WICHealth.org Program Evaluation

WICHealth.org was re-launched using a new hosting service provider in December 2010. The underlying database structure was completely revised to improve data collection and retrieval. Further, several new items were added to the exit survey. In addition to the presentation and investigation of the WICHealth.org exit survey and overall usage statistics, this evaluation will address the following focused research questions:

1. *What WICHealth.org link processes of change are most effective in advancing users in stage of change?*
2. *Are responses from WICHealth.org users holding back from behavior change valid?*
3. *What importance do the new WICHealth.org Link metrics such as user rating, favorite status and link type have on stage progression?*
4. *Does the depth of use (number of links accessed) vary significantly by lesson?*
5. *What other topics would WICHealth.org users like to see addressed by additional lesson development?*

Executive Summary

- This evaluation includes data collected from December 10, 2010 through September 30, 2011.
- WICHealth.org usage has increased to a rate of over 300,000 completed lessons per year. This is nearly triple the exit rate for 2010 and mostly associated with the addition of Oklahoma and expansion of California participation.
- Overall exit survey results and user stage of change progression remain consistent with prior evaluations, with over 90% of early staged users advancing at least one stage of change. Further, over 90% of users continue to report a high level of WICHealth.org usability and over 80% indicate they are able to make behavior changes using what was learned. However, results stratified by lesson and state show significant variance.
- Processes of change vary significantly in the ability to increase odds of user stage progression.
- Number of links accessed by a user continues to be strongly associated with whether or not the user progresses in stage of change. The number of links (or depth of use) accessed by WICHealth.org users varies significantly by lesson.
- WICHealth.org users continue to request additional lesson development around topics such as Child Growth, Child Behavioral Issues, Infant Care and Budgeting.

Key Recommendations:

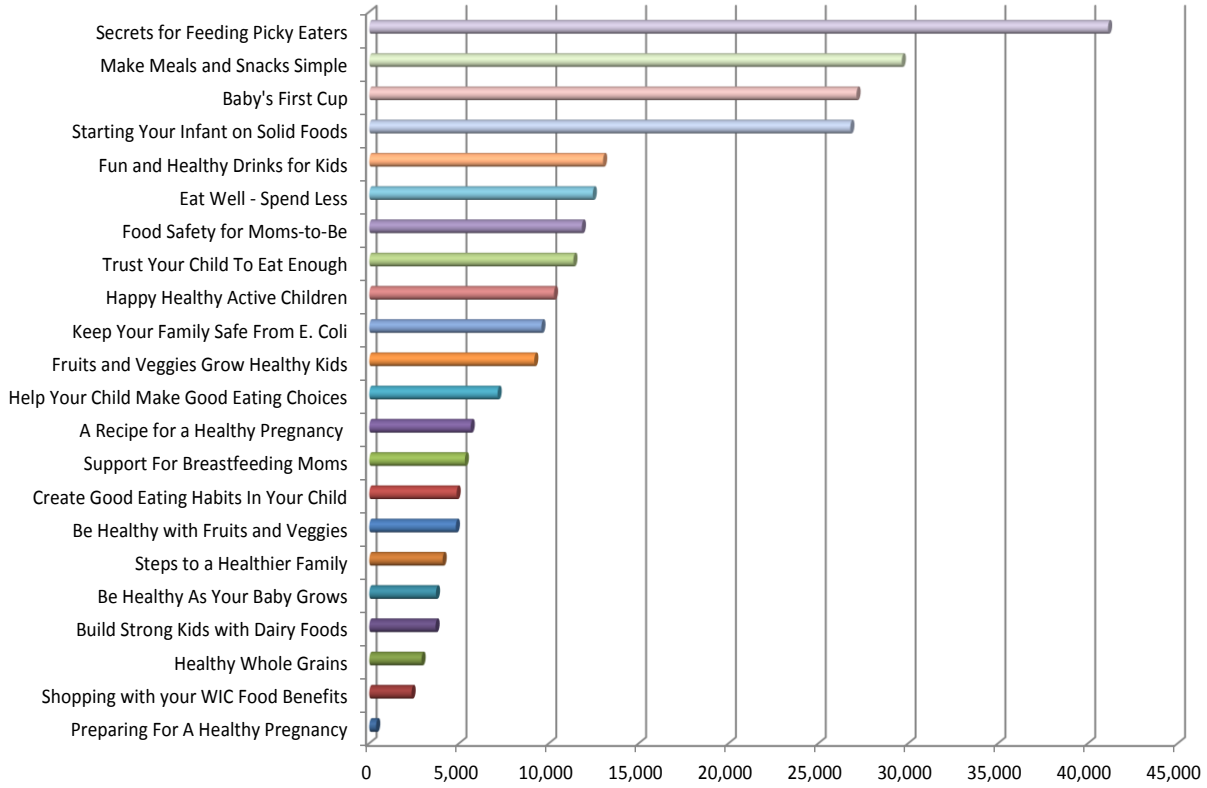
1. Require users to complete exit survey items when finishing lessons. This evaluation period identified that a large number of users that completed lessons did not have completed exit survey items. In fact, as the display position of the exit survey item increases down the page, the more likely the item is to be left unanswered. More than 50% of items from the usability item block down were missing from user surveys.
2. Require users to complete profiles and to add at least one child. Over half of users reporting that their child is too young for behavior change have not yet added a child to their profile. Additionally, users should be prompted regularly to update their profiles.
3. Processes of change that increase odds of stage progression should be added where lacking and prioritized where currently existing for a given user beginning stage of change. The rest of WICHealth.org links where processes of change have not been tagged need to be completed.
4. More needs to be done to increase the depth of use of WICHealth.org lessons. Several lessons are able to get users to access significantly more links than other lessons. Lesson titles, redirects, previously visited link tracking or other incentives need to be implemented to increase the number of WICHealth.org links accessed during lessons.

Overall Usage Statistics

During the current annual evaluation period, there were 247,219 WICHealth.org online lessons completed by 140,813 unique WIC participants. Given that only 9.68 months of data are available since the 12/10/10 revision of the underlying WICHealth.org data structure, the annualized number of lessons completed was 306,470. This is nearly triple the rate observed during October 2009 through September 2010. The addition of Oklahoma and continued roll out of California WIC clinic participation has contributed significantly to this increase (Table 6).

Figure 1 shows that there continues to be a large variance in the number of completed lessons observed for each particular lesson. In 2009, lesson title options were displayed for users at random, attributing to a relatively well spread distribution of usage among them. In early 2010, lesson options were again set in static order and usage of the lessons since then have varied significantly. Last year, the "Keep Your Family Safe from E. Coli" was the most frequently completed lesson. Since December 2010, "Secrets for Feeding Picky Eaters" has been the most completed lesson.

Figure 1. Completed Lessons by Lesson Name, December 2010 – September 2011



Recently added lessons including "Eat Well – Spend Less" and "Food Safety for Moms-to-Be" have increased since the last evaluation and are now the 6th and 7th most frequently completed lessons, respectively.

As reported in all prior evaluations, most WICHealth.org users starting in the pre-contemplation, contemplation or preparation stages with respect to the behavior of interest progress at least one stage of change by lesson completion. In fact, only 44% of users initially staged in pre-contemplation, 21% of those beginning in contemplation and 4% starting in preparation did not progress any stages of change.

