# A systematic approach for program evaluation: National evaluation of the National Cancer Institute Community Networks Program

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#### **Overview**

- Background on CNP
- Evaluation cycle adapted to CNP
- Steps in evaluation
- Findings from Years 1 and 2
- Lessons learned

#### **Background**

- Purpose: Reduce cancer health disparities among racial and ethnic minorities and underserved populations through community-based participatory education, research, and training
- Follow-on to Special Populations Network (2000-2005)
- \$95 million over 5 years
- 25 cooperative agreement awards
- 3 cumulative program phases, each with specific goal and objectives

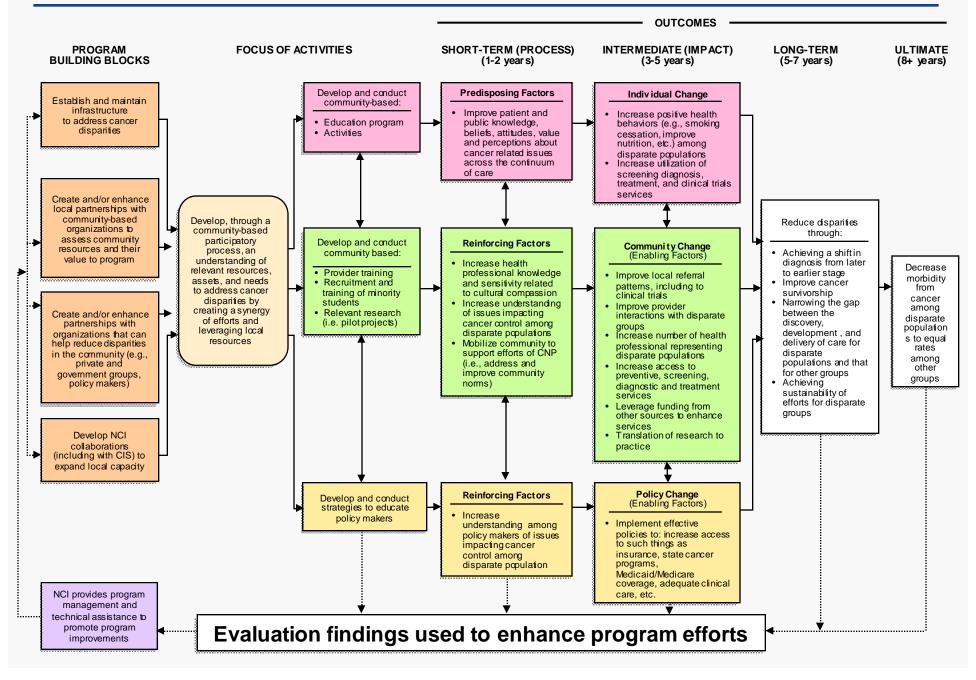
#### Goals

- Phase I: Develop and increase capacity building to support community-based participatory education, research, and training to reduce cancer health disparities
- Phase II: Develop community-based participatory research and training programs to reduce cancer health disparities
- Phase III: Establish credibility and sustainability of CNP activities that reduce cancer health disparities

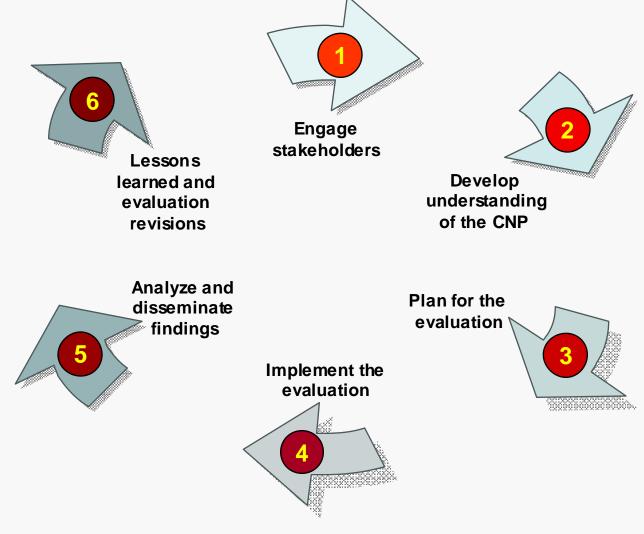
#### **Technical Approach**

- Framed by conceptual framework developed by CRCHD during feasibility study
- Anchored by goals and objectives defined in RFA for CNP
- Methodology based on triangulation of quantitative and qualitative findings
- Providing data to inform and support CRCHD programmatic decisions

#### **CNP Conceptual Framework**



#### **CNP National Evaluation Cycle**



Adapted from CDC. Framework for program evaluation in public health. MMWR 1999;48(No. RR-11).

