

Developing a University-Community Partnership Model Intergrating Research and Intervention to Improve Food Decisions in Families and Communities

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INTRODUCTION

Good afternoon. It is a pleasure to be here to discuss our research in community nutrition with you.

The purpose of my visit to Korea is to present our University-Community Partnership Model and to explore collaborations with community nutrition researchers in Korea. Both the University-Community Partnership Model and the possibility of working with you are very exciting to me. I am also interested in continuing the Family Food decision-making research that Dong Yean Park began here as part of our research team at Cornell. Our opportunities to be leaders in Community Nutrition Programs around the world are unlimited.

I'm particularly excited about the opportunity to talk with you about our Community Plant Food Project which started 2-1/2 years ago in Rochester, New York, and is currently expanding to a second site in Onondaga County, New York. This project includes rural as well as urban families. Both of these research sites are in New York State, which is located in the Northeastern part of the U.S. (within New York State), Rochester is one of the major urban areas and is located in the west-central part of the state. The local food shed for Rochester consists primarily of a nine county area surrounding the city. Of course, much of Rochester's food is imported to the area from such places as California, Mexico, and many countries around the world. Syracuse is the largest city in Onondaga County, New York, and we're developing partners throughout the Onondaga County, which includes a more rural area than does Rochester.

These programs are all part of the Cornell Cooperative Extension Service. The Cooperative Extension Service is an arm of the land grant university in every state in the U.S. These Cooperative Extension Services were organized to take the knowledge of the university to people in communities throughout the state. The major food have been in the areas of agriculture and home economics, although their efforts have expanded considerably beyond agriculture and home economics in recent years.

THE PARTNERSHIP MODEL : SHIFTING THE PARADIGM FOR COMMUNITY NUTIRTION

Overview of the partnership Model

Key processes for the evolving leadership model are ① the community leads the intervention, ② evolving intervention strategies inform the research component : ③ as they emerge, research

findings inform the intervention : ④ evaluation of the model and its components and interventions is an ongoing process, and therefore, the model is self-renewing : and ⑤ the focus at all stages is integration into the community for sustainability (Gillespie et al, 1996) We have used an analogy of a system of trains to describe the model. That is, we envision tracks to every community, with trains for each community (unique community application of the principles) consisting of a unique set of passenger and freight cars (representing program) headed for the destination which represents community identified project goals. However, the model itself focuses on process rather than on programs. It is the process that is transferable to other communities and, perhaps, to other countries, whereas programs themselves must be oriented toward the unique characteristics of each community and, indeed, toward the goals of families within that community.

Our approach draws from the theoretical and experiential literature in the fields of communication, leadership, community and team development, sociology, and participatory research and action.

We have used different ways to illustrate the model. For those of us who are visual learners, I'd like to show you several views of the model, that is, what it looks like to us from different perspectives. This (Figure 1) is the diagram we began with, the one that illustrated the different levels of inquiry and looks like a target. Then, I tried to depict it as a rolling sphere to illustrate the integrative nature of research and intervention (Figure 2); actually, our view of the sphere also evolved over time. But it still doesn't capture the dynamics and underlying principles very well. Our field coordinator from Rochester, Mary Jeanette Evenhach, proposed this view of the model with pillars of different inputs as the underpinnings for the issues that we are identifying through the partnership which is leading to action (Figure 3). Susie Craig, the Nutrition Team Leader with the County Cooperative Extension in Rochester, illustrates the link between research and program planning this way, with evaluation linking the two (Figure 4).



Each of these diagrams gives a useful perspective on the model, but we've learned that two-dimensional drawings are too limited. This three dimensional slinky perhaps does a better job of illustrating the overall concepts of integration and collaborations built on trust and respect for everyone's contribution. We have developed the team to include diverse perspectives, we have encouraged each individual to contribute their multiple expertises and experiences, and we have valued the negotiation and synergism that this leadership style has produced. the connections so carefully built among people continue, but they take different forms to address each new issue or challenge.

Goals for Development of the Partnership Model

We had several goals for the model when it is applied in a community. We decided that such a program should provide:

1. A working, collaborative partnership between the University and the community;
2. Effective integration of research and intervention to improve both;
3. Responsible relationships within the community to build a sustainable community nutrition

program ,

4. Improved understanding of the community context, that is, the food system as well as individual and family decision about food.

We found that working toward a true collaboration was labor intensive but very rewarding. It is a continual process and a relationship that requires continual care to maintain Partnerships can take multiple forms and can vary concerning the amount of commitment required from each partner. Collaborations are the most intense kind of partnerships, as defined by the Society for Nutrition Education.

Two other descriptions are useful in understanding the model : Community and Community Systems. Community is a geographically-based concept with overlapping networks of systems that provide resources and constraints for its members. Community systems are social institutions that provide people's needs within the community. The community systems of interest include food systems, health systems, transportation, local governance, etc.

