

**“It’s Definitely an Uphill Battle”:  
The Process of Innovation Implementation in the  
Context of School-Based Child Obesity Programs**

**An Honors Thesis Submitted By**

**Jenna Brubaker**

**to the**

**Organizational Studies Program**

**University of Michigan**

**with the guidance & support of**

**Richard H. Price, PhD**

**March 2008**

## Table of Contents

<b>ACKNOWLEDGEMENTS</b>	<b>i</b>
<b>ABSTRACT</b>	<b>ii</b>
<b>INTRODUCTION</b>	<b>1</b>
<i>Existing Research on Innovation Implementation</i>	2
<i>Mobilization Stage</i>	4
<i>Enactment Stage</i>	5
<i>Translation Stage</i>	7
<i>Mobilization-Translation-Enactment Model</i>	9
<i>Research Question One</i>	10
<i>Research Question Two</i>	11
<i>Research Question Three</i>	13
<b>METHODS</b>	<b>16</b>
<i>Identifying Candidate Programs</i>	17
<i>Identifying Interviewees</i>	19
<i>Interview Protocol</i>	19
<b>RESULTS</b>	<b>20</b>
<i>Research Question One</i>	20
<i>Research Question Two</i>	26
<i>Research Question Three</i>	30
<b>DISCUSSION</b>	<b>33</b>
<i>Implications for Innovation Research</i>	35
<i>Implications for Implementing Innovations</i>	35
<i>Implications for Implementing Health-Based Programs in Schools</i>	38
<i>Limitations of This Study</i>	40
<i>Conclusion</i>	40
<b>TABLES</b>	<b>42</b>
Table 1: Comparative Case Study Summary	42
Table 2: Characteristics of Healthy Kids Project	43
Table 3: Characteristics of Movin' On Up	44
Table 4: Characteristics of Program Child Health	45
Table 5: Summative Profile of Interviewees	46
<b>RESOURCES</b>	<b>47</b>
<b>APPENDICES</b>	
Appendix A: Contact Scripts and Interview Protocol	I
Appendix B: The Programs' "Stories"	III

## *Acknowledgements*

Conceptualizing, designing, and conducting this study was a process in itself, marked by its own obstacles, roles, successes, and difficulties. I'd like to extend a tremendous thank-you to those seventeen individuals willing to take time from their full schedules to answer my interview questions with patience and passion. Thanks also to students and staff of the Organizational Studies Department at the University of Michigan, whose intellectually stimulating discussions have inspired this study. Grateful appreciation goes to: my intuitive one, who knew when to motivate and when to distract; my forever best friend, who forever believes in me; my brothers and their beautiful families, who never fail to make me smile; my Dad, who is with me every day; and my Mom, whose love, patience, and encouragement are enduring. Finally, I'd like to express my warm and sincere gratitude to Dr. Richard Price, my own 'internal champion,' a brilliant organizational theorist, remarkable mentor, and tremendously supportive thesis advisor.

## **ABSTRACT**

Childhood obesity has recently reached a magnitude of epidemic proportion in the United States. In response, school-based prevention programs designed to ensure proper nutrition and physical activity have been on the rise. This study is an investigation into the implementation of such child obesity prevention programs in schools. The purpose of the study was to understand the implementation of innovations as a process, involving particular roles and a sequence of stages, as represented by my Mobilization-Translation-Enactment model. In-depth interviews were conducted with seventeen key players in three child obesity prevention programs. In each program I identified an external champion, program entrepreneur(s), and an internal champion. The study's findings suggest that the process of program implementation involves three stages layering onto each other as the program evolves, with external champions, program entrepreneurs, and internal champions who play a key role in the successful implementation of school-based child obesity prevention programs.

## INTRODUCTION

Childhood obesity has proven to be an increasingly urgent issue over the past several decades. The proportion of students classified as overweight has almost tripled over the past thirty years (Institute of Medicine [IOM], 2004a). Children spend an average of four hours a day in front of a television or computer screen; eat bigger and bigger meal portions, consuming great quantities of fatty foods; and suffer frightening rates of heart disease, hypertension, diabetes, and other acute illness (IOM, 2004b). This trend is more than a cause for concern. It is an epidemic; a cause for fright; a call to immediate, effective action.

Children and their families aren't the only ones with a stake in this emerging crisis. It is in the interest of community organizations, government agencies and programs, public health professionals, recreation and sports enterprises, health-care insurers, and countless other institutions and organizations to confront the problem and promote successful solutions (IOM, 2004c). Myriad attempts to reduce childhood obesity have been made through grassroots movements and government programs alike. Some such attempts aim to "increase physical activity, decrease sedentary behavior and/or reduce dietary energy intake" by intervening in children's "social, regulatory, or physical environments" (Robinson & Sirard, 2005, p. 194). These environmental approaches are particularly attractive because children "spend a large part of their days in a relatively small number of settings," and thus parents, guardians, and other adult mentors can effectively control these settings and guide children to healthy choices (Robinson & Sirard, 2005, p. 194).

Elementary and middle schools, then, are a natural venue in which to address this problem (Wechsler, Devereaux, Davis, & Collins, 2000). Countless schools across the country have adopted programs aimed at preventing childhood obesity. In addition to educating students about health and wellness, these programs typically make serious attempts to adjust school

environment factors in child health by implementing physical activity requirements, prohibiting junk foods advertisements within school buildings, and offering healthy choices in cafeteria menus and meal programs (IOM, 2004d). Some of these school programs have been highly successful in encouraging children to adopt healthy lifestyles.

### ***Existing Research on Innovation Implementation***

Yet it can be extraordinarily difficult to actually develop, implement, and institutionalize such a program. To understand these difficulties, we look to an entire sector of research and scholarship devoted to the creation, implementation, and dissemination of innovations. Rogers (2003) describes an innovation as “an idea, practice, or object that is perceived as new by an individual” or organization (p. 12). Mumford and Moertl (2003) ask how ideas are generated, and how they are developed and refined into innovations. Other scholars look to understand how key attributes of the innovation itself – such as compatibility, complexity, and trialability – influence the process by which the innovation is adopted (Grilli & Lomas, 1994; Rogers, 2003). Still others look to characteristics of individual actors in the implementation process, like champions (Markham, 1998; Schon, 1963; Shane, 1995); opinion leaders (Burt, 1999; Fitzgerald, Ferlie, Wood, & Hawkins, 2002; Locock, Dopson, Chambers, & Gabbay, 2001); change agents (Lomas, 2000; Rogers, 2003); and boundary spanners (Kimberly & Evanisko 1981; Barnsley, Lemieux-Charles, and McKinney, 1998). Damanpour (1991) conducts a meta-analysis of innovation research to evaluate particular structural determinants of organizational innovativeness such as specialization, centralization, and managerial attitude toward change. Other authors discuss other characteristics of the adopting organization, such as a receptive context for change (Dopson, Fitzgerald, Ferlie, Gabbay, & Locock, 2002). Still others explore social factors and other external influences that may promote or inhibit the implementation of

innovations, such as interorganizational networks (Burns & Wholey 1993) or policy incentives (Fitzgerald et al. 2002).

In one particularly relevant study, Greenhalgh, Robert, MacFarlane, Bate, and Kyriakidou (2004) undertook a substantial literature review – of mostly health care research – to determine how we can “spread and sustain innovations in health service delivery and organization” (p. 581). The authors looked into findings of hundreds of research studies regarding the innovation itself, the process of adopting the innovation, channels of communication and influence, characteristics of the adopting organization, characteristics of the adopting organization’s environment, and the implementation process. The studies represented a range of different research traditions (e.g. medical sociology, marketing, development studies, and evidence-based medicine), each of which uses its own language, metaphors, criteria for ‘quality’ and ‘success’, and so on. From this systematic literature review, the authors developed a “Conceptual Model for Considering the Determinants of Diffusion, Dissemination, and Implementation of Innovations in Health Service Delivery and Organization” (p. 595). It is indeed a remarkable synthesis of innovation literature. But the model is so complex, and includes so many different components of and concepts for the implementation of health innovations, that it is difficult to isolate and distinguish any given determinant for its practical implications. In fact, Greenhalgh and her co-authors suggest that “the next generation of research on diffusion of health service innovations” be “process rather than ‘package’ oriented”: “research questions should be framed so as to illuminate a process” (p. 615).

In this exploratory investigation, then, I propose to take a step back and look at the *process* of innovation implementation. This study is an emphasis on behavior that is central to the dynamic task of *organizing* rather than behavior that occurs in a static organizational context (Heath & Sitkin, 2001). Despite this focus on process, however, the plethora of theoretical and

empirical research on innovations outlined above is not without significant relevance. In fact, the process of innovation implementation will likely engage a collection of the roles, actions, sequences, and activities already discussed in innovation literature. My review of the literature suggests that the process of innovation implementation involves three distinct stages – Mobilization, Translation, and Enactment – with a particular role corresponding to each. The following paragraphs explore these stages and roles in the context of school-based child obesity prevention programs and as they relate to existing theoretical literature.

### ***Mobilization Stage***

Developing an innovation such as a childhood obesity prevention program is no easy task. It requires time, dedication, considerable financial resources, and the involvement of people with appropriate expertise (Mumford & Moertl, 2003). Moreover, the preventive nature of childhood obesity prevention programs makes them particularly difficult to mobilize: preventive innovations have a delayed reward, and one that may not be visible because it's the *absence* of something (e.g. obesity, diabetes, heart problems) (Rogers, 2003).

*External champions* are individuals who recognize these difficulties but have the passion to overcome obstacles and resolve the issue at hand. Light (2006) cautions against focusing on inherent personality traits of these individuals (such as motivation and tolerance for ambiguity) and urges that we focus instead on teachable skills “such as the ability to activate the public, raise capital, negotiate results, and manage the difficult transitions involved in taking an organization from its initial start-up phase to maturity” (p. 48). External champions tend to have longstanding involvement in a leadership role in a school, hospital, or public health department (Mumford & Moertl, 2003). They have the ability to shake up considerable financial and human resources: they “use scarce resources effectively,” “leverage their limited resources by drawing in partners and collaborating with others,” and “explore all resource options, from pure



philanthropy to the commercial methods of the business sector” (Dees, 2001). I hypothesize that external champions engage in the following actions during the Mobilization stage, explained in the context of school-based child obesity prevention programs:

- *Partnering*: getting people on board; creating basic partnerships; recognizing in particular the importance of a relationship between the school and the hospital
- *Initiating*: obtaining funds; securing the support of local individuals and organizations; creating an organized plan for the program
- *Motivating*: providing a driving force behind the implementation and expansion of the program
- *Legitimizing*: acting as a leading member of the health care community to promote the program

I suggest that Mobilization is defined by the external champion’s engagement in these actions. When the external champion begins to perform these actions, it is the beginning of Mobilization; conversely, the end of the external champion’s involvement signals the end of this first stage.

### ***Enactment Stage***

Once an innovation is developed, further challenges await upon its introduction to an organization. The Enactment stage involves earning the buy-in of key potential adopters – in the case of childhood obesity programs, administrators, teachers, parents, and children alike – so that the innovation’s implementation is successful and sustained. This is a particularly difficult task for four reasons. First, potential adopters are disinterested in disturbing the status quo: they tend to want to stick to old routines (Shane, 1995). Second, some potential adopters don’t perceive the problem in the first place. It’s difficult to introduce a childhood obesity prevention program to individuals who don’t believe that childhood obesity is an important and pressing issue. Third, the possibility of adopting a new innovation “creates uncertainty about its consequences in the mind of potential adopters,” which makes potential adopters uncomfortable and thus less likely to buy-in to the program (Rogers, 2003, p. 14). Finally, some individuals may stand to lose

resources or social standing if a new innovation is adopted into their organization, and would thus be particularly opposed to the innovation's implementation.

Because these challenges arise when an innovation is introduced into an organization, "organizations often require a catalyst to promote innovation" (Shane, 1995, p. 49). Elias, O'Brien, and Weissberg (2006) find that to accomplish major change in a school – particularly if it means reframing the school's environment – requires "transformative leaders" willing to make a personal commitment to advocate for the innovation's vision. Such a leader is often called an *internal champion*, "a charismatic individual who throws his or her weight behind an innovation, thus overcoming indifference or resistance that the new idea may provoke in an organization" (Rogers, 2003, p. 414). Indeed, some authors even believe that "the new idea either finds a champion or dies" (Schön, 1963, p. 84). Howell and Shea (2001) define "champion behavior" as "[demonstrating] conviction in the innovation, [building] involvement and support, and [persisting] under adversity" (p. 21). Internal champions utilize internal and external organizational connections to further the cause of an innovation, using interpersonal negotiation skills and persuasion and influence tactics to do so (Markham, 1998; Shane, 1995; Rogers, 2003). I hypothesize that internal champions engage in the following actions during Enactment, explained in the context of school-based child obesity prevention programs:

- *Communicating*: introducing the program to teachers, parents, and students
- *Endorsing*: working for parent and teacher buy-in; acting as cheerleader and champion for the innovation; campaigning for a cultural shift within the school
- *Balancing*: juggling the interests of the program with interests of the school; maintaining a positive relationship with staff and parents; maintaining financial stability
- *Facilitating*: helping to determine the best time and method by which to introduce the program

I suggest that the Enactment stage begins when the internal champion comes into the picture and begins communicating, endorsing, balancing, and facilitating, and ends when these actions are no longer needed for the program's success. It is likely that the end of Enactment, in

the case of child obesity prevention programs, marks the program's successful implementation into a school.

### ***Translation Stage***

It can be challenging, however, to create and maintain effective collaboration between the world of the external champion and the world of the internal champion. Occurring between Mobilization and Enactment, the Translation stage involves framing the external champion's innovation in such a way that is appropriate for the setting of the internal champions and other key potential adopters. Price (2002a) discusses the difficulty of developing networks and social capital across different sectors – like health care and education – when norms are so incoherent between sectors. Lomas (2000) speaks to this difficulty in his article about a Canadian initiative to encourage partnerships between researchers and policy makers. It is difficult, he says, for researchers to find a point of entry into the policy-makers' sphere and to understand the political pressures on policy-makers; similarly, it is difficult for policy decision-makers to interpret researchers' findings and to truly understand everything that research involves. Finally, it is difficult for any of them to find time to meet, collaborate, and discuss (Lomas 2000). One can imagine that similar difficulties arise between, on the one side, the healthcare-based researchers and innovators of childhood obesity programs, and on the other side, the school-based administrators and teachers who actually adopt the programs. Innovators create ideal prototype programs within the context of their ideal platonic sphere, but adopters need to implement a real material program within their own ecological niche.

