

Using Websites to Engage Consumers in Managing Their Health and Healthcare

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Introduction **ajmc.com**

When the Robert Wood Johnson Foundation (RWJF) launched its Aligning Forces for Quality (AF4Q) initiative in 2006,¹ the 16 multi-stakeholder community coalitions (ie, alliances—the generic term used for the multi-stakeholder coalitions/partnerships in each community) were selected largely because of their commitment to publicly report provider performance, support local quality improvement activities, and engage consumers in managing their health and healthcare. Alliances were expected to “align” their efforts across these areas based on the premise that interventions working in concert will be more likely to achieve meaningful, widespread improvements in quality care and health.^{1,2}

One strategy to improve consumer engagement is to increase the availability and use of information that supports health-improving behaviors. Proponents argue that if consumers have access to meaningful information about their health and healthcare when needed, they will use it to make choices that will improve their health, such as selecting high-quality providers or high-value treatments.³ All AF4Q alliances, and multiple national public and private entities,⁴ have created websites to provide consumers with health-related information, a strategy supported by survey data suggesting that 59% of all adults in the United States search online for health information.⁵

Overall, the quality of healthcare information available to consumers on the Internet is highly variable⁶ and may not be consumer friendly.⁷ Websites can be confusing for the average consumer to navigate and often fail to present technical information in a manner that consumers can easily understand.⁸ Attracting a wide range of consumers has been a difficult task; evidence to date indicates that awareness of websites and the ability to access public reports on provider performance on websites is relatively low.^{8,9} As a result, the potential to improve consumer engagement through website provision of health information has remained largely unrealized.

In this paper, we examine how AF4Q alliances are using websites to support their consumer engagement strategies. Specifically, we investigate how alliances are attracting consumers to alliance

Abstract

Objective: This study provides insight into the potential of local community health information websites to cultivate and support consumer engagement through website positioning and content choices.

Study Design: This descriptive study compared health-related websites maintained by 16 multi-stakeholder community alliances charged with improving consumer engagement and public reporting of provider performance data.

Methods: We systematically assessed website messaging, content, and the presence of explicit connections among information and tools related to consumer engagement behaviors for 32 websites maintained by alliances as of November 2011. These findings were triangulated with information about alliances’ public reporting activities from key informant interviews (2007-2011) with stakeholders in 14 alliances.

Results: A total of 25 of the 32 alliance websites contained information for consumers, and 14 of those included information related to at least 3 of 4 consumer engagement behaviors: shopping for high-quality providers or treatments, self-advocacy in healthcare encounters, self-management of illness, and partaking in general healthy behaviors. Positioning strategies and tactics to attract consumers varied widely across alliances. Some targeted specific conditions or behaviors; others took a broader community approach. Two alliances had strong alignment between website messaging and consumer engagement content, 7 had moderate alignment, and 7 had limited alignment.

Conclusions: Although alliances have been experimenting with a wide array of website approaches, their promise as a tool to improve consumer engagement is still uncertain. Further research that addresses the comparative value of different website approaches is needed.

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websites through website positioning and outreach activities, and how alliances are supporting consumer engagement through website content and architecture. While alliances received funding and had access to expert technical assistance in designing, updating, and marketing their websites, they remain a “work in progress” with considerable potential for improvement. Nonetheless, this study of their initial efforts generated some important and specific questions about the realistic role of informational websites in improving consumer engagement moving forward.

Background

AF4Q alliances have addressed 4 types of behaviors in their attempts to improve consumer engagement: choosing care providers or treatments based on quality or value (shopping behaviors), participating in care decisions with their providers (healthcare encounter behaviors), managing their existing health conditions (self-management behaviors), and preventing poor health (healthy behaviors).¹⁰⁻¹² Their activities have ranged from sponsoring educational and peer support groups on chronic care self-management, to conducting communitywide campaigns about healthy behaviors, to disseminating information about improving communication with providers (to engage consumers in choosing care providers based on their performance). Harmonizing these different consumer engagement activities and aligning consumer engagement content and messages on alliance websites has been challenging for alliances.

To help alliances develop websites that would effectively serve consumers, the AF4Q initiative provided technical assistance to alliances in the form of consultations with communications firms. Alliances were also given research briefs produced in partnership with the Agency for Healthcare Research and Quality and the American Institutes for Research addressing the presentation of comparative quality data and how to best engage consumers at key decision points.^{13,14} In practice, alliance website strategies varied, reflecting the preferences of community stakeholders, differences in alliance interpretations of the AF4Q initiative guidelines and technical assistance, and variations in alliances’ strategies to engage consumers. By November 2011, all 16 alliances were maintaining websites that offered comparative provider performance data and other information and/or tools that promoted consumer engagement (Table). It should be noted that prior to joining the AF4Q initiative, 13 of the 16 alliances already had websites that provided general information about the alliance and its activities, and 5 of these alliances offered provider performance information. Most alliances (13 of 16) maintained a home website and a second

website dedicated to public reports of provider performance and/or health information related to consumer engagement, with 3 alliances sponsoring more than 2 websites (Table).

