

# 2009 University of Nevada Extension Annual Report of Accomplishments and Results

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## I. Report Overview

### 1. Executive Summary

All programs outlined in this annual report are being developed and implemented based on local or statewide formal and informal needs assessments. Additionally, specific efforts have been taken to address the needs of under served/under represented populations of the state, as well as activities/programs specific to the needs of these audiences. It should be noted that just about all Cooperative Extension programs in Nevada have some type of applied research component. Cooperative Extension faculty are expected to research needs, program impacts, and may use applied research projects as a teaching tool as well as to learn new information for use in programs. All Cooperative Extension faculty must have at least these minimum research components in their programs, and research is a major consideration in annual evaluations for both field faculty and campus based faculty (many of whom also have joint Nevada Agricultural Experiment Station appointments as well).

In FY08 Nevada had a 6% cut in state budget and a 8% cut in FY09 budget. For FY10 and FY11 a 17% reduction in state budget was mandated. A further cut for the FY10 (in addition to the 17% reduction) budget of 6.9% has just been announced. These budget reductions have resulted in the loss of several positions or positions being unfill and this has impacted resources for programming. It has impacted 2009 programming and will have a major impact on programming for FY10, FY11 and beyond.

With the current 6.9% budget reductions, the university is proposing to restructure the College of Agriculture within the College of Science. Two departments may be eliminated and three others relocated. While this doesn't directly impact Cooperative Extension, which is a separate college, some state specialists positions may be impacted as a result of elimination of departments.

#### Total Actual Amount of professional FTEs/SYs for this State

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	48.3	0.0	0.0	0.0
Actual	40.1	0.0	0.0	0.0

## II. Merit Review Process

### 1. The Merit Review Process that was Employed for this year

- Combined External and Internal University External Non-University Panel

### 2. Brief Explanation

As outlined in the plan of work, the merit review process is actually several review processes at different times. First, all Extension faculty are required to prepare a Role Statement detailing their plans and activities for the coming calendar year. They review this plan with their Area Director or Department Chair who ensures the quality and relevance of planned work efforts to the identified program goals. Both the Area Director and the Dean/Director sign off on the plan.

Second, Extension in Nevada uses a peer review process whereby Extension faculty provide evaluation and input on their peers concerning their program quality, its importance to stakeholders and relevance. In these peer reviews, the needs assessments are also examined as well as program impacts. These peer reviews are used by Area Directors and Department Chairs to not only evaluate faculty, but are also used in reviewing Role Statements and focusing faculty efforts in the future. These are also reviewed by the Dean/Director. At each of these steps, the Strategic Plan is used to evaluate program priorities and need.

Third, programs and their impacts are reviewed with the State Extension Advisory Committee to get their input and evaluation as well.

Fourth, all Extension publications and curriculum are peer reviewed from either internal experts, external experts or both. Not only does this produces better publications but provides some feedback on the

need or relevance to stakeholders of the topic.

Finally, those efforts organized as Western Coordinating Committee projects through the Western Regional Coordinating Implementation Committee (RCIC) are reviewed by RCIC (which is represented by both Extension and Research) for progress during the course of the project/program and at project termination. The reviews are documented and housed at the executive director's office in the western region. Additionally, those portions of programs which are part of the eXtension effort are reviewed in the eXtension selection process.

### III. Stakeholder Input

#### 1. Actions taken to seek stakeholder input that encouraged their participation

- Targeted invitation to traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey specifically with non-traditional groups

#### Brief explanation.

In 2000, UNCE established a statewide Advisory Committee that represents a diverse cross section of stakeholders from both rural and urban communities, including minorities. This Advisory Committee has met at least twice a year since 2001 and continues to review UNCE programs and provide suggestions on additional program opportunities. It provides broad guidance on UNCE programming and policies, serves as a sounding board for setting program priorities, and has helped obtain support for UNCE from key state and county elected officials. CARET representatives also serve as members of this UNCE Advisory Committee and regularly communicate with Nevada's Congressional delegation as well as USDA. These same CARET representatives also serve on the advisory committee for the College of Agriculture/Experiment Station.

Within their first year of being hired, UNCE funded faculty are expected to conduct a formal needs assessment in order to identify critical issues in their subject matter area. For County Extension Educators, a very broad, community based assessment is expected. For Area Specialists, a broad, issue based assessment is expected. State Extension Specialists are charged with compiling local needs assessments and adding statewide data and impacts. Indeed, one of the criteria for annual performance evaluation is effective assessment of need. Following their initial needs assessment, faculty are required to continually assess needs through contact with stakeholders and periodically conduct a needs assessment in as expected of newly hired faculty. Information on the community stakeholder meetings and some of the other statewide needs assessments can be found at: <http://www.unce.unr.edu/publications/assessments>. As a result of the above processes for stakeholder input, all of UNCE's major educational programs are based on one or more needs assessments. UNCE has also used this information in ongoing strategic planning for the future.

The data collected by UNCE in various community needs assessments is also shared with the Nevada Agricultural Experiment Station for their information, as well as other university faculty for their use and information. In fact, state specialist on Experiment Station appointments often work collaboratively with Cooperative Extension faculty on various needs assessments. Thus, the information is shared not only with the Agriculture Experiment Station but with other colleges and departments at the university.

Stakeholder input is used at all levels to set program priorities, allocation of resources and to identify and develop partnerships for program implementation and delivery.

#### 2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

##### 1. Method to identify individuals and groups

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups
- Open Listening Sessions
- Needs Assessments
- Use Surveys

**Brief explanation.**

A variety of methods are used across the state to identify individuals/groups who are stakeholders and to get their input. No one method is required or always appropriate. In fact, one method may be used in one county and a different method in another county. Even within counties, one method might be used in one situation and another method used in a different situation.

**2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them**

**1. Methods for collecting Stakeholder Input**

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Meeting specifically with non-traditional individuals
- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public

**Brief explanation.**

As noted above.

**3. A statement of how the input will be considered**

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

**Brief explanation.**

Stakeholder input is used at all levels to set program priorities, allocation of resources and to identify and develop partnerships for program implementation and delivery. Stakeholder input is routinely used to identify emerging issues, to redirect Extension programs and also in the hiring process. Where stakeholder input and needs assessments show the need for different staffing, it has been used to make changes in qualifications of those hired. Additionally, it is used in setting program priorities and allocation of resources.

**Brief Explanation of what you learned from your Stakeholders**

Nothing for NIFA attention at this time.

IV. Expenditure Summary

<b>1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)</b>			
<b>Extension</b>		<b>Research</b>	
<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
1087613	0	0	0

<b>2. Totaled Actual dollars from Planned Programs Inputs</b>				
	<b>Extension</b>		<b>Research</b>	
	<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
<b>Actual Formula</b>	1087613	0	0	0
<b>Actual Matching</b>	1087613	0	0	0
<b>Actual All Other</b>	1581325	0	0	0
<b>Total Actual Expended</b>	3756551	0	0	0

<b>3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from</b>				
<b>Carryover</b>	132956	0	0	0

**V. Planned Program Table of Content**

<b>S. No.</b>	<b>PROGRAM NAME</b>
1	Agriculture & Natural Resources
2	Community Development
3	Health & Nutrition (Healthy Lifestyle & Food Choices)
4	Childhood Obesity
5	Food Safety
6	Human & Family Development

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

**Program # 1**

**1. Name of the Planned Program**

Agriculture & Natural Resources

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water	10%			
121	Management of Range Resources	25%			
122	Management and Control of Forest and Range Fires	10%			
205	Plant Management Systems	10%			
216	Integrated Pest Management Systems	20%			
307	Animal Management Systems	5%			
601	Economics of Agricultural Production and Farm Management	5%			
605	Natural Resource and Environmental Economics	5%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	5%			
806	Youth Development	5%			
<b>Total</b>		100%			

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

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	20.1	0.0	0.0	0.0
Actual	14.8	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
388295	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
388295	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
564558	0	0	0

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

**1. Brief description of the Activity**

A variety of both educational outreach and applied research activities are undertaken. Applied research will focus on both social and "best management practices" for Nevada as it relates to the areas of emphasis - natural resources management (range, water, etc.), alternative agriculture, risk management and sustainable agriculture, urban horticulture, wildfire prevention and mitigation, etc. Programming addresses the needs of both the producer and the public who are also natural resource users in Nevada. A special emphasis is addressing the needs of producers on Indian Reservations as well, and in helping to facilitate the work of other Federal and state agencies with Tribal producers.

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

The target audiences are multiple and varied. First, Nevada land managers both public and private. Second, stakeholders in water related issues (individuals, land owners, land managers, community leaders, business/industry, etc.). Third, home and business owners for horticulture and landscaping practices. Fourth, ag producers interested in sustainable and alternative agricultural practices. Youth in are also a target audience although not the primarily focus for most of these programs.