Table 1 shows the beginning and ending stage status for all lessons completed during the current evaluation period.

Table 1. User Beginning and Ending Stage of Behavior Change Status for Completed Lessons

	End Stage						
Begin Stage	**Pre-Contemplation**	**Contemplation**	**Preparation**	**Action**	**Maintenance**	**Anticipatory Guidance**	**Grand Total**
Pre-Contemplation	2,288 (44%)	385 (7%)	516 (10%)	1,980 (38%)			5,169
Contemplation		1,117 (21%)	1,795 (34%)	2,347 (45%)			5,259
Preparation			2,784 (4%)	62,042 (96%)			64,826
Action				17,394 (100%)			17,394
Maintenance					142,367 (100%)		142,367
Anticipatory Guidance						12,204 (100%)	12,204
Grand Total	2,288 (1%)	1,502 (1%)	5,095 (2%)	83,763 (34%)	142,367 (57%)	12,204 (5%)	247,219

Although the vast majority of WICHealth.org users that are in need of behavior change demonstrate stage of change progression, the rate of progression continues to vary significantly by lesson. Table 2 shows the rate of stage progression among those users who need to progress by lesson.

Table 2. WICHealth.org Percent of User Progressing and Holding Back from Behavior Change by Lesson

Lesson	% Progression	% Holding Back
Food Safety for Moms-to-Be	81.6%	18.4%
Be Healthy with Fruits and Veggies	98.6%	1.4%
Preparing For A Healthy Pregnancy	94.5%	5.5%
Eat Well - Spend Less	96.3%	3.7%
Secrets for Feeding Picky Eaters	90.7%	9.3%
Make Meals and Snacks Simple	98.9%	1.1%
Steps to a Healthier Family	92.4%	7.6%
Healthy Whole Grains	93.1%	6.9%
A Recipe for a Healthy Pregnancy	90.4%	9.6%
Be Healthy As Your Baby Grows	97.2%	2.8%
Baby's First Cup	87.0%	13.0%
Starting Your Infant on Solid Foods	76.4%	23.6%
Support For Breastfeeding Moms	50.8%	49.2%
Keep Your Family Safe From E. Coli	91.6%	8.4%
Help Your Child Make Good Eating Choices	94.6%	5.4%
Fruits and Veggies Grow Healthy Kids	99.2%	0.8%
Build Strong Kids with Dairy Foods	92.7%	7.3%
Trust Your Child To Eat Enough	95.1%	4.9%
Create Good Eating Habits In Your Child	97.4%	2.6%
Fun and Healthy Drinks for Kids	99.2%	0.8%
Happy Healthy Active Children	97.6%	2.4%
Shopping with your WIC Food Benefits	96.6%	3.4%

Table 2 is also heat map shaded with lessons demonstrating the greatest proportion of user stage progression highlighted in shades of green and lessons with relatively low progression in shades of orange and red. The “Support for Breastfeeding Moms”, “Starting Your Infant on Solid Foods” and

"Food Safety for Moms-to-Be" lessons recorded the lowest percentages of users progressing at least one stage of behavior change. For more on the assessment of why users hold back from behavior change, see focused research question #2 below.

In prior evaluation reports, a WICHealth.org exit survey was considered complete when a user responded to at least one usability/behavior change item (Table 3). However, as these items are not required to progress past the survey page, a significant number of users choose not to complete them. Further, the likelihood of a user responding to a survey item is directly related to the display order of the item on the page, with the first item (WICHealth.org Access Location; See Table 5) recording a total of 244,876 responses (99% of lessons completed) while the usability and behavior change items located further down the page recorded only 132,251 responses (54% of lessons completed). This means that nearly half of lessons continue to be completed without key exit survey items being completed.

Results from the WICHealth.org exit surveys collected during the current evaluation period were consistent with previous evaluations. Table 3 presents the exit survey results for the usability and behavior change items used in the evaluation (n = 132,251).

Table 3. WICHealth.org Exit Survey Results for Key Usability and Behavior Change Items

Usability / Behavior Change Item	%Yes	%No/Maybe
The information from Wichealth.org was easy to use	95.3%	4.7%
The information from Wichealth.org was easy to understand	97.7%	2.3%
The information from Wichealth.org was helpful	96.9%	3.1%
I believe I can make changes using what I have learned	88.7%	11.3%
I want to use webpages to learn about other WIC topics	85.2%	14.8%

n missing = 114,639

Most users identified the WICHealth.org website as their preferred method for receiving nutrition education (Table 4). Note that the display order for the WICHealth.org website option is the last in the drop down selection box presented on the survey page. Despite this, 83.5% of users responded that they preferred to login to WICHealth.org for nutrition education over other available methods.

Table 4. Exit Survey Result for User Preferred Method of Receiving Nutrition Education

Method	Selected as Preferred Method	% of Total
WICHealth.org website	204,472	83.5%
Person-to-person counseling at the WIC Clinic	21,137	8.6%
Information mall/other resources at the WIC Clinic	10,203	4.2%
Class/Group session at the WIC Clinic	7,325	3.0%
Missing (None Selected)	1,739	0.7%
Grand Total	244,876	100%

Also consistent with prior evaluation findings, most users completed their WICHealth.org lessons from the comfort of their own home, with the WIC Clinic sites serving as the second most frequent location with just over 9% of the total lessons completed during the current evaluation period (Table 5).

Table 5. WICHealth.org User Exit Survey Responses to Access Location Item

WICHealth.org Access Location	Selected as Primary Access Location	% of Total
Home	172,114	70.3%
WIC Clinic	22,214	9.1%
Work	15,941	6.5%
Parent's Home	14,625	6.0%
Library	7,015	2.9%
Other	6,713	2.7%
Friend's Home	6,254	2.6%
Grand Total	244,876	100%

Michigan continues to be the most common residence of WICHealth.org users making up 37.5% of all completed lessons (Table 6), although this is 7 points lower than reported in the mid-year evaluation. This variance was driven by Oklahoma usage, which increased by over 7 points (+380%) from the mid-year evaluation. Further, California now represents over a quarter of all users with 26.1% of all lessons completed during the current evaluation period. Spanish speaking WICHealth.org users made up 2.6% of the total completed lessons. States with the largest number of Spanish speaking users were Nevada (11.5%) and California (5.4%).

Table 6 also includes a heat map for the key usability and behavior change survey items based on relative performance by state, green indicating strong item agreement and red indicating poor agreement. Note that Ohio and Missouri have the lowest rates of user agreement with the exit survey items. Although the sample size for Missouri is very small, Ohio made up 4.5% of all completed lessons, yet had the worst overall user agreement with usability and behavior change items.

