Improving Cancer Care and Expanding Research in the Community

The NCI Community Cancer Centers Program

National Cancer Advisory Board
June 23, 2010

Maureen Johnson, PhD
NCCCP Project Officer
Presentation

- Mission
- Background
- Uniqueness of NCCCP
- Metrics
- Interim Accomplishments
- Evaluation
- ARRA Expansion
The NCCCP is

- a network of hospital cancer centers that serves as
- a community-based platform to support basic, clinical and population-based research initiatives
- across the cancer care continuum—from prevention, screening, diagnosis, treatment, and survivorship through end-of-life care.

**Long Term:** improve care through expanding research in the community setting
NCCCP Phase I: *Building Research Capacity*

**NCCCP Strategic Plan**

- **Phase I: Pilot**
  - 2007-2010
  - Build Research Capacity

- **Phase II**
  - 2010-2012
  - Build Research Capacity
  - Support Extramural Research

- **Phase III**
  - 2012-2015
  - Support Extramural Research
NCCCP: Studying Ways To...

Enhance Access

Improve Quality of Care

Expand Research

Cancer Continuum

Prevention Screening Treatment Palliative Care Follow-up Survivor Support End-of-life Care

Disparities 40% of Funding Quality of Care Survivorship and Palliative Care Advocacy Biospecimens Clinical Trials EHR and caBIG (IT)
Unique Program Attributes

- Public-private partnership
- CEO commitment
- Contract
- Networking among sites
- Synergy with NCI programs
- Leveraging partnerships with national organizations
- Rigorous program evaluation methods
Review of Progress to Address Goals

- Define Challenge
- Create Goals
- Develop and Measure Metrics
- Interim Accomplishments
- Network Projects to Address Goals
Healthcare Disparities

Challenge
- Sites’ knowledge and capacity to focus disparities efforts to drive measurable improvements

Goal
- Improve patient education, patient navigation programs and community outreach

Metrics
- Number and purpose of community partners
- Number of cancer patients provided navigation
- Site collection of race and ethnicity data
# Healthcare Disparities

**Interim Accomplishments, First 16 Months**

## Improvements in Community Outreach and Navigation

<table>
<thead>
<tr>
<th>Disparities Outcome (% of sites with change)</th>
<th>Change from Baseline*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community Outreach</strong></td>
<td></td>
</tr>
<tr>
<td>% of sites increasing number of community partners</td>
<td>75%</td>
</tr>
<tr>
<td>% of sites which established community advisory committees</td>
<td>From 44% to 88%</td>
</tr>
<tr>
<td>% of sites with increase in community outreach staff</td>
<td>56%</td>
</tr>
<tr>
<td>% of sites which utilized new community resources</td>
<td>56%</td>
</tr>
<tr>
<td>% of sites with increased participation in community events</td>
<td>56%</td>
</tr>
<tr>
<td><strong>Navigation</strong></td>
<td></td>
</tr>
<tr>
<td>% of sites with use of navigators</td>
<td>From 88% to 100%</td>
</tr>
<tr>
<td>% of sites which added navigation staff</td>
<td>75%</td>
</tr>
<tr>
<td>% of sites tracking race and ethnicity of patients navigated</td>
<td>From 25% to 50%</td>
</tr>
<tr>
<td>% of sites tracking the number of patients navigated</td>
<td>From 50% to 75%</td>
</tr>
<tr>
<td>% of sites providing navigator training</td>
<td>From 31% to 81%</td>
</tr>
</tbody>
</table>

*Site reported data from baseline assessment survey to interim assessment survey at 16 months*
Healthcare Disparities

Network-level Interim Accomplishments

• Developed NCCCP Disparities Vision, Work Plan and Dashboard with metrics—improving sites ability to focus program activities across program areas and the cancer care continuum

• Race/ethnicity tracking – improved tracking by OMB Guidelines

• Cultural Awareness Webinars—education
Disparities Example: Billings Clinic and Native Americans, Billings, Montana

“Sites are making investments in disparities infrastructure and services that they would not have made without NCCCP” - RTI evaluator