To bridge such a chasm between innovators and implementers, there is a need for some sort of a boundary-spanning role. The meta-analysis of health innovation literature by Greenhalgh et. al (2004) revealed that “organizations that promote and support the development and execution of boundary-spanning roles are more likely to become aware of and assimilate

innovations quickly” (p. 603). Baldrige and Burnham (1975) found that individuals in particular organizational positions were “extremely important as boundary role people” by “[serving] as a link between demands and ideas from the outside and the innovations being adopted within the schools” (p. 169). These boundary-spanners, or what I will call *program entrepreneurs*, have “one foot in each of two worlds” (Rogers, 2003, p. 368). In systems with a pronounced chasm between innovators and adopters, program entrepreneurs “build the interpersonal bridges” to connect the two (Burt, 1999, p. 49). They “customize the design and delivery” of the innovation to appeal to potential adopters, and in turn provide feedback from the potential adopters back to the innovator (Rogers, 2003, p. 368). Program entrepreneurs are culturally sensitive – they understand how to frame the problem for a particular cultural and political setting; recognize what dilemmas need to be overcome before the program can be implemented; and intuitively know how to best maneuver the program within that cultural and political setting (Price, 2002b). In the case of childhood obesity prevention programs, program entrepreneurs understand the ‘health and research sphere’ of innovators and external champions, but also understand how the implementation process must work within the ‘school sphere’ of staff and internal champions. I hypothesize that program entrepreneurs engage in the following actions during the Translation stage, explained in the context of school-based child obesity prevention programs:

- *Connecting*: making connections with individuals inside the school; recognizing the importance of identifying an internal champion, and making an effort to do so; building a network with individuals and organizations outside the school
- *Adjusting*: recognizing key differences between the health sphere and the school sphere; adjusting program design and outcome expectations accordingly
- *Adapting*: recognizing the dynamics involved in disseminating the program to different schools; tweaking the program design to fit accordingly
- *Persevering*: overcoming numerous obstacles, particularly in getting buy-in from parents and teachers

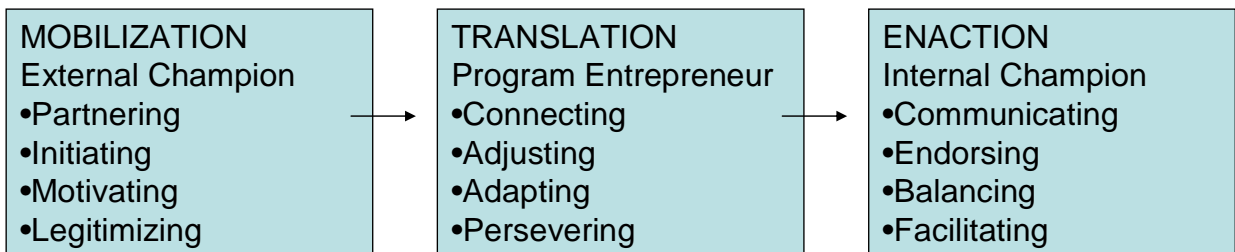
I anticipate that the program entrepreneur begins Translation when the external champion has completed Mobilization and before the internal champion begins Enactment. These three

stages become a model for the implementation of school-based child obesity prevention programs.

**Mobilization-Translation-Enactment Model**

Based on the existing literature outlined above, I propose that the implementation of an innovative school program designed to prevent childhood obesity is a *three-stage organizing process*. Each of the three stages is associated with a social and organizational role, and all three are interlinked. My proposed model (Figure 1) illustrates three distinct roles in three distinct stages of the innovation implementation process: an external champion in the Mobilization stage, a program entrepreneur in the Translation stage, and an internal champion in the Enactment stage.

Fig. 1: Mobilization-Translation-Enactment Model of the Innovative Program Implementation Process in Organizations



The study described here is an investigation into the plausibility of the above model, thus both contributing to innovation literature and attempting to yield ideas for practitioners engaged in implementing innovations. In the context of a comparative case study involving three school-based child obesity prevention programs, I search for answers to the following three research questions.

***Research Question One: Are the three stages distinct, ordered, and not overlapping, as hypothesized in the model?***

Weinstein, Rothman, and Sutton (1998) outline the defining properties of a stage theory. They refer in particular to stage theories of health behavior, but their comments can help us examine the characteristics of the proposed model as a stage theory. A stage theory entails “a classification system to define the stages”: there are a limited number of categories, and individuals or programs at one stage will share attributes with other individuals or programs at that stage (p. 51). Second, a stage theory entails a particular “ordering of the stages,” though this sequence of stages doesn’t mean that the process is necessarily inevitable or irreversible (p. 51). While other paths of action are possible, the “substantial majority follow the specified sequence,” so the theory is “accurate and useful even if other paths to action are possible” (p. 52). A third property of stage theory is that all individuals or programs at the same stage “have to address similar issues before they can progress to then next stage” (p. 52). If this is indeed the case, the Mobilization-Translation-Enactment model is particularly useful, because we can identify what needs to happen for a program to progress to the next stage of implementation. Finally, “some barriers must be more important at certain stages than others” (p. 52). So a program in the Mobilization stage faces different barriers than a program in the Translation stage or the Enactment stage. Interestingly, the authors also explain that while it may be relatively easy to identify the different stages of a stage model, it is significantly more difficult to figure out exactly how individuals or programs move from one stage to the next.

If the process of program implementation is indeed a sequence of stages that are distinct, ordered, and not overlapping, then the corresponding linear model can be a “useful analytical framework” that “simplifies” and allows practitioners a “sense of orientation” during the implementation process (Godin, 2006, p. 660). On the other hand, Greehalgh et al (2004) found moderate evidence in their meta-analysis that “at the organizational level, the move from

considering an innovation to successfully routinizing it is generally a nonlinear process characterized by multiple shocks, setbacks, and unanticipated events” (p. 610). Thus the multiple case studies outlined in this paper seek to determine whether the model’s distinct, ordered, and non-overlapping stages are indeed a true reflection of the process of program implementation.

***Research Question Two: Are there three different roles held by three different individuals, as hypothesized in the model?***

This research question involves two sub-questions. **First**, are there indeed three different roles, or are the responsibilities of each stage such that one individual may fill the functions of more than one role? **Second**, are individuals uniquely assigned to each role? That is, can only one person fill each role, or might there be two or three external champions, program entrepreneurs, and/or internal champions for a given program?

For the first sub-question, two different approaches to role theory predict contradicting results. The first is an energy-expansion approach, and it proposes that there are certain rewards of role accumulation – role privileges, status enhancement and security, and ego gratification among them – such that an individual may reap personal benefit from taking on more than one role (Sieber, 1974). This approach predicts that an individual is both capable of and inclined to fulfill the responsibilities of multiple roles, which means that one person might be external champion, program entrepreneur, *and* internal champion for a given program. On the other hand, the scarcity approach to role theory proposes that an individual who undertakes more than one role is “likely to face a wide, distracting, and sometimes conflicting array of obligations,” and that “we begin to experience strain, worry, anxiety, or the pressures of others if we devote more time and attention to one role obligation than we feel we should, or than others feel we should” (Goode, 1960, p. 488). This approach proposes that to fill more than one role of external

champion, program entrepreneur, and internal champion would perhaps be too much for one person to handle.

A compromise of both approaches to role theory, however, has interesting implications for the proposed model: if each role is confined to one stage, and if the stages are indeed distinct, ordered, and non-overlapping, then one individual might fulfill more than one role for a given program and experience the rewards of role accumulation without experiencing considerable role strain or role overload. If, however, the roles and/or the stages are overlapping in nature, it is less feasible for one individual to undertake the responsibilities of more than one role at once without spreading himself too thin. This study's findings might provide evidence for either version of role theory.

This brings us to the second sub-question, which asks whether more than one individual might fill any given role. Some theorists argue that human beings possess only limited time and energy with which to complete their numerous responsibilities, and that "various groups having a claim on individual's energies and time compete with one another in the effort to draw out as much as they can, within normative limits, from the available pool of resources" (Coser, 1974, p. 1 cited in Marks, 1977, p. 923). Perhaps role-sharing individuals effectively merge their time and energy into a greater "pool of resources," thus easing the role's burden on each individual. On the other hand, Feldman (1984) argues that roles, even when not formally assigned, ensure that important jobs get done by "[reducing] individual members' ambiguities about what is expected specifically of them" (p. 49). This line of reasoning implies that perhaps role-sharing fails to reduce these ambiguities because individuals have to negotiate the role's expectations and responsibilities with one or more other people. This study's results may support one or the other stance about role-sharing.



If the process of program implementation indeed involves three distinct roles – each of which is responsible for a different aspect or stage of the process – then the model can serve to increase the likelihood of successful implementation by clearly specifying what is required of each role at each stage. Thus the multiple case studies outlined in this paper look to identify key individuals involved in the implementation process, and to explore the roles and responsibilities that they play.

***Research Question Three: What is the influence of different resource environments –financial capital and social capital contexts in particular – on how the implementation process unfolds?***

Damanpour's (1991) meta-analysis of innovation research indicates that the innovativeness of an organization is positively associated with its financial and social resources. Indeed, my own review of innovation research supported this same finding as relates to both financial capital and social capital. Such findings suggest that the innovation implementation process may unfold differently in different resource environments.

Rosner (1968) maintains that an organization with adequate **financial capital** can bear costs of the innovation itself, costs of the innovation's implementation, and potential costs of the innovation's failure (see also Corwin, 1975). Greenhalgh et. al (2004) determined in their meta-analysis that "if there is dedicated and ongoing funding for its implementation, the innovation is more likely to be implemented and routinized" (p. 611). The researchers also found some evidence that higher socio-economic status of patients or clients (or, in the case of schools, students' families) can have a positive effect on the implementation process. Thus we expect that, for those programs implemented in financially rich contexts, the implementation process involves fewer obstacles and less resistance than for those programs implemented in financially poor contexts.

The **social capital** of a program's environment also has significant influence on the program's implementation process. One aspect of social capital in this case relates to the adopting organization's connections within the community. In a statistical analysis of the correlates of school innovativeness, Corwin (1975) measured school-community cooperation based on school-centered activities (e.g. field trips), members of community participating in the school (e.g. parent aides), and community-based joint activities (e.g. voter registration or clinics). His study found that those schools that engaged in school-community cooperation were more likely to have successfully adopted innovations than were those that did not engage in school-community cooperation. Provan and Milward (2001) advise that community-wide networks be evaluated "as service-delivery vehicles that provide value to local communities in ways that could not have been achieved through the uncoordinated provision of services by fragmented and autonomous agencies" (para. 13). Their essay suggests the value of using organizational connections to solve problems in the public domain, perhaps through program implementation.

Another aspect of social capital in innovation implementation is the social capital of key individuals involved in the process. Corwin (1975) says that "there is evidence from a study of social welfare agencies that rates of program changes were positively correlated with the number of outside professional activities of the personnel" (p. 3). In his own statistical analysis of school-based innovations, Corwin discovered that schools whose faculty were involved in professional organizations were more likely to be innovative because, he says, "being active in teacher organizations provides an additional measure of status security, and also a national organization can be a source of influence and new ideas" (p. 27). These two aspects of social capital – that of the adopting organization and that of key individuals involved in the implementation process – may prove to be significant determinants of how the program implementation process unfolds.

If financial capital and social capital significantly influence how the program implementation process unfolds, then the proposed model should be understood as the representation of a process that occurs *within a particular resource environment*. Thus the multiple case studies in this paper offer an opportunity to further investigate this relationship, and to provide insight into how the process of innovation implementation might be successfully managed in varying levels of resource wealth.

In light of the three research questions listed above, it is prudent to ask another question here: what is the point of this study? My aim is twofold. Primarily, the study seeks to understand the implementation of innovations as a process involving particular roles and a sequence of stages. This aspect of the study looks at these three particular case studies because they are a window through which to look at the larger process of program implementation. Secondly, however, the study is an effort to understand child obesity prevention programs and how certain factors contribute to successful implementation of these programs in schools. This aspect of the study is an effort to address the larger social issue of child obesity. While these two aims may seem quite different, they are by no means contradictory. Robinson and Sirard (2005) argue that “a research project [aimed at improving individual and population health] should only be performed if... the result may change how you would intervene to address a clinical policy, or public health problem” (p. 199). Thus if this study is indeed to help improve the larger social issue of child obesity, we must determine if and how its results change how practitioners might intervene to address the problem of child obesity. The answers to the three research questions outlined above may be interpreted as efforts to understand the process of innovation implementation, in the context of child obesity prevention.

## METHODS

Information for this study was obtained by conducting qualitative case studies exploring the implementation of three school-based childhood obesity prevention programs within sixty miles of each other. Table 1 provides a comparative case study summary for the three programs: Healthy Kids Project, primarily in Prospect; Movin' On Up, in Wilson; and Program Child Health, primarily in Mobile City.<sup>1</sup>

Case studies were my method of choice in this study for several reasons. The study poses questions about the “how” and “why” of innovation implementation within a real-life context, which lends itself well to case study research (Yin, 2003). This type of research cannot be reduced to a laboratory setting; rather, it can be observed in real life, and case studies help to “emphasize the rich, real-world context” in which these school programs are implemented (Eisenhardt & Graebner, 2007, p. 25; see also Yin, 2003). Developing a theory from the case study information, then, helps to create a link between “rich qualitative evidence” and “mainstream deductive research” (Eisenhardt & Graebner, 2007).

Furthermore, the use of multiple cases rather than a single case offers a multitude of advantages. The multiple-case approach allows the researcher to make comparisons between cases. This can help to determine whether a particular feature or pattern is unique to one case or seems to be shared across cases (Eisenhardt & Graebner, 2007). Features that may be mediators, moderators, or completely unrelated are more easily recognizable as such. Finally, with multiple cases a researcher can provide a satisfying amount of empirical data that supports the theory, indicating the theory’s generalizability across a series of contexts and situations (Eisenhardt & Graebner, 2007).

---

<sup>1</sup> Names of all locations, organizations, and individuals have been changed.

### ***Identifying Candidate Programs***

To identify candidate programs, I spoke with a hospital administrator who has familiarity with local programs aimed at preventing childhood obesity. This informant notified me about the three programs mentioned above, all of which have been funded in part or in full by the Regional Community Foundation.

The first is the “Healthy Kids Project” [see Table 2], run by State University’s U-FIT Program, Cardiovascular Center, and School of Public Health along with Prospect Public Schools and several other participating sponsors. It is funded in part by the Regional Community Foundation and also receives considerable financial support from local organizations and private donors. This twelve-week program targets sixth graders in all five Prospect public middle schools. The program’s goals for these students are increased consumption of fruits and vegetables; better beverage choices; decreased consumption of fast and fatty foods; increased physical activity; and decreased TV and computer time. Healthy Kids Project components include activities during advisory period, an online healthy behaviors blog, healthier selections in the cafeteria, and increased opportunities for physical activity during and after school. Post-program, in-school surveys indicate positive behavioral changes and wellness screening data suggest significant drops in cholesterol and other heart health risk factors. The program is led by a director from the State University Health System, a program manager, two wellness coordinators, and a program steering committee.

“Movin’ On Up” [see Table 3] is a program provided by Wilson Community Hospital and the Wilson School District to third and fourth grade students; a number of program elements have also been implemented in the city’s K-2 and 5-6 schools. The program is funded by a \$100,000 grant from the Wilson Community Foundation, a branch of the Regional Community Foundation. Its prescribed goals are increased physical activity; increased consumption of fruits

and vegetables; and the reporting of students' Body Mass Index percentile to parents. Movin' On Up components include healthy meal options in the school lunch program; healthy classroom snacks and once-a-month birthday treats policies; new Project Fit America equipment at the school; and skits and lessons "designed to enhance the existing fitness and nutrition curriculum." The program is led by a program manager and a fifteen-member advisory board with members from the hospital, school district, and community.

