

Partnership for Diabetes Health Equity

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Glamshot
(Rotating Slideshow)
Default slides: Community, Clinical, Meta

Stuff

Stuff

Meaningful
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Care

Community
Benefit

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Partnership Social Media account links

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Whole Person Care

Link here also from incentives subnavigation on homepage

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Johns Hopkins Center

Champion A / 1 week ago

Working intensively with four Southwestern tribal communities, Johns Hopkins Center for American Indian Health (JHCAIH) will pioneer public health innovations on three Navajo Indian reservations – Chinle and Tuba City in Arizona, Shiprock in New Mexico – and with the White Mountain Apache Tribe in eastern Arizona. The project seeks to strengthen case management and quality and continuity of care by: creating partnerships in each community to coordinate the efforts of existing tribal diabetes programs, Indian Health Service programs and Johns Hopkins' reservation-based project staff; helping ensure that clinic-based education and interventions for diabetes management, self-care and prevention are integrated into home and family environments; bringing together a patchwork of services that are under-resourced and challenged by a lack of interagency cooperation; and training bilingual family health coaches in each community to deliver adapted, evidence-based interventions in the home or other appropriate settings.



In the Navajo way, disharmony and imbalance make one susceptible to illnesses such as diabetes...

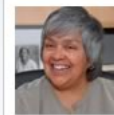
While Native American youth are at high risk for developing diabetes, sustained wellness programs have been rare in schools and communities to prevent and control the disease.

That is changing. Native Americans who live in communities in the Southwestern U.S. will be supported in their diabetes journey through a pioneering program of intergenerational, family and community-focused interventions for type 2 diabetes

offered by the Johns Hopkins Center for American Indian Health and its local partners. The program is supported with a \$2.25 million, two-year grant from the Foundation.

The Center is using the grant to build a diabetes education, care and support program to serve at least 250 Navajo and White Mountain Apache youths and their family members. Family health coaches are being deployed to educate youths about their disease, guide them to treatment and care and help them to make necessary changes in their diet and exercise.

About the Author



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Discuss this Story

- Navajo Program Forum
- Home & Community Forum

Quick Chat

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Online now:

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- Today on Diabetes Article
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John Resig

John Resig is an application developer at Khan Academy. He was a JavaScript tool developer for the Mozilla Corporation. He is also the creator and lead developer of the jQuery JavaScript library.



