



Enhancing Nutrition Program Benefit Utilization Through Targeted Strategies

APE Presentation - Fall 2025

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Overview

- Introduction
- Project
- Methods
- Results
- Competencies
- Conclusions
- Future Directions
- Acknowledgements



Kansas WIC Program Income Eligibility Chart

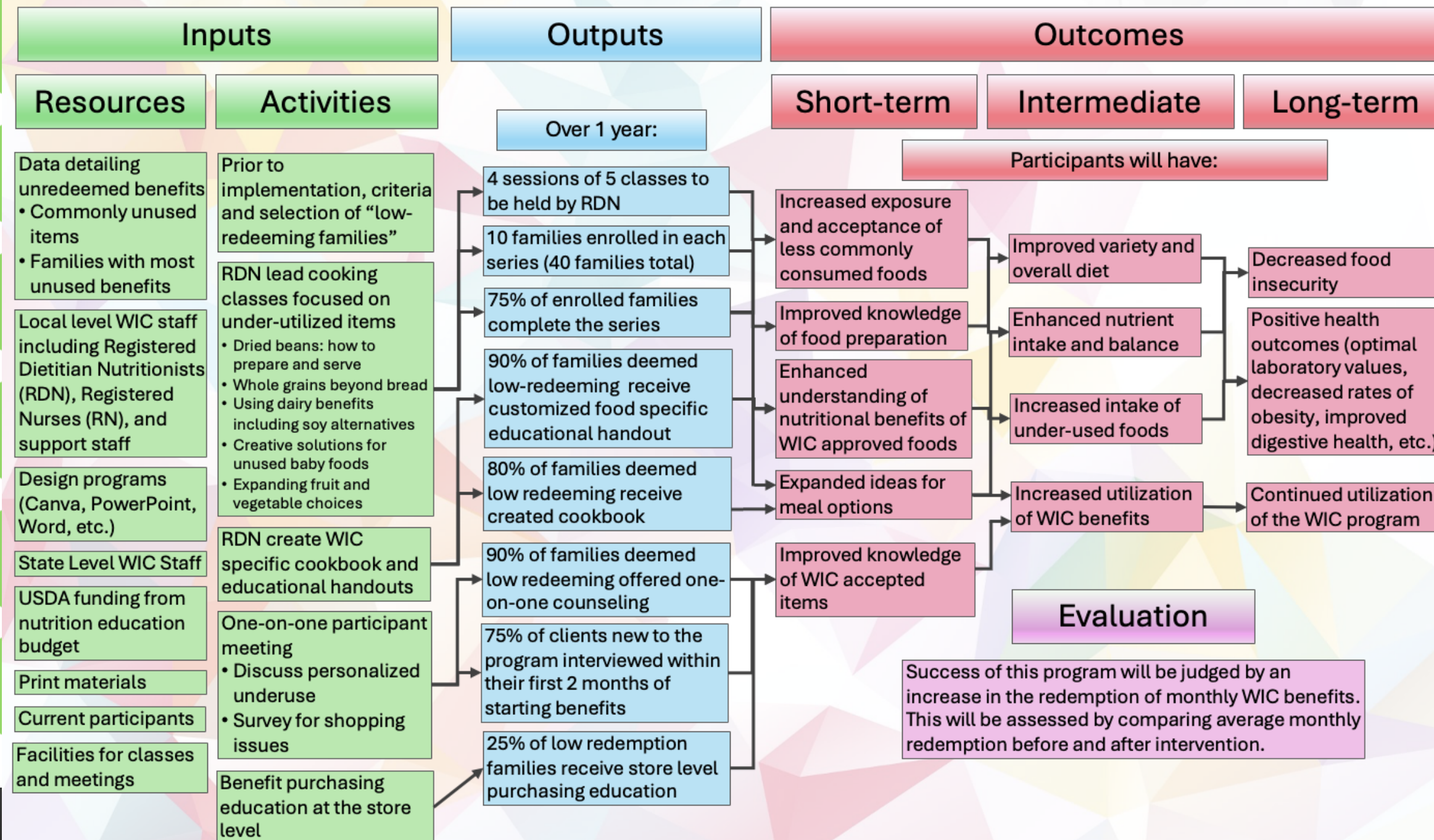
185% of the Federal Poverty Guidelines

Effective Date: May 1, 2025

Economic Unit	Income	Income	Income	Income	Income
	ANNUAL	MONTHLY	TWICE-MONTHLY	Bi-WEEKLY	WEEKLY
1	\$28,953	\$2,413	\$1,207	\$1,114	\$557
2	\$ 39,128	\$ 3,261	\$1,631	\$1,505	\$753
3	\$49,303	\$4,109	\$2,055	\$1,897	\$949
4	\$59,478	\$4,957	\$2,479	\$2,288	\$1,144
5	\$69,653	\$5,805	\$2,903	\$2,679	\$1,340
6	\$79,828	\$6,653	\$3,327	\$3,071	\$1,536
7	\$90,003	\$7,501	\$3,751	\$3,462	\$1,731
8	\$100,178	\$8,349	\$4,175	\$3,853	\$1,927
9	\$110,353	\$9,197	\$4,599	\$4,245	\$2,123
10	\$120,528	\$10,044	\$5,022	\$4,636	\$2,318
11	\$130,703	\$10,892	\$5,446	\$5,028	\$2,514
12	\$140,878	\$11,740	\$5,870	\$5,419	\$2,710
13	\$151,053	\$12,588	\$6,294	\$5,810	\$2,905
14	\$161,228	\$13,436	\$6,718	\$6,202	\$3,101
15	\$171,403	\$14,284	\$7,142	\$6,593	\$3,297
16	\$181,578	\$15,132	\$7,566	\$6,984	\$3,492
For each additional Person add:	+ \$10,175	+ \$848	+ \$424	+ \$392	+ \$196

Improving Women, Infant, and Children (WIC) Program Benefit Utilization

The food packages assigned for those on the supplemental nutrition program Women, Infants, and Children (WIC) are specifically tailored to the needs of participants. However, many do not use their full food benefit. This may lead to deficits in the diet which the program was intended to address including overall food insecurity.



Project Focus

Improve benefit redemption
using targeted education



Timeline

○ PHASE 1