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

**1. Standard output measures**

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Plan</b>	10000	0	7000	0
<b>Actual</b>	50135	0	9840	0

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

**Patent Applications Submitted**

Year: 2009  
 Plan: 0  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2009	Extension	Research	Total
<b>Plan</b>	15	0	
<b>Actual</b>	41	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- Number of individuals reached directly with agriculture & natural resource information (including water and horticulture) through workshops, trainings & one on one or other direct method including phone and e-mail consultations.  
 Not reporting on this Output for this Annual Report

**Output #2****Output Measure**

- Number of phone call and e-mail request for information answered by Master Gardener volunteers.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	10000	11672

**Output #3****Output Measure**

- Number of green industry employees certified in proper horticulture techniques.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	1000	1000

**Output #4****Output Measure**

- Number of best management practices site evaluations performed on private property in the Lake Tahoe region to protect the water quality of Lake Tahoe.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	1000	619

**Output #5****Output Measure**

- Number of individual land managers and private land/home owners reached directly with information about how to live more safely in high fire hazard environments.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	3700	3528

**Output #6****Output Measure**

- Copies of "Living with Fire" publications distributed.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	{No Data Entered}	32000

**Output #7****Output Measure**

- "Living With Fire" website hits.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	{No Data Entered}	62000



**V(G). State Defined Outcomes****V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of target audiences who will learn best management practices for agriculture, natural resources, horticulture or water quality/quantity.
2	Number of target audiences who apply or use best management practices learned for agriculture, natural resources, horticulture or water quality/quantity.
3	Number of producers adopting 'risk management' knowledge learned to make agriculture more sustainable.
4	Total acres planted or tested for potential alternative crops in Nevada.
5	Number learning best management practices for 'living with fire' and wildfire hazards.
6	High fire risk communities take actions to address potential fire hazards.
7	Improving knowledge, attitudes and ability of agency and agriculture professionals to work more effectively with Indian producers especially on reservations.
8	Youth learning basic rangeland ecology of the Great Basin.
9	Ranchers and agency range conservationists are on the same page for rangeland management, ensuring not only better forage available for livestock, but healthy, productive rangelands for wildlife, recreation, and other uses.

**Outcome #1**

**1. Outcome Measures**

Number of target audiences who will learn best management practices for agriculture, natural resources, horticulture or water quality/quantity.

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Number of target audiences who apply or use best management practices learned for agriculture, natural resources, horticulture or water quality/quantity.

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Number of producers adopting 'risk management' knowledge learned to make agriculture more sustainable.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	50	50

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

**Issue (Who cares and Why)**

Based on producer seminar evaluations conducted in the 2007-2008 year, it was clear that agricultural producers in Nevada were most concerned with lowering production costs and reducing risks associated with financial and legal issues. Additionally, tribal agricultural producers were concerned with new tax laws for tribal lands, developing budgets and completing financial analysis of new enterprises. The Nevada FFA association noted a lack of financial and risk programming in their agricultural education courses. Hence, the "Risk Management Education for Sustainable Agriculture in Nevada" program conducted four separate programs across Nevada in the 2008-2009 funding year to address these needs.

**What has been done**

The programs included Agribusiness Risk management in Economic Downturns, Tribal Budgeting and Record Keeping, Risk and Insurance Basics for High School Students, and the Crop and Livestock Insurance handbook. A total of 46 seminars were held across Nevada ranging in length from 90 minutes to one complete day. The agricultural producers who attended ranged from high school/middle school students to large livestock and hay

operators.

## Results

In the follow up 6 month evaluations for 39 producers attending the "Agribusiness Risk Management in Economic Downturns" workshops, 64% of respondents indicated that they now use risk management techniques in their operations that they learned in the workshop. Participants were asked to rate the percentage of workshop material they now use in their operations. Eighteen percent (18%) said they now use a good deal of the material (5+ on a 1 to 7 scale); with 62.5% indicating they use about half or more. Only 1 respondent said that they did not incorporate any of the workshop material.

Six months after the "Tribal Agriculture Budgeting and Record Keeping" program attended by 55 producers, participants were mailed a follow-up evaluation. As a result of attending the workshop, 71.4% of the respondents now use the risk management techniques discussed in their operation or job. 100% of participants said they now use some of the material covered in the workshop with the average usage rating being a 4.33 out of a possible 7. When asked about how critical risk management was to today's operations, the average rating received was a 6 of a possible 7. Additionally, 100% of the respondents indicated they would attend a similar program if offered again.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems
601	Economics of Agricultural Production and Farm Management
806	Youth Development

## Outcome #4

### 1. Outcome Measures

Total acres planted or tested for potential alternative crops in Nevada.

### 2. Associated Institution Types

- 1862 Extension

### 3a. Outcome Type:

Change in Action Outcome Measure

### 3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	1100

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Alfalfa or grass hay is produced on over 92% of Nevada's croplands and numerous enterprise budgets have demonstrated producing hay in Nevada is a risky enterprise in most years. That fact was borne out in 2009 as average alfalfa prices in Nevada dropped approximately 55% (\$180 to \$100) from that received in 2008. In addition to the economic risk, Nevada agricultural producers are faced with droughts and competition for irrigation water from urban and environmental interests. Teff has been identifying as a high value, lower water use crops that can be produced by Nevada agricultural producers as alternative to hay production.

Teff is a small seeded grain crop used to make flat bread known as Injera which is a staple in the diet of Ethiopian people and used in every Ethiopian restaurant. It is also an important source of gluten free flour required by individuals who suffer from Celiac disease. Celiac disease is an autoimmune reaction to gluten in which the sufferer's immune system attacks the small intestine preventing digestion and gastrointestinal damage. The latest U.S. data indicates that as many as 2.5-3 million Americans suffer from this disease. Demand for this crop greatly exceeds supply in the U.S. as the primary producer of teff grain (Ethiopia) severely restricted International exports in 2008.

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

Extension has worked intensively with targeted producers to increase production of the targeted crops, marketing and processing. A Western teff working group of Extension specialist in Oregon, Utah, California, Washington, Idaho and Nevada is being formed. Some training and pest management efforts have been multi-state.

#### **Results**

In Nevada during 2009 14 producers grew teff grain which is an increase of 4 over the previous year. The acres devoted to teff grain production increased from approximately 625 acres to approximately 1100 acres. Teff grain returns an average of \$89.34 more per acre than alfalfa in Northwestern Nevada and uses approximately 2/3rds as much water. A new teff processing and marketing company was also formed in Nevada.

Over 900 acres were used to produce teff forage which averaged approximately 4 tons/acre. The forage was marketed as high quality horse hay for an average price of \$150/ton (\$600/acre) which is significant as the average price of the highest quality alfalfa was approximately \$100.00 per ton in Nevada during 2009. Because of lower production costs both enterprises equal or exceed the average net income from alfalfa hay in Churchill, Eureka and Humboldt Counties. Most importantly, teff production reduced water use by approximately 1/3 as compared to alfalfa and input costs are approximately 1/2 of those associated with alfalfa.

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

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
205	Plant Management Systems
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

#### **Outcome #5**

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

Number learning best management practices for 'living with fire' and wildfire hazards.

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
2009	1000	0

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

**Issue (Who cares and Why)**

Wild fires are a major fact of life in Nevada and have become increasingly common. It is especially critical along the urban-rural interface where homes are being constructed.

**What has been done**

"Living With Fire" (LWF) is a comprehensive, multi-agency program coordinated by UNCE and aimed at teaching Nevadans how to live more safely in high fire hazard environments. It is also multi-state involving fire agencies along the California-Nevada border as well as LWF materials being adopted or modified by other states. A variety of media (radio, TV, billboards, publications, workshops, etc.) are used in delivery of the program.

**Results**

Results: 1) in-state requests for over 32,000 copies of 13 different LWF publications were filled, 2) 12 requests for parent files (i.e., cds/dvds that can be customized) for LWF materials from out-of-state were filled, 3) a minimum of 100,000 copies of LWF publications were reproduced and distributed by out-of-state entities, 4) LWF exhibits were used at 21 events and generated 1135 direct contacts, 5) requests for 15 LWF banners were filled for Nevada communities, 6) Lake Tahoe Fire Protection Districts reproduced 20,000 copies of the "Living With Fire in the Lake Tahoe Basin" dvds for distribution throughout the region, 7) the LWF websites had about 62,000 visits, a 32% increase over 2008, 8) seven Nevada newspapers ran the "Be Ember Aware" Tip-of-the Week series (12 weekly articles), 9) the Bureau of Land Management had 21 billboards promoting the LWF website placed across Nevada, 10) I did 13 radio interviews and was featured on "Dunbar Report" television program twice, and 11) 6 workshops were taught to 160 people. Other Outcomes: 1) 87% of the respondents to the 2009 Nevada Wildland-Urban Interface Fire Summit evaluation (n=58), primarily homeowners living in high or extreme fire hazard communities or fire service representatives responsible for protecting those communities, indicated they were familiar with LWF materials prior to coming to the summit

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
122	Management and Control of Forest and Range Fires
205	Plant Management Systems
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

**Outcome #6**

**1. Outcome Measures**

High fire risk communities take actions to address potential fire hazards.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	31

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

**Issue (Who cares and Why)**

One hundred and seventy-three Nevada communities have been rated as extreme, high or moderate wildfire hazard.

**What has been done**

The "Living With Fire" Nevada Wildland-Urban Interface Fire Summit purpose was to discuss how these community hazard ratings could be reduced and to promote action. 141 individuals representing 37 different entities participated, and 31 of Nevada's extreme, high and moderate fire hazard communities were represented by community members and/or fire service representatives.

**Results**

As a result of the summit, 96% of the community representatives had a better understanding the wildfire threat to their community (n=54), 96% had a better understanding of the resources available to reduce the threat (n=51), and 98% intended to take action to reduce the wildfire hazard when they returned home (n=51) and 24 community/county action plans were developed at the summit.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
122	Management and Control of Forest and Range Fires

**Outcome #7**

**1. Outcome Measures**

Improving knowledge, attitudes and ability of agency and agriculture professionals to work more effective with Indian producers especially on reservations.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

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

**Issue (Who cares and Why)**

American Indian farmers and ranchers contribute significantly to the economic base of rural reservations. USDA programs (i.e., NRCS, FSA and NIFA) are designed to increase farm and ranch profitability. Needs assessments conducted with Indian producers on Nevada reservations in 2003 revealed perceived obstacles with respect to the implementation and success of USDA programs that encourage sustainable agriculture programs and practices on reservation lands. Additional research conducted between 2005 and 2007 with Indian producers and agriculture/natural resource professionals on the 10 largest Indian reservations in Idaho, Nevada, Oregon, and Washington identified a significant knowledge gap for professionals' about the social, political, and economic environments unique on Indian reservations.

