Applying the Fidelity Index (FI) to Evaluate a Community-Based Participatory Research (CBPR) Program Aimed at Reducing Cancer Health Disparities

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CSR, Inc. was awarded a contract to conduct a 5-year national cross-site evaluation of the NCI's Community Networks Program (CNP) to Reduce Cancer Health Disparities through Education, Research and Training. Contract # GS-10F-011F-0114L, Order No. HHSN261200700051U. Program Evaluation and Monitoring of the Community Networks to Reduce Cancer & Health Disparities.

The Fidelity Index was applied to an approach developed and implemented by CSR for other initiatives.

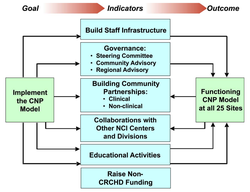
CNP-CBPR Model

NCI, through the Center to Reduce Cancer Health Disparities (CRCHD), awarded funds to 25 university-based and independent cancer health research institutions to develop and implement a program that:

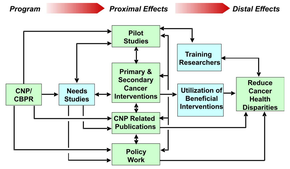
- Forms sustainable community-researcher partnerships
- Increases the utilization of beneficial cancer health interventions
- Trains junior researchers in CBPR and cancer health disparities research, and,
- Disseminates research findings through academic and non-academic publications.

The CNP-CBPR model was implemented in three phases:

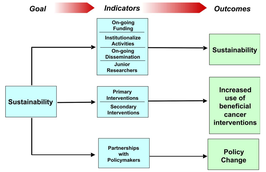
Phase I Logic Model: Implementation of the Model



Phase II Logic Model: Initiate CBPR



Phase III Logic Model: Sustainability



CNP Evaluation- Fidelity Index-Key Goal

- A key goal of the CNP evaluation was to measure how well each grantee adhered to the program model for the NCI-CNP Initiative and whether fidelity to the model was related to success in achieving other outcomes.
- Program outcomes include utilization of beneficial cancer interventions, training new researchers in CBPR and cancer health disparities research, and disseminating research findings through academic and non-academic publications.
- As the National Program Evaluator, CSR used a fidelity index, a tool it had developed and used in other contexts, to help assess program fidelity for the CNP Initiative.

Elements of the Fidelity Index

Phase I

- During Phase I, the capacity building phase, grantees were expected to implement the following elements of the model:
- Develop a core organizational infrastructure to support community-based participatory activities to reduce cancer health disparities by establishing a staff of multidisciplinary professionals.
- Create partnerships with communities that suffer cancer health disparities and with other organizations with an interest in reducing cancer health disparities among members of these communities.
- Form collaborations with NCI centers/divisions/ offices outside of CRCHD for the purpose of adequately addressing cancer health disparities.
- Perform community-based participatory educational activities that address cancer health disparities by increasing cancer education, awareness and use of beneficial cancer interventions by community members.
- Leverage CNP activities to obtain non-CRCHD funding for community-based participatory activities directed at reducing cancer health disparities.

Phases II & III

- During Phase II, each grantee was expected to implement the following components of the model:
- Perform community-based participatory research activities, focusing on primary and secondary prevention activities;
- Conduct needs assessments;
- Conduct policy assessments—with an emphasis on developing effective community-based participatory interventions to reduce cancer health disparities.

Composing the Index

- Fifteen (15) components were identified from the original Request for Applications (RFA).
- Each component of the index was a value between 0 (did not meet the requirement), and 1 (fully met the requirement), and was given equal weight in the final index.
- The Index summarizes all of the components and produces a fidelity score that ranges from 0 to 100. A score of 100 on the Index indicates that the program incorporated all of the mandatory components of the CNP program model exactly as the program planner specified.