Johns Hopkins Center

Champion A / 1 week ago

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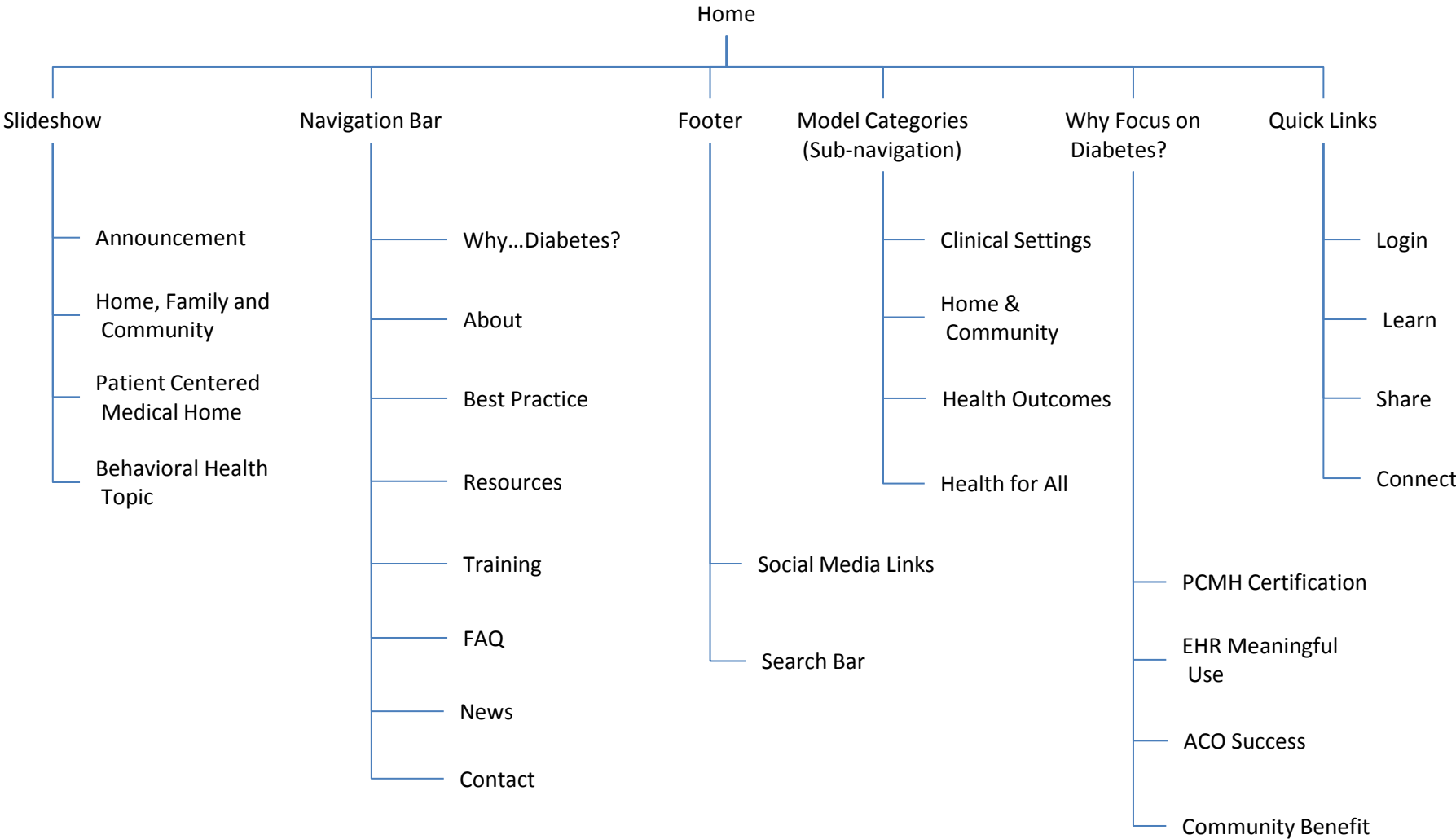
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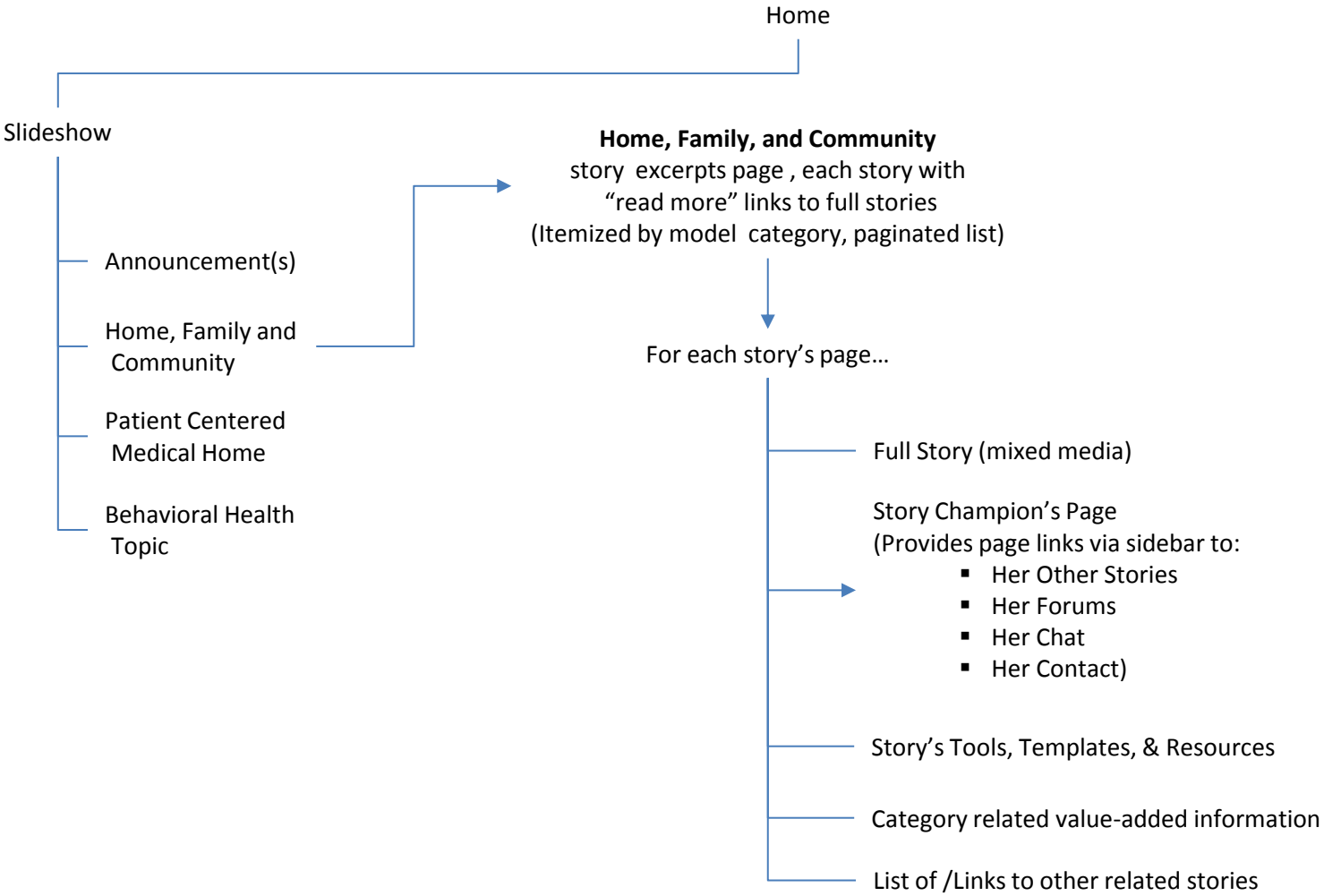
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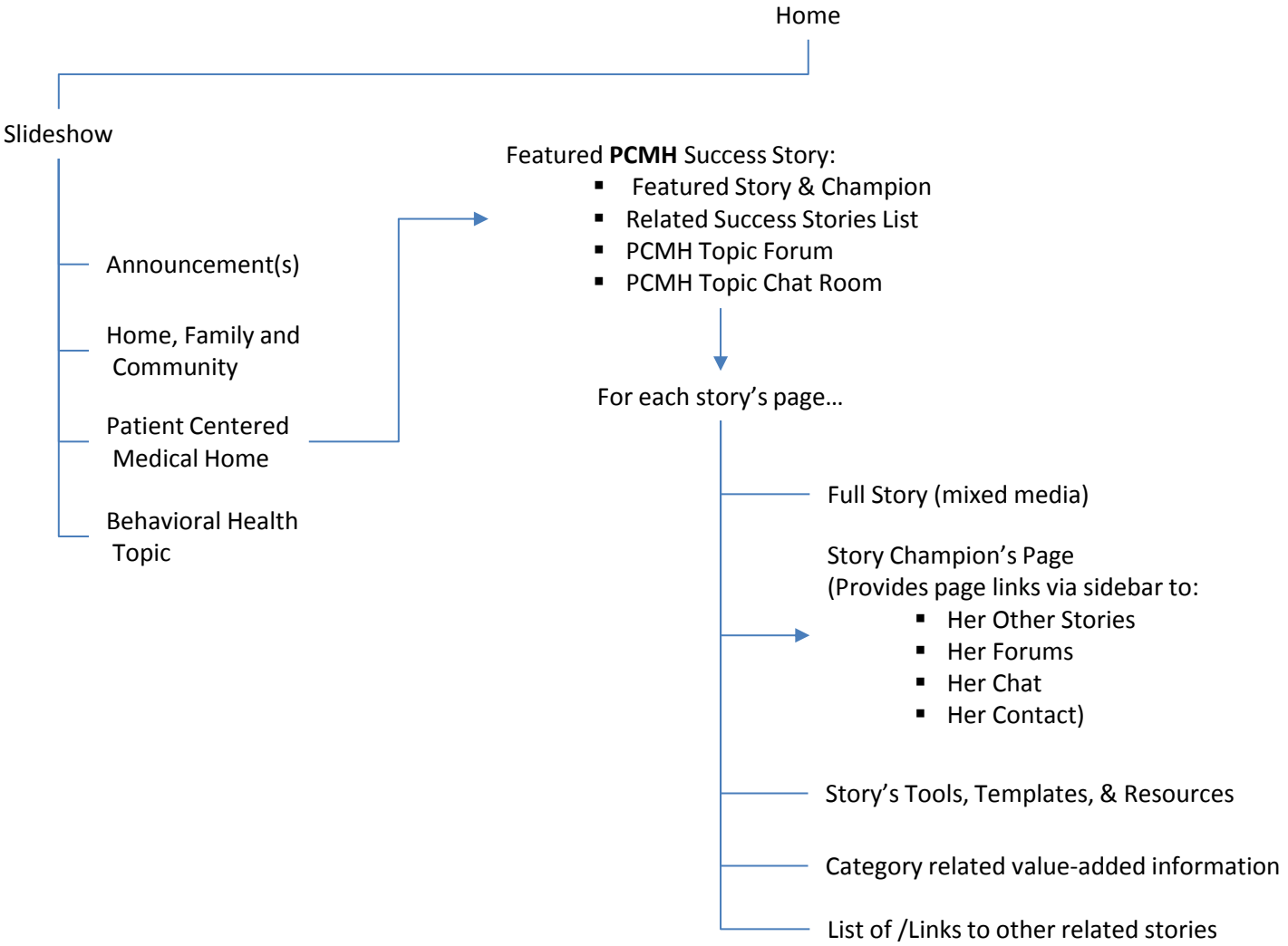