Shifting Elements to Move Toward a New Paradigm

We believe this partnership model represents paradigm shift for nutrition intervention in the United States.

In this new way of thinking about intervention, we are shifting a number of our perceptions, as community nutritionists, about working in communities. We illustrate them here as continuums and view the shift as gradual and to some extent continual. In some instances the right end of the continuum is the ideal, but for most, what we're looking for is balance. As with diet, moderation is often the best balance point. These include :

- The "outside expert" approach to "everyone's an expert"; *difference experience 2 Bar*
- "Controlling" the process of intervention to "facilitating" the process of intervention ; *balance*
- From "problem solving" to "building capacity";
- A "hierarchical" structure to a more "web-like" structure ;
- "University initiated" interventions to "Community initiated" interventions ;
- "Individual/family decisions" to include the "community context" as well ;
- "Limited stakeholders" to including "multiple stakeholders" ;
- "Scientific theory" to including "everyday life theory" as well ; *< 51m 2024 4209*
- From "power over" to "power with";

This is our list of elements which we think must be shifted to implement the partnership model. Following, I discuss each one.

From an "outside expert" approach to "every one's an expert"

Academics in the U.S. are beginning to talk about the need to move away from the "outside expert" model to one in which no one is an expert. We prefer to think about it as a model wherein everyone is an expert, a model that is, in some part, based on their experience and/or on their academic learning. The more diverse this expertise, the better the product. We could think about this as similar to the effect we get when we combine different colors. If I have all red paints, all I can paint is red. If I add blue to my collection, I can make purple. With some black and white, I can mix any number of shades and hues within the pertinent portion of the color wheel. Now, if I add yellow, there's almost no limit to the number of hues and shades I can mix and integrate into a work of art. This is analogous to including people with different perspectives and different life experiences. By working together, we produce a much more colorful and insightful view of the phenomena we seek to understand.

When given the role of expert, we have found that team members contribute hues we never expected. For example, Mary Jeannette, the first staff person we hired from the community, is an extremely talented person with diverse skills, but research has not been a focus in her career. However, it was Mary Jeanette who proposed that we work with the public school system to get a list of all the families in Rochester with elementary school children. and she got the list! In the U.S. context of privacy of information, this idea seemed absurd to my research colleagues at Cornell. However, I didn't tell Mary Jeanette that, rather, I encouraged her to talk with the schools. As it turned out, despite our researcher skepticism, within a week, we had the list of students, their addresses and phone numbers, and their parents' names. Indeed, valuing and inviting everyone's expertise has paid off for the project in many ways, and Susie Craig, our county extension team member with expertise in behavior change and cognitive psychology, believes that the expert model moves people further from the possibility of change rather than helping them change.

From "controlling" the process of intervention to "facilitating" the process intervention

As academics and as community nutritionists, we seem to feel responsible for program outcomes and, therefore, we feel responsible for controlling the process in order to enhance outcomes. Becoming facilitators rather than "controllers" is a very difficult transition for many of us. It's much easier when we work with professionals based in the community who have learned the power of facilitating but who let others take the lead much of the time.

From "problem solving" to "building capacity"

Most research and programming in both academic and community systems is toward a "problem-solving approach." We posit that, instead, we should be moving toward building community capacity to pro-actively work toward family and community goals. M.J. illustrated one

fallacy of the problem-solving approach when she arrived at Cornell one day and bluntly asked, "What makes you think we have a problem in Rochester?" In other words, M.J. and others have said that we are really very good at identifying and solving problems and, in so doing, we create more problems to solve ; unfortunately, while this keeps our system going, it doesn't decrease the problems encountered by families in communities.

From a "hierarchical" structure to a more "web-like" structure

Sally Helgeson, in *The web of Inclusion*, talks about the power of structuring an organization following the architecture of a spider web. Like a spider, workgroups begin with a core of diverse individuals who come together around a particular issue or problem. Often they are individuals from different perspectives(e.g., an engineer, a marketer, a salesperson) who may not be used to working together as peers. They often also come from different levels in the hierarchy. As they develop a trusting, open relationship, as needed they can begin to bring in others from outside as well as inside and the web grows. Not unlike a spider web, the system must remain open, and the edges are always permeable and changeable to accommodate new people who have something to contribute. The focus is on solving the problem and creating the action as well as what each person can contribute to the solutions and actions. Sometimes people come, do their thing, and then leave as the project advances to a new stage with new needs. This way of flattening the organization as it moves away from hierarchical structure has worked well within our project team and with our collaborators in the community. The biggest challenge is working within an academic structure which is largely hierarchical and where management decisions by others make the open and inclusive concept of the web difficult to realize. This leads me to the next, related element : the academic and medical model compared to the community model.

In my experience, universities today are moving more toward the hierarchical-competitive model(at least I see ample evidence of this at Cornell) rather than in the direction of business where progressive leaders are moving toward a de-centralized model. Indeed, most of Helgeson's illustrations are from large industries. In the U.S., the medical field also largely maintains this hierarchical, expert-centered model. Thus, we've found our experiment in collaboration much easier to implement in the community than at Cornell University where I work. This may be due, in part, to the medicalization of nutrition in the U.S.

