

**Parent Action on Drugs**  
**“Hook Up To Breast Cancer Prevention”**

**2010 Evaluation**

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**Research Consultant**

## PREFACE

I would like to acknowledge, with appreciation, Parent Action of Drugs for their assistance in collecting and entering survey data, in organizing focus groups, and for their continuous assistance throughout this evaluation.

I would also like to thank the program partners and peer educators who not only designed and ran their own “Hook Up to Breast Cancer Prevention” campaigns, but who also took part in focus groups and filled in surveys to provide the information to evaluate this project.

Finally, I would like to thank the student participants who took part in the campaigns, and who also participated in focus groups and filled in the surveys to tell us about what they had learned and to make recommendations for future campaigns.

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## EXECUTIVE SUMMARY

This report presents the final evaluation of “Hook Up To Breast Cancer Prevention” a two year project undertaken by Parent Action on Drugs and partners and funded by the Canadian Breast Cancer Foundation – Ontario Chapter. The goal of the project is to reduce the risk of breast cancer and to increase breast health by assisting young women to develop healthy lifestyle patterns of reduced alcohol consumption, increased physical activity, and healthy eating patterns.

“Hook Up to Breast Cancer Prevention” is a health promotion project in which peer educators plan and implement school campaigns to raise awareness and to change alcohol consumption, eating, and exercise patterns that may increase their risk of developing breast cancer in the future.

### Goals and Objectives

The two goals of “Hook Up to Breast Cancer Prevention” were to deliver the activities successfully, and to help young women move through the stages of change toward healthier lifestyles. Success indicators were established for objectives where appropriate based on PAD’s past experience with peer education programs.

#### Goal #1

*To deliver program activities successfully*

Objective 1 – To determine if program activities were implemented as planned.

Objective 2 – To determine whether peer educators developed the skills to deliver the breast health promotion campaign.

Objective 3 – To determine participant satisfaction with the campaigns.

Objective 4 – To determine whether regional partners and school contacts provide adequate support for the program.

Objective 5 – To determine whether brochures for caring women increase awareness and increase ability to talk with their daughters about this issue.

#### Goal #2

To help young women move through the stages of change to adopt healthier lifestyles

Objective 6 – To assess whether peer educators and participants have an increased awareness about modifiable lifestyle factors and the risk for breast cancer

Objective 7 – To assess whether participants are convinced that the links between lifestyle factors and the risks are real and need attention.

Objective 8 – To determine whether peer educators and participants identify strategies for change that are acceptable to them.

## Methodology

The focus of the evaluation is a combination of process, formative and outcome evaluation to measure the effectiveness of program activities in achieving the program's goals.

Findings in this report are based on seven data sources:

- 1) Process evaluation form completed by the project coordinator
- 2) Four focus groups - three with peer leaders and one with campaign participants
- 3) Pre and post-workshop surveys completed by peer educators (n=115)
- 4) Post campaign surveys completed by participants (n=439) and peer educators (n=58)
- 5) "Hook Up" Facebook page used by peer educators for planning campaigns
- 6) Partner surveys (n=2)
- 7) Key informant interview with partner (n=1)

## Findings

### Goal #1

*To deliver program activities successfully*

- **Program Activities:**

The major project activities were implemented as planned: peer educators were recruited and trained, and campaigns were conducted in eight schools (three English high schools, two French high schools, and three English universities). The success indicator was to recruit 15-20 peer educators in each school. This was achieved in six of the eight schools, in two others, a smaller number of peer educators was recruited, but they were able to conduct the campaigns successfully.
- **Peer Educator Skill Development:**

Peer educators participated in a training workshop in which they learned how to design and implement a campaign in their school. Survey results indicate that the workshop was well-received, with over 90% of peer educators giving the workshop a satisfaction rating of 4 or 5 on a 5 point scale. Peer educators also reported that they had developed the knowledge and skills they needed to design and implement the campaigns. Qualitative feedback from questionnaires and focus groups showed that the peer educators were highly motivated by the workshop, and by the prospect of developing their school campaigns.

- ***Participant Satisfaction:***  
A large number of participants took part in each of the campaigns. Participation was highest at the high schools, where at some schools, every girl took part. Participants also reported high levels of satisfaction with the campaigns, with 71% rating the campaigns 4 (very good) or 5 (excellent) on a 5 point scale.
- ***Support from Program Partners and School Contacts***  
The division of duties between the regional partners, school contact, and students varied widely. In all cases, the partners and school contacts fulfilled their basic roles. A greater level of support by partners was in some cases correlated with a greater degree of success of the campaigns. Where partners played a lesser role, school contacts or students took the lead in the campaigns.
- ***Caring Women***  
As part of the campaign, an information brochure was developed and given to participants to take home to their mothers/caring women. A number of efforts were made to collect feedback from caring women about the brochure; however, they were not successful. In place of data from caring women, the brochure was evaluated by 21 health promotion professionals, and by academics at the University of British Columbia. They found that the brochure was an effective and appropriate tool for addressing the issue of breast cancer prevention among young women.

Goal #2

*To help young women move through the stages of change to adopt healthier lifestyles*

- ***Increased Awareness of Modifiable Lifestyle Factors***  
An average of 76% of participants demonstrated an increased awareness of modifiable lifestyle factors by writing three things they had learned from the campaign.
- ***Links are Real and Need Attention***  
The evaluation findings show that both peer educators and participants were convinced of the links between life style factors and breast cancer health risks. Ninety-five percent of peer educators and 87% of participants reported that they found the evidence for the link between health behaviours and breast cancer "quite" or "very convincing".
- ***Identify Strategies***  
A large percentage of peer educators identified specific strategies for changing their exercise (71%), eating (68%), and alcohol consumption (47%). Similar percentages of participants also identified specific strategies for changing their exercise (74%), eating (76%), and alcohol consumption (40%)

## Discussion

Each school campaign was planned by the peer educators in accordance with their skills, desires, and the specific circumstances of the schools. As expected, each school campaign had a different schedule and mix of activities. The different approaches employed, were all successful in fulfilling the objectives of the project.

The findings of this evaluation are uniformly positive. Almost all indicators of success were met and in most cases exceeded by a considerable measure. The training workshop was well received by peer educators, and helped them develop the knowledge and skills they needed in order to plan and implement their campaigns. The information provided in the campaigns raised awareness of modifiable lifestyle factors, was convincing, and helped most peer educators and participants to identify strategies for change.

As well as meeting the indicators for success, the project ignited in the young women involved a level of enthusiasm that was apparent in the qualitative responses and in the focus groups.

## Conclusion

The delivery of the campaigns in eight schools was well received by partners, peer educators and participants. The project was successful a) in delivering program activities successfully, and b) in helping young women move through the stages of change to adopt healthier lifestyles.

Despite the success, the evaluation also points to one potential area for improvement. While program partners and school contacts are provided with a list of roles and responsibilities, there was in a few cases some confusion about who would fulfill each of the duties. This confusion may be avoided if the program materials recommended that partners and school contacts map out their respective duties and expectations at the beginning of the project.

Although this project is largely self-sustaining, with the majority of the work being done by peer educator volunteers, as with any project, ongoing support is necessary for the campaigns. In the eight schools where the program was delivered PAD facilitated the training day workshops for peer educators, and supplied scratch and learn cards, banners, t-shirts, and key chains with messaging to support the campaigns, and a facebook page for planning. Public Health departments and the schools provided budgets for such things as photocopying, ingredients for smoothies and other nutritious snacks, with a small stipend provided by PAD. The budget at University 3, for example was about \$800 for the week long campaign and was provided by PAD, the public health unit, and the university.

The success of the school campaigns conducted for this project, and the enthusiasm ignited in the peer educators and participants, indicate that ongoing support would likely lead to further successful campaigns.

# INTRODUCTION

## Background

This report presents the final evaluation of “Hook Up To Breast Cancer Prevention”<sup>1</sup> a two year project undertaken by Parent Action on Drugs with partners from health, education and youth sectors (see Appendix B), and funded by the Canadian Breast Cancer Foundation – Ontario Chapter. The goal of the project is to reduce the risk of breast cancer and to increase breast health by assisting young women in developing healthy lifestyle patterns of reduced alcohol consumption, increased physical activity, and healthy eating patterns.

The key component of the program is a series of breast health campaigns for young women aged 16-20 that are both designed and implemented by peer educators. The campaigns took place in both English (n=6 schools) and French (n=2 schools). For the campaigns, peer educators developed their own campaign activities or adapted activities suggested by PAD. Each school campaign was planned by peer educators in accordance with their skills, desires, and the specific circumstances of their school. Each campaign had a different schedule and mix of activities, but all were directed toward fulfilling the goals and objectives of the project.

PAD supported the campaigns by providing materials including scratch and learn cards, banners, t-shirts, and key chains emblazoned with the message: “Hook-up to breast cancer prevention, you can make a difference.” Other supports for the campaigns included a Facebook page, a website, and honoraria for university peer educators.

