

**V(A). Planned Program (Summary)**

**Program # 7**

**1. Name of the Planned Program**

Positive Future for Youth, Families, and Communities

Reporting on this Program

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

| KA Code | Knowledge Area   | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|--|-----------------|-----------------|----------------|----------------|
| 102     | Soil, Plant, Water, Nutrient Relationships   | 0%              |                 | 4%             |                |
| 307     | Animal Management Systems  | 0%              |                 | 4%             |                |
| 401     | Structures, Facilities, and General Purpose Farm Supplies                              | 5%              |                 | 1%             |                |
| 610     | Domestic Policy Analysis   | 0%              |                 | 8%             |                |
| 703     | Nutrition Education and Behavior   | 20%             |                 | 4%             |                |
| 704     | Nutrition and Hunger in the Population   | 10%             |                 | 2%             |                |
| 723     | Hazards to Human Health and Safety   | 0%              |                 | 30%            |                |
| 724     | Healthy Lifestyle  | 3%              |                 | 4%             |                |
| 801     | Individual and Family Resource Management  | 5%              |                 | 1%             |                |
| 802     | Human Development and Family Well-Being  | 9%              |                 | 15%            |                |
| 803     | Sociological and Technological Change Affecting Individuals, Families, and Communities | 5%              |                 | 1%             |                |
| 805     | Community Institutions and Social Services   | 0%              |                 | 2%             |                |
| 806     | Youth Development  | 40%             |                 | 20%            |                |
| 901     | Program and Project Design, and Statistics   | 3%              |                 | 1%             |                |
| 903     | Communication, Education, and Information Delivery                                     | 0%              |                 | 3%             |                |
|         | <b>Total</b>   | 100%            |                 | 100%           |                |

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

| Year: 2014 | Extension |      | Research |      |
|------------|-----------|------|----------|------|
|            | 1862      | 1890 | 1862     | 1890 |
|            |           |      |          |      |

|                         |                   |                   |                   |                   |
|-------------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Plan</b>             | {NO DATA ENTERED} | {NO DATA ENTERED} | {NO DATA ENTERED} | {NO DATA ENTERED} |
| <b>Actual Paid</b>      | 23.4              | 0.0               | 0.6               | 0.0               |
| <b>Actual Volunteer</b> | 2.1               | 0.0               | 0.0               | 0.0               |

**2. Actual dollars expended in this Program (includes Carryover Funds from previous years)**

| Extension           |                | Research       |                |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch          | Evans-Allen    |
| 2465697             | 0              | 83487          | 0              |
| 1862 Matching       | 1890 Matching  | 1862 Matching  | 1890 Matching  |
| 3032877             | 0              | 179297         | 0              |
| 1862 All Other      | 1890 All Other | 1862 All Other | 1890 All Other |
| 8533391             | 0              | 483963         | 0              |

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

This planned program focuses on understanding factors that promote positive human development at all stages of the life course. Efforts to foster healthy individuals cut across local, national, and global levels and require knowledge of how processes of individual, community, and regional development interact.

Extension provides a wide range of evidence-based programming to support healthy families, build positive youth and healthy lifestyle skills, strengthen intergenerational relationships within both rural and urban communities, and improve farm and rural safety.

Extension in the College of Agricultural Sciences is unique in providing one of the largest youth development programs in the nation. 4-H reaches more than 200,000 youth between the ages of 8 and 18 in Pennsylvania and more than 6 million nationwide. These programs teach youth leadership skills and provide science, technology, engineering, and math (STEM) education. These programs can serve as an avenue to a viable career. Volunteers are critical to the success of 4-H, and build skills for personal and professional development while aiding youth.

In addition to 4-H, extension also works closely with the College of Health and Human Development on the PROSPER program, a youth and family resilience program designed to prevent development of negative behavior in children. Youth programs provide opportunities for learning about healthy eating and physical activity and create a culture of leadership and community service among youth. We continue to focus on the creation and delivery of research-based knowledge on decision-making to augment after-school programs and dovetail with state educational standards. We continue to be national leaders in farm safety education.