From "university initiated" interventions to "community initiated" interventions

The next element in moving toward "community initiated" interventions is much easier in a web-like organization. Although we academics have an important role to play in developing community programs, the expertise of the audience and professionals who work in the community enhance the intervention's relevance and impact, and working as a team seems to me to be a much more direct route from the generation of knowledge to the application of that knowledge in everyday life decisions. The current model, as I see it, has moved a ways along the continuum in the past 20 years so that it is pretty standard among academics with a community nutrition orientation to discuss new program initiatives with a few community folks during program development. However, it is the research base and the academic perception of audience needs that largely drives the goal setting, the target audience selection, and the program content.

What our model proposes is that community members take ownership for programs very early in the research-intervention planning process and work collaboratively with academics in the conceptualization, as well as in the program development stages. Then, the community leads the implementation with academics more involved with evaluation and assessment for future program initiatives.

From “individual/family decisions” to include the “community context” as well

Families are often constrained by the community context and, at the same time, the community offers many resources that can support wise family decisions about food. But the community process has to support community structures and processes that capitalize on resources and minimize constraints. Therefore, community-level decisions are important areas of study. Also, improvements for families may require changes in the community to enhance the context, that is, public policy, retail market structure, and transportation to the markets can enable families to make better food decisions. Moreover, families may take on an advocacy role to influence their community context. Another potential role of the community is to help moderate the influences imposed upon families from national and global policies and processes. This approach might be thought of as the “family centered” rather than the “scientist centered” approach to studying and impacting the context for family food decision-making.

From “limited stakeholders” to including “multiple stakeholders”

In our model, everyone who eats is a stakeholder in the food system. In addition, food passes through many hands from production to consumption. Sometimes, this occurs in the local community, more often, food passes through the national or global markets. In spite of global influences, community stakeholders with purchasing power have some measure of control of the local community food system, and they therefore are important stakeholders in research about, and intervention in, the community food system.

It is clear that not only do we need multiple stakeholders in the community to respond to issues, these multiple stakeholders may also help us define the multiple facets of an issues. Where global or national influences dominate, communities have a better chance at making changes than families do by themselves.

From “scientific theory” to including “everyday life theory”

We have discussed the value of scientific theory in other papers. The point I want to make today is that people’s everyday-life theories and professionals’ theories of family and community intervention are both important. We think of theories as representations of the way the world works. Although non-scientists don’t often think of their how-the-world-works ideas as theories, these conceptions are often quite internally valid, and they can help us develop scientific theories that are more valid and more useful to families and communities. Qualitative interviews help us uncover and, begin to articulate, some of these theories.

From "power over" to "power with"

The last, and perhaps the most important, element we've been studying is the shift from "power over" to "power with". My colleague, Don Barr, talks about the importance of finding the appropriate balance between these two concepts. Rather than increasing power over families and communities by increasing our knowledge about them, this shift emphasizes the need to work in collaboration with families and communities to develop true partnerships. By releasing ourselves from the "power over" model, we find that we actually gain rather than lose power, as we share it with community stakeholders. Perhaps we really mean giving up control to enhance the power of the overall system.

This model has been successful in the United States, and I am very interested in how this model might be applied in Korea. We believe these paradigm shifts which our partnership model suggests will support partnerships which ; ① are a true collaboration based on mutual respect and trust ; ② integrate research and intervention to improve the external validity of research and enhance the impact of resulting interventions ; and ③ address the context as well as individual and family change.

This partnership model also reflects shifting paradigms in community nutrition research changes which I address next.

< SHIFTING RESEARCH PARADIGMS >

Some of the shifts I see in the Community Nutrition research paradigm are already becoming mainstream ; others are still visions which I hope will become mainstream during my lifetime. The team approach is central to other shifts.

A Team Approach

We have found that families, professionals, activists, and other community stakeholders each have expertise that can contribute to the research and intervention team. Indeed, everyone has their sphere of influence and expertise. Researchers set the research standards while nutrition educators and community nutritionists set program standards. Everyone is involved in developing the process and the interventions that meet community defined goals and standards.

Our Perspective on Behavior Change

Nutritionists, nutrition educators, and health professionals are very interested in behavior change and much of the current discussion is focused on behavior change and how consumers can be motivated to change. While these are important research and intervention questions, I believe that we need to move away from the positivist perspective with its associated quantitative approach to research and its prescriptive nature to a more humanistic, interpretivist perspective which recognizes the evolving nature of human behavior. Qualitative research methods are central to the interpretivist perspective which recognizes the importance of process as well as outcome and the need to probe in-depth to find answers to certain research questions. At the same time, our goal

is to work with families and community stakeholders to help identify issues to study, to develop strategies for change based on the community data, and to implement strategies to change the context within which families make food decisions as well as the family's food decision-making processes.

