

Comprehensive Cancer Control

Evaluation Report:

Maine Comprehensive Cancer Control Program
Maine Cancer Consortium
Maine Cancer Plan

October 2008 Final Report

Prepared for:

Maine Comprehensive Cancer Control Program
Division of Chronic Disease
Maine Center for Disease Control and Prevention
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Acronyms

ACoS	American College of Surgeons
ACS	American Cancer Society
AMT	Activity Monitoring Tool
BRFSS	2006 Behavioral Risk Factor Surveillance System
CCC	Comprehensive Cancer Control
CDC	Centers for Disease Control and Prevention
CME	Continuing Medical Education
HMP	Healthy Maine Partnerships
HPV	Human papillomavirus
IRB	Institutional Review Board
MCCCP	Maine Comprehensive Cancer Control Program
MCPH	Maine Center for Public Health
MCS	Maine Cancer Society
ME-CDC	Maine Center for Disease Control and Prevention
MYRBS	Maine Youth Risk Behavior Surveillance System
PCP	Primary Care Physician
PRAMS	Pregnancy Risk Assessment System
STD	Sexually Transmitted Disease
YRBS	Youth Risk Behavior Surveillance System

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Executive Summary

Background

The Maine Center for Disease Control and Prevention, Department of Health and Human Services contracted with the Maine Center for Public Health to evaluate the statewide Comprehensive Cancer Control (CCC) Initiative. This report provides information on three major areas of the initiative that have similar goals and objectives. They include the:

1. Maine Comprehensive Cancer Control Program (MCCCP)
2. Maine Cancer Consortium (Consortium)
3. Maine Cancer Plan

In relation to these areas, this report provides an overview of findings related to the second year of implementation of the 2006-2010 Cancer Plan, the effectiveness of the Maine Cancer Consortium partnership, and Program-related activities and accomplishments.

Moreover, the report includes evaluation data from the following initiatives implemented by the MCCCP along with the Skin Cancer Workgroup and Colon Cancer Task Force:

1. *Sun Blocks: Sun Protection Assessment of Child Care Centers in Maine*
2. *Colorectal Cancer Screening: Healthy Maine Partnerships*

Purpose of the Report

The report is intended to be used to inform Consortium members, program staff, and other governmental and nongovernmental stakeholders about the progress, achievements, gaps, and limitations of the initiative, to date. This evaluation report is issued in that spirit.

It is our hope that information provided herein will be seen as an invitation to celebrate the successes, and that it will serve as the impetus to make improvements that will ultimately strengthen the initiative. The findings of this evaluation should be viewed as a learning opportunity, and as one of several tools utilized to ultimately help strengthen the collective efforts of those seeking to decrease the burden of cancer in Maine.

Results: At-a-Glance

2006-2010 Maine Cancer Plan Implementation Findings

This evaluation report provides information on select goals, objectives, and strategies delineated in the Maine Cancer Plan. The *Activity-Monitoring Tool* was used to track progress, to date, with regard to implementation for all strategies listed in the 2006-2010 Maine Cancer Plan. Overall, for the second year of implementation the results suggest that some progress has been achieved for approximately 70% of the strategies assessed.

Sun Blocks: Sun Safety Formative Evaluation Findings

The report summarizes the results of formative evaluation research that was conducted to determine the number of child care centers in Maine that currently have a formal sun safety policy, adhere to sun protection guidelines, and routinely practice sun safety behaviors. This assessment also identified barriers to practicing sun protection within the child care setting, and

revealed the current knowledge, attitudes and beliefs of Maine child care center directors in relation to sun protection. The assessment was conducted in an effort to provide baseline data for the MCCCCP sun safety objectives and inform future efforts related to sun safety programs in child care centers in Maine.

A survey was administered to a sample of 485 child care centers, with a response rate of 44% ($n = 215$). The findings presented in this report confirm the applicability of past findings concerning sun safety and child care centers to the state of Maine. The findings also provide several new insights to inform both the strategy and messaging of a childhood sun safety program for child care centers.

Colorectal Cancer Screening: Healthy Maine Partnerships

In early 2008 the MCCCCP announced the availability of funds to support the Healthy Maine Partnerships (HMP) with additional resources to enhance their on-going colorectal cancer prevention and awareness activities. The purpose of the Colorectal Cancer Screening and Awareness Community Grants is to develop community-based projects to increase awareness of the importance of screening for colorectal cancer, especially among adults over the age of fifty.

During the first year of these three-year grants, HMP across the eight public health districts were encouraged to apply for new funds to: (1) conduct in-depth analysis of barriers to colorectal cancer screening, (2) inventory current community-based colorectal cancer programs and activities; (3) develop partnerships to address colorectal cancer; and (4) develop a plan for addressing colorectal cancer and its screening barriers over the next two years. The evaluation results presented in this report represent a synthesis of the multiple HMP assessment reports, and reflect consistent themes and recommendations expressed within, and across, the individual reports.

Outcome Findings

Outcome data, when available, is also included as part of this report. The findings indicate that improvements were noted in several areas. The final results section of this report details the findings. Additional outcome information on all cancers will be accessible through a comprehensive surveillance document and plan being developed by the Maine Cancer Consortium Data Workgroup that will be available in the winter of 2008.

Recommendations

The following recommendations have been provided:

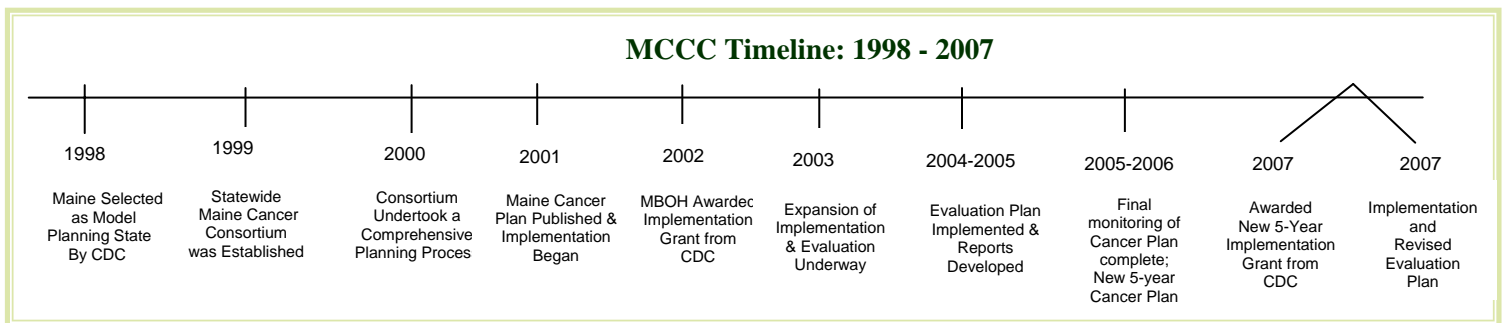
1. Enhance the Consortium's Membership
2. Increase Consortium's Participation in the Evaluation and Enhance Activity-Monitoring
3. Develop evaluation plan to track impact of policy changes related to Cancer Plan objectives and priorities
4. Enhance Evaluation Design and Utilization of Results

Background

The Maine Center for Disease Control and Prevention (ME-CDC) contracted with the Maine Center for Public Health (MCPH) to evaluate the statewide Comprehensive Cancer Control Initiative. As depicted in Figure 1, the implementation of the Maine Cancer Plan has been underway since 2001. The newest version of the 5-year Cancer Plan was announced May 18, 2006 with implementation beginning in the fall of 2006. The comprehensive evaluation plan was developed in 2007 and is designed to address the process, outcomes and contextual factors related to the initiative.

This report attempts to capture activities, successes, and challenges that have occurred during the previous year (2007 – 2008) of implementation of the cancer plan, related to three major areas of the initiative. These areas include: 1) the Maine Comprehensive Cancer Control Program housed within the ME-CDC; 2) the Maine Cancer Consortium and related Workgroups or Task Forces; and 3) the Maine Cancer Plan. The three areas complement one another and many of the activities overlap.

Figure 1. *Maine Comprehensive Cancer Control Initiative Timeline, 1998-2007*



Maine Comprehensive Cancer Control Program

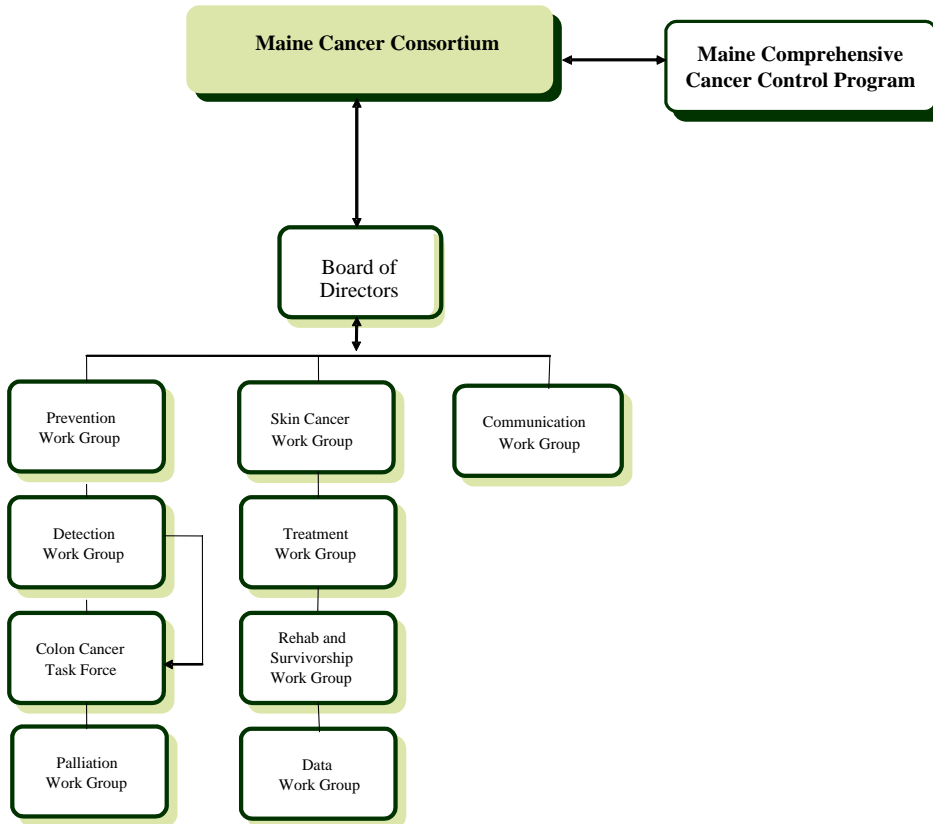
The Maine Comprehensive Cancer Control Program (MCCCP) is a state-run program funded by the U.S. Centers for Disease Control and Prevention. The program provides leadership for, and coordination of, Maine's statewide comprehensive cancer control efforts and is guided by the goals and objectives delineated in the Maine Cancer Plan. The long-term goal of the program is to reduce the burden of cancer in Maine through the coordinated efforts of the Maine Cancer Consortium (Consortium), a statewide partnership. The programmatic objectives are:

- Improve and expand the collaborative efforts already in place through the Maine Cancer Consortium among stakeholders working on cancer control in Maine.
- Increase the use of the Maine Cancer Plan as the statewide document directing cancer control efforts.
- Provide technical assistance to organizations working on state and local efforts.
- Conduct collaborative public awareness and education projects.
- Evaluate the efforts and impact of the Consortium and MCCCP.

Maine Cancer Consortium

The Maine Cancer Consortium was created in 1999 and includes representatives from public and private organizations involved in all aspects of cancer prevention, control, and care. There are over 130 organizations involved in the Consortium. An organizational chart is provided below in Figure 2. Currently, all but two of the workgroups are active.

Figure 2. *Maine Cancer Consortium Organizational Chart*



The mission of the Consortium is to reduce the burden of cancer in Maine by working collaboratively to optimize quality of life by improving access to care, prevention, early detection, treatment, rehabilitation, survivorship, palliation, and end of life care. The Consortium seeks to:

- Increase statewide integration, coordination, and provision of quality prevention, treatment, palliative, and end of life care services in Maine.
- Increase access to high quality cancer prevention, treatment, palliative, and end of life care information and services for all Maine residents regardless of geographic, financial, and other demographic factors.
- Increase the proportion of residents who appropriately utilize screening, follow-up, treatment, rehabilitation, survivorship, hospice, and palliative care services.

- Improve the quality and coordination of cancer surveillance and other data systems and the extent to which these and other evaluation data are used for comprehensive cancer control programming and management.
- Increase support from policy and grant makers for comprehensive cancer control in Maine.

Maine Cancer Plan

The Consortium and MCCCCP worked collaboratively to create the *Maine Cancer Plan*, published in 2006. The purpose of the Plan was to provide a template for what should be done to provide statewide coordination of cancer control efforts in Maine through 2010. The nine components of the Maine Cancer Plan are depicted below in Figure 3.

Figure 3. *Maine Cancer Plan Components, Goals, Objectives: 2006-2010*

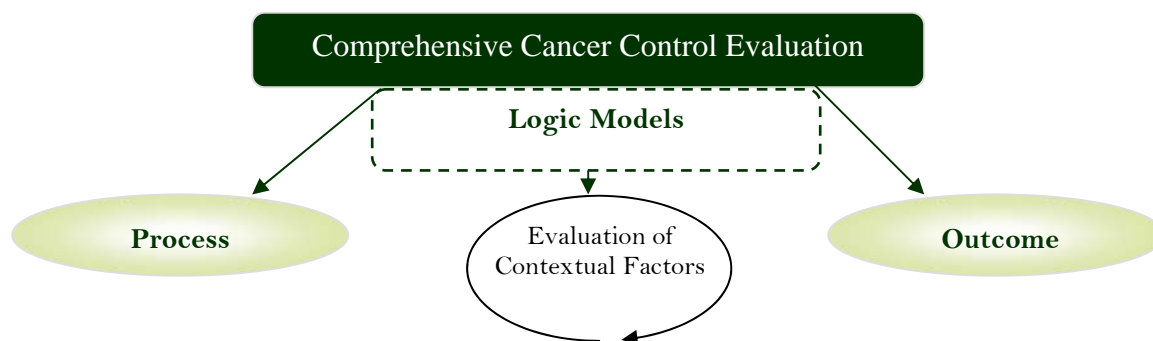


This evaluation report focuses on all strategies identified in the Maine Cancer Plan. The strategies pertaining to active Workgroups are included in this report.

Evaluation Design

As seen in Figure 4, this evaluation framework includes three components. The first component was designed to assess the process of the initiative. The second component focuses on the implementation of activities that collectively and theoretically result in improvements in health outcomes and other programmatic objectives. The third component attempts to determine the outcomes or impact of the initiative. For more information about the evaluation design, please refer to the *Comprehensive Cancer Control Evaluation Plan*. This plan delineates the steps and includes the overarching program evaluation framework consistent with the Centers for Disease Control and Prevention’s approach.

