



# HEALTHY HEARTS

An analysis of survey responses, 2012 - 2015

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## Background

It is estimated that more than 1 in 3 US adults are affected by heart disease [1]. In 2010, the total cost of cardiovascular diseases in the United States was \$444 billion and the treatment of these diseases alone accounts for nearly \$1 of every \$6 spent on health care [2]. Additionally, heart disease is the leading cause of death in the United States and in Bullitt County [1, 4]. In Bullitt County, the mortality rate for heart disease was 357.7 per 100,000 residents over the age of 35 for the years 2008 to 2010 [4, 5].

While a costly disease, heart disease is also preventable. The risk for developing heart disease is increased by several modifiable risk factors that are prevalent in Kentucky including: high blood pressure, high cholesterol, diabetes, tobacco use, poor diet, lack of physical activity and being overweight or obese. The Bullitt County Health Department has identified chronic diseases, including heart disease, as one of four strategic issues in the county as a result of its Community Health Assessment [6].

The Bullitt County Health Department and multiple community partners have planned and presented an annual Healthy Hearts event since 2008 to raise the awareness of Bullitt County residents about heart disease and to raise funds for the American Heart Association. This multifaceted event includes expert speakers, information booths, exercise demonstrations, health screenings, a healthy meal, survivor stories and a fashion show with local survivors of heart disease as models. This event is funded by the Bullitt County Health Department and community partners. Tickets are sold at the health department and the local YMCA for \$10 to cover the cost of the conference center and food.

Data from attendee evaluations are available for 2012 through 2015 and are presented in this report.

## Methods

Survey data was collected by asking attendees of the Healthy Heart event to fill out a short evaluation form at the conclusion of the program to help improve program quality. Completion of the evaluation was voluntary and incentives such as t-shirts and water bottles were provided in 2012 and 2013 for completing the survey, but were not provided in 2014 and 2015. The survey contains four Likert-type questions regarding different aspects of the program and appropriateness of the information. The survey also contains two questions regarding the age and gender of the participant and four open response questions.

Descriptive statistics are reported by year for the Likert-type questions and demographic questions. ANOVA and two sample t-tests were used to determine differences in group means between responses each year for the four Likert-type questions. Responses to the open ended questions were compiled and will be used for future program improvement.

## Results

The Healthy Hearts program has been well attended during the four year evaluation period with over 200 tickets sold each year and greater than 80% of participants who bought tickets attending the event. However, the percentage of individuals in attendance who fill out an evaluation form is low, with the highest percentage being 54.8% in 2012 and with completion rates declining in the following years. This information is summarized in Table 1.

Table 1. Event attendance and completion of evaluation, 2012 - 2015.

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Number Tickets Sold</b>	288	275	250	242
<b>Number Attended</b>	254 (88.2%)	249 (90.5%)	219 (87.6%)	204 (84.3%)
<b>Number Completed Evaluation</b>	138 (54.3%)	74 (29.7%)	85 (38.8%)	49 (24.0%)

Analysis of demographic information provided by survey respondents show that the vast majority of attendees are female (>90% each year) and age of 50 or older (≥80% each year). Demographic data is summarized below in Table 2.

Table 2. Demographic information of survey respondents, 2012 – 2015.

	<b>2012</b>		<b>2013</b>		<b>2014</b>		<b>2015</b>	
	<b>N</b>	<b>Percent</b>	<b>N</b>	<b>Percent</b>	<b>N</b>	<b>Percent</b>	<b>N</b>	<b>Percent</b>
<b>Gender</b>								
Male	7	5.07%	2	2.70%	1	1.18%	2	4.00%
Female	127	92.03%	67	90.54%	79	92.94%	48	96.00%
Blank	4	2.90%	5	6.76%	5	5.88%	0	0.00%
<b>Age</b>								
5-12	1	0.72%	0	0.00%	0	0.00%	0	0.00%
13-18	0	0.00%	0	0.00%	0	0.00%	0	0.00%
19-49	21	15.22%	7	9.46%	16	18.82%	3	6.25%
50-64	50	36.23%	29	39.19%	21	24.71%	17	35.42%
65+	62	44.93%	34	45.95%	47	55.29%	30	62.50%
Blank	4	2.90%	4	5.41%	1	1.18%	0	0.00%

Analysis of the Likert-type questions indicated that participants had a generally positive perception of program components including: the appropriateness of the content, preparation of the presenter, and helpfulness of the handouts and information. Each year, greater than 90% of participants either agreed or strongly agreed with each of the statements presented in the survey. This information is summarized in Table 3. ANOVA and two sample t-tests were used to determine if the mean response values for each question differed by year. Statistical testing indicated that the responses for two questions were statistically significant: Question two “The presenters were well prepared,” which was significantly lower in 2013 than in 2012 (3.68 and 3.85, respectively with  $p=0.01$ ) and question four “the information presented was age appropriate” was significantly lower in 2014 and 2015 than in 2012 (3.77 and 3.69 compared to 3.88,  $p=.03$  for 2014 and  $p=.003$  for 2015). Select responses to the open ended questions are presented in Table 4.