Definitions

Here, I must interrupt myself to describe the meaning of positivist and interpretivist in this context, as well as some core concepts related to families. The positivist tradition is based on the presumption that "there is a reality out there to be studied, captured, and understood." On the other hand, interpretivists share (with other, related traditions such as constructivists) "the goal of understanding the complex world of lived experience from the point of view of those who live it" (Schwandt, 1994). Qualitative methodology is philosophically consistent with the Interpretist perspective. "Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry. They seek answers to questions that stress how social experience is created and given meaning. In contrast, quantitative studies emphasize the measurement and analysis of causal relationships between variables, not processes. Inquiry is purported to be within a value-free framework" (Denzin et al., 1994; p. 4)

We define Family as a food decision-making unit which is any configuration of people who regularly eat together and who influence decisions about their food. It includes any unit of two or more people within a residence unit or spanning residence units. Thus most people are members of such a family most of their lives.

Family Food Decision-making therefore is defined as "The 'socially-situated' process whereby families seek to meet the nutritional, social, and taste preference needs of their members by simultaneously: (1) considering and choosing from the foods they understand to be practically available and (2) Developing a strategy for mobilizing family resources. These strategies include *who* will acquire, prepare, serve, and clean up, *how* to prepare (including purchasing prepared foods) and *continue* to purchase, prepare, and serve.

◀ My Personal Research Paradigm Shifts ▶

My own research paradigm changes during my career have set the stage for the perspective of the partnership model I am discussing today. I began my career in nutrition as an undergraduate in laboratory-based nutrition and undertook a rat feeding project. By the time I had graduated, I had decided that I wanted to add a dimension of "people" to nutrition. Thus, I joined the Cooperative Extension Service in Iowa. My experience working with the Iowa State University Cooperative Extension Service dramatically broadened my view of researchable topics. With community experience, I thought it was important to include questions about how we help consumers apply what we learn in the laboratory about nutrition. At the same time, I discovered that very little research had been done in community nutrition; indeed, in the 1970's, the idea that nutrition education or community nutrition could be a researchable field was rather radical.

In graduate school, I studied social sciences and applied them to community nutrition from a

very quantitative, positivist perspective to answer the question of what influences people to change food behaviors to healthier ones. I began by attempting to understand influences and motivations for change in the context of nutrition education by studying the application of communication theories.

I quickly realized that we didn't know enough about how people make decisions and how they change without intervention in order to be able to effectively intervene, at least on the scale of change expected by and from the field of community nutrition. Since then, my colleagues and I have made three transitions in our research program. Following, I briefly describe these transitions as a background for discussing the characteristics of our partnership model.

From studying interventions to more basic research

When I joined the faculty at Cornell University in the late 1970's, I began the first transition by shifting my research program from studying interventions to studying knowledge, attitudes, and behavior, and changes in behavior, in the natural course of events—that is, I shifted to more basic research.

From quantitative to qualitative methodologies

Concurrently, I realized that, in order to answer some of the most urgent research questions, a fuller picture of behavior change was necessary. Initially, I had expertise in path analysis. Quantitative path analysis, however, proved inadequate for me, and I began to focus more on the process than on the outcomes themselves.

At the same time, I began working with a sociologist, Gilbert Gillespie, who has expertise in qualitative methodology. With this methodology, we could apply a method or set of methods that best fit the research question, and this was the second transition. This transition not only required applying different methods of data collection, it also required thinking about and using the data in different ways. This is a philosophical transformation away from a positivist perspective to an interpretivist one wherein people are seen as having free choice; therefore, they can't be understood as a complex set of stimuli and responses. The partnership with my colleague and husband, the other Dr. Gillespie, has been most helpful in this transformation because he understands the philosophy of science underlying the diverse perspectives, and he is an expert in both quantitative and qualitative methods. Thus, his input and influence on broadening my perspectives has been invaluable for our methodological transition. This transition, then, has two parts and, in my experience, it takes the most energy and insights of any I mention today. For those of us who were trained in the positivist quantitative tradition (as are most nutritionists), the transformation is an ongoing process.

From individual variables to family-level phenomena

The third transition which has had a major influence in our research program involves moving from measuring individual variables to family-level phenomena. We define families broadly to include multiple family forms. The focus is on the family, as I defined it earlier, to mean those

people who share the eating experience and thus potentially influence each other. Therefore, most people are part of a family much of their lives. My experience working at the community level helped me realize the importance of families in shaping and supporting food habits. As I became more familiar with the social science literature, I came to realize that our nutrition education tradition was guilty of "individual blame bias." In other words, I began my research career studying individual family members and how they interact, only at a very basic level. Now, however, we are studying family level phenomena such as family food policies. We are also interested in how the family as a unit interacts among themselves as well as with its external environment. At the end of my presentation, I address some of this family level data.

