Supplemental Information

SECTION 1: COLORADO VSM RECRUITMENT PROTOCOL

Participants were recruited for the VSM trial from September 2013 to October 2015. Pregnant women were eligible to participate in the study. Recruitment was conducted in waves. Eligible participants were identified by using the electronic medical record every 6 weeks. The following inclusion criteria were used to identify eligible patients:

- Currently pregnant with a diagnosis of pregnancy (*International Classification of Diseases, Ninth Revision, Clinical Modification* codes V22 and V23) in the obstetrics and gynecology department (outpatient) within the last 10 months;
- At least 1 diagnosis of pregnancy in the past 2 months;
- Thirteen to 6 weeks from the expected date of delivery;
- Currently enrolled in KPCO;
- At least 18 years of age or older; and
- English speaking.

Pregnant participants were identified in the third trimester of pregnancy to reduce the possibility of recruitment of women experiencing pregnancy complications or abortion decisions. We also chose a time later in pregnancy when the decisions for the expectant child were more relevant.

Using medical diagnosis codes from the electronic medical record, we identified potential participants from the eligibility list with possible pregnancy complications, including early delivery, fetal death, adoption, abortion, and genetic anomalies. Medical record reviews were conducted for each identified potential participant. Any potential participant with the following outcomes was determined ineligible for the study and was not included in recruitment:

1. Fetal death;
2. Miscarriage;
3. Plans for adoption;
4. Fetal genetic malformation; and
5. Social issues (such as abuse).

Recruitment Methods

Potential participants were contacted in a multistep process by mail, e-mail, and phone by using a modification of the Dillman method.[39,40] Each form of contact has the objective of informing potential participants about the study, inviting them to participate, and providing instructions about how to enroll in the study or how to decline participation in the study. They were contacted via mail, e-mail, phone, and text messages. To reinforce recruitment, posters and postcards describing the study were available in all obstetrics and gynecology and pediatrics departments at KPCO.

Participants were enrolled in the study by using an online consenting process. In the recruitment materials, participants were provided a link to the study Web site. Once on the study Web site, enrollment in the study occurred in a 5-step process: identity verification, eligibility determination, consent, user account creation, and survey completion.

Online Enrollment Steps

Enrollment Step 1: Identity Verification

The study enrollment page prompted each participant to enter his or her last name and the last 4 digits of his or her Kaiser Permanente medical record number. This information was matched to an unidentifiable combination of these letters and numbers and was used to verify the identity of the participant. This process removed the need for identifiable patient information to be stored on the Web site while providing an opportunity to verify participants' identities.

Enrollment Step 2: Eligibility Determination

After identity verification, participants were asked to confirm eligibility. Eligibility requirements included being 18 years of age or older and planning to use a Kaiser provider for the child's medical care.

Enrollment Step 3: Consent

Participants determined to be eligible in Step 2 were provided the study consent form online. They were asked to read and agree to the terms described in the consent form. They were also provided with the study team's contact information (phone and e-mail) to address any questions.

Enrollment Step 4: Create a User Account

Participants who selected, "I agree to the terms of the consent" in Step 3 consented to the study and were asked to create a user account for the Web site. The user account required an e-mail, username, and password. A unique study ID for each individual

SUPPLEMENTAL TABLE 5 Section 2: Colorado VSM Study Content Mapping to Theoretic Constructs

Colorado VSM Web Site Content	Health Belief Model					Theory of Planned Behavior		
	Perceived Susceptibility	Perceived Severity	Perceived Benefits	Perceived Barriers	Self-efficacy	Attitude	Subjective Norm	Perceived Control
Vaccine-preventable diseases	x	x	x	—	—	x	—	—
Vaccine safety	x	x	—	x	—	x	—	—
Vaccine laws	—	—	—	—	x	x	x	x
Recommended vaccine schedule	—	—	—	—	x	—	x	x
Vaccine visit information	—	—	—	—	x	—	—	x
Vaccine ingredients	x	—	—	x	—	x	—	x
Vaccine development	—	—	x	—	—	x	—	x
Basic immunology	x	x	x	—	—	x	—	—
Discussion forum[a]	—	—	—	—	x	—	x	x
Blog[a]	—	—	—	—	x	—	x	x
Chat[a]	—	—	—	—	x	—	x	x
Ask a question[a]	—	—	—	—	x	—	—	x

x, theoretic construct applies to the content area; —, not applicable.

[a] The social interaction addressed theoretical constructs specific to each individual question. However, the goal of the social interaction was to empower participants.

was linked to the user account information.

Enrollment Step 5: Survey Completion

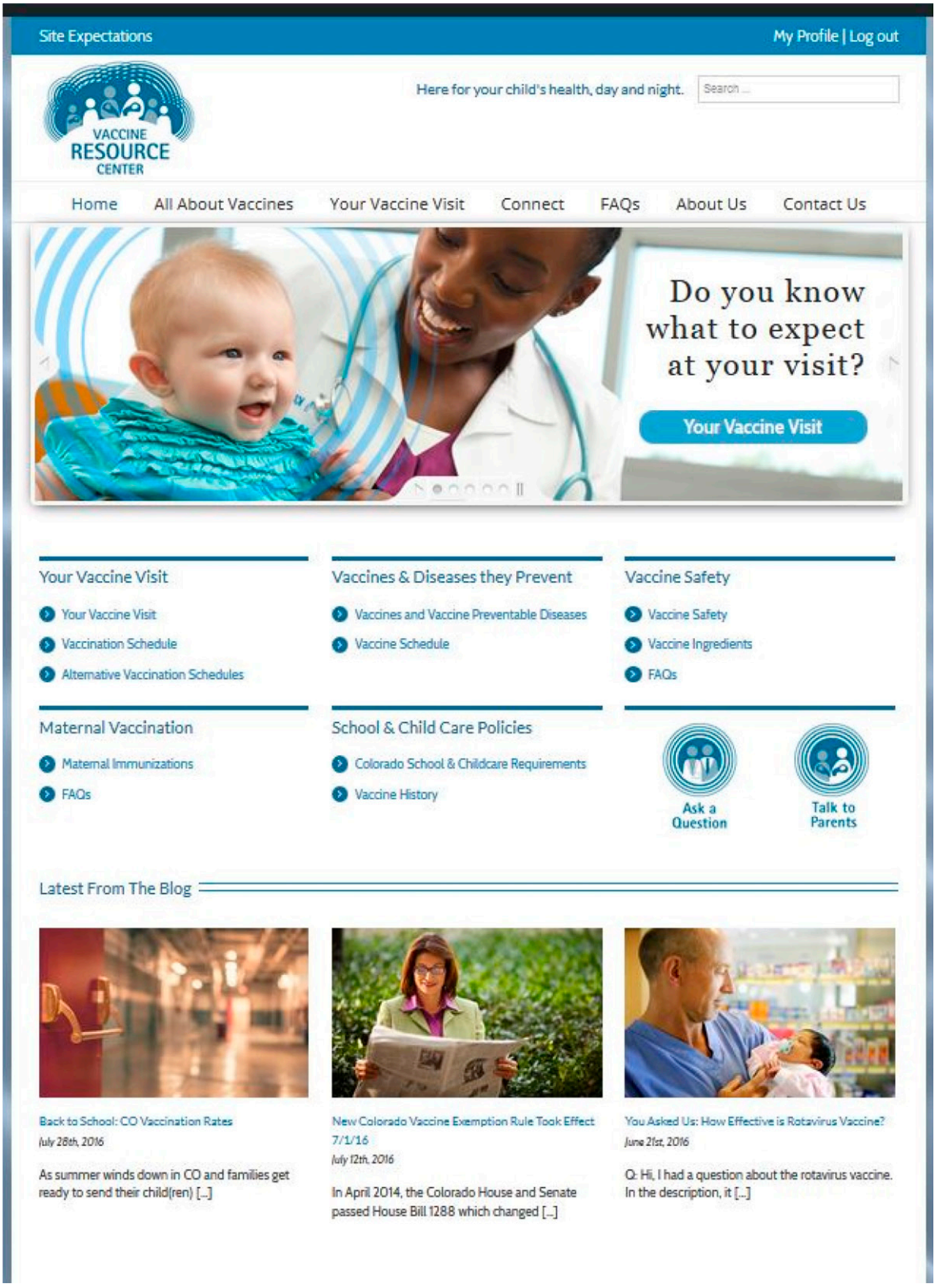
After creating a user account, participants were asked to complete a survey. At survey completion, participants were randomly assigned into a study arm and enrolled in the study.