#### 1. Engage Stakeholders

- Key stakeholders
  - CNP PIs and program staff
  - NCI CRCHD CNP Program Directors
- Participatory approach throughout design and implementation of evaluation
- All data collection tools are vetted through CNPs
- Collaborate closely with CNP national evaluation team at CRCHD

#### 2. Develop Understanding of CNP

- Reviewed literature on cancer health disparities
- Extensive discussions with CRCHD to gain full understanding of RFA goals and objectives
- Reviewed CNP grant applications and additional grantee materials
- Abstracted key information about each CNP into database

#### 3. Plan for the Evaluation

- Designed evaluation to measure achievement of RFA goals and objectives
- Developed logic models for each CNP Phase
  - Link Phase goal and objectives to activities, outputs, and outcomes
- Identified core data elements to measure achievement of objectives
- Developed data collection tools
- Developed Web-based data collection tool
- Obtained CNP PI and local evaluator input

#### Logic Model Sample

| Goals and Objectives   | Activities  | Outputs  | Outcomes   | Variables  |
|--|---|--|--|--|
| Phase I Goal: To develop and increase capacity building to support community-based participatory education, research, and training to reduce cancer health disparities.        |   |  |  |  |
| Create partnerships with<br>communities<br>experiencing cancer<br>health disparities and with<br>organizations working to<br>reduce cancer disparities<br>in these communities | Identify/form<br>partnerships with non-<br>clinical community-<br>based organizations                   | Data on partnerships<br>formed                                     | Successful partnership<br>synergy  | <ul> <li>Type of agreement<br/>signed</li> <li>Services provided by<br/>partner</li> </ul> |
| Increase utilization of<br>beneficial interventions to<br>reduce cancer health<br>disparities  | Conduct cancer<br>education activities to<br>increase utilization of<br>evidence-based<br>interventions | Data on education<br>activities conducted                          | Improvement in community's knowledge, attitudes, beliefs about cancer health disparities | <ul><li>Type of activity</li><li>Topic of activity</li><li>Location of activity</li></ul>  |
| Phase II Goal: Develop community-based participatory research and training programs to reduce cancer health disparities.   |   |  |  |  |
| <ul> <li>Perform the full spectrum<br/>of community-based<br/>participatory research to<br/>reduce cancer health<br/>disparities</li> </ul>                                    | Conduct community-<br>based participatory<br>research   | Data on community<br>intervention research<br>projects implemented | Increased use of<br>beneficial interventions<br>by community<br>members                  | Type of screening intervention implemented  Screening rates at baseline and followup       |

#### 4. Implement the Evaluation

- Collect data every 6 months through Web-based tool
- Provide training and technical assistance as needed
- Collect qualitative data through telephone interviews with CNPs and planned site visits
- Develop second phase of analysis plan
  - Focus on linking predisposing factors (interventions) to explain observed changes in intermediate outcomes

## 5. Analyze and Disseminate Findings

- Extensive data cleaning
  - Followup with CNPs to revise responses, as needed
- Descriptive analyses
- Analysis by funding level of CNP
  - Group 1: \$1 \$1.4 million
  - Group 2: \$700,000 \$950,000
  - Group 3: \$350,000 \$520,000
- Selected analyses by former Special Population Network (SPN) vs. non-SPN
- Comparison of Year 1 and Year 2 findings
- Thematic analysis for qualitative interview data
- Disseminate findings through reports, presentations

#### Sample of Year 2 Findings

- Community Advisory Groups
- Community partners (clinical and non-clinical)
- Research conducted
- Publications
- Determinants of disparities

## **Community Advisory Groups Convened**

| Grouping      | Number of CNPs | Number of CAGs | Number of C<br>Total | organizations<br>Mean |
|---------------|----------------|----------------|----------------------|-----------------------|
| Total         | 21             | 64             | 690                  | 11                    |
| Funding level |                |                |                      |                       |
| Gro up 1      | 5              | 32             | 234                  | 7                     |
| Group 2       | 6              | 8              | 113                  | 14                    |
| Group 3       | 10             | 24             | 343                  | 14                    |

## Non-Clinical Partnerships Established

|               | Number of | Number of Non - Clinical Partners |      |
|---------------|-----------|-----------------------------------|------|
| Grouping      | CNPs      | Total                             | Mean |
| Total         | 25        | 949                               | 40   |
| Funding level |           |                                   |      |
| Group 1       | 6         | 602                               | 100  |
| Group 2       | 8         | 149                               | 19   |
| Group 3       | 11        | 198                               | 18   |