Figure 4. *Comprehensive Cancer Control Evaluation Design*



Data Collection Methodology

Quantitative and qualitative information were collected as part of this evaluation. Table 1 depicts the data sources for each component of the evaluation during the 2007-2008 cycle year. All tools developed by the MCPH were done so using a collaborative process with the MCCCCP.

Table 1. *Data Sources*

Evaluation Component	Source
Process Evaluation	
<ul style="list-style-type: none"> • Modified Activity Monitoring Tool - Paper and pencil tracking tool 	<ul style="list-style-type: none"> • Developed by the Maine Center for Public Health
<ul style="list-style-type: none"> • Interviews with Staff - Email, program accomplishments updates 	<ul style="list-style-type: none"> • Developed by the Maine Center for Public Health
<ul style="list-style-type: none"> • Cancer Consortium Annual Meeting Evaluation - Paper and pencil survey 	<ul style="list-style-type: none"> • Developed by the Maine Center for Public Health
Program-Sponsored Initiatives: Formative Evaluation	
<ul style="list-style-type: none"> • Sun Protection Assessment of Child Care Centers - Paper and pencil mail-in survey 	<ul style="list-style-type: none"> • Developed by Andrea Fletcher and MCCCCP
<ul style="list-style-type: none"> • Colorectal Cancer Screening: Healthy Maine Partnerships - Grant Report documents 	<ul style="list-style-type: none"> • Developed by MCCCCP • Analysis by the Maine Center for Public Health
Outcome Evaluation	
<ul style="list-style-type: none"> • Maine Cancer Registry, CDC Wonder - Secondary data (incidence and mortality) 	<ul style="list-style-type: none"> • Maine-CDC • CDC
<ul style="list-style-type: none"> • Youth/Behavioral Risk Factor Surveillance System - Secondary data (behaviors) 	<ul style="list-style-type: none"> • Maine-CDC • CDC

RESULTS PART I: PROCESS

This component of the evaluation focuses on the implementation of activities and strategies designed to bring about changes that are directly linked to program goals, as depicted in the logic models and outlined in the cancer plan. As many program managers well know, the implementation phase is often challenging due to uncertainties and other contextual factors that can affect the process. This part of the evaluation provides valuable information that can be used on an ongoing basis to make programmatic improvements during implementation. In addition, it allows for more effective management of individual and group efforts.

Cancer Plan Implementation: Activity-Monitoring Tool Results

An Activity Monitoring Tool (AMT) was developed in 2004. This tool was then modified in 2005 to meet the changing needs of the Consortium. The AMT tracks progress towards achievement of the stated measure and reports feedback on accomplishments, strengths, and challenges.

In response to previous evaluation findings, the Consortium members were committed to making all objectives within the 2006-2010 Maine Cancer Plan measurable. Thus, the AMT focuses on all objectives and related strategies as outlined in the Cancer Plan. This report also focuses solely on those strategies for which there was an active workgroup or task force with members available to complete the tool at the time of administration. Based on these criteria, the data presented here represents all workgroups except for the Treatment and Communications Workgroups. Moreover, in order to preserve the accuracy of the data, strategies that were duplicated across objectives are reported only once. Finally, it is important to note that this report does not include Maine Comprehensive Cancer Control Program-specific strategies due to their exclusion in the new tracking tool. The MCCCCP is, however, responsible for updating progress on the strategies in the Cancer Plan related to evaluation, disparities and implementation.

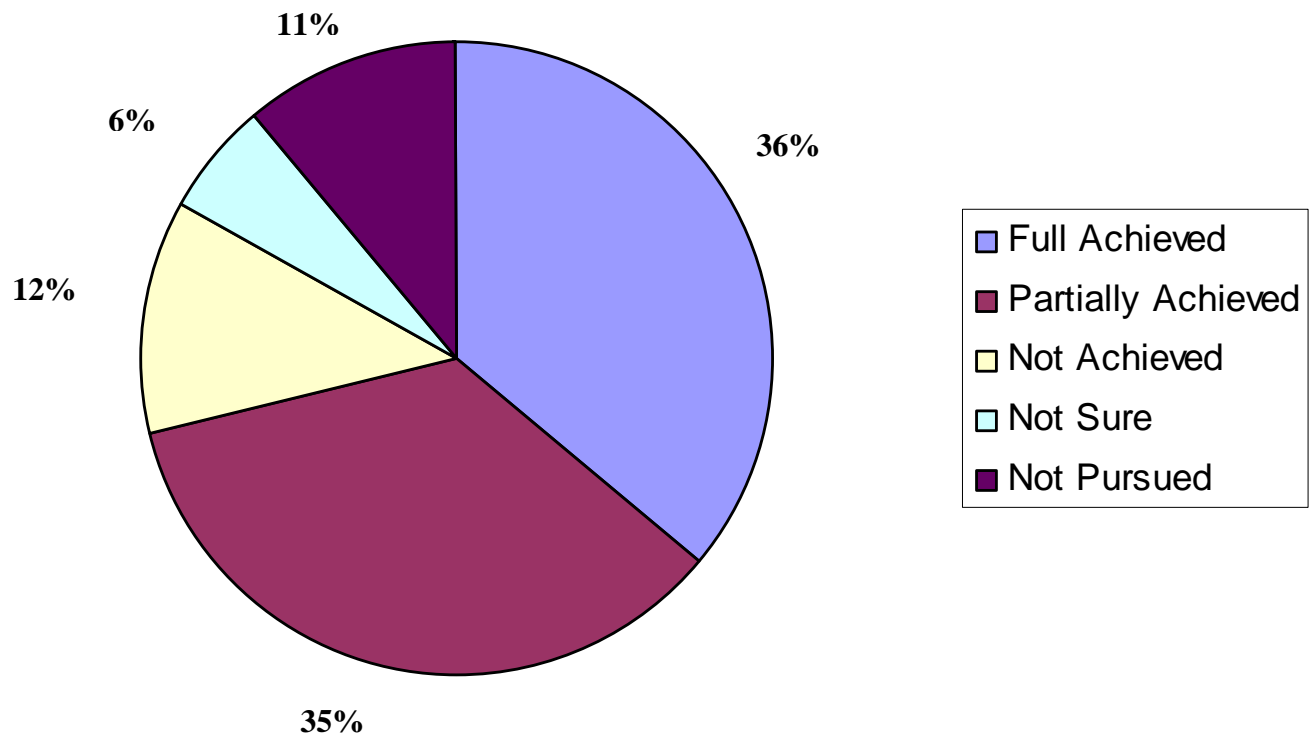
Considerations for the Interpretation of Tracking Information

When reviewing data collected by this tracking tool, it is important to recognize the varied roles and responsibilities of the workgroups. The Primary Prevention and Early Detection Workgroups focus primarily on coordinating and monitoring existing related efforts that are consistent with the Cancer Plan. Yet, the remaining workgroups are more directly involved in strategy implementation. The progress results reported in the *Activity-Monitoring Tool* may reflect this difference in oversight versus participation/initiation.

It is also important to keep in mind that some strategies may be sequential and thus reliant on the completion of other strategies. Additionally, some strategies may not have been pursued for a variety of reasons, such as lack of resources and lack of clarity. Some strategies may have revised since the initial inception and dissemination of the Maine Cancer Plan. Finally, some workgroups had insufficient data to show progress on some of the objectives

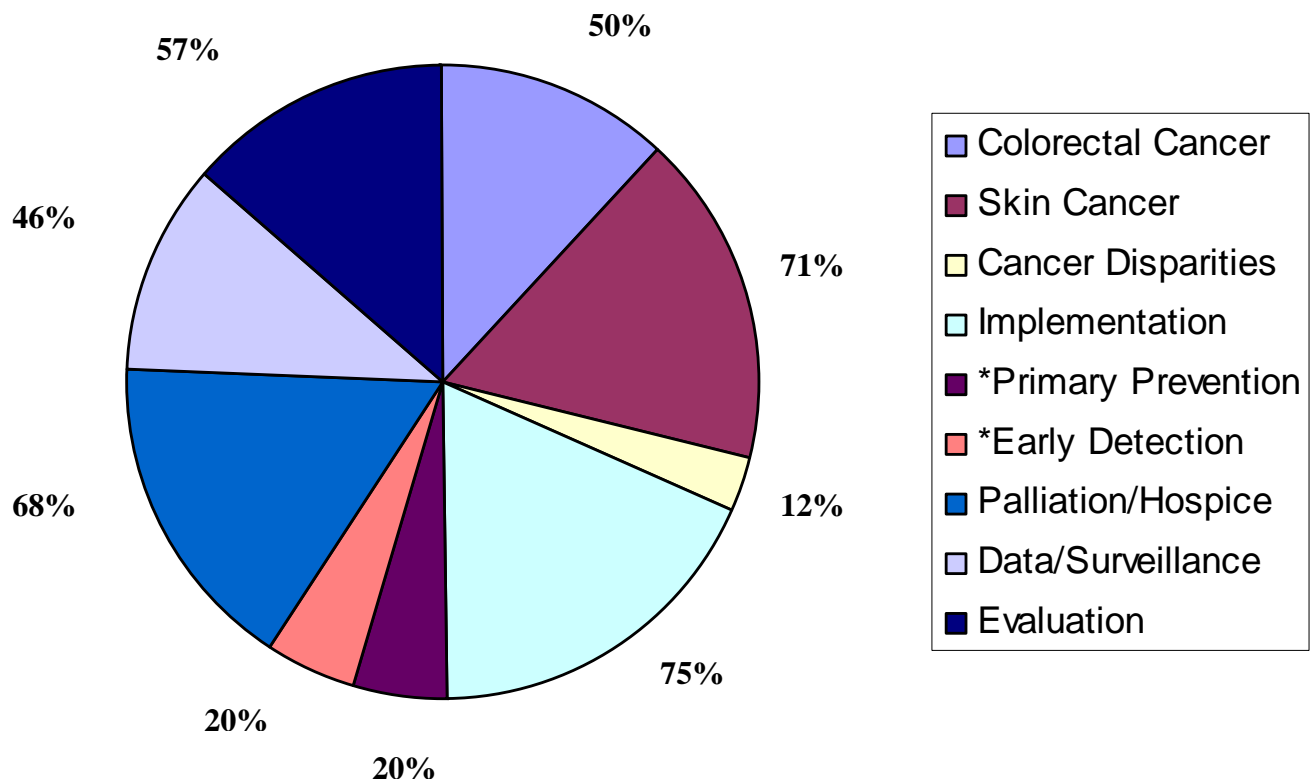
Figure 5 illustrates the overall combined status of strategies ($N=238$) for all workgroups completing the activity-monitoring tool. A little over 36% of strategies were fully achieved and 35% were partially achieved. Thus, 71% of strategies were at least partially achieved which is nine percentage points away from reaching the Consortium’s implementation objective of 80% (Objective 17.1, Maine Comprehensive Cancer Plan, 2006-2010). Given this is the end of Year 2 of a five year plan, it is expected that fewer strategies would be fully achieved. Many (62%) of the strategies listed as “partially achieved” or “not achieved” were on-going strategies that will be worked on over the course of the next four years.

Figure 5. *Progress of Strategies, All Active Workgroups*



Over the past year, workgroups have fully achieved, on average, 47% of their strategies. As shown in Figure 6 and Table 2, the number of fully achieved strategies varied greatly among specific work groups. Due to the diversity among workgroup functions and roles, this information should be interpreted with caution and should not be used for comparison purposes.

Figure 6. *Fully Achieved Strategies by Active Work Group*



Note. *Colorectal and Skin Cancer results not included in Primary Prevention and Early Detection.

Table 2. Summary of Strategy Status for All Active Work Groups

Workgroups/Goal Areas	Strategies	Status				
		Fully Achieved	Partially Achieved	Not Achieved	Not Pursued	Not Sure
Cancer Disparities	17	2 (12%)	9 (53%)	3 (18%)	3 (18%)	0 (0%)
Primary Prevention	105	33 (31%)	42 (40%)	11 (10%)	5 (5%)	14 (13%)
Primary Prevention*	81	16 (20%)	36 (44%)	11 (14%)	4 (5%)	14(17%)
Tobacco Use	28	8	15	4	0	1
Overweight/PAN	15	2	7	3	2	1
Oral Health	5	0	3	0	0	2
Sexual Health	13	1	5	2	2	3
Environmental Health	20	5	6	2	0	7
Skin Cancer	24	17	6	0	1	0
Early Detection	36	12 (33%)	14 (39%)	5 (14%)	5 (14%)	0 (0%)
Early Detection*	25	5 (20%)	12 (48%)	5 (20%)	3 (12%)	0
Breast Cancer	11	3	6	1	1	
Cervical Cancer	7	1	4	2	0	0
Prostate Cancer	4	1	2	0	1	0
Genetics	3	0	0	2	1	0
Skin Cancer	5	4	1	0	0	0
Colorectal Cancer	6	3	1	0	2	0
Skin Cancer** (Prevention & Early Detection)	24	17 (71%)	6 (25%)	0 (0%)	1 (4%)	0 (0%)
Colon Cancer Task Force	6	3 (50%)	0 (0%)	1 (17%)	0 (0%)	2 (33%)
Rehabilitation & Survivorship	19	0 (0%)	9 (47%)	1 (6%)	9 (47%)	0 (0%)
Palliative and Hospice Care	34	23 (68%)	4 (12%)	7 (21%)	0 (0%)	0 (0%)
Data and Surveillance	13	6 (46%)	5 (38%)	0 (0%)	2 (15%)	0 (0%)
Implementation	12	9 (75%)	2 (17%)	1 (8%)	0 (0%)	0 (0%)
Evaluation	7	4 (57%)	0 (0%)	1 (14%)	2 (29%)	0 (0%)
Total	238	85 (36%)	84 (35%)	29 (12%)	26 (11%)	14 (6%)

Notes. *Colorectal and Skin Cancer results not included.

** Skin cancer results include only those strategies not duplicated across sections

Cancer Plan Implementation Accomplishments, Strengths and Challenges

As part of the AMT, work groups were asked to identify the accomplishment, strengths and challenges of implementing strategies.

Accomplishments

Workgroups listed several accomplishments that occurred over the past year that contributed to the successful implementation of Cancer Plan strategies. Commonly shared accomplishments among workgroups included increased visibility of a key issue, partnerships (Office of Minority Health, HMP), secured funding and resources, and enacted legislation. Specific accomplishments in these areas are listed here.

Issue visibility

- Radon testing and mitigation is becoming more commonplace.
- Sexually Transmitted Diseases (STDs) have been more in the eye of the public than in previous years, with info about the human papillomavirus (HPV) vaccine, and recently at the National STD Conference, much information was disseminated that has created a great opportunity to increase awareness.
- Increased number of HPV vaccine sites.
- Support for family planning services has continued.
- Workgroup members were invited to speak at several conferences.
- Launched new Consortium web-site.
- The Office of Minority health has taken leadership in bringing awareness to the issue of disparities around cancer and the need for more resources and collective action.
- Meetings convened with minority populations to identify disparities around end of life services and breast cancer
- Needs assessment to identify barriers to colorectal cancer screening.