Each participant received a $20 gift card for completing the survey and enrolling in the study.

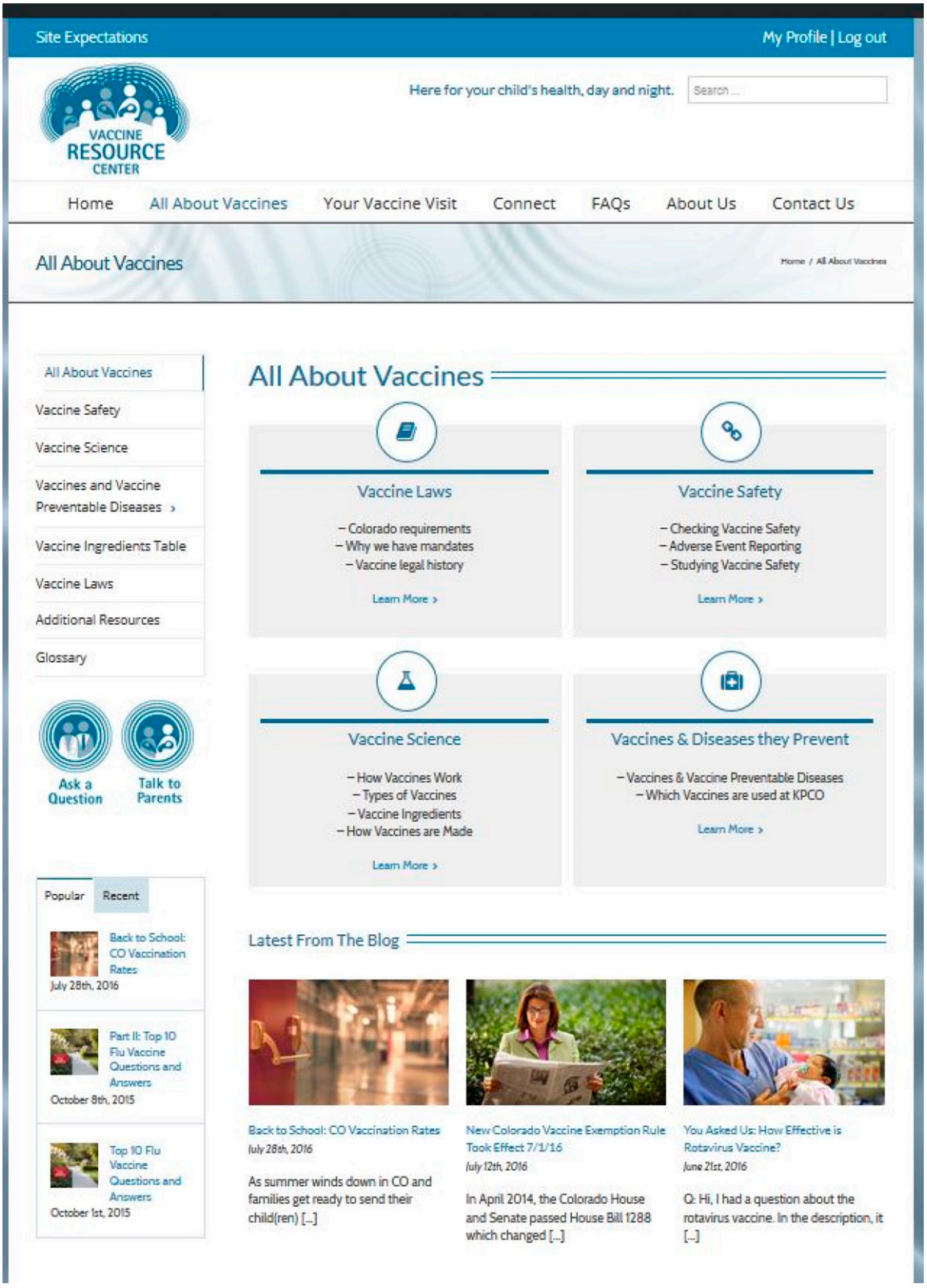
SUPPLEMENTAL TABLE 6 Theoretical Construct Definitions

Health Belief Model	Definition
Perceived susceptibility of vaccine-preventable disease and adverse events	Parents' beliefs about whether their children are at risk for vaccine-preventable disease and adverse events
Perceived severity of vaccine-preventable diseases and adverse events	Parents' opinions regarding the seriousness of vaccine-preventable disease and adverse events
Perceived benefits of vaccinating	Parents' perception of effectiveness of vaccines
Perceived barriers to vaccinating	Parents' perception of physical and psychological costs of vaccination
Vaccinating self-efficacy	Parents' belief in their ability to overcome barriers to vaccination
Theory of Planned Behavior	
Attitudes about vaccinating	Parents' positive or negative feelings about vaccinating when considering the potential outcomes to vaccinating
Subjective norms about vaccinating	Parents' beliefs that others do or do not vaccinate or motivations to comply with societal expectations
Perceived control about vaccinating decision	Parents' perceived ease or difficulty to vaccinate and how much control they have over the act of vaccination

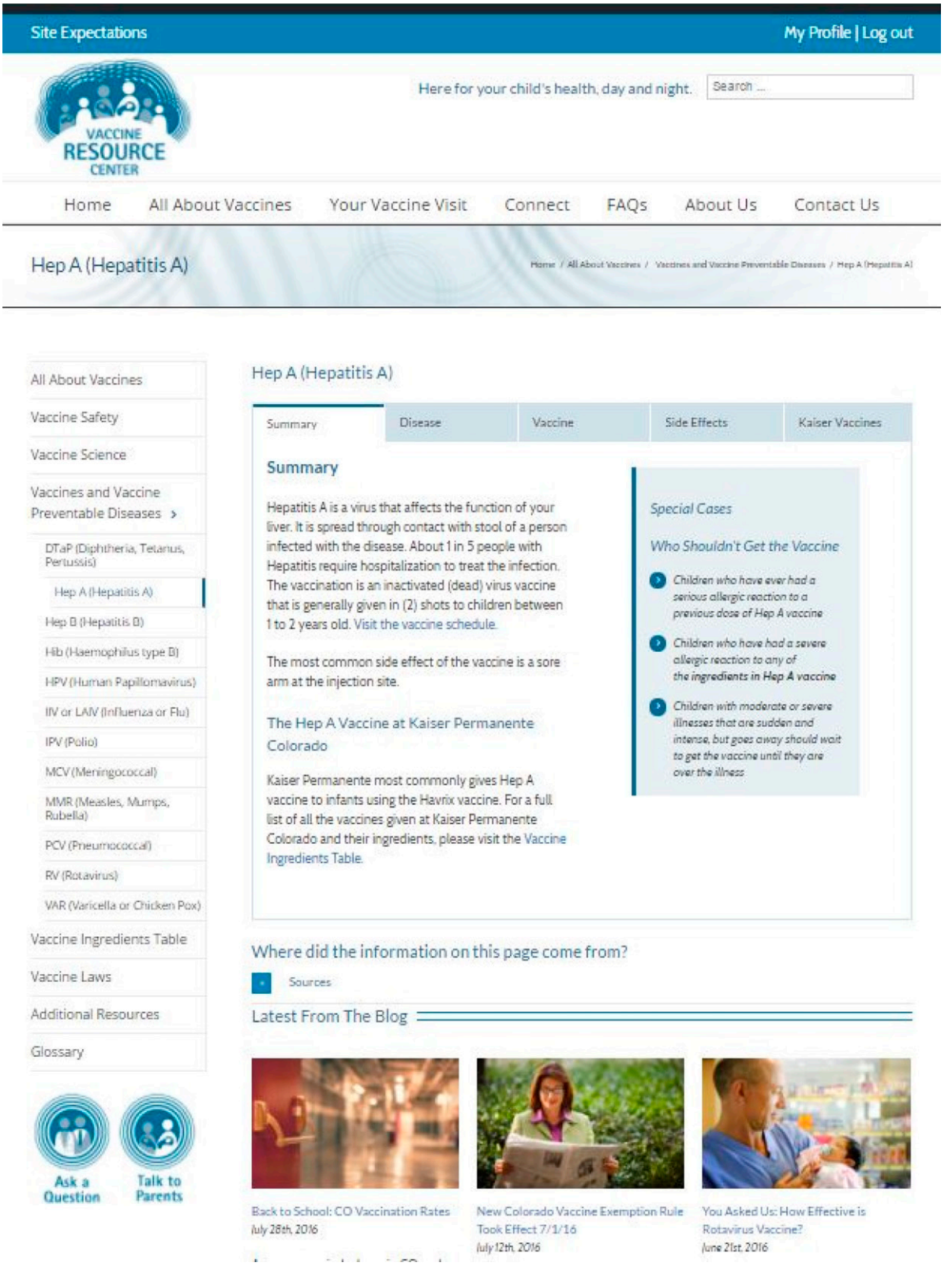
SECTION 3: WEB SITE VISUALS



SUPPLEMENTAL FIGURE 2
Colorado VSM study Web site visuals from September 2013 to December 2016. Home page.

