

Writing for Impact

Impact Statement Writing for Extension & Research Faculty

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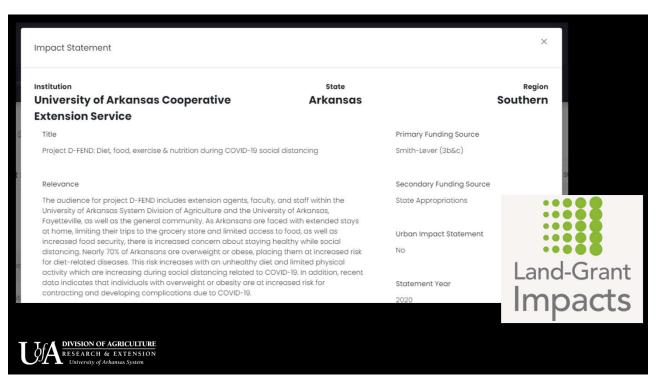
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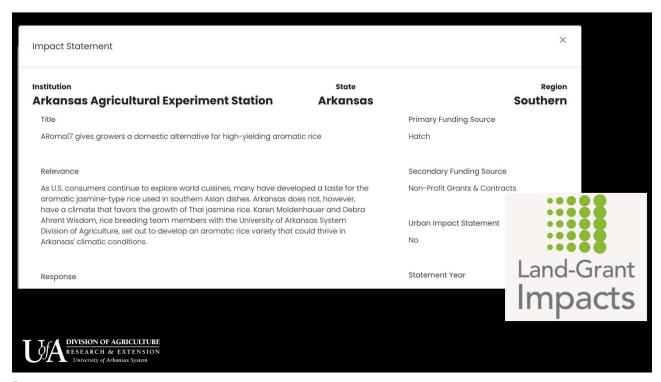
Today's Agenda

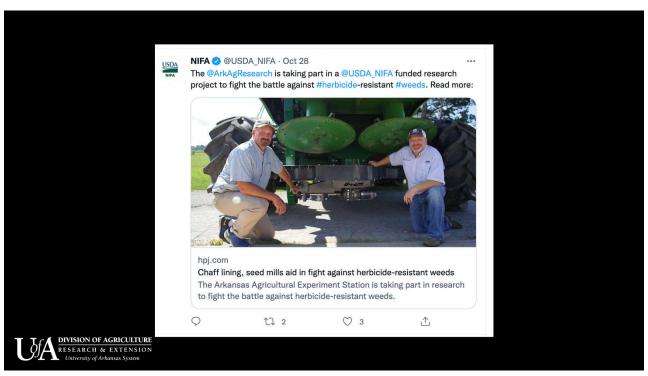
- Why impact statements?
- What should be included in a strong impact statement
 - Questions to ask when writing an impact statement
- Tips, Tricks, & Common Mistakes

