

An Integrated Risk and Resiliency Extension Logic Model Framework for Health and Wellness of Farms and Farming Populations.

By Bonnie Braun and Maria Pippidis

Introduction--Development of Logic Models

In 2018, Extension faculty in both Delaware and Maryland began to respond to an emerging crisis among farmers: Increased stress and the impact on both the farm and farm family well-being. The University of Maryland Extension created a new *Farm Stress Management* website; The University of Delaware Extension Stress is *Gonna Get You if you Don't Watch Out*.

Both institutions hosted statewide *Strengthening Health and Farm Vitality* forums which identified mental health and financial management as two of five issues. Together, the institutions produced a special edition of the Delmarva Farmer released in January, 2019. The University of Delaware created a Delaware Library Guide; conducted Mental Health First Aid training; made presentations at Ag Week; and focused on stress management at farm meetings.

The University of Maryland College of Agriculture and Natural Resources awarded a multi-disciplinary team a seed grant to investigate stress among Maryland Farmers. A survey of 527 attendees at winter production meetings revealed that stress was higher than the year and that finances and regulations were among the top sources of stress. A five-member team of UME agriculture and family and consumer sciences attended the Michigan State University *Managing Farm Stress* training. And, in partnership with the Maryland Soil Conservation Service, conducted four workshops for Extension, agriculture, natural resources, finance and health professionals to increase awareness and understanding of mental health issues and impacts on farm viability.

In 2019, the authors were asked to create logic models that would help Extension professionals in both states to have a common framework for programming to address stress. Before the models could be created, an extensive review of literature and theories was conducted by the authors to provide a basis for structuring the logic models.

During the review, the authors identified assessments for formative and summative evaluation and multiple resources for teaching. We also reviewed and created teaching tools. We determined that most existing teaching resources addressed stress management and were focused on the individual. We located only a few resources that addressed underlying causes of stress both within and external to the farming population; focused on the interactions within families and communities; or included public policies influencing the stress. We also found little evidence of multi-discipline, research-based and theory-informed resources for programming.

We concluded that a risk and resiliency framework was best suited to address the complexities of stress, stressors, risk and recovery. We decided that a guide to risk and resiliency programming and three logic models were needed. The logic models were created for three distinct audiences: professionals, the farming population and stakeholders.

Accompanying Guide:

To assist Extension educators in planning, conducting and evaluating programming, we created a toolkit that includes:

- The *Farm and Farm Family Risk and Resiliency Guide* with a literature review and a farm and farm family risk and resiliency sociological model
- A set of three logic models for programming with three different audiences;
- Tools for assessments and teaching; and
- Resources.

An electronic copy of the *Farm and Farm Family Risk and Resiliency Guide and Toolkit* [to be] located at: <http://extension.udel.edu/ag/agribusiness/> or <https://extension.umd.edu/FarmStressManagement>

Permission to Use Logic Models

The three logic models and the socio-ecological framework for farm and farming population health and wellness may be used and/or modified to fit the needs of a variety of educators in creating their own plans of work for conducting Extension programming. For example, individual educators may choose to only do program for a portion of the logic model. But taken together, a set of educators, including an entire state program, can show collective impact.

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Explanation of Logic Models

In recent years, professionals from multiple disciplines who serve agriculture, have been seeking ways to understand and help reduce impacts of crisis and stress on farming operations and farming populations. Many of these professional are part of the Extension service in the areas of agriculture, 4-H, family and consumer sciences, and community development. Some are from health, financial and commodity organizations. Some may recall experiences of the Farm Crisis of the mid-1980s; others got involved after the 2008 recession; and some are newly learning about programming as the downturn in farming profitably continues a multi-year trend.

Cooperative Extension professionals are creating educational tools, offering professional development, conducting educational programs and doing individual consultations. In general, Extension programs are provided to local farmers, families and other professionals on separate tracks—one focused on the farming enterprise; the other on individuals and families. Separately or together, they likely include risk management aspects of the farm and/or family financial or health. Alternatively, they may focus on agricultural risk management, individual stress management techniques, finances, nutrition and health, or chronic disease management.

