



2019
PROGRAM EVALUATION

WEST VIRGINIA
ARIZONA

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**Exhibit 1
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona**

Mean Score Improvement & Percentage Improvement by State/School

State	School	Student Count*	Knowledge of Nutrients		Push-Ups		Sit-Ups	
			Mean Change	Mean % Change	Mean Change	Mean % Change	Mean Change	Mean % Change
AZ	Moon Mountain	73	4.59	139.6%	6.40	74.7%	14.96	88.2%
AZ Total		73	4.59	139.6%	6.40	74.7%	14.96	88.2%
WV	Coalton Elementary	35	1.74	45.5%	9.51	98.2%	5.20	35.3%
	Daniels Elementary	14	1.64	41.1%	2.21	14.8%	5.71	29.0%
	East Dale Elementary	14	1.57	37.3%	5.08	119.6%	7.00	77.1%
	Ghent Elementary	14	2.93	128.1%	1.54	18.3%	2.00	11.9%
	Harman School	9	4.78	187.0%	8.71	508.3%	9.00	108.0%
	Holliday	5	3.20	55.2%	4.60	95.8%	11.20	65.9%
	Crescent Elementary	145	1.41	32.9%	8.33	296.8%	6.99	57.1%
	Jumping Branch Elem	23	4.52	109.5%	5.10	83.6%	47.43	111.3%
	Leading Creek Elementary	21	3.33	68.6%	1.67	14.5%	2.62	10.6%
	Madison Middle School	30	2.80	50.9%	1.42	46.6%	2.67	43.9%
	Meadows Elementary	9	36.67	110.0%	7.50	65.2%	47.00	152.2%
	New Manchester Elementary	51	3.12	75.0%	4.47	64.6%	8.20	33.7%
	Pineville Elementary	17	4.53	110.0%	8.24	736.8%	9.18	132.2%
	Point Harmony Elementary School	13	3.69	165.5%	12.92	137.2%	19.38	271.0%
	Besl	17	4.53	110.0%	8.24	736.8%	9.18	132.2%
	Ridgeview Elementary	23	4.35	166.7%	1.29	23.4%	2.65	15.5%
	Scott High	26	3.42	66.9%	3.59	30.6%	3.61	19.8%
	Spencer Elementary	33	2.48	43.4%	2.27	73.5%	3.45	28.4%
	Weirton Elementary School	21	2.76	98.3%	2.81	41.3%	14.43	28.9%
WV Total		520	3.25	69.3%	5.65	95.9%	9.24	53.2%
Total		593	3.41	75.6%	5.75	92.0%	9.97	57.6%

State	School	Student Count*	Systolic Blood Pressure		Diastolic Blood Pressure		Resting Heart Rate	
			Mean Change	Mean % Change	Mean Change	Mean % Change	Mean Change	Mean % Change
AZ	Moon Mountain	73	-6.40	-5.9%	-4.38	-6.4%	-8.85	-10.6%
AZ Total		73	-6.40	-5.9%	-4.38	-6.4%	-8.85	-10.6%
WV	Coalton Elementary	35						
	Daniels Elementary	14						
	East Dale Elementary	14						
	Ghent Elementary	14						
	Harman School	9						
	Holliday	5						
	Crescent Elementary	145	-2.56	-3.0%	-2.61	-5.2%	-5.78	-6.1%
	Jumping Branch Elem	23						
	Leading Creek Elementary	21						
	Madison Middle School	30						
	Meadows Elementary	9						
	New Manchester Elementary	51						
	Pineville Elementary	17						
	Point Harmony Elementary School	13						
	Besl	17						
	Ridgeview Elementary	23						
	Scott High	26	-1.73	-1.3%	3.23	4.4%	-6.19	-7.5%
	Spencer Elementary	33	-0.55	-0.6%	-0.73	-1.3%	-1.82	-1.9%
	Weirton Elementary School	21						
WV Total		520	-2.32	-2.5%	-1.64	-3.0%	-5.60	-6.0%
Total		593	-3.50	-3.6%	-2.44	-4.2%	-6.54	-7.2%

*Student count is based upon the number of students that had a pre and post test score for knowledge of nutrients

Exhibit 2
 Operation Tone-Up
 2019 Program Evaluation
 West Virginia & Arizona

Mean Score Improvement & Percentage Improvement by School/Classroom

School	Classroom	Student Count*	Knowledge of Nutrients		Push-Ups		Sit-Ups	
			Mean Change	Mean % Change	Mean Change	Mean % Change	Mean Change	Mean % Change
Moon Mountain	Patti Mitchell	73	4.59	139.6%	6.40	74.7%	14.96	88.2%
Coalton Elementary	Amanda Payne	21	1.48	33.0%	8.81	83.0%	5.62	43.5%
	Ashley Kimble	14	2.14	75.0%	10.57	127.6%	4.57	26.2%
Daniels Elementary	Dee Pate	14	1.64	41.1%	2.21	14.8%	5.71	29.0%
East Dale Elementary	Amanda Cayton	14	1.57	37.3%	5.08	119.6%	7.00	77.1%
Ghent Elementary	Stacie Lilly	14	2.93	128.1%	1.54	18.3%	2.00	11.9%
Harman School	Ryan Sites	9	4.78	187.0%	8.71	508.3%	9.00	108.0%
Holliday	Denise Holliday	5	3.20	55.2%	4.60	95.8%	11.20	65.9%
Crescent Elementary	Jane Sutphin	145	1.41	32.9%	8.33	296.8%	6.99	57.1%
Jumping Branch Elem	Derek Mann	23	4.52	109.5%	5.10	83.6%	47.43	111.3%
Leading Creek Elementary	Chelsea Hines	21	3.33	68.6%	1.67	14.5%	2.62	10.6%
Madison Middle School	Tyler Ramsey	30	2.80	50.9%	1.42	46.6%	2.67	43.9%
Meadows Elementary	Natalie Fischer	9	36.67	110.0%	7.50	65.2%	47.00	152.2%
New Manchester Elementary	Heidi Markish	24	3.33	82.5%	4.45	102.1%	11.58	46.3%
	Megan White	27	2.93	68.7%	4.48	49.8%	5.19	21.9%
Pineville Elementary	Erin Besl	17	4.53	110.0%	8.24	736.8%	9.18	132.2%
Point Harmony Elementary School	Megan Cochran	13	3.69	165.5%	12.92	137.2%	19.38	271.0%
Besl	Erin Besl	17	4.53	110.0%	8.24	736.8%	9.18	132.2%
Ridgeview Elementary	Breanna Rider	23	4.35	166.7%	1.29	23.4%	2.65	15.5%
Scott High	Nick Cabell	26	3.42	66.9%	3.59	30.6%	3.61	19.8%
Spencer Elementary	Lindsey Ball	22	2.82	52.1%	2.55	76.7%	4.41	26.4%
	Rachel Stepp	11	1.82	28.6%	1.73	65.5%	1.55	51.5%
Weirton Elementary School	Anthony Piccirillo	21	2.76	98.3%	2.81	41.3%	14.43	28.9%
Total		593	3.41	75.6%	5.75	92.0%	9.97	57.6%