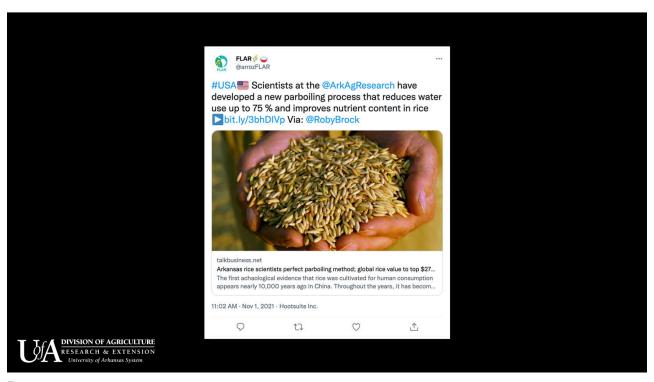


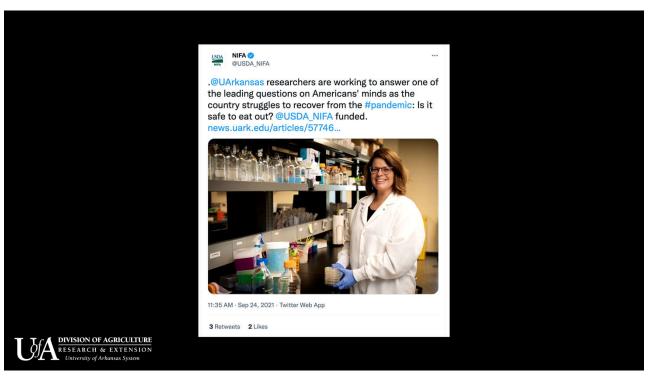












Purposes & Uses for Impact Statements

- Faculty Service Reviews
- Communication Efforts
- Grant reports
- REEport/NRS
- Internal review/evaluation- improvements, continuation
- Continued & Future Support- Stakeholders, Granters, Volunteers, NIFA

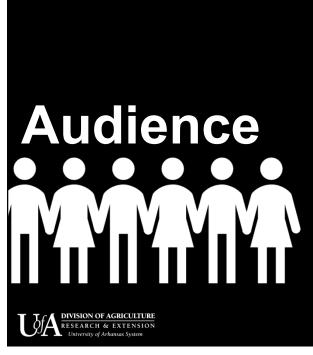


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Know what's being asked

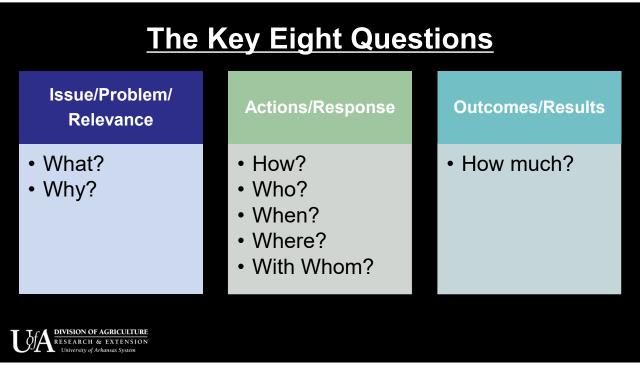
- · What are the specific requirements?
- Include photos or graphics?
- Word count or page limit?
- Who are you writing for?
- Impacts are impacts repurpose!





- •Who are they?
- What do they want to know?
 - Money
 - Education
 - Health
 - Environment

The Ideal Impact Statement What was the issue your project 1. Issue/Problem/Relevance addressed? Why is the issue important (public value)? How did you accomplish your goals? What activities did you carry out to address the 2. Actions/Response problem and achieve the desired results? Who did the work? When and where? What changed because of your actions? 闸 3. Outcomes/Results Who benefitted? To what extent? Potential/future benefits? DIVISION OF AGRICULTURE RESEARCH & EXTENSION University of Arkansas System



What makes a good impact statement?

Good Bad

Specific Vague

Accessible Excessive Jargon

Problem, Process, Results No structure

13

The Issue or Problem: "What" and "Why"

- What issue, challenge, or gap did you set out to address? What are you trying to achieve (goals/objectives)?
- Why is this issue significant? Why does it merit public dollars?



15

The Issue or Problem: "What" and "Why"

- What was/is the food/agricultural research question or problem?
- What were you trying to learn?
- Who might use your research findings and to what purpose?



Definitions

Goal: a specified accomplishment to be achieved at some point in the future. It is typically aspirational and farreaching; points toward the <u>significance or public value</u> of the proposed program/project.

<u>Example</u>: Ensure that U.S. farms and ranches are economically viable and profitable enterprises by mitigating production risk.



17

Definitions

Objectives: Achievable milestones or targets to be reached. They are action-oriented and usually include a **VERB** describing what needs to change.

<u>Example</u>: Reduce annual expenditures of hay by X% by adopting new grazing practices that keep animals on pasture for more months of the year.



Best Practices for Issue/Problem (What & Why)

- 1. Provide data, where possible, to support the project's significance.
- 2. Identify your target audience or beneficiaries when explaining the significance. How much more need exists?



19

Issue/Problem Statement: Extension

PURPOSE: Extension disseminates information that people can use to improve their quality of life.

Questions

- What issue(s) is your project addressing?
- ➤ Why is this issue significant (could be at the individual, local, regional, or national level)?