The third program, Program Child Health [see Table 4], is provided by the Carnegie Health System and City Year Mobile City to kindergarten through eighth grade students in five public schools in some of the Mobile City area's poorest neighborhoods. The program is funded by a \$100,000 grant from the Regional Community Foundation – half of which was awarded to City Year, and the other half to the Carnegie Health System. The purpose of the program is to promote good nutrition and physical activity among Mobile City schoolchildren, particularly by "[improving] the school health environment." Program Child Health components include after school programs designed to encourage healthy food choices with a focus, for example, on healthy food shopping and cooking; and after school physical activity programs such as recreation and sports, cheerleading, exercise, and step teams. These programs are delivered by City Year corps members: young adults from diverse backgrounds who have devoted themselves to at least one year's worth of service to schools in the city. These corps members work full-time in teams of eight to nine corps members at each school. Program Child Health involves the formation of a Coordinated School Health Team (CSHT) at each school, comprised of school administrators, teachers, parents, corps members, and staff representatives from both City Year Mobile City and the Carnegie Health System. At this point, the program itself is guided largely by a director of strategic initiatives at City Year Mobile City.

The aforementioned programs are a fruitful multi-case sampling. While they have similar goals and target the same general audience (students in primary school), they involve children from different backgrounds in terms of ethnicity, socioeconomic status, and the like. The programs represent a variety of methods and levels of involvement, as well as differing lengths of intervention and different ways of measuring results.

### ***Identifying Interviewees***

Table 4 includes a list of interviewees' names and occupations, as well as their roles in each program. Rather than hypothesis-testing, my research was hypothesis-generating: the study was an effort to develop a model illustrating the dynamic processes involved in program implementation. As such, my strategy was to conduct interviews with a number of individuals involved in each program. The investigation was conducted using a "snowball" sampling strategy: interviewing began with initial contacts, who then suggested additional individuals to be interviewed. A total of sixteen interview sessions were conducted with seventeen individuals (one session was a joint interview with two individuals). Interviews took place between October 2007 and January 2008, with one outlier in June 2007 and another in March 2008. Most were conducted in the interviewees' office or place of employment, although one took place in a diner in Wilson and another was conducted over the phone.

### ***Interview Protocol***

The study sought to identify external champions, program entrepreneurs, and internal champions for each program, and to explore the actions in which these individuals engaged during each stage. To do this, I conducted the interviews using a semi-structured qualitative interview protocol consisting of two parts. The first part asked the interviewee to "tell the story" of the program's conception and implementation in his or her own words, including the individual's own role in the process. The second part asked the interviewee to suggest further

individuals with whom I might make contact for additional information. The cycle continued so that all external champions, program entrepreneurs, and internal champions were identified. Whenever possible, these individuals were then interviewed regarding their background, their motivation, and their strategies in moving the program toward implementation. Appendix A provides the general script for initial contact and interview, as well as a list of questions asked of most interviewees.

## RESULTS

In the interviews, I asked each individual associated with a program to tell his or her version of the “story” by which that particular program was implemented. Results from these qualitative interviews were compiled and fit together to create a coherent “story” to determine if and how each case study’s implementation process fits with the proposed model. Stories are important because, as Weick, Sutcliffe, and Obstfeld (2005) note, “the order in organizational life comes just as much from the subtle, the small, the relational, the oral, the particular, and the momentary as it does from the conspicuous, the large, the substantive, the written, the general, and the sustained” (p. 410). Appendix B recaps the “stories” that emerged from interviews and program documents, and illustrates how external champions, program entrepreneurs, and internal champions carried out the processes associated with each stage of the model. Detailed interview records are available on request.

Analysis of the study’s results focuses on three distinct, but related research questions.

### ***Research Question One: Are the three stages distinct, ordered, and not overlapping, as hypothesized in the model?***

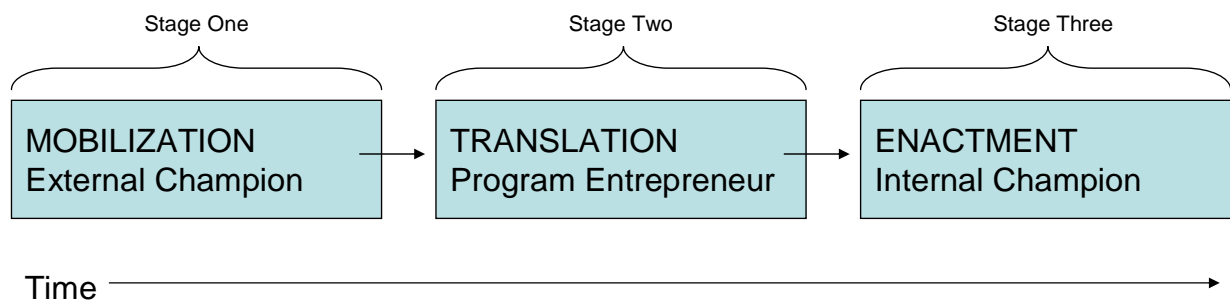
The model suggests three stages in the process of program implementation, one replacing the other in a linear fashion as time progresses. The benefit of such a model is in its very simplicity: practitioners working from a linear model with three distinct stages may be afforded a



“sense of orientation” if they know what factors help move a program from one stage to the next (Godin, 2006, p. 659). If an implementation process indeed follows the proposed stage model, the external champion will know exactly what she needs to do during the Mobilization stage in order for the implementation to succeed, and how that differs from what the internal champion needs to do during the Enactment stage. Furthermore, “stage models offer the possibility of creating programs... that will be more effective and efficient” than programs that try to get everything done at once (Weinstein et al, 1998, p. 61).

In my proposed model, the external champion engages in distinct actions from the beginning of Mobilization until the end of Mobilization, at which point the external champion’s involvement ends, the program entrepreneur’s involvement begins, and Translation begins. Similarly, at the end of Translation, the program entrepreneur’s involvement ends, the internal champion’s involvement begins, and Enactment begins. This linear sequence can be demonstrated as follows:

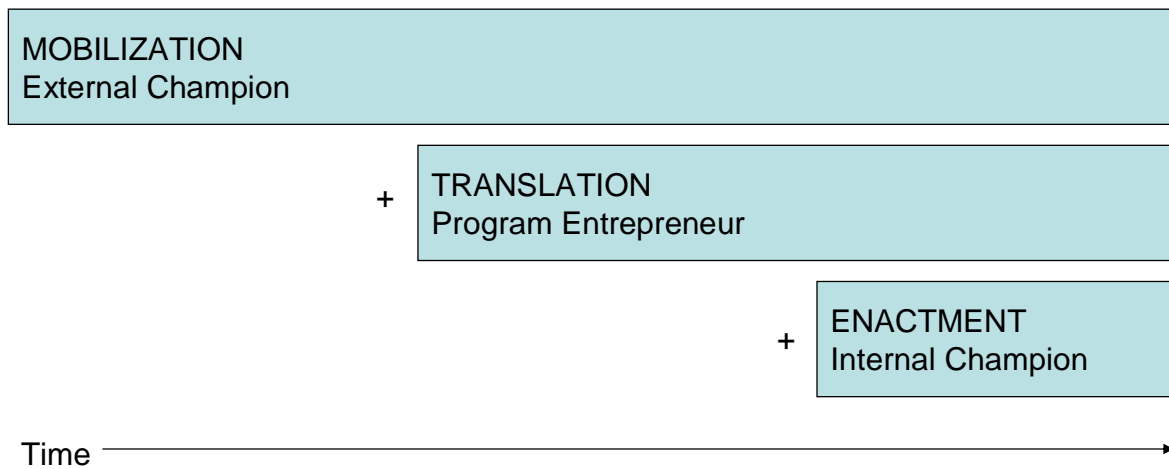
Fig. 2: Proposed Stage Sequence of Program Implementation Process



Results from the three case studies indicate, however, that while the stages do indeed occur in a linear fashion, each stage *layers onto*, rather than replaces, the former. Mobilization processes and the external champion’s role tend to last through the end of Enactment.

Translation processes and the program entrepreneur's role do indeed begin some time after Mobilization begins, but they also last through the end of Enactment. The implementation process for the Healthy Kids Project is a good example of this adjusted model:

Fig. 3: (Actual) Phase Sequence of Program Implementation Process for Healthy Kids Project



For example, while the proposed model predicted that Dr. Hart, Healthy Kids Project's external champion, would have dropped out of the picture as soon as the Translation stage began, he has in fact "as much input now as he did two years ago." He continues to be responsible for creating and nurturing basic *partnerships*, such as that with the Prospect school board. (Michelle Reed, the board's president, says that Dr. Hart and his team "chose to stay close to the school board," effectively gaining a thumbs-up from the board and thus establishing a formal partnership with the Prospect School District). Moreover, Dr. Hart is clearly a *motivating* force for the program's success and dissemination. Members of his team clearly admire him for his fervor and dedication. Lucy Brigard, one of the Healthy Kids Project's program entrepreneurs, says that Dr. Hart is "passionate" about preventing childhood obesity. Another program entrepreneur, Carol Hyatt, agrees: "He levels and excites us, and helps us to see we can do things we don't think are possible. He sees the big picture. It helps to have a mover and a shaker

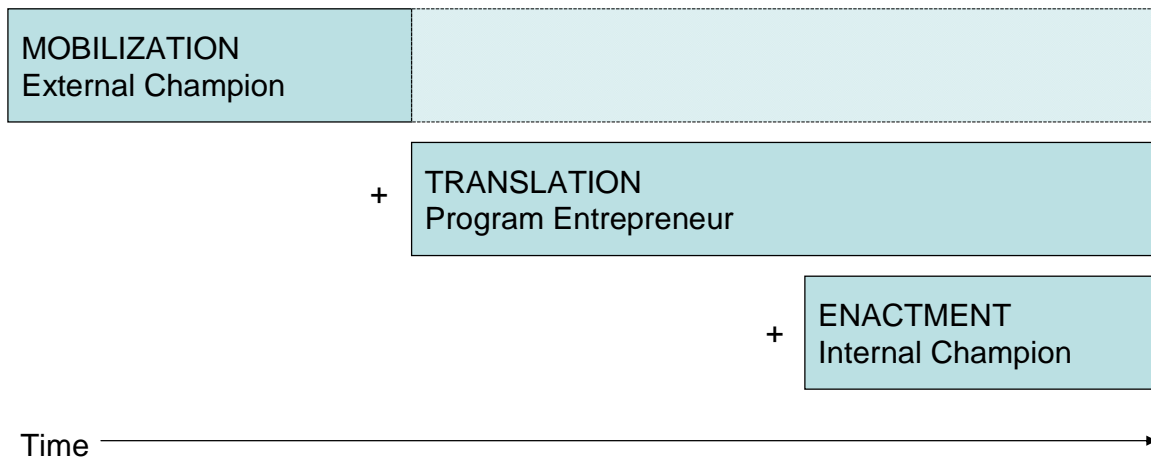
because we're the doers. When people ask us 'How do you branch out so much?' it all goes back to Dr. Hart." Finally, Dr. Hart continues to engage in *legitimizing*. He is regularly asked to speak about his thoughts on childhood obesity and the success of Healthy Kids Project at local and national events, meetings, and conferences, for such institutions as the National Center for Institutional Diversity. No doubt his position as a highly respected leader at one of the nation's top health systems lends itself well to promoting Healthy Kids Project and disseminating its ideas – as he has done throughout the *entire* implementation process.

In another divergence from the proposed model, Healthy Kids Project's program entrepreneurs – Lucy Brigard, Carol Hyatt, and Elaine Brown – have continued to play a significant role in the program even after its implementation process moved from Translation to Enactment. For example, they recognized the importance of *connecting* and building meaningful relationships during Translation, and then they continued to create and nurture these relationships after the Enactment stage began. All three of Healthy Kids Project's program entrepreneurs are regularly asked to speak at PTSO meetings, present during school assemblies, and generally share information about the program with other schools and districts. Furthermore, the three women didn't simply stop *adapting* the program to each school as soon as Enactment began. Instead, the need for "tweaking and flexibility" – as one of them called it – continued even after the program had been implemented at each target school, and that needs continues as they look to expand the program outside the Prospect district's boundaries. Finally, the program entrepreneurs are certainly *persevering* into the Enactment stage, working tirelessly with schools and teachers, ensuring that the program is implemented in a way that works best for all involved. It is clear that Healthy Kids Project's program entrepreneurs have continued their Translation responsibilities even during the Enactment stage. The revised model indicated in Fig. 3, then,

more accurately represents Healthy Kids Project’s implementation process than did the original model (Fig. 2).

The other two programs in this study also adhered to the revised model more so than the original model, but not without some variations. In Movin’ On Up, the external champion’s role and responsibilities decreased to some extent once Translation began:

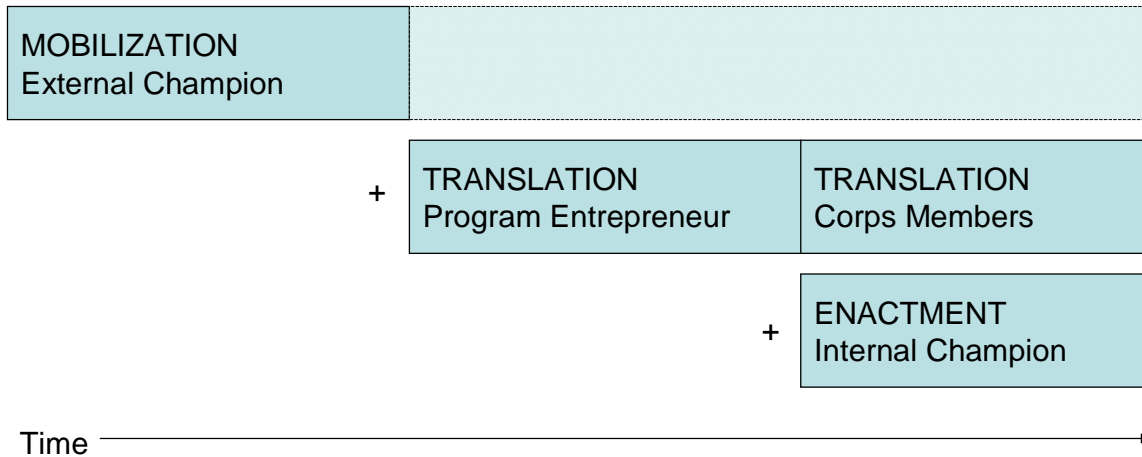
Fig. 4: (Actual) Phase Sequence of Program Implementation Process for Movin’ On Up



In a sense, Movin’ On Up’s external champion turned over some of her Mobilization responsibilities to Jane Lutz, the program entrepreneur. For example, Lutz has been largely responsible for *partnering*: major partnerships have been established through connections with her rather than connections with the external champion. So while Movin’ On Up’s implementation process remains true to the revised model, it includes a slight variation in the extent to which and by whom Mobilization actions continue throughout the process.

Program Child Health’s implementation process involves an additional twist on the model: the City Year corps members, who take the baton from the program entrepreneur once Enactment has begun, and continue the Translation processes.

Fig. 5: (Actual) Phase Sequence of Program Implementation Process for Program Child Health



Once the program is introduced to a target school and Enactment begins, it is the corps members who are largely responsible for the Translation processes of *connecting*, *adapting*, and *persevering*. For example, corps members are the primary connection between the external champion and the internal champion. Furthermore, each City Year team adapts the program to their respective target school as they see fit. And perseverance? City Year's director has no end of praise for the resolve of these young people: "They're like a mini army – but these are positive, idealistic, uplifting young adults who are willing to work for a penance. They're quite exceptional." For Program Child Health, there is no doubt that the Translation processes – apparently so integral to program implementation, even after Enactment has begun – remain in good hands after they have passed from program entrepreneur to corps members.

