UK HR Health and Wellness Community Supported Agriculture (CSA) Program

SUPPLEMENTAL INFORMATION

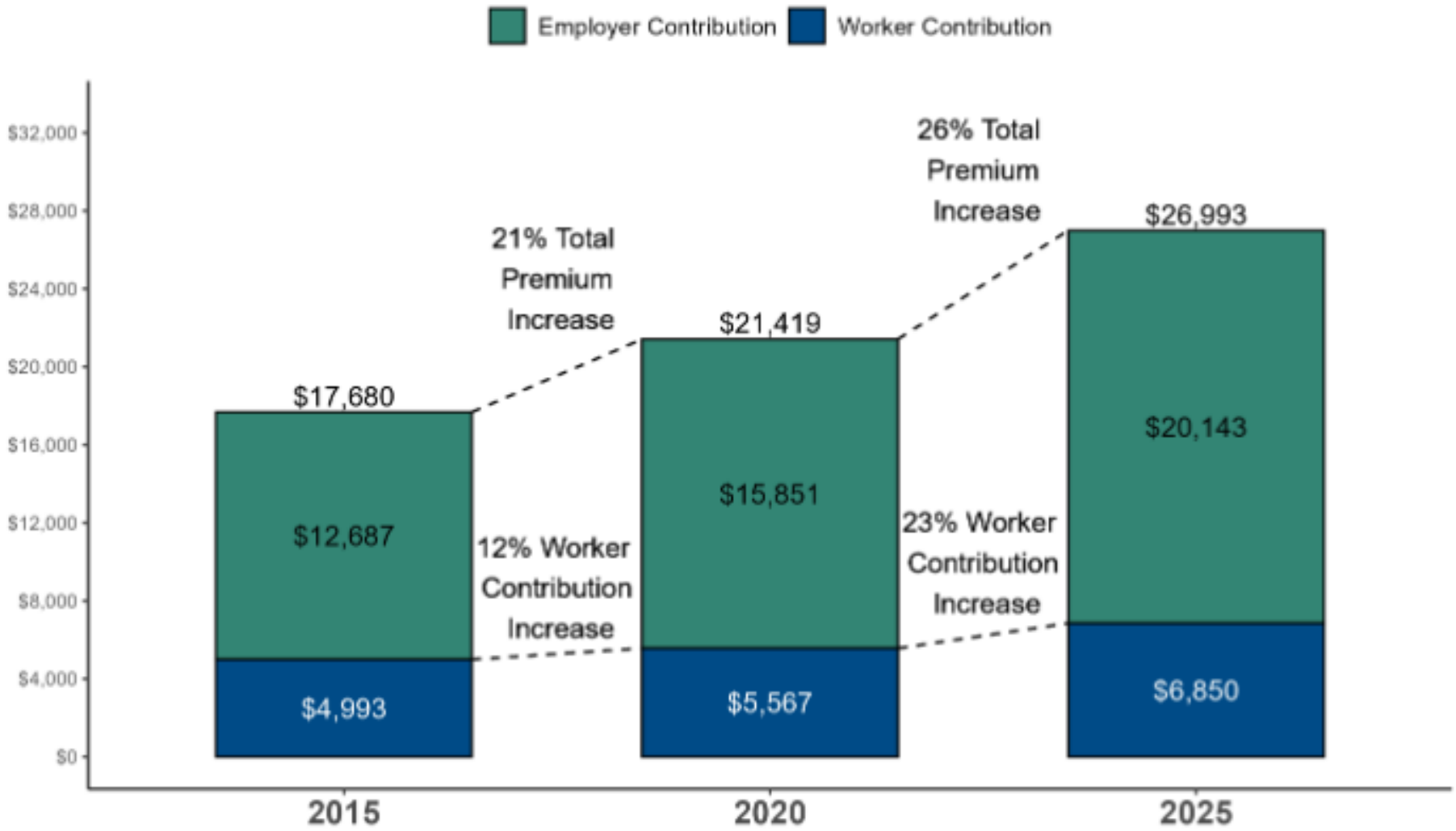
Mark Williams, PhD, Professor and Chair, Department of Horticulture, Director, UK Organic Farming Unit