Toward community level measurement and analysis

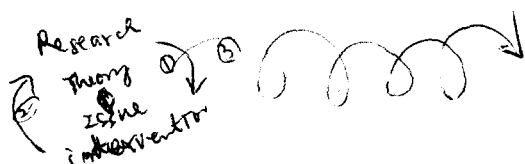
The most recent emphasis in our research has been expanding the context to the community level. Families make decisions within a community context, and often that overrides individual or family level influences. This approach takes us beyond a "family-blame" bias as well as "individual-blame" biases. This is very much a transition in process because this level of analysis is very complicated indeed.

The Community Plant Food Project, now in its third year, has given us an opportunity to look at community level context on a larger scale. Jennifer Wilkins, Senior Extension Associate at Cornell, a person who has a strong interest in a sustainable food system, has provided leadership for interviewing stakeholders in the food system. We are working with a community advisory committee and other community leaders to ask what the issues are that need studying in Rochester and what the implications are from our data for families and the community systems that support families.

The Relationship of Research to Intervention: A Paradigm Shift for the Field of Community Nutrition

Now, I'd like to step back from the shifts in our research program to the broader field of Community Nutrition research (and I do believe we have established field research in communities and for communities as a legitimate area of research within nutrition). Since I entered the field two decades ago, I have seen two major transitions, and I hope we're leading the third one. As illustrated by this figure (Figure 5), in the late 1970's, community nutrition researchers (including myself) and programers were talking about the need for research to inform programs and to make them better. This era is represented by a U.S. conference sponsored by the National Dairy Council, "The Leading Edge in Nutrition Education: Research Enhancing Practice". Coupled with this shift was the recognition of the importance of theory in informing intervention and the importance of community nutrition research to build this body of theory. This, then, is the first transition in the relationship between Community Nutrition research and intervention, as illustrated in figure 5.

In the late 1980's, some of us who worked with community professionals, as well as some researchers in universities, began to talk about the influence moving in the other direction as well—that is, research was being influenced by intervention goals and experiences. This transition is still in process in the research community, but it has been widely accepted, I believe, by those who



work in communities. I have illustrated this transition as each influencing the other, with theory at the core as the integrating element.

In the current decade, we've been urging what I hope will be the next transition in the field to integration of research and intervention. Our community plant food project has allowed us to further our thinking and experience with this concept. Integration suggests that it's not just one informing the other; rather, they work in conjunction throughout the process. This integration provides for synergism with outcomes beyond the sum of research and intervention conducted separately by researchers and programers. I like the way M.J., one of our team members from the community, put it when she said that it's like walking on two feet, one theory and one practice. It is much more difficult to walk on just one foot of either theory or practice alone.

Figure 6 illustrates the design in Rochester for integrating research and intervention with a focus on issues related to individual, family, and community decisions about food. We began with multiple inputs (past research; experience of community advisory committee members, staff, and academic researchers; and interviews with individuals, families, and food system stakeholders in the community). Through this process, we identified issues which influenced intervention development and, at the same time, helped focus quantitative interviews with individuals and families in order to understand the prevalence of these issues. The original plan included assessment of community systems, as conceptualized in Krueter and Green's precede model. We haven't yet obtained resources for this component.

DEVELOPMENT OF THE PARTNERSHIP MODEL FOR INTEGRATING RESEARCH AND INTERVENTION

Research and program goals

Our research and program goals for the plant food project reflect these paradigm shifts. The scholarly goals are to:

1. Understand family food decision-making processes, including resources and constraints;
2. Identify families' goals for food decisions and family perceptions of issues related to food and the food system;
3. Improve our understanding of the context in which families make food decisions;
4. Develop partnerships with communities in which everyone's expertise can contribute to understanding and to appropriate actions to build community capacity for healthy and sustainable food decisions;
5. Bring families together with other stakeholders in the community to enhance resources available to them to support healthy and sustainable food choices.

At the same time, we have operational goals to support the process of the partnership model.

These operational goals are to:

1. Deal responsibly with the community;
2. Move toward an effective and sustainable community initiated intervention;
3. Support current community activities.

The Continuous Improvement Method: An Evolutionary Approach

Consistent with these goals, the method for developing the model and articulating the processes for effective partnerships is self-correcting and self-renewing, one which integrates evaluation and development. By definition, then, the model and its processes are evolving as we discuss, observe, listen to, and analyze the process from within. The diversity of the project team, the partners, and the informants provide for both breadth and depth of evaluation and development. An external evaluation will come later, in the stage of development. We have called this the Continuous Improvement Method.

