

GLOBAL CASE STUDY ON MEASURING COMMUNITY CAPACITY FOR BETTER HEALTH AND SOCIAL CHANGE OUTCOMES

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INTRODUCTION

Community capacity (CC) is an evolving concept that encompasses the different strengths of community members to solve problems to improve the well-being of individuals and their communities. Save the Children USA (SC/US) builds CC in health, education, livelihood, HIV, and child protection programs implemented in the context of development, transition, and emergency response situations in 50 countries, serving more than 41 million children and 25 million adults¹. Measuring community capacity is an emerging concept and is becoming a priority since different levels and types of capacities might predict better health and social change outcomes in different contexts. Yet measuring CC remains a challenge given the lack of field-tested frameworks, indicators, and methods.

PROBLEM STATEMENT

Despite major advances in the effectiveness of various health interventions, there are major global health problems that remain a concern for governments, practitioners, communities, and their families. Although new technologies and effective interventions are in use and will continue to surface, their delivery to the most affected and vulnerable population is still a paramount challenge. We believe an enabling social and policy environment must be in place to address the challenge of delivery issues. This case study presents an alternative to address the social environment by better understanding the measuring of CC and its potential role in addressing major global health problems and other social concerns in different contexts.

ADDRESSING THE PROBLEM

SC/US recognizes the need to better measure CC because: (1) we invest heavily to achieve CC in nearly all community-based programming; (2) we are a recognized leader in the allied process of community mobilization²; (3) case studies suggest that CC helps communities sustain results and successfully confront other social challenges; and (4) CC is part of an “enabled environment” and a hypothetical intermediate result for increasing the use of evidence-based interventions.³ However, there is no concise and accepted way to describe it, let alone quantify it.

To date SC/US has reviewed the literature,⁴ prioritized domains, selected sub-domains,⁴ and proposed indicators and measurement methods to field-test. The literature includes conceptual papers proposing the elements or “domains” of CC.^{5,6,7,8,9,10,11,12,13} Some propose indicators and/or measurement methods, most of which are qualitative.^{14,15,16,17,18,19,20,21,22} Few have actually tested indicators,^{23,24,25,26,27,28} and fewer still have validated them.^{29,30}

To advance the state of the art in measuring the association between capacity building and health and social outcomes, SC/US is conducting field research in programs implemented in Vietnam, Uganda, Nicaragua, Zambia, and the Philippines. The programs aim to improve the use of evidence-based health, education, or HIV interventions delivered through a range of strategies, including an enabled local environment. We hypothesize that increasing CC is an important strategy for communities to achieve and sustain results. This case study describes the challenges of measuring CC in various contexts, approaches used to address those challenges, and preliminary results.

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VIETNAM

Background SC/US conducted a measurement pilot-test during the final evaluation of a five-year (2002-2007), USAID Child Survival (CS) project implemented in the Quang Tri Province in Vietnam. The project, aimed to improve key maternal and child health and nutrition practices and behaviors, provided an opportunity to test some CC indicators.

Methods We selected four CC domains (with seven sub-domains) that the Project was likely to have increased: (1) collective efficacy (confidence to solve future health problems); (2) information equity (enhanced free flow of information); (3) sense of ownership (importance of issue or program to participants, sense of responsibility for programs/activities, sense of ownership of credit for programs/activities, and contribution to program/activities); and (4) social cohesion (new trusted sources of information). We selected one question from the bank for each of the seven sub-domains, and adapted it in the form of an open-ended question with probes for each sub-domain. These questions were then incorporated into the question guides that were intended to inform the donor's information needs for the final evaluation. Bilingual Vietnamese team members discussed each concept in detail before translating it into Vietnamese.

Two teams conducted group interviews with villagers (always mothers of children <2 years, and sometimes fathers or grandmothers) and with four levels of implementing partners: provincial officials and trainers, District Steering Committee members and trainers, Commune Steering Committee members, and village-based Community Guides. SC/US staff, familiar with commune and village partners' ability to manage project tasks, categorized their management as "high" or "low." We selected seven Van Kieu minority communes (three in Dakrong and four in Huong Hoa District) to represent differing dates of start-up of project implementation, geographic accessibility, and management ability. All interviews were conducted in Vietnamese except in villages where we relied on bi-lingual Guides to translate Vietnamese into Van Kieu. After each group interview, three or more note-takers compared notes, reached consensus, and consolidated the independent versions into a single English summary. We then transferred these data into Excel to fashion a matrix of findings. A review of the findings for each indicator then led to the development of ordinal categories (low=1, medium=2, high=3), reflecting the relative position of each level of respondent group for each of the indicators of community capacity. A final step was the development of criteria for attributing change to the Project. We aggregated sub-domains and/or domains according to their categorical value.