School	Classroom	Student Count*	Systolic Blood Pressure		Diastolic Blood Pressure		Resting Heart Rate	
			Mean Change	Mean % Change	Mean Change	Mean % Change	Mean Change	Mean % Change
Moon Mountain	Patti Mitchell	73	-6.40	-5.9%	-4.38	-6.4%	-8.85	-10.6%
Coalton Elementary	Amanda Payne	21						
	Ashley Kimble	14						
Daniels Elementary	Dee Pate	14						
East Dale Elementary	Amanda Cayton	14						
Ghent Elementary	Stacie Lilly	14						
Harman School	Ryan Sites	9						
Holliday	Denise Holliday	5						
Crescent Elementary	Jane Sutphin	145	-2.56	-3.0%	-2.61	-5.2%	-5.78	-6.1%
Jumping Branch Elem	Derek Mann	23						
Leading Creek Elementary	Chelsea Hines	21						
Madison Middle School	Tyler Ramsey	30						
Meadows Elementary	Natalie Fischer	9						
New Manchester Elementary	Heidi Markish	24						
	Megan White	27						
Pineville Elementary	Erin Besl	17						
Point Harmony Elementary School	Megan Cochran	13						
Besl	Erin Besl	17						
Ridgeview Elementary	Breanna Rider	23						
Scott High	Nick Cabell	26	-1.73	-1.3%	3.23	4.4%	-6.19	-7.5%
Spencer Elementary	Lindsey Ball	22						
	Rachel Stepp	11	-0.55	-0.6%	-0.73	-1.3%	-1.82	-1.9%
Weirton Elementary School	Anthony Piccirillo	21						
Total		593	-3.50	-3.6%	-2.44	-4.2%	-6.54	-7.2%