Data and Methods

We examined the content of all 32 websites maintained by the 16 alliances as of November 2011, focusing on how the alliances attempted to appeal to consumers through their website messaging, content, and design (Table). Specifically, we collected data about website positioning, content, and architecture (eg, number of distinct websites, clear references, and active links to related information within and across web pages and websites). Positioning was determined by examining each website’s top line message for phrasing, tone, and the specific language used to ascertain the website’s target audience and strategy.

To characterize the types of consumer engagement content, we mapped alliances’ website content to the 4 consumer engagement behavior types mentioned earlier, using the following definitions: (1) shopping behaviors are activities individuals perform to become more effective purchasers of healthcare; (2) healthcare encounter behaviors are activities individuals perform to become more effective self-advocates with their healthcare providers; (3) self-management behaviors are daily tasks that individuals with acute or chronic illnesses perform to control or reduce the impact of illness on their health and well-being; and (4) healthy behaviors are activities undertaken by individuals to maintain health and well-being and to prevent the development of illness.¹⁰ We used the results of this mapping to describe the overall consumer engagement content of alliance websites.

To assess alignment among alliances’ website consumer engagement resources, we identified specific directions aimed at consumers that attempted to connect the different dimensions of consumer engagement, classifying alliances into 1 of 3 categories. Websites with strong alignment had explicit links (ie, information was plainly connected by verbiage or website architecture like hyperlinks) across consumer engagement content related to all 4 different behaviors (eg, consumers were reciprocally directed to provider performance measures on diabetes care and self-management of diabetes through text and hyperlinks). Websites with moderate alignment connected consumer engagement content, but consumers sometimes had to make more of an effort to access the information (ie, it requires multiple clicks or page jumps to locate). Websites with limited alignment linked consumer engagement content, but not across all consumer engagement areas and/or not very explicitly (ie, descriptions or directions such as “use this to do this” were lacking).

Table. AF4Q Alliance Website Structure, Branding, and Alignment of Consumer Engagement Content (as of November 2011)

	Albuquerque, NM	Boston, MA	Cincinnati, OH	Cleveland, OH	Detroit, MI	Humboldt County, CA	Kansas City, MO	Maine	Memphis, TN	Minnesota	Oregon	Puget Sound, WA	South Central PA	West Michigan	Western New York	Wisconsin
Alliance website^a structure																
Total number of websites	1	1	2	1	2	2	2	2	2	3	2	3	2	2	3	2
Number of websites with any content for consumers	1	1	1	1	1	2	2	2	2	2	1	3	2	1	2	1
Positioning of alliance websites with any content for consumers (n = 25)																
Home website	C	SH	—	C	—	C	C	C	C,H	—	—	C	C	—	—	—
Website #2	—	—	HE	—	SH	SM	C	SH	SH	SH	HE	C	SM, D, HD	HE	C	SH, D, HD
Website #3	—	—	—	—	—	—	—	—	—	SM, D	—	HE	—	—	A	—
Alignment of consumer engagement content on website(s)																
Level of alignment	M	M	S	S	L	L	L	M	M	L	L	M	M	L	M	L

A indicates active role overall for consumers in health and healthcare; AF4Q, Aligning Forces for Quality; C, community orientation; D, diabetes; H, healthy; — (dash symbol), not applicable; HD, heart disease; HE, health encounter; L, limited; M, moderate; S, strong; SH, shopping behaviors; SM, self-management.
^aA website is defined as having its own uniform resource locator; websites can contain multiple pages.