Few professionals take a multidisciplinary, integrated, socio-ecological approach to physical, mental, emotional and financial health and well-being of individuals, families and the farm to prevent or mitigate risk and impact of stress and crisis. Such an approach has been recommended by researchers and practitioners. The authors created a multi-discipline, research-based, theory-informed risk and resiliency framework, shown in Figure 1. The framework is grounded in a slightly modified version of the Cooperative Extension National Health & Wellness Framework. The title of the framework is *An Integrated Risk and Resiliency Extension Framework for Health and Wellness of Farms and Farming Populations*.

This framework provides a visual of relationships between the ultimate outcome in the white center, other outcomes, content and input. Each component corresponds with its color-coded component in three logic models. The logic models; a guide for programming, with a comprehensive literature review, and educational tools are available in a new *Extension Farm and Family Risk and Resiliency* available in later 2019 after user-testing. Three logic models were created to provide a common programming and assessment approach. Each focuses on a different audience.

Logic Model 1 targets *agriculture, finance, family and health professionals* who support the farming populations. This logic model can be used to guide decision making and measure impact of professional development programs intended to increase awareness of challenges experienced by the farming population; increase understanding of research that supports an integrated risk and resiliency; and increase capacity to apply principles and confidence to conduct the programming. It can also serve as a basis for proposals for funding requests.

Logic Model 2 targets *farmers, farm families and/or farm workers*. It can help professionals plan, implement and measure outcomes of risk and resiliency programs. This logic model can save individual professionals time in developing programs; can serve as a basis for working with multiple professionals; and can provide a common base for assessing the extent to which multiple professionals are increasing the likelihood of reaching the intended short, medium and long-term outcomes.

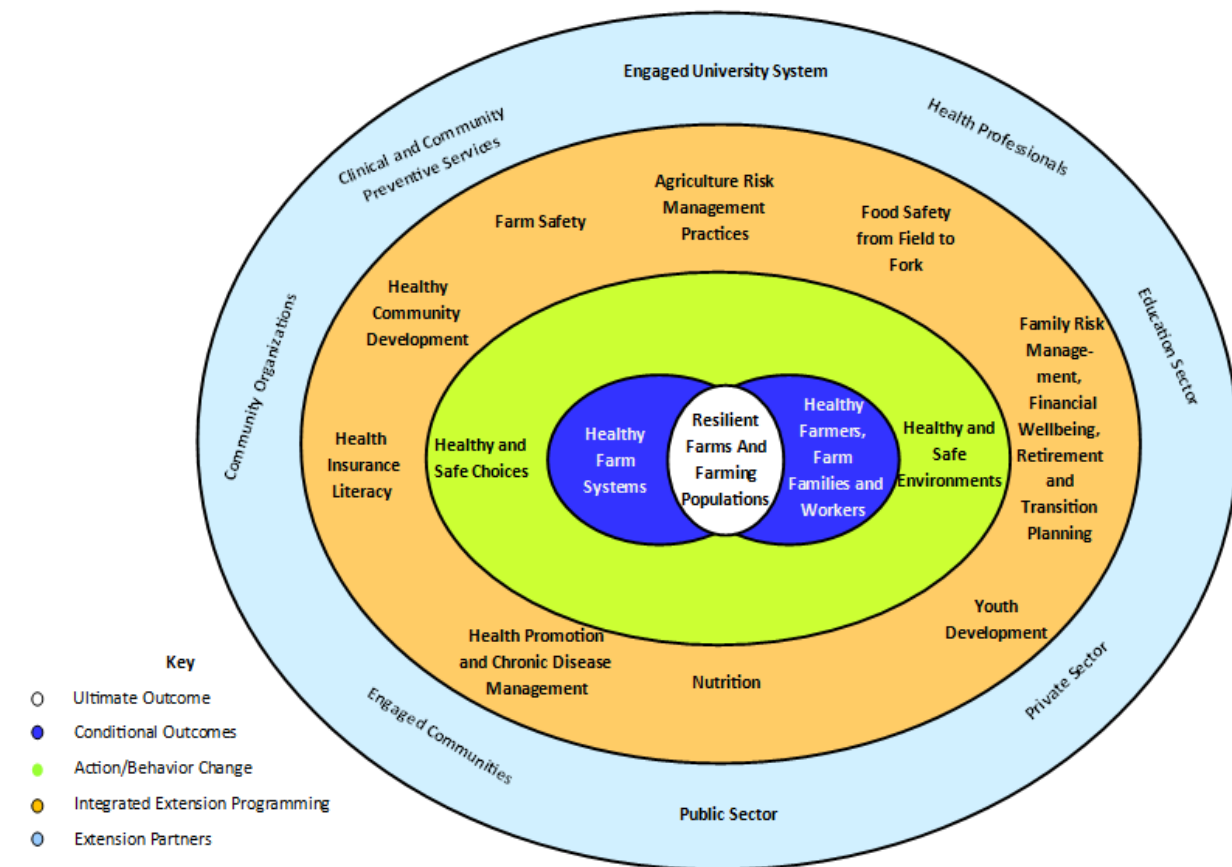
Logic Model 3 targets *stakeholders* whose decisions and actions impact farming communities and farming populations. It is for professionals to use to plan, implement and measure outcomes of risk and resiliency programming. This logic model can save individual professionals time in developing programs; can serve as a basis for working with multiple professionals; and can provide a common base for assessing the extent to which multiple professionals are increasing the likelihood of reaching the intended short, medium and long-term outcomes.