Legislation

- Proposed cuts were successfully avoided in this legislative session
- The system has been including sexuality counseling and education in their quality improvement activities.
- Smoke-free schools 24/7.
- Legislative mandate (LD-2109) for colon cancer screening (insurance coverage).
- Funding for the Cancer Plan (passed but not funded).

Resources and Funding

- Outcomes in terms of health curriculum completeness and quality are now being measured in some school district, providing some baselines for future progress.
- Melanoma foundation awarded group \$20,000 for No Sun for Baby Project, as well as other funds for printing brochures and to fund mini-grants to Parks and Recs.

Partnerships

- HMP Minimum Common Program Objectives address several of these strategies.
- Tobacco-free recreation and entertainment sites established as a strategy choice in the new Minimum Common Program objectives for Public Health Districts and HMPs.
- HMPS doing some work with physical activity and nutrition strategies.
- Maine Native American Tribes' interest in addressing cancer.
- Translating and creating resources for minority populations.
- Dialogue with Office of Minority Health; emphasis on disparities.

Strengths

A review of strengths for all strategies combined revealed several consistent themes. The most commonly noted strength was the dedicated and knowledgeable workgroup members. Additionally, most workgroups mentioned collaborations with organizations represented on the workgroups as a significant strength, *e.g.*, the American Cancer Society, the Maine Hospice Council, the Office of Minority Health, and the Healthy Maine Partnerships. For example, having a strong infrastructure and collaboration with the Maine Department of Health has helped accomplish many of the strategies related to sexual health. Finally, a number of workgroups were able to secure funding to help them accomplish their work.

Examples of such funding opportunities include:

- The Maine Breast and Cervical Health Program has been successful at competing for Federal funds and has been awarded funds for the next five years.
- Skin Cancer Workgroup has leveraged funds and collaborated on projects/ No sun for Baby Manual.
- The Rehabilitation and Survivorship workgroup has secured additional funding through a mini-grant and has identified new potential sources (*i.e.*, CDC).

Challenges

For strategies that have not been achieved or in some cases not pursued, there are a variety of challenges that have prevented the completion of certain strategies. The most common challenge for all of the workgroups was the lack of available funding, specifically in terms of federal and state funds. Moreover, due to the volunteer nature of the Cancer Consortium, the limited time members can devote to implementation of the Cancer Plan was noted as a consistent challenge. Other more general challenges include having quantifiable objectives, lack of available and timely data, and geographical barriers in Maine.

Some challenges faced by the workgroups are specific to their unique objectives. For example, the Skin Cancer Workgroup noted their challenge in connecting with key personnel at hospitals and identified their need for a member from the Department of Education on their workgroup to help them overcome their challenges with implementing their programs in hospital and school settings. Other specific challenges related to a social or cultural norm of an issue (*e.g.*, end-of-life care).

Additional select challenges include:

- Funding continues to be a major issue to assist with activities that are outside the scope of the essential services the STD Program can provide.
- Lack of funding for uninsured and under-insured.
- Need more funds to achieve cancer plan; more state funds.
- Achieving awareness of end-of-life care as priority is difficult.
- Maine has been making consistent progress for the strategies under these goals for a numbers of years. It appears that we may be reaching a plateau, and without additional resources or fine-tuning of current strategies, achieving more gains may be difficult. Due to budget cuts in both state and federal funding sources, maintaining the current level of funding may be challenging, let alone finding new funds for additional strategies.

- While the HMP evaluation process does allow us to collect several of these data points, we do not have a system for collecting and reporting this information on an on-going basis, so we need to wait for formal reports. It will likely take several months post data-entry before those numbers are available, due to the large amount of data that are collected and analyzed.
- Availability of appropriate race and ethnicity data, small samples for disparity analysis.
- Systemic issues bigger than this group.

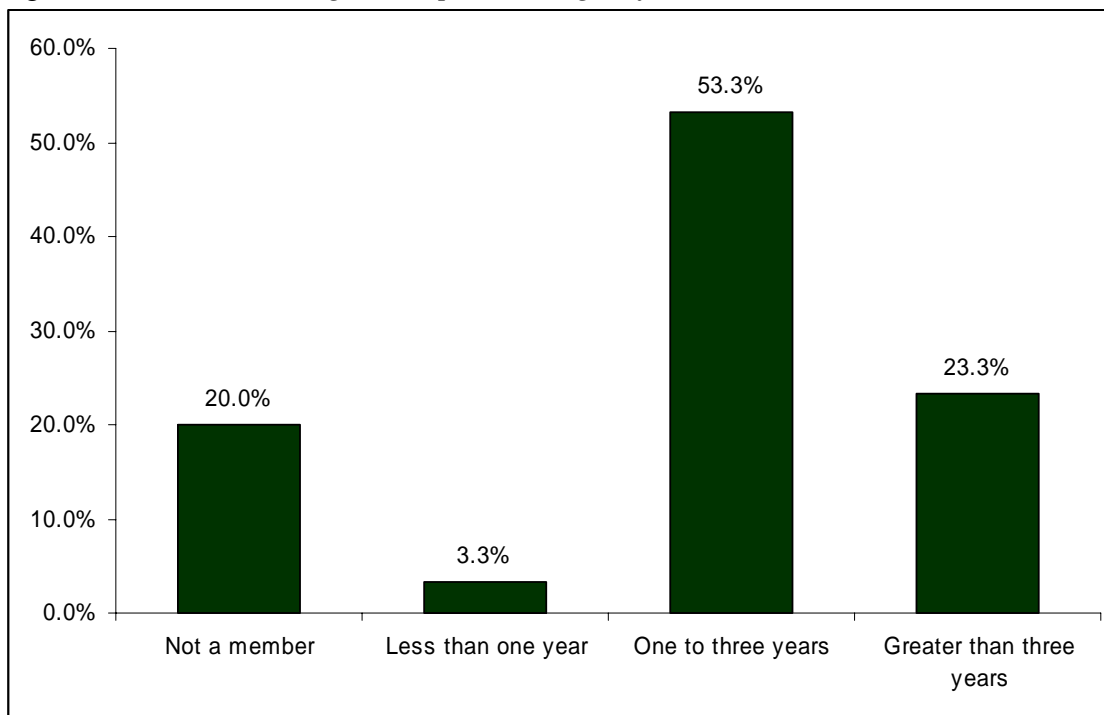
Additional Consortium Findings: Annual Meeting Results

The Maine Cancer Consortium held its annual meeting November 7, 2007 with the primary purpose of discussing the progress of and plans for the continuing implementation of the 2006- 2010 Comprehensive Cancer Control Plan. Sixty-seven people attended. Of these, 32 people returned evaluation surveys for a response rate of 48%. The purpose of the survey was to capture attendees’ feedback regarding the meeting goals, keynote address and to find out more about those people who attended the meeting. The findings are summarized below.

Participant Characteristics

A total of 32 people returned evaluation surveys. Most of the participants (80%) were members of the Consortium and many (77%) had been involved in the Consortium for a year or more. Participants’ length of involvement in the Consortium is presented in Figure 7.

Figure 7 . Annual Meeting Participants’ Length of Involvement in Consortium



Participants were asked to indicate if they were involved in the Board of Directors or work-groups of the Consortium. These responses of Consortium members only ($n = 21$) are summarized in the following table.

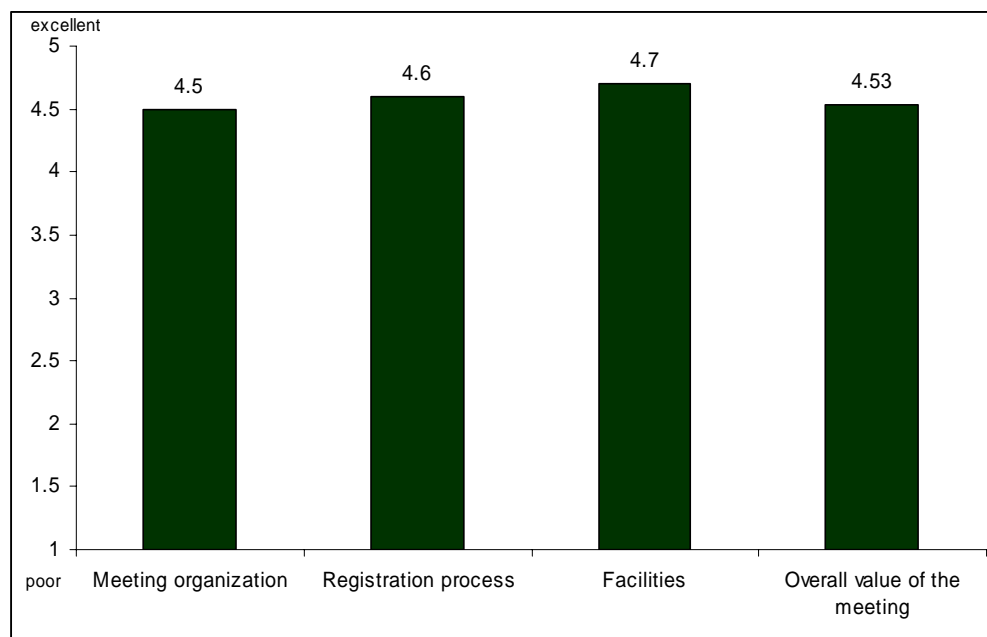
Table 3. *Annual Meeting Consortium Members' Involvement in Work Groups, $n = 21$*

Consortium Group	Percent Involved
Board of Directors	19.0%
Colon Cancer Task Force	28.6%
Treatment Workgroup	19.0%
Hospice & Palliation Workgroup	14.3%
Early Detection Workgroup	14.3%
Rehabilitation & Survivorship Workgroup	14.3%
Skin Cancer Task Force	4.8%
Primary Prevention Workgroup	4.8%
Data/Surveillance Workgroup	4.8%
Communication Workgroup	4.8%
No involvement in groups	14.3%

Feedback on Meeting Organization and Goals

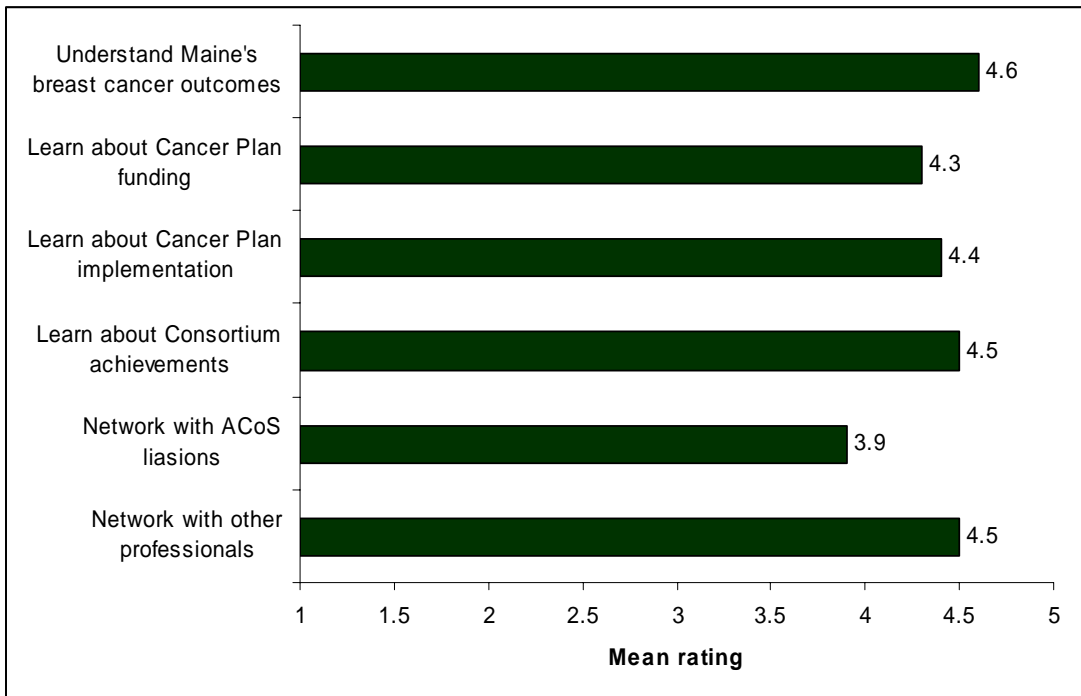
Using a 5-point scale, (1 = very poor; 5 = excellent) participants rated how well the meeting was organized. The average ratings for the organization, registration, facilities and value of meeting ranged from 4.5 to 4.7. A summary of these findings are reflected in Figure 8.

Figure 8. *Average Rating of the Organization of the Meeting*



Participants also rated how well the meeting goals were achieved. All of the goals were rated high with average ratings ranging from 3.9 to 4.6. As shown in Figure 9, participants rated the opportunity to learn about Maine’s breast cancer outcomes, the Consortium’s achievements, and networking with other professionals the highest. This finding is congruent with the open-ended responses provided on the evaluation forms. Issues related to networking with American College of Surgeons (ACoS) liaisons, and the funding and implementation of the Cancer Plan, were rated slightly lower. These findings suggest only minor improvements could be made in order to reach the meeting goals. The average participant ratings of the meeting goals are summarized in Figure 9.

Figure 9. *Average Ratings of Annual Meeting Goals*



Additional Feedback

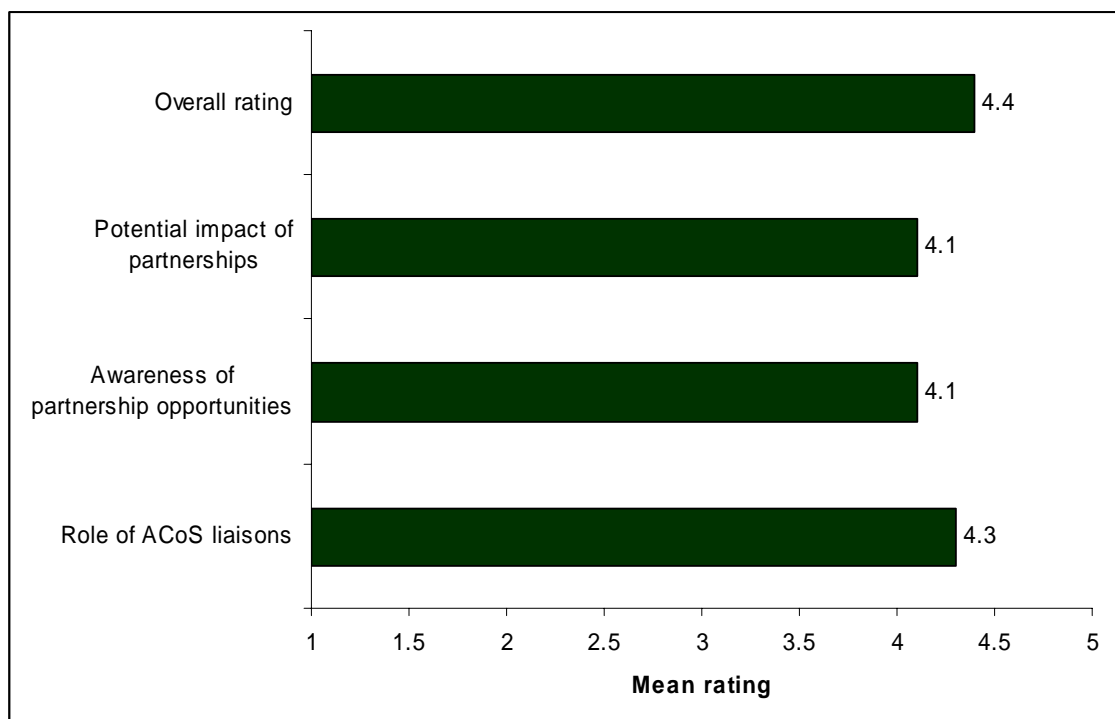
Using a 5-point scale (1 = not at all relevant; 5 = very relevant), participants were asked to rate the meeting’s relevance to their work. The average relevance rating was 4.25 indicating the meeting was relevant to participants’ work. When asked to explain, respondents described how the information could be applied to their work. For example, participants noted that the information could “help direct cancer consortium and department planning,” and “reinforced what is and needs to be done regarding cancer care in the state of Maine.”