The campaigns are targeted toward young women aged 15-20, a group that has been identified by the Ontario Student Drug Use Survey as drinking at hazardous levels, but being unaware of the health hazards associated with drinking other than drinking and driving.<sup>2</sup> The project consisted of eight campaigns that took place in five high schools and three universities in Ontario. Each campaign consisted of five components:

- 1) Recruitment of peer educators
- 2) Train-the-trainer workshops for peer educators
- 3) Campaign planning meetings
- 4) School campaign
- 5) Promotion of program content through brochures/articles among caring women (mothers, aunts, older sisters, grandmothers, friends and guardians)

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<sup>1</sup> Although initially called “Check It Out – Young Women and Breast Health”, after initial focus tests, the project adopted the slogan “Hook Up To Breast Cancer Prevention” and this subsequently became the identifier for the project.

<sup>2</sup> Adlaf, A. et al, (2005), Ontario Student Drug Use Survey, Centre for Addiction and Mental Health, <http://www.camh.net/Research/osdus.html>

The school campaigns were completed in December 2009. The goal of this report is to present the evaluation findings on whether campaigns were successfully delivered and the degree to which they assisted young women in moving toward healthy lifestyle patterns of reduced alcohol consumption, increased physical activity, and healthy eating. The degree of change is measured along stages based on the stages of change theory.<sup>3</sup> The stages as defined in this project constitute objectives 6-8 and are:

- increased awareness
- being convinced that the links between lifestyle factors and increased risk of breast cancer are real and need attention
- identifying strategies for change
- identifying an intention to change

The goal of the project was to assist young women in moving through the stages from awareness toward identifying an intention to change.

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<sup>3</sup> DiClemente, C.C., & Prochaska, J.O. (1982). Self change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behavior*. &: 133-142.

## Goals and Objectives

The overarching purpose of this evaluation is to assess the extent to which the program has achieved its goals. It has been prepared to assist key stakeholder and future campaign managers to make decisions about future directions for the project. As well as data relevant to specific goals and objectives, additional findings that are relevant to future planning of Hook Up campaigns were collected and are included in the findings and discussion.

The two goals of “Hook Up to Breast Cancer Prevention” were to deliver the activities successfully, and to help young women move through the stages of change toward healthier lifestyles. Success indicators were established for objectives where appropriate based on PAD’s past experience with peer education programs.

### **GOAL #1**

To deliver program activities successfully

Objective 1 – To determine if program activities were implemented as planned.

Indicators: to have the program delivered in eight schools (four high schools and four universities) by December 2009; to have the program run by a regional coordinator and a school contact; and to recruit 15-20 peer educators in each school.

Objective 2 – To determine whether peer educators developed the skills to deliver the breast health promotion campaign.

Indicators: 80% report an increase in their leadership skills; most peer educators report being able to deliver the workshop successfully

Objective 3 – To determine participant satisfaction with the campaigns.

Indicator: 65% of participants rate the campaign and its components and resources good to excellent

Objective 4 – To determine whether regional partners and school contacts provide adequate support for the program.

Indicators: 100% of partners provide necessary assistance to peer educators to deliver successful programs

Objective 5 – To determine whether brochures for caring women increase awareness and increase ability to talk with their daughters about this issue.

Indicators: 50% of mothers who have access to the resources will identify an increased awareness of the issues; 50% of those mothers report an increased ability to talk with their daughters

### **GOAL #2**

To help young women move through the stages of change to adopt healthier lifestyles

Objective 6 – To assess whether peer educators and participants have an increased awareness about modifiable lifestyle factors and the risk for breast cancer

Indicator: 75 % of the Peer Educators and 60% of participants will report an increase in awareness of the lifestyle factors that impact the risk of breast cancer

Objective 7 – To assess whether participants are convinced that the links between lifestyle factors and the risks are real and need attention.

Indicator: 75 % of the peer educators and 40% of the participants will report a greater understanding of the validity of the risks, and the need to attend to them

Objective 8 – To determine whether peer educators and participants identify strategies for change that are acceptable to them.

Indicator: 100% of peer educators and 75% of participants will be able to identify at least one strategy for change that is acceptable to them.

## METHODOLOGY

To develop the evaluation plan, key documents provided by PAD were reviewed (Project Proposal, Gantt Chart, Ethical Review Applications). The Program Manager and PAD Director assisted with identifying critical information to be derived from the evaluation, areas of focus for the evaluation, and the feasibility of various evaluation methods. Using these documents a Logic Model was developed for planning the evaluation (Appendix A).

The focus of the evaluation is a combination of process, formative and outcome evaluation to measure the effectiveness of program activities in achieving the program's goals.

Findings in this report are based on seven data sources:

- 1) Process evaluation form completed by the project coordinator
- 2) Four focus groups - three with peer leaders and one with campaign participants
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- 4) Post campaign surveys completed by participants (n=439) and peer educators (n=58)
- 5) "Hook Up" Facebook page used by peer educators for planning campaigns
- 6) Partner surveys (n=2)
- 7) Key informant interview with partner (n=1)

Peer educator data was collected from all eight schools. Participant data was collected from six of the eight schools. Quantitative data was entered in either Survey Monkey, or an Excel spreadsheet. Analysis was done using averages, frequencies, and cross-tabulations. Qualitative data was analyzed for trends and emergent themes.

Evaluation data for peer educators is based on 115 surveys completed at the five high schools and three universities, a total of eight schools. As well, three focus groups were conducted with peer educators.

Evaluation data for participants is based on 439 surveys completed at four high schools and two universities, a total of six schools. As well, one focus group was conducted at one high school.

### Limitations

This evaluation measures whether there is an increase in awareness and intention to change among participants and recipients of the breast health campaigns conducted by peer leaders and if there is an increase in awareness and ability to support behavior change among key support persons as an immediate result of program activities. Only limited information was collected to determine whether participants retain the knowledge over the medium term and fulfill the intention to change.

## FINDINGS

### GOAL #1

To deliver program activities successfully

**Objective 1 – *To determine if program activities were implemented as planned.***

Indicators:

- 1.1 to have the program delivered in eight schools by December 2009, and to have the program run by a regional coordinator and a school contact
- 1.2 to recruit 15-20 peer educators in each school

All three indicators were met with only minor modifications.

### 1.1 Program Delivery

The program was delivered in eight schools, although the proportion of schools was changed from an initial goal of four high schools and four universities to five high schools and three universities. At each school, the program was run by a regional coordinator, usually a Public Health Nurse, and a school contact, usually a teacher or youth worker. The regional coordinators and school contacts managed all aspects of the campaign in their respective schools. PAD, however, facilitated the training workshop in each school and supplied scratch and learn cards, banners, t-shirts, and key chains with messaging to support the campaigns, as well as a facebook page as a planning resource.

Each group of peer educators developed their own campaign using their own ideas as well as ideas suggested at the training workshop. This meant that each campaign was unique with its own schedule and mix of events. Campaign activities consisted of information booths, question and answer contests, treasure hunts, dancing and aerobics, and free “mocktail” tastings – including “smoothies for boobies” and “tropical ta-tas”. At universities, as well as information booths, resources were handed out at student pub nights, announcements were made at football games, and movie nights and dances were held. Two of the high schools held circuit events in which all activities were held on one day with all girls moving from station to station in the gymnasium over the course of an hour. Two other high schools held one activity each day as part of a *Hook Up* theme week.

### 1.2 Recruitment

At each school, the objective was to recruit 15-20 peer educators and to have them attend the training day. This objective was met at the four high schools and two universities with a total of 115 peer educators recruited. In some cases a waiting list of potential peer educators was created because of the demand. At university one, however, recruitment was a particular challenge and the regional coordinator and school contact were able to recruit only eight peer educators. In one high school, the

campaign was run by seven senior students from an empowering student partnership program in the school.

At the high schools, recruitment was done through posters, P.A. announcements and classroom visits. All peer educators were volunteers, except at one school where a teacher recruited students from a senior Phys Ed leadership class. Recruitment was a challenge at university 1, with an initial effort recruiting two volunteers. To improve recruitment, it was decided to offer university peer educators an honorarium, which is the norm for other campus projects requiring volunteers. The honorarium, a \$20 gift certificate, helped the partners to recruit seven peer educators at university 1, and was used at the other two universities.

At several schools boys asked to be peer educators. Some had a relative with breast cancer, and some argued that because men can get breast cancer that males should be involved in the campaign. To maintain the focus on young women’s health, PAD decided to permit boys to be participants, but not peer educators.

The profile of Peer Educators that emerges from the survey data is that of female students in their late teens and early 20s. The average age of the high school peer educators was 16.6 years, with the largest number in grade 12. The average age of the university peer educators was 19.6 years, with the largest number being in the second year of their studies. In focus groups it was apparent that peer educators were highly motivated because of the high profile of breast cancer campaigns, and because a substantial number (34%) reported having a close relative with breast cancer.

