

Coalitions: Building Partnership to Promote Agricultural Health and Safety

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Abstract

The Agriculture at Risk Report identifies the need for the development of coalitions, but with little additional detail. Throughout the 1990s, a variety of partnerships and community-based organizations, with the primary mission to promote agricultural safety and health, have been formed. These groups are altruistic, creative, energetic, and provide critical perspectives for improving the safety and health of the agricultural workforce at the local, regional, and national levels. These coalitions have been created as a result of philanthropic support, public funding, grass-roots interest, and personal experiences with agricultural injuries and fatalities. They are playing important roles in collaborating with researchers and in reaching the individual agricultural communities. They have been instrumental in conducting needs assessments and are critical to the development and implementation of successful surveillance programs and interventions. Outreach and dissemination of research findings, and other safety and health information to target audiences, are a strength of these diverse coalitions. This paper will focus on community-based coalitions, providing an overview of the types, foci, activities, and results or impact of these groups during the 1990s and the challenges in maintaining and sustaining the coalitions. The paper will conclude by projecting the role of coalitions for the future.

Introduction

One of the more significant challenges in promoting agricultural safety and health is recognizing the diverse problems, resources, priorities, and values of the unique workforce involved in farming, forestry, and commercial fishing. Understanding this challenge is critical for not only implementing successful prevention but for conducting successful research programs that identify the most feasible interventions and programs. Coalitions, including partnerships between researchers and other stakeholders, are one method used to address this challenge. One key to the success of coalitions is the ability of members to facilitate access to the target population and enhance effective dissemination of appropriate information. The coalitions discussed in this paper demonstrate how coalitions provide feasible access to three essential components of health education described by McLeroy et al: "a clear understanding of the social factors,...knowledge of interventions, ... and understanding of the communities, organizations, neighborhoods, networks, and individuals that are the target and context of health education programs" (1993). The goal of this paper is to focus on community-based coalitions, providing an overview of the types, foci, activities, and results or impact of these groups during the 1990s and the challenges involved in maintaining and sustaining coalitions. Discussion of some national and regional coalitions will be included because of their relationship to community-based coalitions.

Information regarding specific coalitions was gathered by literature review and solicitation of information through agricultural-related Internet e-mail list services. For purposes of this paper, coalitions will be defined as both temporary and longer term alliances of factions for the specific purpose of enhancing health and safety of agricultural workers and their families. Furthermore, these coalitions, consistent with Butterfloss et al' s description of coalitions, are: issue-orientated, formally organized structures uniting individuals and groups with a common purpose, focused to act on specific goals external to the coalition, and "committed to recruit members and organizations with diverse talents and resources to achieve these goals" (Butterfloss, Goodman, Wandersman, 1993). This paper will discuss a broad but not inclusive representation of existing coalitions that impact on agricultural health and safety.

Historical Guidance

The potential role of coalitions in reducing agricultural-related diseases and injuries have been identified in key forums. The 1988 Agriculture at Risk, Report to the Nation Agricultural Occupational and Environmental Health: Policy Strategies for the Future was a result of the work of coalitions and grass roots input (Donham,1989). Agriculture at Risk concluded that expanding communication among all parties involved in agricultural and rural health would be necessary for the successful implementation of its recommendations; that communication between public and private sectors, and among the various groups within each sector, must be increased; and that coalitions must include professionals in the diverse fields related to agricultural and rural health (Merchant, Kross, Donham, Pratt, 1989).

The theme of the 1991 Surgeon General's Conference on Agricultural Safety and Health was A National Coalition for Local Action (Myers et al, 1992). In addressing one purpose of the conference, Building Coalitions, Dr. Thomas Dean former President of the National Rural Health Association, suggested two important directions for the development of coalitions. First, build coalitions within the professional community that would include expertise in safety, public health, and health care. Second, build bridges between the professional community and the people on the farms. Those involved need to know there is concern about health and safety risks, that help is available, and that their contributions are important to prevention efforts (Dean, 1992).