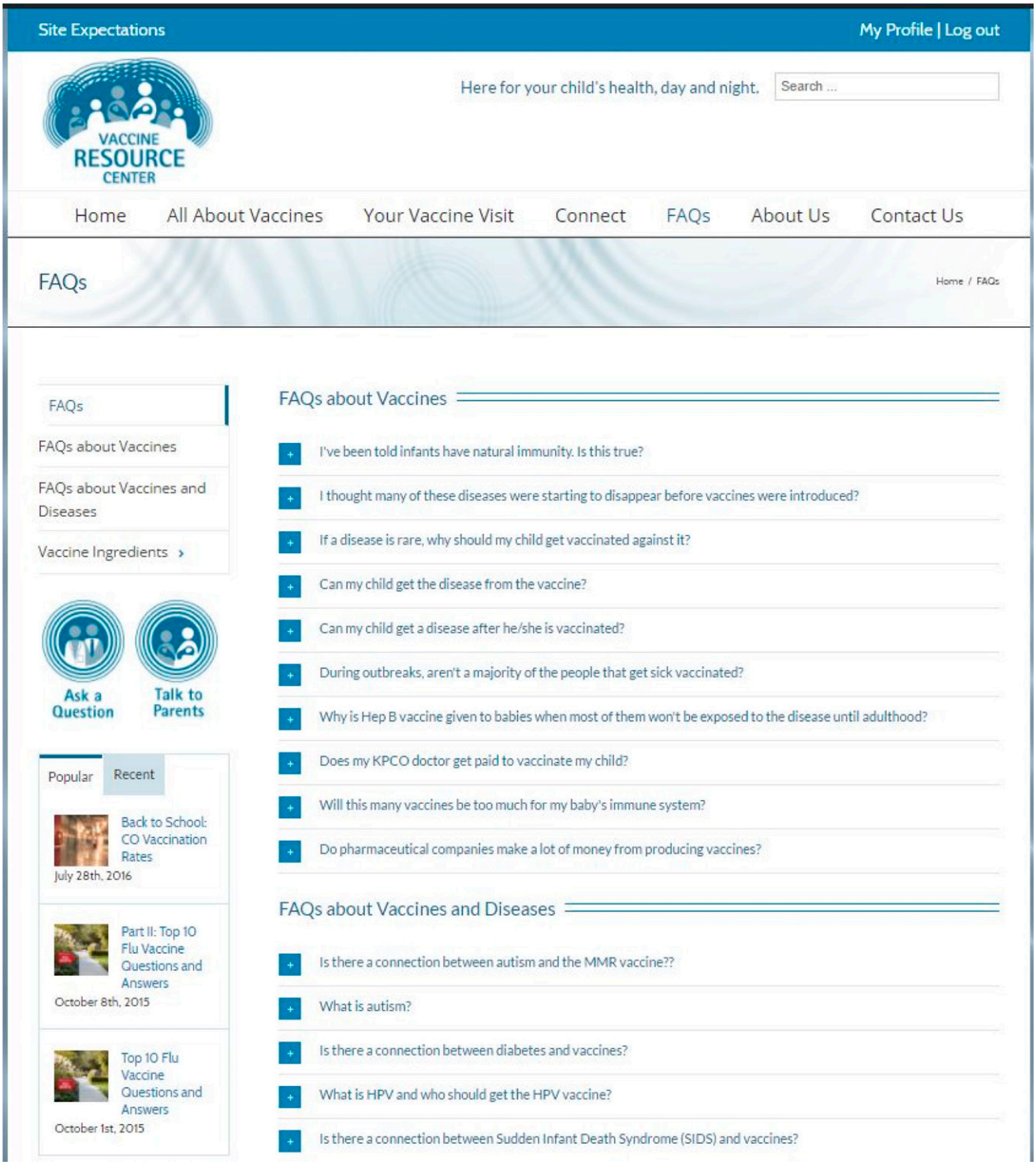


SUPPLEMENTAL FIGURE 3
Colorado VSM study Web site visuals from September 2013 to December 2016. Content page: Navigation.

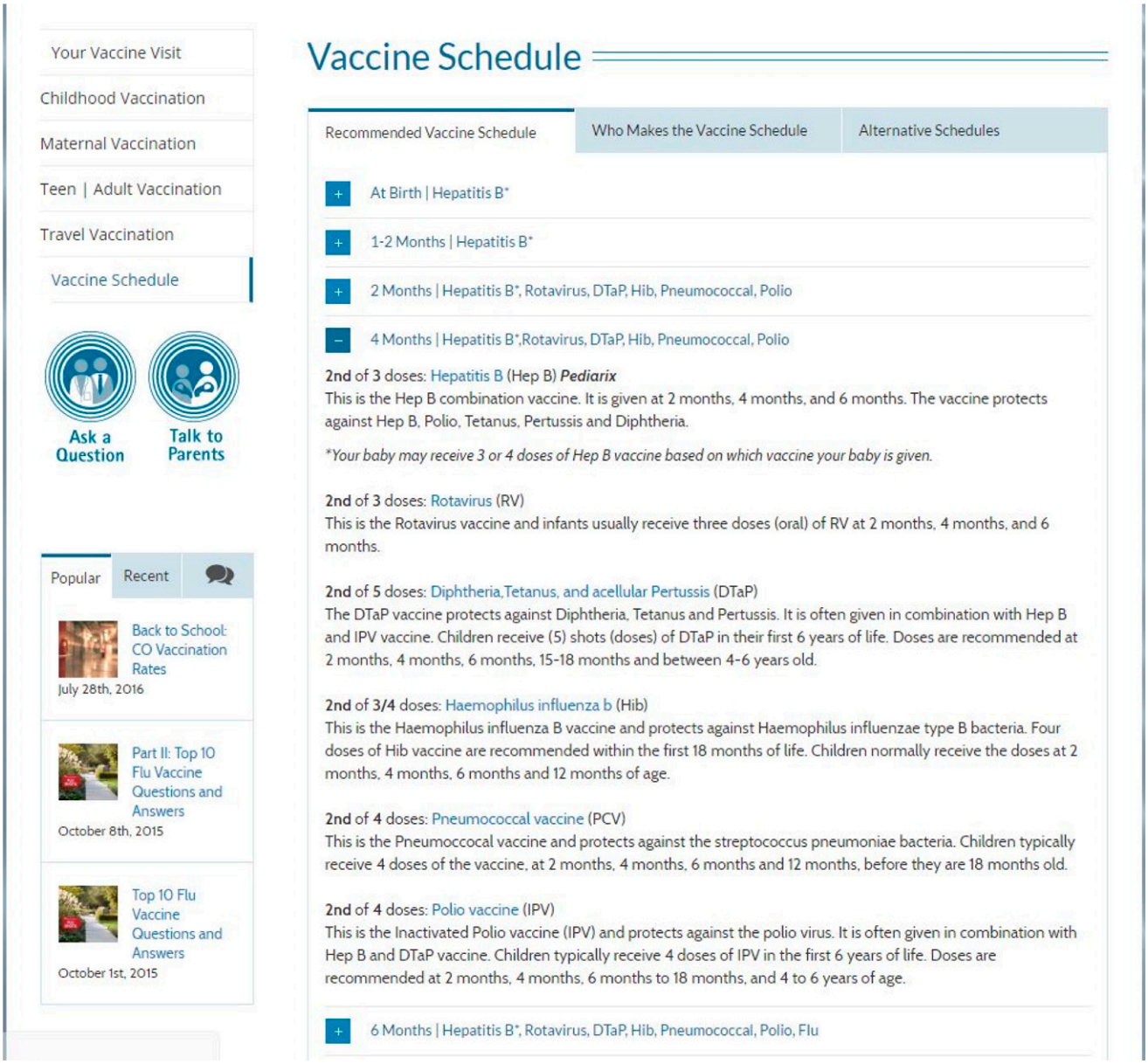


SUPPLEMENTAL FIGURE 4
Colorado VSM study Web site visuals from September 2013 to December 2016. Content page: Vaccines and vaccine preventable diseases (hepatitis A).