Finally, when asked about the registration fee, only one respondent noted this as a barrier to attendance.

Keynote Speaker

The keynote address was given by Dr. Blesnak of ACoS. Using a 5-point scale (1 = poor; 5 = excellent) respondents rated the presentation in terms of its learning objective to increase participants' knowledge of partnership opportunities with ACoS liaisons and their role in the implementation of the Cancer Plan. All of the objectives were given an average rating of 4 or over indicating the session did well in achieving its objectives. Figure 10 summarizes these findings.

Figure 10. *Average Ratings of Annual Meeting Keynote Speaker*



Qualitative Responses

Respondents were asked to list the most useful aspect of the meeting. The most common responses of those who commented ($n = 24$) included networking, learning about the Consortium goals, objectives and workgroups, and the breast cancer outcomes presentation.

Very few respondents ($n = 5$) listed what they believed to be the least useful aspect of the meeting. Most cited the need for updates from all of the Consortium workgroups.

Moreover, a few respondents made suggestions for improvement of future meetings. These suggestions included:

- “Allocate enough time for workgroup reports and other presentations,” and or include reports from all workgroups;
- “Print out summary of presentations”;
- End at lunch or make after lunch more productive;
- “Sit in group with people who do similar work and exchange ideas”;
- Increase participation.

Suggested Topics for Future Meetings

The following suggestions were made for topics of future meetings.

- Clinical research initiative throughout the state, and insurance barriers to clinical research/genetic testing;
- Cancer and issues of sexuality;
- Projects undertaken by individual hospitals/centers that were a result of information shared by the cancer plan/consortium;
- Another Legislative Ask session on specific guidelines on how to contact legislators;
- Representative talks from rural hospitals;
- Promoting awareness of local cancer awareness/prevention/treatment resources - Is there a Maine success story;
- Timeliness of cancer diagnosis and treatment;
- Does payment for targeted cancer drugs affect treatment choices and outcomes?; and
- Getting programs into the community.

RESULTS PART II: IMPLEMENTATION

Program Accomplishments

Maine's Comprehensive Cancer Control Program is in its second phase of implementation. In 2002 and then again in 2007, the Program was successful in obtaining a 5-year implementation grant from the United States Centers for Disease Control and Prevention. MCCCCP was and remains successful in achieving the objectives of the grant and in implementing the 5-year Maine Cancer Plan. As noted in previous reports, since the Program's inception there have been a number of notable accomplishments achieved. During the past year additional accomplishments have been made. These accomplishments, organized by program area, include, but are not limited to:

Overall Implementation

- Recognized by legislature as a state program.
- Leveraged \$48,280 in in-kind contributions from Maine Cancer Consortium members and staff during 2007-2008 fiscal year.
- Leveraged \$60,000 in direct contribution to implementing the Maine Cancer Plan from partners during 2007-2008 fiscal year.
- Received 5-year federal funding for Program Implementation from the Centers for Disease Control and Prevention for 2007-2012.
 - Amount: Approximately \$1,275,000 for five years.
- Received 5-year federal funding for both Colorectal and Skin Cancer prevention projects.
 - Amount: Approximately \$1,175,000 over five years.
- Created and launched a new website was in June 2008.
- Provided significant staff support to the Maine Cancer Consortium, individual work groups, and the Board of Directors.
- Sponsored and organized Maine Cancer Consortium Annual Meeting.
- Sponsored and organized Maine Cancer Consortium Board Retreat.
- Successfully advocated for the integration of cancer as a priority for the Healthy Maine Partnerships.
- Provided mini-grants of \$2500 to four Native American Tribes to address skin and colon cancer in their respective communities.
- Sponsored a cancer module at the first state-wide Annual Lesbian, Gay, Bisexual, Trans-gendered Conference.
- Co-sponsored Care Model and Work Site trainings for community coalitions to address cancer and other chronic diseases.
- Awarded \$24,000 in mini-grants to the Prevention, Early Detection, Skin Cancer, Communication, Data, Palliation, Rehabilitation and Survivorship work groups and Colon Task Force to assist with implementations of their work plan.

Colorectal Cancer Prevention Activities

- Provided 15 mini-grants to Healthy Maine Partnerships to conduct an analysis of barriers to colorectal cancer screening and develop a work plan to address gaps.
- Created and distributed materials (Fact sheets, Posters, Bookmarks and Community Action Kit) to Maine's communities as part of the Campaign.
 - Fact sheets to Shaw's Grocery Stores and Libraries in Maine.
 - Developed and distributed Community Resource Guide to 50 Healthy Community Coalitions statewide.
 - The Colossal Colon was hosted at Portland and Bangor malls in March 2007 with over 20,000 individuals touring the Colon.
- Collaborated with the American Cancer Society and the Maine Cancer Consortium to provide three regional colorectal cancer trainings for community coalitions across Maine.
- Included colon cancer question on the 2006 *Behavioral Risk Factor Surveillance System* (BRFSS) in Maine.
- MCCCCP ran the Screen Me! Colorectal Cancer Screening television ads in Penquis, Downeast and Aroostook Districts during the months of April and May 2008.
- Distributed the following materials to hospitals, Native American Tribes, community organizations and individuals:
 - **7,500** Fact Sheets
 - **2,800** Bookmarks
 - **170** Posters
 - **29** Packets

Skin Cancer Prevention Activities

- Working in collaboration with the Department of Education, awarded 37 \$500 mini-grants to public elementary schools across Maine to support skin cancer prevention in elementary schools.
- Distributed 18,000 UV Bead bracelets to schools and organizations in Maine.
- Included skin cancer questions on 2007 BRFSS and the Maine Child Health Survey (in which includes Youth Risk Behavior Survey).
- Released several sun safety awareness press releases that generated over 5 Radio and TV coverage and news articles.
- Held an annual 2008 "*Protect the Skin You're In*" Day on July 22nd at the Portland Sea Dog's baseball game. Provided over 2,500 packets of sunscreen to people attending the baseball game.
- Obtained additional funding from The New England Melanoma Foundation to reprint Maine specific sun safety brochure.

Skin Cancer Prevention Activities (continued)

- The following materials were distributed:
 - **42,847** UV Bead Bracelets
 - **4,808** Maine Sun Safety Brochures
 - **5,195** Bookmarks
 - **22** Skin analyzer
 - **7,900** Sun Screen

Evaluation

- Developed and completed a revised 5-year comprehensive evaluation plan for the Program, Consortium and Cancer Plan.
 - Revised evaluation plan to align with CDC's core indicators.
 - Aligned evaluation activities with surveillance plan.
- Recognized as a model for evaluation.
- Used evaluation results to inform program planning.

Program-Sponsored Initiatives: Evaluation Results

Sun Blocks: Sun Protection Assessment of Child Care Centers¹

Background

Formative evaluation is designed to inform the planning and development of a program. The Sun Blocks study included formative evaluation research to determine the number of child care centers in Maine that currently have a formal sun safety policy, adhere to sun protection guidelines, and routinely practice sun safety behaviors. This assessment also identified barriers to practicing sun protection within the child care setting, and revealed the current knowledge, attitudes and beliefs of Maine child care center directors in relation to sun protection. The assessment was conducted in an effort to provide baseline data for the MCCCCP's sun safety objectives and inform future efforts related to sun safety programs in child care centers in Maine.

Previous research, conducted in various states and countries, has yielded descriptive statistics and information regarding child care centers and sun protection. However, in order to construct a sun safety program unique to the state of Maine, and one that ensured the specific needs of child care centers throughout the state were met, collection of additional, more detailed information from this population was required.

The primary goals of this formative research were:

1. To determine the number of child care centers in the state of Maine that currently have a formal sun protection policy.
2. To ascertain the number of child care centers in the state of Maine that adhere to sun protection guidelines and routinely practice sun safety behaviors.
3. To identify barriers to practicing sun safety among child care centers in the state of Maine.
4. To reveal knowledge, attitudes and beliefs of Maine child care center directors and staff in relation to sun safety and sun protection practices.

Sample Design

The population of interest for this assessment was 2008 facility-based caregivers of children ages three to five in the state of Maine. To generate statistics generalizable to this vast population, a sample was drawn from a statewide list-based sample frame. According to the state, a Child Care Center is defined as a state-licensed, facility-based center that provides care for an average of 35 children. These centers follow a more structured schedule than home-based centers, usually operate during business hours, and have professional staff, over the age of 18, who are trained in areas such as CPR and first aid on an annual basis. Directors of these centers have an experiential or educational background

¹ Excerpted from: Fletcher, A.G. *Sun Blocks: Building a Foundation for Healthy Skin. A Strategic Program for Improving Childhood Sun Protection Within State-Licensed, Facility-Based Child Care Centers in Maine.* Assessment conducted in partnership with the Maine Comprehensive Cancer Program.

in Early Care and Education. It is important to note that Head Start and Early Head Start programs, as well as nursery schools and preschools, are included in this classification.²

Filtering to include child care centers only, which yielded a list of 671 centers, provided a more accurate list of the population of interest, as well as one more manageable for the time and financial constraints of this project. After initial filtering, this list was further cleaned to minimize potential error due to duplication of sample elements. Numerous directors were given as the point of contact for more than one center in an area, therefore it would have been possible for input to be given from the same director for multiple centers. Similarly, many of the centers represented larger, statewide programs such as Head Start. This gave rise to sample elements that had different geographic locations, but mutual contact information for a larger parent organization. After those elements were eliminated, a final list of 485 child care centers, clustered by county, was generated.

Assessment Design

The mode of administration for this assessment was a three-page, self-administered, paper questionnaire (Appendix A). Areas of questioning covered by this assessment included basic demographics (3 questions), beliefs (1 question), current behaviors (7 questions), self-efficacy (4 questions), perceived behavioral control (4 questions), perceived barriers (1 question), and program structure (4 questions). Beliefs about sun protection, current behaviors, self-efficacy and perceived behavioral control were all captured using five-point Likert scale responses. In addition, the assessment provided the opportunity for a respondent to express further interest in the subject and/or the current project. This information was requested in anticipation of incorporating community collaboration into the development of elements of the project. A total of 20 questions were asked of each respondent, and assessments were color-coded by county to provide one additional demographic element without lengthening the assessment. During development, the assessment was internally reviewed several times by both the MCCCCP program manager and an MCCCCP program evaluator.

Process

Prior to administration of the assessment, Institutional Review Board (IRB) exemption was granted from the IRB of the Maine Center for Disease Control and Prevention. In February of 2008, assessments were distributed to 485 child care centers throughout the state (Table 4). Each assessment packet included an addressed, traditionally-stamped envelope for return, the three-page assessment, and a personalized cover letter which explained the assessment, identified sponsors, provided contact information for inquiries, and assured all respondents of the anonymity of their voluntary feedback.

Responses were coded using EpiData v3.1 software and evaluated in two phases. First, descriptive statistics were generated for all domains. Standardized weights were then calculated and applied, using SPSS v14.0, to adjust for sample size, and chi-square analyses were conducted to determine the degree to which the variables are related.

² Hereinafter this project will refer to these state-licensed, facility-based centers simply as “child care centers.” The definition provided here is to be assumed with each subsequent reference.

Results

Of the 485 assessments that were distributed via this single mailing, 218 were returned to the project director within one month, including three undeliverable packets. Overall, 215 assessments were completed yielding a 44.33% response rate (Table 4).

Although the sample frame for this assessment was refined to include only those centers designated as child care centers, 18 assessments were received from centers identifying themselves as “family child care homes” or “other,” which were primarily defined as school-age or after school care facilities. One assessment did not designate a facility type. These 19 assessments were deemed “ineligible units” and were removed from the dataset before analyses were conducted to minimize error due to over-coverage. The final sample size for this analysis was $n = 196$ (Table 4).

