

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

**Program # 6**

**1. Name of the Planned Program**

Human, Family, and Community Health and Well-being

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
608	Community Resource Planning and Development	12%		12%	
701	Nutrient Composition of Food	5%		5%	
702	Requirements and Function of Nutrients and Other Food Components	10%		10%	
703	Nutrition Education and Behavior	10%		10%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	5%		5%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	10%		10%	
721	Insects and Other Pests Affecting Humans	3%		3%	
723	Hazards to Human Health and Safety	3%		3%	
801	Individual and Family Resource Management	12%		12%	
802	Human Development and Family Well-Being	12%		12%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%		10%	
805	Community Institutions, Health, and Social Services	3%		3%	
806	Youth Development	5%		5%	
	<b>Total</b>	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	0.4	0.0	10.3	0.0

Actual Paid Professional	22.9	0.0	35.4	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
1587383	0	935203	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
2319102	0	3528506	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
386990	0	1033977	0

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

**1. Brief description of the Activity**

Research-based programs will focus on conducting research and programs emphasizing our key interest areas including:

- effects of diet and nutrition on human health,
- beneficial effects of nutrition, functional foods and biomedical research,
- nutritional impact on chronic diseases including diabetes, heart disease, and obesity.

A wide variety of programs will be delivered to our targeted audiences. Some programs will include a complete development of curriculum, while others will involve the use of readily available programs used in other states and/or available for purchase through different organizations. Our output effort will include:

- partnering with important stakeholders,
- developing workshop materials and curricula
- conducting workshops
- developing web-based and distance education materials
- working with the media

We expect to increase our offerings through distance education and/or web-based materials. Most programs involve some type of collaboration or partnerships with our stakeholders, with industry, with consumers, or with regulatory agencies. Evaluation tools vary greatly depending on the intended audience and program type ranging from surveys, to pre-and post test, to national certification exams, and intensive follow up surveys to better assess knowledge gain.

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

There are a wide variety of intended audiences including:

- Animal production personnel
- Plant production personnel
- Food manufacturing and processing plant personnel
- The transportation industry
- Foodservice and food retail workers
- Consumers

- Healthcare providers
- Day care providers
- Nursing homes
- Youth
- State and county health departments
- Federal regulatory officials
- State industry associations
- First Responders