Let us return to the first research question. Does the process of program implementation indeed follow a linear model with three distinct stages? The answer, it seems, is that it does only to an extent. The child obesity prevention programs examined in this study did undergo three different phases – Mobilization, Translation, and Enactment, each with its own role and set of processes – as represented in a revised model with slight variations (Figs. 3, 4, & 5). The revised model does seem to meet Weinstein et al.'s (1998) criteria for stage models: a program at one

stage is similar to other programs at that stage; programs at a particular stage need to address similar issues before moving on to the next stage; and a program in one stage faces different challenges than a program in other stages. However, the revised model differs from a typical stage model in that roles and actions from one stage continue even after the next stage has begun. Regardless of variations, all three case studies have demonstrated multi-phase implementation processes whose roles and actions are introduced to the process in a particular order.

***Research Question Two: Are there three different roles held by three different individuals, as hypothesized in the model?***

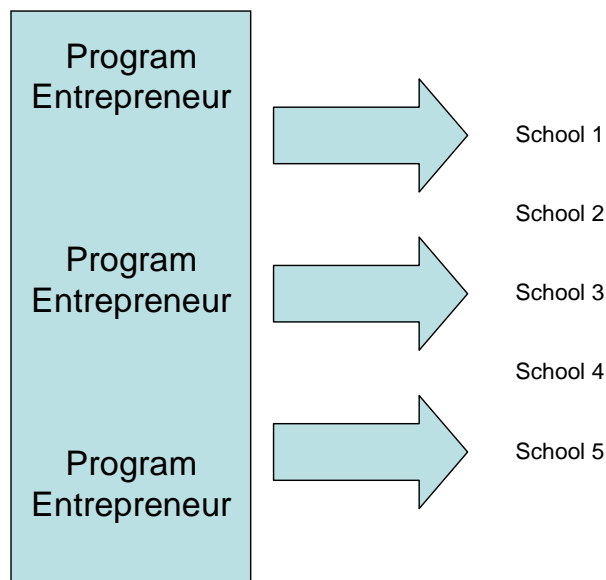
The model suggests that three roles exist in the process of program implementation: the external champion, responsible for Mobilization; the program entrepreneur, responsible for Translation; and the internal champion, responsible for Enactment (refer to Fig. 1). These roles and their functions are an important part of the model. While the actions that take place during each stage are certainly integral to program implementation, what makes the implementation succeed isn't the actions themselves but the people who engage in those actions. If the program implementation process indeed involves three distinct roles – each of which is responsible for a different stage of the process – then the model can serve to increase the likelihood of successful implementation by clearly specifying what is required of each role at each stage. Research Question Two asks two sub-questions that attempt to clarify these issues.

The **first** sub-question asks: are there indeed three different roles, or are the responsibilities of each stage such that one individual may fill the functions of more than one role? The model assumes that for each program we can identify three distinct individuals who were largely responsible for the actions that took place during each of the three distinct stages. Because each role – external champion, program entrepreneur, and internal champion – requires a specific skill set and has its own 'job description,' so to speak, it is doubtful that a single

individual could fill more than one role. This is particularly true if the stages *layer onto* rather than replace each other, as discussed in Research Question One; if one individual was responsible for more than one role, he would be exhausted by the time and energy required to fill two or three roles at once. From this theoretical background of role theory, the proposed model indicates that we expect to see that an individual may hold no more than one role. It is no surprise then that, in the case studies, the three distinct roles of external champion, program entrepreneur, and internal champion are held by no fewer than three distinct individuals.

The **second** sub-question refers to an alternative: might the three roles be held by *more* than three individuals? That is, might any given program have, say, two or three program entrepreneurs? The answer, it appears, is yes. In Healthy Kids Project, three individuals were *connecting, adjusting, adapting, and persevering* during the Translation phase of the program's implementation. It appears that this sharing of a role in fact lent itself to the program's successful implementation and dissemination, as Healthy Kids Project moved from one to three and then five different schools:

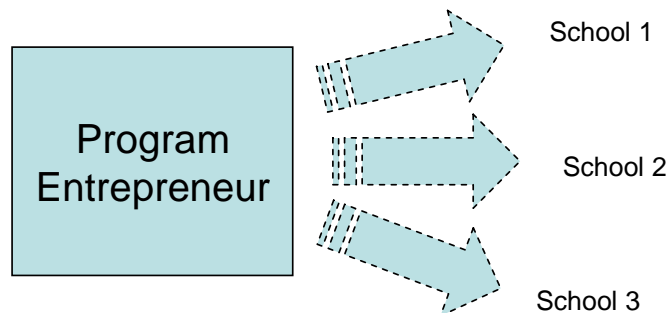
Fig. 6: Healthy Kids Project's Program-Entrepreneur-to-School Connections



Project Healthy School's three program entrepreneurs could pool their resources and effectively divide their time and energy among all of the processes necessary to engage in Translation actions in multiple schools.

On the other hand, Jane Lutz, the program entrepreneur for Movin' On Up, is spread too thin trying to negotiate the program's implementation in three different schools:

Fig. 7: Movin' On Up's  
Program-Entrepreneur-to-School Connections



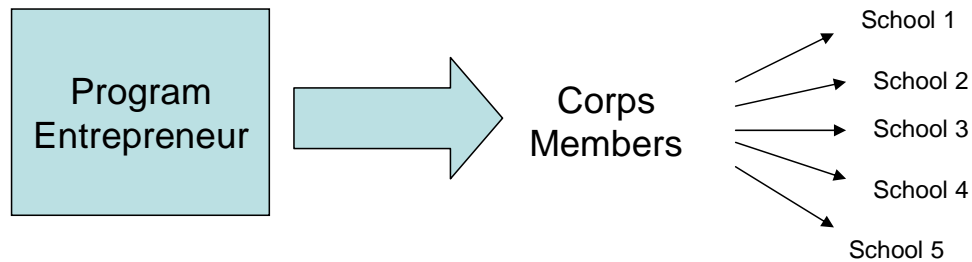
The program is expanding to Wilson's K-2 and 5-6 schools, but Lutz is "disappointed with the way the expansion is going at this point." While the K-2 principal is behind the project, he's getting resistance – and he's a fairly new principal, he's picking his battles. Movin' On Up does not seem to be at the top of his list: Lutz has been trying to contact him for a meeting with the teachers, but is having difficulty getting a hold of him. Meanwhile, the 5-6 principal is very supportive, but there's not a lot of time in the older kids' schedules to work in components of the Movin' On Up program. Lutz has spent countless hours attempting to dovetail other programs into a coherent lesson plan for the 5-6 school, but explains that this too has been a disaster: there are "too many people who are too busy." While one program entrepreneur can successfully manage Translation into one school, and perhaps even two schools at once, it is evident that



implementation into any more schools may quickly become unmanageable for a single individual in that role.

Program Child Health, meanwhile, is a bit different. Although only one program entrepreneur is available for the program's implementation into five different schools, the team of corps members assigned to each school (and responsible for Translation processes there) makes it possible for one program entrepreneur to oversee such widespread dissemination:

Fig. 8: Program Child Health's  
Program-Entrepreneur-to-School Connections



Indeed, explaining why City Year decided to continue the program even after a first year of challenges and somewhat limited success, the program entrepreneur emphasized that the corps members had built some capacity to keep the program going in each school. It is doubtful that a single program entrepreneur would have the ability to establish such sustained connections in so many different schools without the help of an intermediary role like that of the corps members.

The case studies suggest, then, it is unlikely for one individual to play more than one role in a program's implementation process. At the same time, it is possible for more than one individual to act as program entrepreneur for a given program. While none of the case studies in the present investigation seemed to have more than one apparent external champion, or more than one apparent internal champion in each target school, whether the number of actors at each stage differs (and why) is a question for future research.

***Research Question Three: What is the influence of different resource environments – financial capital and social capital contexts in particular – on how the implementation process unfolds?***

Program implementation doesn't simply occur in strict adherence to the proposed model, independent of any factors relating to the program's organizational environment. Instead, it should be understood that the model represents an implementation process as it occurs *within the context* of the program's organizational environment. Thus it is crucial to examine these case studies with special attention to how program implementation may occur differently in different organizational environments – namely, in different financial capital and social capital contexts.

Damanpour's (1991) meta-analysis of the determinants and moderators of organizational innovativeness found positive associations between financial capital and innovation, and social capital and innovation. Thus, we expect to see that programs in organizational environments with more slack resources (*financial capital*) are more likely to be implemented, or are more easily implemented, because the organizations in that environment (schools, hospitals, etc) can afford the costs of implementation and absorb any potential program failure. Similarly, we expect that programs in organizational environments with more external communication and social connections (*social capital*) are more likely to be implemented, or are more easily implemented. This is because organizations in such environments utilize lines of communication to generate new and creative ideas, and bring new ideas into the organization; furthermore, such organizations are more likely to be open to new ideas altogether.

*Financial capital:*

Findings from the three case studies suggest that organizational environments that are financially resource-rich are more fertile ground for program implementation than those that are financially resource-poor. The relative wealth of the school and school district in which a program was implemented had a significant impact on the dynamics of the implementation

process. Both the external champion and the program entrepreneur for Program Child Health talk about the difficulty of operating within a school district with limited financial resources. Says Kenneth Camden, the external champion, “it’s all related to how many resources they have, and having to make hard choices about what programs they will promote and are willing to invest in.” Similarly, overburdened schools with limited resources are unlikely willing (or able) to make this kind of program a priority. Camden still remembers what one principal said when he went to visit her school with the intent of adding a school-based clinic: “She said, ‘That sounds very nice, but we don’t even have a computer lab or a science lab.’” One of the biggest obstacles for the external champion during Mobilization and the program entrepreneur during Translation may be getting obesity to the top of the list when schools and school districts are facing so many other problems.

Even if a school does decide to implement a child obesity prevention program, the financial capital of its students and their families may determine the success or failure of that program. Healthy Kids Project program entrepreneurs witnessed this firsthand in their efforts to disseminate the program from Prospect to nearby Edmonton, a bigger city with fewer financial resources. Obtaining parent buy-in was far easier in Prospect than it was in Edmonton, says one of the program entrepreneurs, in part because Prospect parents tend to “have the time and resources to spend on these issues [of child health] because their immediate needs are being met.” On the other hand, parent buy-in has been significantly more difficult in Edmonton because these parents “have other things to worry about.” Camden of Program Child Health agrees: “If you don’t know where your next paycheck will come from, or whether your food stamps will last, or whether your lighting and heating will stay on or be turned off, it’s difficult to be concerned with what kind of food you’re putting on the table.” The community’s financial

capital thus has tremendous bearing on the obstacles faced by program entrepreneurs during Translation and internal champions during Enactment.

*Social capital:*

The case studies indicate that those individuals and organizations with more social capital facilitate the process of program implementation to a greater degree than do those with less social capital. The hospital and school involved in the pilot Movin' On Up program, for example, had already collaborated on counseling and physical training programs, and thus had already established relationships and paths of communication. Less energy had to be dedicated to paving the way for this collaboration, and more could be directed to actual program implementation. Furthermore, a representative of the Regional Community Foundation, which granted funding to all three programs, indicated that because "the hospital is a key part of the community," its commitment to the initiative increased Movin' On Up's social capital and bolstered the proposal's feasibility and legitimacy.

For Program Child Health, on the other hand, the involvement of any one hospital didn't necessarily draw the community's support, because many hospitals reside in Mobile City and there are numerous healthcare options for residents. However, Camden, the program's external champion, is a hospital administrator who also has strong connections to the community, schools, and partner organizations, and thus a great degree of social capital – which significantly attributed to the program's successful connections with state government officials and national experts on childhood obesity. In fact, a Regional Community Foundation representative remarked that Camden's association with City Year, the hospital, and the school district made Program Child Health's proposal particularly attractive.

Similarly, it is clear that the social capital of Dr. Gil Hart, Healthy Kid Project's external champion, facilitated that program's implementation. As a "high-powered physician" as well as

professor at the University's Medical School and director of its Cardiovascular Center, Dr. Hart had the personal connections necessary to bring key individuals on board with the program.

It can be concluded from the case studies, then, that the proposed model of program implementation will indeed manifest differently in resource-rich and resource-poor organizational environments.

## DISCUSSION

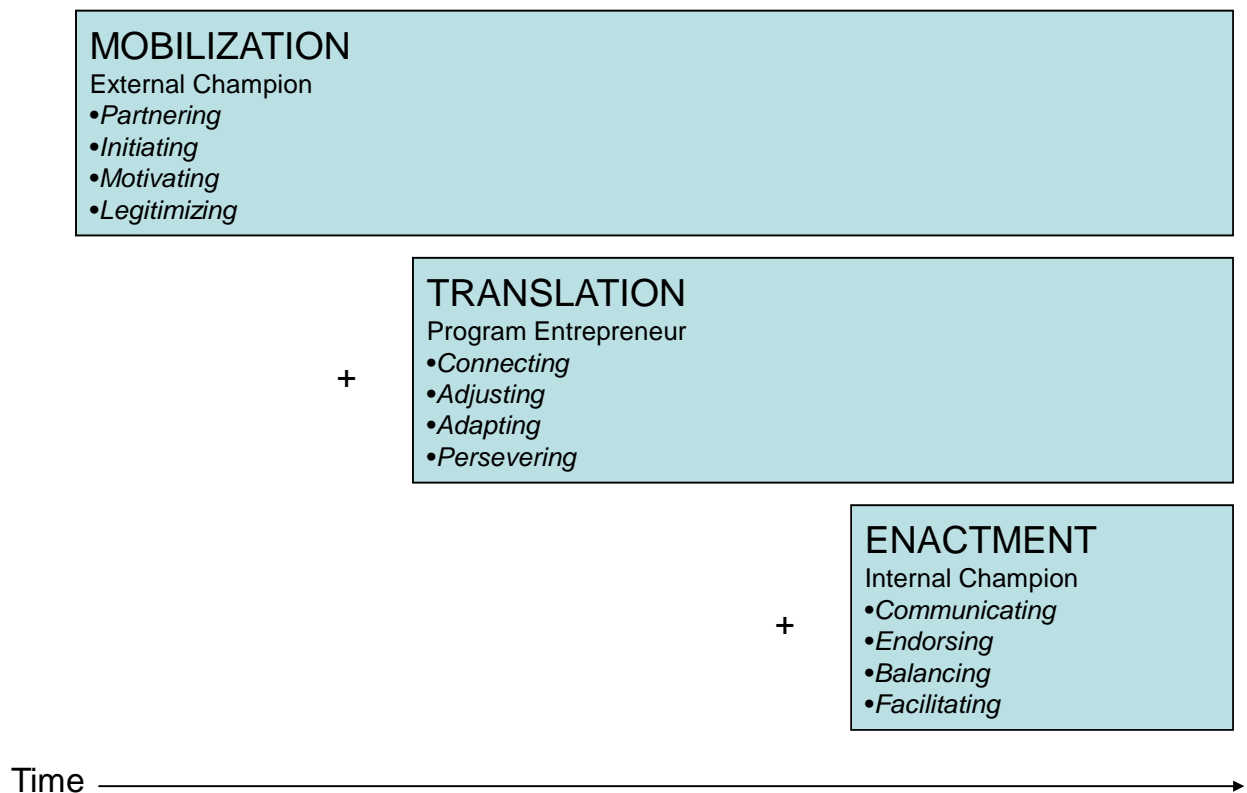
This study explored the dynamic implementation process of child obesity prevention programs in schools. It was designed to address two issues in previous work on organizational innovation: prior scholarly work tends to focus on the *characteristics* of implementation, rather than its organizing processes, and lacks consistent terms and functions to describe various roles in the process.