Clients need resources to face financial hardships, mental health challenges, relationship strains, and compliance with social distancing while meeting household needs as a result of the COVID19 pandemic. Arkansas unemployment has more than doubled as a result of the pandemic placing families at risk of food insecurity and loss of housing all while supply chain issues reduced availability and increased cost of goods. Extreme changes in routines with employment, school and childcare closures, and business hour availability created mental health challenges... Limited access to medical care, foods, and physical activities placed clients at greater risk of obesity, development of chronic disease, and inability to manage chronic conditions.



Issue/Problem Statement: Research

PURPOSE: Research contributes to a larger body of knowledge in pursuit of a solution.

Questions

- What was/is the food/agricultural research question or problem?
- ➤ What were you trying to learn?
- ➤ Who might use your research findings and to what purpose?

Researchers previously learned that the blast fungus manipulates rice plasmodesmata (PD) for disease development....researchers studied how fungal infection impacts PD structure and if it controls the sizes of molecules that pass through PD. ... this research opens a new front in plant-fungal pathogen research, with the potential to provide many novel targets for disease control and crop enhancement.



21

Actions/Response: "How?"

Methods:

- Research or educational methods in greater detail
- More likely to write for your peer group



Definitions

Outputs: Things that are produced as we achieve our objectives. They are tangible products that can be counted as a result of our activities. Output measures are useful for monitoring progress.

Examples:

- # of farmers enrolled in production risk management course
- # of new grazing practices taught
- # of trials conducted



23

Best Practices: "How"

- 1. Begin with the end in mind when trying to explain the causal relationship between activities and outputs; outputs to outcomes (see Goals and Objectives)
- 2. Adopt and use a good project planning tool and method Logic models; Theory of change/pathways modeling; mapping
- 3. Greater detail on methods, but using layman's terms



Best Practices: "How"

Context

- Tell us why you trained a particular demographic or targeted a specific field of science or geographical area.
- Remember that large numbers are NOT always better
- Give us actual numbers (numerator and denominator). Percentages alone cannot be aggregated.



25

"Who, When, Where, and with Whom?"

- Who performed the work?
- When and where was the work performed? (dates or ranges of dates; locations)
- Did you train volunteers to assist in delivery of your program?
- Did you partner with another organization?



Action/Response: Extension

Questions

- What methods were taken to address issue outlined?
- ➤ Who was reached?
- ➤ Were there any partnerships?
- > What outputs were generated?
- > Were volunteers trained to deliver the program?

The 2020 Arkansas Ballot Issue Education Program took place between September 2020 to November 2020. The program consisted of a voter guide with fact sheets describing each ballot measure, a short video and website summarizing each issue, county-based educational presentations or webinars, press releases, a monthly email newsletter, and tabletop display boards for public locations. In response to COVID-19 and a more digital presence this year, the Public Policy Center created a 33-post social media campaign highlighting ballot issues and the absentee voting process.

Extension printed 38,000 voter guides that were distributed across the state. The voter guide online was downloaded 18,587 times between when it was uploaded Sept. 10, 2020 and Nov. 5, 2020. Our ballot issue websites attracted 188,753 unique views and our educational videos on YouTube were watched 17.942 times.



27

Action/Response: Research

Questions

- ➤ What research methods were used?
- ➤ How many trials/plots/varieties were examined?
- > Extension programs integrated into project?

Three on-farm locations were identified that contained PPO-resistant pigweed at Gregory, Crawfordsville and Marion, AR. Over 30 trials in Roundup Ready, Liberty Link, Xtend and Enlist technologies were conducted to develop best management recommendations in each system. In addition, pigweed samples were taken across the state to determine the spread of PPO-resistant pigweed. Field tours and agent trainings were conducted multiple times throughout the season to educate clientele on recommendations for PPO-resistant pigweed moving forward.



Results: "How Much?" or "So What?"

- How much did you accomplish?
- What changes resulted from your efforts? What was the magnitude of the change?
- To what extent did you meet your objectives?
- Who benefited from your efforts (directly, indirectly)?
 How? How much?