Figure 1

An Integrated Risk and Resiliency Extension Framework for Health and Wellness of Farms and Farming Populations*

Illustrates the Farm and Farm Family Risk and Resiliency Logic Models

* Based on Cooperative Extension National Framework for Health and Wellness



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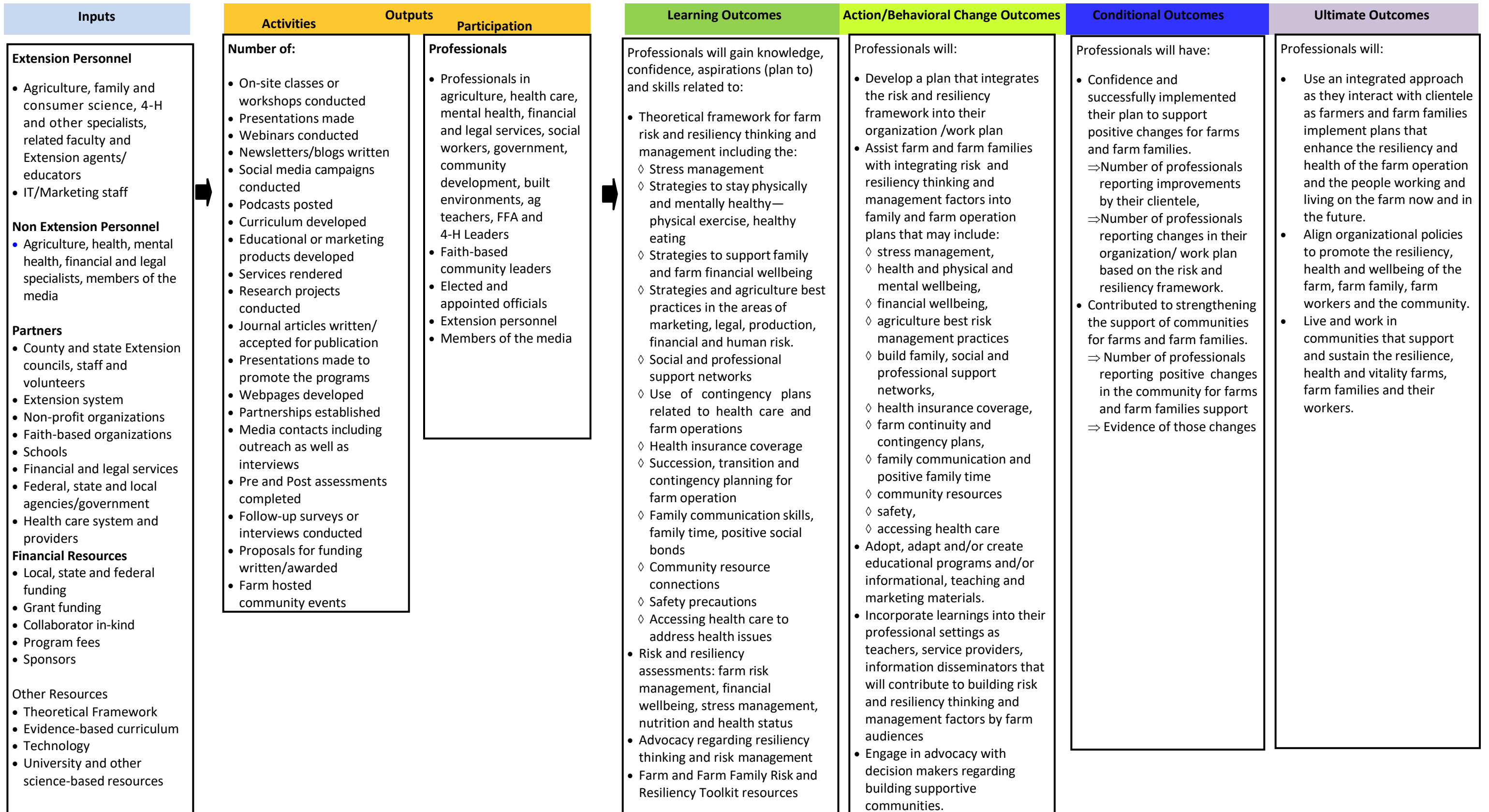
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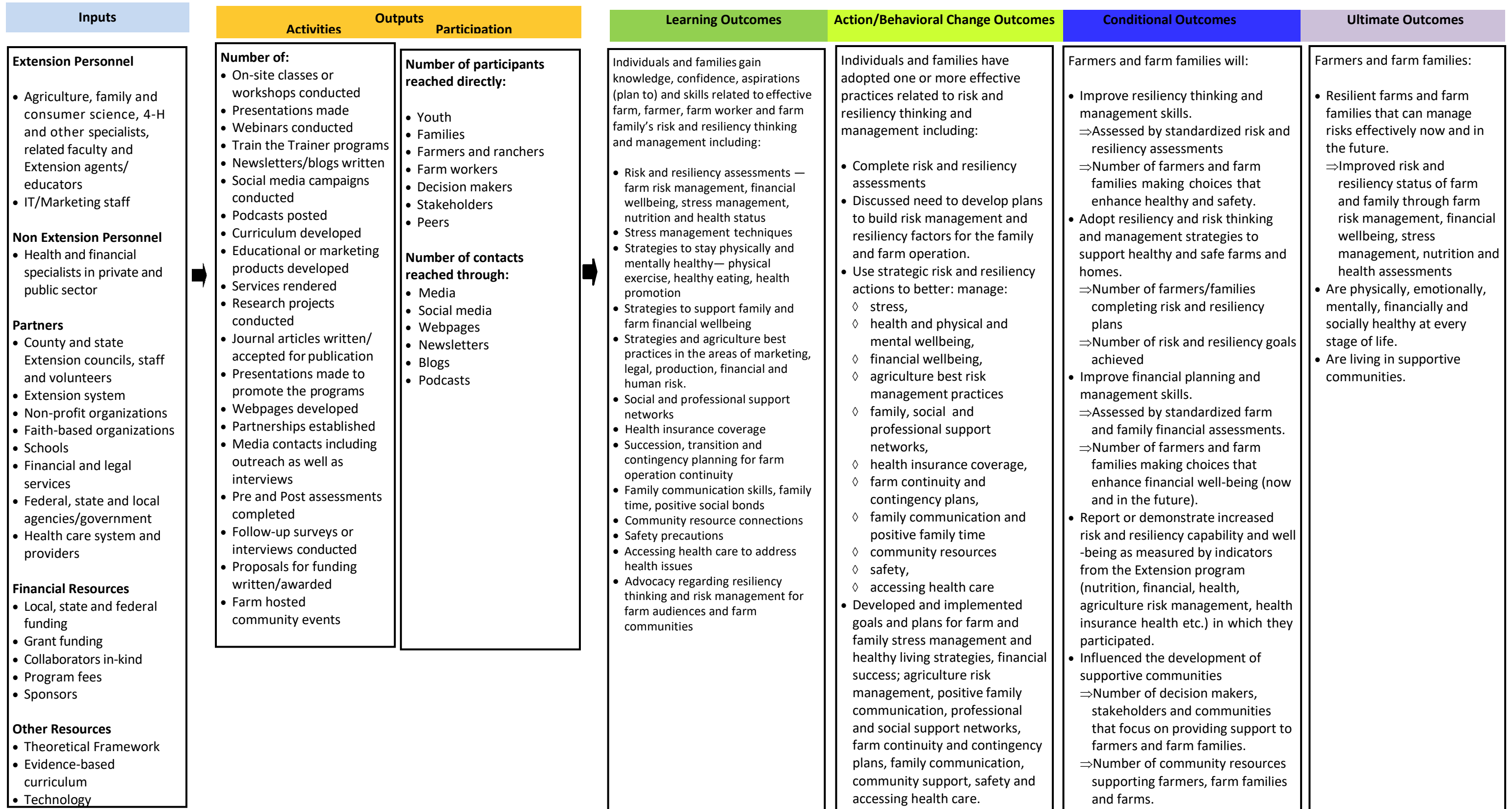
Farm and Farm Family Risk and Resiliency Logic Model One — Professional Development