My proposed model suggested three stages, each involving a particular set of actions: Mobilization, associated with an external champion; Translation, associated with a program entrepreneur; and Enactment, associated with an internal champion. The study's three case studies were designed to (a) explore research questions relating to different aspects of the model (the stage process, the distinct roles, and the organizational context), and (b) determine whether the model is indeed a good representation of the innovation implementation process in the context of school-based child obesity prevention programs.

Several conclusions can be drawn on the basis of the analyses presented here. **First**, a multi-phase model, in which roles and actions are *layered onto* the process in a particular order, appears to be a more suitable than a multi-stage model, in which each stage *replaces* the former. **Second**, the three roles of external champion, program entrepreneur, and internal champion are indeed distinct, and while a single individual may not perform more than one role, a particular

role may be performed by more than one individual. **Third**, a program’s implementation process occurs in the context of the program’s organizational environment. Specifically, organizational environments that are financially resource-rich are more fertile ground for program implementation than those that are financially resource-poor. Also, those individuals and organizations with more social capital facilitate the process of program implementation to a greater degree than do those with less social capital. A **fourth** conclusion is that a revised version of the proposed model appears to be the most accurate representation of the process of program implementation for the three case studies illustrated here. That revised model is as follows:

Fig. 9: (Revised) Mobilization-Translation-Enactment Model of the Innovative Program Implementation Process in Organizations



While this Mobilization-Translation-Enactment Model was created and revised to reflect the implementation processes of the three programs illustrated in this study, all school programs designed to prevent childhood obesity, it is likely that the model will hold true for any health-based program implemented in schools. Furthermore, aspects of the model may shed light on the implementation of any innovation to take place in schools, or the implementation of any public health innovation, or indeed the implementation of any innovation at all.

### ***Implications for Innovation Research***

The findings of this study help to advance research on the subject of innovation implementation. This study provides evidence that three distinct roles – external champion, internal champion, and a translating role bridging the two (program entrepreneur) – may all exist and interact during the process of implementation. The Mobilization-Translation-Enactment Model also puts forward four actions for which each role is responsible during the implementation process. The study also provides qualitative data – indeed, something of an implementation “story” for each program – indicating the various ways by which an individual in each role may engage in those actions. Additionally, the model suggests a three-phase process beginning with the external champion’s idea for the program and ending with the successful implementation, institutionalization, and even dissemination of the program. Innovation scholars – especially those interested in the implementation of health-related innovations in schools – may find these aspects of particular interest.

### ***Implications for Implementing Innovations***

The development of such a model is important for not only academic scholars, but practitioners as well. The first implication for practitioners is that the implementation of program innovations must be understood as a complex, multi-phase process involving a host of individuals and influenced by a variety of factors. Practitioners should not anticipate a simple

and straight-forward process, but rather be open to and ready for any number of variations on the model.

Second, practitioners may discern from this study that, in their efforts to implement an innovative program, three roles must be identified and carried out. At least one individual must be identified as the external champion, responsible for creating basic partnerships; securing financial and other support; and providing a motivating force behind the program's implementation and expansion. For health-related programs to be implemented in a target organization – such as those child obesity prevention programs studied here – this individual should be a leading member of the health care community. At least one individual must be identified as the internal champion, responsible for communicating with potential adopters; campaigning for the buy-in of key individuals; juggling the interests of the program with the interest of the target organization; and helping to determine the best time and method by which to introduce the program. For any type of program to be implemented in a school, it is best that this individual be the principal or another key member of the school staff.

Finally, at least one individual must be identified as the program entrepreneur, connecting the 'sphere' of the innovator and external champion with the 'sphere' of the target organization and internal champion. This individual is responsible for building a network of connections inside and outside the target organization; adjusting the program's design and expectations to fit the target organization; adapting the program design to different target organizations during dissemination; and persevering despite numerous obstacles. Typically, the program entrepreneur is an individual hired by the external champion as a project manager. While many practitioners recognize the role of a project manager and see to it that one is identified, this study suggests the particular importance of this individual's function as 'translator' and 'boundary-spanner' between the respective spheres of the innovator and target organization.



A third implication for practitioners relates to the delicate relationship between program entrepreneur and the school in which a program is to be implemented. While one program entrepreneur can be successfully held responsible for the program's implementation into one school, or even two schools, this balance is thrown out of proportion when she is expected to oversee diffusion into three or more schools, as happened in the Movin' On Up program. There are advantages and disadvantages to having a single program entrepreneur responsible for the program's implementation into more than one school. On the one hand, the program entrepreneur is already intimately familiar with the program and the process of implementing that program in a school. Furthermore, she has established connections with the internal champion at the first school, which could doubtless assist her in obtaining the buy-in of key players in other schools. On the other hand, to be responsible for additional schools clearly takes time and energy that otherwise would be (and needs to be) devoted to sustaining and 'deepening' the program's impact in the first school. Perhaps most importantly, a program entrepreneur who becomes frustrated and disappointed with failed attempts to expand to additional schools may become fatigued and disenchanted with the program, as may be happening in the Movin' On Up program.

There are several ways for a practitioner to handle this dilemma. One solution is to bring another program entrepreneur (or two) on board, as did Healthy Kids Project. Another is to assign an additional team of individuals to be responsible for the Translation processes specific to each school, as did Program Child Health with City Year corps members. Regardless of the specific solution, the integration of new people into the program entrepreneur role can bring a fresh outlook, renewed energy, and a willingness to be flexible with the program. These new individuals can spend the time and mental power required to figure out how to frame the program's components so as to best implement the program into additional schools.

### ***Implications for Implementing Health-Based Programs in Schools***

Perhaps of most relevance to many scholars and practitioners is the fact that this study explores the process of implementing *health-based* innovations *in schools*. Because of the alarming rate at which child overweight is increasing in the United States, there is an increasingly urgent need for the successful implementation of child health and obesity prevention programs in schools. But first we must ask whether the implementation of school programs is even a successful method by which to address childhood obesity and other preventable public health issues. What are the pros and cons of using school programs to address the childhood obesity epidemic? And how might this approach be improved?

There are several benefits to using school-based interventions to curb child overweight. For one, they have been shown to have “positive short-term results, especially in increasing student physical activity and improving nutrient intake” (Michigan Department of Education [MDE], 2001, p. 6). Schools can reach a number of children and adolescents, many of whom eat one or two meals in school buildings, and can “directly address peer pressure that discourages healthy eating” while “[harnessing] the power of peer pressure to reinforce healthy eating habits” (Centers for Disease Control and Prevention [CDC], 1996, p. 10; Wechsler et al., 2000). Schools are a site for trained personnel and powerful role models for kids (Wechsler et al., 2000). Furthermore, school programs that shift the focus away from blaming individuals and towards an understanding of the “unhealthy community conditions [that] limit the healthy choices available to individuals” can go a long way towards reducing health disparities across the United States (Institute for Alternative Futures [IAF], 2008, p. 8). Finally, and of particular importance, schools do have incentive to undertake such interventions because children’s nutrition, fitness, and overall health have clear implications for their capacity for learning (MDE, 2001, p. 7).

On the other hand, schools can't go at it alone. "Families, food stores, restaurants, the food industry, religious institutions, community centers, government programs, and the mass media" should support the same healthy principals schools posit in their obesity prevention programs. Indeed, "the family's influence on a student's weight is far more powerful than that of the school" (MDE, 2001, p. 6). It's also important to note that few (if any) school-based obesity interventions have demonstrated "continued success in reducing overweight" (MDE, 2001, p. 6).

What does all of this mean for the practitioner seeking to implement a public health initiative in a school? Many experts point to the importance of sending a consistent message throughout the school's environment, rather than simply providing nutrition education in the classroom (CDC, 1996). Schools should focus on a solution-based paradigm – which "emphasizes identifying solutions to improve health, rather than causes of poor health" – because this will have more relevance to real solutions (Robinson & Sirard, 2005, p. 195). To promote healthy weight, schools should "create a safe and supportive learning environment; create an environment where students can be physically active; create a healthy nutrition environment; increase student participation in physical education; strengthen nutrition education; and work with families to promote physical activity and healthy eating" (MDE, 2001, p. 8). Another strategic principle to eliminating health disparities, and one that is of particular relevance to this study, is to build community networks: "successful initiatives often partner with trusted 'gatekeepers' or role models and opinion leaders, including elected officials, pastors, local media celebrities, policy activists, school administrators, doctors and pharmacists" (IAF, 2008, p. 10). Hospital-school partnerships like the ones that brought the three case study programs into existence are beneficial in that they bring key individuals in the community together united for a common cause, and thus "[engage] existing local community infrastructures," improve

sustainability, enhance access to resources, and allow for easier replication and dissemination of the programs (IAF, 2008, pp. 10-11).

### ***Limitations of This Study***

While this study may shed some light on the processes of program implementation, it is not without limitations. First, constraints on the generalizability of the findings should be noted. Because of its qualitative nature and limited focus, the study's results may not be as applicable outside the three case studies analyzed here. Second, it is possible that the study misidentified which individuals filled particular roles – that is, I may have determined that one person was the external champion when in fact somebody else most accurately fit that role. If this is the case, the results have been compiled to reflect the actions and processes of the mistaken individual. Third, I was not able to interview the external champions, program entrepreneurs, and internal champions of all three programs. Had additional interviews been conducted with the missing individuals, results may have been interpreted differently. Furthermore, other variables may have influenced the results that were not taken into consideration here. Finally, as the study was focused on the process of implementation, it doesn't say much about the *effectiveness* of implementation or the actual impact of the programs on children's health.

### ***Conclusion***

This study has been an experience in its own right. On an educational level, it has allowed me to truly immerse myself in an intellectual endeavor and apply my findings to a world outside the academic sphere. On a personal level, I cherish the opportunity to conceptualize, conduct, and complete such a major project, and am indebted to others for their guidance and support. On an academic level, I am grateful for the opportunity to offer a contribution, however slight, to the remarkable plethora of existing organizational research on innovation implementation. I only hope that my study may have positive implications for practitioners

looking to improve their effectiveness, or for academics looking to understand the overall process of innovation implementation. Yet more questions remain. How do the external champion, program entrepreneur, and internal champion interact? When does the implementation process begin, and when does it end? How long does each phase last? The answers to these and other questions would provide further insight into the implementation of innovative programs. I look forward to reading, and perhaps even conducting, future research in this exciting field of innovation studies.

Table 1: Comparative Case Study Summary

	<b><i>Movin' On Up</i></b>	<b><i>Healthy Kids Project</i></b>	<b><i>Program Child Health</i></b>
Location	<i>Wilson</i> , a small city with a population of 4,000 and growing	<i>Prospect</i> , a medium-sized city with over 100,000 residents	<i>Mobile City</i> , a large city with a population of almost a million
Associated Hospital	<i>Wilson Community Hospital (WCH)</i> , a 113-bed hospital with almost 1,000 employees. WCH is ranked among the top hospitals in the nation for patient satisfaction.	<i>State University Medical Center (SUMC)</i> , an award-winning health care system affiliated with State University. SUMC is comprised of a 550-bed main hospital, a children's hospital, a women's hospital, 30 health centers, and 120 outpatient clinics in the region.	<i>Carnegie Health System (CHS)</i> , one of the nation's leading health care providers. Its main hospital is a 903-bed tertiary care, education and research facility. CHS is also comprised of a number of other hospitals, ambulatory systems, medial centers, and urgent care facilities across the region.
Associated School(s)	<i>Tree Hill Elementary</i> , a 3 <sup>rd</sup> and 4 <sup>th</sup> grade school with about 400 students, was the site of <i>Movin' On Up's</i> pilot program. The program has expanded to <i>North Lake</i> ( <i>Wilson's</i> K-2 school) and <i>South View</i> ( <i>Wilson's</i> 5-6 school).	The program began at <i>Line Middle School</i> , a 6 <sup>th</sup> – 8 <sup>th</sup> grade school with over 750 students. It has gone on to implementation in all five public middle schools in <i>Prospect</i> .	<i>Program Child Health</i> was initially implemented in four <i>Mobile City</i> schools and an additional school just outside <i>Mobile City</i> . Most of these schools have well over 500 students.
External Champion	<i>Barbara Cleland</i> , VP for Regulatory Affairs at WCH	<i>Dr. Gil Hart</i> , Director of the Cardiovascular Center at SUMC	<i>Kenneth Camden</i> , President Emeritus of CHS
Program Entrepreneur(s)	<i>Jane Lutz</i> , Program Manager for <i>Movin' On Up</i>	<i>Lucy Brigard</i> , Program Manager for <i>Healthy Kids Project</i> ; <i>Carol Hyatt</i> , Wellness Coordinator for <i>Healthy Kids Project</i> ; and <i>Elaine Brown</i> , Wellness Coordinator for <i>Healthy Kids Project</i>	<i>Catherine Dougherty</i> , Director of Strategic Initiatives at <i>City Year Mobile City</i>
Internal Champion	At <i>Tree Hill Elementary</i> : <i>Natalie Metcalf</i> , Principal	At <i>Line Middle School</i> : <i>Russell Anderson</i> , Principal	At all Schools: Principals, Assistant Principals, and Physical Education Teachers

Table 2: Characteristics of Healthy Kids Project

<b>Healthy Kids Project</b>	
Funded by:	<ul style="list-style-type: none"> <li>• Grant from the Regional Community Foundation</li> <li>• Local organizations</li> <li>• Private donors</li> </ul>
Run by:	<ul style="list-style-type: none"> <li>• State University Health System</li> <li>• Prospect Public Schools</li> <li>• Other participating sponsors such as the State University Cardiovascular Center, the State University School of Public Health, the County Health Department, and several community leaders and businesses</li> </ul>
Targeted School(s):	<ul style="list-style-type: none"> <li>• All five Prospect public schools</li> </ul>
Targeted Grades:	<ul style="list-style-type: none"> <li>• Sixth grade</li> </ul>
Characteristics of School District’s Student Population*:	<ul style="list-style-type: none"> <li>• The schools’ student populations reflect the relatively well-to-do community in which they are located; less than 19% of children in the school district are eligible for the free or reduced-price lunch program</li> <li>• The majority (61%) of Prospect public school children are White non-Hispanic; 15% are Black non-Hispanic, 14% are Asian/Pacific Islander, and 4% are Hispanic</li> </ul>
Goals:	<ul style="list-style-type: none"> <li>• To promote students’ consumption of more fruits and vegetables, fewer fast and fatty foods, and better beverage choices</li> <li>• To encourage students to include at least 150 minutes of physical activity each week, and spend less time in front of the television and computer</li> </ul>
Components:	<ul style="list-style-type: none"> <li>• The promotion of healthy choices “discussed in a fun and interactive way” through activities during advisory period</li> <li>• The incentive of “healthy team competition” by students’ keeping track of their exercise minutes, healthy lunch food, and beverage choices in an interactive online Healthy Blog</li> <li>• The provision of individual and advisory class rewards such as Frisbees, admissions to a local interactive science museum, a fruit smoothie party, or a rock-climbing field trip</li> <li>• The monitoring of students’ healthy progress through wellness screening that includes height, weight, BMI, blood pressure, and a step fitness test, and through in-school surveys about physical activity and healthy eating habits</li> <li>• The communication with parents via email and a website</li> </ul>
Years Active and Future Plans:	<ul style="list-style-type: none"> <li>• The pilot program began at one middle school in the fall 2004</li> <li>• The program expanded to two additional schools in fall 2005, and to the final two middle schools in fall 2006</li> <li>• Components of the program have extended to the district’s public elementary and high schools</li> <li>• Program leaders are working to introduce the program to other local and state-wide school districts</li> </ul>

\*Source: <http://www.greatschools.net>. Data is from NCES, 2005-2006.