Exhibit 3
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Mean Score Improvement & Percentage Improvement by Grade Level

Grade	Student Count*	Knowledge of Nutrients		Push-Ups		Sit-Ups	
		Mean Change	Mean % Change	Mean Change	Mean % Change	Mean Change	Mean % Change
2nd	47	3.00	58.5%	3.53	115.2%	5.34	44.7%
3rd	48	3.08	86.5%	7.19	71.8%	7.73	43.3%
4th	237	4.77	99.5%	5.89	82.7%	11.75	59.4%
5th	235	2.19	51.7%	6.01	138.1%	10.24	65.6%
9th	26	3.42	66.9%	3.59	30.6%	3.61	19.8%
Total	593	3.41	75.6%	5.75	92.0%	9.97	57.6%

Grade	Student Count*	Systolic Blood Pressure		Diastolic Blood Pressure		Resting Heart Rate	
		Mean Change	Mean % Change	Mean Change	Mean % Change	Mean Change	Mean % Change
2nd	47	-0.55	-0.6%	-0.73	-1.3%	-1.82	-1.9%
3rd	48						
4th	237	-6.40	-5.9%	-4.38	-6.4%	-8.85	-10.6%
5th	235	-2.56	-3.0%	-2.61	-5.2%	-5.78	-6.1%
9th	26	-1.73	-1.3%	3.23	4.4%	-6.19	-7.5%
Total	593	-3.50	-3.6%	-2.44	-4.2%	-6.54	-7.2%

*Student count is based upon the number of students that had a pre and post test score for knowledge of nutrients

Exhibit 4
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

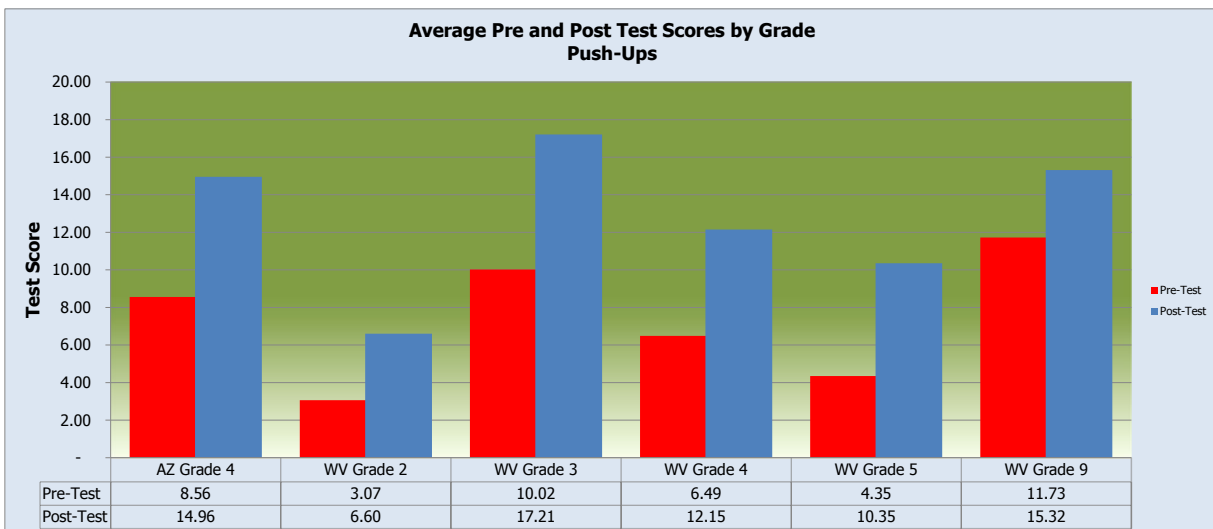
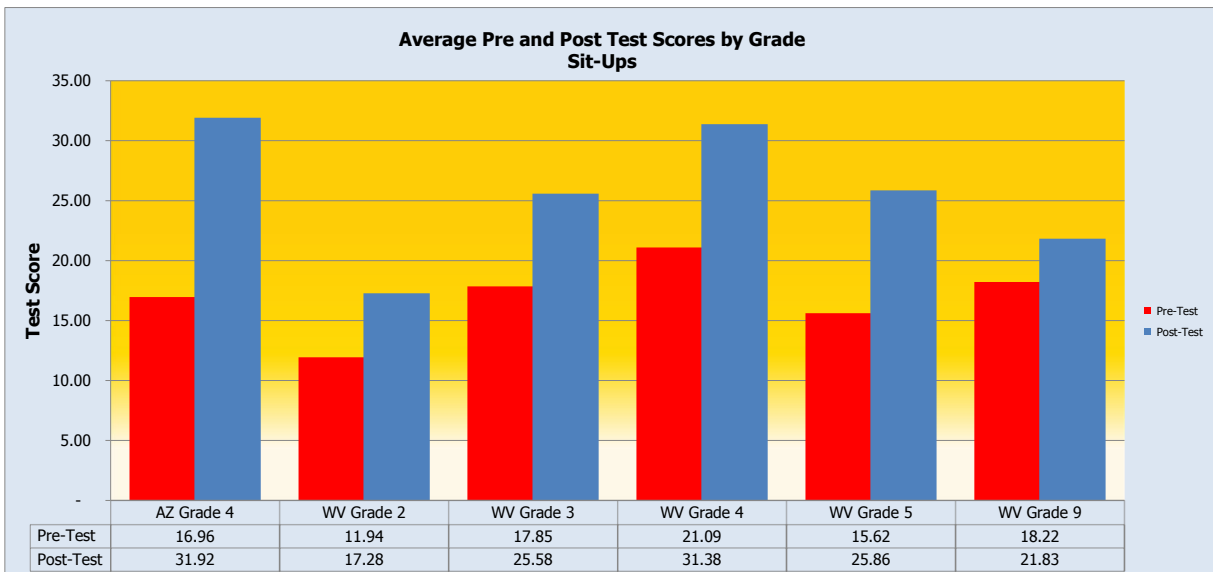
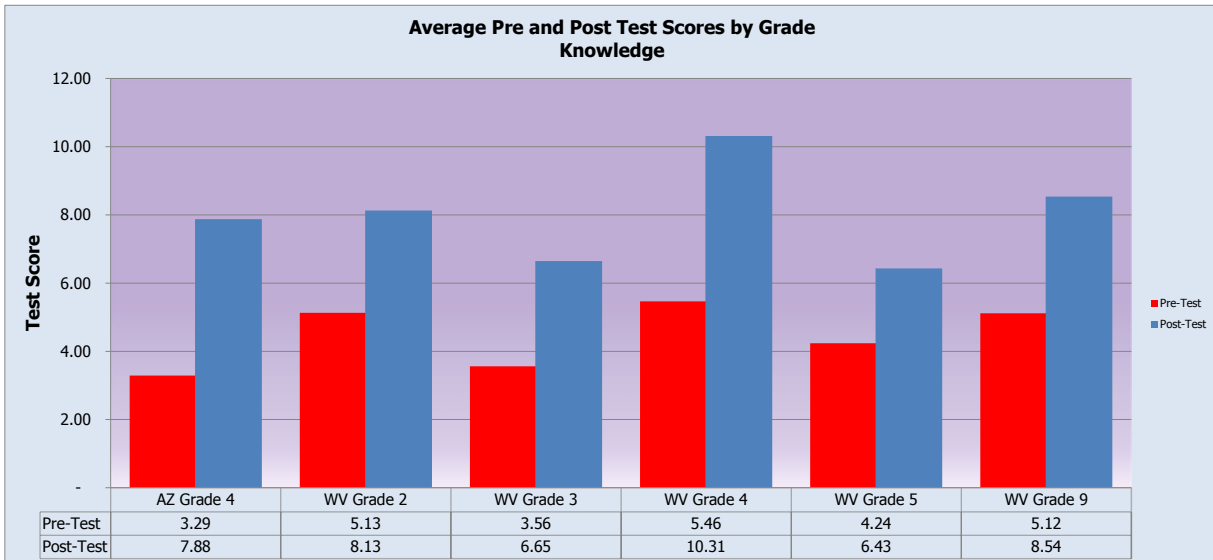