Results We obtained 80 responses of a possible 140 (57%) questions related to CC. We found good CC at all five respondent levels, much of which (61% [44/72 units]) was attributed to the Project. For example, regarding collective self-efficacy, all 19 respondent groups reported medium to high self-efficacy, with three quarters (14/19) attributing this to the Project. Overall sense of ownership, the sum of four sub-domains, was high among Community Guide and villagers with possible scores ranging from 67% to 100%. Assessments of information equity ranged widely: low (1), medium (4), and high (3), with most change (7/8) attributed to the Project. Most of the seven responses regarding "trust" were medium (3) or high (3), but none were attributed to the Project.

The village classified with low management ability provided no useful data, surely an indicator of weak CC, but the Commune Steering Committee with low ability did not score lower on aggregate CC than the mean of its six counterparts. Some Community Guides and Commune Steering Committees scored similarly across all domains. The three levels of two administrative cascades (comprised of the relevant Commune Steering Committee, Community Guides and villagers) scored similarly on aggregate CC, but the limited number of measurements and their imprecision precluded drawing conclusions.

Discussion This pilot-test did not intend to comprehensively characterize CC in the Project impact area. Nevertheless, changes in CC domains were consistent with Project strategies. We made numerous methodological observations and recommendations for further evolution of SC/US's formative research in

measuring CC, including pre-categorizing levels of indicators using community-derived descriptions, pre-testing, and limiting inquiry to one or two levels of community groups (not five).

UGANDA

Background SC/US is implementing a four year (2005-2009), PEPFAR-funded *Breaking Barriers* program, which aims to increase school enrollment and retention of orphans and other vulnerable (OVC) children in 8 sub-counties (42 villages) in Nakasongola District, Uganda. The interventions are increased access to education, psychosocial support (PSS) and home-based care (HBC) services for OVC. The program delivers these interventions through strengthening existing infrastructure and building CC to better respond to the multi-sectoral needs of OVC. The Uganda CC research sought to demonstrate the association between CC and improved OVC school enrollment and retention.

Methods Both research phases used qualitative techniques. *Phase I* relied on participatory methods through which 54 informants identified 9 domains *in order of importance* in bringing about positive changes in OVC school enrollment: resource mobilization; information equity; social cohesion; leadership; participation; skills; sense of ownership; organizational structure and collective efficacy. Community members also identified 26 indicators to measure their own capacity. In *Phase II*, 144 respondents aged 25 to 50 years from four rural communities ranked their capacities according to the identified indicators. Participatory approaches such as ranking tools, Likert scales and open-ended questions were administered using structured group discussion. We selected 6 Nakasongola communities meeting the following criteria: located in Nakasongola District; experienced a community mobilization and/or participatory community approach; participated in Breaking Barriers OVC program; and demonstrated an increase in number of OVC attending and retained in school. The selected communities were categorized into high and low OVC school enrollment outcome (high outcome: ≥ 25 children enrolled in early childhood development (ECD) programming and 35 children in Primary 1 or 3). All discussions were conducted in the local language, Luganda. After each group discussion, note takers provided English transcripts for Phase I and II which were then transferred to an Excel matrix for analysis. We compared responses from groups of men, women and leaders between communities with high and low OVC school enrollment. Questions with Likert scales allowed ordinal categories (low=1, medium=2, high=3) for the level of each community's CC indicator. We then used these categorical values to aggregate sub-domains and/or domains.

Results Both woman and men from high outcome communities were three times more likely to rank their community's capacity as high compared to counterparts from low outcome communities (58 vs. 21% for women and 68 vs. 21% for men). These high ranking capacities were: community values; sense of commitment; sense of community; openness to change; enhanced free flow of information; frequent supportive information; awareness and correct knowledge of program/issue; structure, procedure and authority; resource mobilization; equity; diversity; vision and innovation; trustworthiness; participation in implementation and extent of participation.