The 1995 National Occupational Safety and Health Program in Agriculture External Reviewers Report to NIOSH recommended that linkages be created between researchers and outreach programs to translate research results into useful community programs. The reviewers also suggested that safety and health promotion, education, and intervention projects must involve the affected communities in all phases of project development, implementation, and evaluation (Kennedy, 1995).

From 1989 until the present, a variety of partnerships/coalitions have been formed which reflect the guidance provided by the conferences and reports mentioned above. Several have had a national focus. The National Coalition on Agricultural Safety and Health (N-Cash) played an important role by publishing Agriculture at Risk and promoting implementation of report recommendations (Donham, 1989).

Selected Coalitions

The 42-member National Committee for Childhood Agricultural Injury Prevention worked for over 16-months to develop a national action plan included in the report *Children and Agriculture: Opportunities for Safety and Health* (Lee et al., 1996). The committee had diverse representation of health and safety professionals from both the public and private sectors. The committee's goal was to create specific recommendations for the reduction of unintentional agricultural injuries to youth. The committee's draft report was reviewed by nearly 100 other individuals and agency representatives. The coalition's report served to secure Congressional funding for the current initiative for Childhood Agricultural Safety and Health and continues to direct those efforts. A multi-disciplinary group of 12 individuals used a consensus development process to create guidelines for 62 agricultural tasks for children. Approximately 60 secondary reviewers from agricultural safety experts across the United States provided comments on draft guidelines. A 25-member National Adolescent Farmwork Occupations Health and Safety Committee is currently generating recommendations for migrant youth working in agriculture; 35 additional experts will review recommendations (B. Lee, personal communication, November 29, 2000).

In September 1997, the Great Plains Agricultural Center and the Iowa Injury Prevention Center convened *Tractor Risk Abatement and Control: The Policy Conference* to gain a consensus from 40 diverse stakeholders on specific actions to reduce death and injury caused by tractors. Within a year, they reached consensus on a national strategic plan with 25 actions to save 2000 lives by the year 2015 (Donham, Osterberg, Myers, Lehtola, 1997), Current efforts are focused on implementation.

In 1991, the W. K. Kellogg Foundation funded an initiative to promote and support collaborative and partnership efforts between institutions and communities at local, regional, and state levels. These funded projects became the Agricultural Safety and Health Cluster (Schuman, 1998). (Table 1) Although the Kellogg Foundation no longer funds the Cluster projects, the group has evolved into the Agricultural Safety and Health Network (ASH-NET) to disseminate lessons learned. ASH-Net's mission is "to catalyze the development, implementation, and evaluation of grass-roots community programs for agricultural health and safety" (<http://www.age.uiuc.edu/ash-net/index.htm>, 09 February, 2001).

The North American Agromedicine Consortium (NAAC) was founded in 1988 and had eleven states with programs in 2001 (S. Ford, personal communication January 16, 2001). NAAC is an affiliation of faculty representing schools of agriculture, life sciences, family and consumer sciences, medicine, nursing, allied health, public health, pharmacy and veterinary medicine, and representatives of government, agribusiness, and voluntary agencies. These faculty, and other interested parties, have organized to share, through a multi-disciplinary approach, their expertise and resources in public service, education, and research to promote health and prevent disease and injury for rural residents involved in agriculture, forestry, or fishing industries and consumers of the products of these industries.

Many coalitions have a regional focus. The NIOSH funded Centers for Agricultural Disease and Injury Research, Education, and Prevention have created coalitions that serve as advisory boards.