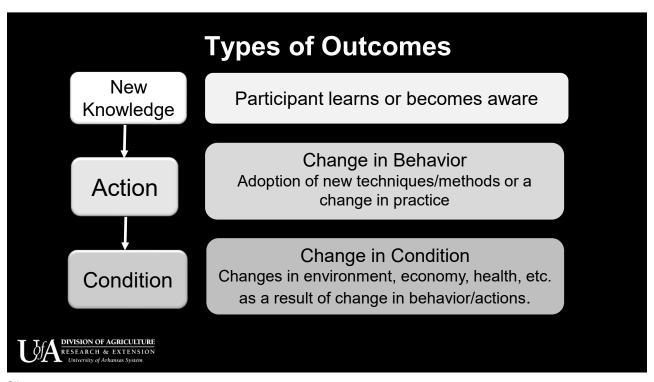
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Definitions

Outcomes: Outcomes are changes in condition that we want to see when we reach our goal. They typically start with a value change (e.g., increase in X).

- # of farmers who adopted new grazing methods
- # of additional days animals are on pasture
- % reduction in hay consumption or expenditures





Results: Extension

- How many people i) gained new knowledge? ii) achieved a change in behavior? iii) realized a difference in their condition as a result of the program?
- Provide actual numbers, not just percentages, for participants when reporting outcomes
- Evidence of change, evaluation methods, measurement
- If possible, indicate the additional need in a county or state for the program/service.
- Economic impact?



Results: Extension	
Questions	➤ What changes occurred due to the program?➤ How do we know? Evaluation results?➤ Potential changes from continued adoption?

The Division of Agriculture educational efforts in cotton to promote practices to improve soil health in conjunction with the Arkansas Discovery Farms resulted in a yield increase of 9% over a three-year evaluation. We also noted an 11% reduction in cost per unit of production which translates to approximately \$60/acre. Reductions in metrics used by the supply chain to document sustainability in our three -year study closely match the 10-year goals set by the U.S. Cotton Industry.



33

Results: Research

- What did you learn?
- Why are your results or findings significant?
- How will you or others use these findings to make additional progress (basic research) or mitigate the issue for producers, homeowners, etc. (applied)?
- Does this lead to future research?



Results: Research	
Questions	➤ How did this expand the knowledge base?➤ Why are your results or findings significant?➤ Does this lead to future research?

Data generated from research conducted in 2001 is being used to characterize soil and plant nutrition needs of rice and soybean when these crops are grown in rotation which should improve our understanding of soil testing and plant nutrition relationships for rotations involving rice. Such information is provided to the Cooperative Extension Service for grower use and also considered in new fertilizer recommendations when appropriate. For example, new Zn fertilizer recommendations in the form of low-cost Zn application methods (i.e., Zn seed treatments) have been adopted by growers and are being used on an estimated 200,000 to 400,000 acres of rice grown in Arkansas.



35

Top Five Errors to Avoid

- No impact reported.
- Not showing economic impact when formulas are available or can easily be figured.
- · Being too general / being too specific.
- Excessive jargon or acronyms.
- Not proof-reading before submitting.



Helpful Tips

- Utilize data already collected
 - Evaluations
 - AIMS
 - Webneers/EARS data
 - REEport/NRS
- Research- Applications, testimonials, etc.
- Extension- Quotes, stories, etc.
- Photographs, if report allows it



37

Wrap-up Why impact statements? Remember the 8 key questions Focus on results Finishing touches (proofread!)