Jody Ensman, MS, Well-being Manager, UK HR Health and Wellness

Tim Woods, PhD, Professor, Department of Agricultural Economics

Figure A

Average Annual Worker and Employer Premium Contributions for Family Coverage, 2015, 2020, and 2025



SOURCE: KFF Employer Health Benefits Survey, 2020 and 2025; Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2015.

Average 6 month billed medical expenses per employee
University of Kentucky 2014-2018

	2014		2015		2016		2017		2018	
N	2764	2922	3214	3406	3827	4025	4554	4546	4583	4589
Total	$3,646	$3,051	$4,367	$3,899	$5,447	$5,106	$5,371	$5,321	$6,923	$5,554
Diet-related	$261	$191	$327	$327	$497	$464	$558	$390	$654	$433
Pharmacy-related	$147	$202	$201	$180	$195	$213	$199	$219	$241	$212

Source: UK HMO billed medical insurance claims

CSA Impacts and Biometric data
UK wellness pre/post tests

Dr. Martha Biddle et al, Am Heart Assoc abstract, Nov 2021

Effect of CSA program on carotenoid level and frequencies of fruit and vegetable intake			
Variables	Beta	SE	p
Pre-carotenoids	1.088	0.075	<0.001
Pre-fruits	0.705	0.105	0.003
Pre-total vegetables	0.569	0.098	0.004
Pre-red/orange vegetables	0.564	0.131	0.013
Pre-dark green vegetables	0.812	0.088	<0.001
Pre-other vegetables	0.615	0.136	0.011

Cluster analysis was used to examine the significant changes in the levels at post-program compared to each pre-program variable levels, while controlling for age and sex. Carotenoid level was measured by Veggie meter while frequencies of fruit and vegetable intake data was collected by self-report.

Systolic blood pressure was significantly reduced

Carotenoid levels were statistically significantly increased

Frequency of fruit, total vegetable, red/orange vegetables, dark green vegetables and other vegetable intake was statistically increased

Our data identifies participation in a CSA employer incentivized program can effectively reduce blood pressure and increase vegetable intake (dermal carotenoids) and self-reported quantity and variety of fruit and vegetable consumption thereby reducing CVD risk.