The advisory boards are made of up representatives of the region served by the center. Membership includes the broad expertise of multi-disciplinary researchers, community representatives, and other stakeholders. Center leadership depend upon these boards and task forces to inform them about regional priorities, perspectives, and concerns. The board members play multiple important roles: sharing expertise; participating in strategic and shorter term planning, increasing access to region, dissemination of center information to their constituencies, and fostering participation in center activities (Mulloy, McDonald, Gilmore, 1997). Examples of coalitions at the Centers include: 1) The Northeast Center has networked with ten federally funded migrant health programs in the Northeast to establish a primary care and emergency room based surveillance system throughout seven states in their region. The data derived from these surveillance activities will increase the understanding of farmworker occupational injury and illness in the Northeast and will serve as a model to improve our ability to collect migrant and seasonal farmworker injury and illness data throughout the country (G. Earle-Richardson, personal communication November 22, 2000). 2) The Southeast Center initiated the development of the Migrant Network Coalition in 1994. This coalition is a not-for-profit entity composed of individuals from Central Kentucky, representing over 45 public and private agencies. The group meets monthly and sponsors an annual migrant health fair, a statewide conference on migrant issues, and maintains and distributes a bi-lingual resource directory of services available to migrant farmworkers (Luchok, Rosenberg, 1997). 3) The Southwest Center, working with the cooperative extension agent for the Navajo Nation, community leaders, representatives from the Navajo grazing committees, and local experts, collaborated in designing and implementing an intervention perceived as needed, inclusive of all community members, enforced by recognized leaders, and feasible.

In July 1990, the Iowa Legislature created the Iowa Center for Agriculture Safety and Health (I-CASH). This agricultural coalition is composed of diverse groups with different cultures, funding streams, and alliances with the common goal of saving lives and preventing injuries to farmers. I-CASH's impressive list of accomplishments include supporting and promoting research, conducting national conferences, initiating training and educational programs, and facilitating community-based activities. I-CASH has also fostered the development of other coalitions, including the AgriSafe Network, Farm Safety 4 Just Kids, and Sharing Help Awareness United Network (SHAUN). The AgriSafe Network, a group of 24 hospitals, health clinics, and county health departments, provides community-based preventive occupational health services for the farm community (Donham, 2000).

There are other numerous coalitions working at the state and local level. The Occupational Health Nurses in Agricultural Communities (OHNAC) is an example of this and was one component of NIOSH's Agricultural Initiative. From 1990-1996 OHNAC funded 31 public health nurses in ten states (CA, GA, IA, KY, ME, MN, NY, NC, ND, OH). The nurses had high credibility because most of them currently or formerly farmed and, as nurses, were trusted professions (Gallop Poll, 1999). Nurses formed coalitions (often multiple) to enhance data collection and their effectiveness as community change agents. For example, one Ohio nurse initiated one coalition and then four more as outgrowths of the original coalition to serve other regions. These coalitions conducted a variety of activities that resulted in a number of positive outcomes: increased tetanus inoculations among adults, first aid kits sold to those who had never had them on the farm, farm safety day camps for over 2000 children, CPR classes, a barn tour for

600 youth focusing on animal safety, back safety training, and farm safety school curriculum for all fifth graders in one county M. Fleming (personal communication November 29, 2000). Through active, case-based surveillance OHNAC identified new or under-recognized conditions and hazards (AAOHN, 1993; OHNAC report in process). OHNAC data are still used to target interventions. Coalitions are still active in many of those communities.

In 1996, in response to an external evaluation of the NIOSH agricultural activities, NIOSH began funding Community Partners for Healthy Farming for surveillance and intervention research (Kennedy,1995). The surveillance component funded projects in nine states (CA, KY, ME, MN, NY, ND, OH, OR, WI) through year 2000. Illnesses, injuries, and hazards to agricultural workers and their families were identified through review of hospital emergency logs, migrant clinics records, Department of Transportation records, existing registries, and data from volunteer agricultural organizations. As in OHNAC, nurses and others conducted follow-up investigations on selected cases and participated in coalitions. From 1996 through 2000, Community Partners funded intervention research projects in six states (CA, KY, IA, ND, WA, WI). Active coalitions utilize the special resources of experienced researchers and local stakeholders to assess needs, plan, implement, disseminate, and evaluate the interventions. Community Partners produced useful engineering control, educational and motivational tools and helped build infrastructure for promoting agricultural health as essential to the sustainability of agriculture. Four of these projects were awarded competitive funding for second generation projects (1999-2002) to expand their efforts (Table 2). Additionally, the University of Illinois will lead efforts to reduce eye injuries and illnesses in Latino farm workers in IL and MI and Purdue University will develop electronic tractor and machinery safety training material for youth.