Common Errors Made in Impact Reports

- 1. **No impact reported** only a description of an activity. Every impact needs to report the results of the program, not just the how and why it was conducted. What changes were made by our clientele as a result of our programs? Answer the "so what" question for your reader.
- 2. **Impact of activity reported was very small** i.e. The amount saved by program participants was \$35.00 when four 4-H members learned to sew shirts or 15 Extension Homemakers saved \$6.00 per member by making a glass bottomed basket.
- 3. **Dollars reported are not focused on the intended outcome of a program** For example, "The youth livestock program reported an increase of \$0.25 per pound for the grand champion steer at the county fair livestock sale this year." The intended outcome should be focused on youth development and how individuals changed.
- 4. **Not showing economic impact when formulas are available or can easily be figured** Programs, such as Extension Wellness, have formulas in place to demonstrate the economic impact of healthy living. Check with your specialists to see if they have an ROI (return on investment) formula in place.
- 5. **Title lacks description or creativity** Title needs to grab the attention of your reader and give a glimpse of what the overall impact is going to be.
- 6. **Not proof-reading before submitting** Have at least one more set of eyes look over your impact report before uploading them into AIMS.
- 7. **Gave more credit to other organizations and agencies** we collaborated with then to ourselves. For example, listing them first or gave them primary credit because they contributed to a grant. Remember, this is an Extension program impact report.
- 8. **Writing in first person** Write statements in the third person. Not "my 4-Hers" but use "Pulaski County 4-H members" instead.
- 9. **Using acronyms or program names** only we, or only a few people, know what they mean. For example, BMPs, EHC, IPM, etc. Only after first spelling out the entire phrase/name, can you use acronyms.
- 10. **Drawing an impact from a single activity-** Many individual activities will not generate evidence of impact beyond an increase in knowledge. Programs will not generate measurable impact without follow up contact with participants.

Content compiled by Diane Mashburn, August 2017

Content courtesy of Dr. Tanya Dvorak, University of Kentucky Cooperative Extension Service; Dr. Karen Ballard, University of Arkansas System Division of Agriculture

Helping Broilers Cope with Coccidiosis Vaccine through Increased Dietary Amino Acids

The Problem

Coccidiosis is one of the most widespread and economically damaging diseases affecting global broiler chicken production. As the U.S. poultry industry continues to shift toward antibiotic-free production practices, vaccination is often the best option to control this intestinal parasitic infection.

However, the live vaccines used to control for coccidiosis in broiler chickens are known to cause mild intestinal disruption that impairs nutrient digestibility in the bird. Previous studies have shown that increasing dietary protein content, or amino acid density, can help birds cope with the undesirable effects of the vaccine. The established method for increasing amino acid density is to increase the soybean meal (SBM) concentration, but there are some concerns about how levels of dietary SBM will affect gastrointestinal health, litter quality, and the occurrence of footpads dermatitis. An alternative — but currently more costly — method for increasing amino acid density is to increase the number and concentrations of individual crystalline amino acids in the feed.

The Work

Sam Rochell, assistant professor of poultry nutrition, and Trevor Lee, poultry science Ph.D. student, conducted a study to compare the effectiveness of these two methods to increase amino acid density in poultry feed.

Modern broilers were obtained from a commercial hatchery and were divided into two groups — a group of broilers vaccinated with a live vaccine and a group of broilers treated with an anticoccidial drug. Within each group, broilers were raised on either a control diet or one of the two test diets. The control diet was representative of typical feed formulations used in the U.S. broiler industry. Researchers boosted the dietary amino acids in the two experimental diets either by increasing SBM or by increasing the concentration of individual crystalline amino acids.

The broiler chicken groups were raised under typical management conditions from hatch until reaching a market age of 40 days, at which point they were processed in the pilot processing plant. Growth performance and processing characteristics were measured for each of the experimental groups. Researchers also measured litter nitrogen content and the incidence and prevalence of footpad dermatitis.

The Results

As expected, the coccidiosis-vaccinated broiler chickens gained less weight and had a less efficient feed conversion ratio as compared to the broilers treated with the anticoccidial drug. But both groups of birds saw improved weight gain and feed conversion rates when fed a diet with increased amino acid density, regardless of whether SBM or crystalline amino acids were used. Additionally, breast meat yield was improved with increased amino acid density by both dietary methods. Contrary to researchers' expectations, increasing the SBM concentration in broiler feed did not result in increased litter moisture and nitrogen content, and therefore the occurrence of footpad dermatitis did not increase.

Overall, Rochell and Lee's study suggests that coccidiosis-vaccinated broilers respond positively to increased amino acid density, regardless of how the diet is amended.

The Value

Rochell and Lee's research suggests that increasing the amino acid density in feed by increasing SBM was just as beneficial to coccidiosis-vaccinated birds as increasing the crystalline amino acid content. Since feed is the costliest and most resource-demanding input in broiler chicken production (up to 70% of total production costs), Rochell and Lee found that increasing SBM feed concentration is an efficient and cost-effective method to offset coccidiosis vaccine-related intestinal health effects.