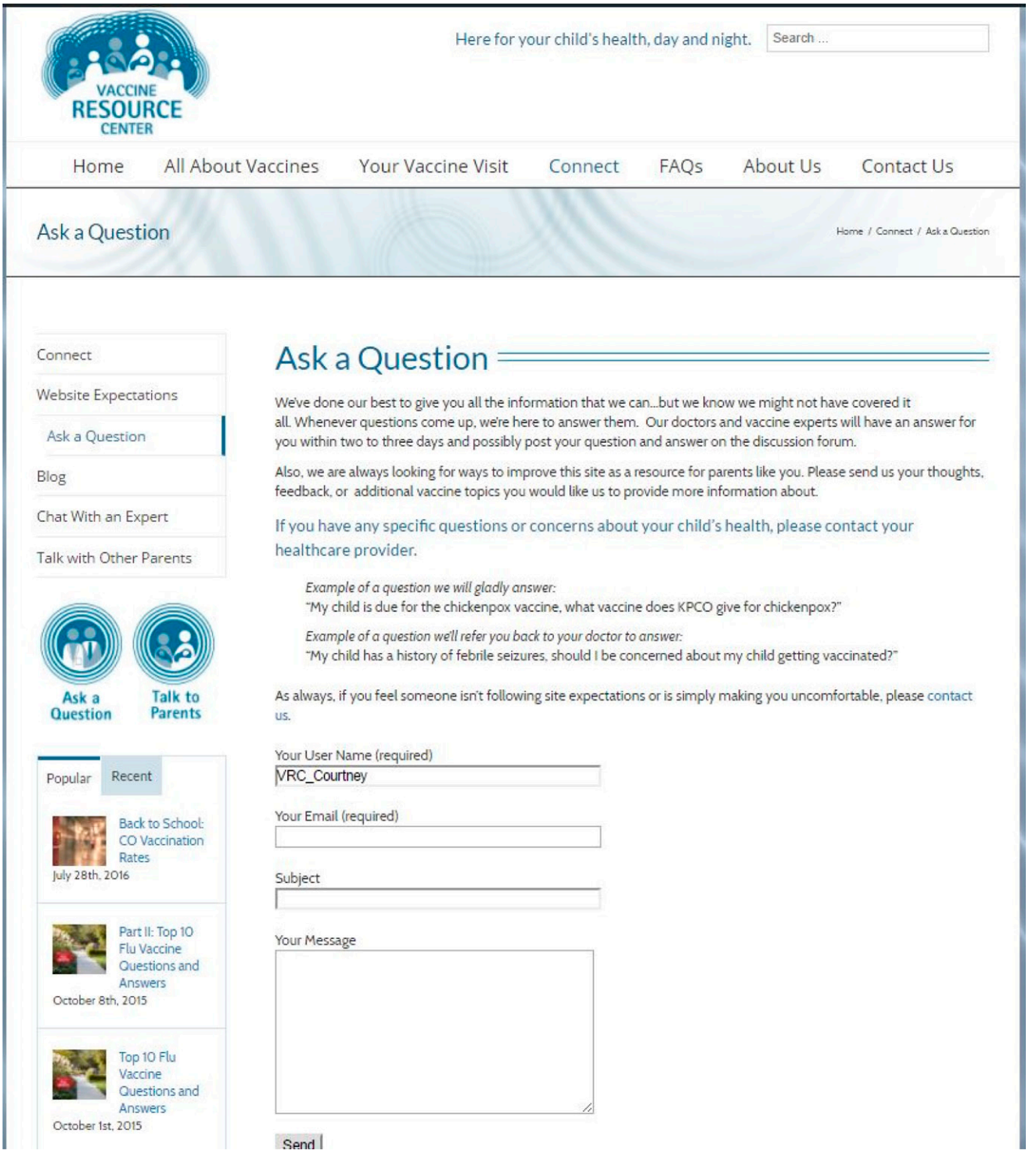
SUPPLEMENTAL FIGURE 5
Colorado VSM study Web site visuals from September 2013 to December 2016. Content page: Vaccine visit information.



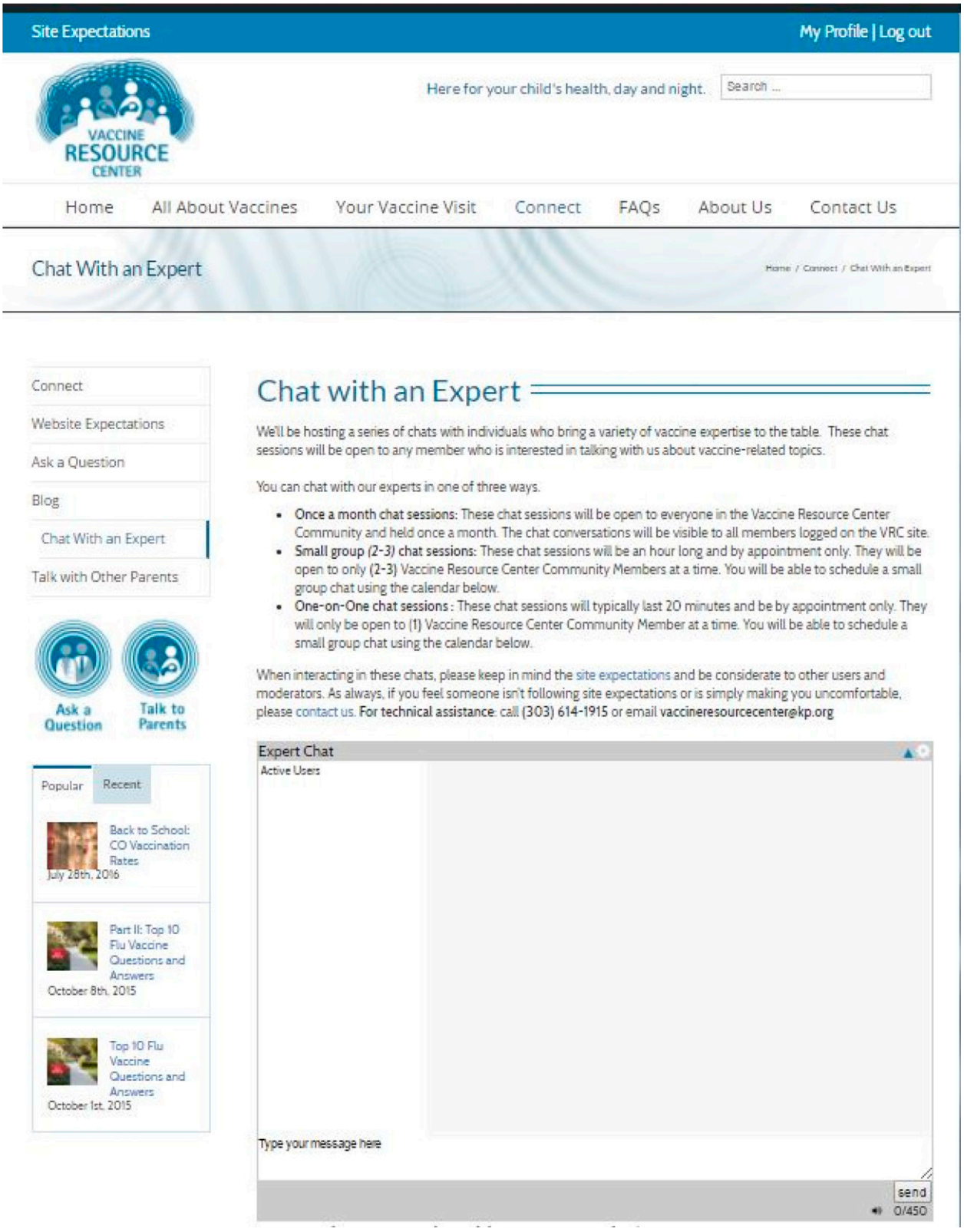
SUPPLEMENTAL FIGURE 6
Colorado VSM study Web site visuals from September 2013 to December 2016. Content page: Frequently asked questions.