Table 1: Peer Educator Profile

High School Students							
Age	15	16	17	18	19	20	Over 20
# of peer educators	1	23	29	2			
Grade	9	10	11	12			
# of peer educators			31	42			

University Students							
Age	15 & under	16	17	18	19	20	Over 20
# of peer educators				7	14	13	9
Year	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Grad Student		
# of peer educators	8	17	10	5	2		

### **Additional Findings**

In some surveys and one focus group, peer educators who had delivered the campaigns late in the school year of 2009, stated that late March in universities, and May in high schools, was too late in the year to conduct the campaigns as students were already preparing for exams. In one focus group, students in a high school suggested late October as the best time to conduct the campaign – during Breast Cancer Awareness Month. They stated that if campaign planning began during the first couple of weeks of school, there would be enough time to plan the campaign. In the fall of 2009, university 3 ran their campaign in late October as part of Breast Cancer Awareness Month. The program partner stated the timeline was tight with recruitment in September, the training workshop in early October, and the campaign in the last week of October. She stated that the campaign was very successful and was completed before students wrote their midterm exams.

**Objective 2 – To determine whether peer educators developed the skills to deliver the breast health promotion campaign.**

Indicators:

- Training workshop helps peer educators develop the knowledge and skills to plan and deliver school campaigns
- 80% of peer educators report increase in their leadership skills
- most report being able to deliver the workshop successfully

After recruitment, peer educators attended a one day training session conducted by PAD staff. Feedback on the workshop was collected in a post workshop survey completed by 115 peer educators and in four focus groups. After the workshop, peer educators held a series of meetings with the school contact and sometimes the regional support person to plan the campaign. While planning their school campaigns, peer educators also used a facebook page where they could discuss their campaigns and learn lessons from other campaigns.

A detailed description of the workshop feedback follows. There was little variation between schools, and between high school and university respondents, so results have been collated. All responses are reported in percentages of the total peer educator respondents (n=115).

**2.1 Workshop Feedback**

Almost all respondents indicated a high level of satisfaction with all aspects of the workshop, with over 90% giving ratings of 4 or 5 on a 5 point scale for content, pace, length, facilitation and opportunity to participate (table 2).

*Table 2: Please give your impression of the workshop:*

<b>Criteria</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Content			2%	33%	64%
Pace			6%	50%	48%
Length		2%	6%	45%	46%
Facilitator (preparedness; ability to maintain interest and answer questions)		1%	6%	26%	67%
Opportunity to Participate, ask Questions		1%	1%	17%	81%

**2.2 Satisfaction**

The collated results show a very positive response for the workshop with over 90% of participants giving the workshop an overall rating of four or five on a five point scale (chart 1).

Chart 1: Overall Rating



In qualitative responses, participants expressed enthusiasm about the workshop with comments such as:

*A lot of fun!*

*I really enjoyed the energy, it kept me involved*

*The workshop was very informative and gets one thinking about their lifestyle and all that they can change by simply adding a few extra minutes of exercise or packing a lunch or just watching what one drinks. Thank you very much.*

*It didn't meet my expectations, it was more fun! This was fun!*

At the end of the post workshop feedback form, peer educators were asked if they had any unanswered questions. In feedback from the 2008/09 campaign, when asked *Is there any other further training that you would need to deliver the "Hook Up to Breast Cancer Prevention" Campaign?* Almost all peer educators replied "no". A few mentioned that they would like more information in order to answer questions on breast cancer diagnosis, myths, and treatment steps. Additional information resources were made available to peer educators in the fall 2009 campaigns. During these later campaigns, no peer educators asked for more information. The lack of questions seems to indicate that outstanding questions about diagnosis, myths, and treatment steps were answered.

### 2.3 Preparedness

When asked how prepared they felt to deliver the campaign immediately following the workshop, 88% of peer educators gave ratings of 4 or 5 on a 5 point scale ranging from 1. "not at all prepared" to 5. "extremely well prepared" (table 3).

Table 3: How well prepared do you feel to lead a "Hook up to Breast Cancer Prevention" campaign?

Criteria	1 Not at all prepared	2	3	4	5 Extremely well prepared
Content			8%	58%	30%

When asked if there was any further training they would need to deliver the campaign, most responses were uniformly positive:

*I think that with all of us together, we have more than enough information*

*No, with actual meetings, I will feel prepared, this training was a great stepping stone*

Overall, the post workshop surveys and focus groups indicate that the workshop was successful in meeting objective two – to prepare peer educators to deliver the breast health campaign. The participants gave very positive feedback on the workshop, their responses indicate that it built their enthusiasm to deliver the campaign, and the post campaign surveys

### 2.4 Leadership

The indicator of having 80% of peer educators report an increase in their leadership skills was exceeded. After their school campaigns, when peer educators were asked, "Did participating in this program increase your leadership skills and confidence?" 95% indicated "yes", 5% indicated "no". "No" responses may mean that the peer educator already had the leadership skills in place. One participant who responded "no" stated, "I was already very confident in my leadership abilities."

Peer educators who responded "yes" described what they had learned:

*I learned how to better communicate with others*

*I feel more in control of situations*

*Talking to people and explaining certain things to them gave me more confidence. I am capable of changing things.*

*Holding this event did increase my leadership, taking charge, and decision making skills. It also gave me confidence. I led an exercise class which I was nervous about but as soon as I got in there I reminded myself that I need to inform these girls that exercising for as little as 30 minutes a day can reduce your risk of breast cancer.*

*It felt good to give others the tools they need to prevent breast cancer.*

There is also evidence that school administrators recognized the leadership growth among peer educators. High School 2 awarded some peer educators a leadership award because of their involvement in the “Hook Up” campaign.

## **2.5 Delivery**

The indicator of having most peer educators report being able to deliver the campaign successfully was met. In post campaign surveys, eighty-seven percent of peer educators reported being able to deliver the campaign successfully, while 13% indicated difficulty with some activities. The difficulties described by the 13% were logistical – a lack of participants, or restrictions placed on the campaign by their school. None of those who reported difficulties delivering some campaign activities cited a need for more training. Overall, it is clear that the workshop and support provided the participants with the knowledge and skills they needed to deliver successful campaigns.

**Objective 3 – To determine participant satisfaction with the campaigns.**

Indicator: 65% of participants rate the campaign and its components and resources good to excellent

Participants at four high schools (n=362) and two universities (n=77) completed feedback surveys on the campaigns. At the high schools, surveys were given to all girls in grades 11 and 12. Almost half completed the surveys. As well as surveys, a focus group was conducted with participants at one high school. At the universities students who were participating in one activity were asked to fill in feedback forms.

Peer educators designed their campaigns for the unique circumstances of their own school. In all but one high school, activities were spread over a week – often with a different activity each day. One high school, however, held all of their activities in one morning, with all students from each grade going to the gym for an hour each. The activities began with a large group True or False Game, then broke into three smaller groups and rotated among three kiosks, each featuring activities about the three campaign topics - exercise, eating, and alcohol.

The other high schools and universities held activities each day over a week. The core activity in each case was an information booth set up in a central area. At University 3, as well as the information booth, peer educators handed out information at student pub nights, and made announcements at football games. At the University 2, a dance and fashion show were held to promote the messages of the campaign. The participation rates varied at each school because of the different styles of campaigns and the number of activities. One high school had nine activities, whereas the rest had four to six activities. At the high schools, participation rates were considerably higher than at the universities. At the one high school, where students from each grade were called to the gym to spend an hour doing *Hook Up* activities, participation rates were over 80%

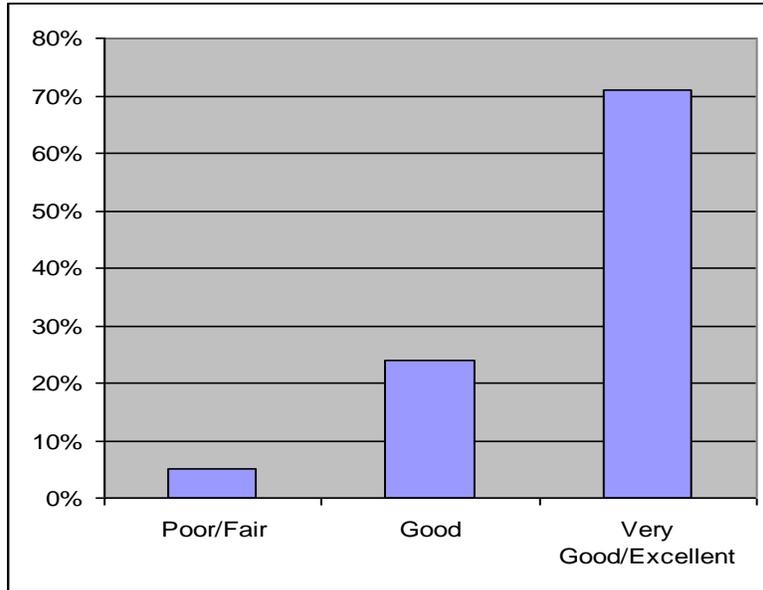
Table 4 reports the participation rates for each schools' activities as a percentage of total participants who completed a survey. Reading down each column shows which activities took place at each school, and which were most popular. Reading across the rows, indicates the relative popularity of the various activities at each school.