Table 4. *Assessment Response Rate*

County	Number Distributed	Number Returned	Number Excluded*	Response Rate
Androscoggin	44	19	3	39.02%
Aroostook	9	4	0	44.44%
Cumberland	154	59	4	36.67%
Franklin	8	3	0	37.50%
Hancock	19	10	3	43.75%
Kennebec	38	22	4	52.94%
Knox	13	7	2	45.45%
Lincoln	15	7	1	42.86%
Oxford	27	15	2	52.00%
Penobscot	38	16	2	38.89%
Piscataquis	4	0	0	0.00%
Sagadahoc	15	8	0	53.33%
Somerset	6	3	0	50.00%
Waldo	13	7	1	50.00%
Washington	13	7	0	53.85%
York	69	31	0	44.93%
TOTAL	485	218	22	44.33%

* 3 undeliverable, 19 ineligible units

Demographics

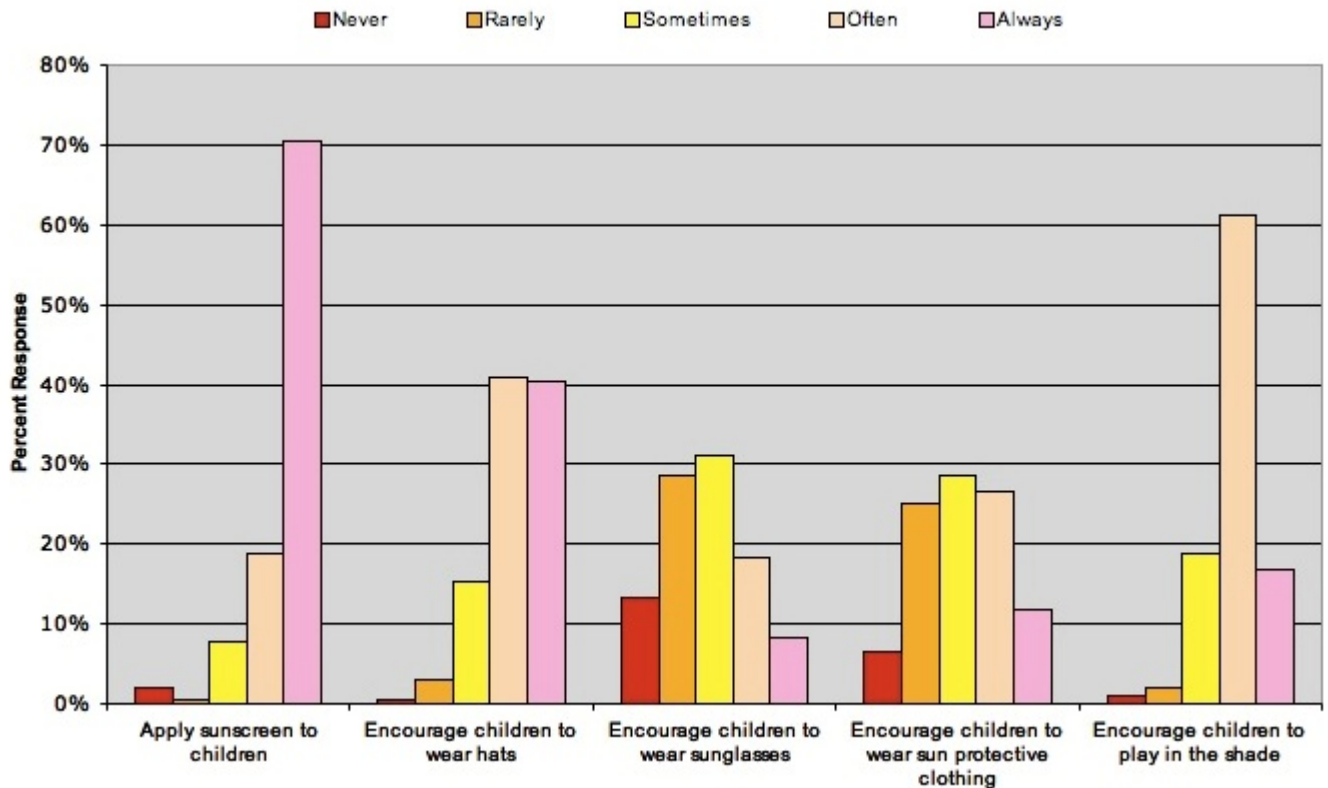
Information was obtained from 15 of the 16 counties in Maine (Table 4). Piscataquis County child care centers did not offer feedback for this assessment. Centers located in Kennebec County, Oxford County, Sagadahoc County, and Washington County had the highest rates of participation with each achieving response rates exceeding 50.00%. As noted previously as exclusion criteria, centers included in this analysis were those that identified themselves as “child care centers” (85.7%), “nursery schools or preschools” (9.2%), or “Head Start or Early Head Start” (5.1%). Respondents from these centers included “directors” (82.1%), “teachers” (5.6%), “caregivers” (1.0%), “administrative or support staff” (3.1%), or “other” (8.2%) which were most commonly owners. Many respondents reported overlapping roles such as director, teacher and owner. This information was documented in qualitative notes for the data.

Behaviors

To capture the current sun protection practices of child care center directors and staff, respondents were asked to indicate on which days or seasons their center pays most attention to sun protection practices, as well as respond to a series of six questions that identified specific sun protection behaviors. A large majority ($n=157$) of centers indicated that they pay attention to sun protection in the summer months. Sun protection is less of a priority in the spring ($n=99$), fall ($n=59$), and winter ($n=4$). Only 21 centers indicated that sun protection is a priority “everyday, year-round.”

On variables of specific sun safety practices, 89.3% of respondents reported “always” or “often” applying sunscreen to children before they participate in outdoor activities (Figure 11) encouraging children to wear hats while participating in outdoor activities was also reported to be widely practiced as 81.1% of respondents indicated that they do so.

Figure 11. *Sun Protection Practices of Child Care Centers in Maine*



Always or often encouraging children to play in a shaded area was reported by 78.0% of directors and staff; however, encouraging children to wear sun protective clothing and sunglasses is less commonly practiced. Respectively, only 38.2% and 26.6% of respondents indicated that they always or often encourage children to wear sun protective clothing or sunglasses when playing outdoors.

The final behavioral variable assessed was tendency to schedule outdoor activities between the hours of 10:00 a.m. to 4:00 p.m., commonly referred to as “peak sun hours.” Results revealed that 63.2% of centers “always” or “often” schedule activities during this time, and 28.1% of centers “sometimes” schedule outdoor activities during peak sun hours.

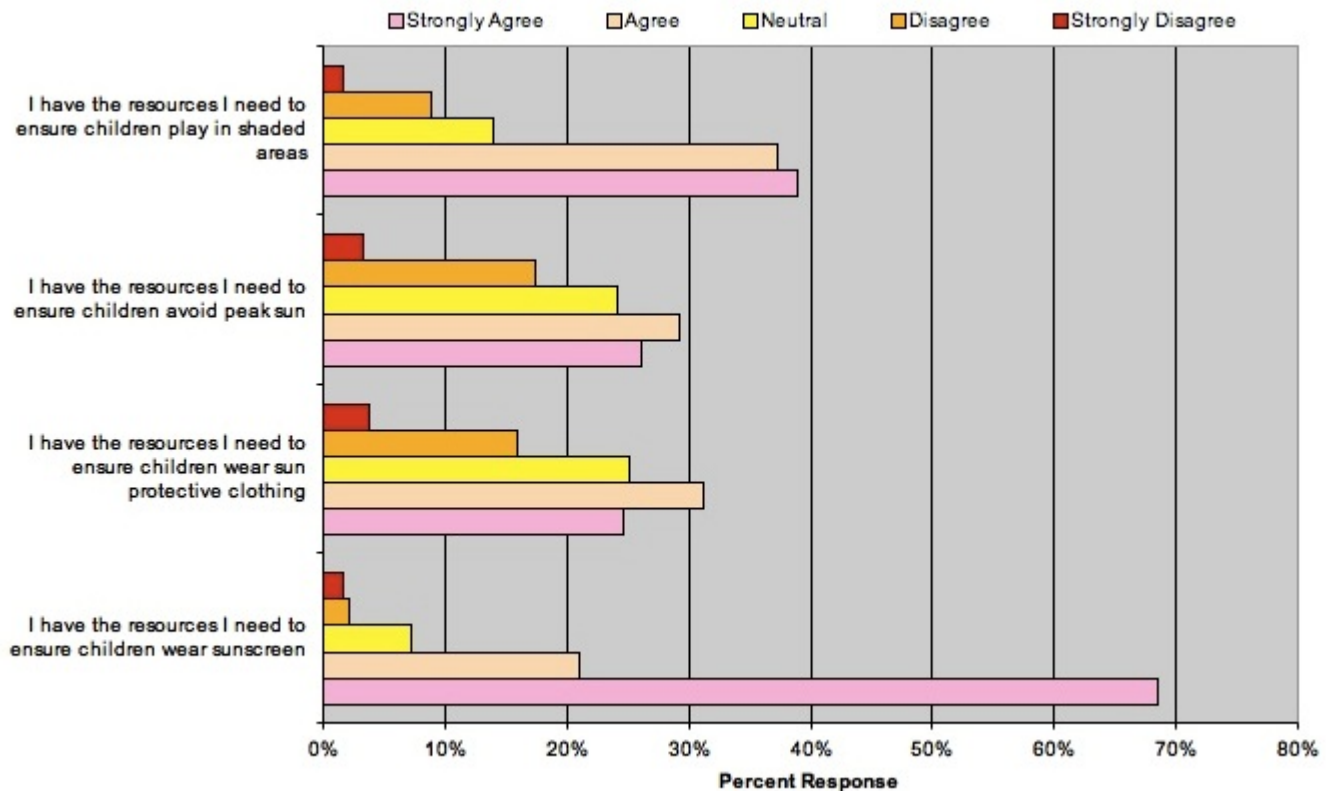
Self-Efficacy

The confidence respondents have in their abilities to perform sun protective behaviors was evaluated with a series of four questions. Most (96.5%) of directors and staff either “agree” or “strongly agree” that they have the skills necessary to make sure children under their care wear sunscreen when participating in outdoor activities. Similarly, 81.6% of respondents agree or strongly agree with having the skills to ensure children wear hats, sunglasses or sun protective clothing. Respondents were also very confident in their abilities to ensure children play in shaded areas (89.8%). The variable for which directors and staff reported minor doubt is their ability to ensure children avoid the sun during peak sun hours. Approximately 35% strongly agree, 29% agree, but still 26.5% neither agree nor disagree that they have the skills to perform this task.

Perceived Control

In addition to personally having the skills to perform sun protective behaviors, respondents were asked if they have the external resources they need to practice sun protection. A majority (68.4%) of directors and staff “strongly agree” that they have the resources they need to ensure that the children under their care wear sunscreen when participating in outdoor activities; however, for ensuring that children wear hats, sunglasses and other sun protective clothing, ensuring that children avoid sun during peak hours, and ensuring that children play in shaded areas, responses were more widely distributed (Figure 12).

Figure 12. *Perceived Control of Sun Protective Behaviors by Maine Child Care Centers*



Program Structure

Beyond skills and resources, programmatic factors also contribute to the definition of a center’s practice of sun protection. Respondents were asked about policy, training, parental and educational components of sun protection at their respective centers. Of the 196 responses received, 67 (34.2%) indicated a formal sun protection policy has been established at their center. Informal sun protection policies were reported by 94 (48.0%) respondents, and 34 (17.3%) stated that their center does not have a sun protection policy.

Training of child care center staff, as well as integrating sun safety lessons and activities into the center’s curriculum, is less frequently done. Trainings are only conducted within 36.7% of centers, and only 35.2% of centers incorporate some form of sun safety education into lesson plans. Sun protection education is distributed to parents in slightly more than half of the centers (54.1%), while still many (45.4%) do not provide sun protection information to parents.

Barriers

Respondents were asked to identify as many factors as applicable that serve as barriers to practicing ideal sun protection in their centers. The most commonly indicated barriers were “insufficient parent involvement” (n=62), “allergies or skin reactions” (n=46), “cost or lack of funding” (n=33), and “lack of sun protection training” (n=31). Other obstacles identified were “inflexible schedules,” “state regulations,” or “other,” which included issues of time and safety. Thirty-four centers did not provide a response to this question, and 78 indicated that they are able, despite also identifying obstacles, to practice sun protection.

Overall, when centers were asked to indicate how important they believe sun protection is to a child's health, 100% of directors and staff responded as "important" ($n=25$) or "very important" ($n=171$). In addition, 62 respondents expressed a definite interest in collaborating with other Maine child care directors and staff for the purposes of creating a sun protection program for children, and another 68 respondents indicated that they might be interested pending further information.

Chi-Square Analysis

A chi-square analysis was conducted for all domains to glean further information from the above mentioned descriptive statistics, and determine the degree to which the variables are related. A significance level of $p < .05$ was used in evaluating all tests.

The first phase of chi-square tests assessed the hypothesis that there is a relationship between having a formal sun protection policy and practicing sun protection. Significance levels were generated for sunscreen application, encouraging use of hats, encouraging use of sunglasses, encouraging use of sun protective clothing, encouraging play in shaded areas, and scheduling activities during peak sun hours. Statistically significant relationships were revealed for two of these behaviors: encouraging use of sunglasses ($p=.0212$), and encouraging children to play in shaded areas ($p=.0138$). Use of sunglasses and shade are less frequent sun protection behaviors; however, centers that have a formal sun protection policy take these precautions more frequently than those that do not have such a policy.

Staff training and education is commonly associated with an individual's sense of self-efficacy; therefore, a series of chi-square tests were run to determine if there is in fact such a relationship for child care center directors and staff in Maine. After testing training against all four variables of self-efficacy, one statistically significant relationship was determined. Directors and staff that worked within centers that provided sun safety training to staff had a greater degree of confidence in their ability to apply sunscreen to children ($p=.0312$). Since many directors and staff qualitatively noted that their engagement in sun protective behaviors is contingent upon parents supplying resources, analyses were also conducted on variables of perceived control (*i.e.*, "I have the resources to...") and the center's distribution of sun protection information to parents. In contrast to the qualitative findings of the assessment (Appendix B), there was no statistically significant relationship found between these domains.

While few current programmatic components were found to have a statistically significant relationship with variables of behavior, self-efficacy, and perceived control, these domains were found to be significantly related to one another. The last phase of chi-square analyses tried two hypotheses: (1) there is a relationship between self-efficacy and the practice of sun protective behaviors, and (2) there is a relationship between perceived control and the practice of sun protective behaviors. All corresponding combinations of these variables were tested and all were statistically significant (Table 5).

Table 5. Results of Chi-Square Analysis of Behavior, Self-Efficacy, and Control Variables

	Self Efficacy (e)	Perceived Control (c)
Apply Sunscreen (b1)	p=.0057	p=.0000
Encourage to wear hats (b2)	p=.0000	p=.0001
Encourage to play in shaded areas (b5)	p=.0000	p=.0000
Avoid Peak Sun (b6)	p=.0022	p=.0008

While these findings may not directly define activities and components to be incorporated into the current project as programmatic variables might, they do support and validate multiple theoretical constructs that were considered when developing the foundation and strategy for a childhood sun protection program.

Limitations

When interpreting the descriptive findings and analytic results from this assessment, it is important to note the potential limitations of this research. First, because the assessment was conducted with child care center directors and staff in a northeastern, predominantly rural state, results may not be generalizable beyond the scope of Maine. Southern and western states experience longer, sunnier seasons, and many do not experience the long, cold and dark winters that Mainers do.

Additionally, many of the barriers indicated here, such as lack of funding and state regulations, are specific to the political environment and culture of Maine and may not directly relate to other states. Time constraints and limited funding for the project may also restrict the extent to which these findings can be applied to other communities as these factors prohibited pilot testing and formal cognitive review to measure reliability and validity of the assessment variables and its results.

That said, through review of the literature, similar studies³ yielded similar results for variables of behavior and self-efficacy, and another study conducted in Massachusetts⁴ that focused on behavioral variables paralleled the findings of this assessment. Still, applications of the current findings to other states and areas should be done with great care, and further research should be conducted to validate these results.

In addition to generalizability, this research may also be subject to various forms of error and bias. While precautions were taken to best minimize the potential for these limitations, due to the nature of the research and scope of the project, it is still possible for the relevance of the findings reported here to be restricted by these factors.

Discussion and Implications

This assessment confirmed the applicability of past findings concerning sun safety and child care centers to the state of Maine, but it also provided several new insights that were used to inform both the strategy and messaging of a childhood sun safety program for child

³ James, A.S., Tripp, M.K., Parcel, G.S., Sweeney, A., & Gritz, E.R. (2002). Psychosocial correlates of sun protective practices of preschool staff toward their students. *Health Education Research: Theory and Practice*, 17(3), 305-314.