In addition to website content analysis, we reviewed strategies that alliances used to facilitate consumer awareness of the websites, and identified community characteristics that appeared to have influenced alliances' web-based consumer engagement efforts, based on a review of existing descriptions of 14 alliances' public reporting programs. These descriptions were developed from a systematic review of key informant interview data collected regularly between 2007 and 2011 and AF4Q initiative documents, and are described in the article by Scanlon et al in this supplement.¹⁵

Results

Attracting Consumers to Websites Through Website Positioning and Outreach Activities

Alliances used different positioning strategies to attract consumers to their websites (Table). Some alliances chose to orient their websites toward particular types of consumer behaviors, while others geared their websites directly to consumers, as a group. Core messages including terms such

as “learn,” “compare,” “act,” and “make informed decisions” suggested particular behavior types, and audience scope was indicated by the use of terms such as “everyone,” “you/your,” “family,” and “doctor.” Six alliances emphasized using their web-based performance reports to choose providers (ie, shopping behavior) and named their websites accordingly; for example, the Wisconsin Health Reports website states “Doctors. Hospitals. Clinics. Some offer better care than others” while the MyCareCompare website states: “Make informed decisions about your health care.” In total, 8 alliances used branding aimed at educating consumers about the existence of variations in quality across providers and the value of using quality data when choosing providers. Three alliances that hosted multiple websites had 1 website specifically targeting consumers. These sites encouraged consumers to take a more active role in their health and healthcare, primarily through better self-management, with taglines such as “I CAN! Challenge,” “Our Pathways to Health,” and “My Health Counts!”

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Some alliances positioned their websites more broadly. Six alliances had taglines emphasizing that all stakeholders—consumers, providers, and payers—need to work together for healthcare improvements in their communities, indicated by phrases such as “working/joining together,” “improving health/healthcare across the community/(geographic area name),” “alliance for improved health,” and “healthcare is everyone’s issue.” For example, “Better Health Greater Cleveland: an alliance for improved health” and “Working together for a healthy community.” Of these 6 alliances, 5 positioned their public reporting websites as trusted sources of information regarding the performance of the overall community healthcare system using the brand “Community Check-up.” The Puget Sound alliance initiated the Community Check-up brand, presenting its public report and website as a community educational tool that “...identifies what patients, physicians, employers, and other purchasers and health plans can do to achieve better health at a cost that more people can afford.” This brand was subsequently adopted by 4 other alliances for their public reports.

A broad community-oriented message like “Community Check-up,” in contrast to strategies that highlighted individual consumer use of data to select providers, was designed to help soften resistance to alliances’ public reporting efforts by signaling a genuine constructive, collective approach to quality improvement. Minimizing potential physician opposition to public reporting, in particular, was regarded by some alliances as especially important since their participation was vital to meeting the AF4Q initiative timelines.¹⁶

Alliances also developed a variety of outreach strategies to raise community awareness and attract consumers to their websites. All alliances worked to establish productive relationships with the local print media, which, in some cases, created a regular forum for alliances to communicate their brands and advertise their websites. For example, the Memphis alliance developed a series of newspaper articles that targeted the 4 engaged behavior types and directed consumers to visit the alliance website for more information. In general, print media in alliance communities devoted attention to initial releases of public reports since these were considered news events, but coverage declined as the release of provider performance information lost its novelty.

Many alliances also worked through local employers, physician practices, consumer advocates, and faith-based communities to raise awareness of alliance websites. In Minnesota, some employers referred their employees to the alliance website during health benefits open enrollment periods. In Wisconsin, the alliance marketed its website through

informational brochures available in physician practices. Alliances also capitalized on local interest groups to reach target audiences. For example, the Oregon alliance partnered with its state AARP chapter, leveraging its status as a trusted source of information for seniors, to develop and disseminate information through publications and events. The Kansas City alliance held a conference for faith leaders focused on treating depression, in which participants were shown how to access the measures of depression care in the alliance’s public report and educated about questions that individuals may ask their providers about depression care.

All alliances sponsored traditional events such as press conferences and community “convenings” to discuss the quality of healthcare in their communities, some of which focused on the insights provided by their public reporting efforts and how to access them. Alliances have also been exploring other forms of media that reach different audiences. The Western New York alliance worked with a local station to develop a series of television segments that addressed topics such as self-management and partnering with doctors that were shown on the air and posted on the alliance website. More recently, alliances have begun using social media strategies, including Facebook and Twitter, to raise awareness of their websites. For example, the Minnesota alliance maintains a Twitter account that promotes its public reporting website and consumer resources.

Attracting and Engaging Consumers Through Website Content and Its Alignment

Consumers are more likely to be attracted to websites if they contain relevant and meaningful information that is easy to access and navigate.^{8,9} The scope and type of information available contribute to the website’s draw and a consumer’s assessment of its utility. Likewise, website features that make it easy to identify and bring together related, germane information should facilitate a positive, productive experience for both novices and more experienced consumers.

Overall, 25 of the 32 alliance-sponsored websites contained at least some consumer engagement-related content (Table). Fourteen of those included information related to 3 or more engaged behavior types (data not shown). Of the 16 alliances, 2 had strong alignment between website messaging and consumer engagement content, 7 had moderate alignment, and 7 had limited alignment (Table). Described below is the nature of this content and its linkage to the content of alliance public reports of physician performance. We use the public performance report as the main point of reference because all alliances maintained websites with this information.