Table 3. Program perceptions, 2012 – 2015.

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
	<b>Percent Strongly Agree/Agree</b>	<b>Percent Strongly Agree/Agree</b>	<b>Percent Strongly Agree/Agree</b>	<b>Percent Strongly Agree/Agree</b>
The content was appropriate for this group	98.55%	98.65%	96.47%	96.00%
The presenters were well prepared	97.83%	95.95%	96.47%	100.00%
The handouts/information brochures were helpful	98.55%	98.65%	98.82%	94.00%
The information presented was age appropriate	97.10%	N/A	97.65%	98.00%
I would recommend this program to others	N/A	97.30%	N/A	N/A

Table 4. Select Responses to Open Response Questions

<b>Year</b>	<b>Response</b>
<b>What did you like most about the program?</b>	
<b>2012</b>	"I learned so much. I loved it all, and I really loved all the dancing." "Many people interested in better health." "Survivor stories were great!"
<b>2013</b>	"The Healthy Hearts speaker Peggy Combs and the stories of survival." "The style show, stories, the fellowship." "Singing, testimonials."
<b>2014</b>	"Dr. Dillon was very informative and injected appropriate humor in a very serious subject matter." "All the great information and the demonstration of exercises." "Fashion show."
<b>2015</b>	"The speakers were informative, everything was good, and the food was well prepared and delicious." "Interesting content. Melissa Swan did a great job. Dr. Holland's presentation was amazing!" "Very engaging and fun for all. Truly informational. I liked family style lunch opposed to a box lunch. I thoroughly was moved to hear the survivor stories."
<b>What did you like least about the program?</b>	
<b>2012</b>	"People talking while presentations were going on." "Unfortunately, the power outage during the last segment (that couldn't be helped though)." "We loved it all."
<b>2013</b>	"Could not hear the speaker clearly." "It's a little long for us old folks, but I wouldn't want to say what you could cut." "I thought the whole program was great!"

<b>2014</b>	"The best show we have held." "Maybe a little more booth time after speakers and fashion show." "Maybe something about cooking for your heart."
<b>2015</b>	"Sometimes it was hard to understand through speaker system." "Speakers were very interesting, but most of audience was too old for it to be helpful for them." "Meal - a lot of waste".

Discussion

This program evaluation aimed to analyze previous Healthy Heart events and identify areas for future program improvement. The data from previous events reveal some actionable information. First, only a fraction of those individuals in attendance provided feedback on the program through the survey. In order to collect better information on the community that we are reaching through this event, steps should be taken at future Healthy Heart events to increase the number of individuals filling out the evaluation form. For example, in 2012, the year with the greatest percentage of individuals returning an evaluation (54.3%), a free t-shirt was offered to those who completed the evaluation. Increasing the percentage of attendees who complete an evaluation is also important to ensuring that the Bullitt County Health Department is including information and activities in the program that is helpful to all groups in attendance.

Analysis of the demographic information provided by participants also shows that the Healthy Hearts event is attended predominantly by women (>90%). When the event first started, the target audience was women; however, the focus has expanded to include both men and women in recent years. This is an important transformation because men and women have similar risks for heart disease, and men who develop heart disease are diagnosed, on average, at younger ages than women [1]. However, the number of men in Bullitt County being reached directly through this program remains low. Furthermore, the event is attended mainly by individuals age 50 and older (≥80%). While these older individuals have the highest risk of having heart disease, prevention is important in both this age group and in younger individuals. Lifestyle changes can be difficult and should be encouraged at all ages. In the future, special attention should be paid to engaging men and young people in this community event.

It is important to note that the low percentage of survey responses may skew our understanding of the population attending the event. In this report, we are assuming that those who turned in a survey are representative of the demographics of all individuals in attendance at the event.

Overall, participants have a very positive reaction to the Healthy Hearts event. The event is well attended, and participants comment on enjoying the activities and information that are presented.

Future Action

In order to increase the response rate on the evaluation survey at future events, we will consider:

- Staff members visiting the tables and standing at exit doors to verbally encourage people to complete the surveys before they leave.
- Offering an incentive, such as a t-shirt or prize drawing, only for those individuals who complete the surveys.

- Having the keynote speaker ask the audience to complete the surveys before leaving.
- Having the keynote speaker and staff members emphasize the importance of completing the survey.

In order to increase participation in the event by men and by younger people, we will consider:

- Encouraging people to bring their spouse to the event.
- Reaching out to community organizations serving these populations to help advertise the event.
- Identifying community leaders in these demographic groups, educating them about the Healthy Hearts event, and encouraging them to spread the information to others.
- Advertising the event through the schools.
- Planning a man-friendly activity or booth during the event.
- Target advertising for younger populations by placing flyers at locations they frequently visit, such as local fitness centers, coffee shops, and businesses.
- Advertising using social media outlets such as Facebook and Twitter, and the BCHD website.

## References

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