Several coalitions have evolved with a focus on children; some of these as part of the healing process to a tragic loss of a child. Marilyn Adams began Farm Safety 4 Just Kids in 1987, after her son, Keith, suffocated in a gravity flow wagon. Their grass-roots volunteers provided over 350 awareness and educational activities with nearly 300,000 participants in 1999 (Farm Safety 4 Just Kids, 1999). In 2000, the organization had over 125 chapters in 33 states and 4 Canadian provinces (S. Burgus, personal communication, December 6, 2000). Jeris Peterson inspired the formation of Sharing Help Awareness United Network (SHAUN) after her son, Shaun, was fatally injured by a grain auger. SHAUN provides mental health services and peer support to farm families who experience a death, disabling physical injury, or serious psychological impairment of a family member while engaged in agriculture (Roseman,1999). The Progressive Farmer Farm Safety Day Camps are supported on the national, state, and local levels by numerous groups and individuals. The program had 11 camps in 1995, 250 planned for 2001 and over 100 communities on their waiting list. Major funding is received at a national level by agribusinesses. Local organizations, donors and over 30 volunteers from various backgrounds plan and conduct each camp (S. Reynolds, personal communication, January 09, 2001). Help Me Grow - Safe Kids is a Wyoming statewide coalition concerned with health and safety issues for all children, including those in agriculture. They participate in a statewide steering committee and locally conduct educational and other intervention efforts (D. Woiltaszewski, personal communication, November 29, 2000).

There are several coalitions active within the state of California. AgSafe is a non-profit coalition dedicated to reducing injuries, illnesses, and fatalities among those involved in California and

western agriculture. Ag Safe facilitates collaboration among groups and companies with interest in health and safety in California agriculture, by providing expertise, information, funding, and other support (J. Myers, personal communication, November 30, 2000). The Farm Safety Initiative is a coalition of regulatory, environmental, farmworker, and agricultural organizations. The coalition is currently developing a scientifically valid tool to determine problems as they relate to the federal and state worker protection standard for pesticides among agricultural workers San Luis Obispo County, California. The roles of partners and direction of resources will be based on the data analysis (R. Das; R.Greek, personal communication, November 28, 2000; February 9, 2000).

The Inland Northwest Farm Safety Network consists of those involved in farm health and safety issues in central and eastern Washington and Idaho. The Network maintains an on-line directory, publishes a newsletter, and sponsors an annual conference (K. Pitts, personal communication, November 29, 2000).

In 1995, a Pennsylvania State Cooperative Extension agent started a coalition as part of a research project. The coalition raised money for the two roll over protection-structures (ROPS) and two power take-offs (PTO) subsidy programs, staffed fair booths, and conducted a farm safety poster competition for 4-H and FFA students. The group, averaging 15 people, conducted a youth farm safety day and distributed safety information to every farm in Juniata County. Similar coalitions were formed in Huntingdon and Somerset Counties in 2000. Partners of Agriculture Safety and Health in the Alleghenies was also formed in 2000; this group of mainly professionals shares resources, helps each other staff respective programming, and promotes each other's events (J. Harvey, personal communication, December 6, 2000).

In Mercer County, Kentucky, a farm-church partnership was formed to hold an injury prevention health fair. Local agricultural agencies contributed free educators and materials; the church provided an activity place, registered participants, and assembled educational packets; and farm families prepared exhibit space and loaned machinery for the sessions (Reed, 1994).

Accomplishments

According to Rowley, "individuals change their behaviors only in response to some event or reinforced message that has particular meaning to them... Peer and family pressure can create personal messages" (p.446); awareness and involvement of the community can provide the motivation and reinforcement to change health and safety behaviors (Rowley, 1990). Coalitions have successfully used this principle to move individuals, communities, and organizations to action to reduce or prevent agricultural related disease and injury. During the past 10 years, agriculturally-related coalitions have been developed in all regions of the country and have been a significant force in disseminating agricultural safety and health messages to a diverse and unique population.