Compared with the alternative method of increasing crystalline amino acid concentrations, the higher SBM diets were about \$6 cheaper per short ton. If feeding the same amino acid levels at current typical feed prices, a single broiler feed mill producing 8,000 short tons of feed per week would save several million dollars per year.

With equivalent benefits and no detrimental effects on litter quality or footpad condition, Rochell and Lee's research indicates that higher SBM diets are currently the most cost-effective option for producers to increase dietary amino acid density to help broilers cope with live coccidiosis vaccines.

Parboiling with Reduced Water Improves Nutrient Content of Rice

The Problem

Rice is a staple food for billions of people around the world. However, micronutrient deficiency disorders are widespread in predominantly rice-consuming locations, especially in South Asia and Africa. Micronutrients like iron, calcium, folic acid and vitamin A play important roles in human health. Iron is a key component of blood's hemoglobin, which carries oxygen around the body. Calcium helps fight osteoporosis, high blood pressure and colon cancer. Inadequate intake of folic acid is associated with the risk of giving birth to infants with birth defects. Vitamin A deficiency can weaken the immune system and cause delayed growth in children. Fortifying rice with essential nutrients could help improve health for its consumers.

Graduate student Annegret Jannasch, working with food science professor Ya-Jane Wang, investigated a low-cost method to fortify rice by parboiling without changing customer eating habits or requiring extensive technology investments, and with a goal to reduce wastewater impact from parboiling.

The Work

Existing fortification technologies, such as dusting the grains with a nutrient powder, adding a waxy coating of nutrients, and extrusion of reconstituted grains, all have significant drawbacks in retaining the added nutrients through cooking. They also lack consumer acceptance because of taste, color or texture. It's estimated that 15 to 20 percent of the world's milled rice is consumed as parboiled rice. Therefore, fortification by parboiling could be an excellent tool to deliver micronutrients to a large number of people. However, parboiling has a significant drawback because it uses large amounts of water during the process of soaking the grains, then by steaming, drying and milling. Untreated wastewater disposal can also result in nutrient overload in soil, presenting another serious environmental concern.

Jannasch and Wang developed a limited-water soaking method using vacuum packaging. To evaluate the method's effectiveness, they analyzed the fortified rice quality attributes, micronutrient content and wastewater impacts, and compared these results to rice fortified by traditional parboiling with excess water.

The Results

The limited-water soaking method by vacuum packaging successfully produced fortified rice with minimal impact on rice quality attributes. Simultaneously fortifying rice with iron, calcium, folic acid and vitamin A was found to increase the content of those nutrients in parboiled rice to a level near the levels prescribed by the U.S. Food and Drug Administration for fortified rice. Additionally, the limited-water soaking method reduced overall water usage in the soaking step by 75 percent, resulting in an 89 percent reduction in wastewater on average and a reduction in the amount of total solids in wastewater by up to 85 percent.

The Value

The results of this study validate the limited-water soaking method by vacuum packaging as a way to fortify rice with increased micronutrients and reduce wastewater resulting from traditional parboiling methods. The team is currently working on the scale-up of the process from laboratory to commercial production. Oxfam International, a global organization focusing on alleviating global poverty, is funding a project to scale up this process in Burkina Faso, Africa to help them adapt this fortification process to local parboiled rice production processes. As this method is optimized and incorporated into commercial operations, it has the potential to give more consumers access to rice with enhanced micronutrient content without changing their eating habits. The reduction in water usage and wastewater production projected by this method makes for a more sustainable parboiling process. And commercial operators have the potential to save money on freshwater input costs and wastewater treatment while providing added value to their customers.

2020 Ballot Issues

Relevance

Research shows that high profile candidate races often overshadow state ballot issues on Election Day (Magleby, 1984). Some voters may not develop firm opinions on ballot issues until the final days of a campaign, if they develop an opinion at all. Arkansas is no exception. Arkansas voters routinely undervote, or skip voting on state ballot questions (Arkansas Secretary of State, n.d.).