Table 6. Lessons Completed by Participating States Including Language and Usability/Behavior Survey Items

State	Completed Lessons	% of Completed Lessons	% Spanish Users	The Website was Easy to Use	The Website was Easy to Understand	The Website Information was Helpful	I Believe Can Make Changes Using What was Learned	I Want to use Web Pages to Learn about Othe WIC Topics
Alaska	2,753	1.1%	0.2%	95.4%	97.4%	95.6%	81.1%	79.1%
California	64,470	26.1%	5.4%	96.3%	98.0%	98.0%	92.5%	90.7%
Illinois	27,184	11.0%	3.2%	95.7%	97.9%	97.0%	89.1%	86.9%
Indiana	4,002	1.6%	2.2%	96.1%	97.6%	97.1%	87.3%	83.6%
Michigan	92,743	37.5%	0.2%	95.5%	97.8%	96.7%	87.2%	81.7%
Minnesota	64	0.0%	0.0%	100.0%	100.0%	100.0%	90.6%	90.6%
Nevada	5,188	2.1%	11.5%	95.8%	97.7%	97.9%	93.7%	91.3%
Ohio	11,134	4.5%	3.6%	85.3%	92.9%	92.3%	81.8%	75.5%
Utah	8,451	3.4%	3.6%	95.4%	97.8%	96.6%	88.6%	86.4%
Washington	4,216	1.7%	0.8%	92.3%	96.9%	95.2%	83.1%	79.9%
Wisconsin	1,431	0.6%	0.3%	92.9%	98.6%	96.5%	83.6%	84.8%
Hawaii	85	0.0%	0.0%	100.0%	96.2%	100.0%	98.1%	98.1%
North Carolina	2,945	1.2%	1.6%	96.4%	97.6%	96.9%	89.6%	87.4%
Missouri	188	0.1%	0.0%	94.2%	94.2%	88.4%	72.5%	82.6%
Oklahoma	22,319	9.0%	1.9%	96.0%	97.7%	97.3%	88.7%	87.3%
Missing	46	0.0%	13.0%	100.0%	100.0%	100.0%	100.0%	100.0%
TOTAL	**247,219**	**100%**	**2.6%**	**95.3%**	**97.7%**	**96.9%**	**88.7%**	**85.2%**

Table 7 presents another heat map display of WICHealth.org exit survey results stratified by each lesson. As reported in the mid-year evaluation, ease of use is weakest for the "Be Healthy with Fruits and

Veggies" and the "Be Healthy as Your Baby Grows" lessons. The latter of these lessons demonstrated relatively weak exit survey responses overall. The "Food Safety for Moms-to-Be", "A Recipe for Healthy Pregnancy", "Baby's First Cup", "Support for Breastfeeding Moms" and "Shopping with Your WIC Food Benefits" lessons had the fewest proportion of users that indicated they wanted to use web pages to learn about other WIC Topics. The "Support for Breastfeeding Moms" lesson had significantly fewer users report that they could make changes using what was learned from the lesson.

Table 7. Exit Survey Usability and Behavior Change Items By Lesson

Lesson	The Website was Easy to Use	The Website was Easy to Understand	The Website Information was Helpful	I Believe Can Make Changes Using What was Learned	I Want to use Web Pages to Learn about Other WIC Topics
Food Safety for Moms-to-Be	95.0%	97.5%	96.9%	90.6%	81.9%
Be Healthy with Fruits and Veggies	93.4%	96.9%	97.1%	91.8%	87.3%
Preparing For A Healthy Pregnancy	96.2%	97.8%	95.6%	89.1%	85.2%
Eat Well - Spend Less	94.6%	97.6%	96.2%	89.4%	85.5%
Secrets for Feeding Picky Eaters	94.5%	97.4%	96.9%	90.7%	86.2%
Make Meals and Snacks Simple	95.7%	97.7%	97.2%	89.5%	86.2%
Steps to a Healthier Family	95.1%	97.5%	97.7%	92.3%	86.7%
Healthy Whole Grains	95.1%	96.9%	96.2%	91.2%	86.7%
A Recipe for a Healthy Pregnancy	94.9%	97.0%	96.7%	90.7%	82.8%
Be Healthy As Your Baby Grows	94.2%	97.0%	96.9%	90.3%	85.6%
Baby's First Cup	95.3%	97.7%	96.8%	84.5%	82.8%
Starting Your Infant on Solid Foods	95.8%	97.6%	97.2%	85.0%	84.4%
Support For Breastfeeding Moms	96.0%	98.2%	96.2%	78.1%	81.9%
Keep Your Family Safe From E. Coli	96.2%	98.0%	97.2%	90.5%	87.5%
Help Your Child Make Good Eating Choices	94.9%	97.7%	96.7%	92.2%	87.6%
Fruits and Veggies Grow Healthy Kids	95.8%	98.3%	97.1%	90.1%	86.1%
Build Strong Kids with Dairy Foods	96.1%	98.4%	97.4%	91.5%	88.9%
Trust Your Child To Eat Enough	96.7%	98.3%	97.2%	87.6%	84.4%
Create Good Eating Habits In Your Child	95.9%	97.5%	96.2%	89.9%	87.3%
Fun and Healthy Drinks for Kids	96.3%	98.2%	97.4%	89.1%	85.5%
Happy Healthy Active Children	95.5%	98.1%	97.1%	90.6%	86.0%
Shopping with your WIC Food Benefits	94.9%	97.4%	94.9%	88.3%	82.4%
OVERALL	95.3%	97.7%	96.9%	88.7%	85.2%

WICHealth.org users provide information about their age, race and child(ren) by updating their user profiles. Profile information was input for most of the 140,813 unique users that completed lessons during the current evaluation period. This is significantly improved over the proportion reported in the mid-year evaluation.

Table 8 presents a breakdown of WICHealth.org profiles by user age group. As previously reported, just over a quarter of users are in the 26-30 year age group while just under a quarter are in the 21-25 year age group.

Table 9 provides the information on user race based on completed profiles among WIC clients completing a lesson during the current evaluation period. Nearly 70% of WICHealth.org users reported to be white, just under 15% as black or African American and 6% as multiracial. Note that 48,524 profiles were missing race information.

Table 8. WICHealth.org User Profiles by Age Group

User Age Group	User Profiles	% of Total
<21 years	11,249	8.0%
21-25 years	34,951	24.8%
26-30 years	39,349	27.9%
31-35 years	27,936	19.8%
36-40 years	14,206	10.1%
41-45 years	5,398	3.8%
46-50 years	1,681	1.2%
50+ years	1,537	1.1%
Missing (None-Selected)	4,506	3.2%
Grand Total	140,813	100%

Table 9. WICHealth.org User Profiles by Race

User Race	User Profiles	% of Total
White	64,417	69.8%
Black or African American	13,709	14.9%
Multiracial	5,553	6.0%
Asian	4,028	4.4%
American Indian or Alaskan	3,694	4.0%
Native Hawaiian or Pacific I	888	1.0%
Grand Total	92,289	100%

n missing = 48,524

Table 10 presents information on the children of WICHealth.org users from completed profiles. The majority of WICHealth.org users are mothers. The average number of children per user was 1.3 and the average child age was 2.9 years.

Table 10. WICHealth.org User Profiles by User Relation to Child with Total Children and Average Child Age

User Relation to Child	User Profiles	Children	Child Average Age	Children per User
Mother	73,583	95,170	2.9	1.3
Father	1,232	1,581	3.3	1.3
Guardian	916	1,245	3.3	1.4
Grandparent	640	802	3.5	1.3
Other	503	760	3.0	1.5
Foster Parent	447	617	2.7	1.4
Day Care Provider	5	5	3.0	1.0
Grand Total	77,326	100,180	2.9	1.3

New items were added to the WICHealth.org exit survey focusing on how users leverage other forms of technology outside of their experience with WICHealth.org. 43.6% of WICHealth.org users indicate they own a basic cell phone without a data plan. 7.7% of users indicate they do not own a cell phone. The majority of users (47.6%) indicate they own one of the popular smart phone models on the market such as an Android powered phone (31.2%), iPhone (9.6%) or Blackberry (6.8%).

