

Overview of Change the Future Evaluation & Findings

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Change the Future WV Evaluation Team

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- WV Bureau for Public Health
- Mid-Ohio Valley Health Department
- Regional Education Service Agency (RESA) 5
- Centers for Disease Control and Prevention
- ICF International
- Burgess and Niple
- RTI International



Presentation Outline

- Overview of Evaluation Activities
 - Evaluation plan & logic model
 - Data collection
 - Dissemination
- Evaluation Findings
 - Food environment
 - Physical activity
 - Media
 - WIC data collection
- A Day in the Life



Change the Future WV

- Evaluation emphasized
 - Involvement with implementation
 - Performance monitoring
 - Tracking outcomes at multiple levels:
 - Short-term
 - Intermediate-term
 - Long-term



Change the Future Evaluation Activities

- Food environment
 - Grocery store observations
 - Convenience store observations
 - Farmers' market observation
 - Concession stand observation
 - Food environment mapping
- Physical activity environment
 - Trail observations
 - Trail mapping
- Media
 - Tracking
- Individual-level measures
 - Consumer surveys
 - Accelerometry
 - Adolescent BMI measures
 - Adolescent aerobic capacity
 - Women Infants & Children (WIC) BMI & surveys



Change the Future WV Evaluation: Dissemination

- Monthly updates to the MOVHD, WVBPH & the CDC
- To date, six CTF presentations at national conferences
- Six CPPW manuscripts prepared or in preparation
- Along with partners, sharing the work of CTF with peers
- Regional and statewide learning events Summer 2012



Mid-Ohio Food Environment: Baseline & Follow-up



Convenience Stores

Baseline 2010

- 85 Convenience stores
- 8% of convenience stores offering fresh fruits & vegetables (FFVs)
- 78% SNAP certified
- 2% WIC certified

Follow-up 2011/2012

- 81 total → 78 observed
- 17% of observed offering FFVs
- 13 had policies to offer fresh fruits & vegetables
 - 6 additional convenience-like stores had policies
- 85% SNAP certified
- 6% WIC certified



Farmers' Markets

Key Indicators from Farmers' Market Observations

	<u>Baseline (2010)</u>	<u>Follow-up (2011)</u>
Total # of Markets	8	9
Hours of operation	Average = 4 (SD .20)	Average = 4 (SD .29)
Total vendors present	Average = 7 (SD 5.2)	Average = 7 (SD 5.1)
Average # of patrons	Average = 9 (SD 5.7)	Average = 15 (SD 8.5)
Accepted payment methods		
Cash	6 (100%)	9 (100%)
Check	4 (67%)	8 (89%)
WIC voucher	2 (33%)	5 (56%)
Food stamps	0 (0%)	0 (0%)
EBT	0 (0%)	1 (11%)
Credit/Debit	0 (0%)	2 (22%)



Grocery Stores

Baseline

- 25 Grocery Stores
- 20 stores were WIC certified
- 23 stores were SNAP certified
- 0 stores had a healthy checkout aisle

Follow-up

- 25 Grocery Stores
- 22 stores were WIC certified
- 23 stores were SNAP certified
- 8 stores had a healthy checkout aisle



USDA Fresh Fruit & Vegetable Program

Mid-Ohio Elementary Student Report		
	<u>Not Tried/Never Tried at Baseline</u>	<u>Not Tried/Never Tried at Follow-up</u>
Fruits		
Apples	< 1%	< 1%
Blueberries	9%	9%
Cantaloupe **	12%	6%
Grapes	1%	1%
Oranges	2%	2%
Peaches	11%	10%
Pears **	10%	5%
Pineapple *	8%	6%
Plums	31%	28%
Strawberries	2%	2%

* p ≤ .05; ** p ≤ .001



USDA Fresh Fruit & Vegetable Program

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	<u>Not Tried/Never Tried at</u>	<u>Not Tried/Never Tried at</u>	
	<u>Baseline</u>	<u>Follow-up</u>	
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USDA Fresh Fruit & Vegetable Program