Table 4: Participation Rates

	HS #1 N/A	HS #2 n=109	HS #3 n=26	HS #4 n=89	HS #5 n=26	Univ # 1 N/A	Univ #2 n=6	Univ #3 n=68
Info Booth				87%	12%		33%	19%
Hook Up Game		3%	7%	85%				
Morning announcements		5%						
Nail painting with peer educators		12%						
Aerobics/Dance/Fashion Show		26%					83%	
Large pink bra web		45%			80%		20%	
Pink Ribbon Tattoos					33%			
Mini Muffins		45%	33%					
Smoothies for boobies		45%		84%	64%		83%	
Key chains, cell phone rings		45%						
Scratch and learn fact card		42%						
Face Painting			15%					
Uniform buy-out day			80%					
Survivor Testimony				72%				
Pub Nights Info (x 2)								48%
Exercise Video				89%				
Pink Extensions					31%			
Treasure Hunt					52%			

When asked for an overall rating of the campaign, participants rated it “poor” or “fair” (5%), “good” (24%), and “very good” or “excellent” (71%) (Chart 2). The results exceed the indicator, which was to have 65% rate the campaign “very good” or “excellent”.

Chart2: Overall, how would you rate this campaign? (n=439)



The responses were fairly uniform across the four high schools and two universities for which data is available. Average ratings ranged from 3.6 to 4.1 out of 5 for the six schools.

Table 5: Average Participant Ratings

	HS #1	HS #2 n=109	HS #3 n=130	HS #4 n=89	HS #5 n=26	Univ 1	Univ 2 n=6	Univ 3 n=68
Average Rating out of 5	N/A	3.9	3.6	4.0	3.9	N/A	4.1	4.0

Participants were asked to select aspects of the campaign they liked from a list. Participants (n=439) selected from a list:

1. I liked the campaign look and slogan (n=254)
2. I liked that it was my peers who were giving me the information (n=261)
3. The giveaways (scratch n’ learn cards, key chains, telephone dangles) (n=242)
4. The activities (n=300)

The responses show that many participants like all four aspects of the campaigns. In the “other” category 14 students from one school wrote that they liked the testimony of a breast cancer survivor. Considering that few participants from any one school

responded in the “other” category this is a substantial number, and indicates that the survivor testimony had a substantial impact.

When asked how the campaign could be improved, participants wrote a number of responses (like responses have been collated) (table 6).

*Table 6: Suggestions for improvement*

Suggestions for Improvement	Respondents
more notices/posters/announcements	64
it was excellent as it was	48
include males	9
longer	9
more opportunities to participate	15
more free food	5
more activities	11
make trivia Qs more difficult	2
more volunteers	2
more free stuff	5
More guest speakers	4
Hold an assembly	3
More information/facts	6
Music	2

Most of the suggestions asked for more of the activities that were already in the campaign. In several schools, participants asked for more notice about the campaign. In the High School 2 participant focus group, participants said that more posters were needed. They stated that they didn’t really know about the campaign until it was already underway.

Survey results from High School 3 indicate that participants wanted more advertising for the campaign (n=33), more opportunities for involvement (n=9), more activities (n=6), and more information (n=6). On the other hand, eleven stated that the campaign was good as it was. The project was managed by one girls’ phys ed class with most of the planning being done by the students during class time. In a focus group, peer educators from High School 3 stated that the class time available did not give them adequate time to plan, and said that they would have been willing to stay after school to plan the activities.

***Objective 4 – To determine whether program partners provide adequate support for the program.***

Indicator: 100% of partners and school contacts provide the support needed for students to deliver the campaigns successfully as measured in outcome data from peer educators and participants

Data for this objective comes from process tracking notes completed by PAD, self-report surveys from two partners, and one key informant interview with a program partner. The data also provides formative information on the level of partner involvement required, the challenges, facilitators, and lessons learned from managing the campaigns.

The partners' responsibilities included:

- identifying one school/campus and school contact
- recruiting 15-20 peer educators
- participating in the Training Workshop
- meeting with peer educators post-training day
- coordinating peer educator pre- and post- questionnaires
- organizing follow-up focus groups or other evaluation tools
- supporting campaign delivery

Responsibilities were divided between the partner and the school contact. In five of the eight schools, the partner was a public health nurse. In the other three it was a Bachelor of Social Work student, or a community worker who worked with Parent Action on Drugs. The school contact was a teacher in the high schools and a student services/health promotion consultant in the universities.

The division of duties between the partner, school contact, and students varied widely. In High School 1, the partner fulfilled most of the responsibilities listed above. In High School 2, both the partner and school contact, a phys ed teacher, were involved in all stages of the campaign. In High Schools 3, 4, and 5, the partner was not as involved, and the bulk of the work fell to the teachers, or in the case of High School 4, to the students.

In the universities, the partners provided the bulk of the support for the campaigns. In the universities 1 and 2, the school contact provided logistical support, such as booking rooms. In University 3, however, the school contact provided support throughout all of the planning stages and activities.

In all cases, the partners and school contacts fulfilled the roles listed above. The outcome indicators, discussed below under goal 2, show that all campaigns were successful on almost all measures. The level of support provided by the partner and school contacts did have an impact on the outcomes of the campaigns. In High School 2, where both the partner and school contact were deeply involved in all aspects of the campaign, the school conducted nine activities, the most of any campaign. On the other hand, High School 3 had the fewest activities of the high schools (n=4), and did not meet one of the outcome indicators. In High School 3, the partner established the school contact, but then was not involved in the campaign afterward. The school contact

did not have time to help the girls plan outside of their regular classes. The peer educators were frustrated by the lack of planning time and by restrictions placed on the campaign by the board. Participants in High School 3 stated that they liked the campaign, but wanted more activities and more opportunities to participate. A lack of clarity around the division of responsibilities between the partner and school contact may have been one factor that limited the size and reach of the campaign.

Partners were asked about the facilitators, challenges, and lessons learned from their campaigns, to collect information that can be useful for future campaigns.

### **Facilitators**

Partners mentioned the energy and enthusiasm of the peer educators as the main facilitator of the campaigns:

*The girls who did sign up and who were able to attend the workshop were very keen and motivated,*

*The peer educators were amazing. We had 20 girls trained and 15 on a waiting list...16 at the wrap-up meeting...incredibly energetic and keen.*

Among the facilitators, some partners suggest that a successful campaign has a champion who, through her own commitment, sees the campaign through its challenges and supports the peer educators at every stage. As one partner put it:

*You need to find the right school contact who has a passion for the project. There is no point in having someone "voluntold" by school administration.*

Another facilitator was an already developed relationship between the partner and the school. In one case, the public health nurse is in the school one day a week, and had worked with the school contact on previous projects. The nurse said that she welcomed the opportunity to work with the teacher on another project, because their working styles complemented each other.

### **Challenges**

Among the challenges noted by program partners were keeping the peer educators focused, planning around peer educator schedules, and an uneven distribution of work.

*Keeping the peer educators on track [was a challenge] when they wanted to move away from the three key messages and include other information that might have diluted the campaign*

*Some of the girls signed up but then did not actually make it to the training day, for a variety of reasons they could not afford to miss a day of school*

*There were some girls who were more committed than others and who did the lion's share of the work...some grumbling in the group over this issue.*

## **Lessons Learned**

Partners listed a number of lessons they wanted to pass on to future campaign organizers:

*It is important to attend the training workshop. If you don't, you will have difficulty reaching the same level of communication with the girls involved and you will not have as clear a vision of where they need to go with the project and how to get there. You also get a feel for which girls will be the strong leaders and which will need to be drawn out a bit.*

*There will always be some girls that do most of the work.*

*Students wanted more information about breast cancer. A couple of slides could be added to the workshop and could direct them to the CBCF website*

*Having a follow-up debriefing session is important. Peer educators shared some of the fun and funny things that happened, and told us about other breast cancer activities they had become involved in since the campaign. It's really important, this celebration of their success.*

**Objective 5 – *To determine whether brochures for caring women supports increase awareness and increase ability to talk with their daughters about this issue.***

Indicators: 50% of mothers who have access to the resources will identify an increased awareness of the issues; 50% of those mothers report an increased ability to talk with their daughters

As part of the campaign, an information brochure was developed and given to participants to take home to their mothers/caring women. A number of efforts were made to collect feedback from caring women about the brochure. Participants and peer educators in the first few campaigns were given the brochure to take home, and were informed of the evaluation form that was available online. In the first school, student participants were given the brochure and an evaluation form with a stamped self-addressed envelope and asked to give the brochure to their caring women and have their caring women respond on their forms. Only two were returned. With such a small response, efforts to get feedback on the brochure were de-emphasized in the later campaigns.