Table 11. WICHealth.org User Exit Survey Reponses Regarding Cell Phone Ownership

Type of Cell Phone Owned	Number of Users Responding	% of Total
Basic cell phone without a data plan	46,353	43.6%
Android phone (HTC Evo, Motorola Droid, Samsung Galaxy, etc.)	33,137	31.2%
iPhone	10,214	9.6%
I don't own a cell phone	8,181	7.7%
Blackberry	7,178	6.8%
Missing (None Selected)	1,172	1.1%
Grand Total	106,235	100%

WICHealth.org users were also asked further details regarding their cell phone usage and plan options. Tables 12 and 13 present the results of user responses about cell phone cameras. Only 9.9% users indicated they did not have a camera on their cell phone.

Table 12. WICHealth.org User Exit Survey Reponses Regarding Whether Cell Phone Owned has a Camera

Camera on Type of Cell Phone Owned	Number of Users Reponding	% of Total
Yes	88,998	83.8%
No	8,340	7.9%
I don't have a cell phone	7,267	6.8%
Missing (None Selected)	1,630	1.5%
Grand Total	106,235	100%

Table 13. WICHealth.org User Exit Survey Reponses Regarding Frequency User Sends Photos with a Cell Phone

Frequency that Photos are Sent via Cell Phone	Number of Users Responding	% of Total
Sometimes	25,984	24.5%
Very often	20,079	18.9%
Rarely	19,563	18.4%
Often	16,180	15.2%
Never	12,633	11.9%
I don't have a camera on my cell phone	10,546	9.9%
Missing (None Selected)	1,250	1.2%
Grand Total	106,235	100%

82.8% of WICHealth.org users indicated that they used text messaging (Table 14). Further, 70% responded that they currently subscribe to an unlimited text messaging plan (Table 15). Over 92% of WICHealth.org users currently have an active email account (Table 16) and over half have used their cell phone to access their email account with over 20% doing so very often (Table 17).

Table 14. WICHealth.org User Exit Survey Reponses Regarding Text Message Usage

Text Messaging Used	Number of Users Responding	% of Total
Yes	87,930	82.8%
No	15,464	14.6%
Missing (None Selected)	2,841	2.7%
Grand Total	106,235	100%

Table 15. WICHealth.org User Exit Survey Reponses Regarding Subscription to an Unlimited Text Messaging Plan

Subscription to an Unlimited Text Messaging Plan	Number of Users Responding	% of Total
Yes	74,402	70.0%
No	22,488	21.2%
I don't have a cell phone	7,367	6.9%
Missing (None Selected)	1,978	1.9%
Grand Total	106,235	100%

Table 16. WICHealth.org User Exit Survey Reponses Regarding Whether User has an Email Account

Active Email Account Used	Number of Users Responding	% of Total
Yes	97,939	92.2%
No	6,096	5.7%
Missing (None Selected)	2,200	2.1%
Grand Total	106,235	100%

Table 17. WICHealth.org User Exit Survey Reponses Regarding Whether User Reads Email Using a Cell Phone

Frequency User Reads Email on Cell Phone	Number of Users Responding	% of Total
Never	40,483	38.1%
Very often	21,664	20.4%
Sometimes	12,775	12.0%
Often	11,751	11.1%
Rarely	11,376	10.7%
I don't have a cell phone	7,333	6.9%
Missing (None Selected)	853	0.8%
Grand Total	106,235	100%

Table 18 presents the results of user responses concerning their preferred means of communication. 42.7% of WICHealth.org users indicated that they prefer to use text messaging as their primary means of communication. In fact, two-thirds of WICHealth.org users prefer to use some sort of Internet or cellular based technology for communication including texting, social networking sites, email and instant messaging. These results demonstrate the significant opportunity to reach WICHealth.org users even when they are not logged in.

Table 18. WICHealth.org User Exit Survey Reponses Regarding Preferred Means of Communication

Preferred Means of Communication	Number of Users Responding	% of Total
Text messaging	45,404	42.7%
Phone call	33,866	31.9%
Facebook or other online social network on my computer	11,465	10.8%
Facebook or other online social network on my cell phone	8,483	8.0%
Email	6,066	5.7%
Missing (None Selected)	480	0.5%
Instant message (IM) on the computer	471	0.4%
Grand Total	106,235	100%

Table 19 presents the 100 most frequently used links by WICHealth.org users along with the average minutes of usage per view. User feedback for each link is available including user mean rating of link (scale of 1-5) and the ranking of how often the link is selected as a user favorite.