Table 3: Characteristics of Movin’ On Up

<b><i>Movin’ On Up</i></b>	
Funded by:	<ul style="list-style-type: none"> <li>• \$100,000 grant from the Regional Community Foundation</li> </ul>
Run by:	<ul style="list-style-type: none"> <li>• Wilson School District</li> <li>• Wilson Community Hospital</li> </ul>
Targeted School(s):	<ul style="list-style-type: none"> <li>• Wilson’s 3-4 school</li> </ul>
Targeted Grades:	<ul style="list-style-type: none"> <li>• Third and fourth grade</li> </ul>
Characteristics of School District’s Student Population*:	<ul style="list-style-type: none"> <li>• The school district’s student population reflects the relatively well-to-do community in which they are located; only 7% of the children are eligible for the free or reduced-price lunch program</li> <li>• The vast majority (95%) of Wilson public middle school students are White non-Hispanic</li> </ul>
Goals:	<ul style="list-style-type: none"> <li>• To increase levels of physical activity in students</li> <li>• To increase the presence of vegetables and fruits in students’ diets</li> <li>• To conduct twice-a-year assessments of students’ Body Mass Index percentile and report the results to parents</li> </ul>
Components:	<ul style="list-style-type: none"> <li>• The availability of healthy meal options in the school lunch program</li> <li>• The encouragement of healthful classroom snacks and healthy treats for once-a-month birthday parties</li> <li>• The installation of Project Fit America equipment at the school, which – through the efforts of a dedicated physical education teacher – “develops fitness, skill competency and cognitive understanding about the importance of physical activity”</li> <li>• The performance of skits and lessons by teachers “designed to enhance the existing fitness and nutrition curriculum”</li> <li>• Open gym nights, seminars for parents, a school recipe book, and a school Fitness DVD featuring students and the physical education teacher</li> </ul>
Years Active and Future Plans:	<ul style="list-style-type: none"> <li>• The pilot program began in the fall of 2005 and was fully implemented by February of 2006</li> <li>• The program expanded to two additional area elementary schools in fall 2007</li> <li>• Program leaders are working to introduce some sort of coherent program to be implemented county-wide</li> </ul>

\*Source: <http://www.greatschools.net>. Data is from NCES, 2005-2006.



Table 4: Characteristics of Program Child Health

<b><i>Program Child Health</i></b>	
Funded by:	<ul style="list-style-type: none"> <li>• \$100,000 grant from the Regional Community Foundation</li> </ul>
Run by:	<ul style="list-style-type: none"> <li>• Carnegie Health System</li> <li>• City Year Mobile City</li> </ul>
Targeted School(s):	<ul style="list-style-type: none"> <li>• Five Mobile City public schools</li> </ul>
Targeted Grades:	<ul style="list-style-type: none"> <li>• Kindergarten through eighth grade</li> </ul>
Characteristics of School District's Student Population*:	<ul style="list-style-type: none"> <li>• The schools are located in some of the Mobile City area's poorest neighborhoods; over 70% of the children participate in the free or reduced price school lunch program</li> <li>• Two schools are predominantly Hispanic and one is predominantly Arab, but "the majority of [Mobile City] public schoolchildren overall are African American"</li> </ul>
Goals:	<ul style="list-style-type: none"> <li>• To promote and develop "an enthusiastic embrace of good nutrition and physical activity among [Mobile City] schoolchildren, resulting in healthier outcomes for the children and their families"</li> <li>• To "improve the school health environment, addressing such things as school health policies, food services, and physical and health education"</li> </ul>
Components:	<ul style="list-style-type: none"> <li>• The formation of a Coordinated School Health Team (CSHT) in each of the five schools, made up of school personnel, parents, students, and other community members</li> <li>• The utilization by these teams of the Healthy School Action Tool (HSAT), an online assessment tool designed by the state government to assess the current school environment and create an action plan to improve it</li> <li>• The delivery of health-friendly after school programs by City Year Mobile City corps members, focusing on good health and nutrition (e.g. healthy food shopping and cooking) and/or regular physical activity (e.g. recreation and sports)</li> </ul>
Years Active and Future Plans:	<ul style="list-style-type: none"> <li>• The anticipated one-year pilot program began in fall of 2005 and was extended through spring of 2007</li> <li>• Program leaders intend to make components of the Program Child Health an institutionalized part of City Year Mobile City, and hope to extend the program to other City Year programs nationwide</li> </ul>

\*Source: <http://www.greatschools.net>. Data is from NCES, 2005-2006.

Table 5: Summative Profile of Interviewees

<b>Interviewee</b>	<b>Job Title</b>	<b>Role</b>
<i>Healthy Kids Project:</i>		
Dr. Gil Hart	Director of Cardiovascular Center at the State University Medical Center	External Champion
Lucy Brigard	Program Manager for Healthy Kids Project	Program Entrepreneur
Carol Hyatt (joint)	Wellness Coordinator for Healthy Kids Project	Program Entrepreneur
Elaine Brown (joint)	Wellness Coordinator for Healthy Kids Project	Program Entrepreneur
Michelle Reed	President of the Prospect School Board	
<i>Movin' On Up:</i>		
Barbara Cleland	Vice President for Regulatory Affairs at Wilson Community Hospital	External Champion
Jane Lutz	Program Manager for Movin' On Up	Program Entrepreneur
Natalie Metcalf	Principal at Tree Hill Elementary	Internal Champion
Patrick Heard	Physical Education Teacher for Tree Hill Elementary School	
Kate Theory	Food Service Supervisor for Wilson School District	
Alan Miller	Former President and CEO of Wilson Community Hospital	
Celia Bailey	President and CEO of Wilson Community Hospital	
Michael Pennington	Superintendent of Wilson School District	
<i>Program Child Health:</i>		
Kenneth Camden	President Emeritus of Carnegie Health System	External Champion
Catherine Dougherty	Director of Strategic Initiatives at City Year Mobile City	Program Entrepreneur
Debbie Nottingham	Executive Director at City Year Mobile City	
<i>Regional Community Foundation (RCF):</i>		
Robert Collins	Program Officer at RCF	

## RESOURCES

- Baldrige, J. V., & Burnham, R. A. (1975). Organizational innovation: Individual, organizational, and environmental impacts. *Administrative Science Quarterly*, 20(2), 165-176.
- Barnsley, J., Lemieux-Charles, L., & McKinney, M. M. (1998). Integrating learning into integrated delivery systems. *Health Care Management Review*, 23(1), 18-28.
- Burns, L. R., & Wholey, D. R. (1993). Adoption and abandonment of matrix management programs: Effects of organizational characteristics and interorganizational networks. *The Academy of Management Journal*, 36(1), 106-138.
- Burt, R. S. (1999). The social capital of opinion leaders. *Annals of the American Academy of Political and Social Science*, 566, 37-54.
- Centers for Disease Control and Prevention. (1996). Guidelines for school health programs to promote lifelong health eating. *Morbidity and Mortality Weekly Report*, 45(RR-9), 1-41.
- Corwin, R. G. (1975). Innovation in organizations: The case of schools. *Sociology of Education*, 48(1): 1-37.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *The Academy of Management Journal*, 34(3), 555-590.
- Dees, J. G. (2001). The meaning of “social entrepreneurship”. Working paper. Retrieved March 15, 2008, from [http://www.caseatduke.org/documents/dees\\_SE.pdf](http://www.caseatduke.org/documents/dees_SE.pdf)
- Dopson, S., Fitzgerald, L., Ferlie, E., Gabbay, J., & Locock, L. (2002). No magic targets! Changing clinical practice to become more evidence based. *Health Care Management Review*, 27(3), 35-47.

- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50, 25-32.
- Elias, O'Brien, and Weissberg 2006
- Feldman, D. C. (1984). The development and enforcement of group norms. *Academy of Management Review*, 9, 47-53.
- Fitzgerald, L., Ferlie, E., Wood, M., & Hawkins, C. (2002). Interlocking interactions, the diffusion of innovations in health care. *Human Relations*, 55(12), 1429-1449.
- Godin, B. (2006). The linear model of innovation: The historical construction of an analytical framework. *Science Technology Human Values*, 31, 639-667.
- Goode, W. J. (1960). A theory of role strain. *American Sociological Review*, 25(4), 483-496.
- Greenhalgh, T., Robert, G., MacFarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly*, 82(4), 581-629.
- Grilli, R., & Lomas, J. (1994). Evaluating the message: The relationship between compliance rate and the subject of a practice guideline. *Medical Care*, 32(3), 202-213.
- Heath, C., & Sitkin, S. B. (2001). Big-B versus Big-O: What is organizational about organizational behavior? *Journal of Organizational Behavior*, 22(1), 43-58.
- Howell, J. M., & Shea, C. M. (2001). Individual differences, environmental scanning, innovation framing, and champion behavior: key predictors of project performance. *The Journal of Product Innovation Management*, 18, 15-27.
- Institute for Alternative Futures. (2008). *Using healthy eating and active living initiatives to reduce health disparities*, a report for the Disparity Reducing Advances (DRA) Project. Alexandria, VA: Institute for Alternative Futures.

Institute of Medicine of the National Academies. (2004a). *Overview of the IOM's Childhood Obesity Prevention Study*. Retrieved March 29, 2007, from

<http://www.iom.edu/Object.File/Master/22/604/fact%20sheet%20-%20overview%20finalBitticks.pdf>

Institute of Medicine of the National Academies. (2004b). *Childhood Obesity in the United States: Facts and Figures*. Retrieved March 29, 2007, from

<http://iom.edu/Object.File/Master/22/606/FINALfactsandfigures2.pdf>

Institute of Medicine of the National Academies. (2004c). *Communities Can Play a Role in Preventing Childhood Obesity*. Retrieved March 29, 2007, from

<http://iom.edu/Object.File/Master/23/369/Fact%20Sheet%20Communities-Final%20Bitticks.pdf>

Institute of Medicine of the National Academies. (2004d). *Schools Can Play a Role in Preventing Childhood Obesity*. Retrieved March 29, 2007, from

<http://www.iom.edu/Object.File/Master/22/615/Fact%20Sheet%20-%20Schools%20FINALBitticks.pdf>

Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *The Academy of Management Journal*, 24(4), 689-713.

Light, P. C. (2006). Reshaping social entrepreneurship. *Stanford Social Innovation Review*, 47-51.

Locock, L., Dopson, S., Chambers, D., & Gabbay, J. Understanding the role of opinion leaders in improving clinical effectiveness. *Social Science & Medicine*, 53, 745-757.

Lomas, J. (2000). Using 'linkage and exchange' to move research into policy at a Canadian foundation. *Health Affairs*, 19(3), 236-240.

- Markham, S. K. (1998). A longitudinal examination of how champions influence others to support their projects. *Journal of Product Innovation Management*, 15, 490-504.
- Marks, S. R. (1977). Multiple roles and role strain: Some notes on human energy, time and commitment. *American Sociological Review*, 42(6), 921-936.
- Michigan Department of Education. (2001). *The role of Michigan schools in promoting healthy weight*. Retrieved March 13, 2008, from [http://michigan.gov/documents/healthyweight\\_13649\\_7.pdf](http://michigan.gov/documents/healthyweight_13649_7.pdf)
- Mumford, M. D., & Moertl, P. (2003). Cases of social innovation: Lessons from two innovations in the 20th century. *Creativity Research Journal*, 15, 261-266.
- Provan, K. G., & Milward, H. B. (2001). Do networks really work? A framework for evaluating public-sector organizational networks. *Public Administration Review*, 61(4), 414.
- Price, R. H. (2002a). Four faces of community readiness: Social capital, problem awareness, social innovation and collective efficacy.
- Price, R. H. (2002b). Cultural collaboration for prevention and promotion: Implementing the JOBS program in China, California, and Finland. In C. M. Hosman, (Ed.) Proceedings of the London (September 2002) Second World Conference on the Promotion of Mental Health and Prevention of Mental and Behavioural Disorders, World Federation for Mental Health.
- Robinson, T. N., & Sirard, J. R. (2005). Preventing childhood obesity: A solution-oriented research paradigm. *American Journal of Preventive Medicine*, 28(2S2), 194-201.
- Rogers, E. M. (2003). *Diffusion of innovations (fifth edition)*. New York: Free Press.
- Rosner, M. M. (1968). Economic determinants of organizational innovation. *Administrative Science Quarterly*, 12(4), 614-625.
- Schön, D. (1963). Champions for radical new inventions. *Harvard Business Review*, 41, 77-86.

Shane, S. (1995). Uncertainty avoidance and the preference for innovation championing roles.

*Journal of International Business Studies*, 26(1), 47-68.

Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological Review*,

39(4), 567-578.

Wechsler, H., Devereaux, R. S., Davis, M., & Collins, J. (2000). Using the school environment

to promote physical activity and healthy eating. *Preventive Medicine*, 31, S121-S137.

Weick, Sutcliffe, and Obstfeld 2005

Weinstein, N. D., Rothman, A. J., & Sutton, S. R. Stage theories of health behavior: conceptual

and methodological issues. *Health Psychology*, 17(3), 290-299.

Yin, R. K. (2003). *Case study research: Design and methods (third edition)*. Thousand Oaks,

CA: Sage Publications.

## Appendix A: Contact Scripts and Interview Protocol

**Phone Call / Initial Contact:**

*[If administrative assistant or other person answers phone]* Hi, my name is Jenna Brubaker. I'm trying to get in contact with \_\_\_\_\_; is s/he available? ...I'm a student at the University of Michigan, and I'm researching an honors thesis about childhood obesity prevention programs in local schools. I'd like a chance to speak with \_\_\_\_\_ about \_\_\_\_\_. Might I be able to meet with him/her for about thirty minutes sometime?

*[If initial contact answers phone]* Hi, my name is Jenna Brubaker. I have a question for you. ...I'm a student at the University of Michigan in the Organizational Studies department, and I'm researching an honors thesis about [the implementation of ] childhood obesity prevention programs in local schools. I got your name from \_\_\_\_\_ and I'd like a chance to speak with you about \_\_\_\_\_. I'm wondering whether you'd be willing to fit me into your schedule? It should only take about thirty minutes. I'd love to meet with you and ask some questions about the story of \_\_\_\_\_ and how it got started.

**Further Information, for Phone Call and/or Interview:**

I'm doing a comparative study of three local child obesity prevention programs: Movin' On Up (Wilson – Wilson Community Hospital), Program Child Health (Mobile City – Carnegie Health System and City Year Mobile City), and Healthy Kids Project (Prospect – State University and others). I'm not looking at the results so much as the strategies for implementing and sustaining these programs: how the programs evolved, made connections with the organizational environment, and so on. My interview with you would be fairly informal; I just want to hear your story about \_\_\_\_\_ and your involvement in its course of events.