**What has been done**

The curriculum "People of the Land: Sustaining American Indian Agriculture in Idaho, Nevada, Oregon, and Washington, CM-09-01." The peer-reviewed 166-page curriculum was released to the public in 2009 following a three-year research, pilot and revision period. The newly released curriculum was taught to participating UNR

students in two sessions. It was also taught to 107 participants who attended day-long workshops in Reno or Ely, Nevada; Warm Springs, Oregon; or Lewiston, Idaho.

**Results**

For participants in the Idaho, Nevada and Oregon with tribal members and participating employees of FSA, NRCS, BIA, BLM, City Councils, and Cooperative Extension pre-test and post-test scores increased significantly (statistically significant at  $p < 0.01$ ) for the majority of the 24 knowledge gain impact items.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

**Outcome #8**

**1. Outcome Measures**

Youth learning basic rangeland ecology of the Great Basin.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

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

**Issue (Who cares and Why)**

There are few opportunities for high school youth to get formal hands on training related to rangeland ecology in Nevada. This is particularly important for youth who live on ranches but also those who are interested in ecology and natural resource issues in Nevada.

**What has been done**

The Nevada Youth Range Camp (YYRC provides a week-long camping and instructional experience for high school-age youth from across the state. Cooperative Extension faculty along with natural resource professionals teach the 13 module curriculum. The focus of the curriculum is the land, ecology (such as plant identification and sagebrush ecology), soils, hydrology, wildlife, agricultural production and management of the Central Great Basin. NYRC participants acquire a better understanding of Nevada's natural resources, ranch management, the diverse vegetation of Nevada, and the wildlife that depend on these habitats. The camp is sponsored by Cooperative Extension and the Nevada Section of the Society of Range Management. This is the 49th year of the Nevada Youth Range Camp.

**Results**

A formal impact evaluation (2009) conducted indicated that students demonstrated an increase in knowledge across eight subject matter areas, with knowledge increases ranging from 10 to 54%, and averaging 29% per subject area. Since 2001, at least 4 students have pursued further education in Range Management because of exposure to natural resource management at Range Camp.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
121	Management of Range Resources
205	Plant Management Systems
605	Natural Resource and Environmental Economics
806	Youth Development

#### Outcome #9

##### 1. Outcome Measures

Ranchers and agency range conservationists are on the same page for rangeland management, ensuring not only better forage available for livestock, but healthy, productive rangelands for wildlife, recreation, and other uses.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

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

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

Nevada is 87% publicly owned by the Federal government with vast areas managed by the BLM, Forest Service and other Federal agencies. However, these same public lands are use by livestock producers for earning their living as well as the urban public for recreation. These various activities on public lands in a predominately urban state can create conflict and controversy in the management of rangelands in Nevada.

###### What has been done

"Range Management School" (RMS) course content emphasizes sustainability and is designed to put ranchers and agency range conservationists on the same page, ensuring not only better forage available for livestock, but healthy, productive rangelands for wildlife, recreation, and other uses. In addition to UNCE, other partners in this educational effort include the Bureau of Land Management, U.S. Forest Service, Natural Resources Conservation Service, CABNR, Nevada Department of Agriculture, and the Nevada ranching industry. Funding and promotional assistance has been provided by the USDA Risk Management Agency, Grazing Lands Conservation Initiative (GLCI), Sustainable Agriculture Research & Education (SARE), Nevada Rangeland Resources Commission, Central Committee of Nevada State Grazing Boards, Nevada Cattlemen's Association, and Northeastern Nevada Stewardship Group (NNSG). In an effort to present this curriculum statewide, we taught 11 workshops during a 3-year period, reaching 241 program participants. Modified from a Colorado program, the Rangem Management School uses sound science, collaboration, and common sense within a unified message by a temp of interdisciplinary instructors. The curriculum includes sections on grass growth/physiology, timing and duration of grazing, grazing plan strategies, riparian area management, livestock behavior, ranch management, etc. No workshops were taught during 2009, but rather time was spent in impact evaluation.

###### Results



In order to identify mid-term impacts, 6-month and 12-month follow-up post-workshop surveys were summarized, and a professional paper, "Nevada Range Management School: an Impact Evaluation," was presented at the Fourth National Grazing Land Conference in Reno during December 2009. The manuscript will be published in the proceedings in 2010. Some highlights of this mid-term evaluation are as follows:

- \*146 (60%) of the participants were agricultural producers, 69 (29%) were government agency resource specialists, and 26 (11%) were consultants, academics, and other land users.
- \*71% of the 2005-2006 RMS workshop respondents to a 6-month post-workshop survey indicated they have incorporated some or a great deal of the information they learned at the workshop in their current operation/job.
- \*56 % of the 2007 RMS workshop respondents to a 6-month post-workshop survey reported that they are now using techniques (e.g., rangeland monitoring, estrus synchronization, grazing plan strategies, etc.) presented in the RMS workshops.
- \*All (100%) of the 2008 RMS respondents to a 12-month post-workshop survey (15.2% response rate) gained an improved understanding of range plant growth, grazing timing and grazing duration considerations, and grazing response index.
- \*57% of the 2008 respondents have created a grazing plan for their operation as a result of attending the RMS workshop.
- \*71% of the 2008 respondents have implemented rangeland monitoring techniques as a result of attending the RMS workshop.
- \*3 of the 2008 respondents reported a change in financial position of their operations due to participation in the RMS workshop, with increases ranging from 15 to 30%.

According to Carol Evans, riparian specialist for the Elko BLM District Office, "Range Management School is making a positive difference in the working relationships between the BLM and public land ranchers."

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
121	Management of Range Resources
216	Integrated Pest Management Systems
307	Animal Management Systems
605	Natural Resource and Environmental Economics

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

##### External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Public Policy changes

##### Brief Explanation

In FY08 Nevada had a 6% cut in state budget and a 8% cut in FY09 budget. For FY10 and FY11 a 17% reduction in state budget was mandated. A further cut for FY10 & FY11 (in addition to the 17% reduction) budget of 6.9% has just been announced. These budget reductions have resulted in the loss of several positions or positions being unfill and this has impacted resources for programming. It has impacted 2009 programming and will have a major impact on programming for FY10, FY11 and beyond. During this time period several horticulture and other positions were lost or unfilled as a result. Numbers or contacts have gone up, however, due to better record keeping.

Beyond the budget reductions, the university is proposing to restructure the College Agriculture in the College of Science. This would include the eliminate of two departments and moving other departments to the College of Science. While this doesn't directly impact Cooperative Extension, it may impact some state specialist positions currently supported by Cooperative Extension in the College of Agriculture.

#### V(I). Planned Program (Evaluation Studies and Data Collection)

##### 1. Evaluation Studies Planned

- Before-After (before and after program)
- Time series (multiple points before and after program)
- Case Study

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

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

**Program # 2**

**1. Name of the Planned Program**

Community Development

**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	60%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%			
805	Community Institutions, Health, and Social Services	20%			
806	Youth Development	10%			
<b>Total</b>		100%			

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

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	4.5	0.0	0.0	0.0
Actual	4.2	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
122048	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
122048	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
177450	0	0	0

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

**1. Brief description of the Activity**

Community planning and/or economic development activities are of increasing importance. Therefore, Cooperative Extension has become more active in working with the Nevada Rural Development Council on "community assessments" with local community groups. Also the development and use of the multi-state "Community Business Matching Model" program is designed to help local communities make decisions about their economic development efforts. Both are intensive collaborative activities and will be provided to a limited number of communities in economic modeling and/or conducting

community asset assessments for planning and development.

While funding has limited major expansion of "leadership development" opportunities, Cooperative Extension continues to provide training in this subject matter for existing community organizations and groups. Cooperative Extension is partnering and working more with other groups and organizations on their "leadership" and community planning/activity efforts rather than developing separate stand along Cooperative Extension programs.

Faculty are working with the national extension program "Rural Health Works", and will continue work on rural health care sector issues in rural Nevada.

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

Targeted audiences will be individuals, communities and groups who are interested in community planning and/or economic development, "community assessments", and "leadership development" programming.

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

**1. Standard output measures**

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Plan</b>	2000	1450	1000	0
<b>Actual</b>	3292	0	418	0

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

**Patent Applications Submitted**

Year: 2009  
 Plan: 0  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2009	Extension	Research	Total
<b>Plan</b>	7	0	
<b>Actual</b>	23	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- Number of publications produced related to 'community development' for use by community leaders and/or organizations in economic or development planning.

Year	Target	Actual
2009	4	23

**Output #2**

**Output Measure**

- Number individuals receiving leadership or economic development training or information.  
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 individuals learning new leadership or economic development skills/knowledge.
2	Number of individuals applying or using new leadership or economic development skills/knowledge in their organizations or communities.
3	Number of communities completing Rural Health Works program.
4	Community people involved in "community assessment" of their local community.
5	Community economic development activities and success using the Community Business Matching (CBM) Program.

**Outcome #1**

**1. Outcome Measures**

Number of individuals learning new leadership or economic development skills/knowledge.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	100	984

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

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

**Outcome #2**

**1. Outcome Measures**

Number of individuals applying or using new leadership or economic development skills/knowledge in their organizations or communities.