Table 19. Top 100 Most Frequently Used WICHealth.org Links

Link Title	Lesson Name	Stage	Mean Rating	Favorite Link Rank	Views	Minutes per View
Common eating problems and how to cope with them.	Secrets for Feeding Picky Eaters	P	4.17	6	11,243	2.4
Remain calm during tantrums.	Secrets for Feeding Picky Eaters	P	4.23	8	9,359	2.1
Offer a variety of healthy foods.	Secrets for Feeding Picky Eaters	P	4.51	4	8,836	2.4
Foods to stay away from before 12 months.	Starting Your Infant on Solid Foods	M	4.64	48	8,775	3.0
The "dos" and "don'ts" to help your picky eater become a good eater.	Secrets for Feeding Picky Eaters	A	4.76	15	8,565	2.3
Fun snack ideas!	Make Meals and Snacks Simple	M	4.66	1	8,542	3.0
Easy meal ideas.	Make Meals and Snacks Simple	M	4.30	7	7,106	3.1
Introducing cow's milk to your baby.	Baby's First Cup	M	4.19	59	6,944	2.9
Make mealtimes fun!	Secrets for Feeding Picky Eaters	M	4.34	12	6,811	2.5
Quick and healthy snack ideas.	Make Meals and Snacks Simple	M	4.62	11	6,618	3.6
Protect your baby's teeth from tooth decay.	Baby's First Cup	M	4.50	57	6,581	1.3
Fun drink recipes.	Fun and Healthy Drinks for Kids	M	4.58	14	6,345	3.2
Make meal and snack time fun!	Secrets for Feeding Picky Eaters	A	4.83	16	6,226	1.6
Include children in shopping and making meals.	Secrets for Feeding Picky Eaters	PC	4.51	10	6,144	3.6
What do I feed my baby after fruits and vegetables are introduced?	Starting Your Infant on Solid Foods	M	4.42	71	5,910	3.3
How much should I feed my baby?	Starting Your Infant on Solid Foods	A	4.38	44	5,672	1.9
Eating safely when eating out.	Food Safety for Moms-to-Be	M	4.58	54	5,532	1.6
Add fruits and veggies to any meal.	Secrets for Feeding Picky Eaters	M	4.63	19	5,279	2.9
Recipes in a snap.	Make Meals and Snacks Simple	M	4.70	5	5,249	2.2
How to know when your baby is ready for a cup.	Baby's First Cup	AG	4.17	115	5,166	1.0
Let your child choose what foods and how much to eat.	Secrets for Feeding Picky Eaters	A	4.31	18	5,134	1.4
Cups - what are the best ones?	Fun and Healthy Drinks for Kids	M	4.54	42	4,966	3.4
Take out and frozen food safety.	Keep Your Family Safe From E. Coli	M	4.60	9	4,950	1.4
Is it ok to give my baby drinks that contain sugar?	Baby's First Cup	M	4.75	86	4,949	1.3
Encourage self-feeding.	Starting Your Infant on Solid Foods	M	4.15	85	4,681	1.8
How much juice can I give my baby?	Baby's First Cup	A	5.00	117	4,584	5.7
Recipe ideas.	Make Meals and Snacks Simple	M	4.56	2	4,578	3.4
How to prepare to introduce a cup to your baby.	Baby's First Cup	AG	4.20	80	4,471	1.1
Tips for keeping foods safe.	Food Safety for Moms-to-Be	M	4.47	38	4,416	1.6
Do not use food as a reward, bribe, or punishment.	Secrets for Feeding Picky Eaters	A	4.53	23	4,354	1.0
Grill and barbecue foods safely.	Food Safety for Moms-to-Be	M	4.21	47	4,309	3.9
Do not use food as a reward, bribe, or punishment.	Secrets for Feeding Picky Eaters	M	4.75	25	4,177	2.6
Serve new foods even if they have been served before.	Secrets for Feeding Picky Eaters	A	4.50	30	4,168	1.1
The benefits of waiting to introduce a cup to your baby.	Baby's First Cup	AG	5.00	130	4,135	1.4
Include your child in planning for and preparing meals.	Secrets for Feeding Picky Eaters	M	4.47	29	4,089	3.8
Let your child ask for more if they are still hungry.	Trust Your Child To Eat Enough	M	4.64	41	3,958	1.7
Recommended serving sizes for milk, 100% juice, and water.	Fun and Healthy Drinks for Kids	M	4.59	36	3,954	3.3
Offer plenty of healthy food options.	Secrets for Feeding Picky Eaters	M	4.60	37	3,825	3.0
Does my baby need a vitamin supplement?	Starting Your Infant on Solid Foods	M	4.17	106	3,825	1.1
Tips for barbecue and grill safety.	Keep Your Family Safe From E. Coli	M	4.69	64	3,802	1.9
How can I continue teaching my older infant good eating habits?	Starting Your Infant on Solid Foods	M	3.80	104	3,718	3.4
Make food and mealtimes fun.	Trust Your Child To Eat Enough	M	4.50	56	3,678	1.6
Cooking safe with your slow cooker.	Keep Your Family Safe From E. Coli	M	4.24	13	3,637	2.7
Be creative with play ideas.	Happy Healthy Active Children	PC	4.64	63	3,589	3.0
Safe food handbook for the kitchen.	Keep Your Family Safe From E. Coli	M	4.45	3	3,562	1.6
Offer small portion sizes.	Trust Your Child To Eat Enough	M	4.60	55	3,507	1.7
Tips for saving money on your grocery bills!	Eat Well - Spend Less	A	4.80	72	3,438	3.9
Quick and inexpensive recipes for meals at home.	Eat Well - Spend Less	M	5.00	46	3,281	7.1
Quick and easy snacks.	Make Meals and Snacks Simple	PC	4.40	68	3,279	4.2
Is it ok to put cereal in the bottle to help my baby sleep at night?	Starting Your Infant on Solid Foods	PC	4.00	139	3,211	3.0

The average overall user rating was 4.5. The link "Fun Snack Ideas" in the "Make Meals and Snacks Simple" lesson was the 6th most frequent link accessed by WICHealth.org users as well as being the link most frequently identified as a user favorite. The 2nd most frequently identified link as a favorite was "Recipe Ideas" from the same lesson, covering a similar topic. Links that have relatively low mean user ratings, such as the 40th most frequented link, "How can I continue teaching my older infant good eating habits?" ("Starting Your Infant on Solid Foods"), which had a mean user rating of 3.8 and rank of 104 with respect to the frequency that users identified it as a favorite link.

Table 19 (continued). Top 100 Most Frequently Used WICHealth.org Links

Link Title	Lesson Name	Stage	Mean Rating	Favorite Link Rank	Views	Minutes per View
Why should I wait until 1 year to give my baby cow's milk?	Baby's First Cup	A	4.70	101	3,162	1.9
How can I protect my baby from teeth problems?	Baby's First Cup	A	4.75	118	3,071	1.9
Tips on offering your 1-3 year old regular meals and snacks.	Make Meals and Snacks Simple	PC	4.17	73	3,051	4.4
Can I feed my baby fish?	Starting Your Infant on Solid Foods	M	4.78	131	2,985	3.0
Encouraging your child to drink water.	Fun and Healthy Drinks for Kids	M	4.60	103	2,844	1.8
Great ideas for preparing healthy, low-cost meals.	Eat Well - Spend Less	M	4.09	77	2,738	3.8
Preparing for the first feeding.	Starting Your Infant on Solid Foods	AG	4.63	113	2,706	4.9
Baby food safety tips.	Starting Your Infant on Solid Foods	PC	4.25	69	2,700	3.7
Easy meal ideas.	Make Meals and Snacks Simple	A	4.71	24	2,691	4.1
Snacks for all ages.	Make Meals and Snacks Simple	PC	4.50	39	2,677	1.3
Easy tips to get your child to eat more fruits and veggies.	Fruits and Veggies Grow Healthy Kids	PC	4.25	133	2,633	1.1
I don't think my baby is ready.	Starting Your Infant on Solid Foods	C	4.33	153	2,614	2.8
Learn how much you should be spending on food for your family.	Eat Well - Spend Less	PC	5.00	111	2,576	4.3
Easy fruit and veggie recipes for your family.	Fruits and Veggies Grow Healthy Kids	M	4.58	51	2,547	6.2
Planning meals and snacks around busy schedules.	Make Meals and Snacks Simple	PC	4.18	53	2,545	3.3
Fun and easy meals and snacks that include fruits and veggies.	Fruits and Veggies Grow Healthy Kids	M	4.75	70	2,538	2.3
Fun snack ideas!	Make Meals and Snacks Simple	A	5.00	43	2,531	1.8
Serve regular meals and snacks.	Secrets for Feeding Picky Eaters	M	4.14	35	2,515	1.6
The risks of starting solid foods too soon.	Starting Your Infant on Solid Foods	AG	4.75	187	2,501	0.9
Meal and snack ideas for your 1-3 year old.	Make Meals and Snacks Simple	A	4.43	61	2,433	1.4
How to stock your pantry, refrigerator, and freezer.	Eat Well - Spend Less	PC	4.31	78	2,413	1.7
How to save money at restaurants and fast-food places.	Eat Well - Spend Less	A	4.75	98	2,312	2.3
Use your grocery store coupons wisely.	Eat Well - Spend Less	A	4.60	83	2,250	0.9
What type of cup should I use?	Baby's First Cup	PC	4.57	117	2,198	1.3
Junk food substitutes.	Make Meals and Snacks Simple	A	4.00	52	2,175	0.9
Which milk is right for my child?	Fun and Healthy Drinks for Kids	M	4.54	84	2,141	5.0
How to prevent choking.	Starting Your Infant on Solid Foods	PC	5.00	86	2,124	2.7
Myths about starting solid foods.	Starting Your Infant on Solid Foods	AG	5.00	216	2,067	1.5
What should I know about sugary drinks?	Baby's First Cup	A	4.00	92	2,026	0.8
Tips on offering your 3-5 year old regular meals and snacks.	Make Meals and Snacks Simple	PC	4.25	96	1,982	4.9
Let My Pyramid guide your choices.	Trust Your Child To Eat Enough	M	4.33	89	1,972	2.8
Plan what meals you would like to cook for the week.	Eat Well - Spend Less	PC	5.00	93	1,972	7.0
Plan ahead for when the weather isn't so nice.	Happy Healthy Active Children	M	4.19	53	1,961	2.3
Explore different ways your child can get planned physical activity.	Happy Healthy Active Children	M	4.85	50	1,956	1.5
Learn the best time to go shopping.	Eat Well - Spend Less	PC	4.50	129	1,956	3.3
Balance physical activity with healthy eating.	Happy Healthy Active Children	PC	4.10	79	1,936	0.9
Find time to make it happen.	Happy Healthy Active Children	PC	4.17	76	1,931	1.6
Let your child choose what and how much to eat.	Secrets for Feeding Picky Eaters	M	4.33	112	1,862	2.1
Put together a plan to keep track of your entire monthly expenses.	Eat Well - Spend Less	M	4.58	62	1,838	1.0
How can I reduce the risk of allergies for my baby?	Starting Your Infant on Solid Foods	PC	5.00	128	1,787	1.8
When should I allow snacking?	Make Meals and Snacks Simple	A	4.40	82	1,759	0.7
Fun indoor ideas for rainy weather.	Happy Healthy Active Children	A	4.87	65	1,754	1.1
Simple tips to get you started planning, shopping, and preparing meals	Eat Well - Spend Less	PC	4.45	110	1,740	3.2
Creative ideas for an easy transition to the cup.	Baby's First Cup	PC	4.50	183	1,674	1.6
Start your own family traditions.	Create Good Eating Habits In Your Child	M	4.79	81	1,664	1.2
What and how much should I put in the cup?	Baby's First Cup	PC	4.67	175	1,662	2.6
Know how you can start offering regular meals and snacks	Make Meals and Snacks Simple	PC	4.60	66	1,662	2.4
Try new recipes and foods.	Be Healthy As Your Baby Grows	M	4.88	108	1,660	2.9
Make your child's meals and snacks full of color.	Fruits and Veggies Grow Healthy Kids	M	4.43	105	1,660	3.6
Promote healthy eating.	Help Your Child Make Good Eating Choices	M	4.43	40	1,659	3.5