⁴ Kenfield, S.A., Geller, A.C., Richter, E.M., Shuman, S., O’Riordan, D.O., Koh, H.K., et. al. (2005). Sun protection policies and practices at daycare centers in Massachusetts. *Journal of Community Health*, 30(6), 491-503.

care centers. The descriptive findings related to sun protective behaviors may not have been strikingly new to many, however, what was striking was the finding that sunscreen—the recommended secondary preventive behavior—is used more often and more frequently than hats, sunglasses, sun protective clothing, and even shade—the recommended primary protective behaviors—as defense against UV radiation. It was evident that past messages of sun protection have reached this population to some degree, but what was not as clear was the content of those messages. This finding directly impacted the formation of program messages.

This assessment also provides guidance for program messaging and strategy by foreshadowing barriers to sun protection specific to Maine child care centers. Allergies and skin reactions, cost or lack of funding, and state regulations were factored into an approach in order for directors to feel that they could adopt a sun protection program. Insufficient parental involvement was also addressed as it was not only identified as a barrier through direct questioning, but many respondents qualified the frequencies of their behaviors, and degree of behavioral control, by commenting, “if parents provided necessary items or supplies.” This indicated that current behaviors of child care center personnel are heavily dependent on parental involvement, and this will continue to be an enabling, or disabling, factor for sun protection in the future.

Overall, these findings provide baseline data for setting program goals and objectives, identified barriers that must be overcome, and reveal opportunities for further intervention. As indicated by this assessment, and supported by the literature, for a program to have the greatest probability of affecting the UV exposure among children under the care of child care centers, it must be multi-faceted, comprehensive, and largely a strategic effort.

Colorectal Cancer Screening: Healthy Maine Partnerships

Background

Approximately 880 Mainers develop colorectal cancer every year, and over 310 die from the disease annually. It is the second leading cancer killer of both men and women in Maine. Many deaths from colorectal cancer are preventable through early detection. Screening can also prevent colorectal cancer from developing, since polyps that might later become cancerous can be removed during a colonoscopy. However, fewer than half of Mainers over age 50 who are of average risk get screened for colorectal cancer, despite the availability of effective screening tests.

In early 2008 The Maine Comprehensive Cancer Control Program (MCCCP) announced the availability of funds to support the Healthy Maine Partnerships (HMP) with additional resources to enhance their on-going colorectal cancer prevention and awareness activities. The purpose of the Colorectal Cancer Screening and Awareness Community Grants is to develop community-based projects to increase awareness of the importance of screening for colorectal cancer, especially among adults over the age of fifty.

During the first year of these three-year grants, HMP across the eight public health districts were encouraged to apply for new funds to: (1) conduct in-depth analysis of barriers to colorectal cancer screening, (2) inventory current community-based colorectal cancer programs and activities; (3) develop partnerships to address colorectal cancer; and (4) develop a plan for addressing colorectal cancer and its screening barriers over the next two years. Assessing capacity in year one will set the foundation for implementing the priorities in the approved district-wide colorectal cancer plan in years two and three.

Grant Implementation

All eight public health districts undertook assessment and or awareness activities utilizing these funds. As with much of the work done by the HMP, each community coalition is an individual entity and thus each community (or partnership of communities) within a district chose a unique process for completing its assessment work. That said, across all the responding districts some kind of survey (of both their health care provider system and or their general population over fifty years of age) was initiated in order to assess screening protocols and knowledge around colorectal cancer within a community. Among the various approaches used to assess communities were:

- Written surveys sent to all practices located in a community or district;
- Employer supported surveys of employees over the age of fifty;
- General fifty year or older population phone surveys;
- Targeted population and general population focus groups;
- Key informant interviews with healthcare providers other than doctors;
- Task Force discussion;
- Written surveys to primary care physicians;
- Health care provider interviews; and
- General population written surveys – distributed in a range of ways, such as recruiting participants through a general advertisement or through inserting a survey as a newspaper flyer.

Findings

Due to the variety in data gathering methods, results can not be compared across the districts. However, in spite of the numerous formats and tools utilized by districts to assess their communities, several consistent theme and communalities can be gleaned from the information gathered.

A. Assessment Surveys: As noted above, all of the districts undertook a survey of either their health provider system and or their general public over the age of fifty. Findings from the physician/health care provider surveys include the following:

- Across the state there was a better than fifty percent response from PCPs or healthcare practices where they were surveyed, with one county able to survey 100% of physicians in their county who perform colorectal cancer screenings.
- Among the physicians surveyed and asked about screening procedures, a high percentage (over 70%) believe the most effective test for colorectal cancer is a colonoscopy every ten years.
- Two districts identified colonoscopy capacity issues, as well as waiting times from two weeks to six months once a patient made the decision to be screened.
- Over a third of the physicians (and as high as 57%) identified patient refusal of screening as an issue — in one district health care professionals indicated they have a fifty percent refusal rate, which was attributed to insurance and screening cost issues, co-morbidity factors, and the acute care circumstances of patient visits.

Surveys of the general population over fifty years old were not as successful in terms of return rates as the surveys of healthcare professionals, and phone surveys and worksite surveys had the highest number of responses. Among the findings from the general public surveys are:

- Across the state, where noted, women comprised over two thirds of the respondents (the exception to this was where surveys were conducted at worksites and male respondents outnumbered female two to one).
- A high number of survey respondents had talked with their PCP about a screening or had been screened for colorectal cancer — six districts tracked whether respondents had been screened and the percentages run from 63% to 86% of survey respondents indicating they have been screened for colorectal cancer.

We can surmise that in the general public over fifty, those willing to voluntarily respond to a survey about colorectal cancer screening may most likely be those who have participated in a screening event and or those who already have an awareness around the issue. Other health dynamics of the pool of respondents, which might influence a decision to participate, were more regionally based and included three districts where over 92% of respondents had health insurance coverage and or over 80% get a yearly physical. In other words, it may be that the overall self-selected composition of this group reflects one that is more interested in, and or motivated by, personal health concerns than a group produced via a random sampling of the general population over fifty years of age.

B. Colorectal Cancer Awareness: One of the more encouraging data results identified across the multiple collection formats is the apparently strong conversations happening between physicians and patients concerning colorectal cancer screening. In seven of the districts, general public respondents indicated that their health care provider had discussed, and or recommended, screening at a regular office visit — data suggests percentages ranging from 75% to 100% for those districts. On the other hand, in the eighth district 47% of the surveyed population (50+ years) indicated their PCP had not discussed colorectal screening with them. However, this is the same district where capacity issues were raised, so it may be that physicians are not having the conversation because they feel they do not have the capacity to provide the screening.

From the health care provider side the percentages are also high with over 90% of those asked responding positively to a question concerning whether they discuss screening with patients on a regular basis. One on one conversation was the most frequent way of educating patients about colorectal cancer screening although many practices also provided written materials and posters. While in some parts of the state, practices did not identify having a set screening standard, the high numbers of general public respondents over the age of fifty who had been screened would support that at the very least PCP/practice discussion of screening is an informal standard. In a couple of districts the provider network identified a need to be attentive to linguistic and cultural differences, as well as a need to use “plain language” when discussing the need for, and benefits of, colorectal cancer screening to patients.

C. Barriers to Colorectal Cancer Screening: One of the goals of the grant process was to identify the perceived and real barriers to colorectal cancer screening across the state of Maine. Pretty much across the state both health care providers and general public were asked to identify what they understand to be the barriers to having a colorectal screening after one turns fifty.

Both groups identified the same set of common barriers with providers more quickly identifying structural barriers (such as lack of insurance and or cost of the procedure and or transportation issues), and the general public more quickly identifying medical barriers. Additionally, in one district, screening capacity and long waiting times, which can trigger greater no-show rates, were identified as a barrier to getting screened, as well as being a barrier to expanding awareness.

While many of the general public respondents see screening as important and as potentially preventing colorectal cancer, the most frequently identified barriers were:

- Fear that the screening would find cancer;
- Fear of the procedure itself and its prep side effects;
- Lack of knowledge about the procedure and or myths about its prep;
- Lack of symptoms and or the invasiveness of the procedure; and
- Lack of insurance and or cost of the procedure (and cost of traveling to get it done).

It should be noted that focus groups with minority populations identified additional barriers around culture and language in addition to lack of knowledge about the procedure and or lack of discussion with one’s provider.

Recommendations and Actions

Community assessment and identification of barriers lead quite naturally to recommendations and actions for elimination of those barriers. As part of the first year of funding, each of the districts was asked to develop a district-wide colorectal cancer plan for addressing the barriers identified in their community assessments. Funding in years two and three will allow coalitions to focus on implementing the priorities of those district-wide plans. As may have been anticipated, community recommendations and or action steps are similar across the districts with some specificity for the individual characteristics of each community coalition.

Overall, most of the recommendations in the reports fall into five broad categories: (1) Public Awareness Campaign; (2) Education Initiatives; (3) Practice Changes; (4) Capacity Building; and (5) Strengthening Partnerships. The cross-cutting recommendations highlighted below provide examples within each category.

1. PUBLIC AWARENESS CAMPAIGNS: Raise community awareness of colorectal cancer and the importance of screening after fifty years of age.

Six of the districts had a major recommendation concerning the launch of some type of colorectal cancer awareness campaign. Some of recommendations concerning a public awareness campaign are:

- ✓ Using all media outlets.
- ✓ Creating a social marketing campaign.
- ✓ Doing something significant during March (Colorectal awareness month).
- ✓ Targeting entire community/district population.
- ✓ Promote recent legislative change around mandatory insurance coverage for colorectal cancer screening.
- ✓ Create electronic paths to promote awareness (e.g., creating push pages and embedding a cancer awareness quiz in other related community websites).

2. EDUCATION INITIATIVES: Focus on the preventive benefits of colorectal cancer screening.

Many of the plans include actions to provide education, and or educational information/materials, to providers, patients, and people over fifty years of age. Among the education initiatives planned are:

- ✓ Expanded distribution of educational brochures and posters and internet resources (links) – including to employers for inclusion in employee newsletters and to PCP/practices for their offices.
- ✓ Coordinate/ organize/execute health care provider presentations (Continuing Medical Education (CME)) on colorectal cancer prevention/diagnostics/treatment (in concert with the Maine Cancer Society (MCS) or others).
- ✓ Educate (behavioral) health care providers and other social services and community-based providers.
- ✓ Increase the number of adults who seek preventative health care visits and ask for (and get) colorectal cancer screening.
- ✓ Increase the number of worksites that educate employees about colorectal cancer screening and or have a health screening worksite policy.

3. PRACTICE CHANGES: Work with PCPs and other health care practices to increase the conversations about colorectal cancer screening.

While most of the PCPs surveyed are indeed recommending screening, there are a number of actions that can support the work they are already doing, which can also be utilized to bring other PCPs/practices “on board.” Some of the actions highlighted in district plans include:

- ✓ Raise attention to linguistic and cultural differences including low-literacy patient education materials, materials written in languages other than English, and cultural understanding of invasive practice – provide alternative information and materials.
- ✓ Distribute colorectal cancer screening guidelines to 80% of PCPs.
- ✓ Review (for potential implementation) research-tested colorectal cancer screening intervention programs that address awareness building, behavior modification or increasing physician awareness.
- ✓ Increase number of adults over the age of fifty who have been screened for colorectal cancer.

4. CAPACITY BUILDING: Work with health care providers, insurers, and community to increase accessibility and availability of colorectal cancer screening.

Current screening capacity, the potential increased need for colorectal cancer screening as the Maine population ages, and the cost of screening for uninsured Mainers are critical issues for some districts, and less so for other districts. In areas of the state where screening capacity is of concern, recommended actions to address capacity building include:

- ✓ Coordinate assessment and community education efforts with other coalitions in the district to maximize capacity.
- ✓ Investigate health insurance and health provider coverage of colorectal cancer screenings.
- ✓ Survey uninsured low-income populations over the age of fifty to see if screening rates are similar to rates for insured populations.
- ✓ Work with providers to increase the number of screenings they are doing and to fill screening availability gaps – build district capacity to handle additional screenings that an awareness campaign will produce.
- ✓ Increase number of practices recommending and monitoring colorectal cancer screening (within American Cancer Society (ACS) guidelines) in patients over fifty years old.

5. STRENGTHENING PARTNERSHIPS: Build on existing district-wide partnerships that have flourished under the HMP umbrella.

All districts acknowledged the utility of building upon their current partnerships to expand the reach of the conversation and awareness around colorectal cancer to all corners of not only their district, but across Maine in its entirety. Actions being planned by coalitions to strengthen partnerships across districts and the state include:

- ✓ Partner with other organizations to increase awareness and for distribution of educational materials – for example, partner with the Registry of Motor Vehicles to distribute information.
- ✓ Integrate colorectal cancer screening assessment with larger comprehensive community health assessment.

- ✓ Work with the Chamber of Commerce to access local employers in order to bring colorectal cancer education and information to worksites (*e.g.*, create incentive prize for employees who get screened at their worksite)
- ✓ Partner with health care providers and insurers to support their efforts to get patients over fifty to have a colorectal cancer screening and or to support screenings for the uninsured.
- ✓ Join state-wide groups (such as the Colorectal Cancer workgroup, Cancer Consortium, AARP, etc.) that are working on the issues pertinent to colorectal cancer.

Conclusions

As noted above, the focus of the first year of these grants was assessment and planning. Implementing strategies and actions to expand the awareness, knowledge, and utilization of colorectal cancer screening will be a challenge for HMP that may already be addressing a number of significant issues in their communities. For some actions, recommended by more than one district, communities/districts may have already identified the benefits of collaborating across communities and or state-wide in order to enhance their efforts. A public awareness campaign might be an example of a fairly pricey action where both “strength in numbers” and “more bang for the buck” could be realized. The ability to create something stronger and more far reaching through the integration of money and or efforts across districts or regions might be considered prudent.

While there are a number of commonalities across the districts, there are also some stark differences between them. The geography of districts has a clear impact on accessibility and affordability of preventative health care. For some districts, awareness and education around the benefits of colorectal cancer screening have to take a back seat to district concerns around capacity to provide screenings (such as the number of available doctors, and or distances one has to travel to get screened). Additionally, when availability of health care is limited (and or costly or uninsured) people tend to utilize it only when needed (acute care) rather than on a regular/annual basis (preventive care). Thus, in some districts, capacity issues must be addressed simultaneously to cultural and awareness issues in the next two year grant cycle.

Finally, the review of the HMP reports suggests the need to respect and address the differences among Maine’s increasingly diverse population. There is much to be learned from the marginalization of historical Maine minorities (Native Americans and Quebeoise, for example) as we engage the newer migrant and immigrant minorities seeking to utilize Maine’s health care system. Cultural, linguistic, and practice differences will only increase as Maine population dynamics change, and it will be incumbent on the health care providers and community-based networks to engage and incorporate those differences wherever possible.