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Number of communities completing Rural Health Works program.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	1	2

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

**Issue (Who cares and Why)**

**What has been done**

**Results**

(1) City of Ely and White Pine County used the results of the study to improve operations of the local Emergency Medical Service. They wanted cost and returns information to determine the feasibility of separate EMS services and how separate services would be integrated and financed. They are still working on this combined operation.

(2) Douglas County used results of the health care industry county impacts study to focus on health care as an economic target for a large county-wide economic development plan. Realizing how large the local health care sector is and that Douglas County has become a retirement area for the Western US, the targeting of the health care sector was given high importance by the economic development targeting team.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

**Outcome #4**

**1. Outcome Measures**

Community people involved in "community assessment" of their local community.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
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2009 {No Data Entered} 600

**3c. Qualitative Outcome or Impact Statement****Issue (Who cares and Why)**

Involving community residents in assessing the issues in their community not only identify issues but helps get involvement and commitment from local residents in solving these issues.

**What has been done**

The community assessment process consists of a team of outside experts trained in the community assessment process interview a large number of people, record their responses, draft recommendations for community action, and encouraging community involvement. The process includes needs assessment, asset inventory, action planning, and citizen engagement.

**Results**

The community assessment process has identified a number of issues/themes/projects in which citizens have indicated intent to commit. Working groups have been established in Carson Valley around arts and culture; tourism destination; senior center; Genoa business development; cross cultural; and community concierge. Working groups in south county are focused on wildfire safety; water issues; Hwy 208 turn lane; business development; and utility issues. Also, a working group is concentrated on economic development at Lake Tahoe.

**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
806	Youth Development

**Outcome #5****1. Outcome Measures**

Community economic development activities and success using the Community Business Matching (CBM) Program.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
2009	{No Data Entered}	0

**3c. Qualitative Outcome or Impact Statement****Issue (Who cares and Why)**

Most economic development programs fail to recognize the interdependence between industry demands and the preferences and assets of the community to develop a holistic, sustainable community economic development strategy. The Community Business Matching (CBM) program curriculum has been developed to bridge this gap by providing a framework for communities to use to prioritize their development goals and identify the assets they

have to help them achieve their goals. The CBM computer model fits these goals and assets to business profiles in order to assist in development decisions that reflect the desires of community members. This program and curriculum has been designed with the intention to be delivered in any community in the United States.

**What has been done**

The Western States of Nevada, Hawaii, and Montana developed and were awarded a grant from the Western Rural Development Center (WRDC), and the U.S. Department of Commerce, Economic Development Administration to develop and apply the Community Business Matching (CBM) model. A CBM model and curriculum has been developed. During the program the community steering committee is developing a local sustainable economic development strategy and action plan. This twelve module curriculum has been developed by a regional Extension faculty team representing 8 states. This curriculum is designed to assist individual and/or regional communities through monthly classroom workshops and outside activities. It helps measure how much business matches the development goals of a community. Compatibility measures how a community meets the demands of a business. By deriving desirability and compatibility indices, a community can target desired industries and/or targeted community resource developments to meet business demands. The curriculum has been used with communities in Nevada, Arizona, California and Montana.

**Results**

1. Bullhead City, working with Economic Development Administration, is just completing the planning phases to construct a regional industrial park to support small and medium sized new businesses. The CBM program helped them identify key industries including scientific, technical and consulting businesses and specialty warehousing operations. They already have two tenants committed.
2. Laughlin, NV acquired 9,000 acres that the majority is designated for industrial development. Using the CBM program they have contacted and been contacted by several industries showing strong interest in locating to Laughlin, They included a \$125 million solar and manufacturing company that currently have operations in Spain. Beverage and agricultural operations (olive, grape and horticulture) have inquired about production and processing plants. These industries were identified during the CBM program.

**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

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

**External factors which affected outcomes**

- Economy
- Appropriations changes
- Public Policy changes

**Brief Explanation**

In FY08 Nevada had a 6% cut in state budget and a 8% cut in FY09 budget. For FY10 and FY11 a 17% reduction in state budget was mandated. A further cut for FY10 & FY11 (in addition to the 17% reduction) budget of 6.9% has just been announced. These budget reductions have resulted in the loss of several positions or positions being unfill and this has impacted resources for programming. It has impacted 2009 programming and will have a major impact on programming for FY10, FY11 and beyond. This has caused the loss of several positions (or positions unfilled) and resulted in changes in resources for programming. Numbers or contacts and publications have gone up, however, due to better record keeping as well as community studies conducted by the Center for Economic Development in the College of Agriculture with a position jointly support by Cooperative Extension and AES funding.

Beyond the budget reductions, the university is proposing to restructure the College Agriculture in the College of Science. Two departments may be eliminated and three others relocated. The Center for Economic Development and the jointly funded CES-AES position, however, would be retained but moved to another department and college.

**V(I). Planned Program (Evaluation Studies and Data Collection)**

1. Evaluation Studies Planned

- Before-After (before and after program)
- Time series (multiple points before and after program)
- Case Study

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

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

**Program # 3**

**1. Name of the Planned Program**

Health & Nutrition (Healthy Lifestyle & Food Choices)

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	60%			
724	Healthy Lifestyle	20%			
802	Human Development and Family Well-Being	15%			
806	Youth Development	5%			
	<b>Total</b>	100%			

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

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.4	0.0	0.0	0.0
Actual	6.0	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
158298	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
158298	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
230156	0	0	0

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

1. Brief description of the Activity

The primary goal is "better individual health, better quality of life and lower medical costs throughout their lifespan." Adopting a healthylifestyle and food choices are necessary for individuals of all ages to maintain optimal health throughout their lifespan. The various activities of this program are designed to provide health & nutrition educational programs where individuals, families, medical professionals and care givers can learn the benefits of a healthy lifestyle and proper food habits which promote health and wellbeing. Learning and adoption of more healthful practices are the primary outcomes being sought.

A variety of activities are undertaken to reach at risk individuals, especially minorities, with appropriate information. Publications and curriculum materials are developed for use both in and out of formal educational settings. Nutrition

education programs are provided in school classes for older youth, new parents, low income and other audiences as well as the general public. Newsletters, publications and other informational materials are distributed through senior centers and to professional health educators as well as to the general public through the UNCE website.

The number of contacts has increased dramatically because of the "train the trainer" model being used as well as better reporting. Also, experience has shown that the more repeated contacts the more likely learning and behavior change is going to occur. Many of the classes and programs are delivered by grant funded positions or volunteers which significantly increases the number of contacts.

Programs that primarily focus on Childhood Obesity have been moved to that as a separate program. Thus the FTE reported changes. In the future there may be some additional "breaking out" of efforts that may fit under the "Childhood Obesity" label.

Finally, Nevada has initiated a major "Radon Education Program" because of the significant impacts of radon gas on human lung cancer. This has also resulted in a significant increase in the numbers of contacts.

## 2. Brief description of the target audience

Targeted audiences are varied. One target audience is those who train or educate others about health lifestyles and food choices (medical professionals, professional care givers) as well as individual adults and youth of all ages. A second target audience is children, youth and families at risk as well as minorities. A third target audience is home and business owners for radon education.

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

#### 1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Plan</b>	5000	2800	5000	17700
<b>Actual</b>	39727	0	56432	0

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

##### Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

#### Patents listed

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

##### Number of Peer Reviewed Publications

2009	Extension	Research	Total
<b>Plan</b>	10	0	
<b>Actual</b>	24	0	0

### V(F). State Defined Outputs

#### Output Target

##### Output #1

##### Output Measure

- Number of students reached through programs in school classes about healthy food choices.

Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of health & nutrition publications published or placed on web.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	10	24

**Output #3**

**Output Measure**

- Number of health professionals trained about breastfeeding.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	300	94

**V(G). State Defined Outcomes****V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of individuals (adults & youth) who will learn knowledge or skills necessary to make healthy lifestyle and food choices for themselves or those they care for (knowledge learned).
2	Number of individuals (adults & youth) who adopt one or more healthy lifestyle practices or food choices (behavior).
3	Number of participants in a diabetes education program (An Ounce of Prevention) making lifestyle changes or improving their knowledge of risk factors for diabetes.
4	Number of students increasing awareness, knowledge and skills related to increasing the consumption of calcium rich foods.
5	Number of radon test kits distributed and used in Nevada.
6	Number of home mitigations of homes with elevated radon levels indicates changed behavior and a home with less radon health risk involved.
7	Changes in attitude, knowledge, and practice of young adults regarding general nutrition and health, specific issues of pregnancy and breastfeeding, and parenting guidance.

**Outcome #1**

**1. Outcome Measures**

Number of individuals (adults & youth) who will learn knowledge or skills necessary to make healthy lifestyle and food choices for themselves or those they care for (knowledge learned).

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Number of individuals (adults & youth) who adopt one or more healthy lifestyle practices or food choices (behavior).

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Number of participants in a diabetes education program (An Ounce of Prevention) making lifestyle changes or improving their knowledge of risk factors for diabetes.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	150	285

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

**Issue (Who cares and Why)**

The prevalence of diabetes in the U.S. has increased from 1.5 million in 1958 to 24 million people in 2008. Individuals of Hispanic origin are 1.7 times as likely and African Americans 1.8 times as likely to develop diabetes as non-Hispanic whites of similar age.

**What has been done**

This program (An Ounce of Prevention) educates and motivates participants to make lifestyle modifications to prevent or delay the onset of diabetes and/or its complications. It targets people at high risk for developing diabetes. The objectives of this program have been effective in teaching participants at making dietary changes, increasing physical activity and improved diabetes knowledge, consistent with the Diabetes Prevention Program study.