**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
<b>Actual</b>	249084	2409209	672792	102217

**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
<b>Actual</b>	0	608	608

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

**Output Target**

**Output #1**

**Output Measure**

- Number of nutrition related programs offered to consumers

**Year                      Actual**

2012 7956

**Output #2**

**Output Measure**

- Number of programs offered to the food industry

<b>Year</b>	<b>Actual</b>
2012	134

**Output #3**

**Output Measure**

- Number of research projects on human nutrition and health

<b>Year</b>	<b>Actual</b>
2012	55

**Output #4**

**Output Measure**

- Number of nutrition related research publications

<b>Year</b>	<b>Actual</b>
2012	608

**Output #5**

**Output Measure**

- Number of nutrition programs offered to foodservice staff

<b>Year</b>	<b>Actual</b>
2012	30

**Output #6**

**Output Measure**

- Number of community health coalition events

<b>Year</b>	<b>Actual</b>
2012	222

**Output #7**

**Output Measure**

- Number of volunteers

<b>Year</b>	<b>Actual</b>
2012	1877

**Output #8**

**Output Measure**

- Number of Extension publications written, new or revised

<b>Year</b>	<b>Actual</b>
2012	3662

**Output #9**

**Output Measure**

- Number of youth volunteer development opportunities

<b>Year</b>	<b>Actual</b>
2012	1495

**Output #10**

**Output Measure**

- Number of youth related volunteer hours

<b>Year</b>	<b>Actual</b>
2012	5673

**Output #11**

**Output Measure**

- Number of youth involved in focused community collaboration

<b>Year</b>	<b>Actual</b>
2012	14341

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

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

O. No.	OUTCOME NAME
1	Number of persons who increased their knowledge of the connection between food choices and risk of chronic disease.
2	Number of persons who increased their knowledge of selection and preparation of foods with reduced fat and/or calories
3	Number of persons who increased knowledge of USDA serving sizes
4	Number of participants consuming appropriate serving sizes
5	Number of participants demonstrating ability to choose or prepare foods with reduced fat and/or calories
6	Number of participants with decreased risk factors for chronic disease (including diabetes, heart disease, obesity)
7	Number of participants with decreased chronic disease complications (including diabetes, heart disease, obesity)
8	Number of persons who increase knowledge of the relationship between nutrition and health
9	Number of persons who increased their knowledge of physical activity recommendations
10	Number of persons who adopt one or more practices to improve food choices and activity levels
11	Number of participants that report reduced medical costs because of changes in food choices and activity levels
12	Number of participants who increased knowledge of healthy food choices
13	New technology developed or under development that can alter human health.
14	Number of participants reporting decreased debt
15	Number of youth who increased knowledge of good character traits, goal setting, team work, communication techniques, decision making, and handling conflict
16	Number of 4-H youth who indicate they possess the skills to practice good character, to plan and organize community service activities, and have the skills to be actively engaged in local, state, and national issues
17	Number of youth involved in community service activities

18	Dollar value of grants obtained as a result of participation in grant writing program
19	An impact on human health resulting from new knowledge about nutrition & wellness, chronic diseases, and/or environmental factors

**Outcome #1**

**1. Outcome Measures**

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

Not Reporting on this Outcome Measure

**Outcome #2**

**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 #3**

**1. Outcome Measures**

Number of persons who increased knowledge of USDA serving sizes

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Number of participants consuming appropriate serving sizes

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

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

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	5382

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

**Issue (Who cares and Why)**

Diabetes adversely impacts lives of almost 700,000 adults in Indiana. In 2007, diabetes was the 7th leading cause of death in Indiana. Annual healthcare costs incurred by the State for diabetes was \$4 billion. In 2009, 9.3% of adults reported they had been diagnosed with diabetes, plus another 3% estimated with undiagnosed diabetes. Modifiable risk factors associated with diabetes include obesity, physical inactivity, and dietary habits.

**What has been done**

34 Purdue Extension educators, with assistance from healthcare professionals, presented Dining with Diabetes 52 times in 31 counties to teach diabetes prevention and help diabetics lessen long-term complications. During 4 two-hour sessions and a follow-up, Extension educators demonstrated how to prepare healthier options for main dishes, side dishes, beverages, snacks, and desserts, which participants were able to sample.

**Results**

552 people attended, 331 completed a pre and post evaluation, and 87 completed a follow up evaluation. 88% were age 51 and older. 14% were pre-diabetic, 59% diabetic, and 27% were not diabetic but prepared meals for a diabetic or interested in learning. On pre- and post-tests, there was significant improvement in knowledge responses on reading food labels, importance of fiber in the diet, difference between types of fat, and importance of exercise; in behavior related to exercise, eating fruits and vegetables, dairy intake, and using the Idaho Plate Method for Diabetes for planning meals, in practicing healthful cooking and food preparation. Participants completing follow up were able to maintain or improve their dietary changes.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
702	Requirements and Function of Nutrients and Other Food Components



**Outcome #6**

**1. Outcome Measures**

Number of participants with decreased risk factors for chronic disease (including diabetes, heart disease, obesity)

Not Reporting on this Outcome Measure

**Outcome #7**

**1. Outcome Measures**

Number of participants with decreased chronic disease complications (including diabetes, heart disease, obesity)

Not Reporting on this Outcome Measure

**Outcome #8**

**1. Outcome Measures**

Number of persons who increase knowledge of the relationship between nutrition and health

Not Reporting on this Outcome Measure

**Outcome #9**

**1. Outcome Measures**

Number of persons who increased their knowledge of physical activity recommendations

Not Reporting on this Outcome Measure

**Outcome #10**

**1. Outcome Measures**

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

Not Reporting on this Outcome Measure

## **Outcome #11**

### **1. Outcome Measures**

Number of participants that report reduced medical costs because of changes in food choices and activity levels

Not Reporting on this Outcome Measure

## **Outcome #12**

### **1. Outcome Measures**

Number of participants who increased knowledge of healthy food choices

### **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>
2012	0

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

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

According to the US Bureau of Labor Statistics, 8.2% of Hoosiers were unemployed in September 2012, with individual counties as high as 9%. In 2010 Statistics Indiana reported Indiana ranked 22nd in the nation with 15.31% living in poverty. Indiana Family and Social Service Administration, as of October 2012, 923,253 individuals in Indiana received food assistance (SNAP). Indiana has seen an increase in poverty and joblessness.