It is therefore, not possible to determine whether objective 5 was achieved. However, an extensive formative evaluation of the brochure was undertaken to gather expert opinions on the potential effectiveness of the brochure, and these formative results are presented here.

One hundred and ten women who self-identified as having young women ages 16-20 in their lives gave feedback on the brochure through an online survey on key messages and the best format for this information. From this information, a draft brochure was developed and tested with several members of the Pink Tulip Foundation. Additional changes were made based on that feedback and in the fall of 2008, the brochure was tested by an expert panel of Health Promotion specialists who accepted an invitation to review the format and content of the brochure.

A group of twenty-one respondents completed the survey. Of these, ten worked for public health units, seven worked for schools, three worked for universities, two were university students and two worked for not for profits focused on cancer issues. All respondents specified alcohol, healthy eating and/or physical activity as issues that they deal with in their work. The respondents represent a high level of expertise in health promotion, and chronic disease prevention and their responses represent a strong initial measure of the potential effectiveness of the brochure.

### **5.1 General Responses**

Ninety percent of respondents rated the brochure as three (good) or 4 (excellent) on a four point scale for appearance, tone, information, and ability to raise interest. Five respondents gave more detailed feedback with suggestions for improvement. One respondent said the language was guilt-inducing, and cited the statement "The risk of breast cancer increases with every drink consumed." She suggested using a more neutral tone. A second respondent who worked with university students thought the alcohol stats were geared toward high school students, but said that she would give out

the brochure because she believes it to be excellent. A third respondent said that the big breasts were too sexual. A fourth thought some information was repetitive, and a fifth thought that environmental factors should have been emphasized more. Because there is no consistency with the comments, it is not possible to suggest ways to improve the brochure from these comments. The overall high ratings, indicate its approval by the majority of respondents in its current form.

When asked if they had learned new information from the brochure, about half (n=9) replied yes, and half (n=10) replied no. Those who responded that they had learned something new, mentioned the links between lifestyle factors and breast cancer, including the link between alcohol and breast cancer (n=5), between physical activity and breast cancer (n=2), and between nutrition and breast cancer (n=1). One respondent thought the approach of the brochure was "a positive way to put prevention in the hands of young women."

## 5.2 Caring Women Target Group

All participants thought that it was useful to engage the caring women target group when trying to reach younger women. About half (n=10) had a young woman in their personal lives. All of these respondents indicated that this resource would help them to talk to the young woman in their lives, which suggests another level of endorsement from this group of respondents.

## 5.3 Other Applications for the Brochure

Twelve respondents responded that the brochure would be a helpful resource in other programs/settings. These included clinics (n=5), Big Sisters, and early detection of cancer groups.

When asked if there was anything else they wanted to tell us about the brochure, four participants gave endorsements, including: "fabulous brochure...eye catching and great info", "it's great", and "great resource".

As well as the evaluation by the health promotion experts described above, the brochure was analyzed by academics at the University of British Columbia as part of a study on the sexualization of breast cancer. The academics stated that the images used in the pamphlet avoided the sexualized approach found in other breast cancer campaigns:

*One notable exception to this sexualized approach was the image from "Hook up to prevent breast cancer" pamphlet, where a graphic drawing of a bra is used to signify breasts rather than nudity or female models.<sup>4</sup>*

The brochure is now being distributed across Canada by the Pink Tulip Foundation.

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<sup>4</sup> Breast Cancer Messaging for Younger Women: Gender, Femininity, and Risk. Haines, R.J., Bottorff, J.L., McKeown, S.B., Ptolemy, E., Carey, J., & Sullivan, K. (2010). *Qualitative Health Research*: 20: 731. <http://qhr.sagepub.com/cgi/content/abstract/20/6/731>

Overall, the responses indicate a high level of acceptance and endorsement for the pamphlet.

**GOAL #2**

*To help young women move through the stages of change to adopt healthier lifestyles*

**Objective 6 – To assess whether peer educators and participants have an increased awareness about modifiable lifestyle factors and the risk for breast cancer.**

Indicator: 75 % of the Peer Educators and 60% of participants will report an increase in awareness of the lifestyle factors that impact the risk of breast cancer

**6.1 Peer Educators**

To measure the starting point for an increase in awareness, peer educators were asked if they had heard about the relationship between exercise, eating, alcohol consumption, and breast cancer before the program. Between 40% and 52% had heard about the relationship (table 7).

*Table 7: Scientific studies have shown a relationship between exercise/eating/alcohol consumption and the risk for breast cancer. Have you heard about this relationship before? (n=69)*

	Exercise	Eating	Alcohol
Yes	40%	52%	41%
No	60%	48%	59%

To measure learning after the workshop, peer educators were asked to recall three messages from the workshop. Eighty-nine percent of peer educators did so. This exceeds the indicator of having 75% of the peer educators demonstrate their learning this way. Almost all peer educators replied with messages directly from the workshop, including:

*Guys can get it too.*

*Alcohol, activity, and eating affect it.*

*5-10% of breast cancer is from genetics.*

*Even young women get it.*

In the first year, a few peer educators misunderstood the information they were given that wearing a bra does not increase your risk of developing breast cancer. For the second year, a point was made to debunk this myth. This confusion did not appear in the responses from peer educators in the second year, indicating the changes to the information resources provided for peer educators had clarified this issue for participants.

## 6.2 Participants

An average of 76% of participants demonstrated their learning by writing three things they had learned from the campaign (table 8). This exceeds the indicator which was to have 60% of participants “recall main messages”. One high school, High School 3, fell below the indicator.

Table 8: Write three things you learned about breast health issues.

	HS #1	HS #2 n=109	HS #3 n=26	HS #4 n=89	HS #5 n=26	Univ #1	Univ #2 n=6	Univ #3 n=71
% of participants	N/A	74%	50%	76%	62%	N/A	66%	83%

Almost all participants responded with the primary message of the campaign – that alcohol, exercise, and eating can impact your risk of breast cancer. The most commonly cited response was that alcohol can impact breast cancer. The responses from High School 3 tended to be vague stating for example, “effects many women” rather than “1 in 10 women will get it”. The results from High School 3 indicate that the girls there did not learn the messages of the campaign as well as the girls from the other schools.

Table 9: Write three things you learned from this campaign.

Response	Number of responses
Alcohol link	34%
Exercise link	26%
Eating link	23%
Men can get it too	9%
Early detection is impt/self-exam	3%
Any age, including young can get it	3%
Effects many women	2%
It can be fatal	2%
Give money	2%
Smoking increases risk	2%
Funding wasn't great a while ago	>1%
Birth control increases risk	>1%
1 in 10 women will get it	>1%

**Objective 7 – To assess whether peer educators and participants are convinced that the links between lifestyle factors and the risks are real and need attention.**

Indicator: 75 % of the peer educators and 40% of the participants will report a greater understanding of the validity of the risks, and the need to attend to them

On surveys, peer educators and participants were asked two questions to determine whether they had a greater understanding of the risks and the need to attend to them:

- *How convincing do you find the scientific evidence of a link between exercise, eating, alcohol consumption and breast cancer?*
- *Do you believe you can make a difference to your risk of breast cancer?*

**7.1 Peer Educators**

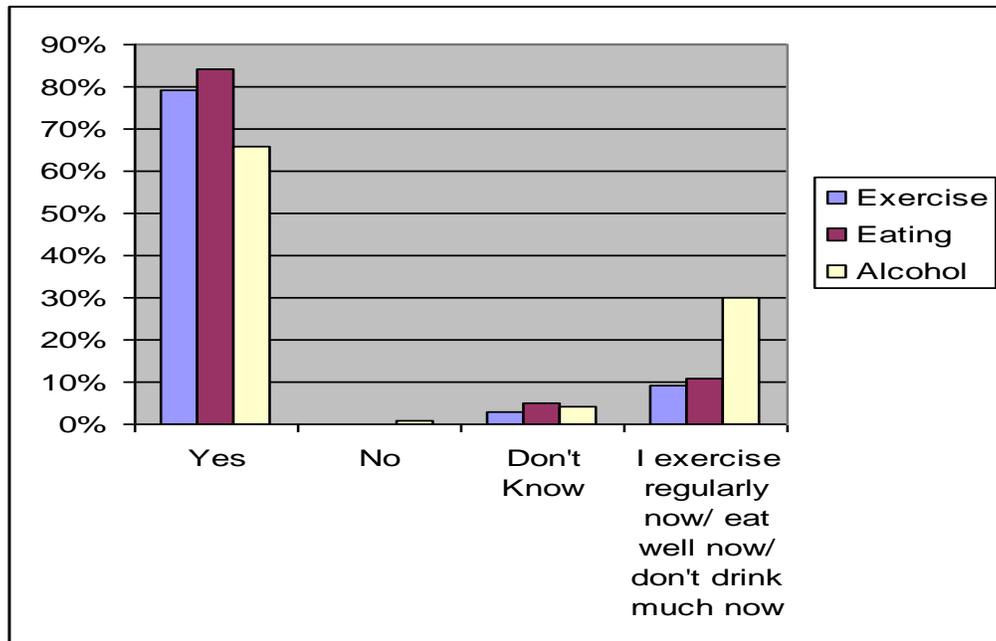
Peer educators were presented with statistics and other information linking breast cancer to modifiable health behaviors. The information was presented as a theory, that “changing risky behaviour reduces your risk for breast cancer.” In response to this information, 61% of peer educators indicated that they found the evidence of the link “quite convincing”, and 34% indicated that it was “very convincing” exceeding the indicator (table 10).