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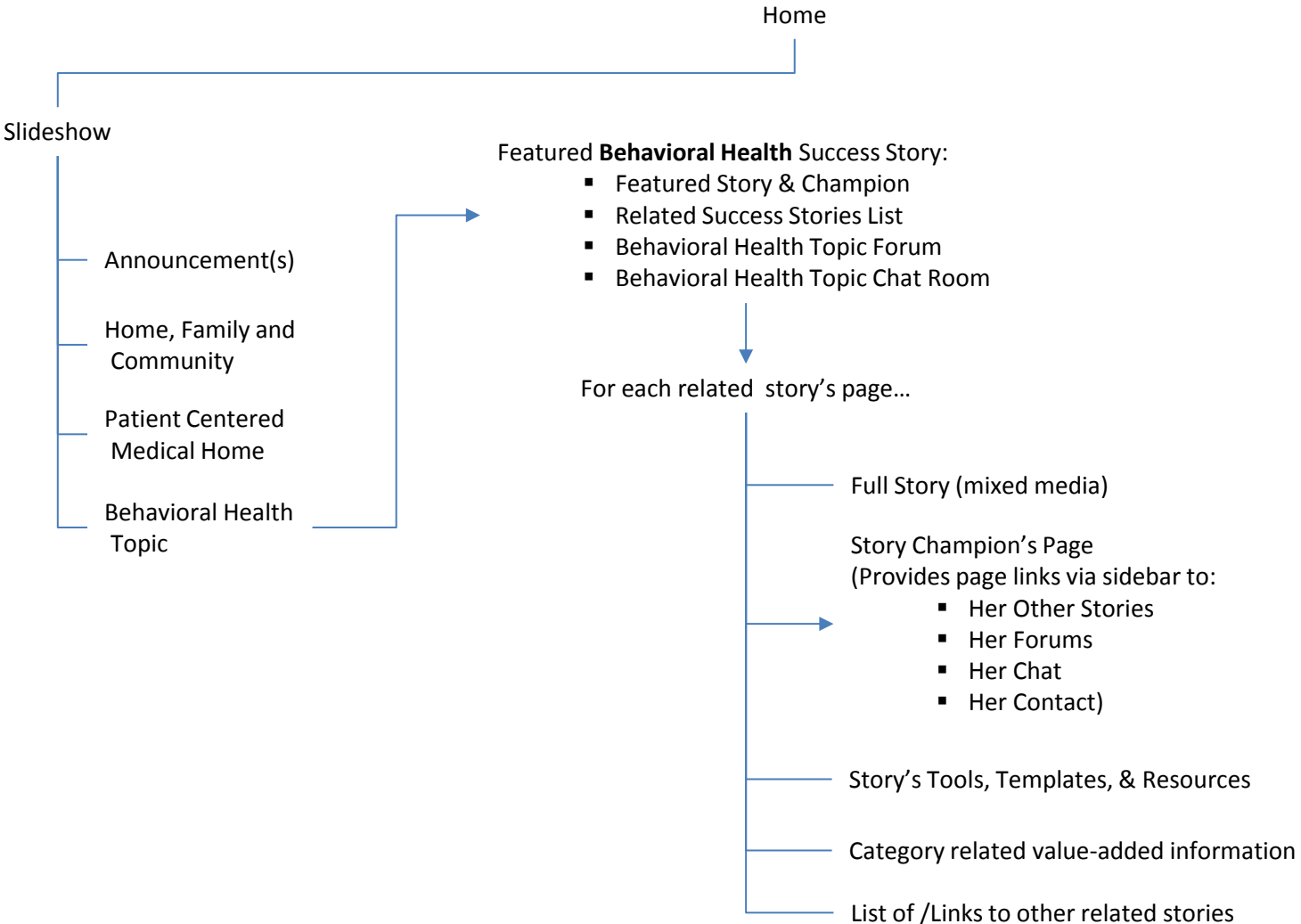
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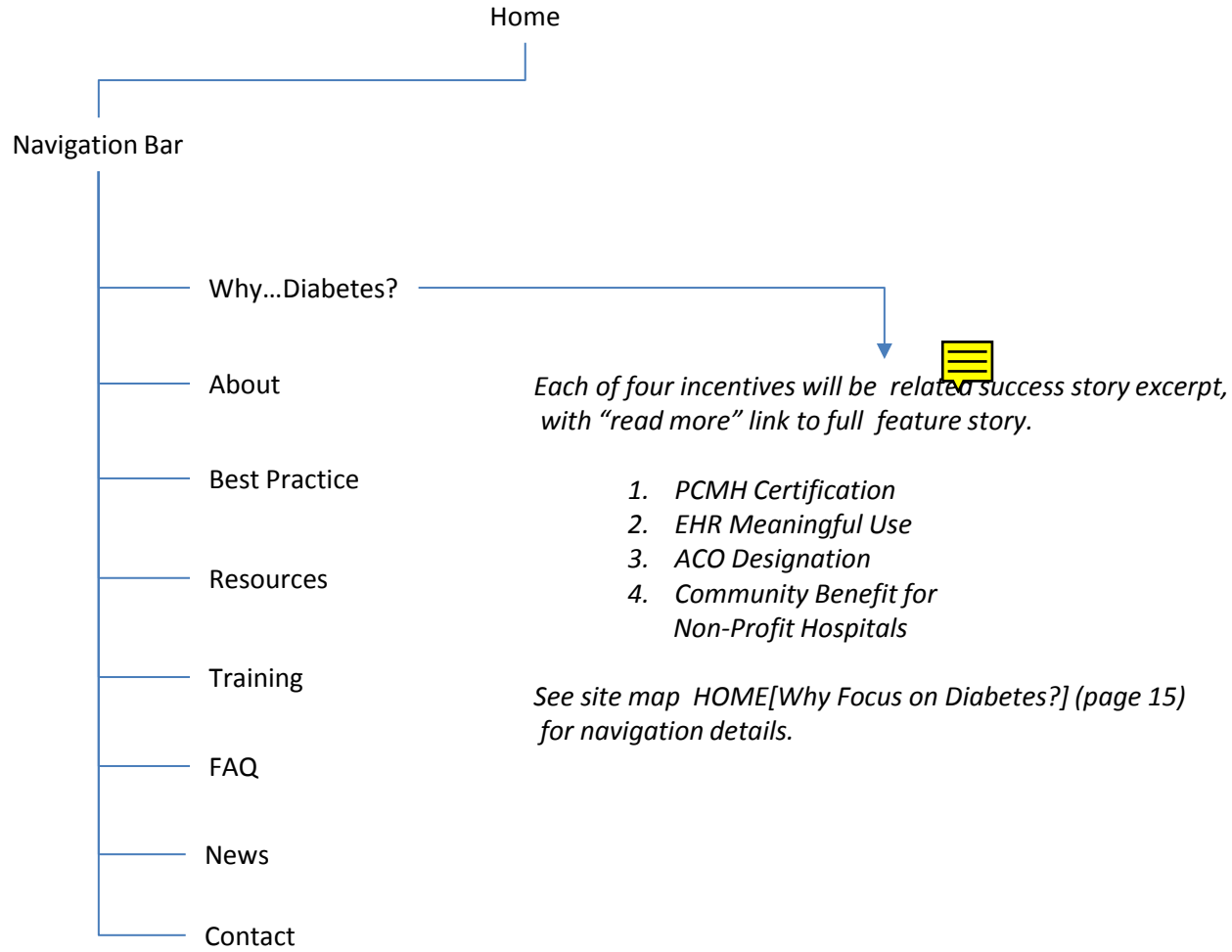
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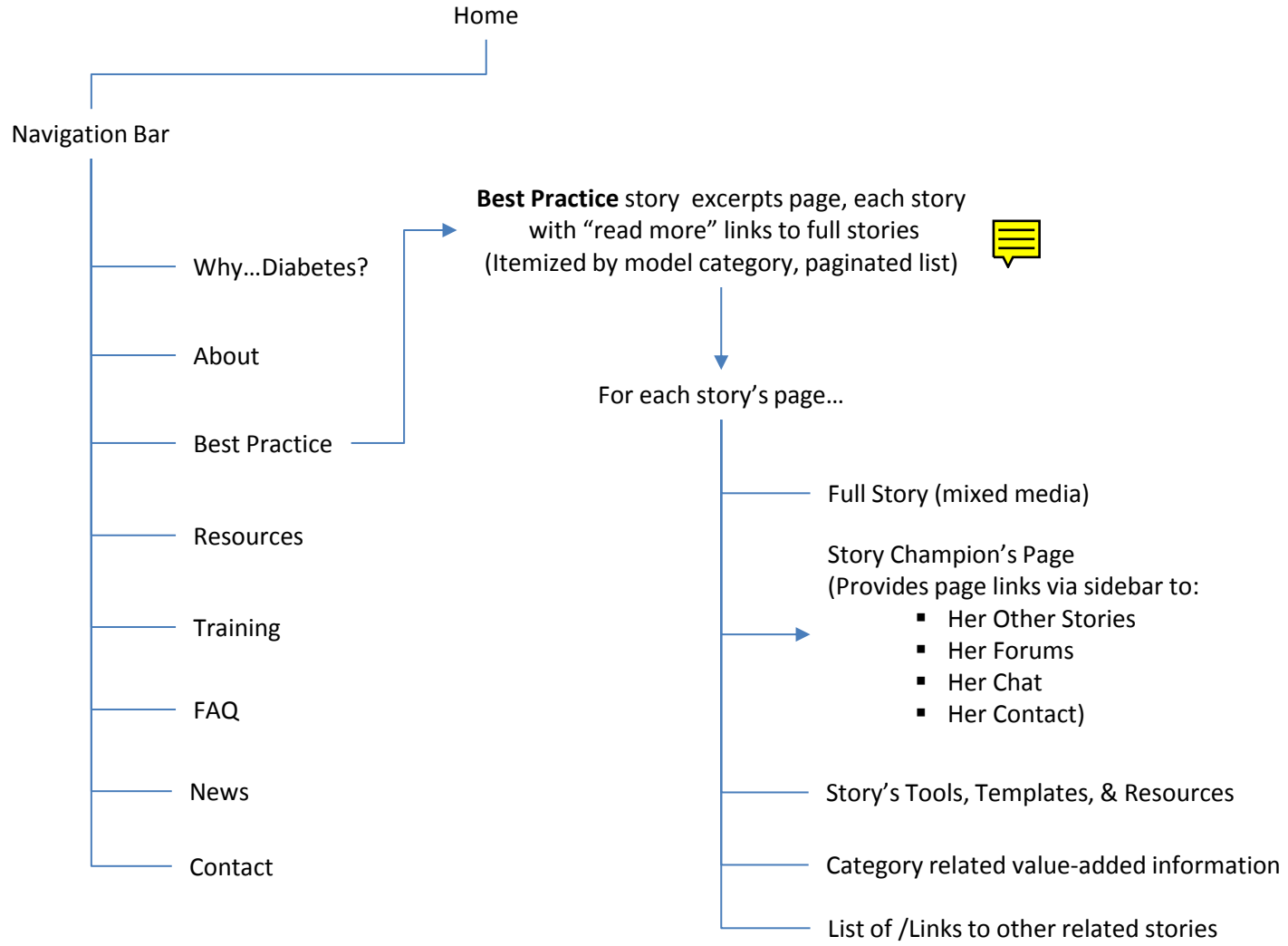