Curiously, leaders from high outcome communities were less likely to perceive their community's capacity as high compared to leaders from low outcome communities (32 vs. 47%). High outcome communities also perceived their capacity as low in the domains of collective efficacy, resource mobilization, and critical thinking and skills.

Discussion Higher CC seemed to be associated with improved social outcome in this qualitative study. The CC identified by high ranking communities correlated with SC investments in education programs for adults and children, building capacity of school management committees, and training community members on special needs of OVC. This cross-sectional study did not measure change over time, but investing in CC may have helped achieve greater OVC school enrollment and retention. The paradoxical finding of lower CC reported from successful communities' leaders is consistent with a modest or humble leadership style that could have encouraged others' talents and ideas to emerge, i.e., a net benefit. This needs further study. Finally, participating communities showed interest and ability in monitoring their CC for change.

NICARAGUA

Background We asked, “How does CC modify the effect of health activities to improve child nutritional status?” The programmatic context was a five-year (2002-2008), USAID Food Security Project in 105 communities in four municipalities in Chinandega, Nicaragua. The project aimed to increase food availability and maternal and child health and nutrition through the increased use of maternal and newborn care interventions and food availability through *brigadistas* (community health workers), *Casas Rurales de Niñez*, revolving funds, women farmers, and food rations.

Methods We used formative research to select the CC domains for study. Researchers administered a 17-item Likert scale to 30 informants (15 male and 15 female from four communities [two successful, two unsuccessful]) who prioritized leadership and social cohesion – to which we added collective efficacy and organizational structure. Informed by a literature review, Save the Children staff used individual ranking of feasibility and program relevance to identify 14 sub-domains for these four CC domains. We used a matched case-control design of 10 communities: five successful and five unsuccessful (% per year decline in level of weight-for-age Z-score <-2 among children less than 24 months of age from 2004 to 2007: > 2% or <1%, respectively). We matched successful and unsuccessful communities, based on four geographic and five socio-economic variables and programmatic inputs. Researchers were blind to community success status. We used lot quality assurance sampling to randomly select 19 individuals (age 20-60 years, balanced male and female) from each community (n=190) for a quantitative survey. In addition, in each community we conducted one focus group discussion of 8-12 men or women (n=10 discussions) and two in-depth interviews of a balanced sample of younger (20-34 years) or older (35-60 years) males or females (n=20 interviews). Analysts, blind to community status, considered the five “red” vs. five “blue” communities, reviewed all quantitative and qualitative results for group sub-domain, scored each (1 [low] to 5 [high]), derived scores for group domains and for overall group community capacity, and broke the code. We then removed domains and sub-domains with <0.2 difference (out of 5) between the two groups and re-examined the quantitative household survey data.

Results CC between successful and unsuccessful communities varied little overall (3.6 vs. 3.4) for specific domains: networks (3.7 vs. 3.5), leadership (3.5 vs. 3.1), or collective efficacy (3.5 vs. 3.1) – although successful communities did score higher, except for social cohesion (3.6 vs. 3.8). After eliminating non-discriminating domains and sub-domains, the difference in scores was more apparent overall (3.6 vs. 3.1) and especially for leadership (3.7 vs. 3.1) and collective efficacy (3.4 vs. 2.7) for successful vs. unsuccessful communities, respectively. The most important sub-domains were flexibility and competence for leadership and others’ capacity and problem-solving for collective efficacy. Illustrative qualitative data on leadership flexibility ranged from “anyone can become a leader [and continuation] depends on how he/she performs” (successful) to “volunteers stay in a position forever, unless they don’t want to” (unsuccessful).

On household survey, successful community respondents identified community committees as leaders more commonly than counterparts from unsuccessful communities (38 vs. 30%) while unsuccessful community respondents identified presidents of community committees as leaders more commonly than their counterparts from successful communities (39 vs. 28%). Successful community respondents identified “planning equitable benefits” as a *brigadista* leadership characteristic far more commonly than counterparts from unsuccessful communities (73 vs. 50%).