Coalitions have increased the "buy in", legitimacy and acceptability of messages, increased community ownership of the problem, and empowered both communities and individuals to solve their own problems and change long held beliefs and norms (Lexau et al., 1993). This

outcome is most evident in the area of childhood agricultural safety and health. Coalition members, (Table 3) who represent diverse perspectives and disciplines, are energetic, creative, and enthusiastic about addressing difficult issues; developing consensus recommendations; and developing interventions, e.g., media messages and educational materials. By involving stakeholders in the planning, implementation, and evaluation, researchers have increased their credibility among target groups, developed a better understanding of the issues, explored new and innovative approaches, and gained access to study populations. This has been particularly valuable in assessing the unique needs of the migrant and minority populations.

Research capacity has been increased among institutions which have not traditionally conducted research. The model of the Kentucky Partnership for Farm Family Health and Safety Inc. originally funded with W.K. Kellogg Funds, is currently being replicated in three states (TX, LA, FL) involving such institutions including historically black colleges and universities. The original project leaders, and three NIOSH Agricultural Centers, are mentoring and providing funding to these new researchers. These projects conduct needs assessments and create non-profit, self-sustaining groups, which are addressing local issues.

Individual members of coalitions derive benefit from their participation by developing leadership, conflict resolution, and team building skills. Local community members have reported an increase in personal knowledge, an increase in self-esteem and personal satisfaction from having an impact on the safety and health of their families and their communities (Kentucky Partnership, 1999). Most are involved because of their love for the agricultural life style and concerns about the future of agriculture and rural communities, as well as future generations of agricultural workers (Cole, 2000).

These coalitions are filling a critical need to educate rural health care providers on the various hazards and exposures that impact the health status of their rural clients. This is becoming increasingly important as many health care providers no longer have the experience of growing up on farms and are not familiar with agriculture production. Most curriculum for educating health professionals does not include an agricultural perspective.

Recommendations and Challenges

One of the major challenges facing coalitions is conducting a more rigorous evaluation of their programs/activities (Francisco, Paine, Fawcett 1993). Although some have undergone a formal evaluation process (for examples see Tables 1 and 4), many are currently conducting little or no evaluation of their efforts (DeRoo, Rautiainen, 2000). A number of coalitions are gathering process and short-term impact information. Those receiving funds to include evaluations, are using more rigorous models for evaluating effectiveness (Ehlers, Palermo, 1999). Coalition members need to recognize evaluation as a positive and necessary component to the success of programs (Kentucky Partnership, 1999). They need to recognize that programs which have demonstrated value via evaluation are generally easier to maintain or expand. Evaluation makes it easier to revise, and/or terminate projects, at an earlier phase, before communities and individuals have a strong vested interest in continuing an activity. Money and energy spent on evaluating a project not achieving its goals, is money well spent; it encourages re-direction of

resources to potentially more useful projects. Evaluation should be built in at the earliest stages of planning. A multi-disciplinary approach is essential to address the complex issues in agriculture.

Researchers should seek partnership with existing coalitions. These partnerships could allow researchers to use the strengths of coalitions in university research, encourage existing coalitions to conduct impact and outcome evaluations of activities, and contribute to the sustainability of the coalitions. The resources needed for evaluation need to be stratified apart from an activity's actual cost in order to assess the cost of replicating the activity or its cost-effectiveness. Data is needed to determine the extent to which coalitions are effective for addressing agricultural safety and health issues, a question common to the use of coalitions in other areas of health promotion (McLeroy, 1994)

The second major challenge is sustaining coalitions over time, and transferring and maintaining interventions within the community after the formal research phase has ended. Plans for sustaining interventions should be an integral part of all phases of a research project and one of the criteria for funding. Support and active participation of all the stakeholders is essential for the success and sustainability of any coalitions (Altman, 1995; Scharf et al, 1998). A clearly articulated mission, effective leadership, and adequate resources are important components of sustainability.

The third challenge is to increase the number of community-based coalitions in minority and migrant communities (Schuman, 1998). In recent years, advances have been made in gathering surveillance data, enhancing the recognition of cultural issues, and developing culturally appropriate materials related to these populations. Development of ways to include them as active participants in leadership roles, and in intervention implementation and evaluation, is needed. Literacy issues and ways to measure intervention effectiveness within these groups will require special attention.