*Table 10: How convincing do you find the scientific evidence of a link between exercise, eating, alcohol consumption and breast cancer?(n=64)*

Not at all convincing	A little convincing	Quite convincing	Very convincing
0%	5%	61%	34%

To determine whether peer educators believed the risks were real and needed attention, they were asked if they believed they could make a difference to their breast cancer risk. Almost all participants responded yes, or that they were already following a healthy lifestyle. Only a small percentage replied “no” or that they “don’t know” (Chart 3).

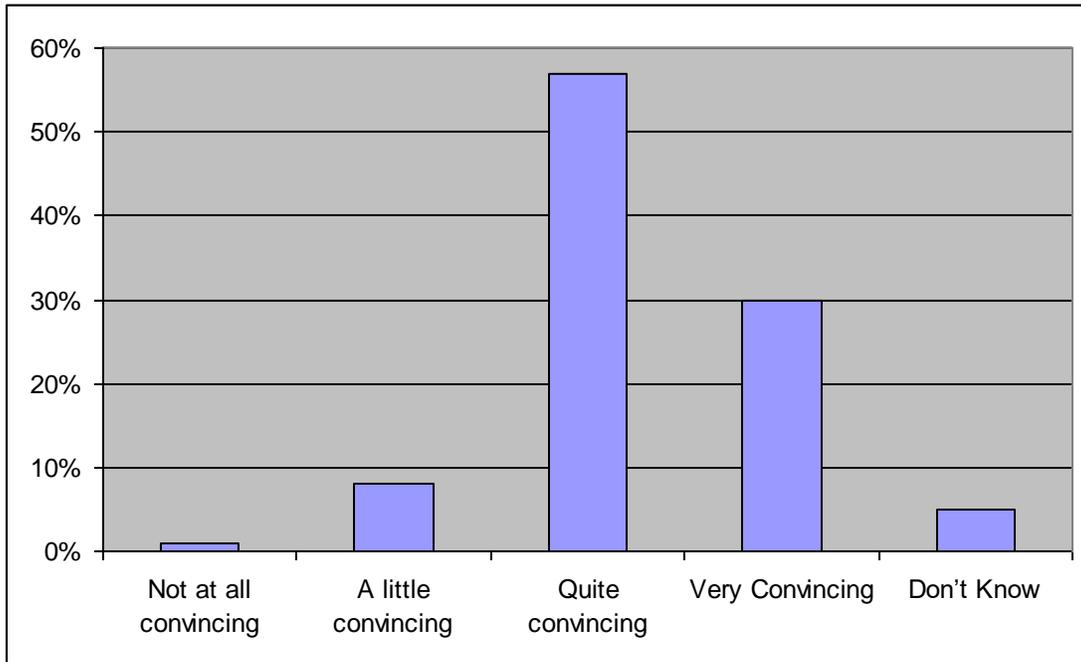
Chart 3: Do you believe you can make a difference to your risk of breast cancer?



## 7.2 Participants

The success indicator was to have 40% of respondents report an increased understanding of the validity of the risks and the need to attend to them. This indicator was exceeded with 87% of participant respondents indicating that they found the evidence of a link between modifiable health behaviours and breast cancer “quite” or “very” convincing (table 10), and 48% to 71% reporting that they would change their risk behaviours regarding alcohol, eating, and exercise.

Chart 4: How convincing do you find the scientific evidence of a link between exercise, eating, alcohol consumption and breast cancer?(n=64)



When asked whether they would change their health behaviours, 91% indicated that they would change one or more behaviours. Most participants were willing to make changes to their physical activity and eating. A substantially smaller number were willing to make changes to their alcohol consumption (table 11).

Table 11: Would you change your risk behaviours?

	Exercise	Eating	Alcohol
Yes	71%	68%	48%
No	19%	19%	34%
Don't Know	10%	14%	18%

**Objective 8 – To determine whether peer educators and participants identify specific strategies for change that are acceptable to them.**

Indicator: 75% of peer educators and 50% of participants will be able to identify at least one strategy for change that is acceptable to them.

**8.1 Peer Educators**

Pre- and post-workshop surveys completed by peer educators show some differences in intention to change before and after the training workshop. The intention to change exercise and eating declined slightly. There was a correlative increase in the percentage of peer educators who reported that they exercise regularly (increase of 14% to 21%) and eat well now (increase from 10% to 21%). The results likely indicate that information about exercise and healthy eating caused some peer educators to realize that their current exercise and eating patterns were healthy.

The percentage of peer educators who reported an intention to reduce their alcohol consumption rose from 34% to 47% (table 12). In qualitative responses on the questionnaires, and in focus groups, many peer educators stated that the link between alcohol consumption and breast cancer surprised them.

*Table 12: At this stage of your life, would you change your exercise, eating or alcohol consumption in order to reduce your risk of breast cancer?(n=75)*

	Exercise		Eating		Alcohol	
	Pre	Post	Pre	Post	Pre	Post
Yes	74%	71%	82%	68%	34%	47%
No	4%	1%	1%	3%	6%	3%
Don't Know	8%	3%	7%	8%	5%	15%
I exercise regularly / eat well / don't drink much now	14%	25%	10%	21%	42%	36%

Peer educators were also asked which health behaviour they would change, and to identify a strategy that would be acceptable to them (table 13). Most participants identified exercise or eating as targets for change, and described strategies that had been mentioned in the training workshop.

*Table 13: If you intend to change your physical activity, your eating, or your alcohol consumption, which (if any) would you change and how would you do it? (n=313)*

	Exercise	Eating	Alcohol
Yes	74%	76%	40%
No	26%	24%	60%

Qualitative responses included:

*Drinking less in a night*

*Limiting drinks*

*Drinking less when I go out, I never really though it was that bad for me.*

*[Exercising] five times a week.*

*Go to the gym four times a week and walk and take the stairs*

*Finding the time to work out.*

*Choosing foods from all groups.*

*Eating less junk food.*

*Planning meals ahead and shopping smarter.*

## 8..2 Participants

Of 313 participants who answered the question of whether they intended to change one risk behaviour, and to state how they intended to do it, approximately 75% reported an intention to change their exercise or eating and 40% reported an intention to change their alcohol consumption. In all cases, these results exceed the indicator of having 25% of participants report an intention to change and choose a strategy to do so. A lower percentage of participants reported an intention to change their alcohol consumption largely because many participants were high school students and do not drink, or drink only rarely (table 14).

*Table 14: If you intend to change your physical activity, your eating, or your alcohol consumption, which (if any) would you change and how would you do it? (n=313)*

	Exercise	Eating	Alcohol
Yes	74%	76%	40%
No	26%	24%	60%

In written responses, focus groups, and on the facebook page, a number of participants described changes they were making to their exercise, eating, or alcohol behaviours. Written responses about changes to exercise by participants include:

*Walking to school more*

*Doing more daily*

*Exercising at least four times a week*

*Running 3-4 times a week*

*Walking frequently*

*Getting a gym membership*

*Yoga everyday instead of four times a week*

About eating, participants wrote:

*Eating more fruit*

*Eating less junk food*  
*Not eating fast food so often*  
*Buying healthier foods*  
*Eating 3 meals a day; no skipping breakfast and lunch*  
*Urging Mom to buy more vegetables*  
*No more McDonalds!*

About alcohol consumption, participants wrote:

*No binge drinking*  
*Only one drink when I go out*  
*Avoid situations where I could be peer pressured*  
*Not drinking as often*  
*I don't binge drink anymore because of this info*  
*Drink less when I do drink*

Participants who changed their mind about lifestyle factors and breast cancer risk were asked what information or part of the campaign helped them change their minds (table 15). Because each campaign was uniquely designed by the peer educators at their school, it is difficult to directly compare the impact of activities across schools. A few trends, however, do emerge from the data.