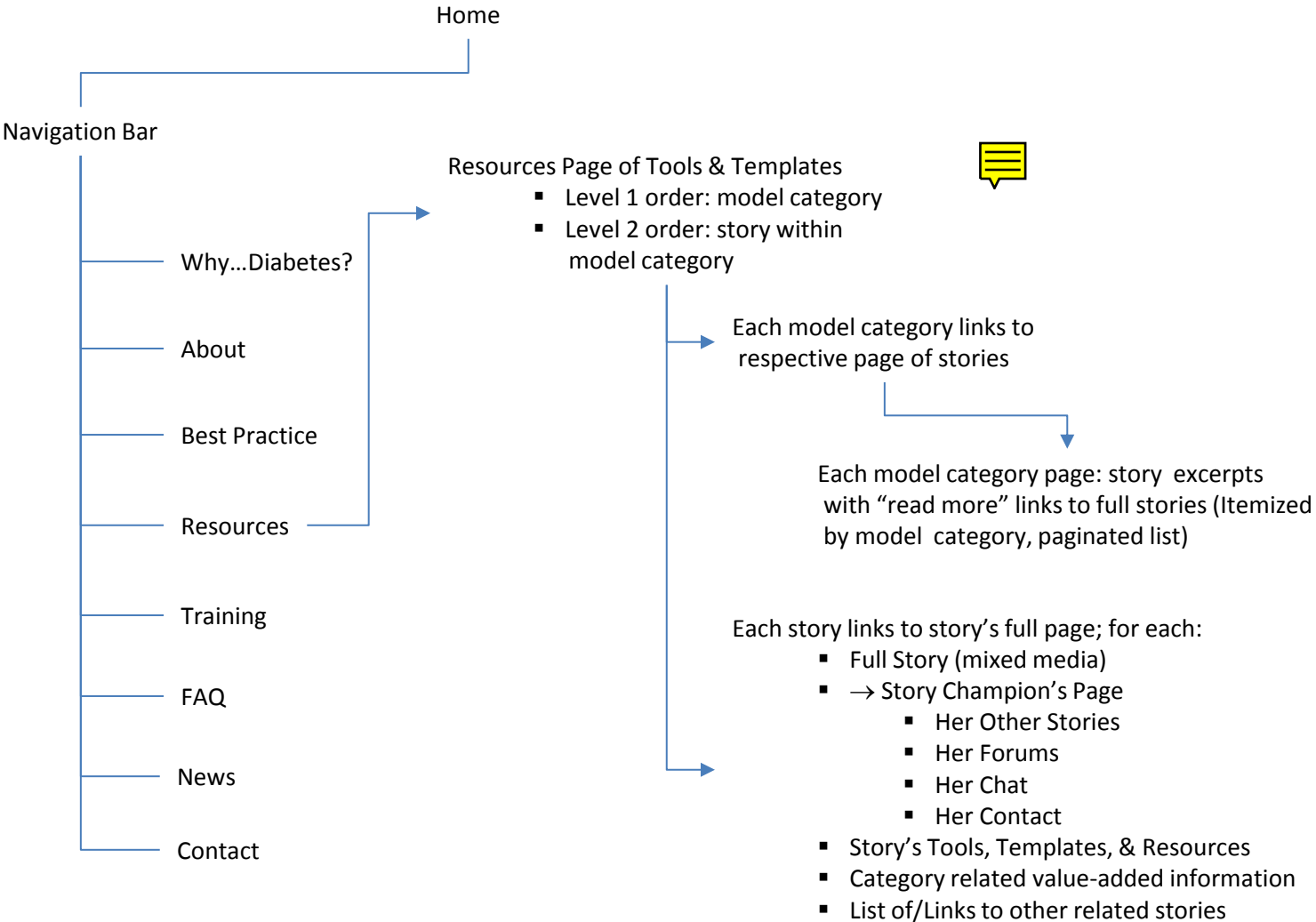


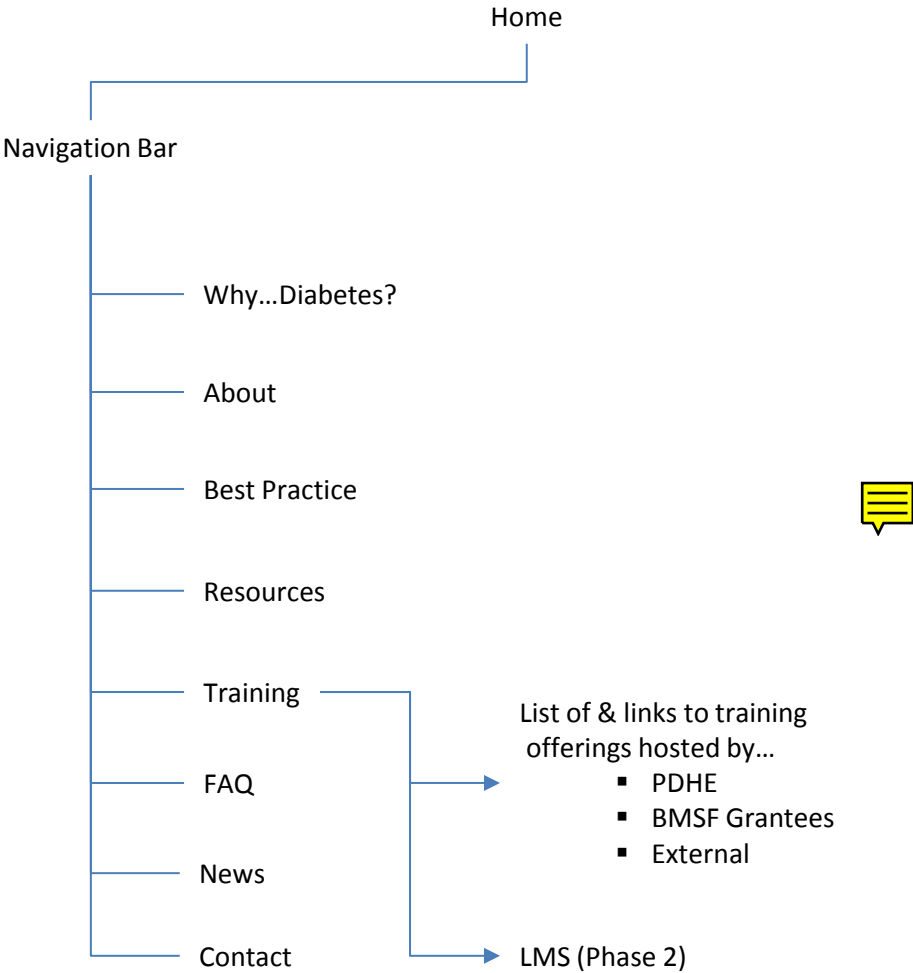








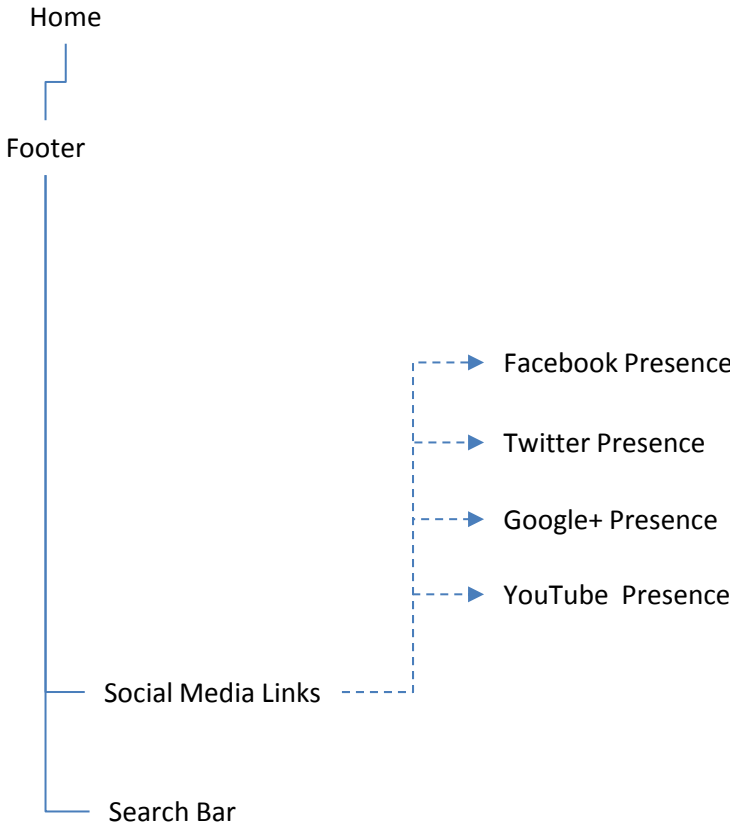






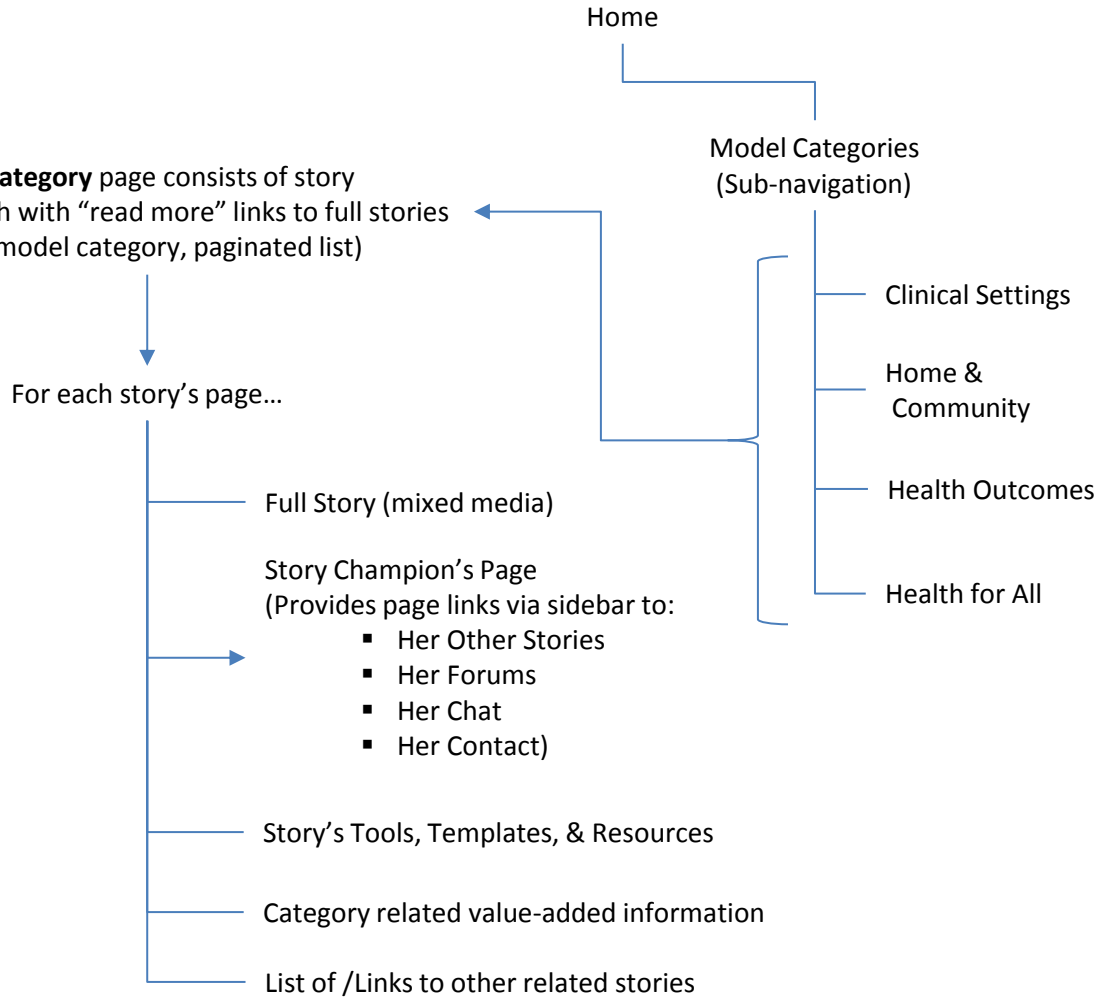


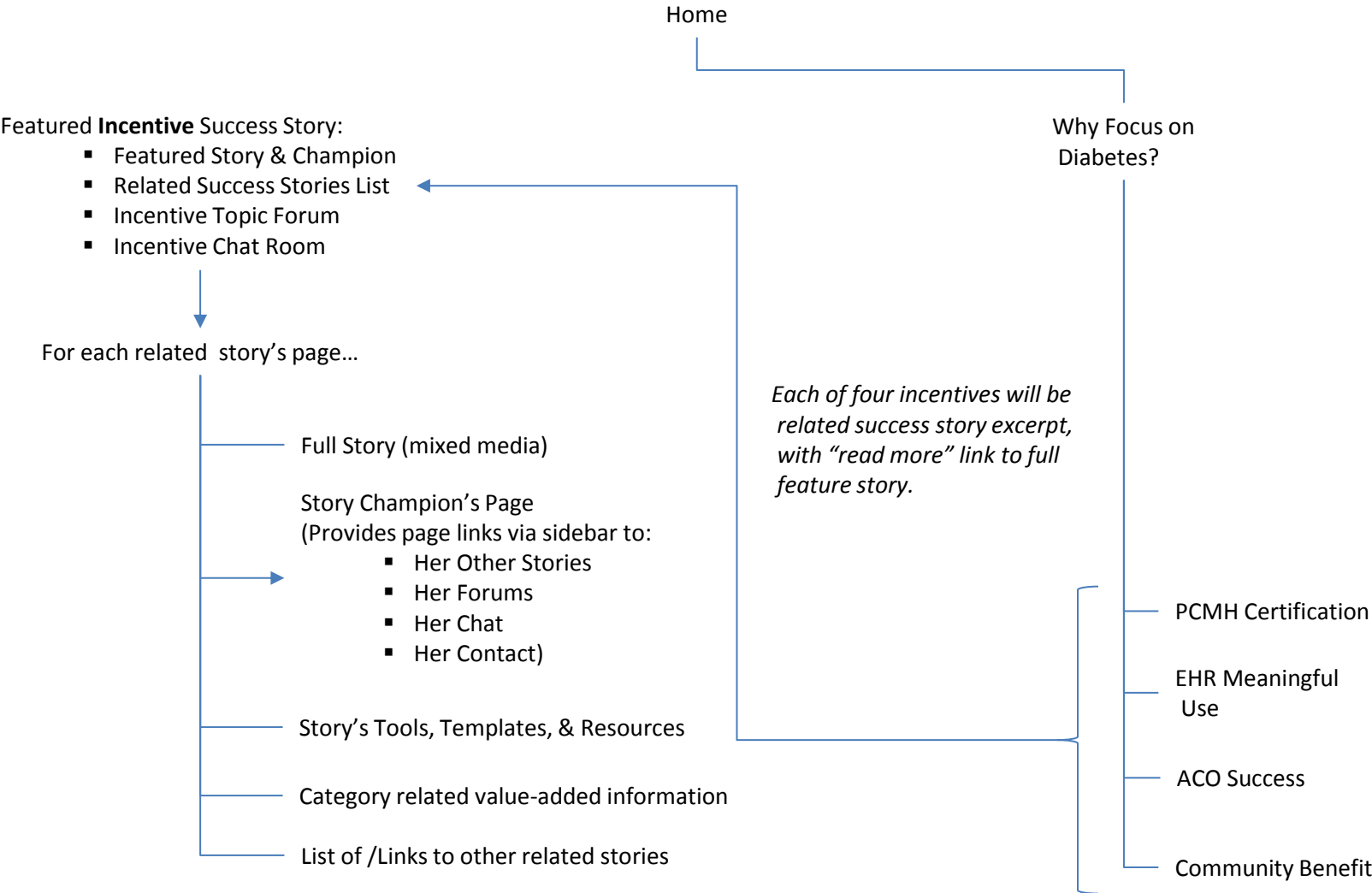


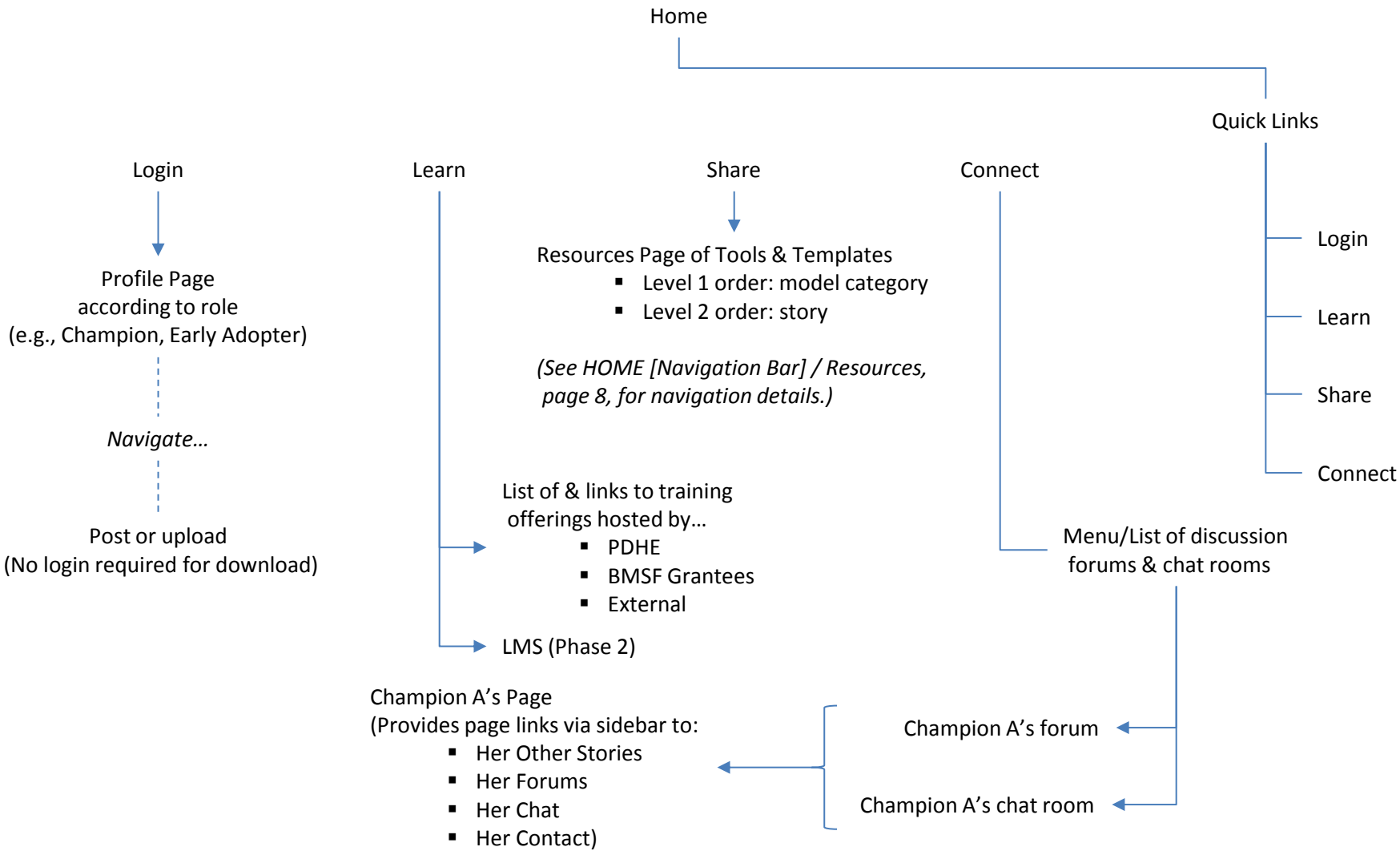




Each **model category** page consists of story excerpts, each with “read more” links to full stories (Itemized by model category, paginated list)







Learn-Share-Connect Web Portal Requirements Document
for the
Partnership for Diabetes Health Equity Initiative

A

Morehouse School of Medicine

National Center for Primary Care

&

Bristol-Myers Squibb Foundation

Partnership

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1 Introduction

1.1 Document Purpose

This document presents the product functional requirements for Morehouse School of Medicine National Center for Primary Care’s *learn–share–connect web portal* (LSC portal), the online training and resource center supporting the *Partnership for Diabetes Health Equity* (PDHE) initiative.

These functional requirements are limited to the LSC portal features and capabilities necessary to host and delivery content, to support community building and collaboration that achieve the PDHE program objectives.

Important note regarding this document’s scope: the requirements specification presented within does not address:

- PDHE programmatic content or media, beyond the LSC portal’s ability to accommodate named types
- PDHE programmatic services or activities, beyond LSC portal’s function as a resource center with specifically identified capabilities; i.e.,
 - User Accounts
 - Content Management
 - Repositories
 - Collaboration
 - Community
 - eLearning
 - Calendar
 - Forms & Submissions
 - Social Networking & Media
 - Search

1.2 Situation and Background

The United States has numerous adult sub-populations that are disproportionately affected by type-2 diabetes (both diagnosed and undiagnosed.) Bristol-Myers Squibb Foundation (BMSF) targets improved health outcomes for these affected groups via its international \$115M *Together on Diabetes* program; and Morehouse School of Medicine National Center for Primary Care (MSM NCPC) has been funded as a partner to maximize the impact of the ToD through its *Partnership for Diabetes Health Equity* (PDHE) initiative.