Review current purchasing habits to identify least redeemed items and clients not redeeming any benefits

○ PHASE 2

Create handouts and provide to staff. Reach out to individual clients

○ PHASE 3

Evaluate data before and after intervention





MILK

Quart, half-gallon, gallon



USAGE IDEAS

More than in a glass, consider trying:

- Smoothies
- Oatmeal
- Soup

Check out the back of this handout for recipes!

PURCHASING

Milk is not is brand specific. However, your benefits will specify the type of milk you can purchase. Milk is in the refrigerated section of the grocery store except dry or canned milk.

Use the WIC Shopper App or WIC Approved Food List to verify which are eligible.

Current guidance is on reverse side.



BENEFITS

1. Important nutrients

Milk is a wonderful source of many nutrients including calcium and vitamin D!

2. Source of protein

Milk is a complete protein which means it contains all 9 essential amino acids.

3. Versatile

Trying new flavors and recipes can be fun. Get creative!

This institution is an equal opportunity provider.



MORE QUESTIONS?

Call your WIC office!

Manhattan - 785-776-4779 ext 7661
Fort Riley - 785-240-7019
Email - WIC@rileycountyks.gov



HOMEMADE MAC & CHEESE

- 8 oz elbo macaroni
- 1/2 cup all purpose flour
- 2 tbsp butter
- 2 cups milk
- 2 cups shredded cheddar cheese

1. Preheat oven to 350 degrees
2. Prepare pasta according to package and drain.
3. In a saucepan over low heat, combine flour and butter, whisking for 2 minutes.
4. Slowly add milk, whisking until well combined.
5. Add half the cheese, small amounts at a time, until melted. Remove from heat.
6. Prepare casserole dish with nonstick spray. Add pasta and then pour cheese mixture over and stir.
7. Top with remaining cheese.
8. Bake for 30 minutes or until melted and bubbly.