#### Clinical Partnerships Established

| Type of Service              | Total<br>(n=25 CNPs)<br>N % <sup>1</sup> |     |
|------------------------------|--|-----|
| Number of partners           | 268                                      | 100 |
| Primary prevention           |  |     |
| Smoking cessation            | 84                                       | 31  |
| Hepatitis B vaccination      | 70                                       | 26  |
| Diet management programs     | 82                                       | 31  |
| Exercise management programs | 71                                       | 26  |
| Other                        | 52                                       | 19  |
| Secondary prevention         |  |     |
| Breast cancer screening      | 191                                      | 71  |
| Colorectal cancer screening  | 148                                      | 55  |
| Prostate cancer screening    | 139                                      | 52  |
| Cervical cancer screening    | 165                                      | 62  |
| Other                        | 49                                       | 18  |
| Treatment                    | 106                                      | 40  |

<sup>&</sup>lt;sup>1</sup>Totals sum to more than 100%, because CNPs could report more than one service provided by each partner.

## Needs Assessments and Educational Activities

| Types of Studies/Activities              | No. of<br>CNPs | No.<br>Studies/Activities |
|--|----------------|---------------------------|
| Needs Assessment Studies                 | 23             | 42                        |
| Primary Need Identified                  |                |                           |
| Information/education                    |                | 27                        |
| Language-specific information/services   |                | 14                        |
| Culturally-specific information/services |                | 17                        |
| Financial support                        |                | 15                        |
| Overcoming physical barriers             |                | 16                        |
| System access assistance                 |                | 14                        |
| Geographic access assistance             |                | 14                        |
| Logistical assistance                    |                | 15                        |
| Other                                    |                | 20                        |
| Educational Activities                   | 25             | 5,277                     |

#### Intervention Research Studies

| Types of Studies                   | No. of CNPs | No. of Studies |
|------------------------------------|-------------|----------------|
| Intervention Research Studies      | 13          | 253            |
| Primary Prevention Practices       |             |                |
| Smoking Cessation                  | 7           | 17             |
| Diet/Nutrition                     | 2           | 2              |
| Physical Activity                  | 2           | 2              |
| Hepatitis B Vaccination            | 2           | 7              |
| Cancer Screening                   |             |                |
| Mammography                        | 11          | 37             |
| Clinical Breast Exam               | 7           | 22             |
| Pap Smear                          | 5           | 27             |
| HPV DNA                            | 2           | 7              |
| PSA                                | 7           | 50             |
| Digital Rectal Exam                | 5           | 32             |
| Fecal Occult Blood Testing         | 9           | 22             |
| Sigmoidoscopy                      | 4           | 4              |
| Colonoscopy                        | 8           | 24             |
| Treatment/Survivorship             |             |                |
| Patient Navigation for Treatment   | 4           | 4              |
| Cancer Survivorship Support Groups | 5           | 5              |
| Other                              | 2           | 2              |

#### **Publications**

| Number of Grouping CNPs Total Publications |    |       |  |
|--|----|-------|--|
| Total                                      | 16 | 1,186 |  |
| Funding Level                              |    |       |  |
| Group 1                                    | 4  | 776   |  |
| Group 2                                    | 7  | 235   |  |
| Group 3                                    | 5  | 175   |  |

#### **Determinants of Disparities**

| Level/Determinant of Disparities   | Sample Solutions                       |  |  |  |
|--|--|--|--|--|
| Individual Level   |  |  |  |  |
| Lack of knowledge on cancer and cancer risks                             | Educational sessions at health fairs   |  |  |  |
| Community Level  |  |  |  |  |
| Need for training of community leaders about cancer in their communities | Cancer 101 train -the-trainer sessions |  |  |  |
| Health Care System Level   |  |  |  |  |
| Lack of communication tools to relay cancer related messages             | PSA development and dissemination      |  |  |  |

## 6. Lessons Learned and Evaluation Revisions

- Local CNP level challenges of collecting baseline data
  - Restructure CRCHD request to intervention effectiveness data collection
  - Continue engaging CNPs in discussion on local-level data collection
- Defining measures for reducing cancer health disparities
  - Refocus on determinants of disparities and solutions to address these
- Local CNP labor effort required to collect and submit data for national evaluation
  - Continue seeking input from CNPs to facilitate data reporting
  - Continuously improve Web-based data collection tools
  - Move to continuous data submission option

### Continuing the Evaluation Cycle: 1. Engage National Evaluation Stakeholders

- Key stakeholders
  - NCI CRCHD CNP Program Directors
  - CNP PIs and program staff
  - CNP community partners
    - Regional and Community Advisory Group members
- New levels of stakeholders
  - NIH stakeholders
    - CRCHD expanding its partnerships across NCI and NIH
    - Other ICs working on disparities research

#### Acknowledgements

- CNP PIs, evaluators and other staff
- CNP community partners
- CRCHD CNP Program Directors
- CSR CNP National Evaluation staff