PDHE strives to achieve optimal and equitable diabetes outcomes for all by implementing the ToD Three-element model to new communities on a national scale. The Three Element model hypothesizes that rapid cycle improvement in diabetes health outcomes can be achieved by the robust and reliable exchange of intervention experience and outcomes within and between three elements/settings of type-2 diabetes care:

1. Person-focused home, family, and community interventions
2. Primary care practice-based interventions
3. Outcome-driven interventions (including agents of feedback loops)

Full details of the PDHE initiative can be found in the MSM NCPC document – *Taking it to Scale: Maximizing Impact of Together on Diabetes* [Rust; June 2013].

Full details of the Three Element Model and rapid cycle improvement can be found in MSM NCPC's ToD presentation – *Rapid-Cycle Outcomes Improvement* [Rust, et al; March 2013].

1.3 Business Objectives

The PDHE exists to achieve optimal and equitable outcomes for all type-2 diabetes patients. It will do so by maximizing the impact of BMSF's *Together on Diabetes* program. (ToD aspires more generally to improve health outcomes for the same patient population; and its chosen approach is to strengthen patient self-management education, community-based supportive services, and broad-based community mobilization.)

The LSC portal shall function as PDHE's single, central virtual learning center and knowledge/tools repository for its intended audiences. Central also in purpose, the portal must promote both PDHE cause and its branded framework – critical also then is its role in resource for marketing, recruiting, and educating prospective enlistees to both PDHE cause, adoption of ToD, and implementation of the Three-Element Model.

1.4 Portal Objectives

The LSC portal must support a phased, expanding base of organizations and individuals, from a select few to new communities on a national scale:

- Engaging grantees and select non-grantees at inception
- Developing a learning community of early adopters for critical foundation
- Enlisting select new communities to implement the ToD Model for critical momentum
- Cultivating virtual communities and learning collaboratives on a national scale

The LSC portal will leverage MSM NCPC's learn, share, and connect model, holding consistently to it even as it takes on increasingly diverse contributor content, evolves to deliver more value to increasingly diverse communities, and accommodate orders of magnitude growth/demand as a matter of course.