Discussion This preliminary analysis showed that better leadership (especially flexibility and competence) and collective efficacy (especially others’ perceived capacity and problem-solving) were associated with greater improvement in child nutritional status – when socioeconomics, geography, and project inputs were similar. Successful communities had more broad-based leadership and highlighted the *brigadistas*’ role in achieving equity – possibly relevant to mitigating childhood malnutrition. Social cohesion, greater in unsuccessful communities, might have constrained fresh thinking, as noted in the literature, including trying healthier practices. The study was at the end of a five-year development

project, so all communities probably had increased their CC, which may have masked some differences. More in-depth analysis, including factor analysis, is planned.

ZAMBIA

Background SC/US is implementing a five-year (2004-2009), USAID-funded project entitled Health Communications Partnership (HCP) - Zambia that uses strategic communication approaches to promote positive health behaviours among individuals, families and their communities in 22 districts spread across all the nine provinces of Zambia. The project, which is implemented in partnership with the Center for Communication Programs of Johns Hopkins University and the International HIV/AIDS Alliance, encourages households and communities to take positive health action by: (1) strengthening community-based health systems and networks; (2) educating and mobilizing religious and traditional leaders and youth; and (3) changing harmful social and gender norms. The purpose of the Zambia study is to (1) characterize, develop and validate a set of indicators of CC that will be incorporated into the HCP end-line survey; and, (2) develop scales for the domains of CC that are valid, reliable and internally consistent (i.e., demonstrate good psychometric properties).

Methods The research has two phases; only Phase 1 is currently complete. Phase 1 resulted in the identification of the most significant health and social outcomes, domains associated with the outcomes, and community level indicators used in measuring CC to bring about change. We used a mix of participatory and semi-structured interviews and an adapted '*Most Significant Change*' approach (Dart, J. and Davies, R., 2003). Community stakeholders identified the most significant changes that had taken place in their communities in the last two to three years through stories about how the changes happened, highlighting enabling factors, which then informed selection of CC domains, sub-domains, and indicators. We conducted 16 focus group discussions with men and women and 14 semi-structured interviews with key informants, mostly community leaders, in four study sites in both rural and urban settings.

Results Community stakeholders identified eight significant health and social changes: reduction in malaria, HIV and TB cases, introduction of VCT services, improvements in hygiene and safe drinking water through bore holes, reduction in HIV/AIDS-related stigma and discrimination, and reduction in child defilement cases. The capacity domains identified from Phase I included: community participation, leadership, social cohesion, collective efficacy, organizational structures, resource mobilization, and critical thinking/skills. Community identified indicators for measuring change in capacity were also elicited and will be tested in Phase II.

Discussion Preliminary results from Phase I are informing Phase II, which will be completed during the first quarter of 2009. Phase II aims to field test and validate the qualitative as well as quantitative community capacity indicators identified during the participatory research phase (Phase 1) as well others taken from an extensive review of social science literature. HCP has developed the research instruments based on Phase I findings and relevant social science literature. Phase II of the research project will carry out a household survey in 700 households in four districts bearing rural and peri-urban characteristics. Two of these districts will serve as control sites i.e. districts where HCP is not present. An observation questionnaire will be administered to key informants in all selected communities to corroborate findings.

PHILIPPINES

Background The central question of this study is, "What is the association between CC and improved quality of children's education status?" The programmatic context is a four year (2007-2011) project, *Education, Quality and Access for Learning and Livelihood Skills* (EQuALLS) Phase 2, implemented by SC/US with funding from USAID through a sub-grant from the Educational Development Center. The aim of EQuALLS Phase 2 is to increase learning opportunities for basic and non-formal education for children and youth in the poorest, school-less and conflict-affected *barangays* (communities) in Mindanao, where

access to quality education is one of the lowest in the country. The overall strategy is to mobilize communities, local governments, local governance structures, the Department of Education, the Tertiary Education and Skills Development Authority (TESDA), and the local business community to support innovative approaches to improve the basic education and livelihood skills of children and youth in the project communities.

Methods The research study includes two phases. The formative Phase I was recently completed and used eight focus group discussions and key information interviews with community leaders, school principals, and parent and teacher association (PTA) members from two *barangays*. In addition group discussions with project staff also contributed in the identification of domains and sub-domains. Phase II is being conducted with an initial pre-testing of the CC tool based on the domains and sub-domains from Phase I. The pre-testing, which will include 343 responses randomly selected from household members in two *barangays*, aims to verify the reliability of 127 questions initially developed to measure the domains and sub-domains. We will use factor analysis to refine and improve the construct of the CC tool. Then we will use the revised tool to survey randomly-selected households from four successful and four unsuccessful *barangays* defined by their mean percentage scores (MPS) from the national achievement test (NAT).