Focused Research Questions

What WICHealth.org Link processes of change are most effective in advancing users in stage of change?

Most of the WICHealth.org links have been manually reviewed and classified based on the processes of change (POC) each addresses. Links can expose users to multiple processes of change. Among users that began their WICHealth.org lesson in one of the earlier stages of behavior change, a logistic regression analysis was conducted based on whether users were exposed to one or more of the twelve different processes of change. These exposures were analyzed to determine whether they increased the odds of user stage progression. Table 20 presents the results of this analysis, by Process of Change and Beginning Stage.

Table 20. Odds of Stage Progression Given Processes of Change Exposure, Link Frequency and View Time

	Begin Stage		
Exposure	**Pre-Contemplation (n=3,225)**	**Contemplation (n=1,955)**	**Preparation (n=43,957)**
POC1: States the causes, consequences and/or treatments of a problem b	0.7 (0.6-0.8)	3.9 (2.3-6.7)	1.3 (1.3-1.4)
POC2: Facts about the benefits of changing a behavior	1.6 (1.4-1.9)	0.4 (0.3-0.6)	0.9 (0.9 - 0.9)
POC3: Moves people emotionally with testimonies or narratives	5.4 (3.5-8.2)	0.1 (0.1-0.2)	0.6(0.6-0.7)
POC4: Attempts to create worry or fear about engaging in unhealthy behav	1.3 (1.1-1.6)	1.5 (0.8-2.9)	0.6 (0.6-0.6)
POC5: Shows how behavior can impact others	1.1 (0.9-1.3)	4.8 (2.8-8.5)	0.8 (0.7-0.8)
POC6: Helps person imagine themselves with and without an unhealthy h	1.0 (0.8-1.3)	0.9 (0.5-1.7)	1.4 (1.3-1.5)
POC7: Provides alternatives to unhealthy behaviors	0.6 (0.5-0.8)	1.3 (0.8-1.9)	1.0 (0.9-1.0)
POC8: Provides ways to change the environment to help with behavior cha	0.4 (0.3-0.5)	1.0 (0.6-1.9)	0.6 (0.6-0.7)
POC9: Suggests involving people and support systems	1.0 (0.8-1.3)	0.8 (0.6-1.2)	1.2 (1.1-1.3)
POC10: Addresses issues associated with help from others	2.7 (1.3-5.5)	1.7 (0.5-6.1)	0.4 (0.4-0.5)
POC11: Offers multiple choices for changing behavior	2.5 (2.1-3.0)	3.6 (2.2-5.9)	0.9 (0.8-0.9)
POC12: Provides examples of internal and external rewards	1.5 (1.0-2.5)	3.9 (1.5-10.6)	0.9 (0.8-0.9)
Link Frequency	4.5 (3.8-5.2)	12.8 (8.5-19.3)	4.9 (4.7-5.1)
Link View Time	1.0 (1.0-1.1)	1.1 (1.0-1.1)	1.0 (1.0-1.0)

The most significant odds of progression ($p<0.01$) and their 95% confidence intervals are highlighted in dark green in Table 20. Other significant odds of progression ($p<0.05$) are highlighted in light green. Note that POC3, "Moves people emotionally with testimonies or narratives", was most strongly associated (OR = 5.4) with subsequent stage progression for users initially staged in pre-contemplation. This is consistent with the Transtheoretical Model which maps the first several processes as being most effective for individuals in the pre-contemplation stage, the next several to those in contemplation and so forth. For users initially staged in contemplation, POC5, "Shows how behavior can impact others" was observed to increase odds of stage progression by 4.8 times. Finally, for users initially staged in preparation, POC6, "Helps person imagine themselves with and without unhealthy habit" significantly increased users' likelihood of stage progression (OR = 1.4). Some overlap in the effectiveness of processes of change in progressing users in stage is expected as seen with the associations highlighted in light green. Yet, specific processes of change continue to emerge as the most essential in moving users in stage of change with respect to the particular behavior addressed.

Link frequency (number of link views) increased odds of stage progression for all WICHealth.org users beginning their lesson in one of the earlier stages of behavior change ($p<0.01$). The number of links accessed during a lesson, or "link depth", is addressed in further detail under focused research question 4 presented below.

Results for processes of change (POCs) highlighted in yellow suggest that users were less likely to progress in stage of change when exposed to links with this content. As indicated in the mid-year evaluation and based on the updated data, it appears that for WICHealth.org and possibly for other online education environments, only a handful of POCs are significantly associated with stage of behavior change progression. This information can help to prioritize which links are offered to WICHealth.org users as well as to ensure that they access links that address the POCs found to be most effective in progressing users toward behavior change.