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

Family Nutrition Program is partnership with Purdue Extension, Indiana Family Social Service Administration and USDA to provide education to low-income participants on food safety, diet quality, and economizing food dollars to help bring about nutrition related lifestyle changes and reduce food security. FNP goal is to improve the likelihood of SNAP eligible individuals making healthy food choices within a limited budget. In 2012, Purdue Extension requested \$4,949,271 and received federal funds of \$5,050,203 to fund the program.

#### **Results**

Impact of FNP is maximized through its partnerships in education with community agencies and organizations such as the Division of Family Resources, schools, learning center, libraries, WIC, health departments, senior center, congregate meal sites, shelters and crisis centers. In 2012, the program was provided in 91 Indiana counties. 231,614 clients were reached with direct education and an additional 105,228 clients were reached through indirect contact. 27,797 participants completed short-term evaluations and 568 completed the medium term evaluation. Pre- and post-tests were completed and showed statistically significant improvement for all 14 education lessons.

#### 4. Associated Knowledge Areas

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

#### Outcome #13

##### 1. Outcome Measures

New technology developed or under development that can alter human health.

##### 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)**

Successful islet transplantation could dramatically impact the lives of individuals living with type 1 diabetes by eliminating the need for life-long insulin administration, improving quality of life, decreasing risk of hyper/hypoglycemic events, and reducing the risk of long term chronic complications. Islets are made up of several types of cells that produce insulin in the pancreas. Diabetes develops when the pancreas isn't able to produce enough insulin or can't use the insulin that is produced. Some researchers are experimenting with islet transplantation as a therapy to replace insulin injections but like any type of transplant, the body doesn't always accept foreign cells and the body's own islets often get killed off by the immune system.

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

Purdue researchers have developed a unique method whereby the islets can grow their own

protective, bio-compatible shell to protect themselves when the body's immune system attacks the transplanted cells, allowing the cells to continue to produce insulin.

#### **Results**

We will begin pre-clinical small animal trials in April 2013 and expect to begin to move to a sustainable human stem cell based cell source by Fall 2013. As we optimize the materials we are beginning to collect data supporting an ability of the materials to protect cells from immune insults.

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

<b>KA Code</b>	<b>Knowledge Area</b>
723	Hazards to Human Health and Safety

#### **Outcome #14**

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

Number of participants reporting decreased debt

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

- 1862 Extension

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

Change in Condition Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2012	86

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

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

Consumers without knowledge of stock market swings or investment experience tend to lose money in such markets due to unfounded, emotional decision-making. However, with the right strategy and enough time to endure the ups and downs of the financial markets, savings in the form of equities still provide better return on investment than simply putting money away in a savings account. However, before consumers enter the volatile world of stock market investing, it is best to have a sufficient amount of money saved for emergencies. In order to save enough income to cover expenses for up to six months of potential unemployment (for example), it is imperative that they understand and obtain control over their own spending behaviors.

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

Where Does Your Money Go contains built-in, educator-friendly replication and can be taught on several topics: Current Spending; Wants and Needs; Spending and Savings Plans; Spending Leaks; Extra Expenses; and Tracking Expenses. Single session evaluation and 12-week Follow-up evaluation data were collected on: Reduction, Spending Plans, Tracking Expense, Debt

Reduction, and Money Management. Participants were asked to complete either evaluation. An impact survey was sent three months following the final session.

