

Quantifying Local Public Health Infrastructure for Obesity Prevention: Results of a Practice Inventory of US Local Health Departments



KEENELAND CONFERENCE

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Study Team



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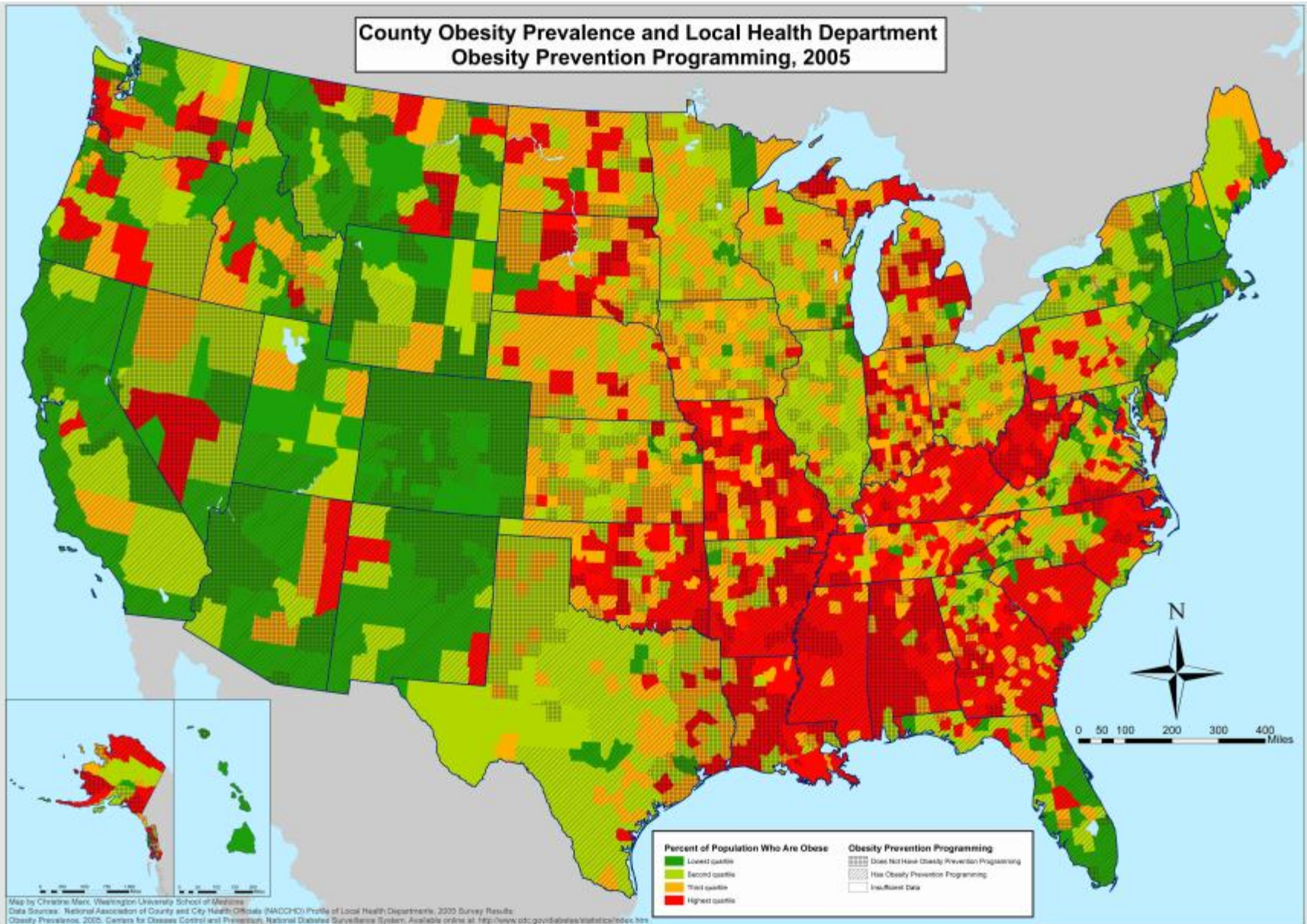
- Beth Pierson

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Do LHDs have programs in localities with greatest need?