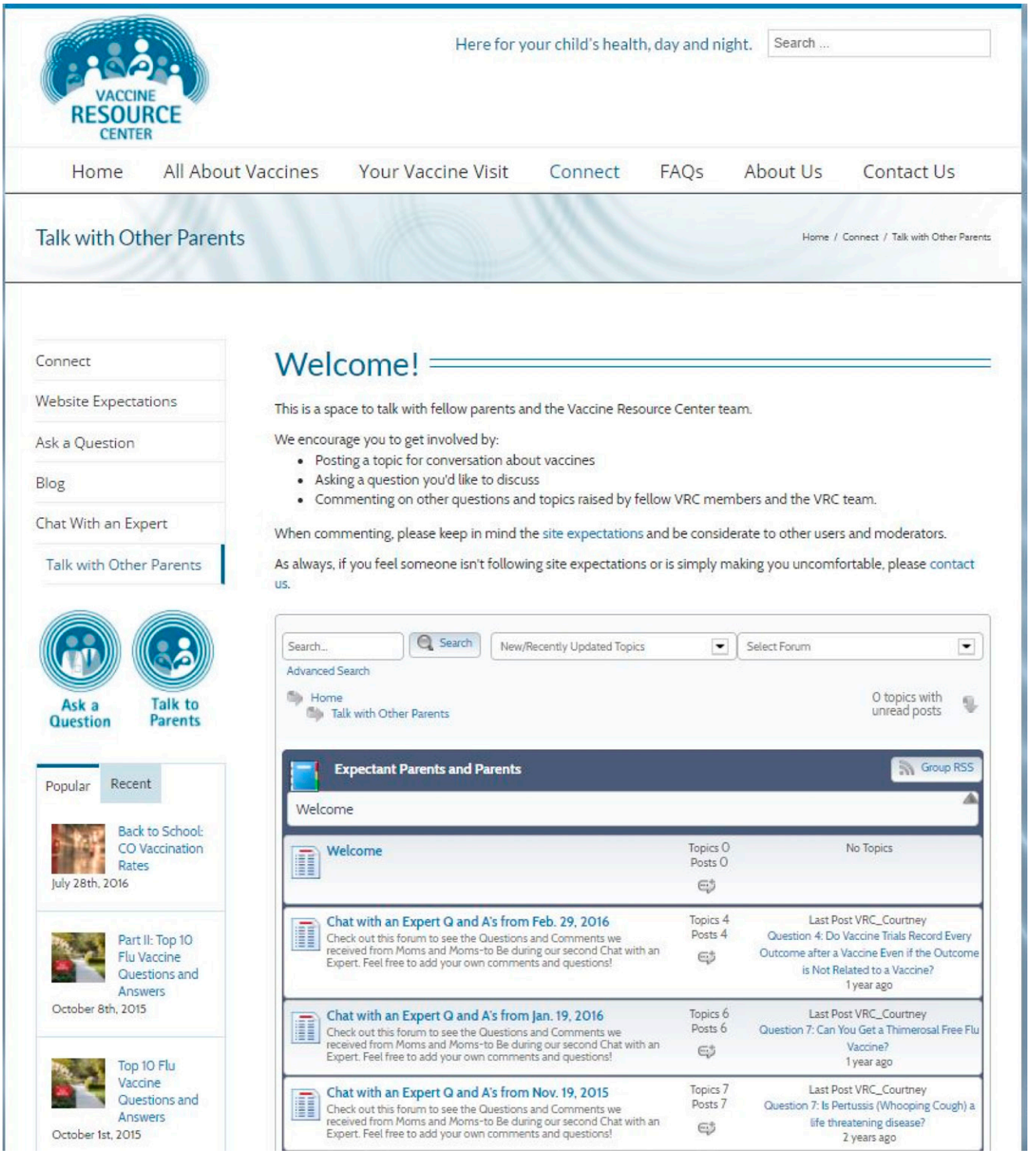
SUPPLEMENTAL FIGURE 7
Colorado VSM study Web site visuals from September 2013 to December 2016. Content page: Childhood vaccine schedule.



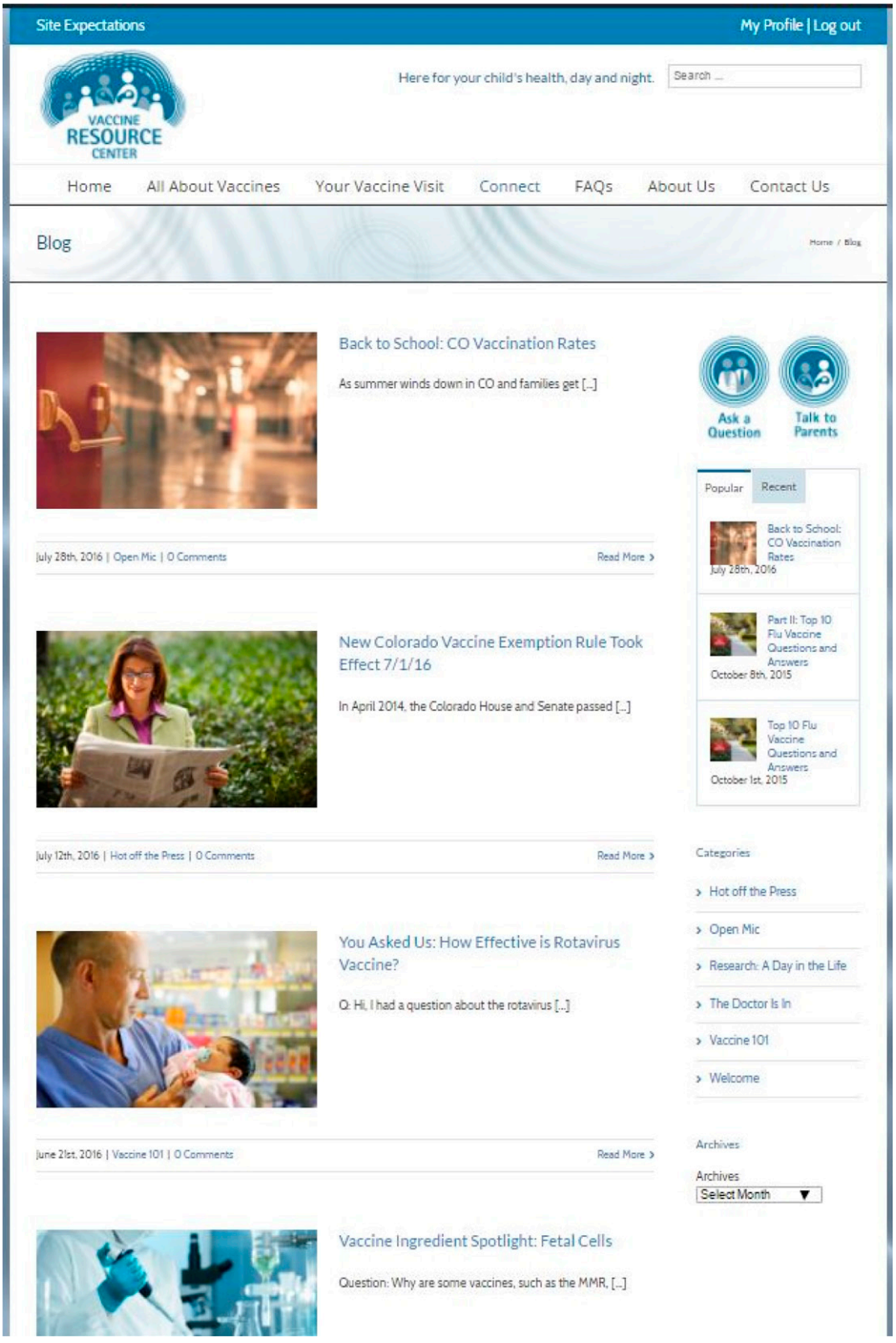
SUPPLEMENTAL FIGURE 8
Colorado VSM study Web site visuals from September 2013 to December 2016. Interactive page: Ask a question.