Exhibit 5
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

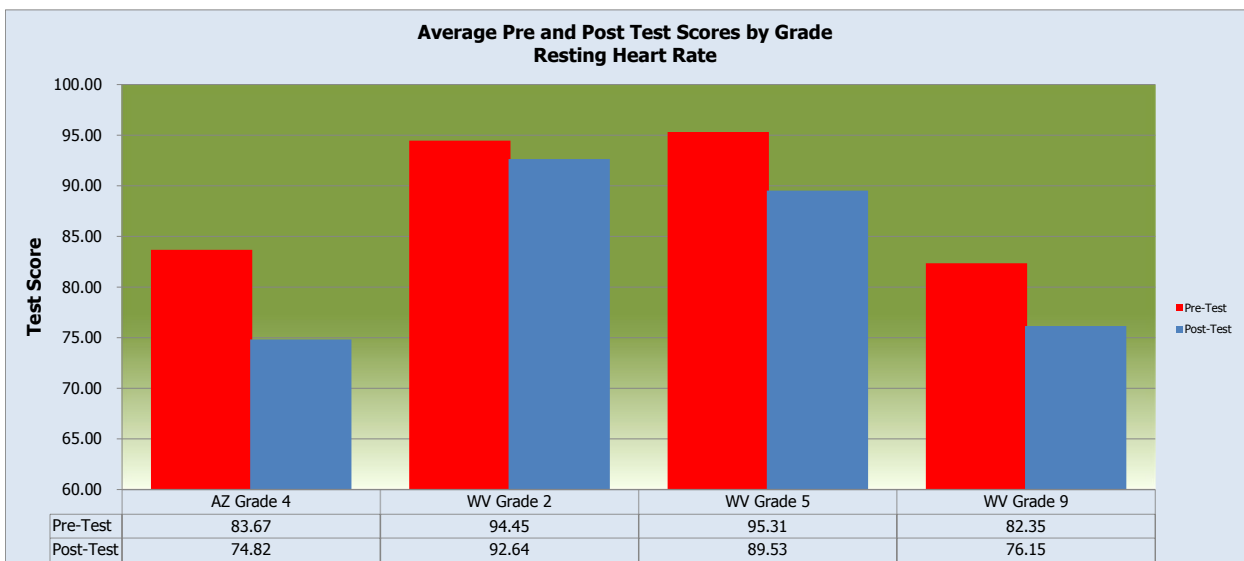
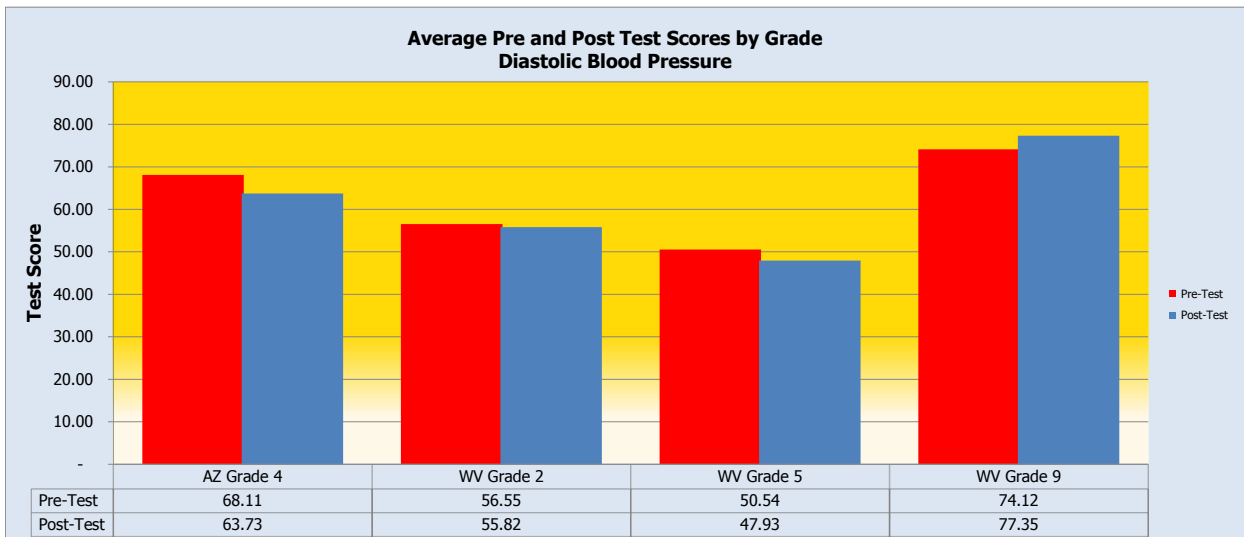
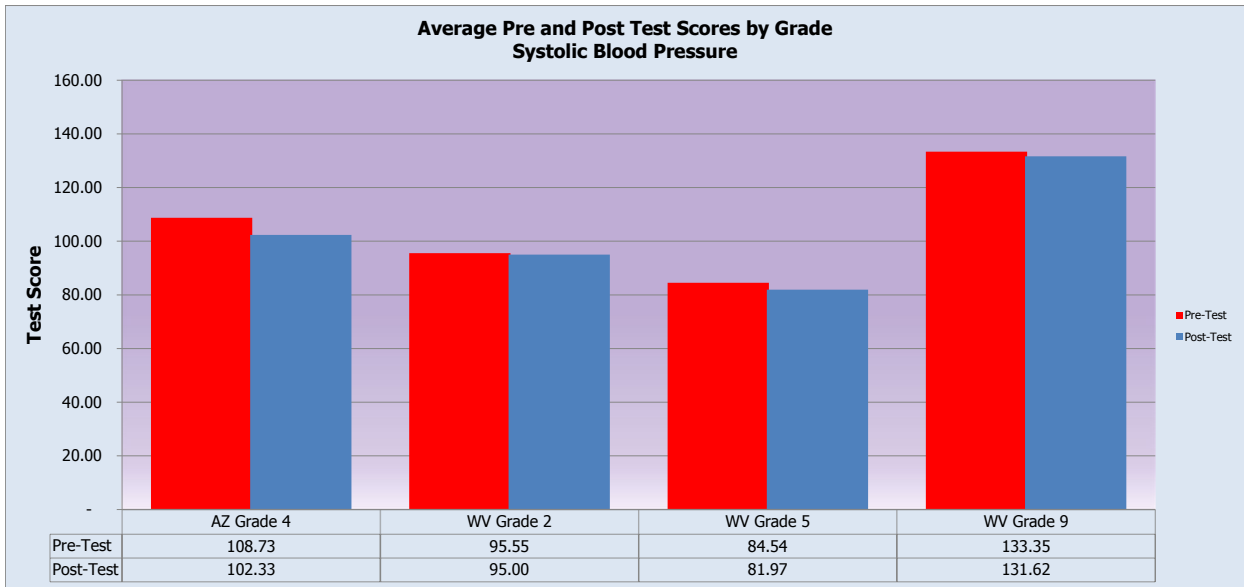