Shopping Behaviors

Prevalence of conditions and treatments was one factor influencing alliances' choice of performance measures to report, because it should help attract and improve care for more consumers. Alliance reports typically contained clinical quality measures reported at the physician group level, most commonly for diabetes care and less frequently for heart disease, asthma, and depression care.⁴ Those measures are generally derived from the Healthcare Effectiveness Data and Information Set measures. Over half of alliances now also report general measures of patient experience.

To help motivate shopping behavior, in at least 1 of their websites, every alliance explained what is meant by quality healthcare and why the quality of care might vary across providers. However, the prominence given to actual provider quality measures varied, as did the support given to consumers who were shopping for the highest quality physician or hospital. On average, consumers were able to access provider quality measures in 1 or 2 clicks from the alliance website home page, but locating instructions on how to use and interpret the information required some additional searches by users (ie, guidance provided in separate website space and/or not linked to measures through features such as hyperlinks and pop-up windows).

Most alliances made some attempt to align their other consumer engagement efforts with the content of their public reports. Eight of 16 alliances provided general guidance on how to choose providers as part of separate website sections presenting other consumer engagement content. Overall, the strongest alignment occurred among alliances that had a public report with a specific disease focus compared with those without a disease focus; the alignment was generally focused on the link between the reporting and self-management behaviors. These kinds of linkages are described in greater detail in the following sections.

Self-Management Behaviors

In 14 alliances, self-management tools or resources were directly connected to the alliance's performance measures. For example, the Cincinnati alliance's Your Health Matters website provided a list of patient behavior goals that corresponded to the posted diabetes and heart disease performance measures (the website posted blood pressure measurements in patients with diabetes by physician practice along with an explanation of the recommended number of measurements and appropriate blood pressure values in this population). The need for blood pressure measurement is explicitly referenced in the website's printable diabetes care checklist that consumers are encouraged to bring to

their physician appointments to track (and encourage) recommended care.

Three of these 14 alliances maintained separate websites for self-management and provider performance information. Consumers were required to search both websites to find the connection between the provider performance information and the self-management tools and resources relevant to those measures. One alliance, for example, maintained a separate website containing resources and self-management tools for people with chronic conditions, apart from its main website that contained provider performance data. Even though a website link was available from the main website, there was no text to indicate the conceptual connection for consumers. In contrast, the Wisconsin alliance's website presenting the provider performance measures for diabetes and heart disease care also offered self-management information for these same conditions.

Finally, web-based resources supporting self-management of major chronic illnesses predate the AF4Q initiative; they are often sponsored by specialty organizations such as the American Diabetes Association or the American Heart Association. Alliance websites linked to these organizations' websites, in addition to providing their own information about necessary treatments, self-care checklists, and treatment logs.

Healthcare Encounter Behaviors

Fifteen alliance websites provided general information about preparing for physician visits and talking with providers, emphasizing the need to develop a partnership, and included checklists for consumers to use in preparation for a physician visit. The Oregon alliance's Tips For Your Care section, for example, contained information on what to do before, during, and after an appointment.

Typically, it was difficult for consumers to connect health encounter information to provider performance data or other consumer engagement resources. For example, 6 alliance websites included general information on how to prepare for a physician visit or keep a personal health record. However, they did not explicitly link this information to additional resources about managing one's health that would be useful for their specific healthcare encounter, like information about recommended care for specific chronic conditions (eg, regular eye and foot exams for people with diabetes). Also, these 6 alliances did not link these resources for facilitating productive healthcare encounters to information about understanding healthcare quality differences among providers. Such links could help motivate consumer engagement by reinforcing reasons for being (or becoming) engaged and

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help consumers, such as the pressing need to help assure that they are receiving appropriate care, since roughly half of Americans do not.¹⁷ Likewise, links with general information about why one should take an active role in their healthcare and links with more specific information and practical tools can facilitate action by removing some obstacles.

Six alliance websites partially connected their healthcare encounter tools with performance measures and provided guidance on using comparative quality ratings when speaking with physicians. However, they did not provide links that helped consumers find specific quality measures such as recommended preventive care. Four alliances had websites that aligned this information by referencing treatment guidelines or by providing relevant health encounter tools or guidance in the quality reports themselves. For example, the Oregon alliance website included a link to an information sheet on “diabetes basics and getting quality care” on the same page as provider diabetes quality measures.