**2. Brief description of the target audience**

Agricultural Producers/Farmers/Landowners  
 Agriculture Services/Businesses  
 Nonprofit Associations/Organizations

- Business/Industry
- Community Groups
- Education
- General Public
- Government Personnel
- Human Service Providers
- Non-Governmental Organizations
- Nonprofit Associations/Organizations
- Policy Makers
- Special Populations (at-risk and underserved audiences)
- Students/Youth
- Volunteers/Extension Leaders

**3. How was eXtension used?**

Penn State Cooperative Extension supports faculty and staff use of eXtension and promotes communities of practice as a way of broadening sources of information and outreach. Penn State Cooperative Extension supports the professional development offered through eXtension.org.

At least some members of most extension teams answer ask the expert questions and use eXtension resources as reference materials to address client questions and acquire personal knowledge when appropriate. Some programs include a link to the appropriate eXtension website on their site.

Some 4H Science Extension Educators are engaged in communities of practice within eXtension.

Penn State is the lead institution for the Farm & Ranch in eXtension for Safety and Health (FReSH) Community of Practice (CoP). We have expanded the CoP to more than 100 members who are actively involved in developing and reviewing content for the site. The FReSH site is the official ag safety and health website for the Agricultural Safety and Health Council of America (ASHCA), which is linked to industry. eXtension is used for information dissemination, webinars (Learn), mobile app promotion, and online courses (Moodle). Grant funding was obtained this fiscal year that will continue to enhance and expand the FReSH CoP. Our role with eXtension has enabled the Ag Safety and Health Program to generate close to \$2 million in an 8-year period for program development and expansion. During this reporting period, there were more than 25,000 visitors to the FReSH site (5,004 returning and 20,445 new visitors).

The Rural Health and Safety Extension team provides day-to-day management of the Ag Safety Community of Practice through eXtension.

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

| 2014          | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|---------------|------------------------|--------------------------|-----------------------|-------------------------|
| <b>Actual</b> | 33014                  | 530603                   | 37487                 | 4664                    |

**2. Number of Patent Applications Submitted (Standard Research Output)**

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

| 2014   | Extension | Research | Total |
|--------|-----------|----------|-------|
| Actual | 7         | 5        | 12    |

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of participants in extension education classes and workshops.

| Year | Actual |
|------|--------|
| 2014 | 114196 |

**Output #2**

**Output Measure**

- Number of technology disclosures involving college faculty, staff, extension educators, or students.

| Year | Actual |
|------|--------|
| 2014 | 0      |

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

| O. No. | OUTCOME NAME   |
|--------|--|
| 1      | Designation of the Clearinghouse for Military Family Readiness as a university-wide research center.   |
| 2      | Identification of a system of services, programs, collaborations, and advocacy to help meet the challenges facing families in which grandparents care for their grandchildren.   |
| 3      | Finding that policymakers and practitioners should aim opioid interventions at urban illicit drug users, particularly those under age 18.  |
| 4      | Minimum estimated value (in \$) of 4-H youth community service project work completed in 35 counties.  |
| 5      | Potential savings (in \$) if half of the participants in the Strong Women program avert a hospitalization for osteoporosis-related complications in their lifetime due to participation in this strength-training and nutrition program. |
| 6      | Estimated national value of yearly wages (in \$) of 1,000 youth per year certified for farm work under the National Safe Tractor and Machinery Operation Program.  |

## **Outcome #1**

### **1. Outcome Measures**

Designation of the Clearinghouse for Military Family Readiness as a university-wide research center.

### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

| <b>Year</b> | <b>Actual</b> |
|-------------|---------------|
| 2014        | 1             |

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Military families face unique challenges and stressors, including prolonged separations, frequent relocations, and living with knowing that loved ones are in harm's way. Federal agencies want to help address these issues using evaluated programs - those known to be effective. The Clearinghouse for Military Family Readiness brings research in the science of prevention, intervention, dissemination, and evaluation to bear on issues facing military families.

#### **What has been done**

The clearinghouse, leveraged by federal appropriations, helps professionals who work with military families bring evidence-based approaches to the military context. It catalyzes new research to translate science from multiple disciplines into the development, implementation, dissemination, and evaluation of programs and practices that ameliorate military families' challenges. The clearinghouse also builds public awareness, evaluates programs, creates curricula, and recruits and develops a new generation of applied researchers.