**Beginning of Interview:**

My goal today is two-fold: I'm interested in the story of how \_\_\_\_\_ came to be. I know that many steps are involved, such as generating the idea itself, gathering the appropriate group of people, applying for funding, and so on. I'd like your take on this story and your role/involvement in all of it. Secondly, I'm wondering whether you could tell me about other people who have been involved with \_\_\_\_\_ - their name, role, whether you think I could contact them, their contact information, etc. Is that okay with you?

**Frequently Asked Questions During Interview:**

*Interview questions varied, depending on the interviewee's role and what the interviewee said in his/her "story" of how the program came to be. However, the following questions were frequently asked of interviewees.*

How did the partnership between the hospital and the school come about?

How did connections with partner organizations come about? (Was it difficult to form these connections?)

What would you identify as the biggest obstacle in creating and/or implementing the program?

How have elements of the organizational environment affected the implementation process?

How would you characterize \_\_\_\_\_'s role in implementing this program?



***End of Interview:***

I can't thank you enough for your time; I know you have a busy schedule, so I appreciate the fact that you were willing to meet with me! I'm excited about the information you supplied me with. If it's okay with you, I'd like to keep in touch to update you on how this is going, and perhaps ask any follow-up questions I may have. What's the best way to get a hold of you (phone, email, etc)? Please feel free to contact me with any questions or additional information [provide my own contact information].

## Appendix B: The Programs' "Stories"

***Healthy Kids Project*****Healthy Kids Project External Champion:  
Gil Hart M.D., Clinical Director, Cardiovascular Center, State University Health System***Partnering:*

As a "high-powered physician," professor of Internal Medicine at the State University Medical School, and director of the Cardiovascular Center at the State University Health System, Dr. Hart has the personal connections to bring key individuals on board with Project Health Schools. In fact, he first obtained private funding for the program from some high-end patients with personal interest in promoting childhood health [LB].

At the same time, Dr. Hart recognizes the importance of nurturing a positive relationship with the school district. Michelle Reed, President of Prospect's School Board, says that while it is not necessary that a program like Healthy Kids Project receive approval from the district, Dr. Hart and his team "chose to stay close to the School Board" [MR]. Dr. Hart was able to bring his team straight to the School Board and do a presentation about Healthy Kids Project, effectively gaining a thumbs-up from the Board and thus establishing a formal partnership with the Prospect School District. While most projects never have such a change before the Board, Dr. Hart effectively utilized his networking skills to go "straight to the top" [MR].

*Initiating:*

Dr. Hart established a coalition with U-FIT, the State University Health System, the County Health Department, the State University School of Public Health, and so on. He has also brought about some unexpected partnerships: the a local science museum contacted him to undertake a joint project with Healthy Kids Project, and he's on the board at the YMCA, which has also embarked on a combined project with the program.

Dr. Hart emphasizes the nature of Healthy Kids Project as "a community-University collaborative": "we've been very fortunate" to have the State University Health System and particularly the Cardiovascular Center as "staunch supporters," he says. Dr. Hart also emphasizes the financial support of individuals in the community as well as companies and foundations. "We have no goal to control anything; we want to *partner* in solutions. We're looking for connections" [GH]. His role in securing the collaboration (and particularly financial support) of local individuals and organizations was undeniably vital to the successful initiation of Healthy Kids Project.

*Motivating:*

Dr. Hart has provided a driving force behind the implementation and expansion of Healthy Kids Project. He speaks passionately of an obligation to such a program: "All of us involved in health have an obligation to work beyond our office," he says. "We owe it to our children for school to be an environment that promotes health" [GH; HKP documents]. He speaks ardently of expanding the program: what's really exciting, he says, is to see the program's influence

spreading to areas outside the initial intended schools. The team is beginning to think about how Healthy Kids Project can be made into a series of tools and educational outlines that can be spread to classrooms outside their immediate area of influence. “If we’re going to invest in child obesity we should invest in something that does work; if it doesn’t work, we should move on to something that does,” he says. “This program is a long-term investment in the community and an investment in the future. We hope that the Healthy Kids Project program not only impacts our students, but serves as a model to other school districts as well” [GH; HKP documents]. “I care a lot about this,” says Dr. Hart. “It’s our future” [GH].

Members of Dr. Hart’s team clearly admire him for his fervor and dedication. He is “passionate” about preventing childhood obesity, says Program Manager Lucy Brigard. Carol Hyatt says, “He levels and excites us, and helps us to see we can do things we don’t think are possible. He sees the big picture. It helps to have a mover and a shaker because we’re the doers. When people ask us ‘How do you branch out so much?’ it all goes back to Dr. Hart” [CH].

### *Legitimizing:*

Dr. Hart has remained an essential component of Healthy Kids Project’s success: he “has as much input now as he did two years ago.” Carol Hyatt says that “without him – his higher-level connections, his experience, his insight – we certainly wouldn’t be where we are today” [CH]. Indeed, Regional Community Foundation representative Robert Collins indicates that Healthy Kids Project’s connection with Dr. Hart and the State University Health System made granting its proposal “almost a no-brainer” [RC].

Furthermore, Dr. Hart is regularly asked to speak about his thoughts on childhood obesity and the success of Healthy Kids Project at local and national events, meetings, and conferences, for institutions such as the National Center for Institutional Diversity [HKP documents]. No doubt his position as a highly respected leader at one of the nation’s top health systems lends itself well to promoting Healthy Kids Project and disseminating its ideas.

### **Healthy Kids Project Program Entrepreneurs: Lucy Brigard, Project Manager, Healthy Kids Project Carol Hyatt and Elaine Brown, Wellness Coordinators, Healthy Kids Project**

### *Connecting:*

Brigard, Hyatt, and Brown clearly recognize the necessity of creating meaningful relationships with school staff and faculty. In the program’s first year, Hyatt’s job was to “convince already-busy teachers” that this was a program worth their time; she and the team trained them, “wooed them,” conducted meetings, provided healthy lunches, led training sessions, and so forth [CH]. It’s very important, says Brown, to “build that network [within the school] so that in successive years the program will work a bit better” [EB]. Indeed, the team acquired quite a bit of buy-in that first year, establishing a good relationship with the physical education and health teachers in particular. In the end, says Hyatt, everyone in the school “knew our faces and knew what we were there for” [CH]. And the team clearly recognizes the importance of working closely with the principal or some other internal champion. Hyatt states that “we were very fortunate to be in a school with a principal who was just over the top with nutrition” [CH]. Says Brown, “there has to be somebody” who champions the program inside the schools: a “liaison who helps you get

entrée.” In fact, she says, one main obstacle in implementing a program like Healthy Kids Project is finding the right person to champion your cause [EB].

The three program entrepreneurs also network and connect with other schools in the area. Brigard, Hyatt, and Brown are frequently asked to talk at PTSSO meetings, present at school assemblies, and so forth. In at least fifty percent of Prospect’s elementary schools they’ve talked to PTSSOs, established wellness teams, and organized age-adjusted presentations for elementary students. The team has even had a request from the Saline school district for more information about the program [CH, EB]. The three women have also “spent a lot of time building relationships” with other organizations in the area, such as the YMCA. Connections happen when one of them meets somebody at a county meeting, gets to talking, and realizes there’s potential for a great partnership. The team also invites many people from local organizations to attend Project Healthy School’s steering committee meetings.

### *Adjusting:*

### *Adapting:*

Brigard, Hyatt, and Brown have engaged in “a lot of tweaking and flexibility” while implementing this program in multiple schools district-wide [EB]. In particular, they realize that “every school has a different system for teaching in the classroom,” and thus they carefully decide whether the nutritional education will happen in the advisories, or the health class, or through some other venue [CH]. Furthermore, while parents in the Prospect district have been fairly open to the implementation of such a program, the three program entrepreneurs have faced new obstacles in bringing Healthy Kids Project to the Edmonton district. Brown attributes this to the fact that Prospect parents tend to “have the time and resources to spend on these issues because their immediate needs are being met,” while lower-income parents have other things to worry about [EB]. The program entrepreneurs’ recognition of socio-economic dynamics – among others – has been crucial to the successful expansion of the Healthy Kids Project program.

### *Persevering:*

Brigard, Hyatt, and Brown identify several obstacles that make implementation of the program difficult. One has been particularly difficult: obtaining teacher buy-in. Brigard lists several reasons why getting teachers on board has been challenging – the program is not in the curriculum; it is not in teachers’ contracts; and home classrooms aren’t supposed to require any lesson plans. Furthermore, many teachers feel they don’t know anything about classrooms and therefore weren’t well equipped to teach the lesson plans [LB]. School board president Michelle Reed agrees: it can be difficult to get teacher buy-in because the program involves some class time, she says [MR]. To overcome this obstacle, the program entrepreneurs work tirelessly and closely with schools and teachers, ensuring that the program is implemented in a way that works best for all involved. Each school has its own schedule and its culture, says Hyatt, so they have to keep trying different ways of doing things. “You can’t be narrow-minded” when implementing a program like this [CH].

**Healthy Kids Project Internal Champion**  
**Russell Anderson, Principal, Line Middle School**

*Communicating:*

Since Healthy Kids Project' inception, Anderson has "made himself very available" to the program entrepreneurs [CH].

*Endorsing:*

Having practiced healthy eating in his own family, Anderson has always been dedicated to promoting students' health [CH, LB]. No doubt because of this passion, says program entrepreneur Carol Hyatt, Anderson was "definitely [the program's] number one cheerleader" [CH]. And as teacher buy-in was very difficult but truly necessary, says Lucy Brigard, Anderson's endorsement and promotion was essential in obtaining necessary in-school support [LB]. As the pilot study's final report indicates, "the principal of the school was a strong advocate for the program at all stages of the project. This facilitated implementation, teacher involvement, and 40% student/parent consent to the research phase of the study" [HKP documents].

*Balancing:*

*Facilitating:*

Michelle Reed, President of the Prospect School Board, says that the principal's role has been to "facilitate having it happen, determining *when* things could happen, and so on" [MR].

***Movin' On Up***

**Movin' On Up External Champion:**  
**Barbara Cleland, Vice President for Regulatory Affairs, Wilson Community Hospital**

*Partnering:*

Cleland is well-equipped for creating basic partnerships and strengthening local connectivity. In her position at Wilson Community Hospital (WCH), Cleland heads up community health improvement initiatives. She chairs the Community Health Improvement Council, which – among other things – takes results from the County Health Improvement Plan community assessments, focuses on those specific to WCH's community, and identifies those issues the hospital should address [CB]. To mobilize forces for Movin' On Up's implementation, Cleland nurtured an already-existing relationship between WCH and the Wilson School District (WSD), which had existing connections through psychological counseling services and athletic training programs [MP].

*Initiating:*

In early 2005, at Movin' On Up's inception, Cleland attended a meeting with staff representatives from the Regional Community Foundation (RCF) and the CEO of Wilson Community Hospital. During this meeting, concepts were amorphous and ideas were "all over the map," but Cleland was able to pull it together into an organized, explicit plan [CB]. During the spring of 2005, Cleland met with planning committee members, creating explicit goals, objectives, strategies, work plans, and time frames. Along another WCH administrator, Cleland conducted research on national practices and studies. They incorporated their findings and the planning committee's brainstorming ideas into a coherent grant proposal [BC; MOU documents]. Concurrently, Cleland initiated contact with the school superintendent and local pediatricians and dietitians. While it didn't take somebody like Cleland to bring the dangers of childhood obesity to people's attention, nothing would have happened until somebody like her came along: someone who knew of available grants and opportunities and was willing to initiate the process of program implementation [MP].

*Motivating:*

Cleland has dedicated a great deal of time and effort to Movin' On Up. In fact, she has even convened a group of people to work to develop the program county-wide [BC]. Such an effort is no easy feat – if childhood obesity prevention programs face obstacles on the community-wide level, imagine what difficulties there may be implementing a cohesive program on the community level – but it is clear she has no intention of giving up. This level of passion has clearly made an impression on her colleagues. Says Patrick Heard, it is "very very impressive" what Cleland does for Movin' On Up on top of her other commitments [PH]. And Celia Bailey, CEO of Wilson Community Hospital, emphasizes that the biggest challenge to implementing such a program is that "somebody may have a good idea, but how do you pull all the pieces together and organize it?" A special individual is needed to "pull it together and really make something out of it." For the Movin' On Up program, she says, this person was Barbara Cleland [CB].

*Legitimizing:*

As a representative of WCH, Cleland employed the hospital's connections and influence within the community in order to promote and legitimize Movin' On Up. Kate Theory, the district's food services director, commented that "it's been a wonderful opportunity to get folks in the community who are experts" on childhood health and obesity to work together for a common cause, and that "if we didn't have the connection with WCH and its administrators who are interested in this, we probably wouldn't get this group of experts to really talk about school lunches" [KT]. Further, Cleland's energy and dedication to mobilizing Movin' On Up was indicative of the hospital's commitment to the initiative. According to RCF representative Robert Collins, "in Wilson, the hospital is a key part of the community," and so this level of support from the hospital bolstered the proposal's feasibility and legitimacy in RCF's eyes [RC].

## **Movin' On Up Program Entrepreneur**

### **Jane Lutz, Project Manager, Movin' On Up**

#### *Connecting:*

Though technically an employee of the hospital, Lutz spends a great deal of time working within the schools and the district system. Her office is located in Tree Hill Elementary and she consistently communicates with teachers and staff there and elsewhere [MP]. Lutz recognizes that the principal must buy in for a program like this to work – indeed, she emphasizes this point. She is in regular communication with Natalie Metcalf at Tree Hill Elementary, and is grateful for her continued support. At the same time, Lutz is working to develop the communication and support from the principals at North Lake and South View. This has proven a bit more difficult. While the North Lake principal is behind the project, he's getting resistance – and as he's a fairly new principal, he's picking his battles. Meanwhile, the South View principal is supportive, but integrating components of the Movin' On Up program into the older kids' schedules has been tricky. Lutz's continued efforts to include these principals in the planning and implementing phases indicates that she recognizes the importance of doing so.

Meanwhile, Lutz also works to connect with individuals and organizations outside the school. For example, Kate Theory credits Movin' On Up for the food service department's recent economic partnership with the Farm-To-School program [KT]. Lutz does note, however, that trying to dovetail with other programs has been difficult because there are “too many people who are too busy” and who want recognition in the community [JL].

#### *Adjusting:*

Lutz's previous experience as a dietitian for school food services in another state means that she recognizes the key differences between a health system and a school system, and knows how to adjust the program's design and expectations accordingly. Movin' On Up's coordinating committee was under the impression that the program would surely be well-received, but Lutz knew that this sort of change only comes along slowly. In fact, while the committee had framed most of the program's activities and components before Lutz joined the team, she says she would have designed Movin' On Up differently, to better reflect the dynamics of an elementary school. For example, she believes the committee's decision to restrict classroom snacks to fruits and veggies was too much, too soon, without adequately explaining the philosophy behind the policy [JL].

#### *Adapting:*

Lutz acknowledges that a program like Movin' On Up may not last long in any school without adapting to fit with the individuals involved. At Tree Hill, she has changed certain elements of Movin' On Up – and completely rid others from the program – after receiving feedback from students, teachers, and parents. For example, Lutz compiled survey results from fifth graders asking what they liked and disliked most about the program last year. The least favorite component was monthly journals, which Lutz had already removed from the program following clear negative feedback from students, teachers, and parents alike.