**Results**

471 participants in 8 counties completed single session evaluations. 66.02% indicated they found resource materials useful, 72.94% discovered ideas they could use immediately. Participants learned difference between needs and wants (53.96%), what their leaks are (76.28%), how to develop spending-saving plans (81.74%), and how to track expenses using envelope method (85.03%). 90% would think differently about their spending. Most preferred techniques were Tracking Expenses (77.16%) and Reducing Spending Leaks (74.41%). For follow-up, 20 participants from St. Joseph county enrolled. 57.14% reduced spending leaks (average \$59.66/week), reduced spending by tracking expenses (50%) and spending on needs before wants (64.7%). 62.5% developed spending/saving plans, average spending reduction was \$317.69, average debt reduction was \$1002.65. 93.33% managed their money better.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
801	Individual and Family Resource Management

**Outcome #15**

**1. Outcome Measures**

Number of youth who increased knowledge of good character traits, goal setting, team work, communication techniques, decision making, and handling conflict

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	0

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

**Issue (Who cares and Why)**

During the pre-teen/early teen years, youth face many issues including peer pressure, assuming responsibility for their own actions and assuming leadership roles.

**What has been done**

Programs have been developed to offer youth the opportunity to explore relationships with others and develop skills to assume leadership roles in club and organizational settings. 4 H Jr. Leader Programs that have as a primary target those youth enrolled in grades 8-12 have been designed

to specifically target this age group and offer programs and experiences to build important interpersonal skills.

**Results**

5,249 Indiana youth enrolled and participated in their local Jr. Leader program and activities. 42,221 youth indicated when surveyed that after concluding participation in specific 4-H educational programs they had increased their knowledge of good character traits, goal setting, teamwork, communication techniques, decision making, and handling conflict.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #16**

**1. Outcome Measures**

Number of 4-H youth who indicate they possess the skills to practice good character, to plan and organize community service activities, and have the skills to be actively engaged in local, state, and national issues

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	0

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

**Issue (Who cares and Why)**

Youth who develop decision making skills and positive personal character are more likely to cooperate and work well with others. Learning through team building skills allows youth to begin to recognize and identify needs, concerns and interests of others resulting in success when dealing with others.

**What has been done**

Programs were conducted in fifth grade classrooms to help students develop skills that prevent antisocial and high risk behaviors. Students are provided with experiences that help them to clarify their roles as citizens, develop decision making skills, interact with positive role models and explore ideas on issues that are relevant to their lives.

**Results**

2,444 participant evaluations using the Scale of Juvenile Legal Attitudes (pre post test) show that after the program, youth have a better attitude toward laws, law enforcement, the judicial system, and the idea that they must take personal responsibility to abide by laws and report unlawful acts. Additionally, classroom teachers report a positive change in general student attitude after completion.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

#### Outcome #17

##### 1. Outcome Measures

Number of youth involved in community service activities

##### 2. Associated Institution Types

- 1862 Extension

##### 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)**

Learning how to contribute to society to make life better for oneself and others is a valuable life skill. Youth who volunteer are 50% less likely to abuse drugs, alcohol, cigarettes, or engage in destructive behavior (Search Institute, 1995). Youth who volunteer are also more likely to do well in school, graduate, vote, and be philanthropic (UCLA/Higher Education Research Institute, 1991).

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

Indiana 4 H Youth are encouraged to become involved in community by learning to give back to others through community service activities. Activities range from supporting the Operation Military Kids Program by assembling and distributing Hero packs to the children of recently deployed National Guard and Army Reserve units, to conducting events in health care facilities, collecting canned goods for food pantries, providing assistance to community shelters, community beautification and recycling.

###### **Results**

Participating teens' presence and involvement in their local communities provides both service and encouragement to individuals who sometimes have difficulty fulfilling basic needs. Teens reported an increased awareness of the level of need in the local community as well as options for serving others. They also indicated they are able to "put a face on poverty" and developed a sense of pride in giving to others. 13,862 youth were directly involved in community service activities.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

#### Outcome #18

##### 1. Outcome Measures

Dollar value of grants obtained as a result of participation in grant writing program

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2012	8000000

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

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

Difficult economic times make for challenges in community development. Securing funds to support community programs and services, improve businesses, schools and community agencies, and address community vitality are crucial to meeting the needs of Indiana residents and communities.

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

Statewide effort, Beginner's Guide to Grant Writing Program, paired Extension specialists with educators to deliver 16-hour distance learning program. Educators completed training on program delivery and content. Specialists provided curriculum materials and administered training including Continuing Education Credits for Indiana Certified Teachers, Indiana Public Accountants, Indiana Social Workers, and Law Enforcement. Educators marketed programs locally, assisted with delivery, and provided follow-up services to participants. Community participants represented non-profit organizations and government agencies, learned how to develop ideas for winning grant proposals, identify and work with funding sources, develop, submit and review proposals. They completed a full proposal and received feedback from



professional grant writers.