Adapted from Wisconsin WIC Cookbook

OVERNIGHT OATMEAL

- 3/4 cup low-fat vanilla yogurt
- 3/4 cup old-fashioned oats
- 2/3 cup low-fat milk
- 1 tbsp peanut butter
- 3/4 cup banana, diced
- 1/2 cup strawberries, sliced (optional)

1. In a medium bowl, combine all ingredients except for the banana and strawberries.
2. Gently mix in the banana. Cover and chill overnight.
3. To serve, stir well and divide into 3 small bowls. If desired, top each serving with strawberry slices.

Adapted from Kansas WIC Cookbook



MILK

Product type and size as listed on the current benefits.

FLUID MILK

- Lowfat (1/2%, 1%) or Fat Free (skim)
- Reduced Fat (2%)
- Whole Milk

SPECIALTY MILK

- Evaporated (12 oz)
- Lactose Free (quart or half-gallon)
- Nonfat Dry

NOT APPROVED: buttermilk, flavored milk, goat's milk, raw unpasteurized milk, non-dairy milk substitutes, rice milk, almond milk, coconut milk, organic milk, milk in glass containers.

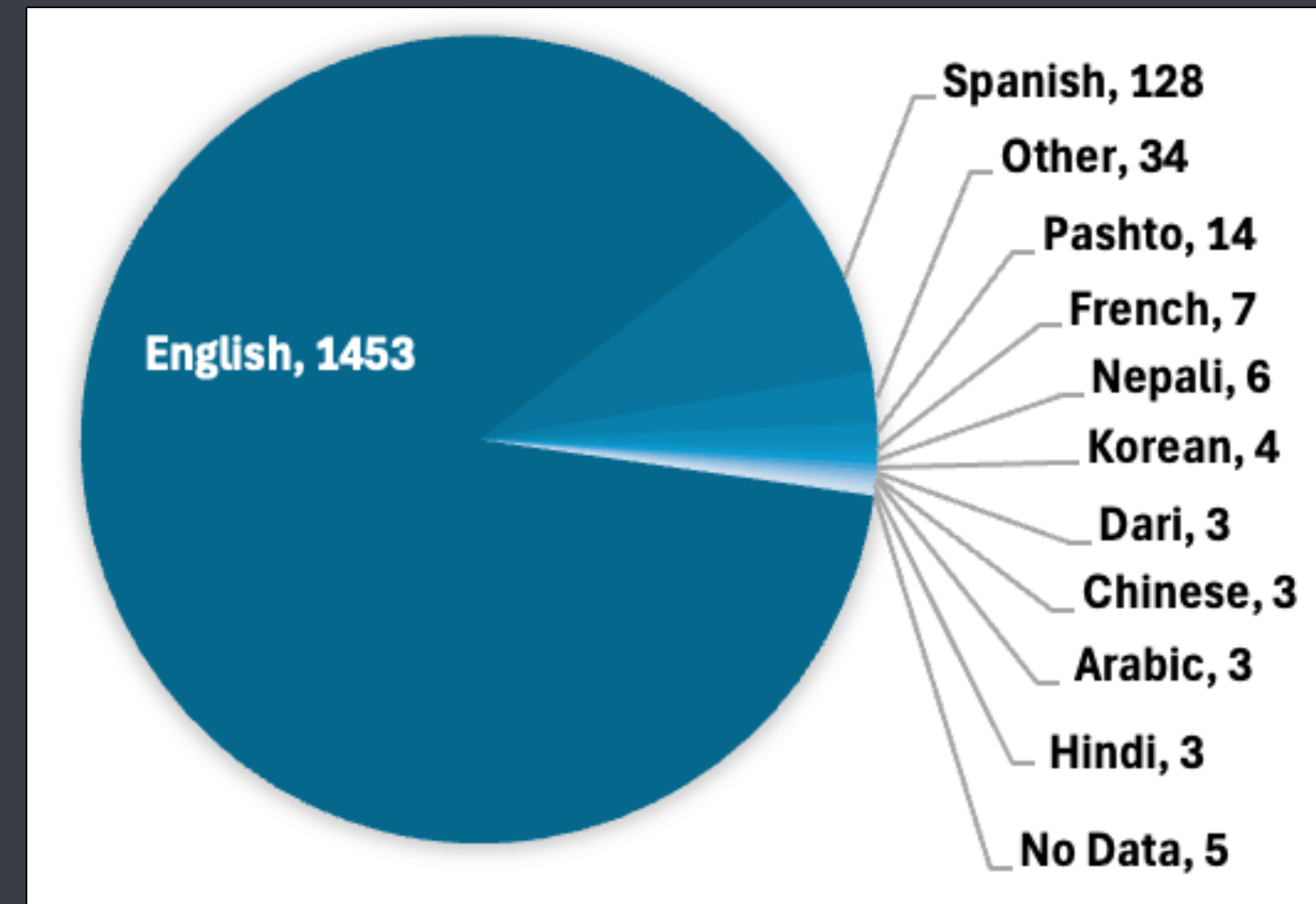
Methodology

- Request data from before and after intervention
 - 2024 vs 2025: March, April, May
- Compare issuance to utilization
 - Raw data did not account for nil
- Reformat spreadsheets for R Studio
- Work with data analyst for results

Results

Demographics

Primary Language Spoken



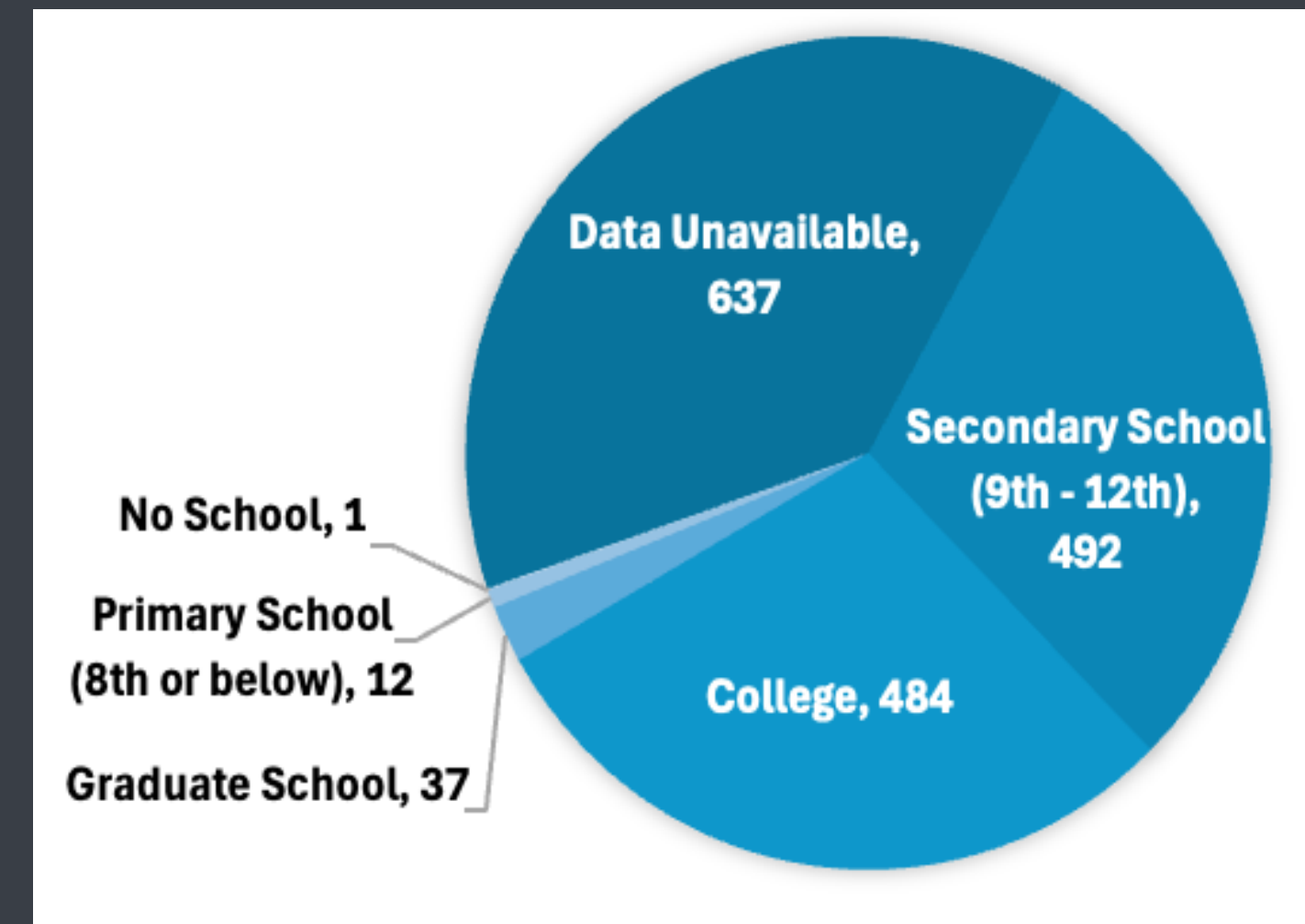
Usage Comparison Based on Primary Language