**Results**

In 2009, analysis of self-reported data showed a significant improvement in knowledge of diabetes, as well as knowledge of the risk factors for diabetes for 285 participants that completed the program. Self-reported lifestyle



behaviors also changed significantly: physical activity increased, TV watching decreased and four of six food choice items demonstrated statistically significant changes.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #4**

**1. Outcome Measures**

Number of students increasing awareness, knowledge and skills related to increasing the consumption of calcium rich foods.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	1500	1956

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

**Issue (Who cares and Why)**

A needs assessment conducted by the Nevada Nutrition Network (of which I was a member) identified target audiences and educational priorities for food stamp recipients in Nevada. It was determined that there was a need to increase consumption of low-fat calcium-rich foods among children (particularly females) ages 11-14 years. This determination was based on low intakes of calcium, among other nutrients, in girls of this age group. If calcium needs are not met during this critical development stage, the risk of osteoporosis increases in later life. Continued updating of the data collected from this initial needs assessment data has continued to justify the need for the continuance of this program. Adolescent children ages 14-18 have the lowest average daily intake of milk - only 7.8 ounces. Since the Dietary Reference Intake for calcium is greatest for those between the ages of 9 and 18 years (1300 milligrams), education is necessary to reach those in greatest need of increased calcium intake. Current Nevada data supports the need for increased consumption of high calcium foods with only 8.5% of girls and 20.1 % of boys reporting consumption of three or more glasses of milk per day.

**What has been done**

Based on the Health Belief Model, the Calcium, It's Not Just Milk program content focuses on: 1) increasing perceived susceptibility of osteoporosis risk, 2) increasing awareness of the benefits of increased calcium intake, 3) enhancing knowledge of the relationship between diet and health; and 4) decreasing barriers related to eating more calcium-rich foods. The program is a train-the-trainer program in which Cooperative Extension train middle school health teachers to teach a week-long curriculum to their health students. The goal is to increase awareness, knowledge, and skills among the target audience (11 to 14 year old middle school students) related to increasing consumption of calcium-rich foods. The program was expanded to 9 middle schools and one high school in 2009.

**Results**

After completing the program, participants had significant (p < .01) improvement in the core curricular concepts related to (a) their knowledge and understanding of calcium and growth, bone health, distribution of

calcium in the body, importance of physical activity, and disease prevention, b) their knowledge of the calcium intake recommendation for their age group; c) their ability to identify calcium-rich foods; and d) their ability to interpret food labels to identify calcium-rich foods.

Participant comments about the Calcium, It's Not Just Milk program include:

"I didn't realize foods I don't eat can mess up my health." "I think the program is a good way for kids to get more calcium and learn about being healthy." "Now I know that calcium is really good for you, especially teens. Thank you!" "This is a good program because before I didn't know anything about this and I didn't even care about it, but now I do and I'm always looking at the nutrition facts panel." "I want to eat more calcium food. Now I think it is important to eat calcium. I want my bones to be strong not weak. I learned it is healthy to eat calcium and I love yogurt."

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
806	Youth Development

**Outcome #5**

**1. Outcome Measures**

Number of radon test kits distributed and used in Nevada.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	8984

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

**Issue (Who cares and Why)**

Radon is a naturally occurring radioactive gas that has no odor, color or taste and is produced by the breakdown of uranium in soil, rock and water. As it decays into radon gas, it moves through the soil into the atmosphere, where it is harmlessly dispersed in outdoor air or can enter buildings through foundation openings and become trapped inside. When it enters a building, it can accumulate and present a health concern for occupants. Buildings other than homes can also have radon concerns (such as commercial buildings, schools, apartments, etc.).

Radon is classified as a Group A carcinogen, a substance known to cause cancer in humans. Next to smoking, scientists believe that radon is associated with more lung cancer deaths than any other carcinogen.

The U.S. Environmental Protection Agency (EPA), the American Medical Association (AMA), the American Lung Association (ALA), the U.S. Surgeon General, and the National Academy of Sciences (NAS) - in addition to many other health organizations - all agree that radon is a health concern that must be addressed. The U.S. Surgeon General, Richard Carmona, issued a national Health Advisory in 2005 warning Americans about the health risk

from exposure to radon in indoor air. The nation's chief physician urged Americans to test their homes to find out how much radon they might be breathing.

"Indoor radon is the second-leading cause of lung cancer in the United States and breathing it over prolonged periods can present a significant health risk to families all over the country," Dr. Carmona said. "It's important to know that this threat is completely preventable. Radon can be detected with a simple test and fixed through well-established venting techniques."

Dr. Carmona noted that more than 20,000 Americans die of radon-related lung cancer each year.

**What has been done**

The Nevada Radon Education Program is a partnership with the Nevada State Health Division to educate Nevadans about the possible health risk that elevated levels of radon in the home poses. Its target audience includes homeowners, homebuilders, Realtors, home appraisers, home inspectors, code officials, medical professionals, policy makers and the general public.

The program promotes the radon message to anyone who lives in a home or works in an office building, as radon is a health risk when trapped in buildings. Educational programs, displays and materials are made available at public events (health fairs, home shows, etc.) through mass media and at various public events or where people go. The Nevada Radon Education Program Web site, [www.unce.unr.edu/radon](http://www.unce.unr.edu/radon) was established in November 2008. The Web site is a comprehensive source of information for a variety of stakeholders: homeowners, home buyers, home sellers, Realtors, builders, certified radon testers, and certified radon mitigators.

**Results**

An increase in radon testing in Nevada indicates a changed behavior after learning about radon. When a test kit is used, it indicates another step in changed behavior after a change in learning. 5968 test kits used in 2009 from our program. In addition, 3016 test kits were used from outside sources in 2009.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
724	Healthy Lifestyle

**Outcome #6**

**1. Outcome Measures**

Number of home mitigations of homes with elevated radon levels indicates changed behavior and a home with less radon health risk involved.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	160

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

**Issue (Who cares and Why)**

Radon is a naturally occurring radioactive gas that has no odor, color or taste and is produced by the breakdown of uranium in soil, rock and water. As it decays into radon gas, it moves through the soil into the atmosphere, where it is harmlessly dispersed in outdoor air or can enter buildings through foundation openings and become trapped inside. When it enters a building, it can accumulate and present a health concern for occupants. Buildings other than homes can also have radon concerns (such as commercial buildings, schools, apartments, etc.).

Radon is classified as a Group A carcinogen, a substance known to cause cancer in humans. Next to smoking, scientists believe that radon is associated with more lung cancer deaths than any other carcinogen.

The U.S. Environmental Protection Agency (EPA), the American Medical Association (AMA), the American Lung Association (ALA), the U.S. Surgeon General, and the National Academy of Sciences (NAS) - in addition to many other health organizations - all agree that radon is a health concern that must be addressed. The U.S. Surgeon General, Richard Carmona, issued a national Health Advisory in 2005 warning Americans about the health risk from exposure to radon in indoor air. The nation's chief physician urged Americans to test their homes to find out how much radon they might be breathing.

"Indoor radon is the second-leading cause of lung cancer in the United States and breathing it over prolonged periods can present a significant health risk to families all over the country," Dr. Carmona said. "It's important to know that this threat is completely preventable. Radon can be detected with a simple test and fixed through well-established venting techniques."

Dr. Carmona noted that more than 20,000 Americans die of radon-related lung cancer each year.

**What has been done**

The Nevada Radon Education Program is a partnership with the Nevada State Health Division to educate Nevadans about the possible health risk that elevated levels of radon in the home poses. Its target audience includes homeowners, homebuilders, Realtors, home appraisers, home inspectors, code officials, medical professionals, policy makers and the general public.

The program promotes the radon message to anyone who lives in a home or works in an office building, as radon is a health risk when trapped in buildings. Educational programs, displays and materials are made available at public events (health fairs, home shows, etc.) through mass media and at various public events or where people go.

The Nevada Radon Education Program Web site, [www.unce.unr.edu/radon](http://www.unce.unr.edu/radon) was established in November 2008. The Web site is a comprehensive source of information for a variety of stakeholders: homeowners, home buyers, home sellers, Realtors, builders, certified radon testers, and certified radon mitigators.

**Results**

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
724	Healthy Lifestyle
802	Human Development and Family Well-Being

**Outcome #7**

**1. Outcome Measures**

Changes in attitude, knowledge, and practice of young adults regarding general nutrition and health, specific issues of pregnancy and breastfeeding, and parenting guidance.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

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

**Issue (Who cares and Why)**

The most at-risk groups for becoming parents are young (<18 y) minority adolescents (of African American and Hispanic origin). It is recommended that teens need access to information on parenting and health prior to becoming a parent. Providing such information to teens during traditional class time is difficult to arrange, as graduation requirements do not include these subjects. However, teens at risk for becoming parents often attend non-college bound programs where there is more flexibility in programming or are found in non-school environments. Unfortunately, there is a paucity of qualified teachers to present health and MCH information.

**What has been done**

"Nurturing Partners" fills this gap by conducting classes at schools providing credit retrieval programs for those who need to complete additional classes in order to graduate and working in community settings to reach target audiences. NP uses anticipatory guidance to prepare teens for their future health and development needs as well as those of their families. Two types of education are available to schools: general maternal and child nutrition for all students or education focused specifically for pregnant mothers (where teens are pulled from regular classes to attend NP). NP is used to augment child development, home economics and health classes as well as in independent living and senior seminars. Length of classes depends on need. Weekly classes were presented at 5 high schools. Pull-out sessions specific to pregnant and parenting teens are delivered. Class topics at all sites include making healthful food and nutrition decisions; maternal health care; infant care skills; child development; personal development; and financial and home management.