- Across the various schools, participants cited the facts/stats/info provided during the campaign as the part of the campaign that most influenced them.
- The strongest results were at High School 4, University 3, and High School 2. Each of these campaigns had one factor that most influenced participants:
  - At the High School 4, testimony provided by a breast cancer survivor had the greatest impact. When asked what aspect of the campaign had helped them change their mind about their health behaviours, 30 out of 43 participants wrote that it was the survivor's testimony. The frequency of this response is quite remarkable given that the question was open-ended.
  - At University 3, the peer educators had a strong impact on the participants, with 8 indicating that it was discussions with peer educators that convinced them to commit to changing their health behaviour.
  - High School 2 had the largest number of activities spread over a week. The variety of responses from High School 2 indicate that all aspects of the campaign are important in raising participants' awareness and in increasing their intention to change.
- A substantially smaller number of participants from High School 3 wrote of specific aspects of the campaign that changed their minds. When asked what aspect of the campaign had encouraged them to make a change in their lifestyle, only a small number of participants described an aspect of the campaign (14 out of 142). As well, some High School 3 participants wrote that "I did not see any info or presentations". These findings indicate that fewer participants were affected by the campaign at High School 3, in spite of the large number who indicated an intention to change.

Table 15: What information helped change your mind?

Activity or Information	HS #1 N/A	HS #2	HS #3	HS #4	HS #5	Univ #1 N/A	Univ #2	Univ #3	Total
Exercise link			1	3	3				7
Eating link		6	4	1	2			1	14
Alcohol link					1			3	4
Survivor Testimony				30					30
Facts/stats/info		15	3	2	1			4	25
Message		4	3	2				4	11
Powerpoint game		8							8
Scratch card		6					2		8
Talking to peer ed'rs								8	8
Aerobics		5							5
Activities		3							3
Posters and big pink bra		3							3
Announcements		2	1						3
Q & A		2		1				1	4
Slogan		1							1
Repetitiveness and Consistency of Info		1							1
Signs			2						2
Breast model with lump								2	2
Food and shirts								1	1
Total Respondents		69	43	53	9		2	36	212
Skipped		41	99	37	17		4	35	233

### Additional Findings

Some follow-up data is available from peer educators who completed post campaign surveys and took part in focus groups 4-8 weeks after the initial training workshop. These qualitative responses show that a substantial number of peer educators took measures to change their exercise, eating, or alcohol consumption. Peer educators said:

*I think learning about alcohol's influence on gaining breast cancer is the aspect of the workshop that most influenced me, because it is something that I typically partake in at my current age. However, it is also something that I can easily change, and plan on doing so anyway*

*I try to be more cognizant of how I'm meeting Canada's Food Guide throughout the day.*

*I'm eating way more fruits & veggies!*

*I want to change my lifestyle, this just gave me motivation to do so.*

*I've always had to want to change my physical activity levels and my eating patterns, this just gives me more incentive to do so soon*

*I joined a gym and it's been two months that I have been going now*

*I try to eat healthier, less junk food, drink water and I'm starting to walk more to school*

## DISCUSSION

This evaluation shows that the two goals of the project, to deliver program activities successfully, and to help young women move through the stages of change to adopt healthier lifestyles, were achieved in most cases. Almost all indicators of success were met and in most cases exceeded by a considerable measure. The major process objectives are listed under goal #1. Specifically:

### Goal #1

#### *To deliver program activities successfully*

- ***Program Activities:***

The major project activities were implemented as planned. Regional partners and school contacts recruited peer 15-20 peer educators in six of the eight schools. In High School 4 seven were recruited, and in University 1 eight were recruited. On the other hand, in some schools there was a waiting list of potential peer educators. Even the schools with the smaller number of peer educators were able to deliver campaigns with a range of activities that had a measurable impact on participants.
- ***Peer Educator Skill Development:***

Peer educators participated in a training workshop in which they learned how to design and implement a campaign in their school. Survey results indicate that the workshop was well-received, with over 90% of peer educators giving the workshop a satisfaction rating of 4 or 5 on a 5 point scale. Peer educators also reported that they had developed the knowledge and skills they needed to design and implement the campaigns. Qualitative feedback from questionnaires and focus groups, showed that the peer educators were highly motivated by the workshop, and the prospect of developing their school campaigns. After the campaigns, peer educators reported that their involvement had helped to develop their leadership abilities and some had been motivated to take part in other breast cancer initiatives.
- ***Participant Satisfaction:***

A large number of participants took part in each of the campaigns. Participation was highest at the high schools, where at some schools, almost every girl took part. Participants also reported high levels of satisfaction with the campaigns, with 71% rating the campaigns 4 (very good) or 5 (excellent) on a 5 point scale. On surveys, participants expressed satisfaction with all of the activities that were offered. Participants expressed their enthusiasm for the campaigns in their survey responses and in the focus group with their main suggestions being for more of the same or similar activities.
- ***Support from Program Partners and School Contacts***

The division of duties between the regional partners, school contact, and students varied widely. In all cases, the partners and school contacts fulfilled their basic roles. A greater level of support by partners was in some cases

correlated with a greater degree of success of the campaigns. Where partners played a lesser role, school contacts or students took the lead in the campaigns. There was in some cases some confusion about who would fulfill each of the duties. This confusion may have negatively impacted the potential reach of the campaign in High School 3. Program partners and school contacts are provided with a list of roles and responsibilities as part of the campaign materials. However, it may be helpful for partners and school contacts to map out their respective duties and expectations at the beginning of the project.

- ***Caring Women***

As part of the campaign, an information brochure was developed and given to participants to take home to their mothers/caring women. A number of efforts were made to collect feedback from caring women about the brochure; however, they were not successful. It is therefore, not possible to know whether the objective of having caring women support the outcomes of the campaign was achieved. There was, however, an evaluation of the brochure by a panel of 21 health promotion experts and by academics at the University of British Columbia. They found that the brochure was an effective tool and did not sexualize the issue of breast cancer among women. The brochure is now being distributed across Canada by the Pink Tulip Foundation.

The main outcome objectives are listed under goal #2. As with the process objectives, these were met and exceeded by a considerable amount in most cases.

Goal #2

*To help young women move through the stages of change to adopt healthier lifestyles*

- ***Increased Awareness of Modifiable Lifestyle Factors***

Pre- and post- workshop questionnaires completed by peer educators provide an opportunity to compare their awareness before and after the workshop. Before the workshops, 60% of peer educators had not heard about the link between exercise and breast cancer; 48% had not heard about the link between eating and breast cancer; and 59% had not heard about the link between alcohol consumption and breast cancer. After the workshops, 89% of peer educators demonstrated an increased awareness by writing three things that they had learned, reflecting the key messages of the campaign.

After their school campaigns, 76% of participants also demonstrated an increased awareness of modifiable lifestyle factors by writing three things they had learned from the campaign.

- ***Links are Real and Need Attention***

The evaluation findings show that both peer educators and participants were convinced of the links between life style factors and breast cancer health risks. Ninety-five percent of peer educators and 87% of participants reported that they

found the evidence for the link between health behaviours and breast cancer “quite” or “very convincing”.

- ***Identify Strategies***

A large percentage of peer educators identified specific strategies for changing their exercise (71%), eating (68%), and alcohol consumption (47%). Similar percentages of participants also identified specific strategies for changing their exercise (74%), eating (76%), and alcohol consumption (40%).

The results summarized above show that most indicators were met or exceeded.

### **Other Issues**

There were a number of anticipated issues that PAD prepared for in planning this project, including:

- youth and alcohol consumption
- the sexualization of breast cancer messaging
- strong emotional reactions to the topic of breast cancer because some girls may relate to it on a personal level
- body image

There was also one issue that arose during the project that was not anticipated – the involvement of boys, which came up consistently in the campaigns. What follows is a further discussion of these issues.

### **Alcohol Consumption**

Alcohol consumption stands out from physical activity and eating patterns in peer educator and participant responses to several questions. When asked what they had learned during the campaign, participants cited the link between alcohol consumption and breast cancer more often (34%) than any other message from the campaign. As well, in qualitative responses on the questionnaires, and in focus groups, many peer educators stated that the link between alcohol consumption and breast cancer surprised them. This result coalesces with provincial results of the Ontario Student Drug Use Survey (OSDUS).<sup>5</sup> The survey found that young women, ages 16-20 are drinking at levels identified by the World Health Organization as hazardous, meaning already impacting their health. Nearly 30% of girls in Grade 11 & 12 in Ontario drink at hazardous levels. As well, young women are unaware of the risks of heavy drinking beyond impaired driving.

Increasing awareness of the alcohol link had an impact on peer educators. In pre- and post-workshop surveys, the percentage of peer educators who reported an intention to reduce their alcohol consumption rose from 34% to 47%. Among peer educators and

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<sup>5</sup> Adlaf, A. et al, (2005), Ontario Student Drug Use Survey, Centre for Addiction and Mental Health, <http://www.camh.net/Research/osdus.html>

participants who reported drinking more than moderately, 22% indicated an intention to change their alcohol consumption.

### **Sexualization of Breast Cancer Messages**

Issues about sexualization of breast cancer messages in the campaigns rarely came up during the project. In the project planning consideration was given to whether students would have any discomfort with the topic of breast cancer. In focus groups, peer educators frequently said that there was no shame around the word breast and that they didn't find it difficult to discuss the topic with peers or with family. In planning their campaigns, the peer educators created playful activities around bras and breasts, including the bra web questionnaire, and the names of "mocktails" such as "tropical ta tas", and "smoothies for boobies". The sexualization of breast cancer messages did come up in the ethical review of one school board which prohibited the use of images of bras or breasts during the campaigns. In a focus group peer educators from this campaign expressed frustration and said that the campaign could have been better without the restrictions.