	Mean Difference	t-statistic	p-value
English vs Spanish Speaking Households	-0.0400848	-2.0418	0.04288*
English vs Non-English Speaking Households	-0.075765	-4.7229	0.0000032*

Results

Demographics

Education Level



Usage Comparison Based on Education Level

	Mean Difference	t-statistic	p-value
Advanced Education vs. High School and Below	0.09553	7.413	0.00000000002*
Highschool Diploma vs. Without	0.0559691	2.498	0.01355*
Highest Levels (College/Graduate Level) vs. Lower	0.1497686	4.8055	0.0000106*

Results

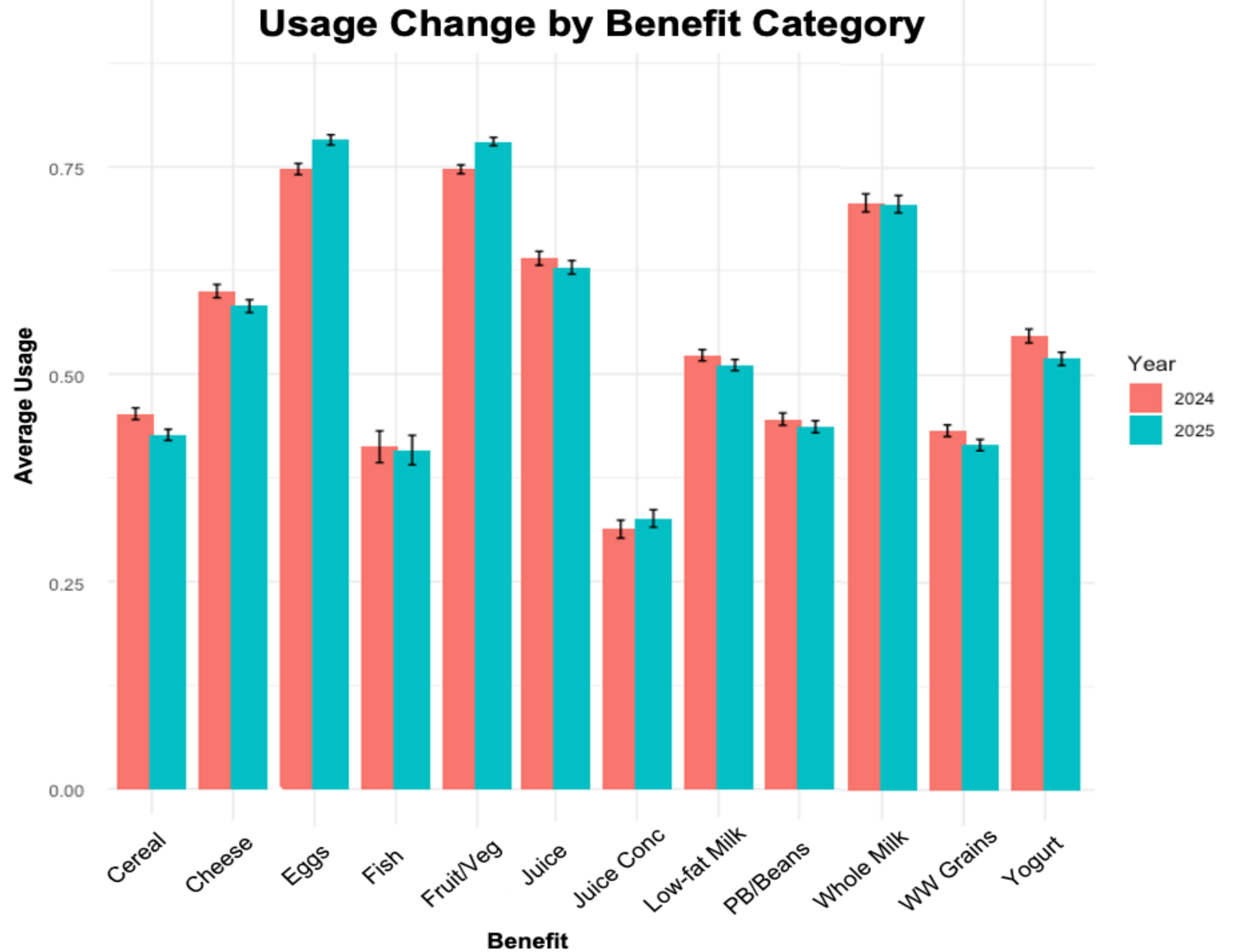
Project

Usage Change from March-May 2024 to 2025

	Mean Difference	t-statistic	p-value
All Categories	-0.0227935	-2.9705	0.003051*
All Categories Except Infant	-0.02152328	-2.6836	0.007422*

Results

Project



Results

Project

Usage Change from March-May 2024-2025 by Benefit

Benefit Category	Mean Difference	t-statistic	p-value
Baby Food Fruits and Vegetables	0.00608	0.0661	0.948
Cereal	-0.0736	-6.36	0.0000000003*
Cheese	-0.0446	-2.98	0.00295*
Eggs	0.00343	0.278	0.781
Fish	-0.0598	-0.821	0.418
Fruits and Vegetables	0.0247	2.57	0.0104*
Infant Cereal	0.0468	0.389	0.702
Infant Formula	-0.0471	-0.877	0.385
Juice	-0.0309	-2.02	0.0439*
Juice Concentrate	0.0276	0.958	0.339
Lowfat Milk	-0.0067	-0.515	0.607
Medical Formula	-0.117	-0.972	0.403
Peanut Butter or Beans	-0.0233	-1.79	0.0743
Special Formula	0.1	0.916	0.456
Whole Grains	-0.0496	-4.21	0.0000285*
Whole Milk	-0.0308	-0.748	0.457
Yogurt	-0.0778	-4.63	0.00000448*