SUPPLEMENTAL FIGURE 9
Colorado VSM study Web site visuals from September 2013 to December 2016. Interactive page: Chat with an expert.



SUPPLEMENTAL FIGURE 10
Colorado VSM study Web site visuals from September 2013 to December 2016. Interactive page: Discussion forum.



SUPPLEMENTAL FIGURE 11
Colorado VSM study Web site visuals from September 2013 to December 2016. Interactive page: Blog.

SUPPLEMENTAL TABLE 7 Section 4: Hoffman's Template for Intervention Description and Replication (TIDieR) Checklist

Item Number	Item	Where Located	
		Primary Article (Page or Appendix Number)	Other (Details)
1	Brief name: Provide the name or a phrase that describes the intervention.	Pages 1 and 2	—
2	Why: Describe any rationale, theory, or goal of the elements essential to the intervention.	Page 3	Supplement, section 2
3	What materials: Describe any physical or informational materials used in the intervention, including those provided to participants or used in the intervention delivery or in the training of intervention providers. Provide information on where the materials can be accessed (such as online appendix or URL).	Pages 2 and 3	Supplement, section 3
4	What procedures: Describe each of the procedure's activities and/or processes used in the intervention, including any enabling or support activities.	Pages 2 and 3	—
5	Who provided: For each category of intervention provider (such as psychologist or nursing assistant), describe their expertise, background, and any specific training given.	Page 3	—
6	How: Describe the modes of delivery (such as face to face or by some other mechanism, such as Internet or telephone) of the intervention and whether it was provided individually or in a group.	Pages 2 and 3	—
7	Where: Describe the type(s) of location(s) where the intervention occurred, including ay necessary infrastructure or relevant features.	Pages 2 and 3	—
8	When and how much: Describe the number of times the intervention was delivered and over what period of time, including the number of sessions, their schedule, and their duration, intensity, or dose.	Pages 2–4	—
9	Tailoring: If the intervention was planned to be personalized, titrated, or adapted, then describe what, why, when, and how.	Page 3	—
10	Modifications: If the intervention was modified during the course of the study, describe the changes (what, why, when, and how).	—	—
11	How well, planned: If the intervention adherence of fidelity was assessed, describe how, by whom, and if any strategies were used to maintain or improve fidelity; describe them.	Page 3	Supplement, section 4
12	How well, actual: If intervention adherence or fidelity was assessed, describe the extent to which the intervention was delivered as planned.	Page 4	—

—, not applicable.

SECTION 5: WEB SITE MODERATION PROTOCOL

Vaccine Resource Center

Social Media Monitoring Protocol for Web Site Activity: April 19, 2013

I. Overview

Staff and researchers associated with the Vaccine Resource Center Research Study will adhere to the guidelines herein while engaging with research participants and providers in the social media platforms on the Vaccine Resource Center Web site.

An important element of monitoring the site will be responsiveness; even if we can't get out a full-fledged response in our given time frame, we need to at least acknowledge the response and let the participants know we see them and will be in touch with them.

Mission

"The Vaccine Resource Center is dedicated to acting as a trusted and valuable resource for current and expecting parents. Designed with input from parents and physicians like you, the website aims to evolve with the needs of primary vaccine decision makers."

What You Can Expect

- Accurate, up-to-date information;
- A dedicated staff of experts who are ready to answer any vaccine-related questions; and
- A space to exchange thoughts and ideas about vaccines with other parents.

Goals and Objectives of Monitoring

1. We want to be alerted to both positive and negative comments made regarding vaccination, vaccines, and the medical and health community;
2. We want to respond thoughtfully and accurately to questions and inquiries made by our participants;
3. We want to respond to comments made by participants that are inaccurate or misleading;
4. We want to actively engage with our participant communities' needs and provide content they are interested in seeing; and
5. We want to track the trends or themes that emerge around vaccination to ensure we are staying current and fresh.

II. Usage Policy

The Vaccine Resource Center Comment Moderation Policy will be implemented as follows to maintain a safe and open online forum:

1. Automatic filtering system: There will be a Web site tool in place that will capture posts containing words found on a predesignated list. These posts should not appear on the Web site. The Vaccine Resource Center team will review these posts and contact the user author of the post to let him or her know the post has been filtered out because it is in violation of Web site guidelines;
2. Vaccine Resource Center Team review of comments: (see box for definition of review) The Vaccine Resource Center Team will review posted comments on an ongoing basis during weekdays from 9 AM to 5 PM; and
3. User-generated review: Users will be encouraged to contact the Vaccine Resource Center team if they see comments or posts they believe to be in violation of the Web site guidelines.
4. Moderate: To accept or reject user-generated comments before they are posted on the basis of predetermined policies and guidelines.
5. Review: To allow or delete user-generated comments after they are posted on the basis of predetermined policies and guidelines.
6. Monitor: To observe user-generated comments for the purpose of gaining insights for the organization and identifying opportunities for response.

Below is a copy of the Commenting Expectations and Guidelines that will be posted on the Vaccine Resource Center Web site and shared in a pdf document via e-mail with new site registrants.

Vaccine Resource Center: Commenting Expectations and Guidelines (as Printed on the Web Site and in the Study Consent Form)

Our goal is for this site to be a safe space to discuss a wide range of topics and questions that parents come across while making vaccination decisions for their children. We encourage you to share your thoughts as they relate to the topic being discussed. We believe this site should be a safe community space, and we will review and moderate comments according to the guidelines below. The following guidelines refer to comments users post on the Web site, and we reserve the right to remove posts that do not follow our policy.

Please do

- Treat others with respect;
- Keep your posts relevant and civil;
- Share information or questions you have on a topic;

- Feel comfortable expressing your views even if they are not the same as other commenters; and
- Make the Vaccine Resource Center staff aware of any comments that you find offensive or detracts from the goal of safe and open discussion.

Please do not

- Post false comments about a person or organization. False comments can damage the reputation of a person or organization;
- Post messages that use harassing, false, abusive, threatening, harmful, bad (curse words), sexually oriented, homophobic, or racially offensive language;
- Use spamming or flooding. Don't repost the same message or similar messages more than once; and
- Use personal information. Although our Web site is restricted to people participating in this project and the Web site is not available to the general public, we ask that you not publicize your or anyone else's (including your Kaiser Permanente provider's) contact details, including address, place of employment, name of educational establishment, telephone or mobile number, e-mail address, etc. This is for your own safety and that of everyone who uses this service.

Maintaining a Safe and Open Online Forum

To maintain a safe and open forum for conversation, we will remove comments that:

- Contain sexually oriented, inappropriate, or bad (curse words) language;
- Contain threats or false statements;
- Contain hate speech directed at race, color, sex, sexual orientation, national origin, ethnicity, age, religion, or disability; or
- Promote or endorse services or products (note that noncommercial links that are relevant to the topic or another comment are acceptable.); and
- Contain personal information, including your or anyone else's (including your Kaiser Permanente provider's) contact details, including address, place of employment, name of educational establishment, telephone or mobile number, e-mail address, etc.

We will monitor future posts from any person who violates these expectations. If the behavior continues, this may lead to temporary or permanent suspension of your ability to post on the Web site. If this occurs, the participant will continue to have access to the Web site information. Any threats made on the Web site to oneself or others will result in immediate removal of access to the Web site.

Comments or posts to the Web site will be held for review if they contain any key words that we have deemed inappropriate. These posts will be reviewed by Vaccine Resource Center staff before being posted to the Web site. Comments that do not contain any key words will automatically post to the site. Users will always have the ability to report a comment for review by a Vaccine Resource Center moderator if they believe the content of the comment violates the Web site expectations detailed above.