The issue of sexualization of the Caring Women brochure was investigated by researchers at the University of British Columbia. The researchers found that the Hook Up materials did not use a sexualized approach, and endorsed the project's use of a drawing of a bra to signify breasts instead of nudity or female models.<sup>6</sup>

### **Emotional Reactions and Body Image**

PAD prepared for both strong emotional responses from some students and for body image issues that might arise during the campaign. Because it's a disease that can have devastating effects, PAD anticipated there being an emotional impact on some students, so planned to have one person who could withdraw from the class with any affected girl. The issue, however, did not come up during the eight school campaigns.

To protect young women from body image issues, the project emphasized healthy eating patterns rather than healthy weights. The discussion was not on portion control, but on eating the right foods and increasing physical activity to maintain health. With these precautions, the issue of body image did not arise during the campaigns

### **Male Involvement**

One unexpected outcome of the campaigns was that boys participated in activities at all of the schools. Peer educators from three high schools and one university in the first year recommended inviting boys to be peer educators and participants in future campaigns, because "boys can get breast cancer as well". After discussion, PAD decided to invite boys to participate in the second year, but not to be peer educators. The goal was to maintain the focus on girls taking charge of their own health, but not to bar boys.

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<sup>6</sup> Haines, R., Botorff, J., McKeown, B., Ptolmey, E., Carey, J., Sullivan, K. (2010) Breast cancer messaging for younger women. (manuscript) should the published paper be referenced here again instead of the manuscript?

## CONCLUSION

The delivery of the campaigns in eight schools was well received by partners, peer educators and participants. The project was successful a) in delivering program activities successfully, and b) in helping young women move through the stages of change to adopt healthier lifestyles.

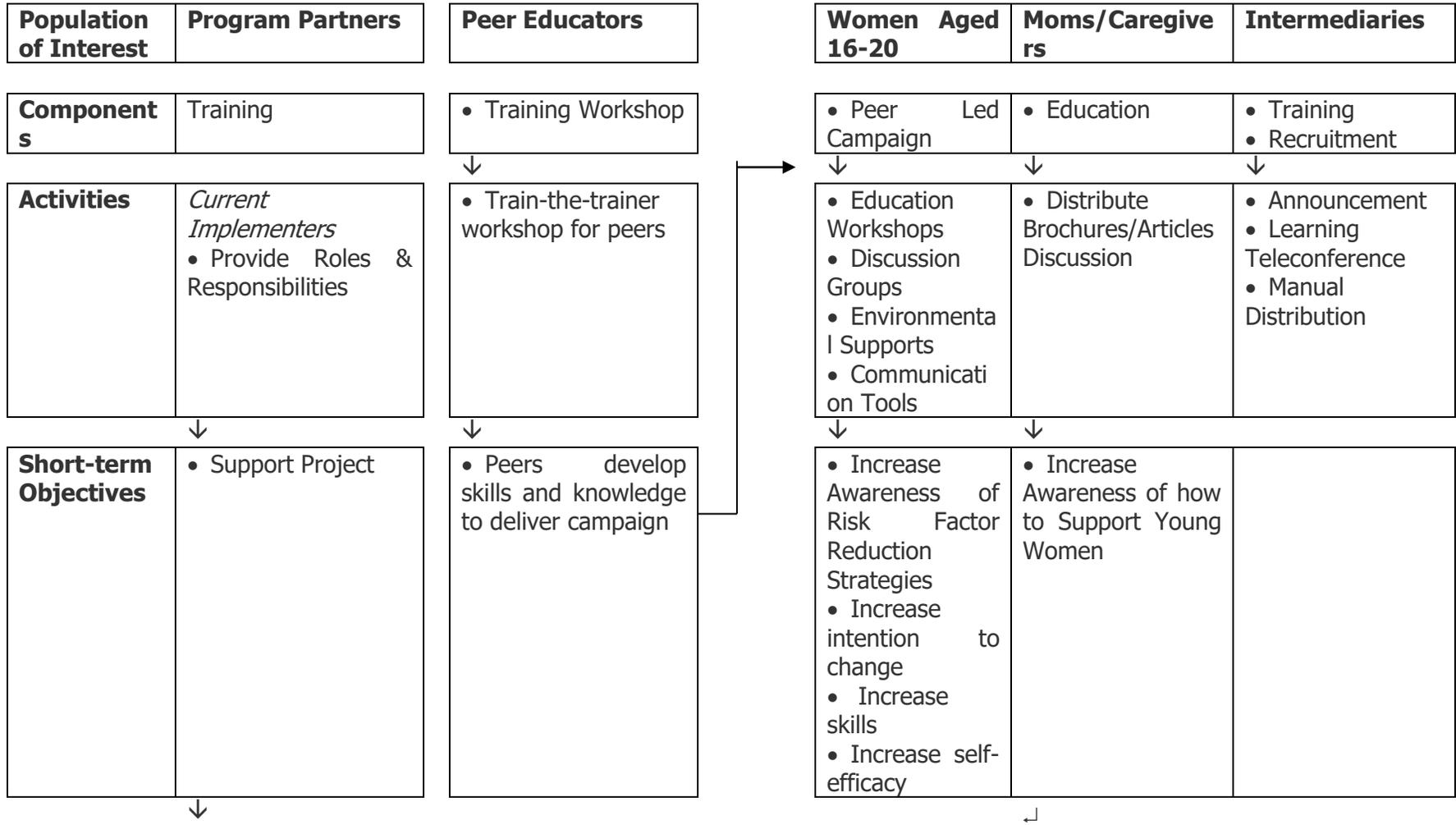
Despite the success, the evaluation also points to one potential area for improvement. While program partners and school contacts are provided with a list of roles and responsibilities, there was in a few cases some confusion about who would fulfill each of the duties. This confusion may be avoided if the program materials recommended that partners and school contacts map out their respective duties and expectations at the beginning of the project.

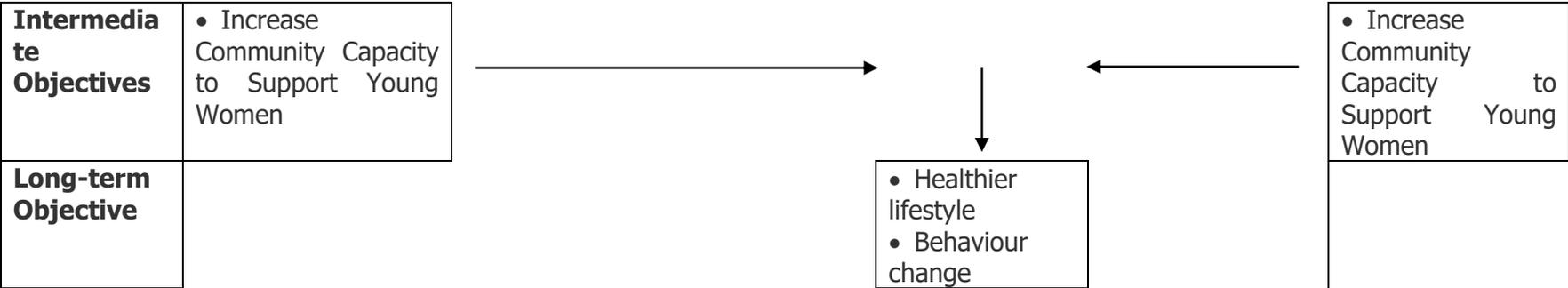
Although this project is largely self-sustaining, with the majority of the work being done by peer educator volunteers, as with any project, ongoing support is necessary for the campaigns. In the eight schools where the program was delivered PAD facilitated the training day workshops for peer educators, and supplied scratch and learn cards, banners, t-shirts, and key chains with messaging to support the campaigns, and a facebook page for planning. Public Health departments and the schools provided budgets for photocopying, ingredients for smoothies. The budget at University 3, for example was about \$800 for out of pocket expenses plus staff time for the week long campaign and was provided by PAD, the public health unit, and the university.

The success of the school campaigns conducted for this project, and the enthusiasm ignited in the peer educators and participants, indicate that ongoing support would lead to further successful campaigns.

Overall, Hook Up is a very successful program that has met and exceeded almost all of its indicators of success. It has had an impact on a large number of students, both peer educators, who developed the skills and knowledge to deliver successful campaigns in their schools, and participants, who increased their awareness of the links between health behaviours and breast cancer, who stated an intention to change and identified a specific strategy to do so.

APPENDIX A: LOGIC MODEL





APPENDIX A: PROJECT PARTNERS AND CONTRIBUTORS

LIST OF INDIVIDUALS		LIST OF ORGANIZATIONS
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