- Biospecimen disposal policy for American Indians
- 2 Community Health Representatives hired – tribe members
- Program Coordinator hired – PhD researcher from Assiniboire Tribe
- Mammography partnership with hospital adjacent to Reservation
- Cultural awareness and education programs
- Increased trust and access
Quality of Care

Challenge
- Care coordination issues related to working with private practice physicians
- Data collection methods to adhere to guidelines

Goal: Increase quality of care through increased use of multidisciplinary care conferences (MDCs), evidence-based guidelines, and genetic services and molecular testing

Metrics
- Offer genetic counseling and molecular testing
- Adherence to evidence-based guidelines
- Number, type and frequency of multidisciplinary care conferences (MDCs) and year started
# Quality of Care

## Interim Accomplishments, First 16 Months

Improvements in genetic services, molecular testing and use of evidence-based guidelines

<table>
<thead>
<tr>
<th>Quality of Care Outcome (% of sites with change)</th>
<th>Change from Baseline*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Genetic and Molecular Testing</strong></td>
<td></td>
</tr>
<tr>
<td>% of sites offering genetic counseling—not asked at baseline</td>
<td>81%</td>
</tr>
<tr>
<td>% of sites offering molecular testing</td>
<td>88% to 94%</td>
</tr>
<tr>
<td><strong>Evidence-based Guidelines</strong></td>
<td></td>
</tr>
<tr>
<td>% of sites using Commission on Cancer EQUIP quality indicators</td>
<td>From 56% to 100%</td>
</tr>
<tr>
<td>% of sites with physicians participating in ASCO’s QOPI</td>
<td>From 0% to 50%</td>
</tr>
<tr>
<td>% of sites with increased use of NCCN guidelines</td>
<td>50%</td>
</tr>
<tr>
<td>% of sites with increased use of ASCO guidelines</td>
<td>38%</td>
</tr>
<tr>
<td>% of sites with increased use of ACOS guidelines</td>
<td>50%</td>
</tr>
<tr>
<td>% of sites with increased use of ACS guidelines</td>
<td>38%</td>
</tr>
<tr>
<td>% of sites with increased number of direct linkages to organizations for QoC</td>
<td>69%</td>
</tr>
</tbody>
</table>

*Site reported data from baseline assessment survey to interim assessment survey at 16 months*
Network-level Projects

• National Partnerships: National Quality Initiatives
  
  – Commission on Cancer’s Rapid Quality Reporting System (RQRS) beta test
    • real-time cancer registry reporting and surveillance tool to prospectively monitor adherence to evidence-based guidelines

  – ASCO Quality Oncology Practice Initiative® (QOPI)
    • quality improvement collaborative around quality indicators for private practice oncologists
RQRS: Breast Conservation Surgery and Radiation Therapy Performance Rates at NCCCP ’07 Sites

**Change in Performance Rates**
16 NCCCP Pilot Sites

- **RANGE**
  - 2007 Baseline Range: 24-95
  - 2008 RQRS Implemented: 53-100

**Change in Performance Rates**
NCCCP vs Other CoC Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>2007 Baseline</th>
<th>2008 RQRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCCCP ’07</td>
<td>77</td>
<td>*86.5</td>
</tr>
<tr>
<td>Other RQRS</td>
<td>75.3</td>
<td>*80.7</td>
</tr>
<tr>
<td>NCCCP ’10 CoC Comm</td>
<td>77.2</td>
<td>*Stat Sig</td>
</tr>
<tr>
<td>NCI DCP</td>
<td>75.7</td>
<td></td>
</tr>
<tr>
<td>All CoC</td>
<td>78.1</td>
<td></td>
</tr>
</tbody>
</table>

*Stat Sig
### RQRS: Assess and Compare Performance by Age, Race, Insurance, Education and Income