Summary

Coalitions have been successful in reaching large numbers of those working in agriculture and those who interact with the agricultural workers and their families. Coalitions have played a significant role in policy development and legislative arenas. Open and honest dialogue has promoted increased understanding of the critical issues and the differences in priorities between stakeholders. These interactions have impacted research efforts, resulting in increased credibility of research among the non-research community, development of innovative approaches, and have increased the effectiveness of surveillance systems as well as the number of effective and acceptable interventions. Many programs have been replicated with modifications to reflect the uniqueness of agriculture in different regions. Coalitions have and should continue to play an important role in promoting agriculture safety and health well into the 21st century.

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Table 1. Kellogg-Funded Projects (Schuman, 1998)	
Project	Summary of Project
Farm Worker Health and Safety Institute The Farmworker Association of Florida	Developed and implemented train-the-trainer program including leadership modules for migrant, seasonal workers; created links between communities and local health care providers

Farm Partners Project New York Center for Agricultural Medicine and Health	Recruited and trained routine farm visitors to identify stress-induced problems among farmers and link them to appropriate agencies
Rollins School of Public Health Emory University	Partnered with various organizations to conduct Agromedicine training for family practice residents and build networking throughout the state
United Health Centers of the San Joaquin Valley, Inc.	Formed coalitions to implement the CA agricultural safety and health education/training, creating accessible culturally appropriate training programs
University of Illinois Cooperative Extension Service	Established leadership groups in communities to address local agricultural safety and health issues; local groups linked to coalition of state groups
Kentucky Partnership for Farm Family Health and Safety	Used the strong social network of women to empower them to reduce risks to their families on their own farms and in their communities
Nebraska Rural Health and Safety Coalitions	Developed education programs for farm youth, older farmers, health science students, rural practitioners, and emergency response personnel
South Carolina Farm Leaders for Agricultural Safety and Health Education (FLASH) Clemson University	Initiated the (FLASH) program to provide safety and health information, leadership, and community development training to create local change
University of North Carolina School of Public Health	Developed a consortium of health , farm worker, and environmental educators, researchers, and advocates to develop educational strategies
Agricultural Hazards Reduction Through Stress Management Project Eastern Washington University	Implemented stress assessment and management education for farmers and their families, trained community members, fostered networking and coalition development to reduce stress among farmers
Partners for a Safer Community Local chapters of National FFA Foundation	Developed program to increase knowledge, promote changes in attitude and beliefs, and facilitate leadership development opportunities in communities

Table 2. Community Partners For Healthy Farming Intervention Research Projects (1996-1999)

In all projects, researchers, workers, management, and others collaborated to select and implement interventions

* Agency was re-awarded funding for 1999-2002 to expand model geographically, to other sectors, or otherwise

Project/Lead Agency	Accomplishments
Ergonomic interventions in wine grape production* University of CA, Davis	Reduced size of picking containers (filled weight reduced from 57 to 46 lbs.), significantly reduced musculoskeletal symptoms among workers without significantly changing productivity (Miles, Myers, Facuett, Janowitz, 2000)
Promotion of roll-over protective structures (ROPS)* Southeast Center for Agricultural Health	In the two treatment counties, 71 ROPS retrofits were sold for tractors (as compared to 4 in the year prior to the intervention); ROPS project materials and activities are being revised to be disseminated in paper and electronic form; those who purchased did so to protect their families (Cole 2000)
Ergonomic interventions for small scale growers* University of WI Biological Systems Engineering Department	Identified simple, cost-effective interventions for labor intensive, specialty crop growers. Developed tip sheets available via internet. Significant increases in self-reported adoption.(Chapman, Josefsson, Myer, Newenhouse, Miquelon, 2000)
Certified Safe Farms* Great Plains Center for Agricultural Health, IA	Enrolled 300 farmers. Secured additional funding from non-federal sources to expand original project. Increased use of respiratory protection and decreased respiratory symptoms among intervention group.(Donham, 2000)
Model health and safety information clearinghouse Great Plains Center for Agricultural Health, IA	Produced and distributed catalog of agriculturally-related materials with procurement information (Rautianinen, Tisch, Donham , 2000)
Engineering control for dust in swine housing Great Plains Center for Agricultural Health, IA	The oil mist system reduced total dust concentration up to 54% in treatment rooms, compared to control rooms (Nannenmann et al, 2000)