Exhibit 6
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

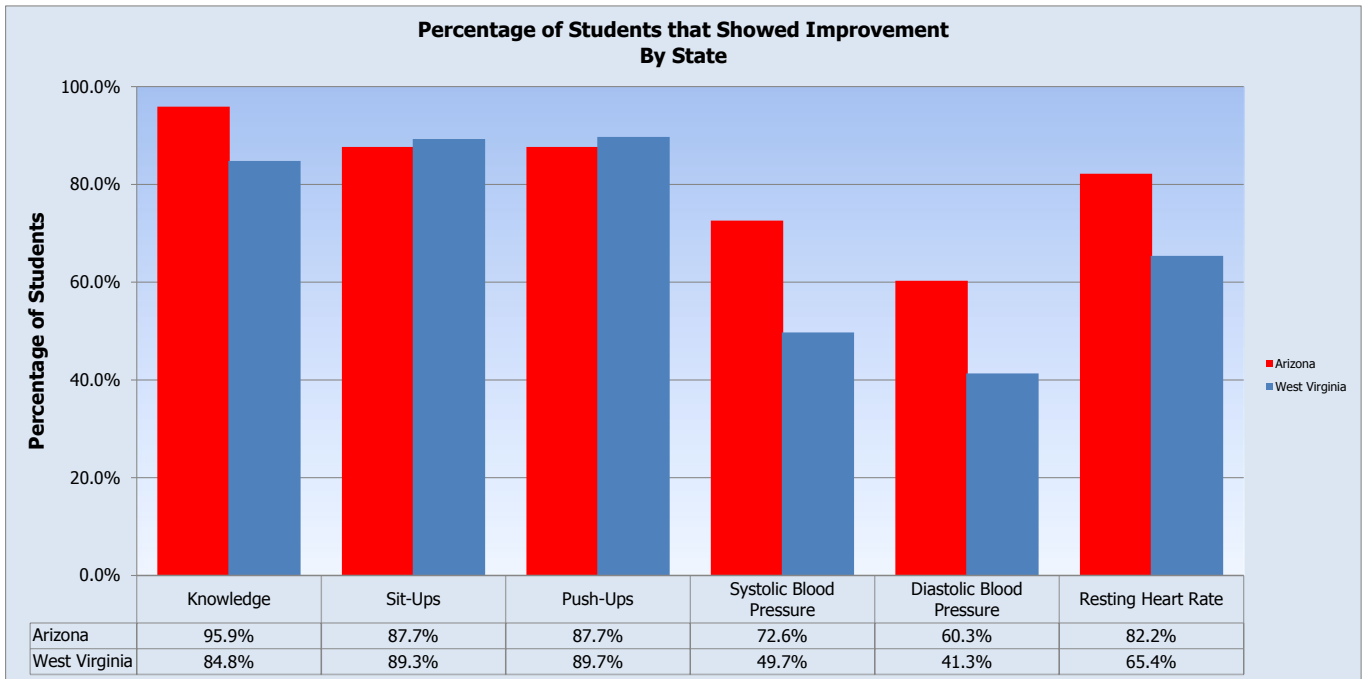
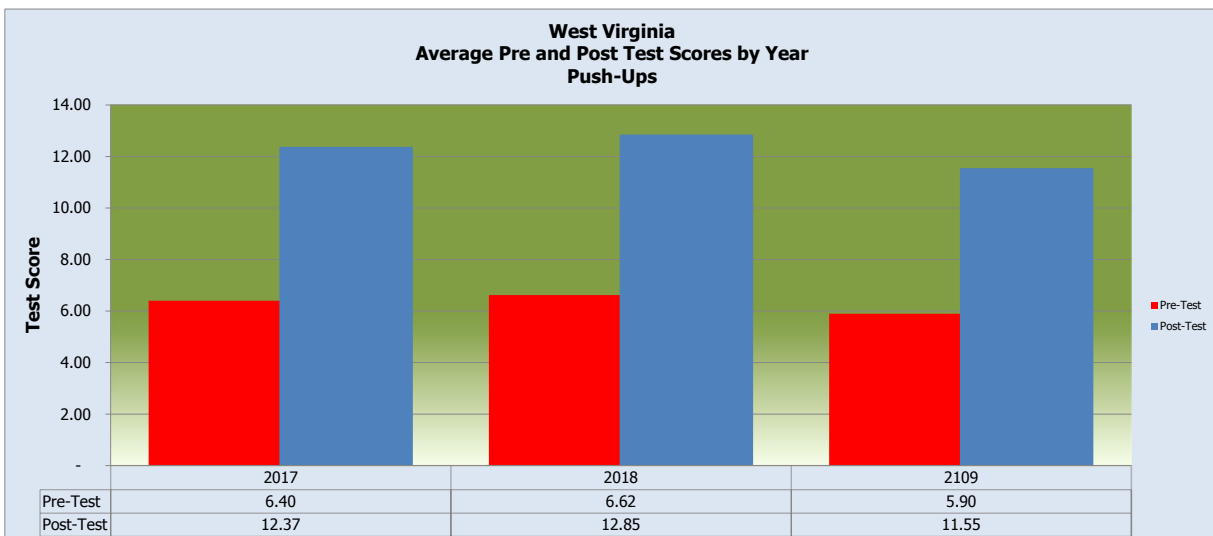
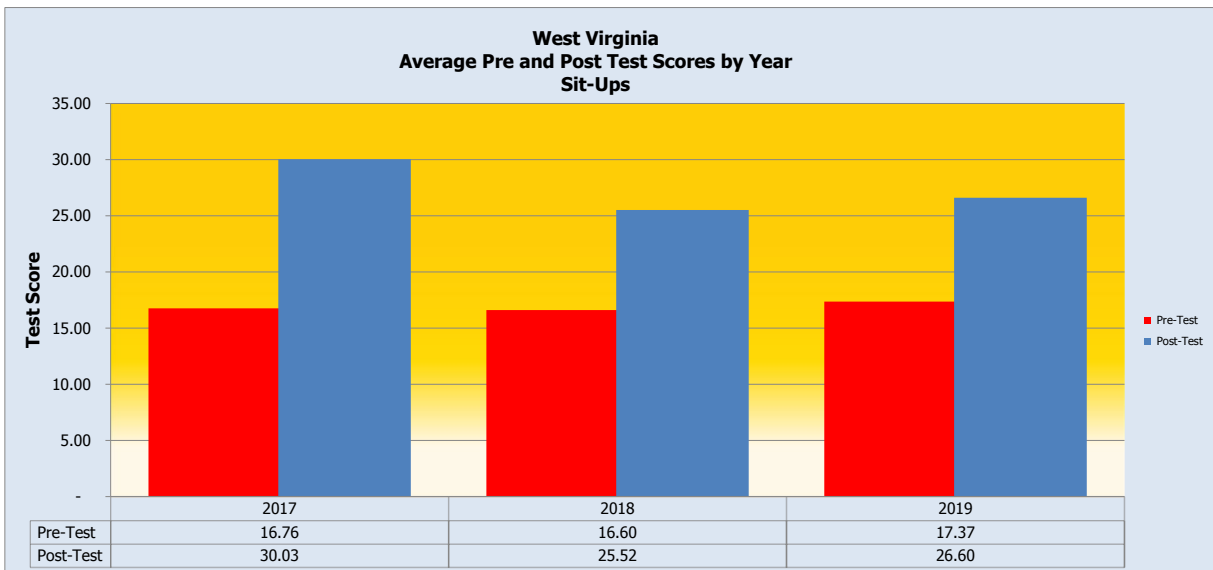
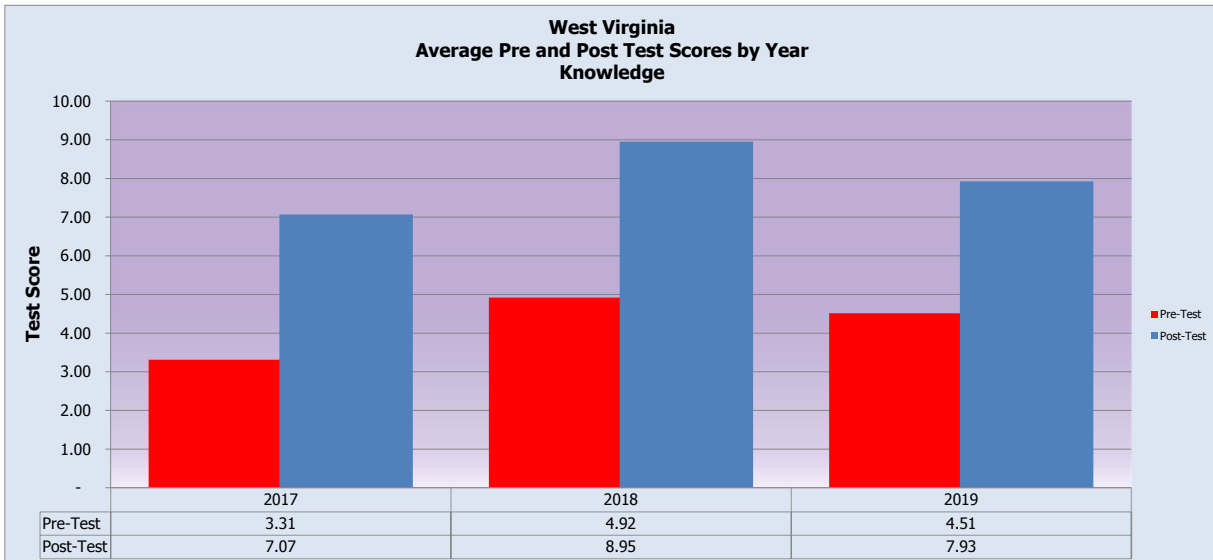