Principles at the Core of the Partnership Model

We began the process by articulating some basic principles for the partnership process. As we have worked through the developmental phases, we also have developed these principles. Some of these principles are listed in Figure 7. The model requires principle centered leadership(Covey, 1991)

I have learned in this process, what my colleague Susie Craig, has said all along—that building relationships is the basis for good partnerships. It is about how people work with people in ways that allow everyone to contribute to their potential and to be rewarded for these contributions, usually by intangible rewards. Building relationships is a time intensive process, and the system needs to plan for and allow time for this important work. One of the lessons of our experimentation with a partnership model the past two years is that we need to put much more emphasis on this aspect and allocate resources accordingly. We liken it to building a solid road-bed for a passenger train. It takes time, labor, and skill to develop a firm road-bed over the best route, just as building relationships takes the same care. But carefully built, the road-bed will support the train track (the relationships among partners) and the cars (programs) that make up the train for each community. It is time well spent because, without a well-built foundation, the whole system is vulnerable to crumbling. Indeed, both at the community and the university level, we've seen this happen all too frequently when we have impatiently moved ahead to running trains on inadequate railroad beds. Another thing that our project has illustrated is that connections are built between people, and when the people in organizations change, the connection with the organization is very vulnerable because an organization's commitment and trust is built on the individuals who make up the organization. Therefore, we recommend building strong connections with multiple individuals within an organization. Also important is a coordinated developmental process including all team members in order to maintain and renew the intellectual and physical energy necessary to keep the collaboration active.

Challenges to Collaborations

This new paradigm for collaborations between university and community bring with it challenges from university systems and from within the community. In general, the elements in the shift in paradigm, particularly from power over to power with, run counter to many of the unspoken principles of the university structure. There are some additional challenges that are useful to explicate as part of our understanding of the changes implied by the principles of the partnership model. One challenge is the reward system at the university in which individual accomplishments are valued over team accomplishments. At the same time, there is a bias toward rewarding "basic" research (usually meaning laboratory based) over community-relevant research (sometimes called "applied"). Certainly, there is a certain security with university positions which is threatened by a process that shifts power and resources to the community. In addition to the perceived loss of control, we have found considerable discomfort among academics with shifting decision-making to the community because they distrust non-academics' ability to make decisions in areas they consider within their "expertise."

While this challenge of shifting decision-making power away from academics was not unanticipated, it hadn't occurred to me that community stakeholders might be skeptical about the shift as well. But, after listening to informants' expectations of us and of the projects, I realized that a number of professionals were not only used to us playing the expert role, they expected it and were uncomfortable with our sharing that role, in part perhaps because the change in our role also requires changing their role expectations and increases their responsibility for interpretation of research findings and, indeed, in framing research questions. My colleague, Susie Craig, talks about it this way: "One way of dealing with the cognitive dissonance between what one knows they should do and what they do is to shift blame to the expert. When we move them to a facilitating role, then they have to take responsibility. We can encourage and facilitate other to change, but motivation comes from within."

So, an additional challenge is helping the community change their expectations of "outside experts." Of no surprise was that internal conflicts and turf battles among the committed, but diverse, advocates and relative newcomers make partnerships difficult. Working with those involved in this process has been very enlightening for us all.

The fourth challenge is one I have already discussed as an element in the paradigm shift: the hierarchical and bureaucratic administrative structure. One specific example that we have encountered is misunderstanding the need for multiple expertise in both management and science in order to build maintain the kind of project team which can facilitate partnerships with communities.

The final challenge, of course, is helping us all shift the elements I outlined earlier to achieve a balance that's right for each partnership, and this challenge suggests everyone needs to become more comfortable recognizing "everyone's an expert," facilitating more, building community capacity, setting up web-like structures, supporting community initiated interventions, including the community context and multiple stakeholders, and honoring everyday life theories, all of which help move toward more "power with" partners.

Adding Partners: Building a Leadership Web

Although it is important to begin with a core of partners with common goals, in our case, the Cornell Community Nutrition Program and Cornell Cooperative Extension of Monroe County, additional partnerships are necessary to achieve the goal of building community capacity. Thus, additional processes based on the same core principles were employed to expand our contacts and partners. The community partner was key in this process, with the academic partner moving to the background and supporting primarily through the community partner. This builds on the special relationship of CCE to Cornell as its front door to the community with offices in every county throughout the state. In developing these connections, we have begun to build a web-like partnership structure.

IMPLEMENTATION OF THE MODEL: THE ROCHESTER EXPERIENCE

We began the process in Rochester by asking for the cooperation of the Cornell Cooperative Extension Service of Monroe County as we were preparing to submit our first research proposal to the United States Department of Agriculture for funding to do a community study. They agreed and, thus, we started to build a partnership. Then, we hired interviewers and a field liaison who became staff members of the county extension association. The next step was to put together a consultants group for a one-time meeting and an advisory committee that agreed to meet twice a year. These groups helped us identify what issues they thought important to address in the project. The advisory committee discussed the interviews and surveys at each stage of the process, and we reported findings as they became available. The next major intervention planned is a search conference to be held this spring. The goal of this conference is to initiate further action directed by community stakeholders.