Healthy Behaviors

Alliance websites generally had limited content about engaging consumers in healthy behaviors unrelated to ongoing illness, which was not surprising, given the AF4Q initiative’s emphasis on consumers with chronic illnesses. Still, most alliance websites included some information on healthy behaviors, such as healthy eating, exercising, and smoking cessation, most often through links to guidance and tools provided by websites maintained by other entities (eg, health promotion organizations, providers, health plans). Only 2 websites helped consumers make the connections between healthy behaviors, self-management, shopping behaviors, and healthcare encounter behaviors. The Puget Sound alliance created a distinct, consumer-focused website that included general healthy behavior tools (eg, the Healthy Eating Plate from Harvard Health) available alongside its self-management and health encounter tools, fitted with its own tagline: “Campaign to empower consumers to become active participants in their health and healthcare.” On the Memphis alliance’s webpage titled Take Charge, hyperlinks to resources for healthy behavior, such as local walking trail guides and wallet-sized cards containing critical information on healthy eating, daily exercise, and the care consumers need to stay healthy, were alongside resources specific to managing chronic conditions like diabetes.

Discussion

One of the many approaches to improving consumer engagement is developing informational websites to motivate

consumers to take an active, effective role in their health and healthcare. While there is a growing body of research and expert opinion regarding the components of website quality,^{6,18-20} and efforts to rank websites based on quality,²¹ there is no evidence that websites in general can change consumer behavior in ways that ultimately improve health²² or that any particular website model is more effective than another in this respect. We examined how 16 different community alliances are using their informational websites to support consumer engagement, expanding on their initial focus, which was to supply their community with comparative provider performance information. The alliances have sought to capitalize on knowledge of their communities’ unique population characteristics, culture, and healthcare systems to develop websites for consumer engagement that may be more trusted and effective than websites maintained by national organizations.

The AF4Q initiative and the participating alliances have invested a substantial portion of their resources into the development of these websites. As discussed, alliances have adopted different kinds of website positioning (eg, consumer-focused vs community-oriented messages) and architecture (eg, number of sites, connections between sites and content). The diversity in these website approaches not only reflects local knowledge, but also a lack of evidence about which approaches and elements are effective in attracting and engaging consumers. It also reflects the different viewpoints of community stakeholders about the relative importance of offering comparative provider information (for use in selecting high-quality providers) versus supporting other types of consumer behaviors, like self-management, or focusing engagement efforts on other stakeholders, such as providers. Some community stakeholders were also uncertain about how much emphasis they should place on websites as a component of alliance consumer engagement strategies versus other more targeted efforts, like training programs in self-management of chronic illness.

The connection of consumer engagement–related information and resources within and across websites maintained by any single alliance was fairly limited, perhaps representing a missed opportunity to improve consumer engagement and quality of care for specific illnesses. However, it also underscores the time-consuming and challenging nature of putting effective website-based strategies in place to improve consumer awareness and use of health information. Alliances not only wrestled with how to best engage consumers,²³ but also how to serve their multiple constituencies generally, and the role that websites should play in this effort. For example, a common tension for alliances was how to encourage quality

improvements through consumer use of comparative performance data on alliance websites while trying to engage providers in collaborative efforts to improve quality and health. The number and positioning of alliance websites and the limited connections among consumer engagement resources discussed above may in part be a reflection of these tensions.

These issues notwithstanding, public and private entities (eg, the AF4Q alliances, Medicare and Medicaid programs, chartered value exchanges, health plans, disease interest groups) continue to devote substantial resources to creating and disseminating health and healthcare information via sponsored websites. For this reason, further research is needed that addresses the comparative value of different website approaches to improve consumer engagement. Questions that should be addressed include: Is the use of websites to serve multiple audiences limiting their effectiveness? Given the growing number of respected national websites providing similar information, do locally maintained websites truly possess a comparative advantage in engaging consumers? How can information and resources on websites be connected to more effectively support consumer engagement? Do these kinds of connections reduce (eg, get to meaningful information faster) or create obstacles (eg, provide too much information or irrelevant information) to informed decisions? Are interactive website interventions (eg, ongoing self-management support through tracking, reminders) more effective at engaging consumers than passive information provision? How can website interventions complement one another and other consumer engagement strategies, such as disease-specific support groups or broad marketing campaigns?

The AF4Q evaluation team used data from population-based consumer surveys¹⁶ combined with continued tracking of website content to provide additional insight into the use of alliance website strategies to engage consumers. However, establishing clear relationships between these local websites and increased consumer engagement is daunting due to the myriad of factors affecting the adoption and maintenance of consumer health behavior changes. Meanwhile, the use of Internet websites as repositories for information may well be overtaken by new technologies, possibly involving the use of social media, to transmit information and engage consumers in managing their health and healthcare.

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