Food lifestyle impacts

UK employee voucher participants 2015-2018

- Behavior increasing

Table 2. Behavior Changes – All Shareholders

		N	Before CSA Frequency	SD	After CSA Frequency	SD	p-score	t-score
	Per Month Behaviors [a]							
⇩	Eat processed snack foods	626	6.7	4.0	5.1	3.9	0.000***	-11.434
⇩	Read nutrition labels	625	8.7	3.7	7.9	4.0	0.000***	-4.759
⇧	Eat salads	740	7.5	3.7	8.5	3.3	0.000***	6.737
	Discuss nutrition with peers	625	5.2	3.8	5.4	3.7	0.166	1.387
⇧	Buy organic foods	621	5.7	4.2	6.1	4.3	0.006***	2.755
⇧	Buy food marketed as locally produced	622	6.2	3.7	6.7	3.8	0.002***	3.115
	Exercise	533	8.2	4.1	8.1	4.0	0.809	-0.242
	Watch Caloric Intake	530	6.5	4.7	6.4	4.7	0.549	-0.599
	Per Week Behaviors [b]							
⇧	Prepare dinner at home	746	5.2	1.5	5.4	1.4	0.004***	2.905
	Eat breakfast at restaurants	627	0.4	0.9	0.4	1.0	0.457	0.744
⇩	Eat dinner at restaurants	747	1.6	1.5	1.5	1.4	0.040**	-2.056
⇩	Eat processed foods for meals	745	2.2	2.0	1.5	1.7	0.000***	-9.435
	Annual Behaviors [c]							
⇧	Preserve food by freezing	615	6.7	4.6	8.2	7.2	0.000***	5.443
⇧	Preserve food by canning	615	1.1	2.5	1.9	4.1	0.000***	6.397
	Visit a farm	614	2.0	3.3	1.9	3.9	0.456	-0.746
⇩	Buy food directly from farmers or farmers' markets	617	6.0	4.1	5.3	6.5	0.004***	-2.929
⇩	Visit a doctor	509	2.0	2.3	1.6	2.9	0.005***	-2.794
	Miscellaneous							
⇧	FV [e]	624	4.3	2.5	4.5	2.2	0.030**	2.102
⇧	Health [f]	712	3.4	0.9	3.8	0.8	0.000***	13.889
	Perceptual [d]							
	More active lifestyle	613	3.5	1.3	3.5	1.2	0.457	-0.744
	Greater nutrition awareness	626	4.0	1.0	4.1	1.0	0.533	0.624
⇧	Greater awareness of food sources	616	3.5	1.1	3.8	1.0	0.000***	7.619
⇩	Consumption of processed foods	627	2.8	1.2	2.7	1.2	0.017**	-2.397
⇧	Weight loss	624	2.5	1.3	2.7	1.3	0.007***	2.703
⇧	Greater engagement with peers in conversations about food	617	3.4	1.2	3.6	1.1	0.000	5.482
⇧	Better digestive health	625	3.4	1.2	3.7	1.1	0.000	5.886
⇧	Greater cooking expertise	616	3.0	1.2	3.3	1.1	0.000	6.076
⇧	increased energy	626	3.5	1.2	3.7	1.0	0.000	5.217
⇧	enhanced positive mood	617	3.7	1.1	3.8	1.0	0.032	2.143

Legend: * p < 0.10; ** p < 0.05; *** p < 0.01.

Measures: [a] Times per month; [b] Times per week; [c] Times per Year; [d] Rating agreement with statement over past 6 months (1 = No change to 7 = Sig. Change); [e] Daily Servings; [f] 1 = Poor to 5 = Excellent.

Food lifestyle impacts

UK employee voucher participants 2015-2018

- Behavior decreasing

Table 2. Behavior Changes – All Shareholders

		N	Before CSA Frequency	SD	After CSA Frequency	SD	p-score	t-score
	Per Month Behaviors [a]							
⇩	Eat processed snack foods	626	6.7	4.0	5.1	3.9	0.000***	-11.434
⇩	Read nutrition labels	625	8.7	3.7	7.9	4.0	0.000***	-4.759
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⇧	Prepare dinner at home	746	5.2	1.5	5.4	1.4	0.004***	2.905
	Eat breakfast at restaurants	627	0.4	0.9	0.4	1.0	0.457	0.744
⇩	Eat dinner at restaurants	747	1.6	1.5	1.5	1.4	0.040**	-2.056
⇩	Eat processed foods for meals	745	2.2	2.0	1.5	1.7	0.000***	-9.435
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⇧	Preserve food by canning	615	1.1	2.5	1.9	4.1	0.000***	6.397
	Visit a farm	614	2.0	3.3	1.9	3.9	0.456	-0.746
⇩	Buy food directly from farmers or farmers' markets	617	6.0	4.1	5.3	6.5	0.004***	-2.929
⇩	Visit a doctor	509	2.0	2.3	1.6	2.9	0.005***	-2.794
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CSA Research Supporting the CSA Wellness Voucher Program

- Rossi, Jairus, Timothy Woods, and Shuoli Zhao (2026). “Who Wants a Vegetable Box? A Latent Class Logit Segmentation of Motivations in a Cost-Offset Community Supported Agriculture Program”. Food Quality and Preference accepted for on-line February 2026. https://doi.org/10.1016/j.foodqual.2026.105893

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