There are two types of card sorting – "Open" and "Closed." "Open card sorting" asks users to sort multiple content items ("cards") into categories or groups without guidance as to how many groups there should be or what the defining characteristics of those groups should be. "Closed card sorting" asks users to sort multiple content items into categories predefined by the researchers. The IA designed in the Discovery and refined and expanded in the Design Phases has been tested in two rounds of closed card sorting exercises and usability testing, so it

is anticipated that more “closed card sorting” will be conducted in the Implementation Phase, since the primary and secondary categories were already verified by the users to some extent.

D. Moderated Usability Testing

One-on-one moderated usability testing is the most time-consuming usability method proposed in this document, which also collects the richest data. Such tests usually take more than two weeks to complete from initial preparation and recruiting to execution to reporting findings and concluding with analysis and recommendations. During this Implementation Phase, Aquilent will conduct at least two such studies.

Moderated usability testing sessions can be conducted either in person or remotely. However, to reach out to users from various geographic locations in the U.S., to make it easy for people to participate, and to ensure a consistent and even testing experience, Aquilent plans to conduct all moderated usability testing sessions remotely. During these sessions, participants will control Aquilent’s host computer via a GoToMeeting connection

(<http://www.gotomeeting.com>), while conversing with the test administrator by phone.

Aquilent will conduct all the sessions using its mobile usability lab.

E. A/B Testing

Compared to multivariate testing, A/B testing, sometimes also referred to as split testing, is an easier place to start if similar testing has not been done previously. It produces fast results and helps experimenters build experience for moving on to multivariate testing at a later date. In A/B testing, a pre-determined percentage of all visitors are randomly presented with two versions of a page, and conversion goals are tracked and calculated separately to see which version proves to be better.

Sometimes it makes sense to only test a few elements. For example, two pages can be created but only one element is changed, such as a button label. The same page layout and text can be kept to ensure that any difference between the page results is due to that single difference. Otherwise, it can be difficult to figure out which element or combination of elements lead to the best or worst results.

During the testing, cookies are used to maintain a consistent user experience—if a visitor sees one version, they will see it again when visiting the site as long as the cookies are not deleted.

F. Multivariate Testing

Compared with A/B testing, multivariate testing makes it possible to test two or more pages and changes to multiple elements on those pages in the same test, such as headlines, images, promotions, and buttons. Multivariate testing can theoretically test the effectiveness of limitless combinations of page elements and makes it possible to find the best combination of changes that result in the highest increase in conversions.

Multivariate testing setup is similar to A/B testing, but it is important to first choose a tool or framework that supports it. Not all A/B testing tools support multivariate testing. In addition, as mentioned above, what to test is different in A/B and multivariate testing. Unlike testing only two versions in an A/B test, multivariate testing allows more factors to be dynamically

generated on the server and various combinations of the page elements to be displayed to the visitors and tracked.

There are other types of fractional factorial test, such as Taguchi, but they can be complicated to understand and explain. A quick Google search will return many results, if needed, but full factorial testing is usually the recommended way to conduct multivariate testing.

G. Eye Tracking / Heat Mapping

These are visual representations of how users experience the site and what that experience prompts them to do while visiting it. Eye tracking is a technique mapping the user's eye movement and measuring gaze times and locations in order to identify popular and/or trouble areas. Heat mapping is a similar technique, measuring mouse clicks rather than eye movement.

Appendix 3: Metrics

This appendix serves to identify the available metrics for the Health Insurance Marketplace (HealthCare.gov) site.

(In order or relevance to continuous improvement and change management)

- Search Logs: Google Search Appliance (GSA)
- Web Logs/Traffic
 - Google Search Appliance (GSA)
 - NotResp
- Eye Tracking / Heat Mapping
- Infrastructure Monitoring

NotResp

Appendix 4: Change Control Board and Program Management Office

This appendix serves to identify members of the Change Control Board (CCB) and program management office (PMO) for the Health Insurance Marketplace (HealthCare.gov) site.

A. Change Control Board

Members of the Health Insurance Marketplace CCB are detailed in the table below.

Table 3: Change Control Board (CCB) Members

Name	Company	Email/Phone
Product Owner: Jon Booth	CMS	Jon.Booth@cms.hhs.gov 410-786-6577
Creative Services Group Director: Erin Pressley	CMS	Erin.Pressley@cms.hhs.gov 410-786-5569
Director of Operations: Ketan Patel	CMS	Ketan.Patel@cms.hhs.gov 410 786-5927
Director of Web Strategy: Bill Trefzger	CMS	william.trefzger@cms.hhs.gov 410-786-3394
Project Management/ Budget: James Johnson	CMS	James.Johnson1@cms.hhs.gov 410-786-3489

NOTE: James Johnson will receive CCB requests and assign them to the appropriate CCB member for review.

B. Program Management Office

Members of the Health Insurance Marketplace PMO are detailed in the table below.

Table 4: Program Management Office (PMO) Members

Name	Company	Email/Phone
James Johnson	CMS	James.Johnson1@cms.hhs.gov 410-786-3489
Tamara Guthrie	Aquilent	tamara.guthrie@aquilent.com 301-939-1359
Chuck Nethery	Aquilent	charles.nethery@aquilent.com 301-939-1650

Appendix 5: Continuous Improvement Leads (CILs) by Project Roles

This appendix serves to identify the main points of contact (POC) for each project role both within the Web and New Media Group (WNMG) and across Health Insurance Marketplace project who serve as a CIL and have the ability to initiate, approve and drive improvements. It is not intended to list all resources or workstream leads within a given role.

Table 5: Continuous Improvement Owners by Project Role

Category	Role	WNMG	Aquilent	Blast	CGI
Business	Business Analyst		Beverly Bricker		
Business	Program Management (Learn)	Jon Booth, Ketan Patel, James Johnson	Tamara Guthrie, Chuck Nethery		
Business	Program Management (Get Insurance)	Bill Trefzger (product owner) Bob Amos (???) Susan Tudor (My Account) Mimi Burch (???) Leticia Ramsey (SHOP) Michael Mitchell (Individual App)			Dhartri Banerjee
Content	Content (Learn)	Craig Stoltz Krista Das	Kevin McDermott		
Content	Content (Get Insurance)	Mike Pison (My Account) Cristina Kane (Individual App) Valerie Perkins (SHOP, Plan Compare) Mary Bonner (Help Content, SHOP)			

Category	Role	W/M/M/G	Aquilent	Blast	CGI
Content	SEO & Analytics	Craig Stoltz Krista Das		Lauren McReynolds	
Development	Development	Greg Lindenstruth	Ravi Mudumby		Jeremy Jackson
Development	Infrastructure	Greg Lindenstruth	Ravi Mudumby		
Development	Security	Greg Lindenstruth	Ravi Mudumby		
Test	Accessibility	Vidit Majmudar	Paula Cooper		???
Test	QA, QC & UAT	Vidit Majmudar	Paula Cooper		???
UX & Design	UX	Nate Mudd	Kim Hodges		
UX & Design	Visual Design	Nate Mudd	Kim Hodges		

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