Reporting a Comment

You have the right to report a comment for Vaccine Resource Center moderator review. Please think carefully about what you choose to report, and do not misuse the reporting system. It exists to help users tell the moderators about content that breaks the above rules. Please do not use the reporting system to tell us about multiple postings, spelling mistakes, or an opinion that simply differs from your own. Anyone who misuses the reporting system repeatedly may have his or her account suspended.

Disclaimer About Individual Medical Advice

The Vaccine Resource Center will be able to answer general vaccination questions, but you should refer to your doctor to answer specific questions about your child. The Vaccine Resource Center does not have all the information necessary to give specific medical advice about your child. If a specific question is asked, we will refer you back to your physician. Likewise, if you are experiencing any health-related issues with your child, please contact your health care provider immediately.

Example of Question the Vaccine Resource Center can Answer

"My child is due for the chicken pox vaccine. What vaccine does Kaiser Permanente give for chicken pox?"

Example of Question for Which We Would Refer You Back to Your Doctor

"My child has a history of febrile seizures, should I be concerned about my child getting vaccinated?"

Legal Requirement to Report

If a participant suggests or threatens harm to oneself, other study participants, study personnel, Kaiser Permanente employees, or others, the research staff will report the threat to appropriate authorities.

Copyright

Copyrighted and other proprietary material should not be posted

or submitted in any form unless permission to do so is clearly indicated. By participating in the Vaccine Resource Center Web site study, all of your posted comments or other work can only be used by the research team for study purposes. For example, we may choose to display your comments in a research article or presentation. However, your identity will never be displayed or linked to your comments.

Moderation Times

We recognize that the Internet is a medium unbound by regular business hours, and your comments are welcome at any time. However, given staff resources, Vaccine Resource Center reviewing and posting of comments will occur during regular business hours (9 AM–5 PM) Monday through Friday. Comments submitted at other times will be reviewed and posted as soon as possible the next business day.

Privacy

To protect your privacy, please do not include personal information for yourself, your family, or your Kaiser Permanente providers (eg, names, e-mail address, or phone number) in the text of your comment that identifies you.

Additional guidance as to how the Vaccine Resource Center regards privacy issues can be found within our Privacy and Security Notice.

Thank you for taking the time to read this comment policy. We encourage your participation in our discussion and look forward to an active exchange of ideas.

Social Media Tools

Blog

Blog entries will be posted by the Vaccine Resource Center research staff. Blog topics will cover vaccine effectiveness, vaccine safety, new vaccine research studies, changes in immunization recommendations, alternative vaccine schedules, and other timely topics. It will feature an interactive format in which participants can post comments on the latest blog entry. Blog topics will be searchable through the Web site's search engine and through topic category.

Discussion Board

A forum in which participants can discuss any vaccine-related topic through posted messages will be present. Topics (threads) can be started by participants or research staff. The board will be moderated by the research staff. Threads will also be searchable through the Web site's search engine.

Ask a Question

For participants who are not comfortable communicating in the chat room or on discussion boards, we will provide a mechanism by which they can privately submit questions. Our goal will be to answer these questions within a 24-hour period or the next business day. The Vaccine Resource Center team member responsible for responding to questions will never give patient-specific medical advice. The Vaccine Resource Center team member gives the users information so they are better informed when they next meet with their health care team or helps them understand complex information.

Chat With an Expert

A number of different vaccine-related experts will lead 1-hour live discussions each week. Participants will be able to login to the Web site and ask the experts any vaccine-related question. We will poll participants during the first 6 months of recruitment to determine the time and day of the chat sessions. The expert will never give patient-specific medical advice. The expert gives the users information so they are better informed when they next meet with their health care team or helps them understand complex information.

III. Tracking

There are a number of social media tools the Vaccine Resource Center is using to interact with expecting mothers about vaccination. The tools are listed below with a brief explanation of their intended usage and general monitoring schedule.

Blog

Blog entries will be posted by the research staff. Blog topics will cover vaccine effectiveness, vaccine safety, new vaccine research studies, changes in immunization recommendations, alternative vaccine schedules, and other timely topics. It will feature an interactive format in which participants can post comments on the latest blog entry. Blog topics will be searchable through the Web site's search engine. The blog will be monitored each weekday between 9 AM and 5 PM at least twice a day.

Discussion Board

A forum in which participants can discuss any vaccine-related topic through posted messages will be present. Topics (threads) can be started by participants or research staff. The board will be moderated by the research staff. Threads will also be searchable through the Web site's search engine. The discussion board will be monitored each weekday between 9 AM and 5 PM at least twice a day.

Ask a Question

For participants who are not comfortable communicating in the

chat room or on discussion boards, we will provide a mechanism by which they can privately submit questions. Our goal will be to answer these questions within a 24-hour period or the next business day. Ask a Question will be monitored each weekday between 9 AM and 5 PM at least twice a day.

Chat With an Expert

A number of different vaccine-related experts will lead 1-hour live discussions each week. Participants will be able to login to the Web site and ask the experts any vaccine-related question. We will poll participants during the first 6 months of recruitment to determine the time and day of the chat sessions. The expert will never give patient-specific medical advice. The expert gives the users information so they are better informed when they next meet with their health care team or helps them understand complex information. Chat with an Expert will be monitored weekly on the basis of the scheduling of the 1-hour live discussion.

In addition to the social media components, there are a number of statistics and user information we will be monitoring over the course of the project. The tools to track this information are listed below.

Tracking Schedule

The Vaccine Resource Center Web site will be monitored by research staff members Monday through Friday between the hours of 9 AM and 5 PM. Participants will be made aware that the Web site will not be actively monitored on weeknights after 5 PM and on weekends and to expect some delay in response during those time periods. They will be encouraged to report any uncomfortable or negative commentary made or actions during these hours to our Report Conduct area on the site.

SUPPLEMENTAL TABLE 8 Monitoring Shifts

	Morning	Afternoon	Late Afternoon
Blog	Checked for new activity Respond to comments Answer questions	Checked for new activity Respond to comments Answer questions	Checked for new activity Respond to comments Answer questions
Discussion board	Checked for new activity Respond to comments	Checked for new activity Respond to comments	Checked for new activity Respond to comments
Ask a question	Checked for new activity	Checked for new activity	Checked for new activity

IV. Proactive and Reactive Activities

There are 2 types of communication we will engage in with participants of the Vaccine Resource Center research study: proactive (new content announcements, new blog entries, updates and reminders; and changes in expert chat schedule) and reactive (acknowledge and/or respond to an issue or concern, respond to a complaint, respond to questions and inquiries, post factual information when inaccurate or misleading information has been posted, direct a participant to the best resource, inform participants that they're in violation of our policies, inform participants that they will be put on restricted usage, and inform participants that they are no longer welcome).

V. Engagement Guidelines

Engagement guidelines can be broken down into 3 categories: classification, engagement process, and engagement response qualities.

Classification

Classifying user-generated content into general categories will help social media staff determine how to manage comments, whether to engage online, and how to craft responses. Depending on the comment control features of a particular social media channel, the team will manage content in 1 of 3 ways:

- Moderate: accept or reject user-generated comments before they are posted on the basis of predetermined policies and guidelines;
- Review: allow or delete user-generated comments after they are posted on the basis of predetermined policies and guidelines; or
- Monitor: observe user-generated comments for the purpose of gaining insights for the organization and identifying opportunities for response.

Level Green Content

Content generally does not warrant a response or seem to be looking for a response. They will post to the Web site immediately without approval. This includes compliments and thanks.

Level Blue Content

Content is immediately posted to the Web site without approval and does not necessarily need to be removed from the site; it may require response. This includes off-topic comments (not related to vaccination) and individual Web site or study requests (eg, participant asks for help in posting to a forum, logging in, etc.).

Level Yellow Content

Content is immediately posted to the Web site without approval and requires a response from the research staff. This includes complaints or problems, inaccurate information, questions or direct inquiries, and comments or questions

that relate to a participant's personal health or infant's health.