#### **Results**

Designation of the clearinghouse as a Penn State research center increases its visibility, scope, and impact. The clearinghouse is a web-based resource for professionals at bases around the world assisting military families. There, providers can find programs to support military families and assessments of the evidence behind those programs. The clearinghouse acts as a "consumer report" by presenting information in reviews on the website. This allows providers to make informed decisions based on their needs. Staff also set up applied research opportunities, and conduct assessments, evaluations, and rapid research literature reviews on specific topics. Issues may include parenting, substance abuse and prevention and intervention, suicide

prevention, obesity prevention, and social-emotional learning or skill development programs at the elementary-school age.

#### 4. Associated Knowledge Areas

| <b>KA Code</b> | <b>Knowledge Area</b>                              |
|----------------|--|
| 703            | Nutrition Education and Behavior                   |
| 724            | Healthy Lifestyle                                  |
| 801            | Individual and Family Resource Management          |
| 802            | Human Development and Family Well-Being            |
| 805            | Community Institutions and Social Services         |
| 806            | Youth Development                                  |
| 901            | Program and Project Design, and Statistics         |
| 903            | Communication, Education, and Information Delivery |

#### Outcome #2

##### 1. Outcome Measures

Identification of a system of services, programs, collaborations, and advocacy to help meet the challenges facing families in which grandparents care for their grandchildren.

##### 2. Associated Institution Types

- 1862 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

| <b>Year</b> | <b>Actual</b> |
|-------------|---------------|
| 2014        | 1             |

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

About 5.2 million U.S. children are being raised by their grandparents (about 7% of the total). These families face emotional, legal, health, and daily living challenges. Many of these families lack adequate resources for this care, especially in rural areas (about 25% of these families), where housing, transportation, child care, and health care can be more difficult to arrange than in urban areas.

###### **What has been done**

The researchers conducted a literature review and outlined various programs, services, and practices that could help meet the challenges these families face. The strategies are meant to help these families and the professionals who support them. The strategies seek to help establish collaboration among social service agencies, identify gaps in services, and advocate for helpful services and policies. An online database helps these families in PA find resources and services they need.

### **Results**

The researchers identified various helpful strategies, including support groups, family-to-family matching, training for service providers, kinship family retreats, "Kinship Navigator" programs that give caregivers a single point of entry into the social services system, interagency collaboration, advocacy initiatives, and respite care. The researchers advocate that these strategies be used in concert to strengthen family relationships and encourage individual agencies to be more responsive and work more collaboratively for the needs of these families. They advocate for the use of evidence-based approaches to better these families' lives. This work was summarized in the Journal of Intergenerational Relationships.

### **4. Associated Knowledge Areas**

| <b>KA Code</b> | <b>Knowledge Area</b>  |
|----------------|--|
| 801            | Individual and Family Resource Management  |
| 802            | Human Development and Family Well-Being  |
| 803            | Sociological and Technological Change Affecting Individuals, Families, and Communities |
| 805            | Community Institutions and Social Services   |
| 806            | Youth Development  |

### **Outcome #3**

#### **1. Outcome Measures**

Finding that policymakers and practitioners should aim opioid interventions at urban illicit drug users, particularly those under age 18.

#### **2. Associated Institution Types**

- 1862 Research

#### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

#### **3b. Quantitative Outcome**

| <b>Year</b> | <b>Actual</b> |
|-------------|---------------|
| 2014        | 1             |

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

In the United States, prescription opioid misuse (POM) has increased dramatically over the past two decades. However, there are still questions regarding whether rural/urban differences in adult POM exist, and more important, which factors might be driving these differences.

#### What has been done

Using data from the 2011 and 2012 National Survey on Drug Use and Health, researchers conducted unadjusted and adjusted binary logistic regression analyses to determine the association between metropolitan status and POM.

#### Results

The study showed that urban adults were more likely to engage in POM compared to rural adults because of their higher use of other substances, including alcohol, cannabis, and other illicit and prescription drugs, and because of their greater use of these substances as children. This study fills an important gap in the literature by not only identifying urban/rural differences in POM, but by also pointing out factors that mediate those differences. Because patterns and predictors of POM can be unique to a geographic region, this research is critical to informing tailored interventions and drug policy decisions. Specifically, these findings suggest that interventions should be aimed at urban illicit drug users and adults in manual labor occupations.