Exhibit 7
 Operation Tone-Up
 2019 Program Evaluation
 West Virginia



**Exhibit 8
 Operation Tone-Up
 2019 Program Evaluation
 West Virginia**

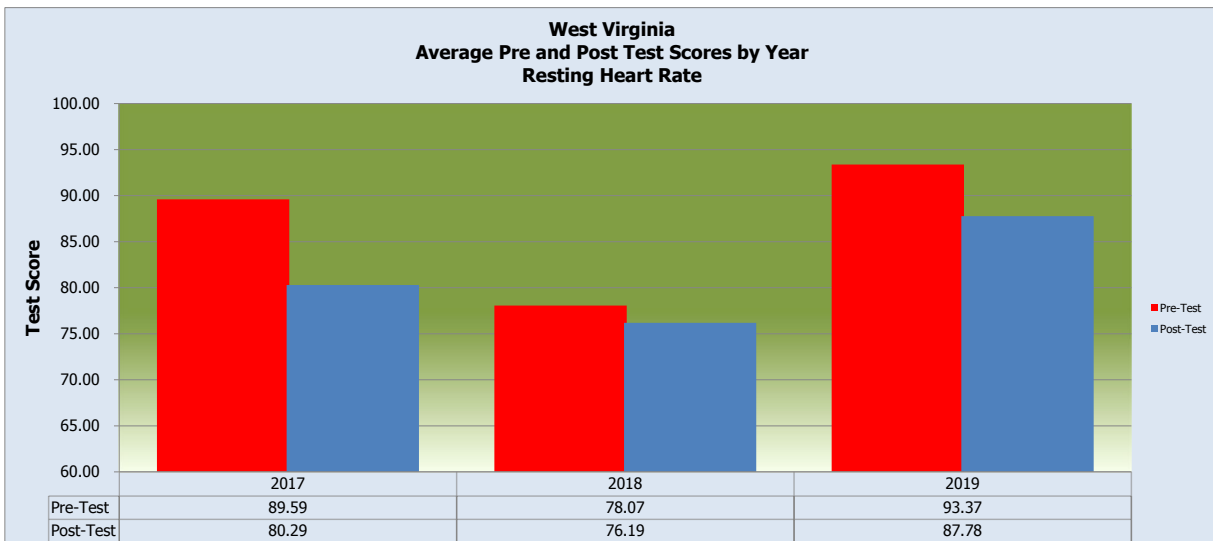
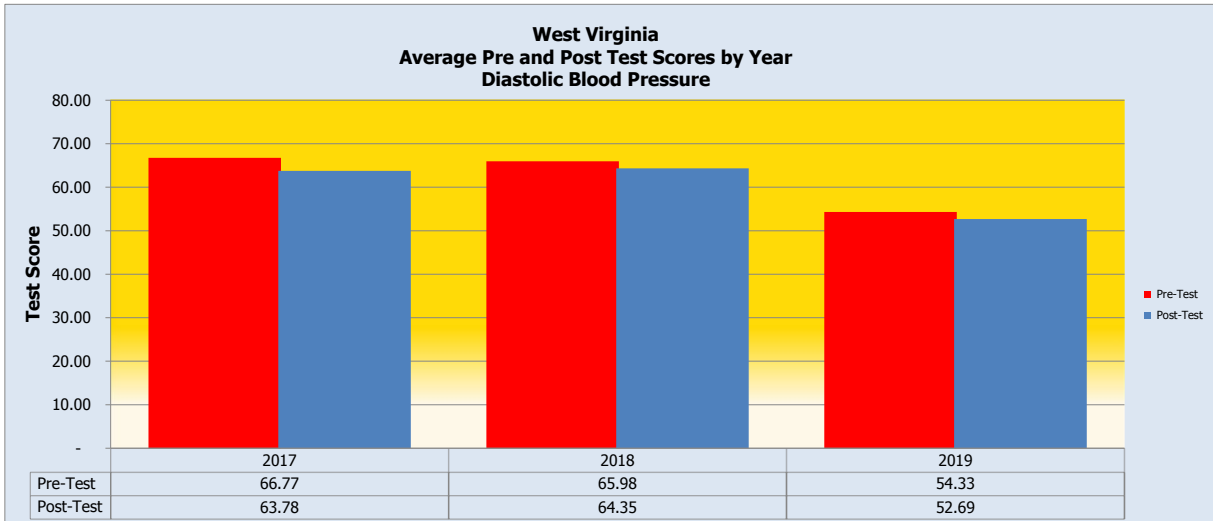
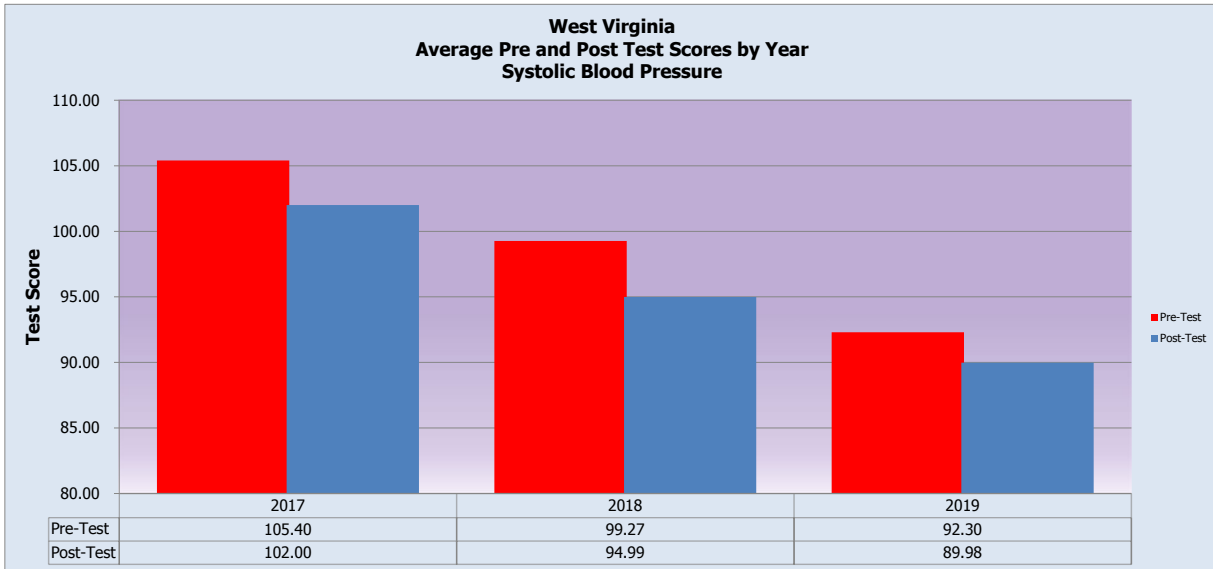


Exhibit 9
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Pre & Post Test Scores for Knowledge of Nutrients

School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	73	3.29	7.88	4.59	139.6%
Coalton Elementary	35	3.83	5.57	1.74	45.5%
Daniels Elementary	14	4.00	5.64	1.64	41.1%
East Dale Elementary	14	4.21	5.79	1.57	37.3%
Ghent Elementary	14	2.29	5.21	2.93	128.1%
Harman School	9	2.56	7.33	4.78	187.0%
Holliday	5	5.80	9.00	3.20	55.2%
Crescent Elementary	145	4.28	5.68	1.41	32.9%
Jumping Branch Elem	23	4.13	8.65	4.52	109.5%
Leading Creek Elementary	21	4.86	8.19	3.33	68.6%
Madison Middle School	30	5.50	8.30	2.80	50.9%
Meadows Elementary	9	33.33	70.00	36.67	110.0%
New Manchester Elementary	51	4.16	7.27	3.12	75.0%
Pineville Elementary	17	4.12	8.65	4.53	110.0%
Point Harmony Elementary School	13	2.23	5.92	3.69	165.5%
Besl	17	4.12	8.65	4.53	110.0%
Ridgeview Elementary	23	2.61	6.96	4.35	166.7%
Scott High	26	5.12	8.54	3.42	66.9%
Spencer Elementary	33	5.73	8.21	2.48	43.4%
Weirton Elementary School	21	2.81	5.57	2.76	98.3%
Total	593	4.51	7.93	3.41	75.6%