Stamatakis et al. J Public Health Management Practice, 2012, 18(5), 402–411



Research questions



- What role do LHDs play in implementing evidence-based healthy eating and physical activity?
 - Built environment/policy
 - Campaigns to raise awareness, knowledge and skills
- What are the characteristics of LHDs that most strongly relate to greater extent of practice?
- Goal → inform the potential for scale-up of evidence-based practice in obesity prevention across LHDs

Phases of the Study



Robert Wood Johnson Foundation-funded, 2-year PHSSR study:

1. Survey development
2. Data collection/analysis
3. Translation/dissemination

Developing a questionnaire to measure evidence-based practice in obesity prevention



Evidence-based → **evidence-informed** → “evidence”?

Resources for practice inventory items:

- Guide to Community Preventive Services
- Recommended Community Strategies and Measurements to Prevent Obesity in the United States (MMWR)
- Leadership for Healthy Communities Advancing Policies to Support Healthy Eating and Active Living: Action Strategies Toolkit (RWJF)
- Local Government Actions to Prevent Childhood Obesity (IOM)

Obesity prevention activity inventory

Focus on promoting policies and/or changes to the built environment



Healthy Eating (34 items)

- Improving neighborhood access (9)
- Improve food choices in restaurants/retailers (4)
- Improve food choices in schools, worksites, other facilities (11)
- Nutrition assistance program-related activities (5)
- Raising awareness (9)

Physical Activity (34 items)

- Promoting policies/changes to communities (12)
- Promoting policies/changes to schools/worksites/facilities (12)
- Raising awareness (10)

Other Survey Sections



- LHD structures and processes
- Respondents' preferences on dissemination reports
- Quasi-network data on collaborating with other LHDs in obesity prevention

Data Collection



- Stratified, random selection of LHDs (population size, governance type)
- Online survey sent to 838 (estimating 60% response rate to achieve 500)
- Final response rate: 48%
- Final sample size $n = 388$

