V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Childhood Obesity

☑ 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
201	Plant Genome, Genetics, and Genetic Mechanisms	10%		10%	
502	New and Improved Food Products	10%		10%	
607	Consumer Economics	10%		10%	
610	Domestic Policy Analysis	5%		5%	
701	Nutrient Composition of Food	5%		5%	
702	Requirements and Function of Nutrients and Other Food Components	10%		10%	
703	Nutrition Education and Behavior	20%		20%	
806	Youth Development	30%		30%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.6	0.0	11.5	0.0
Actual Paid Professional	0.7	0.0	8.4	0.0
Actual Volunteer	0.0	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**
639513	0	296095	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
1359954	0	1603680	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
222118	0	796403	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct research
- Conduct educational workshops, seminars, short courses, conferences
- Partner with other agencies intereseted in childhood obesity
- Work with the media
- Develop curricula, publications, web sites, distance education materials

- Publish research and Extension articles

2. Brief description of the target audience

- Parents
- Youth
- Children
- Consumers
- Day Care Providers
- Healthcare Providers
- State and county health departments
- Professional organizations

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	755	4006	3731	2161

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

Patent Applications Submitted

Year:	2012
Actual:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	0	37	37

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Extension publications written, new or revised

Year	Actual
2012	14

Output #2

Output Measure

- Number of research publications

Year	Actual
2012	37

Output #3

Output Measure

- Number of research projects
  Not reporting on this Output for this Annual Report

Output #4

Output Measure

- Number of consultations

Year	Actual
2012	105

Output #5

Output Measure

- Number of educational workshops or seminars conducted

Year	Actual
2012	207

Output #6

Output Measure

- Number of volunteers
  Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of persons who adopt one or more practices to improve food choices
2	Number of participants who have increased their knowledge of how to raise healthy eaters
3	Number of persons who increased their knowledge of selection and preparation of foods with reduced fat and/or calories
4	Number of persons who increased knowledge of USDA serving sizes
5	Number of participants consuming appropriate serving sizes
6	Number of participants demonstrating ability to choose or prepare foods with reduced fat and/or calories
7	Number of youth who increased knowledge of the importance of physical activity
8	Number of participants who adopt increased physcial activity levels
9	Number of participants who increased their knowledge of the connection between food choices and risk of chronic disease
10	Number of participants who increased their knowledge of the relationship between nutrition and health
11	Number of participants who adopt one or more practices to improve food choices and activity levels
12	New tools, technologies, research programs or knowledge that can or has the potential to impact childhood obesity.

Outcome #1

1. **Outcome Measures**

Number of persons who adopt one or more practices to improve food choices

Not Reporting on this Outcome Measure

Outcome #2

1. **Outcome Measures**

Number of participants who have increased their knowledge of how to raise healthy eaters

Not Reporting on this Outcome Measure

Outcome #3

1. **Outcome Measures**

Number of persons who increased their knowledge of selection and preparation of foods with reduced fat and/or calories

Not Reporting on this Outcome Measure

Outcome #4

1. **Outcome Measures**

Number of persons who increased knowledge of USDA serving sizes

Not Reporting on this Outcome Measure

Outcome #5

1. **Outcome Measures**

Number of participants consuming appropriate serving sizes

Not Reporting on this Outcome Measure

Outcome #6

1. **Outcome Measures**

   Number of participants demonstrating ability to choose or prepare foods with reduced fat and/or calories

   Not Reporting on this Outcome Measure

Outcome #7

1. **Outcome Measures**

   Number of youth who increased knowledge of the importance of physical activity

   Not Reporting on this Outcome Measure

Outcome #8

1. **Outcome Measures**

   Number of participants who adopt increased physcial activity levels

   Not Reporting on this Outcome Measure

Outcome #9

1. **Outcome Measures**

   Number of participants who increased their knowledge of the connection between food choices and risk of chronic disease

   Not Reporting on this Outcome Measure

Outcome #10

1. **Outcome Measures**

   Number of participants who increased their knowledge of the relationship between nutrition and health

   Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Number of participants who adopt one or more practices to improve food choices and activity levels

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Youth establish lifelong food, nutrition and physical activity habits during early years. Well-nourished children are more likely to perform better in school and have more energy to stay alert and engage in learning. Skills and knowledge children learn at a young age help guide their food choices into adulthood. Establishing healthy eating patterns early is important in preventing chronic disease.

What has been done
Extension staff taught and provided evaluation data for Exploring with Professor Popcorn program in 63 Indiana counties. 27,188 youth in 1066 groups were taught the curriculum: 10,735 youth in 429 groups in grades 1-2; 13576 youth in 523 groups in Grades 3-4; and, 2877 youth in 114 groups in grades 5-6. Major curriculum concepts - healthy eating, physical activity and food safety have been linked to Indiana health and science education standards. Lessons provide nutrition and health information, an opportunity to practice new skills, and emphasize good health is about food and physical activity choices made daily.

Results
13,576 youth in grades 3-4 reported these behavior changes: 80% practiced one or more healthy food selection habits, a 12% increase; and 91% practiced healthy physical activity habits, a 6% increase. 2,877 youth in grades 5-6 reported these behavior changes: 80% practiced one or more healthy food selection habits at least most days of the week, a 12% improvement; 92% practiced healthy physical activity habits, at least most days of the week, a 7% increase. 10,735 youth in grades 1-2 reported these knowledge changes: 96% knew one or more nutrition, food choices and/or food preparation facts, a 20% improvement; and 95% knew safe food handling, a 7% increase.

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
806	Youth Development

Outcome #12

1. Outcome Measures

New tools, technologies, research programs or knowledge that can or has the potential to impact childhood obesity.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Overweight teens are at risk for bone fracture because they usually have low bone mineral content for weight. Calcium is the dominant mineral in bone and the mineral most likely to contribute to increased bone strength. Therefore, it is critical to investigate the potential retention of calcium in this population compared to normal weight teens with increased intakes of calcium.

What has been done
Purdue has published an analysis of the combined data from our controlled calcium studies with approximately 300 teen boys and girls. In comparison to normal weight teens, those with higher body weight exhibited increased calcium retention, especially at higher calcium intakes. Additional data indicated that an increase in calcium intake from dairy or calcium supplements had no effect on weight gain or weight loss in the overweight population.

Results
The data was incorporated by the Institute of Medicine (IOM) into its calcium recommendations for teens. If overweight and obese teens will increase their calcium intake from an average of 800 mg/day to 1300 mg/day--the equivalent of 4.5 cups of milk per day--they could increase their bone mineral content to be equivalent to what is predicted for their body weight and possibly reduce the risk of bone fracture.

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

- Outcome 11 - pre posttest knowledge, behaviors - children in grades 1-6 eating and physical activity
- Outcome 12 - controlled study - calcium intake in teens

Key Items of Evaluation

- Outcome 11 - increased healthy food selection habits, increased healthy physical activity habits, increased food choices and/or food preparation knowledge, increased safe food handling knowledge
- Outcome 12 - obese teens who increase calcium intake from 800 to 1300 mg/day could increase their bone mineral content and reduce risk of bone fracture