The Public Policy Center has provided neutral, research-based information on statewide ballot initiatives since 2004 in an attempt to help Arkansans participate in the decision-making process that directly affects their community.

Response

The 2020 Arkansas Ballot Issue Education Program took place between September 2020 to November 2020. The program consisted of a voter guide with fact sheets describing each ballot measure, a short video and website summarizing each issue, county-based educational presentations or webinars, press releases, a monthly email newsletter, and tabletop display boards for public locations. In response to COVID-19 and a more digital presence this year, we created a 33-post social media campaign highlighting ballot issues and the absentee voting process.

Results

Extension printed 38,000 voter guides that were distributed across the state. The voter guide online was downloaded 18,587 times between when it was uploaded Sept. 10, 2020 and Nov. 5, 2020. Our ballot issue websites attracted 188,753 unique views and our educational videos on YouTube were watched 17,942 times.

In a pre-election survey conducted online, respondents were asked about their knowledge before and after reading the voter guide. Between 49% and 70% of respondents said they had low knowledge of the issues before reading the voter guide. After reading, less than 5% said reported low knowledge of the issues. An online survey conducted after the election also showed users felt they had the information they needed to make an educated decision on the ballot measures.

Title

At Home with UAEX FCS Virtual Learning Project

Relevance

Clients need resources to face financial hardships, mental health challenges, relationship strains, and compliance with social distancing while meeting household needs as a result of the COVID19 pandemic. Arkansas unemployment has more than doubled as a result of the pandemic placing families at risk of food insecurity and loss of housing all while supply chain issues reduced availability and increased cost of goods. Extreme changes in routines with employment, school and childcare closures, and business hour availability created mental health challenges. Role changes such as parents homeschooling created spouse and parent/child relationship strains. The requirements of social distancing forced many people to telecommute resulting in an even more sedentary lifestyle than already exhibited by clients. Limited access to medical care, foods, and physical activities placed clients at greater risk of obesity, development of chronic disease, and inability to manage chronic conditions.

Response

The At Home with UAEX Virtual Learning Project is the collaboration of County FCS Agents and state level technology support staff to provide online learning opportunities for COVID19, foods and nutrition, mental and physical health, financial management, and family life education in lieu of face-to-face lessons. Content of the project is offered in recorded videos, live ZOOM with participants, informative infographics, and news articles. Both social media and non-social media users have access via multiple At Home with UAEX platforms including website page, direct client email newsletter, Facebook page, Pinterest board, and Twitter handle allowing the project to reach both traditional and new Extension audiences. Since the project launch date of March 30, 2020, Agents have provided 552 educational opportunities to meet the needs of clients while greatly increasing Extensions visibility to the general public and stakeholders.

Results

The At Home with UAEX project has reached clients 318,866 times with 21,051 direct engagements by clients with virtual learning opportunities. Of these, 87,299 clients were reached with 278 opportunities for COVID19 specific education. Content from the project has been adopted by multiple newspaper outlets, public schools, and Chambers of Commerce as part of their online education efforts deepening Extensions recognition as a reliable, research-based source in Arkansas communities. Comments from clients indicate learning and behavior adoption of healthy recipe preparation, food safety, increasing physical activity, improving relationships, financial management, and mental health self-care. In evaluation surveys, 100% of clients confirmed effective learning via these opportunities and 40% committed to implementing what they learned. One client commented, I am really impressed with the posts that you have been sending out. They are very timely and helpful topics. I believe I have shared them all to my Facebook page. A Living Well with Diabetes participant committed to monitoring her blood sugar and adjusting her diet accordingly to better manage her condition while another adopted a physical activity plan to lose weight and reduce blood pressure. The Getting Our Hearts Right relationship lessons generated these responses from a client, about what she learned and what she would do, It's not all about me. Sometimes we have to look at other people's perspectives. I will try to be more understanding when a conflict arises. In a lesson on Grocery Shopping Safety during COVID19, a participant reported she learned how to social distance and committed to wearing a mask in public. Another participant committed to going shopping less frequently and utilizing curbside pickup more often. In a lesson on Using Your Stimulus Check Wisely, a participant reporting learning where to get information on the check and to use the money to pay down bills instead of other spending.