### 4. Associated Knowledge Areas

| KA Code | Knowledge Area                             |
|---------|--|
| 723     | Hazards to Human Health and Safety         |
| 724     | Healthy Lifestyle                          |
| 805     | Community Institutions and Social Services |

### Outcome #4

#### 1. Outcome Measures

Minimum estimated value (in \$) of 4-H youth community service project work completed in 35 counties.

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Condition Outcome Measure

#### 3b. Quantitative Outcome

| Year | Actual |
|------|--------|
|------|--------|

2014

201646

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

The Positive Youth Development program educates youth about, among other things, leadership skills, citizenship, and public issues in their community and across the state. Youth need to learn how to work with others; be responsible; build self-confidence; develop communication skills; exhibit sportsmanship; and learn planning, problem-solving, teaching, and decision-making skills. 4-H Citizenship Service projects are done in many 4-H clubs, no matter the club's main focus (e.g., equestrian).

#### What has been done

More than 467 community service projects were conducted last year. Typical projects include improving a public place by painting or grounds work, picking up litter, collecting food for a food bank, collecting items for the military or a nursing home, collecting items for an animal shelter or volunteering at an animal shelter, volunteering at a nursing home, reading to children, collecting clothes for or serving at a local shelter, and collecting emergency supplies for storm or disaster victims.

#### Results

4-H adult leaders and youth volunteered 4,560 hours to community service projects. Using the value of volunteer time in Pennsylvania (\$21.94) from independentsector.org, this comes to \$100,046. Each project leader estimated the value of in-kind donations. More than 14,000 pounds of food and produce were donated, which we assume to have a value of \$1 per pound. The total estimated value of the community service projects was \$201,646. The value of 4-H Citizenship Service projects in Pennsylvania is probably much higher because only 52% of counties submitted data about projects. Through service to their communities, youth build life skills, take pride in their community, and make connections and gain experience that may help them as they seek employment in the future.

### 4. Associated Knowledge Areas

| KA Code | Knowledge Area                             |
|---------|--|
| 801     | Individual and Family Resource Management  |
| 802     | Human Development and Family Well-Being    |
| 805     | Community Institutions and Social Services |
| 806     | Youth Development                          |

### Outcome #5

#### 1. Outcome Measures

Potential savings (in \$) if half of the participants in the Strong Women program avert a hospitalization for osteoporosis-related complications in their lifetime due to participation in this strength-training and nutrition program.

## 2. Associated Institution Types

- 1862 Extension
- 1862 Research

### 3a. Outcome Type:

Change in Condition Outcome Measure

### 3b. Quantitative Outcome

| Year | Actual   |
|------|----------|
| 2014 | 24804000 |

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Aging is commonly associated with decline in physiological and functional ability of adults, which can cause them to be susceptible to falls, fractures, and chronic diseases such as osteoporosis, arthritis, and type 2 diabetes. But if older adults regularly participate in a program of strength training, it can improve muscle mass and increase bone mineral density and body strength, while reducing chronic diseases, fractures, and mortality.

#### What has been done

The StrongWomen Program is an evidence-based, nationally disseminated group strength-training and nutrition program for women and men. The program translates research-based, strength-training exercise and nutrition requirements into a detailed and easy-to-follow curriculum for use in community settings. The program is being expanded to rural communities through a USDA grant.

#### Results

In 2013-2014, bone density test scores for 639 participants continuing in the program for more than one session stayed the same for 32% and increased for 22%. Maintaining or even increasing test scores is important for overall health in preventing falls, fractures, and osteoporosis as people age.

The Pennsylvania Health Care Cost Containment Council reports that the average cost of a hospitalization for osteoporosis is \$18,000. Using current projections, half of the 2,756 participants would be expected to suffer a fracture related to osteoporosis in their lifetime had they not started a strength-training regimen. At \$18,000 per hospitalization, more than \$24.8 million in health care costs could potentially be saved through strength training and nutrition for 1,378 of these participants.

Participants also report increasing or maintaining independence as a result of participation, so costs related to deferred long-term care would also be significant.