RESULTS PART III: OUTCOMES

Outcome evaluation is an important component of any comprehensive evaluation plan. This part of the evaluation is intended to determine short- and long-term results of a program as well as the anticipated and unanticipated changes brought about by the initiative. Outcome evaluation can play an important role and can serve many purposes throughout the program.

The information provided below is based on outcome data for select objectives as they are linked to specific goals outlined in the 2006–2010 Comprehensive Cancer Plan. All objectives (with baseline data) that are included in this evaluation are listed below. Outcome data is also provided for CDC core indicators. Once again, the results should be interpreted with caution. While the program theory delineated in the original logic models suggests that the accomplishments of specific strategies will lead to achieving objectives and ultimately, goals, there are a series of additional factors that clearly can impact program replication (*e.g.*, funding of initiatives). Until these factors are better understood, generalizations about changes in the data should be made with caution.

Additional outcome information will be included in a comprehensive surveillance document currently being developed by the Maine Cancer Consortium's Data Workgroup. Once completed (winter 2008), this document will be distributed and available on the Maine Cancer Consortium's website, <http://www.maineccconsortium.org/>.

Intermediate Outcomes

Intermediate outcomes often focus on behavior and systems change. The Maine Comprehensive Cancer Control Program's intermediate outcomes can be categorized into risk factors and screening behaviors. Tables 6–10 provide data from the *Behavioral Risk Factor Surveillance System* (BRFSS) in Maine⁵. These data are collected annually through a random digit dial telephone survey of Maine adults. Data pertaining to youth are collected utilizing the Maine Youth Risk Behavior Surveillance System (MYRBS). This school-based survey is administered to 9th–12th grade students every two years. Citations are provided for data reported from additional sources.

Several caveats to the reported outcomes are warranted. First, some of the objectives as written are related to more than one data source. In these cases, several BRFSS or MYRBS questions are provided to elucidate the objectives. Second, the wording of some objectives is inconsistent with BRFSS wording, thus preventing or limiting multi-year comparisons. Moreover, in some cases (*i.e.*, tobacco) the baseline data source differs from the State's recommended data source. These instances are noted. In most cases the limited availability of data since baseline prevents the identification of trends in behavior. Thus, it is too early to measure the impact of the MCCC efforts. Moreover, changes in data have not been tested for statistical differences; therefore behavior changes cannot be confirmed. Finally, not all of the MCCC plan objectives are considered measurable; therefore they are not included in the following tables.

⁵ Maine Department of Human Services and U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System*.

Goal: To reduce the initiation of tobacco use, to increase the number of people who successfully quit using tobacco, and to reduce exposure to secondhand smoke.

Table 6. *Intermediate Outcomes: Tobacco Use*

Measurable Objectives	Previous Plan ¹				New Plan	
	2002	2003	2004	2005	2006	2007
Tobacco Use: Adults and Youth						
• Reduce proportion of Maine adults aged 18 and older who use tobacco products to 18% by 2010 ²	23.6%	23.6%	*21%	20.8%	20.9%	20.2%
• Reduce cigarette smoking among pregnant and postpartum women to 15% by 2010 ³						
○ Pregnant women who smoked during last 3 months of pregnancy	16%	*16%	20%	17.5%	17.1%	NA
○ Postpartum women who smoked after pregnancy	NA	*21%	24.5%	23.4%	20.9%	NA
• Reduce tobacco use of 9-12 th graders to 15% by 2010 ⁴	--	20.5%	--	*16.2%	--	14%
• Reduce tobacco use of 6 -8 th graders to 5.5% by 2010 ⁴	--	8.7%	--	*7.5%	--	5.5%
• To increase the proportion of adults who receive advice to quit smoking from a health care professional by 2010	78.1% ⁵	--	74.9% ⁶	--	NA	58.0% ⁷
• Reduce involuntary exposure to secondhand smoke for all Maine residents ⁶						
○ Proportion of Maine adults who report no exposure to secondhand smoke at their workplace	--	--	75.4%	NA	NA	65.4% ⁷
○ Proportion Maine workplaces that do not allow smoking in any work areas	87.5% ⁵		89.4%	NA	NA	86.7% ⁷
○ Proportion of Maine adults who do not allow smoking in their homes	63.3% ⁵	--	71.6%	NA	NA	79.8% ⁷

Notes. ¹ Plan objectives have changed since the previous 2001-2005 Cancer Plan, thus the purpose of these numbers is to provide a 5-year snapshot of the current objective.
² Results based on current cigarette smokers [have smoked 100 cigarettes in their lifetime and smoke now]
³ Maine Pregnancy Risk Assessment System (PRAMS)
⁴ Results based on current cigarette smokers, MYRBS [smoked in the last 30 days]
⁵ Results based on 2000 Adult Tobacco Survey, 2002 data not collected. Baseline reported in the Cancer Plan from BRFSS and is not comparable to current data, thus it is not reported in this report.
⁶ 2004 results based on Maine Adult Tobacco Survey, questions may vary in sampling and wording from BRFSS 2000, 2002 baseline listed in Cancer Plan.
⁷ BRFSS 2007 data not comparable to previous years from Maine Tobacco survey
 * = Baseline as listed in 2006-2010 Cancer Plan
 -- = Data not collected (MYRBS survey administered on odd years only)

The tobacco use results suggest that the rate of current adult smokers has remained relatively stable over the past several years. However, youth smoking rates have decreased according to trend analyses conducted using the Maine Youth Risk Behavior Survey. Results from the MYRBS suggest that the percentage of high school students who smoked cigarettes during the past 30 days decreased from 20.5% in 2003 to 16.2% in 2005. Moreover, according to the

MYRBS the percentage of middle-school students who smoked cigarettes in the past 30 days decreased from 8.7% in 2001 to 7.5% in 2005. It remains to be seen if the youth smoking rates continue to decline as more recent numbers are not available. Thus, any change in this objective since baseline is unknown. Finally, the data suggests that since 2000 progress has been made in terms of exposure to secondhand smoke, with approximately 80% of adults banning smoking in their homes, up from 63% in 2000. Although the data source has shifted from the Adult Tobacco Survey to BRFSS, the survey question is similar enough to suggest the change is valid. Data being collected for 2008 will help elucidate further changes in tobacco-related behavior.

Goal: To reduce and prevent adult risk of colorectal and other cancers through healthful eating habits and physical activity.

Goal: To reduce risk of colorectal and other cancers through healthful eating habits and physical activity beginning as a child.

Table 7. *Intermediate Outcomes: Physical Activity and Nutrition, Overweight/Obesity*

Measurable Objectives	Previous Plan ¹				New Plan	
	2002	2003	2004	2005	2006	2007
Physical Activity and Nutrition, Overweight/Obesity: Adults						
• Increase to 30% the proportion of adults who consume five or more servings of fruits and vegetables every day by 2010	29.4%	*27%	--	28.7%	NA	29%
• Reduce the proportion of adults that are overweight ² to 35% by 2010	38%	38.3%	*37.6%	36.9%	36.6%	38%
• Reduce the proportion of adults that are obese to 20% by 2010 ³	20.7%	19.9%	*23.4%	22.7%	23.1%	25%
• Increase to 80% the proportion of adults who participate in any physical activities in the past month ⁴	74.2%	79.4%	*78.5%	77.7%	79.1%	77.5%
• Increase to 55% the proportion of adults who participate in 30 minutes of moderate physical activity five or more days per week OR vigorous physical activity 20+ minutes for three or more days per week	--	*53.1%	--	54.1%	NA	56%
Physical Activity and Nutrition, Overweight/Obesity: Youth						
• Increase to 35% the proportion of youth who consume five or more servings of fruits and vegetables per day by 2010 ⁵ .	--	*22.6%	--	18.9%	--	20%
• Reduce the proportion of youth who are overweight to 5% or at risk for being overweight to 10% by 2010						
o High School overweight	--	*13%	--	10.9%	--	13%
o High School at risk	--	*15%	--	14.4%	--	13%
o Middle School overweight	--	*13%	--	12.2%	--	NA
o Middle School at risk	--	*18%	--	15%	--	NA

Measurable Objectives	Previous Plan ¹				New Plan	
	2002	2003	2004	2005	2006	2007
Physical Activity and Nutrition, Overweight/Obesity: Youth (continued)						
• Reduce the proportion of kindergarten students who are overweight to 5% or at risk for being overweight to 10% by 2010 ⁶						
○ Overweight	15.2%		*15%	NA	--	NA
○ At risk	21.3%		*18%	NA	--	NA
• Increase to 80% the proportion of youth who engage in vigorous physical activity three or more days per week for 20 minutes or more each time by 2010						
○ High School	--	*61%	--	62.3%	--	NA
○ Middle School	--	*72%	--	74.7%	--	NA

Notes:

¹ Plan objectives have changed since the previous 2001-2005 Cancer Plan, thus the purpose of these numbers is to provide a 5-year snapshot of the current objective.

² Overweight based on Body Mass Index of 25 – 29.9

³ Obese based on Body Mass Index of ≥ 30

⁴ BRFSS, 2003-2005. Question wording may differ from previous versions. “Adults with 30+ minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20+ minutes three or more days per week”

⁵ High School students, MYRBS

⁶ Maine Child Health Survey

* = Baseline as listed in 2006-2010 Cancer Plan

NA = Data not available/not yet provided

-- = Data not collected (YRBS survey administered on odd years only, select BRFSS questions not included annually)

The results in Table 7 suggest that adults continue to increase fruit and vegetable consumption over the past several years, nearly achieving the objective. However, since 2001 where the percentage was 25% (*not shown*) high school students’ consumption of fruits and vegetables appears to be on a downward trend with less than 25% of students eating five or more servings daily, as reported in 2003 and 2005.

Reported levels of physical activity among youth also appear to be increasing slightly since baseline. While the numbers have fluctuated over the past 5 years, BRFSS data for adult physical activity also suggests an upward trend, showing slight increases since baseline.

Finally, according to the 2007 BRFSS, while Maine’s rates of overweight and obese adults (63%) are comparable to national rates (63%), Maine has the highest adult obesity rate in New England. While the data suggest the rate of Maine adults who are overweight has stayed static, the rate of obesity for those 18 and older has increased slightly since the 2004 baseline.

Goal: To reduce the risk of skin cancer in Maine.

Table 8. *Intermediate Outcomes: Sun Safety*

Measurable Objectives	Previous Plan				New Plan
	2002	2003	2004	2005	2006
Sun Safety					
<ul style="list-style-type: none"> Increase to 15% the proportion of Maine youth who use a sunscreen with an SPF of 15 or higher when outside for more than one hour. 	--	--	--	*12.4%	NA

Notes:

* Baseline data as reported in the Maine Cancer Plan.

Questions pertaining to sun safety were not included in past versions of the MYRBS and the latest available data is from 2005. Thus, more data is needed to identify a trend in sunscreen use among Maine youth.

Goal: To reduce the risk of cervical and other cancers associated with sexually transmitted disease in Maine

Table 9. *Intermediate Outcomes: Sexual Health Behaviors, Youth*

Measurable Objectives	Previous Plan				New Plan
	2002	2003	2004	2005	2006
Sexual Health Behaviors, Youth					
<ul style="list-style-type: none"> Increase abstinence to 60% among sexually active 9-12th graders by 2010. 	--	57.2%	--	*55%	--
<ul style="list-style-type: none"> Increase condom use at last intercourse to 63% among sexually active 9-12th graders by 2010. 	--	58%	--	*59%	--

* Baseline data as reported in the Maine Cancer Plan.

Goal: To promote, increase and optimize the utilization of high quality breast cancer screening and follow-up services.

Goal: To reduce by 30% the rate of cervical cancer deaths by 2010.

Goal: To promote, increase and optimize the utilization of high quality colorectal cancer screening and follow-up services.

Table 10. *Intermediate Outcomes: Screening Behavior*

Measurable Objectives	Previous Plan				New Plan
	2002	2003	2004	2005	2006
Screening Behavior: Breast Cancer¹					
<ul style="list-style-type: none"> Increase the proportion of Maine women aged 40-49 who have received both a mammogram and a clinical breast exam within the past two years to 80% by 2010. 	72.4%	--	*72.7%	76.0% ²	72.0%

Measurable Objectives	Previous Plan				New Plan
	2002	2003	2004	2005	2006
Screening Behavior: Breast Cancer¹ (continued)					
<ul style="list-style-type: none"> Increase the proportion of Maine women aged 50 and older who have received both a mammogram and a clinical breast exam within the preceding year to 70% by 2010. 	62.6%	--	*61.6%	60.1% ²	61.5%
Screening Behavior: Cervical Cancer¹					
<ul style="list-style-type: none"> Increase the proportion of Maine women with a uterine cervix who have ever received a Pap test to 98% by 2010 	97.0%	--	*97.0%	95.2% ²	97.0%
<ul style="list-style-type: none"> Increase the proportion of Maine women aged 18 and older with a uterine cervix that received a Pap test within the preceding 1 to 3 years to 92% by 2010 	92.1%	--	*88.7%	87.9% ²	89.1%
Screening Behavior: Colorectal Cancer					
<ul style="list-style-type: none"> Increase the proportion of people aged 50 and older who have ever received a screening colonoscopy or sigmoidoscopy to 75% by 2010. 	47.3%	53.9%	*59.1%	61.9%	64.2%

Notes:

¹ Data Source: University of Southern Maine reports generated from Maine BRFSS data and collected by Maine Breast and Cervical Health Program

² This data was collected by Maine BRFSS by special request of MBHCP even though Women’s Health Module not included in Core Survey. National data is not available for this year.

* Baseline data as reported in the Maine Cancer Plan.

NA = Data not available/not yet provided

-- = Data not collected as part of Maine BRFSS. Women’s Health Module only asked in even years since 2000.

Based on the results provided, breast and cervical cancer screening behavior appears to have remained unchanged since the 2004 baseline with slight changes occurring in 2005 only.

Screening rates for colorectal cancer appear to be on rise. There was a 17% increase in sigmoidoscopy/colonoscopy screenings between 2002 and 2006, and this trend appears to be continuing into 2007. The preliminary trend data from the BRFSS indicates that as high as 72.5% of the population will have received a screening (colonoscopy or sigmoidoscopy), and that 63.3% of those will have done so within the past five years and 9.2% will have done so over five years ago. This additional 8% increase between 2006 and 2007 may reflect the increase in public awareness, both nationally and at the state level, that colorectal cancer screening has received over the past couple of years. We can surmise that at the state level, the Assessment surveys generated through the colorectal cancer awareness grants will in and of themselves have raised some level of awareness, and that the next two years of grants may well do the same.

Long-Term Outcomes

Cancer is the leading cause of death in Maine with one in four deaths due to cancer. The overall cancer death rate, however, is declining due to improvements in prevention, detection

and treatment of many types of cancer.⁶ Despite the declines, Maine continues to have overall cancer incidence and mortality rates higher than the national rates. Moreover, Maine has the highest cancer mortality rate in New England. Within this context, the MCCCCP’s long-term outcomes refer to reducing both incidence and mortality for all types of cancer.