	<u>Not Tried/Never Tried at Baseline</u>	<u>Not Tried/Never Tried at Follow-up</u>
Vegetables		
Broccoli	4%	6%
Carrots	2%	2%
Cauliflower	14%	12%
Celery	6%	6%
Cucumbers	9%	9%
Grape tomatoes *	21%	17%
Jicama **	77%	41%
Green peppers	12%	14%
Snow peas **	41%	27%

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Concession Stands

Healthy Concession Agreements by County and by Type

	<u>Boosters</u>	<u>School wellness policy</u>	<u>School-level</u>	<u>County (Board of Education)</u>
Calhoun	1			1
Pleasants				
Ritchie				
Roane				
Wirt	1	1		1
Wood			2	

→ Total of 7 Healthy Concessions Agreements



Concession Stands continued

Average Number of Healthy Concession Options Offered		
	<u>Baseline</u>	<u>Follow-up</u>
Football games: Mean (Range)		
Healthy foods	2 (0-4)	3 (0-5)
Healthy beverages	2 (2-2)	3 (2-5)
Basketball games: Mean (Range)		
Healthy foods	3 (0-5)	3 (1-5)
Healthy beverages	2 (2-3)	3 (1-7)



Physical Activity Environment: Baseline & Follow-up



Trails

Baseline Trail Audits: 2010

- Completed for 10 trails (60 observations)
- 70% of trails, some signage
- Of those with signage (N=7):
 - 86% included signs for use
 - 26% included trail distances
 - 93% included trail name
 - 15% had a trail map
- Most common activity: walking

Follow-up Trail Audits: 2012

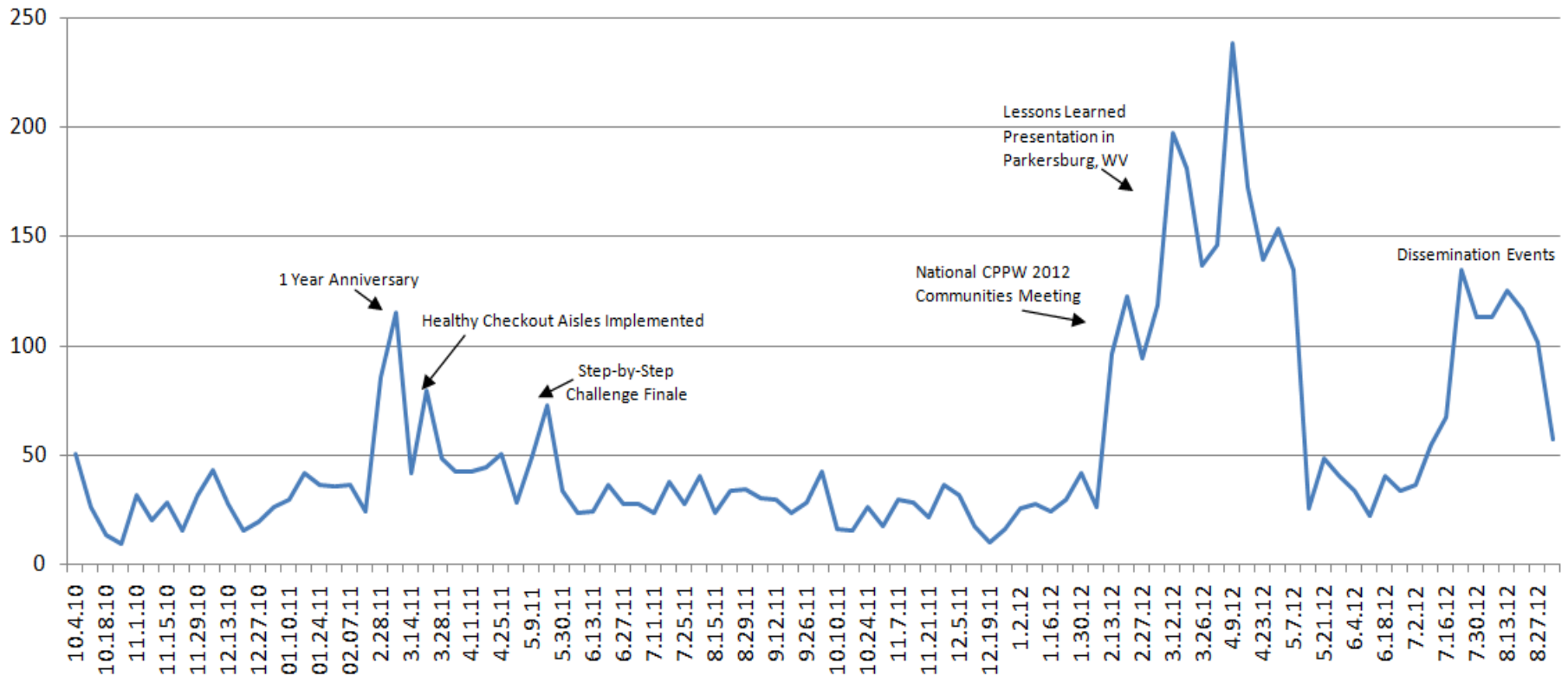
- Trail signage
- Ave trail usage
- Presence of signage