#### 4. Associated Knowledge Areas

| KA Code | Knowledge Area                                     |
|---------|--|
| 703     | Nutrition Education and Behavior                   |
| 802     | Human Development and Family Well-Being            |
| 805     | Community Institutions and Social Services         |
| 903     | Communication, Education, and Information Delivery |

#### Outcome #6

##### 1. Outcome Measures

Estimated national value of yearly wages (in \$) of 1,000 youth per year certified for farm work under the National Safe Tractor and Machinery Operation Program.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

| Year | Actual |
|------|--------|
| 2014 | 600000 |

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Since 1969, the U.S. Department of Labor has declared many agricultural tasks to be hazardous to youth younger than 16. With certain exemptions, employment of youth under 16 for tasks that require operation of a tractor and machinery is illegal unless the youth are certified. By successfully completing this certification program, 14- and 15-year-old youth may be legally employed.

###### **What has been done**

The National Safe Tractor and Machinery Operation Program (NSTMOP) is a 24-hour training that can be conducted in a traditional classroom setting, through independent study, or as a combination of the two. Training is designed to consistently cover core content areas, including safety basics, agricultural hazards, tractors, connecting and using implements with tractors, and materials handling. Youth are certified if they pass a written exam and skills and driving tests.

###### **Results**

The NSTMOP through Penn State currently has 300 current instructors across the country. Approximately 1,000 youth completed the program in the last year to receive their U.S.

Department of Labor certificate. With the program, youth can begin to hold a part-time job up to 2 years before they normally could. Being able to employ youth might make the difference in whether some farms remain financially sustainable. Youth may be more willing to work on farms than older people are, so they can provide a vital source of labor.

If we assume that 1,000 youth are certified each year, and they each earn \$10/hour and work 10 hours/week for 6 months/year, the value of their wages is \$600,000 nationally.

#### 4. Associated Knowledge Areas

| KA Code | Knowledge Area  |
|---------|---|
| 401     | Structures, Facilities, and General Purpose Farm Supplies |
| 806     | Youth Development   |
| 903     | Communication, Education, and Information Delivery        |

#### V(H). Planned Program (External Factors)

##### External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (Extramural Funding)

##### Brief Explanation

###### Natural Disasters

- Adverse weather factors continued to influence clientele participation.

###### Economy

- The economic climate continues to have a significant impact on the ability of clientele to attend meetings and conferences.
- Funding is limited to conduct agricultural safety and health trainings.
- A tight economy leaves limited personal and programmatic funds to offer leader training and/or provide travel and registration support for volunteers to participate in training opportunities.
- Fixed fee structures for the Strong Women program are sometimes too high for participants. Some counties are provided scholarships, reduced fees for returning participants, and alternative payment models.
- The 4-H Science team had difficulty in recruiting high quality staff to deliver targeted science programs, thereby decreasing the reach and efficiency of the programmatic efforts.

###### Competing Public Priorities

- Competing public priorities force us to continually align our program priorities with budget realities.
- Most staff members are stretched very thin due to multiple needs from phone calls, emails, programming, and various producer or industry groups. The small staff is working to prioritize issues and address the most pressing ones.
- Local YMCAs, community centers, and senior centers offer a program similar to the Strong Women program for free in some communities.

### **Programmatic challenges**

- Programmatic challenges that impacted program delivery in the Better Kid Care program at the county level include delayed contract processing and statewide learning management system changes that reduced the number of approved instructors available to extension.
- The availability of volunteers can be a limiting factor.

### **Population Changes**

- The number of native Spanish speakers is on the rise. Our programs must adapt to be relevant to that audience.

### **Other - Extramural Funding**

- Some of our programs are affected by extramural funding, either by adding resources to promote them or by shaping the content of the product.
- Extramural funding has allowed some teams to conduct practical applied research projects that include integrated extension/educational components.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

The generation of outcomes from existing programs and the development of new programs require improved evaluation that identifies pre- and post- responses to information and monitoring for long-term behavioral changes that result in improved outcomes. More statewide extension programs are using retrospective evaluation to gather information about the number of participants who actually put into practice lessons learned through extension programs. Measuring costs averted or profit increased can show powerful, tangible benefits of our programming--the type of feedback that keeps people coming back for more information. Customer satisfaction and needs assessment instruments (Salesforce and Atlas) are scheduled to be implemented in fall 2015 to provide feedback on the quality and value of our programs.

### **Key Items of Evaluation**

See highlights of state-defined outcomes in this planned program.