Table 11 provides data from the Maine Cancer Registry on incidence and data from CDC Wonder on mortality rates for those cancers specifically addressed in the Maine Comprehensive Cancer Control Plan. As shown in this table, the latest available data is from 2005. The baseline as noted in the MCCC plan is from 2002.

Based on the limited data available, trends are difficult to determine. Nevertheless, trend data provided by the Maine Cancer Registry suggest that the incidence and mortality rates of colorectal cancer have been declining since 1990. However, colorectal cancer continues to be the second leading cause of cancer deaths in Maine. Lung, breast, and prostate cancers also continue to be leading causes of cancer deaths in Maine although prostate cancer has declined. Prostate cancer incidence; however, has risen likely due to improved screening. Lung cancer continues to be the leading cause of cancer death in women, while the mortality and incidence rate for men have begun to level off. Female breast cancer deaths have decreased slightly as well. Finally, while incidence rates for melanoma have been on the rise, this increase may be explained by improved reporting by physician.

Table 11. *Incidence and Mortality Rates for Select Cancers*

Objectives	Baseline ¹				
	2002	2003	2004	2005	2006
Incidence²					
• All cancers	500.8	490.7	504.5	517.7	NA
Men	589.9	571.0	587.6	593.2	NA
Women	439.2	433.7	441.6	464.9	NA
• Lung cancer	75.9	75.9	77.2	78.0	NA
Men	96.0	96.2	96.7	95.1	NA
Women	60.7	60.7	63.0	65.3	NA
• Colorectal cancer	61.2	55.3	55.2	54.4	NA
Men	74.3	67.3	61.6	63.1	NA
Women	51.8	46.4	49.0	47.0	NA
• Melanoma	20.7	21.8	22.0	23.1	NA
Men	24.1	27.6	27.0	27.3	NA
Women	18.6	17.4	18.4	20.2	NA
• Breast cancer ³	126.3	126.3	122.1	130	NA
• Cervical cancer	7.1	8.0	8.9	6.3	NA
• Prostate cancer	162.2	156.7	165.4	151.1	NA
• Oropharyngeal cancer	12.4	12.1	12.1	10.1	NA
Men	19.5	17.7	19.6	15.4	NA
Women	6.5	7.0	5.6	5.7	NA
• Bladder cancer	27.1	30.5	27.7	26.6	NA
Men	46.7	54.7	46.5	43.7	NA
Women	12.2	12.4	13.0	14.0	NA

⁶ Maine Comprehensive Cancer Control Plan, 2006-2010

Objectives	Baseline ¹				
	2002	2003	2004	2005	2006
Mortality²					
• All cancers	213.9	204.1	205.8	204.7	NA
Men	267.9	243.8	252.0	253.7	NA
Women	177.3	178.1	173.7	171.2	NA
• Lung cancer	63.2	62.3	61.1	60.2	NA
Men	81.4	79.5	78.2	77.5	NA
Women	49.8	49.9	48.9	47.6	NA
• Colorectal cancer	21.7	19.2	17.6	17.6	NA
Men	27.6	21.7	17.6	21.0	NA
Women	17	17.2	17.5	15.1	NA
• Melanoma	3.5	2.5	2.9	2.6	NA
Men	5.9	3.6	4.1	3.6	NA
Women	1.7	1.7	1.8	1.9	NA
• Breast cancer ³	23.9	27.3	21.3	22.4	NA
• Cervical cancer	2.1	1.8	2.0	1.9	NA
• Prostate cancer	26.4	27.6	26.9	25.9	NA
• Oropharyngeal cancer	2.8	2.7	3.3	2.4	NA
Men	4.2	4.0	5.0	4.3	NA
Women	1.6	1.5	1.8	0.9	NA
• Bladder cancer	5.1	5.0	6.0	5.4	NA
Men	8.4	7.4	11.7	9.9	NA
Women	2.7	3.2	3.0	2.2	NA

Notes:

¹ Baseline rates included in the Maine Cancer Plan

² All data are calculated per 100,000 and age-adjusted to the 2000 U.S. Standard Population

³ Females only

NA = Data are not yet available

Any differences in cancer incidence and mortality rates have not been tested for statistical significance, thus they should only be used as a general indication of change. Additionally, in order to determine the potential preliminary impact of the MCCCCP initiative and the current MCCC plan, additional years of data will be necessary.

Finally, as noted at the beginning of this section, additional information on all cancers will be available in the comprehensive surveillance document due out in the winter of 2008. This cancer surveillance document will provide the most current statistical data and analysis for both Comprehensive Cancer Plan objectives and cancer incidence and trends, and as such, will serve as an excellent compliment to this evaluation report.

Recommendations: MCCCP and Consortium Overall

1. Enhance the Consortium's Membership

- Conduct membership survey to gauge representation from key stakeholders, and diversity of membership.
- Use results to inform recruitment of new members.

2. Increase Consortium's Participation in the Evaluation and Enhance Activity-Monitoring

- Hold stakeholders meeting of consortium membership to gather feedback on evaluation questions. Use results to help inform evaluation planning for subsequent years.
- Engage Consortium in evaluation discussion as planning process for new Cancer Plan begins.
- Adapt activity-monitoring tool. Suggestions include tracking activities in a database and have Workgroups review and add to each year. Consider making available on-line or accessible throughout the contract year. Activities should continue to be linked to objectives and strategies.
 - Enhance monitoring of Workgroup activities through the development of annual workplans for each Workgroup. Have members track activities on an on-going basis. Share example of Skin Cancer Task Force's tracking sheet.
 - Review examples from other states if possible.
 - Pilot or solicit feedback on new monitoring tool from Workgroups.

3. Develop evaluation plan to track impact of policy changes related to Cancer Plan objectives and priorities

- Engage Consortium in designing evaluation plan to systemically track legislation or policies related to Cancer Control (*e.g.*, legislative mandate for insurance coverage of colorectal screening).
- Continue work with evaluator and epidemiologist to measure impact of policy changes.

4. Enhance Evaluation Design and Utilization of Results

- Continue to align evaluation with surveillance activities, specifically in the tracking of outcomes.
- Have evaluation team develop "shared" recommendations with epidemiologist based on evaluation and surveillance documents.
- Develop outcome evaluation of select workgroup activity each year. Work with evaluator to identify appropriate intervention and design evaluation.
- Develop a comprehensive evaluation for both the Sun Blocks Curriculum training and implementation, and the HMP implementation of Colorectal Cancer Plans.
- Disseminate results with peer-reviewed publication.

Appendix A: Child Care Sun Safety Questionnaire

Appendix A: Child Care Sun Safety Questionnaire

Maine Child Care Sun Protection Questionnaire

1. What type of early childcare do you represent?

- Child Care Center
- Nursery School or Preschool
- Family Child Care Home
- Head Start or Early Head Start
- Other: _____

2. What is your position within your center or program?

- Director
- Teacher
- Caregiver
- Administrative or Support Staff
- Parent
- Other: _____

3. How important do you think sun protection is to a child’s overall health?

- | | | | | |
|-----------|------------|------------|-----------|-----------|
| Not | Of Little | Moderately | | Very |
| Important | Importance | Important | Important | Important |

4. How often do you apply sunscreen to children before they participate in outdoor activities?

- | | | | | |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

5. How often do you encourage children to wear hats when they are participating in outdoor activities?

- | | | | | |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

6. How often do you encourage children to wear sunglasses when they are participating in outdoor activities?

- | | | | | |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

7. How often do you encourage children to wear sun-protective clothing (*i.e.* sleeved shirts, pants) when they are participating in outdoor activities?

- | | | | | |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

8. How often do you encourage children to play in shaded areas?

- | | | | | |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

9. How often do you schedule outdoor activities and events during peak sun hours (10:00 a.m.-4:00 p.m.)?

- | | | | | |
|-------|--------|-----------|-------|--------|
| Never | Rarely | Sometimes | Often | Always |
|-------|--------|-----------|-------|--------|

10. I have the skills I need to make sure that the children under my care:

a. Wear sunscreen when participating in outdoor activities.

Strongly Disagree Disagree Neutral Agree Strongly Agree

b. Wear hats, sunglasses or other sun-protective clothing (e.g. sleeved shirts, pants) when participating in outdoor activities.

Strongly Disagree Disagree Neutral Agree Strongly Agree

c. Avoid exposure to sun during peak sun hours (10:00 a.m.-4:00 p.m.).

Strongly Disagree Disagree Neutral Agree Strongly Agree

d. Play in shaded areas.

Strongly Disagree Disagree Neutral Agree Strongly Agree

11. I have the resources I need to make sure that the children under my care:

a. Wear sunscreen when participating in outdoor activities.

Strongly Disagree Disagree Neutral Agree Strongly Agree

b. Wear hats, sunglasses or other sun-protective clothing (e.g. sleeved shirts, pants) when participating in outdoor activities.

Strongly Disagree Disagree Neutral Agree Strongly Agree

c. Avoid exposure to sun during peak sun hours (10:00 a.m.-4:00 p.m.).

Strongly Disagree Disagree Neutral Agree Strongly Agree

d. Play in shaded areas.

Strongly Disagree Disagree Neutral Agree Strongly Agree

12. Does your child care center or program currently have a policy on sun protection?

Yes, we have a formal sun protection policy.

Yes, we have an informal sun protection policy.

No

I don't know

13. Does your childcare center or program provide sun protection training to teachers and staff?

Yes

No

I don't know

14. Does your childcare center or program provide parents with information on sun protection?

Yes

No

I don't know

15. Does your childcare center or program integrate sun protection activities and lessons into curriculum?

Yes

No

I don't know

NA (Facility provides supervisory care only.)

16. Which of the following best describes when your childcare center or program pays the most attention to sun protection? (Select all that apply)

Every day, year-round

During summer months

During spring months

During fall months

During winter months

Only on very sunny days

Other: _____

17. Do any of the following factors prevent your childcare center or program from practicing sun protection? (Select all that apply)

Lack of sun protection training

Cost or lack of funding

Insufficient parent involvement

State regulations or local restrictions

Allergies or skin reactions

Inflexible schedule

Center or program is able to routinely practice sun protection

Other: _____

18. Would you be interested in working together with other Maine childcare directors and staff to help create a sun protection program for childcare centers in Maine?

Yes (Skip to Question 20)

No

Maybe. I need more information. (Skip to Question 20)

19. If no, would you be interested in receiving more information on sun protection for your center or program?

Yes

No

20. If yes, or if you would like to receive more information about this project, please provide a valid email address by which we can contact you. Please note, this email address WILL NOT be distributed or used for any other purposes beyond this project.

Email Address: _____@_____

Thank you for your time and participation. It is truly appreciated!

**Appendix B: Child Care Sun Safety Questionnaire
Qualitative Finding Summary**

**Appendix B:
Child Care Sun Safety
Questionnaire
Qualitative Finding
Summary**

SUMMARY OF QUALITATIVE FINDINGS

Although the initial needs assessment conducted for this project consisted entirely of close-ended questions, many participants offered further descriptive information to give context to their responses. While unsolicited, this information proved insightful and was considered when developing program strategy. Grouped by assessment variable, the following notes capture the most common and most revealing of these qualifications.

Variable b1: How often do you apply sunscreen?

- We ask parents to apply it before the child comes to school and put extra in their bags.
- Parents apply sunscreen in am. We apply in pm.
- Not allowed to apply sunscreen.
- With parent permission.
- Rarely in the winter, often in the summer.

Variable b2: How often do you encourage children to wear hats?

- If parents bring them in, we always have them wear it.

Variable b3: How often do you encourage children to wear sunglasses?

- Not unless provided by parents.
- Most are not UV protectant!

Variable b4: How often do you encourage children to wear sun protective clothing?

- Only if provided by families.
- If sunscreen isn't an option, or the child is fair-skinned.

Variable b5: How often do you encourage children to play in shaded areas?

- Playground has very little shade.

Variable b6: How often do you schedule outdoor activities during peak sun hours?

- For outside time in the summer, we try to get them out earlier, but timing doesn't always allow for missing such a large gap of time.
- When weather on computer announces harmful time periods, we stay indoors or when very humid and high temps we decide to stay indoors.
- Mandated to do so given program hours.

Variables e1-e4: Do you have the skills to make sure children: wear sunscreen, hats, sunglasses, sun protective clothing, play in shaded areas and avoid peak sun?

- We have the skills, but parents do not always supply what children need.
- I recommend to parents, it is up to them.
- As part of our policy, we are not allowed to [apply sunscreen].
- Children must be outside as per state guidelines.

Variables c1-c4: Do you have the resources to make sure children: wear sunscreen, hats, sunglasses, sun protective clothing, play in shaded areas and avoid peak sun?

- Up to parents to supply [sunscreen].
- Depends on parents [clothing/hats]. Not enough funding to purchase for each child.
- Regulations require one hour in the am and one in the pm. If we skipped this gap, there isn't enough time for all children to meet this.
- We only have a small shaded area.
- Balancing Vitamin D, comfort and over exposure.

Variable v2: Does your center currently have a sun protection policy?

- It could be expanded.
- A verbal policy that all children must wear sunscreen unless they are allergic.
- We would love info on a formal written policy!
- More guidance or procedure rather than policy.

Variable v3: Does your center currently provide staff training?

- It could be more formal.
- No training, just reading policy. We go over where to cover children with sunscreen, and that's about it.
- No, but some of the seminars we attend go over sun protection.
- Some, but not enough.

Variable v4: Does your center currently provide parents with sun protection information?

- Yes, but it could be expanded.
- I would if there was info in packet form.
- Would like more info to do so.
- Through newsletters/notes home. Not formal.
- Only on the sunscreen permission form.
- Verbal information.

Variable v5: Does your center currently integrate sun protection into curriculum?

- We do explain to the children every year the importance of sunscreen and that they should remind their parents to put it on them on the weekends. We see more sunburns on Monday, everyone always forgets it at home.
- We have talked about why we wear sunscreen.
- No, but would like to.
- Informally, the children apply pretend sunscreen to themselves and dolls in dramatic play. We do lots of activities about the power of the sun (evaporation, shadows, etc.).
- Yes, and could be done more consistently (sun protection activities).

Variable v6: When does your center pay most attention to sun protection practices?

These comments are in addition to timing/seasons indicated from a given list.

- Trying to change this [not year round practice].
- Everyday in the summer.
- Can't count the number of kids that come back to us after vacation with a burn from skiing or sledding.

Variable v7: Which factors prevent your center from practicing sun protection?

These comments are in addition to indicating barriers from a given list.

- We use sunscreen with PAB free high rating [sunscreen] for all children which parents donate. If child has skin sensitivity or allergy, parent provides specific sunscreen to use for their child.
- Children are asked to bring their own lotion due to skin reactions.
- Some parents won't bring in sun block and it costs a lot for our center to purchase. Parents do not dress their children appropriately and do not apply sunscreen themselves because they refuse to believe their children need it.
- The 10-4p hours cannot be avoided - we do nap and eat 12-3 so we do avoid most of it. All play areas have built shade.