### **Results**

Participants reported over \$8.0 million in funded proposals. Grants supported building renovations, infrastructure development, school-based programs and equipment, small business funding, environmental protection projects, health and human resource projects, programs to enhance computer and health education projects, youth programs, and general operating dollars supporting organization growth and sustainability. Participants reported they felt more confident in their grant writing skills, understood how to develop a project idea into a proposal, and knew where to find information for available funding.

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

<b>KA Code</b>	<b>Knowledge Area</b>
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

### **Outcome #19**

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

An impact on human health resulting from new knowledge about nutrition & wellness, chronic diseases, and/or environmental factors

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2012	0

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

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

Since 2005, health coalitions, often referred to as Healthy People, Healthy Community coalitions, have included Extension educators as partners to identify and address local health issues and connect the expertise and resources of Purdue to the community.

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

Since 2008, Purdue Extension has been a partner with Community Health Engagement Program of Indiana Clinical Translational and Sciences Institute (CTSI/CHEP), Indiana State Department of Health, local health departments and health care systems to identify community priorities and

connect to researchers at Purdue, Indiana University School of Medicine, University of Notre Dame, IUPUI and Indiana University-Bloomington to communities. In 2011, there were 54 health coalitions. An Issue Based action Team (IBAT) was created to build capacity of these coalitions to create action plans and address health needs. In July 2012, a survey was conducted to determine status of health coalitions across the state.

### **Results**

Results showed: in 2007-2008, 45 of 92 counties in Indiana had developed and/or were implementing goals. By 2012, number of coalitions had grown to 60, with 48 coalitions having developed and/or implemented goals. With continued support, our goal for 2017 (based on a survey of counties) is to have 76 coalitions, 73-76 coalitions actively implementing goals, and 35 coalitions to have implemented interventions and conducted assessments of effectiveness.

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
805	Community Institutions, Health, and Social Services

### **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.)
- Other (State and National priorities)

#### **Brief Explanation**

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

#### **Evaluation Results**

- Outcome 5 - pre posttests knowledge, behaviors; 6 month follow up - food selection and preparation for diabetes
  - Outcome 12 - pre posttests knowledge, short and medium term - food safety, diet quality and economizing food dollars for low income families
  - Outcome 13 - lab study - successful islet transplantation for insulin production in diabetes
  - Outcome 14 - posttests and 12 week follow up - spending, saving, debt reduction and money management strategies

- Outcome 15 - post-survey knowledge - youth in 4-H and 4-H Jr leadership programs
- Outcome 16 - pre posttest attitude - 5th graders attitudes about laws
- Outcome 17 - post-survey - 4-H youth taking part in community service
- Outcome 18 - posttest and follow up - beginning grant writing
- Outcome 19 - tracking trends - building health coalitions in Indiana counties

### **Key Items of Evaluation**

- Outcome 5 - improved knowledge of reading food labels, importance of fiber, difference between types of fat, importance of exercise; increased behavior related to exercise, eating fruits and vegetables, dairy intake and using Idaho Plate Method for diabetes for planning meals, practicing healthful cooking and food preparation; maintained or improved dietary changes in follow up
  - Outcome 12 - adults improved knowledge in all 14 education lessons related to nutrition related lifestyle changes
  - Outcome 13 - method whereby islets can grow their own protective, biocompatible shell to protect themselves when body's immune system attacks transplanted cells, allowing for insulin production; preclinical small animal trials and human stem cell based cell source in 2013
  - Outcome 14 - reduced spending leaks (average \$59.66/week), reduced spending (average \$317.59), reduced debt (average \$1002.62).
  - Outcome 15 - increased knowledge good character traits, goal setting, teamwork, communication techniques, decision making and handling conflict
  - Outcome 16 - improved attitude toward laws, law enforcement, judicial system and taking personal responsibility to abide by laws and report unlawful acts
  - Outcome 17 - increased awareness of level of need in community and options for serving others; developed sense of pride in giving to others
  - Outcome 18 - \$8 million in grants for communities
  - Outcome 19 - growth of health coalitions to 60 across state