#### All Beta Sites [61]

<table>
<thead>
<tr>
<th>Income</th>
<th>Performance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $30,000</td>
<td>61.1% n=18 (95%CI: 38.6-83.6)</td>
</tr>
<tr>
<td>$30,000 - $35,000</td>
<td></td>
</tr>
<tr>
<td>$35,000 - $40,000</td>
<td></td>
</tr>
<tr>
<td>$40,000 - $46,000</td>
<td></td>
</tr>
<tr>
<td>$46,000 +</td>
<td>72% n=25 (95%CI: 54.4-89.6)</td>
</tr>
<tr>
<td>Unknown</td>
<td>70% n=40 (95%CI: 55.8-84.2)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>73.1% n=26 (95%CI: 56-90.1)</td>
</tr>
</tbody>
</table>

#### All Beta Sites [61]

<table>
<thead>
<tr>
<th>Education</th>
<th>Performance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>29% +</td>
<td></td>
</tr>
<tr>
<td>20% - 28.9%</td>
<td></td>
</tr>
<tr>
<td>14% - 19.9%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

#### All Beta Sites [61]

<table>
<thead>
<tr>
<th>Age</th>
<th>Performance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 TO 39</td>
<td>58.3% n=12 (95%CI: 30.4-86.2)</td>
</tr>
<tr>
<td>40 TO 49</td>
<td>70.7% n=41 (95%CI: 56.8-84.7)</td>
</tr>
<tr>
<td>50 TO 59</td>
<td>68.1% n=47 (95%CI: 54.8-81.4)</td>
</tr>
<tr>
<td>60 TO 69</td>
<td>72.7% n=44 (95%CI: 59.6-85.9)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>69.4% n=144 (95%CI: 61.9-77)</td>
</tr>
</tbody>
</table>

#### All Beta Sites [61]

<table>
<thead>
<tr>
<th>Insurance</th>
<th>Performance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Insured</td>
<td>80% n=5 (95%CI: 44.9-100)</td>
</tr>
<tr>
<td>Private Insurance</td>
<td>64.3% n=14 (95%CI: 39.2-89.4)</td>
</tr>
<tr>
<td>Managed Care</td>
<td>65.9% n=82 (95%CI: 55.6-76.1)</td>
</tr>
<tr>
<td>Medicaid</td>
<td>81.3% n=16 (95%CI: 62.1-100)</td>
</tr>
<tr>
<td>Medicare</td>
<td>60% n=5 (95%CI: 17.1-100)</td>
</tr>
<tr>
<td>Medicare w/ Supplement</td>
<td>66.7% n=15 (95%CI: 42.8-90.5)</td>
</tr>
</tbody>
</table>
• Private practice oncologists participate in a quality improvement collaborative around quality indicators consistent with NCCCP program aims

• ASCO provides practice profiles at the NCCCP site level

• NCCCP QOPI® physicians share improvement data, assess improvement opportunities, and QI targets

NCCCP QOPI® Data Analysis
Aggregate Pain Assessment

The chart shows the aggregate pain assessment rates for different sites and years.

- **Site 1**: Fall 2008, Spring 2009, Fall 2009
- **Site 2**: Fall 2008, Spring 2009, Fall 2009
- **Site 3**: Fall 2008, Spring 2009, Fall 2009
- **NCCCP Aggregate**: Fall 2008, Spring 2009, Fall 2009
- **QOPI Nat'l Avg**: Fall 2008, Spring 2009, Fall 2009

The rates are measured on a scale from 0 to 100.
Network-level Interim Accomplishments

• National Partnerships: National Quality Initiatives
  – Commission on Cancer’s Rapid Quality Reporting System (RQRS) beta test—increased adherence to evidence-based practices at the hospital level
  – ASCO Quality Oncology Practice Initiative® (QOPI)—increased adherence to evidence-based practices at the private-practice physician level

• Multidisciplinary Care – 27 new MDCs since start

• Sharing best practices for network improvement
Clinical Trials

Challenges

• Limited participation in clinical trials, including minority and other underrepresented populations; Limited tracking mechanisms

Goal: Enhance clinical trials infrastructure to accrue more patients to more types of trials, increase physician participation, and expand tracking efforts to better understand accrual barriers.