Media Tracking



Unique Visitors to www.changethefuture.org



Paid & Earned Media

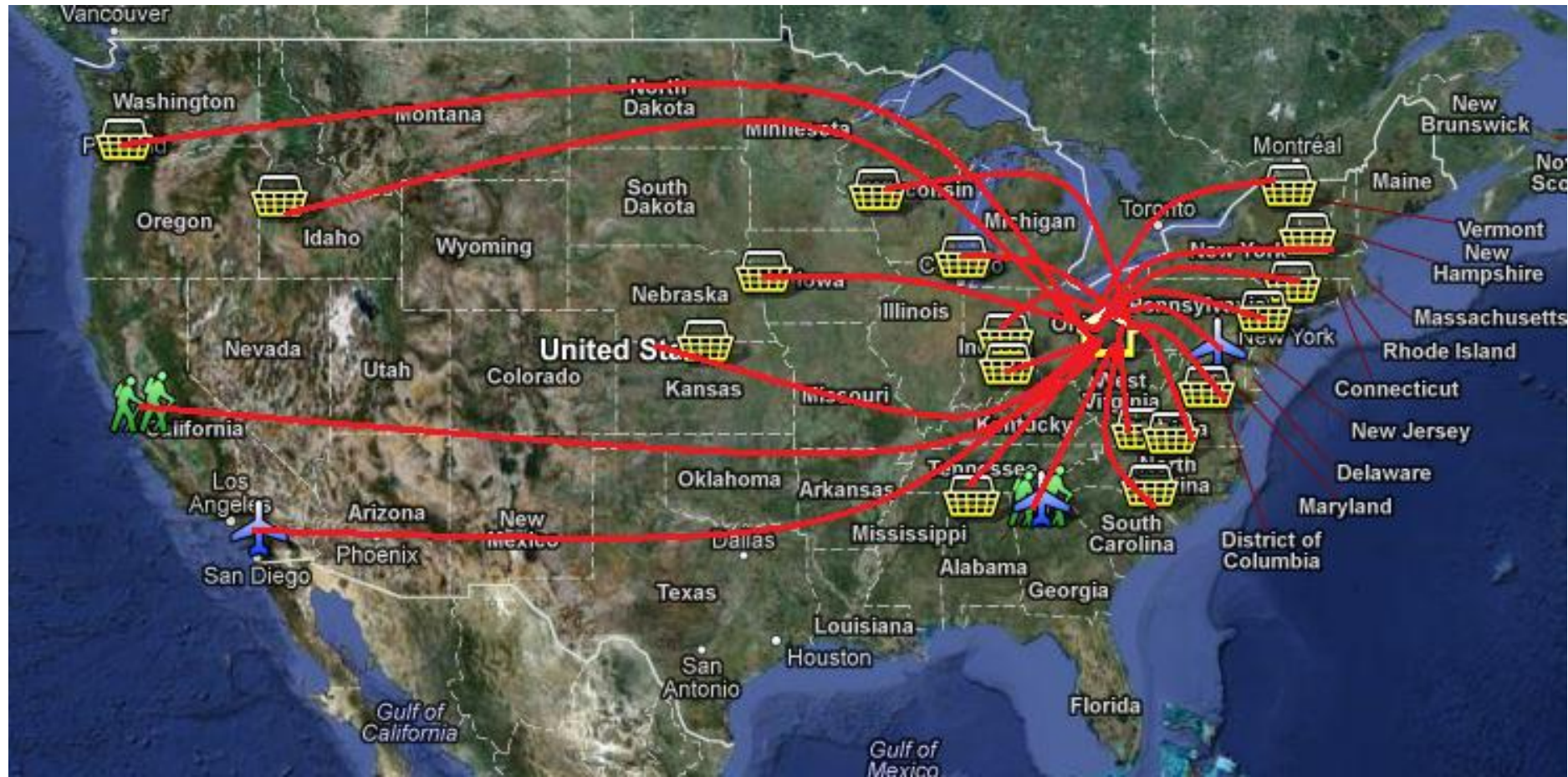
Ave - Earned 3 exposures

3 paid exposures

May 2010 – June 2012



Sharing the Future



Individual Behavior: Baseline & Follow-up



Consumer/Intercept Surveys

Key Indicators from Consumer Surveys at Baseline and Follow-up

	<u>Baseline</u>	<u>Follow-up</u>
In the past six months, have you purchased fresh fruit and vegetables from a convenience store?	10%	14%

* $p \leq .05$; ** $p \leq .001$



Consumer/Intercept Surveys

Key Indicators from Consumer Surveys at Baseline and Follow-up

	<u>Baseline</u>	<u>Follow-up</u>
In the past six months, have you purchased fresh fruit and vegetables from a convenience store?	10%	14%
In the past six months, have you purchased fresh fruit and vegetables from a farmers' market? *	42%	53%

* $p \leq .05$; ** $p \leq .001$



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In the past six months, have you purchased fresh fruit and vegetables from a convenience store?	10%	14%
In the past six months, have you purchased fresh fruit and vegetables from a farmers' market? *	42%	53%
How would you rate the cost of fresh fruits and vegetables in your community? (Very expensive) *	23%	16%

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In the past six months, have you purchased fresh fruit and vegetables from a farmers' market? *	42%	53%
How would you rate the cost of fresh fruits and vegetables in your community? (Very expensive) *	23%	16%
How would you rate the quality of the fresh fruits and vegetables in your community? (Excellent or good)	94%	95%

* $p \leq .05$; ** $p \leq .001$



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In the past six months, have you purchased fresh fruit and vegetables from a farmers' market? *	42%	53%
How would you rate the cost of fresh fruits and vegetables in your community? (Very expensive) *	23%	16%
How would you rate the quality of the fresh fruits and vegetables in your community? (Excellent or good)	94%	95%
Do you know where there are walking trails in your community?	75%	77%

* $p \leq .05$; ** $p \leq .001$



Women, Infants & Children (WIC): Data Collection: BMI

WIC Participants' BMI Weight Category:

Baseline, 3-Month Follow-up, & 6-Month Follow-up

	<u>% Baseline</u>	<u>% 3-Month Follow-up</u>	<u>% 6-Month Follow-up</u>
Underweight	3.3	4.0	3.3
Normal weight	21.8	20.1	20.3
Overweight	15.2	17.1	17.9
Obese	59.7	58.8	58.5
Overweight/Obese	74.8	75.9	76.3