As part of the study in Rochester, we developed a survey methodology for surveying families based on the principles and processes of the Partnership Model. Called the Enhanced Response Survey Method, it was devised to (1) be scientifically sound and produce statistically representative and valid data; (2) address intergrated family and community goals; (3) involve a university responsibly in a partnership with families and other community stakeholders; and (4) build links that will promote better food choices and nutrition in the long run. All project team members participated in designing the sampling and survey procedures, developing and pretesting the questionnaire, and collecting the data. For example, team members assessed survey questions based on their own understandings of food decision making at the individual, family, and community levels. The brought multiple perspectives to bear on the study design, yielding many advantages, including (1)innovative methods for sampling and recruiting families to meet project goals and (2)proactive strategies for completing interviews with hard-to-reach families. The adults in 550 families were interviewed face-to-face in their homes in the city. Throughout the survey, a "continual assessment" process involving all project members was used for design adjustments to improve the representativeness and validity of the data.

The surveys also provided additional opportunities for intergrating intervention with the research process. Interviewers noted that they were gaining entrance to houses of families not usually involved in community programs. Therefore, they recommended while they were there(after

completing the interview). they would like to be able to come with information to respond to the family's inquires about food and community programs. This process will be planned into next survey. Moreover, interviewers spontaneously identified families that they recommended be involved in the development of intervention programs.

SOME RESEARCH FINDINGS ON FAMILY FOOD DECISION-MAKING

In addition to creating a general model for developing partnerships between university researchers and communities, other research questions in the project entered around improving our understanding of the processes of family food decision-making. I would like to summarize some of our current finding from the qualitative, in-depth interviews with families. Some of these finding build on our past research, while others are new insights we gained from the project.

Family Food Decision Are Complex: Affected by Context, Family Characteristics, and Trade-offs

Among the findings of our qualitative, in-depth interviews is that family food decision-making is very complex. While family food decision-making processes are influenced by idiosyncratic characteristics of particular families, more importantly, these processes are influenced by local, regional, national, and global social structures, including culture, the economic system, and food distribution system. These structures create contexts of immediate families, extended families, friends, peers(at work and at school), ethnic groups, and community. These contexts overlap, forming the equivalent of a mosaic in which particular circumstances of family food decision-making can be located. In these contexts, families vary as regards to culturally-approved food preferences, food availability, relative time demands, available resources, and food preparation skills; moreover, they consider these things in making food decisions. These contexts interact with family members' understandings about how health is affected by diet, perceptions about the tastiness or healthfulness of particular foods, and past experiences with food and other social psychological considerations that sometimes are shared by family members and sometimes are not shared. These considerations provide a changing backdrop for decision-making that always involves ambiguity, usually requires tradeoffs, and sometimes leads to confusion. Thus, the desirability of particular food choices varies across time and situations, even within the same family. Although some family food decisions are situationally-specific and are negotiated in interaction in a particular context, over time, such decisions lead to agreed-upon rules for family food decisions that can transcend context. We call these rules family food policies.

Importance of Past Experiences with Food on Perceptions of Fruits and Vegetables and Family Food Decision-making Values and Norms

Another theme on which we focused in these interviews with couples was the effects of experiences with food on their perceptions about, and appreciation of, fruits and vegetables. We have found people's direct experiences with food to be important in several studies in which we have been involved. For example, when Norton(1990) interviewed women, they talked about "the way they were brought up" as an influence on "foods selected and how they made food decisions." Similarly, when Greenberg(Greenberg et al., 1991) interviewed couples, they spoke about

the influence of their childhood food experience on their current family food behavior. Our recent work has focused more on this issue, and we are finding that the experiences of adult family members during their childhoods influence their current perceptions about food. Fathers, in particular, often refer to their childhood experiences when talking about their current food decisions. We have categorized these according to experiences in (1) eating/tasting produce raised by friends, relatives, and neighbors; (2) growing fruits and vegetables, either on a farm or in a home garden; and (3) selecting and choosing fresh foods from local markets. In addition to Greenberg's study, we have developed this theme from our current work with families in Rochester and in Herraiz's interviews with retired couples about family food decision-making throughout their life cycles. These findings were the basis for developing survey items about parents, childhood experiences with food which are part of the current survey with families in Rochester.

Family Food Policies

Family food policies are the shared rules about food that result from the interaction of family members over time, of which family members are aware and usually respect, if not embrace. Since people's expectations about foods are rooted in culture and their experiences, food policies must be negotiated whenever a family forms, and they must be renegotiated whenever the family changes. These rules take different forms. One form is the rules that families have for eating behavior. Some families require children to eat a whole serving of a new food or a food that a child does not think they like. Other families require only a taste, and still others do not require even that. In some families, children are required to eat what is served, while in other families, various other foods may be substituted. Moreover, must all members of the family present sit together for a meal, or can members take a plate of food and sit in front of the television? Another form of family food policies are mental templates for appropriate meals at particular times of the day and for particular occasions. What makes an appropriate meal in that family? Can ice cream be eaten for breakfast? What is necessary to have on the table for dinner (e.g., a meat, a vegetable, a salad, and a dessert)? What kinds of foods should be served when company comes? What makes a holiday meal an appropriate holiday meal? How should particular foods be prepared (e.g., fried, roasted, or boiled)? What should be the characteristics of particular prepared foods (e.g., crispy, crunchy, mushy, spicy, bland)? A food shopper or preparer using these templates is unlikely to face complaints from family members. Family members do not necessarily agree on these rules, but they must be aware of them and acknowledge them. For example, a man who likes spicy foods may refrain from preparing them because other members of the family do not like them and oppose having them served.