Metrics

• Number of patients accrued (total and by race and ethnicity)
• Number of trials opened and number of early phase trials
• Number of types of trials (i.e. prevention, treatment)
• Number of physicians eligible to enroll patients
• Number of physicians who have accrued patients to clinical trials
## Clinical Trials

### Interim Accomplishments, First 16 Months

**Improvements in infrastructure and tracking**

<table>
<thead>
<tr>
<th>Clinical Trials Outcome (% of sites with change)</th>
<th>Change from Baseline*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanding clinical trials infrastructure</td>
<td></td>
</tr>
<tr>
<td>% of sites with increase in participating physicians</td>
<td>33%</td>
</tr>
<tr>
<td>% of sites with increase in participating nurses and patient navigators</td>
<td>50%</td>
</tr>
<tr>
<td>% of sites with increase in participating outreach coordinators</td>
<td>33%</td>
</tr>
<tr>
<td>% of sites using patient navigators for CT referral</td>
<td>From 19% to 44%</td>
</tr>
<tr>
<td>% of sites with additional CT screening activities</td>
<td>75%</td>
</tr>
<tr>
<td>Tracking</td>
<td></td>
</tr>
<tr>
<td>% of sites tracking individual trials</td>
<td>From 38% to 63%</td>
</tr>
<tr>
<td>% of sites tracking disease grouping of trials</td>
<td>From 19% to 38%</td>
</tr>
<tr>
<td>% of sites tracking all trials</td>
<td>From 31% to 69%</td>
</tr>
<tr>
<td>% of sites tracking patients being screened</td>
<td>From 50% to 88%</td>
</tr>
<tr>
<td>% of sites tracking minority accrual across all trials</td>
<td>From 31% to 100%</td>
</tr>
</tbody>
</table>

*Site reported data from baseline assessment survey to interim assessment survey at 16 months*
### Increase in Clinical Trials by Type

<table>
<thead>
<tr>
<th>Trial</th>
<th>Y1</th>
<th>Y2</th>
<th>*Y3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>609</td>
<td>852</td>
<td>705</td>
</tr>
<tr>
<td>Symptom Management/Cancer Control</td>
<td>98</td>
<td>92</td>
<td>78</td>
</tr>
<tr>
<td>Screening/Early Detection/Diagnostic</td>
<td>5</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Prevention</td>
<td>9</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Epidemiologic/ Observational/Outcome</td>
<td>22</td>
<td>40</td>
<td>43</td>
</tr>
<tr>
<td>Correlative Studies</td>
<td>44</td>
<td>71</td>
<td>72</td>
</tr>
</tbody>
</table>

*Y3=6 months of data*
## Increase in Clinical Trials by Phase

<table>
<thead>
<tr>
<th>Phase</th>
<th>Y1</th>
<th>Y2</th>
<th>*Y3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>4</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>I/II</td>
<td>13</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>II</td>
<td>231</td>
<td>287</td>
<td>212</td>
</tr>
<tr>
<td>II/III</td>
<td>4</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>III</td>
<td>422</td>
<td>600</td>
<td>549</td>
</tr>
<tr>
<td>IV</td>
<td>3</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>N/A</td>
<td>116</td>
<td>173</td>
<td>154</td>
</tr>
<tr>
<td>Pilot</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Y3=6 months of data
Increase in Rural, Elderly and Minority Accrual

Total Accrual: Sum of Y1 = 1119, Sum of Y2 = 1005, Sum of Y3 = 482
Rural Accrual: Sum of Y1 = 154, Sum of Y2 = 103, Sum of Y3 = 180
Over 65 Accrual: Sum of Y1 = 24, Sum of Y2 = 154, Sum of Y3 = 251
Minority Accrual: Sum of Y1 = 63, Sum of Y2 = 104, Sum of Y3 = 60
Network-level Interim Accomplishments