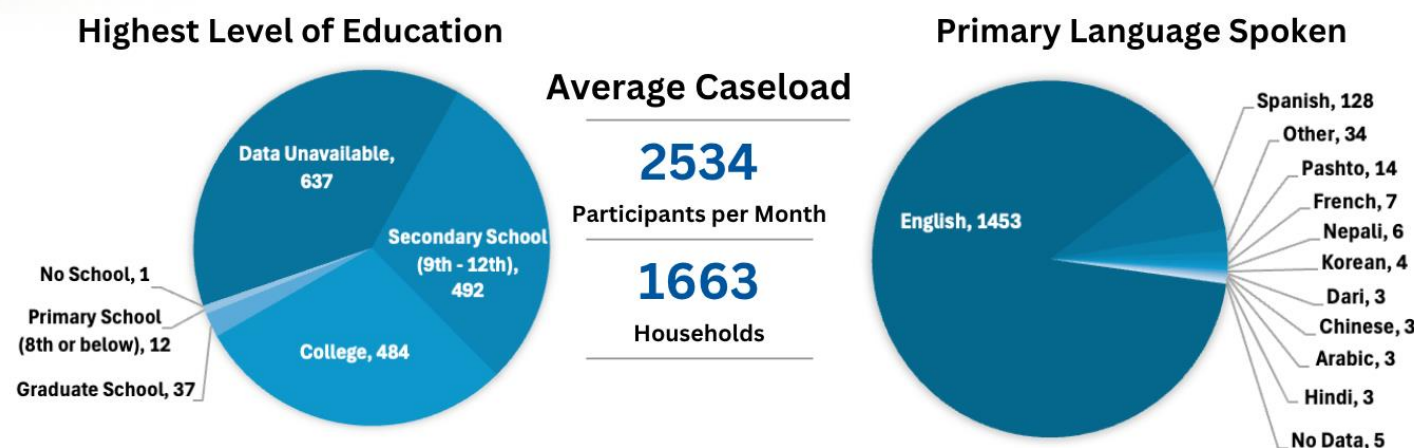
Result



RILEY COUNTY WIC DATA REPORT

MARCH-MAY
2024/2025

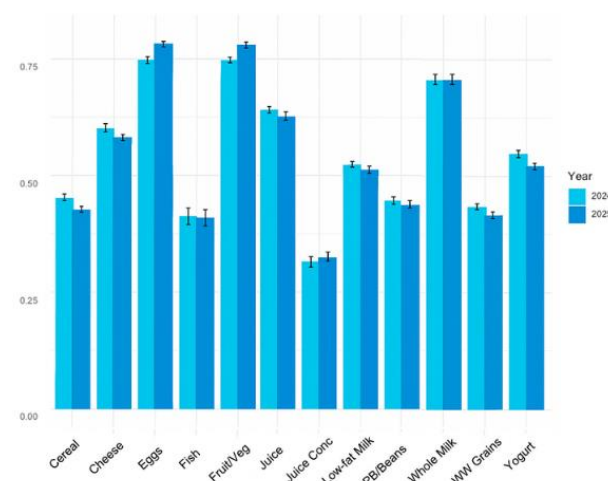
Spring 2024 Demographic Information



General Project Overview

In an effort to improve participant benefit utilization, educational handouts were created and distributed. Households which didn't use any benefits during the initial review were contacted individually to educate and assist. Redemption changes were then compared between the two years.

Benefit Redemption Percentage Change by Food Category



Usage Change from March-May 2024 to 2025

	Mean Difference	t-statistic	p-value
All Categories	-0.0227935	-2.9705	0.003051*
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Usage Comparison Based on Primary Language

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Usage Comparison Based on Education Level

	Mean Difference	t-statistic	p-value
Advanced Education vs. High School and Below	0.09553	7.413	0.0000000002*
Highschool Diploma vs. Without	0.0559691	2.498	0.01355*
Highest Levels (College/Graduate Level) vs. Lower	0.1497686	4.8055	0.0000106*

Main Take Aways

- Overall, the intervention was not successful
- There is a positive correlation between benefit usage and higher education
- There is a positive correlation between benefit usage and languages other than English

significant
benefit

Conclusion

- The intervention was not successful in improving benefit utilization
- This is a more complex issue
- Large clinic size