Level Orange Content: May Be Reported to Institutional Review Board as Adverse Events

Content is immediately posted to the Web site without approval and needs to be removed from Web site. This includes language that is bullying in tone (reportable), violent language (reportable), personal identifying information (name, contact information, or child's name; not reportable), and spamming or flooding (not reportable).

Level Red Content: Reported to Institutional Review Board as Adverse Events

Content immediately violates Web site policy and is filtered through security, reviewed by research staff, deemed inappropriate, and in most cases, will never appear on the site. This includes bad language and obscenities and names of Kaiser Permanente doctors.

Level Purple Content: Report to Institutional Review Board Immediately and Contact Designated Study Team Members

Content is immediately posted to the Web site without approval and needs to be removed from Web site. This includes language that is threatening to other participants, the research team, oneself, or Kaiser Permanente staff.

Engagement Response Qualities:

All responses and feedback to our participants should follow these style guidelines:

- Transparency: Initial responses should disclose that you are a member of the Vaccine Resource Center Team;
- Tone: Responses should be written in a friendly manner that demonstrates respect for the participant as well as other members of the Vaccine Resource Center community. Do not engage participants in an argumentative tone if you do not agree with what they have posted;
- Linking: If relevant, provide page links to the area of the site where a respondent can find more information on a topic;
- Accuracy: Responses should be double-checked for misspellings and broken hyperlinks. Additionally, content accuracy is of utmost importance, so before answering any question, double-check with the appropriate staff member or expert; and
- Cite: Cite your sources of information when answering factual questions.

Here are steps for engaging with participant posts:

1. Carefully read the contents of a comment to determine which kind of comment category it falls under;
2. Based on content, choose an appropriate response on the basis of the classification system above;
3. Who responds: All Vaccine Resource Center staff are responsible for taking part in the weekday (9 AM–5 PM) monitoring of the interactive components on the Web site. Vaccine Resource Center staff members will respond to participant comments, questions, and posts through a number of methods, which will be dependent on the category level of the post detailed in the chart above; and
4. Before posting a response, double-check to make sure it fits the following comment rules:
   a. Did you disclose that you are a member of Vaccine Resource Center team?
   b. Did you respond in a positive and respectful manner? Have another team member read your post if you are at all concerned about the content tone.
   c. Did you link to site information that would help correct the information posted if the classification called for it? Did you check the link to make sure it works?
   d. Did you double-check for spelling and grammatical mistakes? Did you get feedback from the appropriate content expert on this topic?
   e. Did you cite your sources if you provided unoriginal content?

SUPPLEMENTAL TABLE 9 Engagement Process

Category, Level	What to Say	What to Do	Who Responds
Green Neutral or benign comments	Express thanks as appropriate	User content posts immediately without approval, is simply monitored, and left alone	Any research staff member responsible for content monitoring
Blue Individual Web site or study requests Off-topic remarks	Send a standard response to user; inform them that the comments are appreciated but best left to a different venue	User content posts immediately without approval, is reviewed and rejected by staff on a case-by-case basis, requires direct response to user	Any research staff member responsible for content monitoring
Yellow Complaint or problem Inaccurate information Questions or direct inquiry Comments or questions that relate to participant's personal health or infant's health[b]	Craft response from standard language and submit for approval before posting[a]	User content posts immediately without approval, is reviewed by staff, and requires response crafted by appropriate study team member[a]	Research staff member responsible for content monitoring
Orange Language that is bullying in tone Violent language Personal identifying information Spamming or flooding	User is informed via e-mail that he or she has violated the Web site rules and that future posts will be reviewed; if user attempts to continue posting offensive content, the third violation will result in being banned from posting on the site	User content posts immediately without approval, is reviewed by staff, rejected and removed from site by staff, and requires response crafted by appropriate study team member[a]	Research staff member responsible for content monitoring, may require leadership feedback before sending out violation e-mail
Red Bad language or obscenities Names of Kaiser Permanente doctors	User is informed via e-mail that he or she has violated the Web site rules and that future posts will be reviewed; if user attempts to continue posting offensive content, the third violation will result in being banned from posting on the site	User content is not posted, must be moderated and rejected; user is notified that the content violated Web site rules	Research staff member responsible for content monitoring, may require leadership feedback before sending out violation e-mail
Purple Language that is threatening to other participants, research team members, Kaiser Permanente staff members, or oneself	Users are informed via e-mail that they have violated the Web site rules and that their participation in the study is over. We will also inform them that the appropriate legal authorities are being contacted	User content posts immediately without approval, is reviewed by staff, rejected and removed from site by staff and requires immediate action by staff member. Must report to staff member pediatrician. Must report to the institutional review board immediately	Posts will require the oversight or response of a designated staff member to deal with comments that violate site policy. Will report to Matt Daley or Liz Bayliss, who will file an official report based on Kaiser Permanente policies

The social media team will moderate, review, or monitor user-generated content and respond on the basis of the content categories and medium in which the content is submitted.

[a] Determine if subject matter requires expert or leadership feedback.

[b] Use standard language to inform users that they need to seek advice from their own medical provider.

SUPPLEMENTAL TABLE 10 Appropriate Procedures for Content Levels

Content Level	Procedure
Purple[a]	Who responds
Language that is threatening to other participants, the research team, oneself, or Kaiser Permanente staff	Posts will require the oversight or response of a designated staff member to deal with comments that violate site policy.
	Procedure
	On the first business day (a Monday if the comment came in over the weekend) that we receive a level purple comment, we will contact the team member pediatrician or Liz Bayliss, who will file an official report with authorities based on Kaiser Permanente policy and protocol.
	Study participant will be removed from the study. Users are informed via e-mail that they have violated the Web site rules and that their participation in the study is over. We will also inform them that the appropriate legal authorities are being contacted.
Red[b]	Who responds
Bad language	Posts will require the oversight or response of a designated staff member to deal with comments that violate site policy.
Names of Kaiser Permanente doctors	Procedure
	On the first business day (a Monday if the comment came in over the weekend) that we receive an alert that a level red comment was filtered from the system, we will contact the staff member overseeing site abuse issues.
	We will e-mail the participants who posted level red comments with a standard e-mail response detailing which Web site guideline or rule they have violated and let them know which number of warning they are receiving (first, second, or third) and what that means for their continued use of social media on the Web site.
Orange[b]	Who responds
Language that is bullying in tone	Posts will require the oversight or response of a designated staff member to deal with comments that violate site policy.
Violent language	Procedure
Personal identifying information	On the first business day (a Monday if the comment came in over the weekend) that we receive a level orange comment, we will contact the staff member overseeing site abuse issues.
Spamming or flooding	We will e-mail the participants who posted level orange comments with a standard e-mail response detailing which Web site guideline or rule they have violated and let them know which number of warning they are receiving (first, second, or third) and what that means for their continued use of social media on the Web site
Yellow	Who responds
Complaint or problem	Posts will call for the oversight or response of a staff expert.
Inaccurate information	Procedure
Question or direct inquiry	On the first business day (a Monday if the comment came in over the weekend) that we receive a level yellow comment or question, we will contact each of our staff experts to craft a response to a specific comment or question.
Comments or questions that relate to participant's personal health or infant's health	On the same business day as we contact staff experts we will respond to the comment or question with an acknowledgement statement that lets the participant know we saw the post and we are working on a response
Blue	Who responds
Individual Web site or study requests	Posts will require a response from the staff member in charge of a given monitoring shift.
Off-topic remarks	Procedure
	On the first business day (a Monday if the comment came in over the weekend) that we receive a level blue comment or question, we will reply to the participant with a predefined standard response based on the nature of the comment. Eg, a participant posts a message that is off topic; we will have a standard response that lets him or her know it is off topic.
Green	Who responds
Neutral or benign comments	Posts may or may not be responded to by the staff member in charge of a given monitoring shift.
	Procedure
	On the first business day (a Monday if the comment came in over the weekend) that we receive a level green comment, we may or may not reply with a predefined standard response based on the nature of the comment. Eg, A participant posts that a particular blog was informative and helped him or her make a vaccine decision; we may or may not reply with a standard response thanking him or her for the positive feedback.

[a] Language that threatens either the participant, other participants, and/or Kaiser Permanente staff members is to be reported to the institutional review board immediately.
[b] Reported to the institutional review board under adverse events.

SUPPLEMENTAL REFERENCES

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