- Physicians participating—increased
- Staffing to support—increased
- Number of trials opened—increased
- Types of trials—greater variety and increase in early phase
- Rural, Elderly and Minority accrual—increased
- Web-based Screening and Accrual Log
- Wake Forest CLL cancer control trial
  - Recruited 22% of trial total and 42% of the CTSU accrual
- Underserved Accrual Project
<table>
<thead>
<tr>
<th></th>
<th>Pre-NCCCP</th>
<th>Post-NCCCP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td>Y -2</td>
<td>Y-1</td>
</tr>
<tr>
<td><strong>Medical Oncology Support</strong></td>
<td>Dr. Mehmet Copur Only Med Onc in Grand Island</td>
<td></td>
</tr>
<tr>
<td><strong>Other FTE Support</strong></td>
<td>1 non-RN</td>
<td>2 non-RN</td>
</tr>
<tr>
<td><strong>Available CTs</strong></td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td><strong>CT Accrual</strong></td>
<td>22</td>
<td>47</td>
</tr>
<tr>
<td><strong>% Accrual</strong></td>
<td>4%</td>
<td>9%</td>
</tr>
</tbody>
</table>

2010 ASCO CT Participation Award (1/10 awardees)
2010 ASCO Community Oncology Research Grant (1/3 awardees)
### Accomplishments Beyond Deliverables

#### Focus Area: All Deliverables Met

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>All Deliverables Met</th>
<th>Current Accomplishments Beyond Deliverables</th>
</tr>
</thead>
</table>
| Survivorship & Palliative Care | • Treatment Summary  
• Palliative Care Program                                                             | • Survivorship Programs  
• Psychosocial Care  
• Education                                                                                           |
| Biospecimens             | • Assess NCI Best Practices for Biospecimen Collection                                 | • Biospecimen collection:  
3 TCGA sites, 4 Moffitt TCC sites  
• Formalin fixation standards-16 sites  
• 2 sites have biorepositories                                                                                           |
| IT                       | • Assess caBIG Implementation  
• Implement EHRs                                                             | • 10 sites deploy tools by end of 2010  
• ASCO/NCCCP Oncology-EHR Whitepaper                                                                                           |
Evaluation Methods

- Case studies
  - change in program structure & processes over time

- Patient perspective studies
  - Surveys and focus groups

- Economic studies
  - Micro-cost studies and strategic case study
  - Strategic case study

Sites contributing $3.3 to every $1 NCI dollar

Reported Expenditures for the First Two Years
Including Value of Donated Time

Survivorship
Biospecimens
Info. Tech.
Quality of Care
Disparities
Clinical Trials

Costs ($000)

Source: Completed Cost Assessment Tools, Contract Years 1 and 2. Donated physician time valued using MGMA compensation figures.
Supporting Extramural Research

- H. Lee Moffitt Cancer Center
  - Dr. William Dalton

- University of Maryland
  - Dr. Claudia Baquet

- PRO-CTCAE Network
  - Dr. Ethan Basch
Moffitt Total Cancer Care—Partnership with NCCCP Sites

- Total Cancer Care Research Project
  - 4 NCCCP Sites Collecting Biospecimens

- N01 Clinical Trials: Early Drug Development Program
  - 2 NCCCP Sites participating

- Health Outcomes Research on Clinical Trials Participation
  - 2 NCCCP Sites participating
University of Maryland School of Medicine
St. Joseph’s Cancer Institute (NCCCP Site)—
Benefits and Products

Community Engagement
- CBPR planning
- Esophageal Cancer Disparities Translational Research Study

Screening Partnership
- Foster screening in racial/ethnic minorities and other underserved populations

Clinical Trials Education
- Physicians and Patients in minority, rural and urban communities

National Bioethics Research Center
- Community Bioethics, Research Ethics, Clinical Trials and Health Disparities Mini Medical School Program
- Physician CMEs on Bioethics, Research Ethics and Clinical Trials

Research Translation and Dissemination
- Community Cancer Trial Collaboration
- African Americans and Clinical Trials Models
PRO-CTCAE—
Benefits of NCCCP Sites

• Access to community perspectives
  – Weekly planning conference calls

• Access to patients
  – Enriching at NCCCP sites by race/ethnicity and ECOG status

• Opportunity to field-test new technology

• Gain understanding of whether this approach is ultimately feasible
NCCCP Phase II: Research Capacity and Support