Are responses from WICHealth.org users holding back from behavior change valid?

Table 22 presents the reasons provided by WICHealth.org users for not progressing in stage of change, or why they are holding back from behavior change. This question is administered to all users that are able to progress in behavior change that do not by the conclusion of their lesson. These reasons can be used to direct users to additional information to address their specific concerns.

Users are presented with a list of options to choose from indicating why they are holding back from behavior change. Users are also allowed to write in their own reason. All responses were grouped, re-coded and aggregated. The most frequently given reason for not engaging in behavior change continues to be "My Child is Too Young", which now represents over 42% of users failing to progress in stage of change where applicable. The next most frequent reasons for users holding back from behavior change include "My child doesn't like to eat certain foods" (8.4%) and "My child is picky but his/her choices are healthy" (6.4%). These responses indicate users may be well served by information about comparable healthy food choice alternatives to those suggested by the lessons. In order to validate the most frequent holding back reason, "My Child is Too Young", profiles from users providing this response were referenced to determine whether their child's age reasonably justified their response.

Table 21 provides the distribution of age groups for the children of users holding back from behavior change because their child is too young. Over half of these users had not yet added children to their profile. Only 18.3% of the youngest children from these users were under 6 months old and just 4.3% had children aged 6 months to 1 year. Combined, this is less than half of the children from users holding back from behavior change. This indicates that most users reporting their child's young age as their reason for holding back from behavior change, actually have no children under 1 year of age.

Table 21. User Profile Child Age for Users Reporting Their Child is Too Young for Behavior Change

Child Age	Child is Too Young Responses	% of Child is Too Young Responses
0-6 Mos	584	18.3%
6 Mos - 1 Yr	136	4.3%
1-2 Yrs	158	4.9%
2-3 Yrs	163	5.1%
3-4 Yrs	170	5.3%
4-5 Yrs	148	4.6%
5+ Yrs	50	1.6%
N/A	1790	56.0%
Grand Total	3,199	100%

Although drop down style response objects increase convenience of user input as well as simplicity in data analysis, based on these results it may not be appropriate for WICHealth.org. Users already reluctant to progress in behavior change may also be less likely to provide useful information when an easy choice is available. More valid data would be collected if the user was asked additional questions

following their selection, such as “How old is your youngest child?”. This as well as other cross dependent inquiries may help to validate and refine user responses. Regardless, users need to be redirected to additional information based on their reason for holding back from behavior change.

Table 22. WICHealth.org User Reasons for Holding Back from Behavior Change

User Response Category	Food Safety for Moms-to-Be	Be Healthy with Fruits and Veggies	Preparing For A Healthy Pregnancy	Eat Well - Spend Less	Secrets for Feeding Picky Eaters	Make Meals and Snacks Simple	Steps to a Healthier Family	Healthy Whole Grains	A Recipe for a Healthy Pregnancy	Be Healthy As Your Baby Grows	Baby's First Cup	Starting Your Infant on Solid Foods	Support For Breastfeeding Moms	Keep Your Family Safe From E. Coli	Help Your Child Make Good Eating Choices	Fruits and Veggies Grow Healthy Kids	Build Strong Kids with Dairy Foods	Trust Your Child To Eat Enough	Create Good Eating Habits In Your Child	Fun and Healthy Drinks for Kids	Happy Healthy Active Children	Shopping with your WIC Food Benefits	Grand Total
My child is too young.					321	26					345	2591			79			4	3		9		3378
My child doesn't like to eat certain foods.					670																		670
My child is picky but his/her choices are healthy.					510																		510
I don't think my child will eat enough.					393										2			21	2				418
I don't see anything wrong with the behavior.	9	5	1	22		18	3	9		9		126	9	3	30	9	2	21	18		106	1	401
I’m just too busy to do this.	5	2		59	8	16	8	8	130	11	17		32		2	2	2		3	2	15		322
My doctor says to wait.												293											293
I don't think I'm producing enough milk to support my baby's growth.													235										235
My child is not ready.						3					173												176
I want to avoid conflict with my child.					131								21						2				154
I already know and practice the information being taught.	8	1	1	40			20	44						5		3	21			5		3	151
My child is getting everything they need from formula or breastmilk.												139											139
I give my child the right amount of food so they should be able to finish it all.															55			43					98
Too expensive.		3		51		17	9	1								2				1		1	85
My child would eat all the wrong foods if I let him/her decide what to eat.															57			24					81
My child isn't interested in eating different foods.					70																		70
It's more convenient to give into my childs demanding eating behaviors.					68																		68
I think my child is active enough.																					61		61
I do not agree with the information being taught.	14	1	1	6			2	3						1		3	23			4		3	61
I’ve tried to do this before and I just can’t do it.									56														56
It is more convenient.					23							25											48
I do not know/care.	8	2		19			4	2						3			7			1		1	47
I have picky eaters.		6		4			12	11								6	7			1			47
It’s too confusing to know what I should or shouldn’t eat.									40								1						41
My child is not the right age to be breastfed.													36										36
Medical issue.		3					1			4	3	1				1	14	3		1	2		33
I am in the process of making changes.	2	1	1	10			9	3									3						29
My child is not latching on correctly and I don't think they are getting enough to eat.													27										27
I don’t really have support to do this.									24		3												27
I'm capable of making my own decisions and deciding what is best for my child.												24											24
I don’t think what I eat now will affect by baby.									23														23
Our family life is hectic and we all eat at different times.																			20				20
It is too difficult.	1	3		2			6										2					2	16
My child is used to eating unhealthy.						13																	13
We like to watch the television with our family meals.																			12				12
I already stopped/am working on this.							1						11										12
My child is over/underweight.						4												6					10
I am not ready.			1	5										2		1							9
I don't want to waste food.															4			5					9
Need to think about this information.				3			1	1								1						2	8
Spanish answer.	1			5												1							7
My child weaned him/her self.													7										7
Poor organization.				4																			4
I'm worried about my breast size after breastfeeding.													4										4
I want to add more organic and natural foods.								2														1	3
My doctor doesn't think I have to change my eating or exercise habits.										3													3
I am still pregnant.																					3		3
I'm not really sure how to introduce new foods.																		2					2
I do what fits our life.																		2					2
I'm the parent and I know what is best for my child.															1						1		2
I don't understand the information.	1						1																2
My child is not latching on properly.													1										1
My child doesn't like physical activity.																					1		1
Too lazy.							1																1
I still have questions.							1																1
WIC restrictions are very limiting.																						1	1
Breastfeeding doesn't work for me, it's too frustrating.													1										1
I don’t see the benefits of doing this.									1														1
Grand Total	**49**	**27**	**5**	**230**	**2194**	**97**	**78**	**84**	**274**	**27**	**541**	**3199**	**384**	**14**	**230**	**29**	**82**	**131**	**60**	**15**	**198**	**15**	**7963**

What importance do the new WICHealth.org Link metrics such as user rating, favorite status and link type have on stage progression?

User average link rating among those that progress at least one stage was not significantly different from those who did not progress any stages of change. Further, user link rating was not associated with the amount of time users spent viewing the link (Table 23).