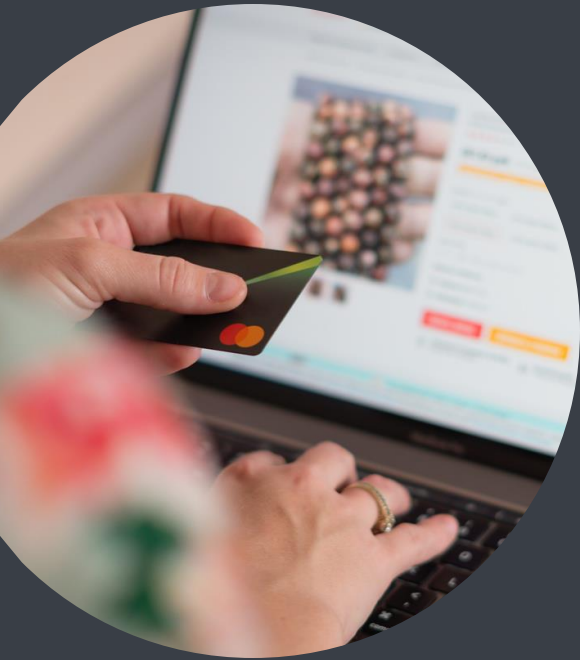


Future Direction



Improve Shopping

Changes to the shopping experience has allowed more flexibility for clients. Online shopping could help improve redemption for those who have transportation issues.



Milk Alternatives

Evaluate usage of milk alternatives to see if there is improved redemption. Consider expanding options to help meet client demands. This could expand into other cultural items.



MPH Functional Competencies

Summary of MPH Foundational Competencies		
Number and Competency		Description
22	Apply systems thinking tools to a public health issue	Shortly after understanding preceptor expectations, I created a logic model detailing different aspects of the project. This allowed me to assess what resources were available, suggest possible activities, reviewed potential outputs, and note expected outcomes. This was used to brainstorm with my preceptor about potential directions for the project.
9	Design a population-based policy, program, project or intervention	Upon understanding my preceptor's intentions for the project, I created an intervention in the form of an educational handout. This handout was to be given to clients at counseling sessions to assist in improving understanding of nutrition, usage ideas, and purchasing guidance.
3	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	Using data reports provide by the state agency, I reviewed and reformatted them so they could be used in the program R Studio to be analyzed to evaluate the intervention's effect.
4	Interpret results of data analysis for public health research, policy or practice	Based on the outcomes of the data, I was able to determine if the intervention was successful and then make recommendations based on the results.
19	Communicate audience-appropriate public health content, both in writing and through oral presentation	I reported the findings and recommendations to the local staff through a PowerPoint presentation and summary handout at a staff meeting. I also reached out to state staff with an offer to present at the next state held conference.

MPH Functional Competencies

MPH Emphasis Area: Public Health Nutrition			
Number and Competency		Description	
1	Information literacy of public health nutrition	Inform public health practice through analysis of evidence-based policy, systems, and environmental change.	Promote changes made to food packaging highlighting the alignment with the Dietary Guidelines for Americans
2	Compare and relate research into practice	Examine chronic disease surveillance, policy, program planning and evaluation, and program management, in the context of public health nutrition.	Designed an intervention including planning and evaluation to implement at the clinic level.
3	Population-based health administration	Critically examine population-based nutrition programs.	Reduce some of the barriers to benefit utilization for those receiving benefits on the WIC Program
4	Analysis of human nutrition principles	Examine epidemiological concepts of human nutrition in order to improve population health and reduce disease risk.	Promotion of WIC ideals focused on improving health outcomes by promoting specific benefit usage
5	Analysis and Critique of Functional Foods, Nutraceuticals, and Dietary Supplements	Analyze and evaluate nutritional research studies related to the relationship between diet and chronic disease prevention.	Highlight functional foods such as whole grains as part of a balanced diet.

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Major Professor - Dr. Linda Yarrow

Committee Member - Dr. Pricilla Brenes

Committee Member - Dr. Elaine Johannes

Data Analyst - Aiden Kerns

Site Preceptor - Kaylyn Speth

Riley County WIC Staff

Husband, Family, and Friends

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Questions?

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