NCCCP Strategic Plan

• **Phase I: Pilot**
  - 2007-2010
  - Build Research Capacity

• **Phase II**
  - 2010-2012
  - Build Research Capacity
  - Support Extramural Research

• **Phase III**
  - 2012-2015
  - Support Extramural Research
American Recovery and Reinvestment Act (ARRA)

- 2 years of funding

- $40 million to pilot NCCCP organization
  - 18 specific projects
  - Many NCI program collaborations: CNPs, Early Drug Development Program, PRO-CTCAE

- $40 million to new organizations
  - 14 community cancer centers joined network
  - Raising the bar on program requirements
Contributions of the NCCCP Network

- 58,000 new cancer cases per year
- 23 million people served
- 22 states
- CCOPs—13
- MB-CCOPs—2
- Community Network Program Partnerships—10
- Cancer Research Network (HMO Network)—1
- Linkages with designated centers and other research partnerships
- Site-specific basic, clinical and health services research initiatives
Top 3 Interim Accomplishments to Date

• **Investment in Disparities Programs**
  – Mobilized sites
  – Created leveraging opportunities
  – Community benefit

• **Value of Network**
  – NCI/NCCCP partnership
  – Accelerate advances
  – “Raises all boats”

• **Building Research Capacity**
  – Increased staffing to support research activities
  – Standardized data and biospecimen collection across sites
  – caBIG-compatible data warehousing
  – Highly leveraged financially
  – Commitment to goals by going beyond deliverables
  – Demonstrated support of research activities spanning basic, clinical and health services research
The NCCCP is

- a **network** of hospital cancer centers that serves as
- a community-based platform to support basic, clinical and population-based research initiatives
- across the cancer care continuum—from prevention, screening, diagnosis, treatment, and survivorship through end-of-life care.

**Long Term:** improve care through expanding research in the community setting
## NCI Collaborative Effort

<table>
<thead>
<tr>
<th>Department</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NCI OD</strong></td>
<td>Dr. Maureen Johnson, Ms. Jean Lynn</td>
</tr>
<tr>
<td><strong>CRCHD</strong></td>
<td>Dr. Ken Chu, Dr. Sanya Springfield, Dr. Deborah Duran</td>
</tr>
<tr>
<td><strong>DCCPS</strong></td>
<td>Dr. Steve Clauser, Dr. Julia Rowland, Dr. Irene Prabhu Das, Ms. Kate Castro</td>
</tr>
<tr>
<td><strong>DCLG</strong></td>
<td>Dr. Beverly Laird, Ms. Cheryl Jemigan</td>
</tr>
<tr>
<td><strong>DCP</strong></td>
<td>Dr. Worta McCaskill-Stevens, Ms. Diane St. Germain</td>
</tr>
<tr>
<td><strong>DCTD</strong></td>
<td>Ms. Andrea Denicoff</td>
</tr>
<tr>
<td><strong>CBIIT</strong></td>
<td>Dr. Ken Buetow, Dr. Leslie Derr, Ms. Brenda Duggan</td>
</tr>
<tr>
<td><strong>OBBR</strong></td>
<td>Dr. Carolyn Compton, Dr. James Robb</td>
</tr>
<tr>
<td><strong>OCE</strong></td>
<td>Ms. Mary Anne Bright, Ms. Sabrina Islam-Rahman</td>
</tr>
<tr>
<td><strong>SAIC-Frederick, Inc.</strong></td>
<td>Ms. Joy Beveridge, Ms. Deb Hill, Mr. Frank Blanchard, Ms. Linda Ritchie, Ms. Kelly Spore, Ms. Jenny Starliper, Deb Whitmore, Ms. Maureen Dyer</td>
</tr>
<tr>
<td><strong>Consultants</strong></td>
<td>Dr. Arnie Kaluzny, Dr. Mary Fennell, Ms. Donna O’Brien, Ms. Nancy Murphy</td>
</tr>
</tbody>
</table>
NCAB Input Requested

• In what additional ways can NCI best utilize the NCCCP community-based research infrastructure?

• What are the best ways to encourage academic investigators to collaborate with the NCCCP sites?