<p>Evaluation of two established educational programs for children and youth ND State Department of Health & Consolidated Laboratories</p>	<p>Revised and evaluated "Always Be Careful," a school-based safety program developed for fifth and sixth grade children by Farm Bureau, and tractor safety certification courses targeting youth ages 14-15 years old (Gilmore, 1999)</p>
<p>Ergonomics intervention in bareroot tree nurseries. WA State Department of Labor and Industries</p>	<p>Established a ergonomics labor/management ergonomics team; based on data collected, four economical and feasible ergonomic interventions were implemented at the experimental nursery (Howard, Spielholz, 2000)</p>
<p>Community-based agricultural safety and health intervention for adolescents National Farm Medicine Center, WI</p>	<p>Evaluated activities conducted by local chapters of the National FFA Organization utilizing the Safe Communities model; minimal differences in knowledge, attitude, and practices between the pre- and post-intervention phase were noted (Lee. Westaby, Berg, 2000)</p>

Table 3. Partners in Coalitions for Agricultural Safety and Health

Members contribute a variety of resources, including expertise, access to the population, dissemination, funding, and in-kind services. Although some could be listed in several cells, but for simplicity, they are only listed once.

Private Sector	Not-for-Profit Sector	Public Sector
<ul style="list-style-type: none"> --Local family farm operators, farm workers, and their families --corporate farm management --agribusinesses, e.g., implement dealers and suppliers --media: television, radio, print --health professionals: veterinarians, nurses, and physicians --non-agricultural employers, banks and credit unions --other local businesses, e.g., restaurants, groceries --insurance companies --trade publications --tool manufacturers --equipment manufacturers --seed sales people --farming magazines and newsletters 	<ul style="list-style-type: none"> --farm producer groups and organizations --agricultural organizations: Farm Bureau, 4-H, FFA --hospitals and clinics --labor unions --legal advocacy groups --mental health agencies --faith-based groups --Rural Electric coops --commodity organizations 	<ul style="list-style-type: none"> --cooperative extension service --schools/teachers --migrant clinics --fire departments --Area Health Education Centers(AHEC) --State,Regional,andNational state boards of education --Departments of Agriculture, Health, and Transportation --Colleges of Nursing, Medicine, Public and Environmental Health, Agriculture, Engineering Education, Communication --NIOSH Agricultural Centers

Table 4. Generalized Lessons Learned and Barriers to Success from External Evaluation of Kellogg Projects (Schuman, 1998).

These lessons could be applicable for many coalitions.

Lessons Learned	Barriers to Success
<ul style="list-style-type: none"> -- Shared vision, power, responsibility and accountability is necessary -- Maximum participation and a voice in decisions by all members; making them part of the solution is important -- Innovation is in the eye of the implementer -- Effective learning is occurring in unanticipated roles of teacher and learner -- Women had major roles in shaping and improving farm safety and health -- Programs need to be tailored to audience -- Long term community commitment requires target audience partnership in the design of processes and programs -- Minorities need to be represented at all levels in minority focused coalitions -- Return on investment on some projects exceeded expectations -- Key project leaders could benefit from leadership and management training -- Needs of projects vary over time -- Projects need to be realistic as to expectations effort required. 	<ul style="list-style-type: none"> -- Inadequate funds to provide basic services -- Funding alone is insufficient to build and sustain coalitions; locally identified need is essential Ability to expand and respond to new opportunities limited by funds -- Fragmented efforts -- Time required to build effective coalitions is underestimated -- Training needs of staff and volunteers -- Keeping beneficiaries engaged in project -- Self evaluation issues (appropriate data collection, determining priorities, time and funds) -- Suspicion of motives -- Lack of time to participate by target audience -- Leadership styles can inhibit activities, trust and collaboration among partners -- African American, limited resource and younger farmers under represented -- Exclusionary practices lead to distrust and impacts successes and sustainability