**Results**

Formative and summative evaluations are conducted. Change in nutrition knowledge is captured with a pre-post test, administered at selected sites. Written comments regarding personal motivation and interest in classes are gathered during the final session. Mean = 66% pre

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
802	Human Development and Family Well-Being
806	Youth Development

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

### **External factors which affected outcomes**

- Economy
- Appropriations changes
- Other (Grant Funding)

### **Brief Explanation**

In FY08 Nevada had a 6% cut in state budget and a 8% cut in FY09 budget. For FY10 and FY11 a 17% reduction in state budget was mandated. A further cut for FY10 & FY11 (in addition to the 17% reduction) budget of 6.9% has just been announced. These budget reductions have resulted in the loss of several positions or positions being unfill and this has impacted resources for programming. While this has not had a major negative impact on this program area, however, the potential exists for future impacts as additional budget reductions may occur.

Numbers or contacts have gone up, however, due to better record keeping and the radon education program.

## **V(I). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- Time series (multiple points before and after program)
- Case Study

### **Evaluation Results**

{No Data Entered}

### **Key Items of Evaluation**

{No Data Entered}

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

**Program # 4**

**1. Name of the Planned Program**

Childhood Obesity

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	50%			
724	Healthy Lifestyle	30%			
802	Human Development and Family Well-Being	10%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	5%			
806	Youth Development	5%			
<b>Total</b>		100%			

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

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Actual	1.9	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
48866	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
48866	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
71048	0	0	0

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

1. Brief description of the Activity

A variety of activities are being undertaken related to childhood obesity. Adopting a healthy lifestyle and food choices are necessary for individuals to maintain optimal health throughout their lifespan but it is particularly important for youth. Rather than trying to treat obesity after it occurs, strategies to prevent excessive weight gain and decrease sedentary activity are needed. Since eating and activity behaviors are established in childhood, obesity prevention experts suggest initiating strategies early in life. This is the direction Nevada is taking in its "Childhood Obesity" programming.

The various activities of this program are designed to provide health & nutrition educational programming where youth can learn the benefits of a healthy lifestyle and proper food habits which promote health and wellbeing. The benefits of physical activity as part of a healthy life style are included as well. Primarily these activities focus on youth in school and pre-school youth in family settings.

Nutrition education programs are also provided in school classes, after school settings, new parents, low income and other audiences as well as the general public. Newsletters, publications and other informational materials will be distributed to participants, families, teachers and to professional health educators as well as to the general public through the UNCE website. New curriculum and educational materials are being developed and tested.

Because of the intensive in-school nature of some of these activities, repeated multiple contacts with youth make the number of contacts is high. Use of "train the trainer" concept also make it possible to reach more youth and reporting has also improved.

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

The primary audience is pre-school youth and youth in elementary school along with their families. A secondary audience is those who teach youth health and nutrition information or care for youth - parents, teachers, child care providers, health educators, etc.

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

**1. Standard output measures**

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Plan</b>	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
<b>Actual</b>	5464	0	75230	0

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

**Patent Applications Submitted**

Year: 2009

Plan:

Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2009	Extension	Research	Total
<b>Plan</b>			
<b>Actual</b>	5	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- {No Data Entered}



**V(G). State Defined Outcomes****V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Percent of preschoolers who would choose a health snack over an unhealthy snack when present a choice.
2	Percent of preschoolers improving physical skills highlighted in the Nevada Pre-K standards.
3	First and second grade students learn healthy food choices and good physical activity choices.
4	Youth learning to make healthy food choices and gaining physical activity through "hands on" school garden based educational programs.
5	American Indian children to 1) increase awareness of and exposure to a variety of vegetables and fruits, including traditional American Indian varieties via classroom nutrition lessons and a school wide fruit tasting event, 2) provide an introduction to plant growing with in-class "gardening" experiences and 3) engage the parents through take home assignments and newsletters.

**Outcome #1**

**1. Outcome Measures**

Percent of preschoolers who would choose a health snack over an unhealthy snack when present a choice.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

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

**Issue (Who cares and Why)**

Almost one-third of American children are overweight or at risk for overweight, increasing their probability of developing chronic illnesses (Centers for Disease Control 2007). Data from the National Health and Nutrition Examination Survey (NHANES) I (1971-1974) to NHANES 2003-2004 show increase in overweight among preschool-aged children, aged 2-5 years rose from 5.0% to 13.9%. Although similar statistics are unavailable for children in Clark County (Las Vegas), there is no reason to believe the situation here is different.

**What has been done**

"All for Kids" is an interdisciplinary approach addressing child obesity. Utilizing strategies from maternal/child health and nutrition, exercise physiology and child development, this program encourages preschool children and their families to engender healthy eating habits and being active every day. Cooperative Extension staff provide 24, 30-minute lessons three times a week for eight weeks to preschoolers. Families are engaged in weekly nutrition activities and monthly events to extend the education to the home.

**Results**

Data from the initial pilot program showed that from 70-80% of children would choose a health snack over an unhealthy snack when present a choice.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
802	Human Development and Family Well-Being

**Outcome #2**

**1. Outcome Measures**

Percent of preschoolers improving physical skills highlighted in the Nevada Pre-K standards.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

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

**Issue (Who cares and Why)**

Physical activity and ability is linked to childhood obesity. Physical activity is one way to help reduce childhood obesity.

**What has been done**

Physical activity is included along with nutritional education in the "All for Kids" program addressing child obesity. Utilizing strategies from maternal/child health and nutrition, exercise physiology and child development, this program encourages preschool children and their families to engender healthy eating habits and being active every day. Cooperative Extension staff provide 24, 30-minute lessons three times a week for eight weeks to preschoolers. Families are engaged in weekly nutrition activities and monthly events to extend the education to the home.

**Results**

The results of the pilot demonstrated that before the program children not only could not complete all tests expected upon entry into kindergarten. After the eight week program, however, they improved in all 12 skills greater than 70% except in one which was only 69.2%. Skills tested included spatial movement, motor coordination, endurance and duration.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
724	Healthy Lifestyle
802	Human Development and Family Well-Being

**Outcome #3**

**1. Outcome Measures**

First and second grade students learn healthy food choices and good physical activity choices.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

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

**Issue (Who cares and Why)**

Positive health habits lead to decreased likelihood of adult obesity and its associated chronic diseases. Individuals (including children) from lower socio-economic status are more likely to be obese or overweight than those of higher socio-economic status.

**What has been done**

Chefs for Kids (CFK) is a nutrition education program for primary-grade children in "high needs" elementary schools (ES), supported in part by the ACF Chefs of Las Vegas. 'High-needs' schools are defined as those having 50% of students eligible to receive free or reduced price lunches. The program consists of two parts: an intensive, second grade curriculum (Choose Well, Be Well) and a video curriculum (Adventures with Chefs for Kids) aimed at first graders. The first grade curriculum introduces the concept of food groups to children with a five-part program. The weekly second grade program focuses on the origin, use and need for food as well as on physical activity practices that engender lifelong, healthy lifestyles in children to lower their risks for developing obesity and chronic diseases. A variety of teaching methods are used to ensure children in all learning categories will be able to achieve. \*All materials are written in English and Spanish.

**Results**

For the second grade program:

- \* Of the 1340 students assessed for hand washing skills, 81% responded successfully.
- \* Of the 1229 assessed for knowledge of active lifestyle activities, 94% were able to list two activities, 5% listed one activity and only 1% of students could not list any.
- \* Of the 909 students completing food categorization, 82% listed two foods from each food group with no errors and 7% scored 9 out of 10. Only one student was unable to list any foods at all.
- \* In schools where students attended at least 25 program lessons (79% of participants; n=864), at pre-intervention, 24% of students chose three snacks rated as less healthful; following the intervention, only 6% of students chose three snacks rated as less healthful.

For the first grade program: Of the 2141 evaluated for food categorization, the average score was 89.8%, with 41% identifying all foods, 23% missed only one food and 13% missed 2 foods.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
802	Human Development and Family Well-Being

**Outcome #4****1. Outcome Measures**

Youth learning to make healthy food choices and gaining physical activity through "hands on" school garden based educational programs.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

**3c. Qualitative Outcome or Impact Statement****Issue (Who cares and Why)**

Childhood obesity is a recognized public health problem. Today's students are in the first generation whose life span may be less than their parents due to obesity and related diseases. Washoe County students' obesity rate is over 38%, higher than the national average.

**What has been done**

This program was developed to meet the nutrition needs identified above through the delivery of a garden-based nutrition education curriculum. Spring 2009 "Nutrition in the Garden" classes were conducted with third, fourth and fifth grade students, and fall classes with fourth and fifth grade students at a Washoe County charter school having a high percentage of Hispanic students and a low rate of literacy. The increased obesity and chronic disease risks of these children is heightened by their socioeconomic status and ethnicity. In program year 2009 the formal education component (64 lessons, approximately 21 lessons per grade) was delivered to 71 students for a total of 1,518 contacts. School wide events including a farmers market, summer program and a new parent/teacher garden group resulted in a combined additional 583 contacts. One hundred twenty parents participated - with eight serving as garden volunteers - and the remainder attending out-of-school events. Take home assignments and information flyers provided an additional 540 indirect contacts. The program has been expanded in program year 2010 with third and fifth grade classes at a public elementary school participating.