1.5 Phased Development/Delivery of Capabilities

The PDHE initiative has a planned five-year implementation, and its roll-out allows the LSC portal capabilities to be provided in three phases described as follows:

PID	Phase	Description
1.	Launch	Introduces the PDHE initiative to intended stakeholders (and general public); provides basic capabilities to engage grantees as foundational resource contributors.
2.	Acceleration	Accelerates both the variety and effect of PDHE’s intended program; adds portal capabilities to fully engage both grantees and early adopters as foundational resource contributors.
3.	Finish	Completes capabilities that enable full delivery of PDHE’s intended programs—fulfillment of learning communities and national promotion and delivery of the BMSF ToD model to achieve PDHE equity aspirations.

The following table shows by category the anticipated capabilities required per development phase.

Capability Category	Phase 1	Phase 2	Phase 3
User Accounts	<ul style="list-style-type: none"> ▪ Portal – Basic profile 	<ul style="list-style-type: none"> ▪ Portal - Full profile ▪ LMS - Basic 	<ul style="list-style-type: none"> ▪ NA
Content Management	<ul style="list-style-type: none"> ▪ User ability to post comment ▪ Staff as contributor ▪ Staff as editor 	<ul style="list-style-type: none"> ▪ Champion as contributor 	<ul style="list-style-type: none"> ▪ NA
Repositories	<ul style="list-style-type: none"> ▪ Informational content as pages and files ▪ Tools/templates as files ▪ Lists/directory pages (e.g., training, grantees, research papers) 	<ul style="list-style-type: none"> ▪ Contributed assets (other than champion, for review before action) 	<ul style="list-style-type: none"> ▪ Project team spaces
Collaboration	<ul style="list-style-type: none"> ▪ Discussion forums ▪ Staff as moderator ▪ Staff as forum manager 	<ul style="list-style-type: none"> ▪ Champion as forum moderator ▪ Chat room ▪ Private messaging ▪ “Follow” stories, champions, and content updates (notifications) 	<ul style="list-style-type: none"> ▪ Document sharing ▪ Conferencing
Community	<ul style="list-style-type: none"> ▪ NA 	<ul style="list-style-type: none"> ▪ Staff as group initiator ▪ Staff as group manager 	<ul style="list-style-type: none"> ▪ Champion as group initiator

Capability Category	Phase 1	Phase 2	Phase 3
eLearning	<ul style="list-style-type: none"> Self-directed archived Non-certification (non-LMS) 	<ul style="list-style-type: none"> Certification based courses (LMS) Directed live (non-LMS) 	<ul style="list-style-type: none"> NA
Calendar	<ul style="list-style-type: none"> NA 	<ul style="list-style-type: none"> Announcement of promotion & events 	<ul style="list-style-type: none"> Full calendaring Staff as calendar manager
Forms & Submissions	<ul style="list-style-type: none"> Contact PDHE 	<ul style="list-style-type: none"> Contact Champion Resource & content submission by champion 	<ul style="list-style-type: none"> NA
Social Networking & Media	<ul style="list-style-type: none"> Basic portal association with PDHE social network sites 	<ul style="list-style-type: none"> Discretionary adoption of social network provided integration 	<ul style="list-style-type: none"> NA
Search	<ul style="list-style-type: none"> Basic—Boolean or by category 	<ul style="list-style-type: none"> Multi-level Assisted (e.g., tag cloud) Site map 	<ul style="list-style-type: none"> NA

Table 1 - LSC portal development phases

1.6 Stakeholders and Intended User Audience

The LSC portal’s audience is a subset of PDHE’s larger stakeholder group, consists of those agents that improve intervention outcomes. The table below provides audience examples across three major categories, plus it identifies other important stakeholders not intended as direct audience.

Intervention Improvement Agents for...			Stakeholders
Person Home, Family & Community	Primary Care Practice-based	Outcome-driven & Feedback Loop	
<ul style="list-style-type: none"> Community Health Workers / Promoters / Navigators Public Health / Community Health Promotion program leaders Local community health equity advocates community advocates in underserved settings Community leaders Public health education Health advocates Community development organizers focused on social determinants Person-focused 	<ul style="list-style-type: none"> Practice care managers Practice panel managers Practice outcomes managers Clinics Medical practices Within-practice patient panels Public health education professionals Certified Health Educators Community Health Centers Private Practice Groups Rural Practices / Clinics Migrant / Homeless 	<ul style="list-style-type: none"> Non-grantee implementation experts PDHE Teachers “meaningful use” level-3 certification aspirants NCQA PCMH certification aspirants Community hospitals Accountable Care Organizations Projects similar to ToD Medical Directors in Underserved Settings Physician-Administrators in Underserved Settings outcomes data surveillance teams health outcomes data 	<p>Internal:</p> <ul style="list-style-type: none"> Together on Diabetes program Current ToD grantees PDHE Champions PDHE early adopter learning communities PDHE new community recruits Current PDHE staff <p>Affiliated:</p> <ul style="list-style-type: none"> BMS Foundation MSM NCPC <p>At-Large:</p> <ul style="list-style-type: none"> Patients & Families Relevant health discipline clinicians

Intervention Improvement Agents for...			Stakeholders
Person Home, Family & Community	Primary Care Practice-based	Outcome-driven & Feedback Loop	
intervention researchers ▪ Person-focused intervention organizations	Health Centers ▪ Urban / Inner City Practices ▪ Health case workers ▪ Chronic care collaboratives ▪ Practice-based intervention researchers	wizards ▪ Rural / Critical Care Hospitals ▪ Public Hospital Systems ▪ Private Health Systems ▪ Outcome driven interventions researchers	▪ Any community using the 3-Element model ▪ Prospective ToD grantees ▪ Grant-funded projects (NIDDK, RWJF, etc.) ▪ Potential consultants or peer-experts ▪ Real-world experts ▪ Academic experts ▪ Accountable Care Organizations (Subject matter) ▪ Conference panels.

Table 2 – Audience and stakeholders for the LSC portal.

The portal will offer intended audiences either of three experiences, with each tailored for experience appeal and best value for one of the table’s improvement agent categories. Experiences will be distinguished by content, themed interests, and voice. The user profile (completed by the visitor during portal user account creation) will help assign experience to audience.

2 Portal Functional Requirements

2.1 Functional Requirements Overview

The LSC portal will be Internet accessible without restriction via the hypertext transfer protocol (http). Other means of file transfer may be acceptable solely at PDHE authority discretion; but portal content will not be accessible by any other *user-console capable* transfer protocol application. Portal access and content must be performance flexible, able to accommodate diverse audience locales and their wide-ranging technology infrastructures (i.e., slower, legacy communication speeds in rural areas versus faster speeds in modernized suburban and urban areas.)

- A. Key Requirements
- B. Differentiated Levels of Access
- C. Organization
- D. Navigation
- E. Adherence to Standards
- F. Other Capabilities

A. KEY REQUIREMENT CATEGORIES

The key functional requirement categories of the LSC portal shall include:

User Accounts	Features that enable site visitors to acquire unique accounts that qualify them for full access to content and features; plus, access to the LMS and its constituent courses
Content Management	Features that enable submission, editing, publishing, and modifying site content, as well as maintenance from a central interface
Repositories	Retention, organization, presentation, and provisioning of information and resource content directly supporting DPHE’s overarching aim and impact
Collaboration	Features that enable user interaction regardless of geographic location
Community	Features that enable users to electively and virtually affiliate with other users, based on a shared persistent special interest
eLearning	Learning management system that supports user’s registration, enrollment, and matriculation through PDHE certification related courses; plus elective access to live and archived non-certification related courses
Calendar	Features that enable PDHE to schedule manage and advertise events and significant date-driven milestones to all visitors
Forms & Submissions	Features that support PDHE role-player, staff and organization contact; promotional and activity enrollment; and submission of related materials
Social Networking & Media	Features that enable customary affiliation and cross-site coordination between the LSC portal and PDHE social network presences (i.e., PDHE’s facebook, twitter, google+, and YouTube presences)
Search	Features that enable users to retrieve portal information and resource content according to user preferred criteria

B. DIFFERENTIATED LEVELS OF ACCESS

The LSC portal shall offer three levels of site access:

1. **Non-authenticated visitors** – Limited access to portal content, capabilities, and services; NO access to the LMS or its courses.
2. **Portal authenticated users** – Full access to portal content, capabilities, and services; access to the LMS if the user has already created an LMS account; otherwise no LMS access
3. **LMS authenticated users** – Full access to BOTH LMS and portal content, capabilities, and services.

Portal and LMS will require distinct user registration processes, but authentication will be “single sign-on” (SSO), which means:

- If a registered user signs-on to the portal, then she automatically signs-on to the LMS (if she has a registered LMS account)
- If a registered user signs-on to the LMS, then she automatically signs-on to the portal

Every LMS user must first have a valid, registered portal account. Both registration and sign-on are discussed in more detail in a later section.

C. ORGANIZATION

The LSC portal shall be represented by a root-level page (its “home page”) with design, layout, and content that at minimum conveys the PDHE branded identity, purpose, and appropriate indicators of portal content, capabilities, and services.