Results Preliminary results from Phase I identified seven major CC domains: social cohesion, participation, leadership, collective efficacy, community history, resource mobilization and information equity. We also identified 16 sub-domains from the seven domains. The social cohesion domain revealed the most number of sub-domains, including sense of community, sense of commitment, spiritual/cultural capital, community values, reciprocity, and network cohesion.

Discussion Lessons learned from the two phases of this project will be derived after completion of Phase II during the first quarter of 2009.

OVERALL DISCUSSION

From the literature review and our preliminary CC research, we propose 10 domains: (1) understanding of community history; (2) organizational structure, social and inter-organizational networks; (3) community participation; (4) community leadership; (5) social cohesion; (6) sense of ownership; (7) collective efficacy; (8) resource mobilization; (9) information equity; and, (10) critical thinking/skills. In addition, we propose a total of 53 sub-domains related to the above domains.

The following three domains seem the most salient given their selection in most of the CC studies: social cohesion, collective efficacy, and community leadership. Their selection should not diminish the importance of the other seven. See Table 1 for a summary list of domains selected along with further details of each study. While a number of qualitative and quantitative indicators and data collection methods are beginning to surface, the results from the association between CC and health and social outcomes indicate a common linkage in the various cultural contexts. However, it will be important to review these linkages by gender, and type of informant as disaggregated results may better describe perceptions and attitudes towards the various CC domains.

The authors intend to complete the analysis by identifying the most important domains and sub-domains that we believe contribute the most to better address global health and other social concerns by: (1) better understanding the effects of community capacity as a key strategy for enabling the social environment in affected communities; (2) defining indicators and methods to assess CC; and, (3) persuading global practitioners to include CC as an important element to successfully deliver interventions of development programs in various contexts.

Table 1: Summary Table of Measuring Community Capacity Studies Conducted by SC/US

Overall Setting	Programmatic Area	Method Used to Identify Domains and Sub-domains	Domains Selected
VIETNAM Quang Tri Province, Child Survival Program 2007	Child Health	<ul style="list-style-type: none"> ▪ FGDs with community members, key informants, community leaders and program partners 	<ul style="list-style-type: none"> ▪ Collective Efficacy ▪ Information Equity ▪ Sense of Ownership ▪ Social Cohesion
UGANDA Nakasongola District HIV Program 2007/08	Basic Education HIV	<ul style="list-style-type: none"> ▪ FGDs with community leaders, key informants and SMC members 	<ul style="list-style-type: none"> ▪ Resource Mobilization ▪ Leadership ▪ Participation ▪ Social Cohesion ▪ Sense of Ownership ▪ Collective Efficacy ▪ Critical Thinking/Skills ▪ Organizational Structure ▪ Information Equity
NICARAGUA Department of Chinandega Food Security Program 2007/08	Child Nutrition	<ul style="list-style-type: none"> ▪ FGDs and IDIs with community members ▪ Group discussions with program staff ▪ Individual rankings by program staff 	<ul style="list-style-type: none"> ▪ Leadership ▪ Social Cohesion ▪ Collective Efficacy ▪ Organizational Structure
ZAMBIA Twenty-two Districts Multi-sectoral Program 2008/09	Maternal and Child Health & Nutrition Reproductive Health HIV Malaria	<ul style="list-style-type: none"> ▪ FGDs and with community members ▪ Semi-structured interviews with key informants using an adaption of the Most Significant Change approach 	<ul style="list-style-type: none"> ▪ Leadership ▪ Participation ▪ Social Cohesion ▪ Collective Efficacy ▪ Organizational Structure ▪ Resource Mobilization ▪ Critical Thinking/Skills
PHILIPPINES Mindanao Basic Education Program 2008/09	Quality of Basic Education	<ul style="list-style-type: none"> ▪ FGDs and IDIs with community members, teachers, and SMC members ▪ Group discussions with program staff 	<ul style="list-style-type: none"> ▪ Leadership ▪ Participation ▪ Social Cohesion ▪ Collective Efficacy ▪ Community History ▪ Resource Mobilization ▪ Information Equity

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