**Results**

The program met a key experiential goal of providing exposure to and tasting of over 15 varieties of fresh vegetables and fruits, many of which were grown by the students in the school garden. Knowledge gains were reflected in improvements from pre- to post-testing by fourth and fifth grade students on correct identification of MyPyramid components and by third grade students' ability to categorize fruits and vegetables by color. In assessing health-promoting behaviors, self-reported produce intake increased over the course of the program and 50 percent of students reported a non-significant ( $p = .69$ ) increase in physical activity between pre- and post assessment. However, pedometer data was inconclusive; with one grade each showing a decrease, increase and no change in activity. Post-program teacher interviews provided valuable qualitative data for program content and logistics refinement. Classroom and garden-based activities were appraised positively. The school principal and participating teachers continue to express enthusiastic support for the program.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
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703	Nutrition Education and Behavior
724	Healthy Lifestyle
802	Human Development and Family Well-Being

## **Outcome #5**

### **1. Outcome Measures**

American Indian children to 1) increase awareness of and exposure to a variety of vegetables and fruits, including traditional American Indian varieties via classroom nutrition lessons and a school wide fruit tasting event, 2) provide an introduction to plant growing with in-class "gardening" experiences and 3) engage the parents through take home assignments and newsletters.

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
2009	{No Data Entered}	0

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

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

Of all ethnic groups, American Indian children are at greatest risk for obesity, attendant development of diabetes and other chronic diseases. It is recognized that exposures in youth can help shape food preferences later in life. Awareness of the health benefits of traditional foods, promotion of their consumption and subsistence or supplementary vegetable gardening are methods cited to promote the desired intake of vegetables and fruits recommended in the Dietary Guidelines 2005 and USDA's MyPyramid food guide. In its third year, this program addresses the nutrition needs identified above and that of childhood obesity.

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

The 2009 "Veggies For Kids" education program reached four classes totaling 55 students resulting in 40 hours of nutrition instruction. Including pre- and post-testing, 660 contacts occurred. The two school wide fruit tasting events reached 211 students and 25 teachers. Take home assignments and parent newsletters resulted in 733 indirect contacts.

#### **Results**

Pre- and post-test data was collected on 43 students. Preliminary data analysis showed an improvement in recognition and identification of the MyPyramid food groups, with 90 percent of students correctly naming the food groups compared with 49 percent at pre-test; ability to identify selected vegetables increased at post-testing (four of the six vegetables presented were correctly identified by over 75 percent of students); and preference for four of the six vegetables increased somewhat from pre-test (range 19 - 83 percent, mean = 46 percent) to post-test (range 35 - 81 percent, mean = 54 percent). Significance (Pearson's chi-square/Fisher's Exact,  $p < .05$ ) was shown in the following when comparing pre- and post-testing: 1) increased ability to identify and name the Meat and Beans group on the MyPyramid for Kids graphic, 2) increased preference for five of the six vegetables used for pre- and post-testing; 3) increased ability to name four of the six vegetables used for pre- and post-testing; and 4) increased number of students who were willing to sample two of the vegetables not previously tasted.

Response to the program from the participating teachers, principals and school food service staff continues to be positive and supportive of continuation.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

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

##### External factors which affected outcomes

- Economy
- Appropriations changes
- Other (Grant Funding)

##### Brief Explanation

In FY08 Nevada had a 6% cut in state budget and a 8% cut in FY09 budget. For FY10 and FY11 a 17% reduction in state budget was mandated. An additional cut of 6.9% for FY10 & FY11 has been announced. This has impacted overall 2009 programming and will have a major impact on overall programming for FY10, FY11 and beyond. However, this particular program has not been negatively impacted at this time although the potential remains.

Grant funding is key to this program. A major \$1Million grant has been received to expand beyond the programming efforts. Grant funding and community resources (volunteer as well as funding) are the major sources of support at this time.

#### V(I). Planned Program (Evaluation Studies and Data Collection)

##### 1. Evaluation Studies Planned

##### Evaluation Results

{No Data Entered}

##### Key Items of Evaluation

{No Data Entered}

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

**Program # 5**

**1. Name of the Planned Program**

Food Safety

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
307	Animal Management Systems	35%			
308	Improved Animal Products (Before Harvest)	25%			
311	Animal Diseases	15%			
315	Animal Welfare/Well-Being and Protection	5%			
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	10%			
806	Youth Development	10%			
	<b>Total</b>	100%			

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

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

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Actual	0.8	0.0	0.0	0.0

Actual	0.8	0.0	0.0	0.0
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2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
28839	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
28839	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
41930	0	0	0

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

1. Brief description of the Activity

Nevada's primary food safety program focuses on the "Beef Quality Assurance" program. The Beef Quality Assurance (BQA) program's mission is to maximize consumer confidence in acceptance of beef by focusing the industry's attention on beef quality assurance through the use of science, research and education initiatives. American families expect and



deserve quality and wholesome beef. Cow-calf producers are the very first link in the production chain. What they do in the raising, feeding and marketing of these animals does have an impact on the final beef product. The incentive in this voluntary program is the satisfaction that participants (beef producers) are doing everything in their power to produce a wholesome product. By attending this program and becoming certified, producers are increasing consumer confidence in their product, "Beef."

At this time major follow up evaluations have not been conducted but are being conducted in 2010.

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

Beef producers and youth involved in livestock 4-H projects or livestock shows. (All youth participating in statewide and local livestock events are being required to have "quality assurance" training modeled on the BQA program in order to participate in livestock events or projects.)

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

**1. Standard output measures**

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Plan</b>	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
<b>Actual</b>	4700	0	1100	0

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

**Patent Applications Submitted**

Year: 2009

Plan:

Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2009	Extension	Research	Total
<b>Plan</b>			
<b>Actual</b>	3	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- {No Data Entered}

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

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

O. No.	OUTCOME NAME
1	Number of beef producers and related industry persons BQA certified.
2	Number of youth learning animal "quality assurance" principles for livestock they raise or show in 4-H or other livestock events.

**Outcome #1**

**1. Outcome Measures**

Number of beef producers and related industry persons BQA certified.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	120

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

**Issue (Who cares and Why)**

American families expect and deserve quality and wholesome beef. Cow-calf producers are the very first link in the production chain. What they do in the raising, feeding and marketing of these animals does have an impact on the final beef product.

**What has been done**

Nevada has developed a Beef Quality Assurance program in conjunction with the beef industry to promote and educate on proper practices to raise wholesome, nutritious and safe beef products.

**Results**

A Nevada BQA Study Manual was produced in 2009. Over thirty sale yard, forty feed yard, and fifty ranch producers were level 1 BQA certified in 2009. This includes Hispanic and English speaking cattlemen. During the Main Station Farm Field Day held in Reno, over 600 of the general public were taught about food safety and beef production practices through the BQA educational trailer display.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
806	Youth Development

**Outcome #2**

**1. Outcome Measures**

Number of youth learning animal "quality assurance" principles for livestock they raise or show in 4-H or other livestock events.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	1000

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

**Issue (Who cares and Why)**

What has been done

Results

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
806	Youth Development

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

**External factors which affected outcomes**

- Appropriations changes

**Brief Explanation**

In FY08 Nevada had a 6% cut in state budget and a 8% cut in FY09 budget. For FY10 and FY11 a 17% reduction in state budget was mandated. A further cut of 6.9% has been announced for the FY10 & FY11. Reductions in budgets could impact future programming in this area. The proposed restructuring of the College of Agriculture within the College of Science and elimination of two departments could impact a state specialist position which has contributed to this program.

**V(I). Planned Program (Evaluation Studies and Data Collection)**

1. Evaluation Studies Planned

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)****Program # 6****1. Name of the Planned Program**

Human &amp; Family Development

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
702	Requirements and Function of Nutrients and Other Food Components	5%			
703	Nutrition Education and Behavior	5%			
802	Human Development and Family Well-Being	65%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	15%			
806	Youth Development	10%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)****1. Actual amount of professional FTE/SYs expended this Program**

<b>Year: 2009</b>	<b>Extension</b>		<b>Research</b>	
	<b>1862</b>	<b>1890</b>	<b>1862</b>	<b>1890</b>
Plan	14.8	0.0	0.0	0.0
Actual	12.4	0.0	0.0	0.0

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

<b>Extension</b>		<b>Research</b>	
<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
341267	0	0	0
<b>1862 Matching</b>	<b>1890 Matching</b>	<b>1862 Matching</b>	<b>1890 Matching</b>
341267	0	0	0
<b>1862 All Other</b>	<b>1890 All Other</b>	<b>1862 All Other</b>	<b>1890 All Other</b>
496183	0	0	0

**V(D). Planned Program (Activity)****1. Brief description of the Activity**

In 2009 Human & Family Development programming primarily focused on the interrelated areas of children, youth and families at risk, positive youth development, parenting education, literacy and child care provider training. A variety of activities are undertaken in this program including capacity building for youth, adults (including seniors), families and other youth and family professionals through education classes and workshops, newsletters, and publications including curriculum. Some

curriculum and materials are web based as well. Some of the programming is also linked to eXtension COPs as well.

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

Target audiences include:

- Child care providers & other youth/family professionals
- Parents/families
- At Risk Youth & Families including Military families (Regular, Reserves and National Guard) and seniors

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

**1. Standard output measures**

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	10000	0	12000	0
Actual	13680	0	11214	0

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

**Patent Applications Submitted**

Year: 2009  
 Plan: 0  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2009	Extension	Research	Total
Plan	10	0	
Actual	24	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- Number of MAGIC curricula distributed.  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of child care providers receiving training to improve their child care skills

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	2000	2069

**Output #3**

**Output Measure**

- Number of youth and parents graduated from the entry level juvenile offenders program (MAGIC).

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	100	190

**Output #4**

**Output Measure**

- Number of adults and youth reached in the Family Storyteller literacy program.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	2500	5691

**Output #5**

**Output Measure**

- Number of youth reached through traditional 4-H Club membership.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	6000	12973

**Output #6**

**Output Measure**

- Number of youth reached through 4-H youth development programs through non-4-H Club membership (ES 237).