Further, the home page and each page within the portal’s hierarchy shall provide users with a consistently located section of useful navigational and functional links; minimally (and in no particular required order):

- About [PDHE & ToD Model]
- PDHE central value proposition
- Featured resources, contributors, or outcomes
- Resource access by model elements
- Resource access by learn, share, and connect
- Resource access by incentive
- Announcement for promotions, events, etc.
- Login dialogue access
- PDHE social network “quick links”
- FAQs (frequently asked questions)
- News
- Contact
- Search

D. NAVIGATION

The organization and navigation options the LSC portal offers visitors must fully capture the critical association of four organizing influences/themes:

1. The outcome success story, which is central to all other influences
2. The champion/contributor who achieved the success
3. The assets associated with the story
4. The model element, practice, or principle the success illustrates

A site visitor will be able to navigate according to any of these four themes. Further – because each of the four is fully associated with the other – the visitor will be able to change navigation perspective at any point. For example, the visitor may:

- Begin by navigating to a story of interest (associated with a 3-Element Model principle/category)
- Proceed by hyperlink to the story’s associated assets (e.g. tools & templates, training resources)

- Proceed by hyperlink to a listed offering of all assets contributed by the story's champion
- Proceed by hyperlink to the champion's background page
- Proceed by hyperlink to an entirely different story contributed by that champion

Finally, the LSC portal provides a fifth organizing influence and site experience according to learning, sharing, and connecting navigation options.

The following diagram illustrates the full association of story, champion, assets, and the 3-Element model; and further, the portals de facto organizing and navigation influences according to learning, sharing, and connecting. The portal will offer visitors self-directed, self-selected experience, offering multiple points of entry and multi-navigation routes at any given point.

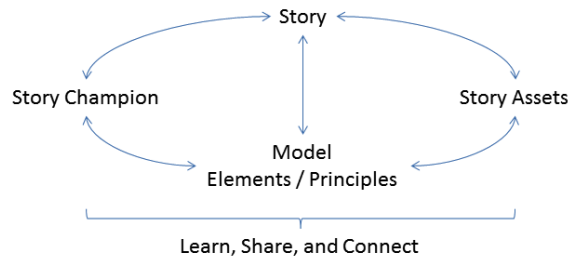


Figure 1- Entities and associations driving navigation

E. ADHERENCE TO STANDARDS

The LSC portal shall comply with existing MSM graphical and style standards on the use of the institution's logo. NCPC has no such standards; and BMSF has no standards that apply to PDHE, except in the authorized use and display of copyrighted graphical content, such as organization's trademarked logo.

The PDHE Logo Use Standard – A set of guidelines shall be developed to advise the presentation of the logo and graphic position (with or without affiliate tagline) in all pursuant marketing, advertising vehicles, and written, authorized use by other organizations.

F. ACCEPTABLE USE AGREEMENT

Both the LSC portal and its associated LMS will require that account-holding users explicitly agree to acceptable use of all content, capabilities, and services. The agreement constitutes the user's understanding, conformance, and accountability to the standards set forth in PDHE's *acceptable use policy* (AUP).

The policy shall be presented in readable form (with option to print) to any visitor who has selected a *create* account option; the visitor must agree to AUP terms before s/he can create an account.

G. OTHER CAPABILITIES

The portal must also be able to accommodate:

- RSS feeds for real-time updates from relevant news/notification sources
- Social networking integrated features [a] as offered by popular provider “application program interfaces” APIs (e.g., Facebook, Twitter, Google+, YouTube), and [b] pursuant to the interest/discretion of PDHE authorities as LSC feature offerings to its users.

2.2 Functional Requirements Detail

2.2.1 Content Management

The LSC portal will provide content management system (CMS) features that enable submission, editing, publishing, and modifying site content, as well as maintenance from a central interface. Content management specifically concerns “versioning” of the portal; that is, the management and update of content that makes up the portal’s official structure and content. PDHE will use its discretion in choosing centralized vs. distributed management approach.

CMS capability will include management of:

- Elemental content
- Containing pages
- Organization of pages
- Organization of the site
- Index, search, & retrieval
- Repository
- User account...
 - Registration
 - Sign-on
 - Roles
 - Access

2.2.2 User Accounts

A. USER ACCOUNTS AND REGISTRATION

The LSC portal will provide two types of user accounts to support the access levels defined above:

1. A portal user account
2. A LMS user account

The LSC portal and LMS will require distinct user registration processes. The user will only need a LMS user account if s/he wishes to enroll in and matriculate through a PDHE course. The portal and LMS will provide a visitor with the ability to create a unique, individually assigned user account of each respective type.

Portal User Accounts:

The LSC portal will provide a visitor with the ability to create a *portal user account*. Creating a portal user account does not create an LMS

At the time of account creation the user will be prompted to provide:

- A username that must be their fully specified preferred email address. This will require account create confirmation by email (to verify email account authenticity).
- A password for subsequent authenticated access (as described above)
- Responses to profile attributes, which shall be used to assign the user a role within the Three Element Model. (This allows the portal to use the appropriate “voice” and subject-matter point-of-view for the user.) Further, profile data will be analyzed as a part of program performance metrics and for characterizing participation.

The user shall have basic user name and password management capabilities:

- Username reminder via email option
- Password reset via email option
- Password change via a “Change your password” option or similar.

The user shall also have the ability to update her/his profile.

LMS User Accounts:

The LMS will provide a visitor with the ability to create a *LMS user account*. A visitor must have an assigned portal user account in order to register for an assigned LMS user account.

The LSC portal will provide visitors with at least two LMS access methods:

1. Access via a catalog of offered courses (user will be offered link to log-in/register)
2. Access via a link for direct LMS login

If the visitor does not have a LMS user account, then the user will be offered an opportunity to create one. The visitor must log into her/his portal user account in order to create a LMS user account.

B. USER AUTHENTICATION (“SIGN-ON”)

In order to support the access levels and user account create/assign defined above, the authentication rules will be:

1. If the visitor does not have a portal registered account, then the unregistered visitor can access neither portal features that require sign-on nor can they access the LMS.
2. If the visitor has a portal registered account, then the registered portal user must provide valid portal user account name and password to sign-on to the portal.
3. If the visitor has a LMS registered account, then the registered LMS user must provide valid LMS user account name and password to sign-on to the LMS.

Further, the portal will provide “single sign-on” (SSO) to users with both registered portal and LMS accounts, which means:

4. If a registered user signs-on to the portal, then she automatically signs-on to the LMS (if she has a registered LMS account)
5. If a registered user signs-on to the LMS, then she automatically signs-on to the portal

2.2.3 Repositories

A. CONVENTIONAL WEB PAGES

Web pages represent a form of content storage. In the initial PDHE implementation phases, staff shall fully manage content; the project may give community members some content management capabilities in later phases (e.g., to “post” their own content.)

Conventional web pages will hold single format to mixed media content, accommodating the “storage” and presentation of content in various formats:

- Fully designed mixed media layouts (e. g., “story” pages)
- Itemized catalog of LMS courses and portal training
- Archival listing or display of PDHE published content
- Directories of links, content references, and contacts
- Registry of external training opportunities

B. RESOURCE LIBRARY

The LSC portal will provide storage, organization, and upload/download capabilities for file exchange between/among valid portal users.

- Only authenticated users can upload a file for sharing/exchange
- All content is subject to PDHE approval prior to upload
- In general, any visitor may download content, but PDHE may require authenticated download for certain content per its discretion

The portal will provide users the ability to:

- Subjectively rate the offered file (on a multi-value discrete scale, e.g., 1 to 5 stars)
- Provide free-form comment for the file

C. DATABASE

The LSC portal will provide database management capabilities for user account and associated profile data. The database will be populated and changed by user creation and profile update operations. The LSC portal’s content manager shall be provided basic user and profile management operations: i.e., add, modify, and delete.

D. EXTERNAL PROVIDER RESOURCES

The LSC portal will store and stream archived audio-video via a *YouTube* channel. (The channel is a straightforward integration, allowing the video to launch in page, so the user is not re-directed from the portal environment.) Note that PDHE or MSM must secure a YouTube account and establish a PDHE-specific channel. Under certain conditions, the channel and associated services may require fee payment.

Further, the LSC portal may use a storage service provider to support its resource library requirement. Storage service provider stipulations may require modification of the aforementioned file upload and download requirements.

2.2.4 Community

The LSC portal will provide authenticated users with group membership capabilities; specifically to join an existing group, collaborate with other members in the group's special interest context, and withdraw from a group. Only authenticated users will be allowed to join and participate in groups.

The portal shall also provide the ability to create and fully manage user groups. Initially, only PDHE staff will have access to group management capabilities; however, this privilege may be extended to champions in later initiative implementation phases.

2.2.5 Collaboration

The LSC portal must provide features that support a range of PDHE specified programmatic activities/interactions; specifically:

- Peer expert consultations
- Early adopter champions with non-grantee implementation experts
- Mentor match
- Buddy system (teaming)
- "Ask the expert"
- Problem-solving/challenge-centric
- New community coalitions (common challenge)
- Advice & Tech Support (PDHE as provider)

The set of required LSC portal features for multi-user web collaboration are:

- Forums with constituent discussion threads
- Blogs allowing comment with topical post
- In-portal chat and chat rooms (with privacy & transcript options)
- Private messaging between users
- "Follow" users and content update notifications
- Video-conferencing

- Virtual meetings†

† Initially, the *virtual meeting option* need not be portal integrated. Instead, users will make use of existing external solutions and services (e.g., GotoMeeting, Webex). While this approach adds steps/effort to session capture (whether audio, video, transcribing, etc.), PDHE has opted to first determine integration *value-for-effort* before requiring it.

PDHE shall use its discretion to determine which collaboration capabilities will be used for a given program component/activity. For example, PDHE may regulate its employment of resource intensive features according to the priority it places on the program activity.

Only authenticated users can participate in the interactions identified above and use the portal's associated collaboration mechanisms.