Exhibit 10
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Pre & Post Test Scores for Push-Ups

School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	73	8.56	14.96	6.40	74.7%
Coalton Elementary	35	9.69	19.20	9.51	98.2%
Daniels Elementary	14	15.00	17.21	2.21	14.8%
East Dale Elementary	12	4.25	9.33	5.08	119.6%
Ghent Elementary	13	8.38	9.92	1.54	18.3%
Harman School	7	1.71	10.43	8.71	508.3%
Holliday	5	4.80	9.40	4.60	95.8%
Crescent Elementary	113	2.81	11.13	8.33	296.8%
Jumping Branch Elem	21	6.10	11.19	5.10	83.6%
Leading Creek Elementary	21	11.52	13.19	1.67	14.5%
Madison Middle School	24	3.04	4.46	1.42	46.6%
Meadows Elementary	14	11.50	19.00	7.50	65.2%
New Manchester Elementary	49	6.92	11.39	4.47	64.6%
Pineville Elementary	17	1.12	9.35	8.24	736.8%
Point Harmony Elementary School	12	9.42	22.33	12.92	137.2%
Besl	17	1.12	9.35	8.24	736.8%
Ridgeview Elementary	17	5.53	6.82	1.29	23.4%
Scott High	22	11.73	15.32	3.59	30.6%
Spencer Elementary	33	3.09	5.36	2.27	73.5%
Weirton Elementary School	21	6.81	9.62	2.81	41.3%
Total	540	6.26	12.01	5.75	92.0%

Pre & Post Test Scores for Sit-Ups

School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	73	16.96	31.92	14.96	88.2%
Coalton Elementary	35	14.71	19.91	5.20	35.3%
Daniels Elementary	14	19.71	25.43	5.71	29.0%
East Dale Elementary	12	9.08	16.08	7.00	77.1%
Ghent Elementary	12	16.83	18.83	2.00	11.9%
Harman School	9	8.33	17.33	9.00	108.0%
Holliday	5	17.00	28.20	11.20	65.9%
Crescent Elementary	134	12.25	19.25	6.99	57.1%
Jumping Branch Elem	23	42.61	90.04	47.43	111.3%
Leading Creek Elementary	21	24.76	27.38	2.62	10.6%
Madison Middle School	27	6.07	8.74	2.67	43.9%
Meadows Elementary	8	30.88	77.88	47.00	152.2%
New Manchester Elementary	51	24.29	32.49	8.20	33.7%
Pineville Elementary	17	6.94	16.12	9.18	132.2%
Point Harmony Elementary School	13	7.15	26.54	19.38	271.0%
Besl	17	6.94	16.12	9.18	132.2%
Ridgeview Elementary	20	17.15	19.80	2.65	15.5%
Scott High	23	18.22	21.83	3.61	19.8%
Spencer Elementary	33	12.15	15.61	3.45	28.4%
Weirton Elementary School	21	50.00	64.43	14.43	28.9%
Total	568	17.31	27.29	9.97	57.6%

Exhibit 11
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Pre & Post Test Scores for Systolic Blood Pressure

School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	73	108.73	102.33	-6.40	-5.9%
Crescent Elementary	142	84.54	81.97	-2.56	-3.0%
Scott High	26	133.35	131.62	-1.73	-1.3%
Spencer Elementary	11	95.55	95.00	-0.55	-0.6%
Total	252	97.06	93.56	-3.50	-3.6%

Pre & Post Test Scores for Diastolic Blood Pressure

School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	73	68.11	63.73	-4.38	-6.4%
Crescent Elementary	142	50.54	47.93	-2.61	-5.2%
Scott High	26	74.12	77.35	3.23	4.4%
Spencer Elementary	11	56.55	55.82	-0.73	-1.3%
Total	252	58.32	55.88	-2.44	-4.2%

Pre & Post Test Scores for Resting Heart Rate

School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	73	83.67	74.82	-8.85	-10.6%
Crescent Elementary	142	95.31	89.53	-5.78	-6.1%
Scott High	26	82.35	76.15	-6.19	-7.5%
Spencer Elementary	11	94.45	92.64	-1.82	-1.9%
Total	252	90.56	84.02	-6.54	-7.2%

Exhibit 12
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Pre & Post Test Scores by Systolic Blood Pressure Range

Systolic Pre Test Range	Student Count	<u>Systolic Blood Pressure</u>		(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
		(a) Pre Test Mean Score	(b) Post Test Mean Score		
0 < X ≤ 114	205	89.56	87.19	-2.37	-2.6%
114 < X ≤ 125	26	120.38	111.92	-8.46	-7.0%
> 125	21	141.43	133.00	-8.43	-6.0%
Total	252	97.06	93.56	-3.50	-3.6%

Pre & Post Test Scores by Diastolic Blood Pressure Range

Diastolic Pre Test Range	Student Count	<u>Diastolic Blood Pressure</u>		(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
		(a) Pre Test Mean Score	(b) Post Test Mean Score		
0 < X ≤ 75	230	55.68	54.20	-1.48	-2.7%
75 < X ≤ 85	11	79.18	69.91	-9.27	-11.7%
> 85	11	92.73	77.18	-15.55	-16.8%
Total	252	58.32	55.88	-2.44	-4.2%

Pre & Post Test Scores by Resting Heart Rate Range

RHR Pre Test Range	Student Count	<u>Resting Heart Rate</u>		(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
		(a) Pre Test Mean Score	(b) Post Test Mean Score		
0 < X ≤ 80	65	70.69	74.49	3.80	5.4%
80 < X ≤ 100	119	90.50	83.66	-6.83	-7.5%
> 100	68	109.68	93.76	-15.91	-14.5%
Total	252	90.56	84.02	-6.54	-7.2%

Exhibit 13
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Systolic Blood Pressure Range $0 < X \leq 114$

Systolic Blood Pressure (Pre Test Score less than or equal to 114)						
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change	
Moon Mountain	51	102.00	99.49	-2.51	-2.5%	
Crescent Elementa	142	84.54	81.97	-2.56	-3.0%	
Scott High	1	102.00	115.00	13.00	12.7%	
Spencer Elementar	11	95.55	95.00	-0.55	-0.6%	
Total	205	89.56	87.19	-2.37	-2.6%	

Systolic Blood Pressure Range $114 < X \leq 125$

Systolic Blood Pressure (Pre Test Score less than or equal to 125 and greater than 114)						
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change	
Moon Mountain	17	120.59	106.18	-14.41	-12.0%	
Scott High	9	120.00	122.78	2.78	2.3%	
Total	26	120.38	111.92	-8.46	-7.0%	

Systolic Blood Pressure Range > 125

Systolic Blood Pressure (Pre Test Score greater than 125)						
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change	
Moon Mountain	5	137.00	118.20	-18.80	-13.7%	
Scott High	16	142.81	137.63	-5.19	-3.6%	
Total	21	141.43	133.00	-8.43	-6.0%	