Situation: Strengthening resiliency of farms, farm families and farm workers and reducing risks requires more than educating the farming population. It requires a socio-ecological approach, by professionals from multiple sectors, who understand the historical and current context of agriculture and challenges facing the prosperity of the farming sector of the economy. Professionals from non-agriculture sectors need to understand the impact of risks on the farming population and local communities. To build sustainable farms and rural communities, a common framework, shared language and an approach that combines expertise from multiple sectors must be developed and used to create effective and integrated solutions. Agriculture and non-agriculture professionals need to better understand ways that resiliency thinking and risk management strategies can prevent or mitigate impacts on finances, health and well-being in the short and long term of farm families and their enterprises. This need was confirmed during a recent national study of professionals and from participants in multiple state Farm Resiliency workshops and Strengthening Health and Farm Vitality forums.



Farm and Farm Family Risk and Resiliency Logic Model Two — Farm and Farm Families

Situation: Farm families experience both ordinary and extra-ordinary stress and change because of the interdependent nature of family farm business and farm family living. Ordinary stresses include the constancy of responsibilities to make or keep the farm profitable; begin and/or retain a farming legacy; juggle on and off-farm work; care for family members; deal with illness or injury; manage multi-generational tensions and handle weariness and loneliness. Extra-ordinary stresses, like bad weather, volatile markets, and tariffs, add pressures to farming enterprises. These pressures impact the health of the farm and farming population. Responses to pressures, or stressors, range from faulty thinking to dismay, distress, illness, despair and even suicide. At stake--the future of many farming operations, farm families, farm workers, farming communities, the prosperity of agriculture and the availability of domestic products for our country's citizens. The farming population can benefit by understanding and adoption of skills in resiliency thinking and risk management. They can learn through an integrated informational and educational approach among agriculture, family, finance, community and health professionals.



Farm and Farm Family Risk and Resiliency Logic Model Three — Stakeholder Development

Situation: Reducing risks and strengthening resiliency of farms, farm families and farm workers requires more than educating the farming population. It requires that communities be supportive. For communities to be supportive, policies, procedures, services, rules and regulations and ways of interacting with the farming population must be integrated across multiple sectors using a socio-ecological approach. The ways communities work must be in alignment with risk and resiliency thinking and actions. Professionals, decision and public policy makers and other stakeholders need to understand risks faced by the farming population, the agricultural economy and ultimately the community and the economy. They need to understand how community support and resources enable the farming population and their farm enterprises to be resilient. They need a common framework and shared language to organize communities to identify challenges, create integrated solutions and institute supports that strengthen finances, health and well-being of the farm, farm family and farm workers. This approach will further strengthen the broader community's economic and social determinants of health and wealth.