2.2.6 eLearning

The portal will provide users with a full range of e-learning options, both instructor- and self-directed, certification related and not. The e-learning options that shall be accommodated are:

- A. Courses, certification related
- B. Training modules, non-certification related
- C. Webinars, archived and live
- D. Learning Sessions, archived and live
- E. Tutorials and Simulations, archived

A. COURSES

Courses (e.g., for credit or certification) will be managed and delivered via a learning management system (LMS, to be determined). All course content will reside in the LMS repository and both access and use will require:

- a LMS account
- course enrollment
- user login to the LMS (unless already logged in to portal)

Course enrollees and instructors will use LMS native capabilities exclusively for all course related collaborations, file/document access, etc. Users will access the LMS via a text link (URL) within the portal. The LMS will be account and password accessible by single- or same-sign-on.

Course excerpts offered for marketing and other purposes will reside on the portal will

- not require a portal account
- not require portal login

B. TRAINING MODULES

Training modules will not require scoring or offer certification on completion. They will reside outside of the LMS.

Archived Training (self-directed, self-paced) will be viewable on-demand. Training module content will reside in the portal repository and will require:

- a portal account
- user login to the portal

Live Training (events) with streamed audio-video will be delivered by a streaming service provider.

The portal will provide the ability to capture the live stream and transcribe it; both the aforementioned, along with any associated event material may be archived to the portal after the fact.

The portal shall maintain a training historical record for each user. However, the portal will not offer users a “save session” option for incomplete sessions. (This latter feature will be available for courses in the LMS.)

C. WEBINARS

Archived Webinars will reside in the portal repository, will be viewable on-demand, and will require

- a portal account
- user login to the portal

Live Webinars will be provisioned by the presenter’s choice of outside audio-video streaming service provider. The portal will not provide the ability to capture the live stream and transcribe it; both the aforementioned, along with any associated event material, may be archived to the portal after the fact. Live webinar participation will require

- a portal account
- user login to the portal
- advance registrations

Valid advance registration responsibilities rest with the presenter and/or streaming host provider.

D. LEARNING SESSIONS

Learning session content (e.g.,one-to-one) will reside in the portal repository and will require

- a portal account
- user login to the portal

The primary portal mechanisms for learning sessions will be text-based chat room or video-conference.

E. TUTORIALS & SIMULATIONS

Tutorial and simulation content will reside in the portal repository and will:

- not require a portal account
- not require portal login

2.2.7 Events Calendar

The LSC portal will provide a calendar feature with conventional management options that support events promotion and scheduling; i.e.,

- Course offerings
- Live training
- Train-the-trainer sessions
- Live webinars
- Virtual coffee shop
- Ask-the-expert (live, scheduled)
- Date-driven program milestones

The calendar capability will enable content manager(s) to share a schedule of PDHE events. Calendar management will include the ability to set scheduled, automatic email notifications/reminders to signed participants or all portal users in advance of an upcoming event.

2.2.8 Forms and Submission

The LSC portal will provide visitors with user-friendly fillable contact forms for visitor initiated contact with the following recipients:

- PDHE leadership
- Advice & tech support (PDHE as provider)
- Champions & experts
- Promotion, activity, and event coordinators
- Portal technical assistance

The forms will provide convenient auto-fill and auto-complete where appropriate; plus, will minimally require the submitter identifying information and a free-form notation field. The recipient may be identified by the context in which the form is completed, or may be selectable from a number of provided choices. Other fields on the form and their attributes (required or optional, free-form or pre-defined values, etc.) will depend on context/purpose.

Visitors will have options to clear fields, cancel, or submit the form. The visitor will be presented with a *verification code* that must be manually typed by the visitor to complete form submission. The visitor will receive both a displayed and an email confirmation on submission.

2.2.9 Social Networking and Media

The LSC portal will accommodate contemporary social networking and media in three respects:

1. Convenient, consistent linkages and cross-site coordination between the LSC portal and PDHE's affiliated social network presences (i.e., PDHE's facebook, twitter, google+, and YouTube presences).
2. Discretionary use of easy-to-integrate social network features that popular sites provide via their no-cost "application program interfaces" APIs.
3. Use of no-cost, member-based resourcing services; specifically *YouTube* for storage and channel delivery of PDHE archived video, and possibly *Google Drive* or equivalent for file storage, sharing, and management.

2.2.10 Search

The LSC portal will offer users a variety of multi-level search capabilities for the site and its contents, including:

- In its broadest form, full-site Boolean text searches
- In increasing specificity of scope, advanced search criteria:
 - Grantees/Contributors
 - Story subject matter
 - Geographic locale (e.g., southwest US)
 - Asset type (e.g., pdf, pptx files)
 - Keyword/tag (e.g., "interventions", "self-management")
 - PDHE defined category (e.g., "primary care", "ACO", "events")
- Enhanced, assistive search using contemporary techniques (e.g., tag clouds)

The portal will allow non-authenticated users to perform searches and may deliver results that require authentication.

The LSC portal will also provide users the ability to specify the following additional search domains:

- The BMSF ToD site and
- The world-wide-web

Search results will be returned within the portal environment.

Searching LMS content – Users can only perform LMS content searches using the LMS-native search mechanism. Note that LMS search DOES require authentication for access and use.

3 Portal Operational Requirements

3.1 Host Environment and Availability

The portal and all associated application systems must be designed to allow for continuous operation on a 24 hour, 365 day per year basis.

All network infrastructure must be fully resilient so that the failure of any single component or link cannot cause interruption of service.

All computer hardware (particularly all servers) and associated equipment including power supply, network interfaces, air conditioning etc. must offer full fail over capability so that the failure of any one server or other component cannot cause interruption of service.

Content revisions must be staged/viewable and publishable through the portal without interruption to normal use.

Essential maintenance to the portal and all associated applications must be capable of performance without interruption to service.

3.2 Capacity and Performance

Portal access and content must be performance flexible, able to accommodate diverse audience locales and their wide-ranging technology infrastructures (i.e., slower, legacy communication speeds in rural areas versus faster speeds in modernized suburban and urban areas.) Furthermore, all hosting resources – processor, storage, network access – must be scalable to accommodate the five year growth in demand targeted by the initiative.

3.3 Roles and Responsibilities

Provisioning, operation, and upkeep of the LMS portal suggest the coordinated effort of numerous roles and their respective responsibilities. (These are recommended rather than required roles. Further, depending on workload, a single qualified individual may be assigned more than one role.)

<u>ROLE</u>	<u>RESPONSIBILITY</u>
Content contributor	Non-dedicated person who creates and edits the content on specific or assigned pages. When editing is complete, contributors submit the pages for moderation and an editor or administrator will publish the page upon approval
Content specialist	Similar to a contributor, except the specialist is a dedicated contributor, plus may have skills or knowledge specialized for content creation
Moderator/Approver	Leads review, revision, and approval of submitted content. May also publish the content to the portal

MerryLeigh Giarrata..., 11/4/2013 5:15 PM

Comment [1]: May contribute content but primarily assists in content insertion and implementation, of text, images, docs, links, etc. in existing layout structure

Designer/Developer

Implements on-going improvements to portal design, layout, structure, and capabilities (including new capabilities)

Portal/Web administrator

Assures the continued operation, availability and proper functioning of the portal. Also provide technical assistance to users of the portal.

LMS administrator

Assures the continued operation, availability and proper functioning of the LMS. Also provides technical assistance to users of the portal.

eLearning specialist

Designs and develops eLearning assets, and supports virtual classroom instruction delivery

MerryLeigh Giarrata..., 11/4/2013 5:11 PM

Comment [2]: Not needed after phase 1

MerryLeigh Giarrata..., 11/4/2013 5:16 PM

Comment [3]: This incorporates the design/development above

4 References

**NCPC "Together on Diabetes" Portal Consultation
Prototype Dev - Est'd Effort**

Work Scope	Start	Finish	Architect	Architect	WebDev	WebDev	MobDev	MobDev	Project Activity and/or Deliverable		
<u>Stage 0: Initiation</u>	07/29/13	08/02/13	40.00	24.00	4.00	0.00	4.00	0.00	Draft engagement work plan		
				8.00					0.00	0.00	Client orientation
				8.00					4.00	4.00	Project team orientation
<u>Stage 1: Discovery</u>	08/05/13	08/14/13	64.00	8.00	12.00	0.00	8.00	0.00	Program parameters		
				8.00					0.00	0.00	Business requirements
				8.00					0.00	0.00	Brand articulation
				8.00					8.00	4.00	Value requirements
				16.00					0.00	0.00	Community engagement plan
				16.00					4.00	4.00	Discovery report & review
<u>Stage 2: Prototype Design</u>	08/15/13	08/27/13	72.00	16.00	20.00	4.00	20.00	4.00	Use case formulation		
				8.00					0.00	0.00	Use case review/revision/approval
				16.00					8.00	8.00	Design formulation
				16.00					0.00	0.00	Design specification document
				16.00					8.00	8.00	Design review/revision/approval
<u>Stage 3: Development Planning</u>	08/28/13	09/05/13	48.00	8.00	20.00	8.00	20.00	8.00	Work definition		
				8.00					4.00	4.00	Development methods
				8.00					4.00	4.00	Activity scheduling & assignments
				16.00					0.00	0.00	Detailed work plan document
				8.00					4.00	4.00	Work plan review/revision/approval
<u>Stage 4: Prototype Implementation</u>	09/06/13	10/02/13	144.00	24.00	136.00	8.00	68.00	8.00	Environment prep & resourcing		
				16.00					40.00	0.00	Full web & unit testing
				8.00					20.00	0.00	ADA web & unit testing
				16.00					20.00	20.00	Mobile web & unit testing
				16.00					8.00	8.00	Mobile app & unit testing
				24.00					8.00	8.00	Integration & functional testing
				24.00					16.00	16.00	Review, re-work & approval
				16.00					16.00	8.00	Standard operating procedures
← Full Demo or Pilot Launch			24.00	24.00	24.00	24.00	16.00	16.00	Operational readiness checklist		
Est. Billable Hours:			392.00		216.00		136.00		(Goal: ±10% of stated estimate)		