Exhibit 14
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Diastolic Blood Pressure Range $0 < X \leq 75$

Diastolic Blood Pressure (Pre Test Score less than or equal to 75)						
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change	
Moon Mountain	62	65.08	63.52	(1.56)	-2.4%	
Crescent Elementary	141	50.33	47.99	(2.34)	-4.7%	
Scott High	16	65.81	71.69	5.88	8.9%	
Spencer Elementary	11	56.55	55.82	(0.73)	-1.3%	
Total	230	55.68	54.20	(1.48)	-2.7%	

Diastolic Blood Pressure Range $75 < X \leq 85$

Diastolic Blood Pressure (Pre Test Score less than or equal to 85 and greater than 75)						
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change	
Moon Mountain	6	77.83	65.33	-12.50	-16.1%	
Crescent Elementary	1	80.00	40.00	-40.00	-50.0%	
Scott High	4	81.00	84.25	3.25	4.0%	
Total	11	79.18	69.91	-9.27	-11.7%	

Diastolic Blood Pressure Range > 85

Diastolic Blood Pressure (Pre Test Score greater than 85)						
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change	
Moon Mountain	5	94.00	64.40	-29.60	-31.5%	
Scott High	6	91.67	87.83	-3.83	-4.2%	
Total	11	92.73	77.18	-15.55	-16.8%	

Exhibit 15
Operation Tone-Up
2019 Program Evaluation
West Virginia & Arizona

Resting Heart Rate Range $0 < X \leq 80$

Resting Heart Rate (Pre Test Score less than or equal to 80)					
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	31	72.13	69.03	-3.10	-4.3%
Crescent Elementary	22	68.95	85.55	16.59	24.1%
Scott High	12	70.17	68.33	-1.83	-2.6%
Total	65	70.69	74.49	3.80	5.4%

Resting Heart Rate Range $80 < X \leq 100$

Resting Heart Rate (Pre Test Score less than or equal to 80 and greater than 100)					
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	34	89.38	78.68	-10.71	-12.0%
Crescent Elementary	67	91.40	86.27	-5.13	-5.6%
Scott High	10	88.30	78.30	-10.00	-11.3%
Spencer Elementary	8	90.38	89.75	-0.63	-0.7%
Total	119	90.50	83.66	-6.83	-7.5%

Resting Heart Rate Range > 100

Resting Heart Rate (Pre Test Score greater than 100)					
School	Student Count	(a) Pre Test Mean Score	(b) Post Test Mean Score	(c) = (b) - (a) Mean Change	(d) = (c) / (a) Mean % Change
Moon Mountain	8	104.13	80.88	-23.25	-22.3%
Crescent Elementary	53	111.19	95.30	-15.89	-14.3%
Scott High	4	104.00	94.25	-9.75	-9.4%
Spencer Elementary	3	105.33	100.33	-5.00	-4.7%
Total	68	109.68	93.76	-15.91	-14.5%

Appendix A, Sheet 1
Operation Tone-Up
2019 Program Evaluation
Arizona
Statistical Tests

Test and Confidence Interval for Paired t-Test

Program Indicator	Sample Size	Mean	Standard Deviation	Standard Error Mean	Paired t-Statistic	Degrees of Freedom	P-Value (less than)	99.8% Confidence Interval of Difference	
								Lower	Upper
Knowledge of Nutrients	73	4.589	2.094	0.245	18.725	72	0.001	3.803	5.375
Sit-Ups	73	14.959	12.394	1.451	10.312	72	0.001	10.306	19.612
Push-Ups	73	6.397	5.327	0.624	10.260	72	0.001	4.397	8.397
Systolic Blood Pressure	73	-6.397	16.800	1.966	3.253	72	0.001	-12.704	-0.091
Diastolic Blood Pressure	73	-4.384	10.120	1.184	3.701	72	0.001	-8.182	-0.585
Resting Heart Rate	73	-8.849	11.292	1.322	6.696	72	0.001	-13.088	-4.610

Knowledge of Nutrients

H0: Mean Post Test Score is less than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is greater than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Knowledge of Nutrients improved as a result of the Operation Tone-Up Program.

Sit-Ups

H0: Mean Post Test Score is less than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is greater than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Sit-Ups improved as a result of the Operation Tone-Up Program.

Push-Ups

H0: Mean Post Test Score is less than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is greater than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Push-Ups improved as a result of the Operation Tone-Up Program.

Systolic Blood Pressure

H0: Mean Post Test Score is greater than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is less than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Systolic Blood Pressure improved as a result of the Operation Tone-Up Program.

Diastolic Blood Pressure

H0: Mean Post Test Score is greater than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is less than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Diastolic Blood Pressure improved as a result of the Operation Tone-Up Program.

Resting Heart Rate

H0: Mean Post Test Score is greater than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is less than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Resting Heart Rate improved as a result of the Operation Tone-Up Program.

Appendix A, Sheet 2
Operation Tone-Up
2019 Program Evaluation
West Virginia
Statistical Tests

Test and Confidence Interval for Paired t-Test

Program Indicator	Sample Size	Mean	Standard Deviation	Standard Error Mean	Paired t-Statistic	Degrees of Freedom	P-Value (less than)	99.8% Confidence Interval of Difference	
								Lower	Upper
Knowledge of Nutrients	520	3.246	5.093	0.223	14.533	519	0.001	2.552	3.940
Sit-Ups	495	9.238	20.018	0.900	10.268	494	0.001	6.443	12.034
Push-Ups	467	5.653	6.335	0.293	19.285	466	0.001	4.742	6.564
Systolic Blood Pressure	179	-2.318	13.273	0.992	2.337	178	0.025	-5.430	0.793
Diastolic Blood Pressure	179	-1.642	12.704	0.950	1.730	178	0.05	-4.621	1.336
Resting Heart Rate	179	-5.598	16.374	1.224	4.574	178	0.001	-9.437	-1.759

Knowledge of Nutrients

H0: Mean Post Test Score is less than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is greater than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Knowledge of Nutrients improved as a result of the Operation Tone-Up Program.

Sit-Ups

H0: Mean Post Test Score is less than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is greater than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Sit-Ups improved as a result of the Operation Tone-Up Program.

Push-Ups

H0: Mean Post Test Score is less than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is greater than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Push-Ups improved as a result of the Operation Tone-Up Program.

Systolic Blood Pressure

H0: Mean Post Test Score is greater than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is less than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.025 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Systolic Blood Pressure improved as a result of the Operation Tone-Up Program.

Diastolic Blood Pressure

H0: Mean Post Test Score is greater than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is less than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.05 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Diastolic Blood Pressure improved as a result of the Operation Tone-Up Program.

Resting Heart Rate

H0: Mean Post Test Score is greater than or equal to the Mean Pre Test Score

Ha: Mean Post Test Score is less than the Mean Pre Test Score

The difference between the mean Pre Test Score and the mean Post Test Score was significant at the 0.001 level.

We reject the H0; there was sufficient evidence to conclude that the average score for Resting Heart Rate improved as a result of the Operation Tone-Up Program.