Fathers' Roles in Family Food Decision-making

In community nutrition research, fathers have long been understood to play a role in family food decision making. Since Lewin's pioneering work in the U.S. in the 1940's, researchers have increased our understanding of the multiple roles fathers can play in family food decision making. In addition to more in-depth understandings of fathers roles, the interviews with families in Rochester suggest new patterns of fathers' roles, both within families and outside them. At the same time that fathers' roles and our understanding of them has been evolving, the current work adds to our previous evidence that fathers' own childhood experiences with their families of origin influence their perceptions about food. Some fathers continue the roles modeled by their own

fathers, and others consciously change from these roles.

To further explore fathers' roles in family food decisions, other themes which had emerged from previous studies were probed in the family interviews. We found that parents' perceptions about fathers' roles in what foods were served at home vary (Gillespie and Gillespie, 1996). For some, fathers' food preferences limit the foods served, and their overt avoidance of foods they dislike may exert a powerful influence on children. In stark contrast, other fathers want their children to learn to like a variety of "healthy" foods and, therefore, they downplay their own dislikes so as not negatively to influence their children's views on these foods and on new foods.

As well as affecting family food practices, fathers varied in their involvement in family food-related activities, and these variations have implications for involving fathers in interventions. Five ideal-type images of adult males in family food matters describe most of this variation. An ideal type is theoretical description that captures the relevant characteristics of something of interest (for instance, a chair), but actual cases do not necessarily have all the characteristics (e.g., four legs). The first ideal type is of fathers as *irrelevant* in family food decision. Such fathers would have nothing to do with food selection and preparation, would never complain about the foods served, and would never express food preferences. Such fathers would be extremely rare, but we have encountered fathers who claim to eat what they are served without complaint. The second type is what we are calling the *pluralist*, after the political sociology conception of multiple centers of power in local politics. Such a father does not control the family food agenda, but he actively influences food selection and may have the ability to prevent certain foods from being served; that is, he possesses a "veto power". This is a very common, if not predominant, type representing men in modern families with relatively traditional family structures—with wives who either do not work outside the home or who have secondary jobs and are responsible for most of the family food acquisition and preparation. The third type of father, the *patriarch*, represents an extreme of the pluralist. Such a father would have little to do with the acquisition and preparation of the family's food, but what was served and how it was prepared would be shaped by his preferences and demands. Such fathers have major effects on the food preferences of their children, both through the limits they put on what is served and through their views of foods they do not like. We have labeled the fourth type *equalitarianist*. Equalitarianists are characterized by sharing food-related responsibilities with their wives and other family members. Discussion and negotiation are the hallmarks of equalitarianists, as is relative openness to new foods. Equalitarianists tend to be in dual career families. The final type is *role reversed*—the traditional house husband who has the major responsibility for food, especially on work days. Some are in this role by choice others as a consequence of labor market conditions.

Implications of the Partnership Model for Family Interventions

Increased understanding of the social contexts for food decision-making and the processes involved will help the community and us identify the types of families that could most benefit from an intervention. It will also suggest how to segment families for their participation in planning and implementation of community, goal-oriented programs. An understanding of the uniqueness of each community setting will also maximize the effectiveness of community interventions. The program will be different in Los Angeles, or Atlanta, Iowa (my home town), or Seoul. Getting back to the train analogy, through understanding unique communities, we can help each put together a set of

cars(programs), build new cars, and design a system of tracks connecting them to resources and other communities that will best meet their economic, environmental, and social needs.

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References:

Barr, D. *Transforming Power Through The Empowerment Process*. Forthcoming, 1997.

Covey, S. *Principal Centered Leadership*. New York: Simon & Schuster, 1991.

Denzin, Norman K., and Yvonna S.Lincoln. 1994. "Introduction:Entering the Field of Qualitative Research" Pp. 1-17 in *Handbook of Qualitative Research*, edited by Norman K.Denzin and Yvonna S.Lincoln. Thousand Oaks, CA:Sage Publications.

Green, L.W. *Health Promotion Planning: An Educational and Environmental Approach*. Toronto: Mayfield, 1991.

Helgesen, S. *The Web of Inclusion*. New York: Currency/Doubleday, 1995.

Kouzes, J.M. and B.Z.Posner. *The Leadership Challenge*. San Francisco: Jossey-Bass, 1995.