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2009	37000	54607



**V(G). State Defined Outcomes****V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of child care providers and family/youth professionals learning new knowledge or skills.
2	Number of youth and adults improving literacy skills.
3	Youth 16-25 who are unemployed and not in school develop job and life skills ("Bootstraps" program) to transition into gainful employment.
4	Juvenile offenders in Project MAGIC develop the positive skills and attitudes designed to leave the criminal justice system and become productive members of society.

**Outcome #1**

**1. Outcome Measures**

Number of child care providers and family/youth professionals learning new knowledge or skills.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	1000	0

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

**Issue (Who cares and Why)**

Grant funding from the Nevada State Licensing Bureau is provided each year to develop early childhood teacher training curricula. In 2009 the focus was on developing a 3-hr. training workshop entitled Murphy's Terrible, No Good, Very Bad Day: Emergency Preparedness for Child Care Programs. The purpose of this curriculum was to have caregivers become knowledgeable about the potential risks of an emergency happening in their program and to begin the process of developing an emergency plan.

**What has been done**

The curriculum was developed and used in training child care providers around the state.

**Results**

Pre-post evaluation of the Murphy's Terrible, No Good, Very Bad Day workshops found that participants showed significant ( $p < .05$ ) gains in knowledge of: 1) types of possible emergency situations, 2) reasons to be prepared for an emergency, and 3) the critical components necessary in an emergency plan.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

**Outcome #2**

**1. Outcome Measures**

Number of youth and adults improving literacy skills.

**2. Associated Institution Types**

- 1862 Extension

### 3a. Outcome Type:

Change in Action Outcome Measure

### 3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1500	0

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

The "Family Storyteller" programs are designed to increase the amount of literacy and learning activities provided for young children and parents. A 2005 area-wide needs assessment confirmed the need for early literacy and school readiness programs that include both adults and children.

#### What has been done

"Family Storyteller" is a multifaceted family literacy program aimed at increasing the amount and quality of time parents and young children spend together in literacy enriching activities. The project targets those families with preschoolers and beginning readers (ages 3-7) who may have limited language skills and few children's books at home, and involves a multi-agency collaboration with KNPB-TV, Children's Cabinet, Nevada Literacy Coalition, Washoe County Library, and Washoe County School District. Four separate program thrusts were pursued in 2009 - (a) Family Storyteller for English Language Learners; (b) Cuentos en familia, an entirely new, all-Spanish version of the Family Storyteller; (c) Native American Family Storyteller Project; and (d) the Original Family Storyteller for English speaking parents and their children.

#### Results

In 2009 evaluation was conducted for the pilot Native American Family Storyteller program. Evaluation was conducted with the pilot groups, including ratings of weekly sessions, use of take home activities, post-prior rating of use of interactive reading skills, and end of session evaluation. The following results are based on the 25 families in the pilot group. Rating of the overall workshop series was 4.76 (with 1 low and 5 high). Ratings of the six individual sessions ranged from 4.67 to 4.85. Participants showed a gain in use of 9 of the 14 targeted interactive readings skills. Each session included additional take-home, book-related activities for parents and children to do together at home; participants indicated doing an average of 8.65 activities or 43.25% of all of the suggested activities. At the end of the program participants were asked what had happened as a result of participating in the workshop series: 100% talked with children about the cultural lessons in the books, 80% found out more about tribal cultural traditions, and 80% learned information about their culture and traditions that were new to them. Also, at the end of the sessions participants were asked about their reading practices before the workshop compared to after (1 = a lot less, 5 = a lot more). Parents reported reading more with their children about cultural traditions (M = 4.20); talking more with children about cultural traditions (M = 4.40); enjoying reading to their children (M = 5.00); children enjoying reading books with them (M = 5.00); and parents enjoying reading for themselves (M = 4.20). Participants also indicated that they had purchased or borrowed an average of 3.60 books for children over the course of the program. Comments indicated that participants were excited about reading books specifically about Native American cultures, having the opportunity to talk with their children about tribal and cultural traditions, and to learn new things about their culture that they did not know. The Native American pilot program will be expanded in 2010 and evaluated further.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

**Outcome #3****1. Outcome Measures**

Youth 16-25 who are unemployed and not in school develop job and life skills ("Bootstraps" program) to transition into gainful employment.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
2009	{No Data Entered}	0

**3c. Qualitative Outcome or Impact Statement****Issue (Who cares and Why)**

Nevada has one of the worst records in the nation regarding the successful transition of youth to adulthood. This data is based upon comparative statistics (local newspapers and Reno Gazette) of the rates of young people not prepared for work or additional education after high school. The obvious economic impacts on the family and community regarding idle youth not capable of supporting themselves is only one dimension of the failure to transition. Increased crime rates including drug/alcohol related problems, unemployable adults who cannot financially support their children, and other societal ills also come into play. Research supports the need for targeting these families with the least financial resources and family support to help the children prepare themselves for the world of work. Additionally, the most vulnerable families, those headed by low income single females, are targeted for this program.

**What has been done**

"Bootstraps" is a 6 week program for youth 16-25 years of age who are not in school and not employed. The program combines work with interactive classroom instruction on life skills and career counseling. An adult job coach directs the natural resource field work. Real experiences on the job are used by the job coach to reinforce the life and social skills introduced during "school."

The teens participate in intensive safety/survival training to prepare them for physically demanding work at the isolated, mountain job sites. The work requires the ability to use hand tools and power tools including chain saws.

Each work week began with five hours of instruction that includes team building, peer relations, goal setting, problem solving, self-responsibility, decision-making, resume writing, communication skills and Internet job searches. Participants are paid for a 40-hour work week that includes overnight camping at the job site. The teens are responsible for purchasing and preparing food for the week while in the field.

After the weekly classes, the group worked on environmental jobs on Nevada's public lands, completing projects to improve wildlife habitat in remote areas of Nevada including building wildlife habitat enclosures and removing or thinning undesirable vegetation.

**Results**

Statistically significant improvements of participants work habits and skills were revealed as a result of comparison of pre and post surveys. Emergent themes from these first two years of interviews of program graduates 12 months after the program include success in securing full time employment post Bootstraps and confidence in being able to be successful on the job.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

#### Outcome #4

##### 1. Outcome Measures

Juvenile offenders in Project MAGIC develop the positive skills and attitudes designed to leave the criminal justice system and become productive members of society.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	{No Data Entered}	190

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

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

Nevada has one of the highest per capita juvenile incarceration rates in the nation. Several Nevada studies indicate that taxpayers support community based, prevention programming. A statewide survey of all adjudicated youth in state run juvenile detention facilities found that few alternatives to detention exist. Violence and crime among youth continues to be an enormous problem for families and communities nationwide.

###### What has been done

Project MAGIC is designed for entry level juvenile offenders and their families that were referred through probation. Partners include school administrators, juvenile court judges, probation department personnel and others concerned about the welfare of young people. This after school program is conducted three times a week over an eight week period. In 2009, Project MAGIC graduated 190 youth and their parents from the program. Each youth participated in 20 hours of formal instruction, and each parent participated in 10 hours of instruction. While in the program, instructors help teens increase their self-esteem, improve attitudes toward peers and school, and increase communication with parents and other adults. MAGIC is designed to help juvenile offenders leave the criminal justice system and become productive members of society. While participating in MAGIC, young people ages 12 to 18, learn: positive communication skills; problem solving; decision making; self-responsibility; conflict resolution; and, goal setting. Youth also select and conduct a service project designed to benefit their community.

###### Results

In the 2009 MAGIC program the follow results were obtained from participants.

Youth were significantly more likely to report that they earned high grades in school ( $p < .01$ ) and that their

grades were better than most of the other students in their class ( $p < .05$ ) at post-test than at pre-test. At post-test, they reported missing fewer days of school fewer thoughts about dropping out of school than at pre-test ( $p < .01$ ). In addition, after completing the program, youth reported increased participation in out-of-school time activities and community service or volunteer work ( $p < .01$ ).

Personal drug use also decreased over the course of the program. Participants were more likely at post-test, however, to report that they would get drunk if they had a chance and knew they would not be caught than at pre-test ( $p < .05$ ).

They were also more likely to agree that they would like to get out of their neighborhood at post-test than at pre-test ( $p < .05$ ).

Youth were more likely to agree that they made plans for the future and that they felt confident about themselves at post-test than at pre-test ( $p < .05$ ).

Parents were more likely at post-test than at pre-test to report that they asked their child if his or her homework was done ( $p < .05$ ) and to believe that their child knew what causes his or her stress and how to relax ( $p < .05$ ).

Parents were also more likely to believe that their child considered self-discipline important to success at post-test than at pre-test, though this difference was only marginally significant ( $p = .057$ ).

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

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

##### External factors which affected outcomes

- Appropriations changes
- Public Policy changes
- Other (Grant funding availability)

##### Brief Explanation

In FY08 Nevada had a 6% cut in state budget and a 8% cut in FY09 budget. For FY10 and FY11 a 17% reduction in state budget was mandated. A further cut of 6.9% for FY10 and FY11 has just been announced in addition to the 17% reduction. This has caused the loss of several positions (or positions unfilled) and resulted in changes in resources for programming. This has impacted 2009 programming and will have a major impact on programming for FY10, FY11 and beyond.

The availability of grant funding from other organizations and agencies has been especially important.

#### V(I). Planned Program (Evaluation Studies and Data Collection)

##### 1. Evaluation Studies Planned

- Before-After (before and after program)
- Time series (multiple points before and after program)
- Case Study

##### Evaluation Results

{No Data Entered}

##### Key Items of Evaluation

{No Data Entered}