Furthermore, Lutz is working hard to expand Movin' On Up to higher and lower grade levels, though it has proven more difficult and she is a bit “disappointed” with the way expansion is

going at this point. For example, integrating components of the Movin' On Up program into the older kids' schedules at South View has been very tricky. These kids have health class only one quarter of the school year, during which they're bussed over to Shore Middle School to meet with the health teacher. Furthermore, the health teacher's position was cut last year and is being filled by the librarian this year. Recognizing that certain elements of Pierce Lake's Movin' On Up program simply won't work at South View, Lutz has been working closely with the librarian to develop lesson plans that reflect a collaboration between Movin' On Up, Food Services, and the Farm to School program [JL].

*Persevering:*

Lutz has succeeded in overcoming numerous obstacles. She admits that working to prevent childhood obesity is “definitely an uphill battle:” with the ubiquity of vending machines, snack packets, fast food, advertisements, computers, and video games, “you're just up against so much more” than society was a generation ago. The future could be very grim for these kids, she says. One major barrier is that parents “don't want to face reality:” while some parents do want to learn more about healthy changes for their child and family, generally those who are eager to do so have been leading healthy lives all along. Getting parents to see that their child is in danger of ill health from obesity-related causes can be extraordinarily difficult; as such, getting these parents to see the value in Movin' On Up – and to participate in the program – has been tricky. The parent survey, for example, had an abysmal return rate last year. But instead of giving up on receiving parent feedback, Lutz and the team decided to repeat the survey this year but create some incentives for its completion. At the time of her interview Lutz was still going through the surveys, but could tell from the stack that she had succeeded in obtaining a much better return rate. Such persistence is indicative of Lutz's dedication to the cause and her recognition that only with perseverance will there be change.

**Movin' On Up Internal Champion  
Natalie Metcalf, Principal, Tree Hill Elementary**

*Communicating:*

Metcalf has been a key individual for the introduction of Movin' On Up to teachers, parents, and students at her elementary school. At the program's inception, Metcalf sent an opening letter to parents explaining that Tree Hill Elementary would be participating in Movin' On Up [NM]. Later, along with Debra Lutz, she sent a letter to families explaining that Pierce Lake would monitor children's BMI twice a year. She urged that parents check the BMI chart to see into what range their children fell, contact their doctor for further evaluation, and “be aware [that] diet, physical activity, and other health habits will affect your child's health and life” [MOU documents]. Metcalf has also communicated with other members of the community, such as those individuals she invited to attend the Opening Day Dedication and kick-off for the Project Fit America program, a component of Movin' On Up. (A formal invitation letter, signed by both Metcalf and Barbara Cleland, emphasized that this Dedication would serve as a “very positive spotlight placed on the community for this endeavor to improve the health status of our children” [MOU documents].) In sum, Metcalf communicated extensively with individuals key to Movin' On Up's success, and this action – particularly that in collaboration with Movin' On Up's external champion and the program entrepreneur – indicated to the community that the Wilson School District is highly dedicated to the program.



*Endorsing:*

Metcalf has been an avid promoter of good childhood nutrition for quite some time. In fact, Tree Hill Elementary was selected to be Movin' On Up's starting school "for three major reasons: the ability of children in this age group to self-monitor, the *enthusiasm of key staff at Tree Hill for addressing this health concern*, and the intent to expand the project to the higher-grade level school as the students advance" [MOU documents, emphasis added]. Metcalf was one of the 'key staff' whose enthusiasm made Tree Hill an ideal starting place for the program: Michael Pennington, Superintendent of the Wilson School District, suggested to Barbara Cleland that Movin' On Up begin at Tree Hill because he knew Metcalf would be interested in such a project for its emphasis on students' health [BC].

Once Metcalf was introduced to the program, she worked hard for its inception, connecting the program to relevant individuals within the school system (such as Food Services director Kate Theory) and vocally supporting their involvement. About Patrick Heard, physical education teacher and recipient of an All-Star Teacher Award from Project Fit America "for his work in teaching children about the importance of physical fitness," she said: "Patrick is a caring, dedicated educator with a positive attitude. We are proud of what our children have been able to accomplish with his enthusiastic help" [MOU documents]. Movin' On Up's success has been due in no small part to Metcalf's clear support for the program and its key players.

*Balancing:*

Since Movin' On Up's inception, Metcalf has readily dealt with a small but very vocal contingent of parents against the program. On the very first day of school in September 2005, Metcalf had to call an emergency meeting with a parent who was threatening a lawsuit: Movin' On Up's snack requirements, the woman complained, went against her constitutional rights [JL]. In this situation, and other admittedly less dire ones, Metcalf acted with professionalism and confidence and a continued dedication to Movin' On Up. At the same time, she emphasizes that she must ensure the program doesn't come between the school and its parents [NM]. Physical education teacher Patrick Heard likened Metcalf to "a head coach with a lot of assistants: she takes phone calls from angry parents, and has to be able to say 'yes' to both assistants *and* parents. She manages extremely well!" [PH].

*Facilitating:*

Metcalf is an active member of all three Movin' On Up subcommittees. A perusal through meeting minutes illustrates Metcalf's key involvement in program components such as website development, volunteer recognition, program evaluation, and so forth. She also met with principals from North Lake and South View "to discuss the extent of changes" necessary when implementing the program in their schools the following year. Finally, it is clear that Metcalf played an important role in identifying the best time and method by which to introduce Movin' On Up to her own school. For example, to a suggestion that the program consider adoption of a "Recess before Lunch" policy that had been successful in Montana, Metcalf pointed out this wouldn't work at Tree Hill – "there is only a half hour for lunch, so some students wouldn't have enough time to eat before they have to go back to class" [MOU documents]. The involvement of somebody like Metcalf, who has intimate familiarity with the school's culture and schedule, a superb interest in childhood health, and a dedication to negotiating the two, is essential to such a program's success.

## ***Program Child Health***

### **Program Child Health External Champion**

**Kenneth Camden, President Emeritus, Carnegie Health System**

#### *Partnering:*

President emeritus of Carnegie Health System (CHS) and chair of City Year Mobile City (CYMC), Camden has a unique position from which to mobilize the creation and implementation of Program Child Health. Indeed, his biography is an impressive list of foundations, positions, chairmanships, and awards – among others, Camden serves on the Robert Wood Johnson Foundation Board of Trustees, Chairs the Mobile City County Health Authority, and is past Chairman of the American Hospital Association’s Board of Trustees, the Health Research and Education Trust Board of Directors, and the Greater Mobile City Area Health Council. In 2001, Modern Health Care Magazine named Camden one of the top 25 most influential individuals in the industry over the past 25 years. In 2002, 2003, and 2004 Modern Healthcare ranked him one of the “100 Most Powerful People in Healthcare” [PCH documents]. It was this undeniably outstanding list of accomplishments, along with his interest in the problem at hand, that must have led the Regional Community Foundation to ask Camden to be their advisor to help them put together an effort to bring about programs dedicated to preventing child obesity.

Camden suggested that City Year Mobile City partner with Carnegie Health System – which, says Debbie Nottingham, Executive Director of City Year Mobile City, was a “brilliant” idea. Says Camden, “I’m Chairman of City Year Mobile City, and I put them together with the Community Foundation, and out of that then came the decision that City Year would be working with Carnegie Health System and begin to incorporate this into the counseling and learning they were already doing in schools” [KC].

Indeed, doing a program like this “takes a lot of collaboration with a health care entity. The value of a partnership [with Carnegie Health System] is that they have medical expertise – for us to do this on our own would be very difficult” [DN]. Camden himself recognizes the value of this partnership: “Both Carnegie Health System and City Year have been committed to fighting childhood obesity and promoting physical activity for some time,” he said at the program’s inception. “As partners in this Community Foundation grant, they will bring their combined expertise to benefit Mobile City’s schoolchildren” [PCH documents].

#### *Initiating:*

“The biggest contribution I think I made – other than connecting people that otherwise didn’t know each other – was helping the Regional Community Foundation plan a major meeting.” At this meeting, experts from around the nation talked about various challenges related to child obesity, such as the omnipresence of fast food, the reality of urban neighborhoods with no grocery stores, school cafeterias with limited choices, and school administrators making money on selling soda pop and other unhealthy options to students [KC]. “The real effort,” he says, “was to begin to educate people, get their attention about this issue, and to bring other partners in.”

*Motivating:*

Camden speaks passionately about the difficulties faced by Mobile City's families. He gives the example of a school-based clinic trying to provide medical care to a kid who hasn't had anything to eat in the last 24 hours and the heat has been turned off in his home. "It's hard to tell that child, 'You're obese and need to change your eating habits,' when they didn't even get something to eat that day." As for the parents, "if you don't know where your next paycheck will come from, and whether your food stamps will last, and whether your lighting and heating will stay on or be turned off," he says, it's difficult to be concerned with what kind of food you're putting on the table. At the superintendent and school district level, "it's all related to how much resources they have, and having to make hard choices about what programs they will promote and are willing to invest in." At the school level, he still remembers what one principal said when he went to go visit a school with the intent of introducing a school-based clinic: "That sounds very nice, but we need a computer lab, and a science lab, and..." When it comes down to it, then, it's a question of, "when you're up to your neck in alligators, how do you drain the marsh?" But despite all of these obstacles, Camden remains convinced of the importance of child health: if children don't have good health, then they're not able to learn, and then it doesn't matter if the school have the best labs in the state [KC].

As for the future of the program, Camden says, "ideally, what you'd do is have the program in all the schools in the city of Mobile City. You'd need to take it step by step – add a few more schools a year and impact a few more children a year through City Year – and then we can make a difference." Camden is particularly motivating and convincing because of his past experience with school-based clinics: "it's been shown that you *can* make a difference through this type of change!" With the introduction of school clinics to Mobile City schools, pregnancy rates dropped, MEAP scores rose, and parents became more engaged in their children's health and education. Camden knows that this type of change is possible through child obesity prevention programs, and this makes him a superb motivator [KC].

*Legitimizing:*

At Camden's suggestion, City Year Mobile City's partnership with the Carnegie Health System for Program Child Health "gives us medical credibility and scientific credibility," says Debbie Nottingham. "For us to do this on our own would be very difficult" [DN]. Even the program's proposal to the RCF emphasizes that the program design takes advantage of Carnegie Health System's "substantial experience in delivering school-based healthcare services and health education" [PCH documents]. Indeed, according to RCF representative Robert Collins, if a program features a partnership between a hospital and a school, "that partnership probably makes the grant more appealing." In the case of Program Child Health, he says, the involvement of Kenneth Camden – closely associated with the Carnegie Health System, City Year Mobile City, and Mobile City's school system in general – is particularly helpful [RC].

**Program Child Health Program Entrepreneur**  
**Catherine Dougherty, Director of Strategic Initiatives, City Year Mobile City**

*Connecting:*

Dougherty emphasizes that, for successful implementation of a program like Program Child Health, the consistent presence and support of people *other than* school staff is necessary. Inside

the school, she says, almost always, it was essential that the school's principal set the standard for a positive tone and energy for the program. In the end it came down to a single question: "Did we have an interior champion at the school" for the project? "We learned we really needed to get that." In fact, she readily identifies the "in-school champion" at each school: the physical education teacher at one (and the "principal is awesome"), the assistant principal at another, the principal at a third, and the principal at the a fourth (who is pretty much a one-man show"). City Year never did find an in-house champion at the fifth school, and Dougherty largely attributes Program Child Health's nonsuccess at the fifth school to this very reason [CD].

### *Adjusting:*

Dougherty acknowledges that the challenge of gathering together people from the school system – particularly due to the time constraints of "those poor over-burdened teachers" – meant that implementation of the program was very slow. Furthermore, because this was a health research project with intent to gather data from students in the Mobile City Public Schools (MCPS), City Year Mobile City had to get IRB approval from both MCPS and CHS. But while the paperwork came back from CHS in a timely manner, City Year never received the approval from MCPS because it was lost somewhere in the system. Dougherty says that a lot of problems in the Mobile City Public Schools, and thus a lot of problems that come when implementing a program in the Mobile City Public Schools, stem from the bureaucracy that is MCPS [CD].

### *Adapting:*

The program looks different in each school, says Dougherty. While any given school might request that the corps members lead a homework club or provide tutoring help, design and attendance of the after-school programs ultimately depend on the school's student population. She gives one particular Elementary School as an example: the school has incredible turnout because kids could walk home safely after the programs ended. Mobile City schools, on the other hand, tended to have lower enrollment because the kids have no way to get home if they don't take the bus immediately following school. Program enrollment, then, might have anywhere from twenty to 200 kids. Dougherty's acknowledgement of these and various other factors involved in taking Program Child Health to different schools means a greater likelihood of successful implementation. This year, for example, Dougherty led the corps members in figuring out the best way to continue the program at the three older schools, by re-convening the Coordinated School Health Teams, and to begin the project at the newer schools, where the program will be less formalized.

### *Persevering:*

It was expected that creating Coordinated School Health Teams and conducting the HSAT at each school would take only a week or so. As it turns out, this process took months. Dougherty and the City Year team quickly realized that Program Child Health would be a two-year development rather than a program designed to last for one year. Although the program had obtained only one year's worth of funds, Dougherty and her team completed the program in a second year without funding. Some progress had been made, after all, and corps members had established support and the capacity to keep the CSHT teams going [CD].

**Program Child Health Internal Champion  
Various Individuals at Various Schools: physical education teachers, assistant principals, and principals**

*Communicating:*

Each school's internal champion was likely a member of the Coordinated School Health Team, which in each school comprised of the principal, an individual from Food Services, a Physical Education teacher, a parent, a City Year staff member, and a City Year corps member. These teams – and the individuals within them – played an integral role in communicating the program to teachers, parents, and students [CD].

*Endorsing:*

Internal champions and other individuals in the Coordinated School Health Teams were indispensable in implementing Program Child Health, says Debbie Nottingham. “You have to understand the stress these principals and teachers are under: they have a ton on their shoulders. Getting the HSAT teams together took us months longer than we thought it would, but it's an important component of the program to get their buy-in.” Getting this buy-in can be extremely difficult, because “it's one more thing to add in an already-stressful environment,” so internal champions are individuals who, “in spite of all that stress,” can say “Yeah, let's do this!” [DN]. It is essential, says Catherine Dougherty, that the internal champion – generally the school's principal – set the standard for a positive tone and energy for the program [CD].

*Balancing:*

Internal champions need to be able to champion the cause while working under financial constraints. In Mobile City schools, this characteristic is particularly necessary: all resources in the district have been cut except those which will directly improve the students' MEAP scores. Visionary principals try to break the rules anyway, says Debbie Nottingham – they may say, “‘Okay, you have forty minutes for lunch? Eat for twenty minutes, then go outside and run around for twenty minutes.’ It burns off energy, frustration, and the stupor that comes from sitting around all day” [DN]. Such creativity and flexibility is necessary for a Program Child Health internal champion to juggle interests of the program with interests of the school.

*Facilitating:*

Key players in Program Child Health quickly learned the importance of lassoing in an internal champion to implement the program in a given school: “We feel an ‘internal’ champion – a staff or faculty member from the school – is needed to work in partnership with CYMC to provide the main driving force in keeping the group meeting and accountable to their goals. We will work to cultivate internal champions on each of the CSHTs so that there is consistency in the team leadership from year to year, since there is a turnover of City Year corps members every one to two years” [PCH documents].