Translating the CNP Model into a Measurable Fidelity Index

Index Component ID	Index Component Description	Calculation	Value Between
FI1	Key Staff (PI, Project Manager, and Research Assistant)	Yes/ No	(0/1)
FI2	Del CNP have Steering Committee	Yes/No	(1,0)
FI3	Del Steering Committee have Academic, Community and NCI Representatives	Yes/No	(0/1)
FI4	Del Steering Committee Meet at Least Once During During the Year	Yes/ No	(1,0)
FI5	Community Advisory Group	Yes/ No	(1,0)
FI6	Del Community Advisory Group Meet at Least Three Times During the Year	Yes/No	(0/1)
FI7	Clinical Partners	Yes/ No	(1,0)
FI8	NonClinical Partners	Yes/ No	(1,0)
FI9	Clinical Agreement to Clinical Partner ratio	Yes/No	(0/1)
FI10	Non-clinical Agreement to non-clinical partners ratio	Yes/No	(0/1)
FI11	NonCRCHD NCI Partnerships	Yes/No	(0/1)
FI12	Cancer Educational Activities	Yes/ No	(1,0)
FI13	NonCRCHD Funding	Yes/No	(1,0)
FI14	Needs Assessment	Yes/ No	(1,0)
FI15	Policy Work	Yes/ No	(1,0)
	Fidelity Index	(Sum(FI1 - FI15)/ # of Components)*(100)	Ranges from 0 to 100%

*Value calculated for each CNP grantee by program year.

Acknowledgements:

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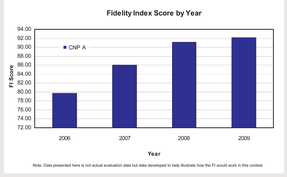
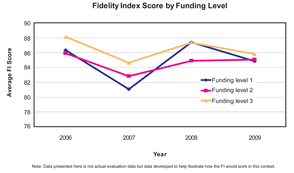
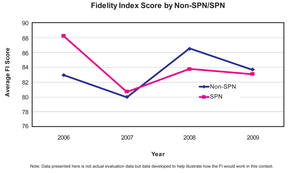
Example of Results: CNP A

CNP	Fidelity Index 2004	Fidelity Index 2007	Fidelity Index 2008	Fidelity Index 2009	Overall Fidelity Index	Fidelity Index Elements
A	0.67	0.67	0.67	0.67	0.67	Key Staff
	1.00	1.00	1.00	1.00	1.00	SC Members
	1.00	1.00	1.00	1.00	1.00	SC Representation
	1.00	1.00	1.00	0.50	0.75	SC Meetings
	1.00	1.00	1.00	1.00	1.00	CAG Members
	1.00	1.00	1.00	1.00	1.00	CAG Meetings
	1.00	1.00	1.00	1.00	1.00	Clinical Partners
	1.00	1.00	1.00	1.00	1.00	Non-Clinical Partners
	1.00	0.55	1.00	1.00	0.89	Clinical agreement to clinical partners ratio
	1.00	0.97	1.00	1.00	0.99	Non-Clinical agreement to non clinical partners ratio
	0.00	0.50	1.00	1.00	0.63	Non-CRCHD NCI Collaborations
	1.00	1.00	1.00	1.00	1.00	Cancer Education Activities
	0.08	0.21	1.00	1.00	0.57	Non-CRCHD funding to CRCHD Funding ratio
		1.00	1.00	1.00	1.00	Needs Assessment
		1.00	0.00	1.00	0.67	Policy Assessment
	62.50	**86.00**	**91.13**	**91.13**	**87.73**	**TOTAL**



Preliminary Results of Fidelity Index





Analyzing Findings

- Analysis by funding level of CNP
  - Group 1: $1 - $1.4 million
  - Group 2: $700,000 - $950,000
  - Group 3: $350,000 - $520,000
- Analysis by participants in a precursor program, The Special Population Networks (SPN) vs. grantees who were not SPNs

Summary of Key Findings and Conclusions

- The index will allow us to ascertain how well each CNP grantee adhered to the program model, how long it took them to attain the model's specifications, and whether they were able to maintain all the CNP model requirements over time.
- The Index also will assist in determining whether CNP outcomes, including beneficial cancer interventions, publications, and training new researchers, are associated with fidelity to the CNP model.