Women, Infants & Children (WIC) Surveys: Dietary Behavior

WIC Participants Fruit and Vegetable Consumption at Baseline, 3-Month Follow-up, and 6-Month Follow-up

	<u>Baseline</u>	<u>3-month</u>	<u>6-month</u>
Serving of fruit per day: M (SD) ¹	2.1 (1.18)	3.32 (1.18)	3.39 (1.29)
Serving of vegetables per day: M (SD) ²	2.37 (1.27)	3.5 (1.28)	3.69 (1.37)
Met guidelines for FFV consumption: n (%) ¹	111 (33.9)	255 (77.3)	270 (82.1)

¹ Significant change from Baseline to 3-months ($p \leq .001$) and from Baseline to 6-months ($p \leq .001$); ² Significant change from Baseline to 3-months ($p \leq .001$).



Women, Infants & Children (WIC) Survey: Purchasing Behavior

WIC Participants' Fresh Fruit and Vegetable Purchasing Behavior: Baseline, 3-Month Follow-up, & 6-Month Follow-up

	<u>Baseline</u>	<u>3-month</u>	<u>6-month</u>
Purchased fruit and vegetables at farmers' market: n (%) ¹	114 (34.5)	90 (27.3)	86 (26.1)
Purchased fruit and vegetables at convenience store: n (%) ¹	18 (5.5)	36 (10.9)	37 (11.2)

¹ Significant change from Baseline to 3-months ($p \leq .05$) and from Baseline to 6-months ($p \leq .05$).



Women, Infants & Children (WIC) Surveys: Media

WIC Participants' Awareness & Comprehension of CTF WV Media Campaign: Baseline, 3-Month Follow-up, & 6-Month Follow-up

	<u>Baseline</u>	<u>3-month</u>	<u>6-month</u>
CPPW media awareness: n (%) ¹	74 (22.7)	285 (87.4)	293 (90.7)
CPPW media comprehension: n (%) ¹	36 (11)	159 (48.8)	161 (49.8)

¹Significant change from Baseline to 3-months ($p \leq .001$) and from Baseline to 6-months ($p \leq .001$).



Student Measures



MOV Secondary Student BMI

Table 1: Year 1 BMI Weight Category at Beginning of PE Term and End of PE Term (N = 1948)

	<u>% Beginning of PE</u>	<u>% End of PE</u>
Underweight	2.7	2.6
Healthy weight	54.8	56.7
Overweight	16.2	15.2
Obese	26.3	25.5
Overweight/Obese **	42.5	40.7

Table 2: Year 2 BMI Weight Category (N = 1658)

	<u>% Beginning of PE</u>	<u>% End of PE</u>
Underweight	1.2	1.1
Healthy weight	56.2	57.6
Overweight	17.6	17.2
Obese	25	24
Overweight/Obese *	42.6	41.2

Table 3: YR 1 to Year 2 Comparison of BMI Weight Category (N =862)

	<u>% Beginning of PE YR 1</u>	<u>% End of PE YR 2</u>
Underweight	3.1	1.4
Healthy weight	54.2	57.5
Overweight	16.7	16.4
Obese	26	24.7
Overweight/Obese	42.7	41.1

* $p \leq .05$; ** $p \leq .001$



Accelerometry

Average Percent of Wear Time (N=114)

	<u>Beginning of PE</u>	<u>End of PE</u>
% Sedentary	67%	66%
% Light*	29%	30%
% Moderate	3%	3%
% Vigorous	1%	1%
% MVPA	4%	4%

* $p \leq .05$; ** $p \leq .001$



Aerobic Capacity

PACER Results from the Beginning of PE and End of PE Term

	<u>Beginning PE</u>	<u>End PE</u>
Healthy Fitness Zone **	34%	43%

* $p \leq .05$; ** $p \leq .001$



A Day in the life

A Day in the MOV