WICHealth.org users tend to rate interactive tools, videos, games and recipes highest. Also, minutes per view of links that contain text only is markedly lower than links that include images or links based on original content. Downloaded items have the least average number of minutes per view, but this may be attributable to the fact the user intended to download and reference the material later.

Table 23. Average User Link Rating and Minutes per View by Link Type

Link Type	Link Views	% of Total Views	Minutes per View	Average User Rating	Average Reading Level
Original Content	75,289	12.7%	3.56	4.33	5.0
Text with Images	343,197	57.8%	2.32	4.47	6.8
Text only	36,736	6.2%	1.96	4.36	8.4
Download Item	1,426	0.2%	1.57	4.30	11.0
Interactive Tool	35,601	6.0%	2.63	4.65	11.1
Video	35,682	6.0%	3.33	4.62	6.0
Game	11,933	2.0%	1.86	4.72	4.5
Recipe	53,402	9.0%	3.09	4.60	8.0
TOTAL	593,266	100%	2.59	4.48	6.94

Does the depth of use (number of links accessed) vary significantly by lesson?

Table 24 clearly indicates that the number of links accessed or depth of use varies significantly by lesson.

The “Food Safety for Moms-to-Be”, “Keep Your Family Safe from E.Coli” and “Create Good Eating Habits in Your Child” lessons had the largest proportion of users that only accessed one link during their lesson. Consequently, these lessons also had the smallest proportion of users accessing more than five links during their lesson. The lessons that demonstrated the greatest depth of use included “A Recipe for Healthy Pregnancy”, which had 18.4% of users access more than five links during their lesson, and “Healthy Whole Grains” (16.9%).

As link frequency has been demonstrated to be one of the most significant factors associated with WICHealth.org user progression in stage of behavior change, consideration of how to improve lesson depth of use is still warranted for many lessons. Some suggestions include further implementation of user prompts to encourage the use of more links and possibly additional exit survey items to inquire about why the user selected the number of links they did during their lesson.

Table 24. Depth of Lesson Use (Number of Links Accessed) by Lesson

	Number of Links Accessed					
Lesson	**1**	**2**	**3**	**4**	**5**	**>5**
Food Safety for Moms-to-Be	64.8%	13.4%	14.5%	3.4%	1.6%	2.3%
Be Healthy with Fruits and Veggies	47.0%	24.1%	8.7%	5.0%	3.2%	12.0%
Preparing For A Healthy Pregnancy	41.0%	18.8%	11.5%	7.0%	8.4%	13.2%
Eat Well - Spend Less	36.6%	23.1%	12.3%	8.4%	6.2%	13.3%
Secrets for Feeding Picky Eaters	43.2%	24.9%	10.7%	6.4%	4.1%	10.8%
Make Meals and Snacks Simple	49.4%	21.6%	9.9%	5.9%	5.6%	7.5%
Steps to a Healthier Family	45.8%	20.9%	10.8%	5.9%	4.9%	11.7%
Healthy Whole Grains	35.5%	23.4%	10.8%	8.1%	5.3%	16.9%
A Recipe for a Healthy Pregnancy	30.9%	23.9%	13.4%	8.5%	4.9%	18.4%
Be Healthy As Your Baby Grows	49.1%	24.8%	12.0%	5.1%	2.7%	6.3%
Baby's First Cup	48.0%	18.0%	18.0%	7.0%	3.1%	5.8%
Starting Your Infant on Solid Foods	37.6%	22.6%	11.8%	9.1%	5.4%	13.6%
Support For Breastfeeding Moms	49.8%	21.1%	8.9%	6.0%	5.5%	8.7%
Keep Your Family Safe From E. Coli	56.1%	19.4%	8.1%	11.1%	2.4%	3.0%
Help Your Child Make Good Eating Choices	39.1%	27.0%	12.6%	7.8%	3.7%	9.8%
Fruits and Veggies Grow Healthy Kids	50.5%	21.5%	10.1%	6.4%	5.5%	6.0%
Build Strong Kids with Dairy Foods	41.9%	23.0%	11.8%	9.8%	5.1%	8.5%
Trust Your Child To Eat Enough	51.9%	21.4%	10.8%	8.4%	2.9%	4.7%
Create Good Eating Habits In Your Child	54.2%	20.2%	8.8%	10.2%	2.7%	4.0%
Fun and Healthy Drinks for Kids	49.7%	21.3%	11.4%	7.3%	5.2%	5.1%
Happy Healthy Active Children	38.3%	24.8%	10.7%	8.2%	5.6%	12.3%
Shopping with your WIC Food Benefits	47.0%	21.6%	11.3%	5.6%	3.8%	10.6%
Overall	**45.7%**	**22.0%**	**11.7%**	**7.2%**	**4.4%**	**9.0%**

What other topics would WICHealth.org users like to see addressed by additional lesson development?

WICHealth.org users were asked about what other topics they would like to see developed into lessons. Table 25 presents the results for all valid responses collected. Topics requested that are similar to current lessons are highlighted in yellow. The fact that many of the most popular responses include topics that are already covered by WICHealth.org suggests that users may benefit from a lesson search functionality that allows them to select the most appropriate lesson based on select key words.

Most frequently, users request lesson development focusing on recipes and healthy snacks, both topics already covered by available WICHealth.org lessons.

Topics not currently covered by WICHealth.org lessons that were most frequently identified by users included Child Growth (10.4%), Child Behavioral Issues (5.4%), Infant Care (4.3%) and Budgeting (2.9%).

Table 25. Potential WICHealth.org Topics Users Suggest for Development

User Requested Topics for Development	% of Reponses	User Requested Topics for Development	% of Reponses
Recipes	10.4%	Family Planning	<1%
Healthy Snacks	9.7%	Dairy Guidelines	<1%
Child Growth (Charts, Milestones Nutrition, etc.)	9.4%	Twins/Multiples	<1%
Picky Eaters	6.1%	Menu Planning	<1%
Breastfeeding	5.8%	How to Add Vitamins	<1%
Child Behavioral Issues	5.4%	Safety Information (Including Computers)	<1%
Adding Fruit and Vegetables	4.7%	Diabetes Information	<1%
Infant Care	4.3%	Routine Cleaning Ideas	<1%
Transition to Solid Foods	3.6%	Educational Games	<1%
Budgeting	2.9%	Maintaining Healthy Bones	<1%
Adding Exercise	2.2%	Ethnic Foods	<1%
Toddler Tips	1.8%	Autusim Information	<1%
Potty Training	1.8%	Pregnancy	<1%
Dental Care Tips / Teething	1.8%	Gluten free	<1%
Low Sugar/Calorie Recipes	1.8%	Dealing with Postpartum Depression	<1%
Adding Variety	1.8%	Sushi	<1%
Transition to Cow's Milk	1.4%	First Time Parenting	<1%
Sleep Habits	1.4%	Teaching Children to Read	<1%
Tips for Busy Moms	1.4%	Portion Sizes	<1%
Colic Information	1.1%	Television Alternatives	<1%
Starting School	1.1%	Positive Reinforcement	<1%
Food Allergy Information	1.1%	Positive Role Models	<1%
Transition to a Cup	1.1%	Alcohol Information	<1%
Adding Fiber	<1%	On Demand Feeding	<1%
WIC Info	<1%	Winter Exercise Options	<1%
Adding Protein	<1%	Car Seat Information	<1%