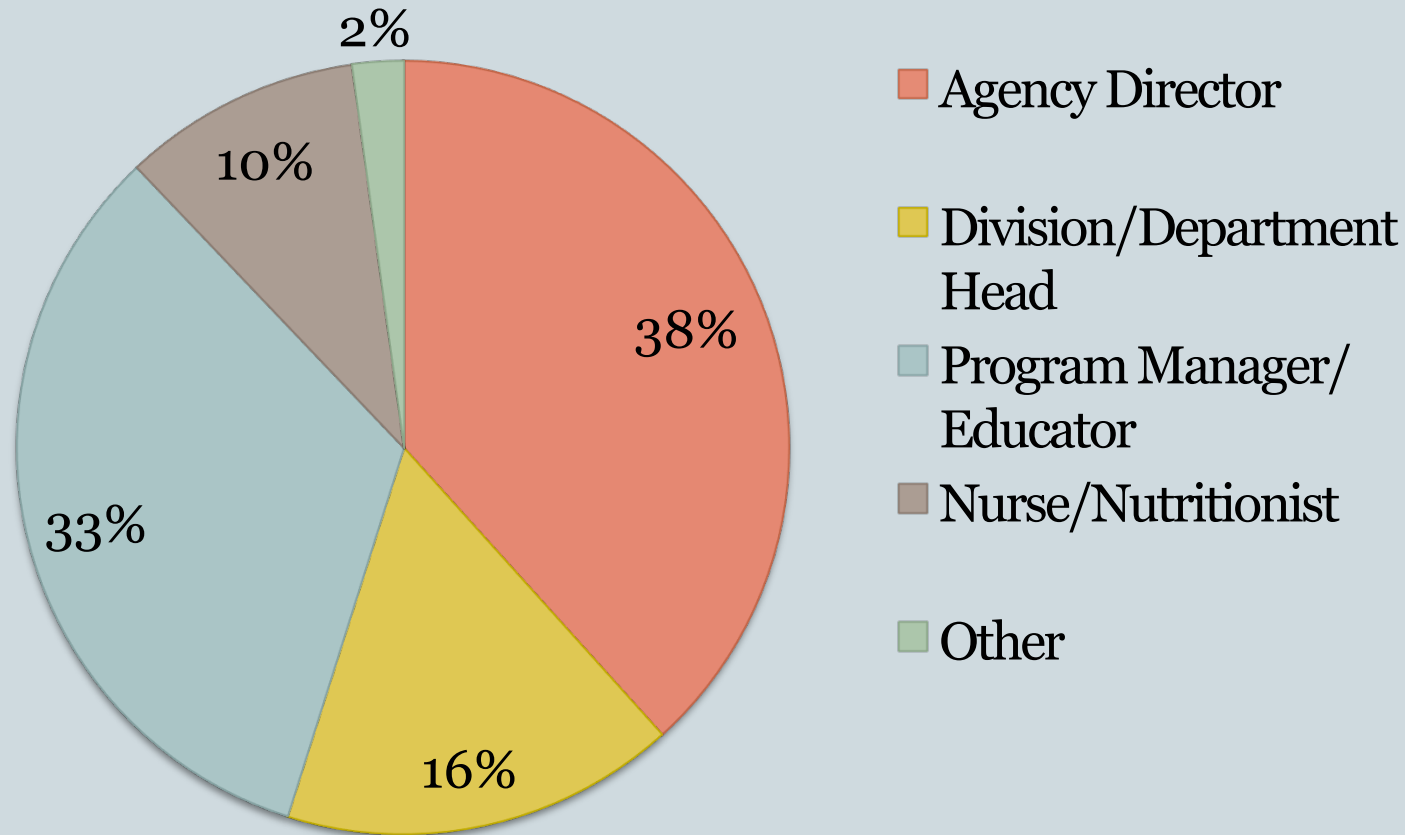
- Test-retest study $n = 97$

Results Part 1

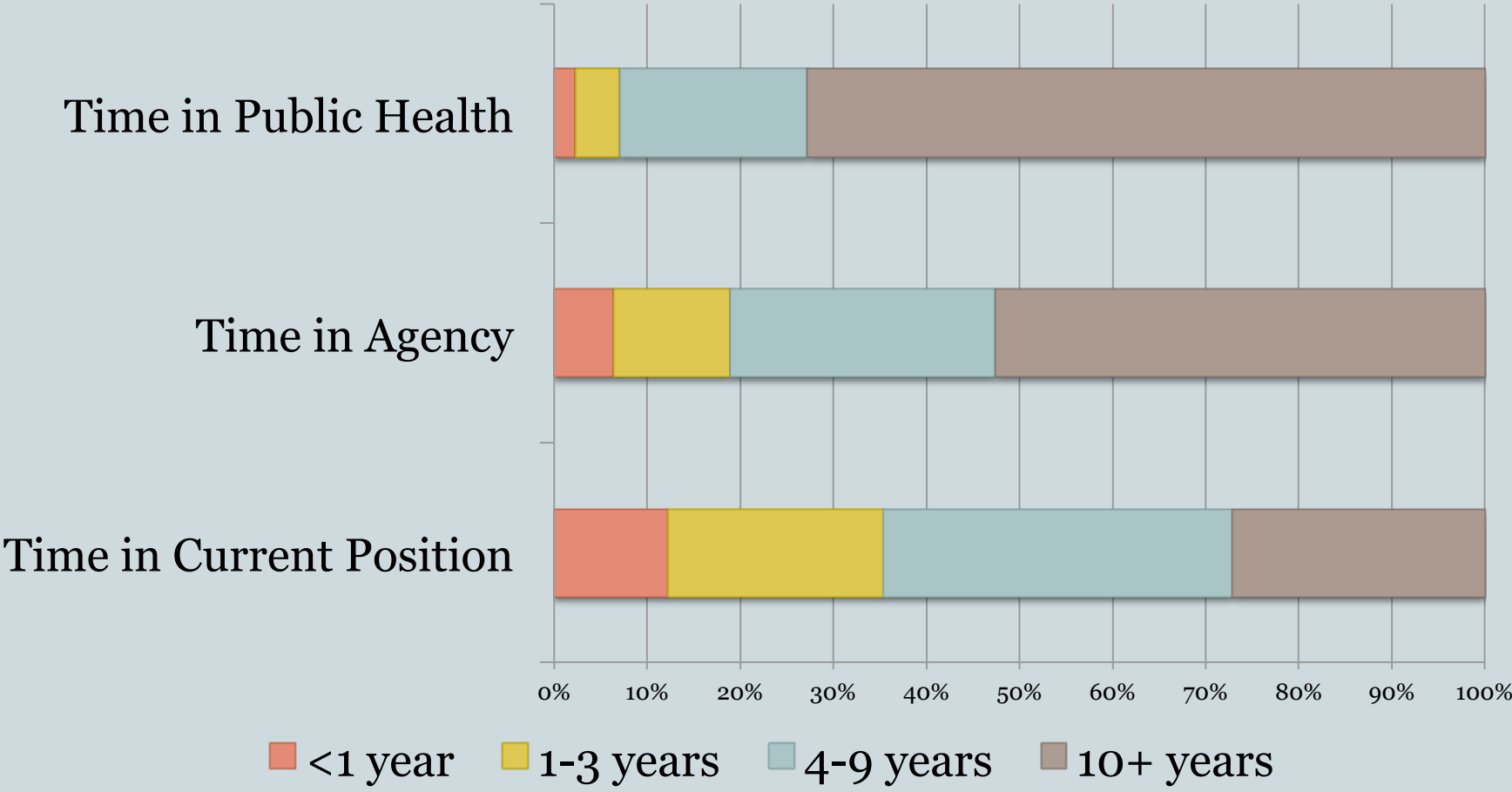


DESCRIPTION OF SURVEY RESPONDENTS

Primary Position of Survey Respondents



Work History of Survey Respondents



Program Specialty of Survey Respondents



- Healthy eating/diet/nutrition
- Physical activity/active living
- Obesity prevention
- Tobacco control
- WIC
- Diabetes
- Cardiovascular disease
- Women's health
- Other

Results Part 2



**DESCRIPTION OF LHD STRUCTURES AND
PROCESSES IN OBESITY PREVENTION
AND
SPECIFIC PROGRAMS/ACTIVITIES IN
HEALTHY EATING AND PHYSICAL ACTIVITY**

LHD Characteristics



Jurisdiction Size	% of Sample	% Total LHDs
<50,000	48	61
50K-499,999	37	34
500,000+	15	5
Governance Type	% of Sample	% Total LHDs
State	18	16
Local	64	77
Shared	18	7

LHD Characteristics, continued



Other characteristics	%
Has formal strategy in obesity prevention	35
Partners with other organizations	84
Conducted CHA/CHIP in last 3 years	67
Conducts obesity-related surveillance and evaluation	37
Has dedicated FTE in obesity prevention	25

Specific Activity Rankings - Healthy Eating

	Any Role Highest Ranked (%)	Any Role Lowest Ranked (%)
POLICY/ BUILT ENVIRONMENT	Restaurant/Food/Retail	
	Menu labeling in chain or local restaurants (20.2)	Incentives for stores to reduce point-of-purchase marketing of unhealthy foods (13.2)
	School/ Worksites	
	Adoption of practices in hospitals to encourage breastfeeding (52.4)	Disincentives to limit calorie-dense, nutrient-poor foods or beverages (19.3)
	Nutrition Assistance Programs	
	Encourage low-income individuals recipients to use farmers markets (66.1)	Incentives for healthy foods at competitive prices and limit calorie-dense, nutrient-poor foods (21.7)
	Neighborhoods	
	Create private areas for breastfeeding in public places (53.4)	Land use/ zoning policies to restrict fast food near schools and playgrounds (6.7)
RAISING AWARENESS	Community Wide Efforts	
	Community activities to improve skills in purchasing/preparing healthy foods (67.6)	Media campaign to establish healthy food access as health equity issue (22.9)
	Targeting Families and Children	
School-based interventions to promote knowledge, attitude, behavior (72.3)	Develop counter-advertising media approaches against unhealthy products to reach youth (13.5)	

Specific Activity Rankings - Physical Activity



	Any Role Highest Ranked (%)	Any Role Lowest Ranked (%)
POLICY/ BUILT ENVIRONMENT	In Communities	
	Increasing availability of open spaces (56.8)	Adopt policies to improve safety in higher crime neighborhoods (23.5)
	School/ Worksites	
	Require/encourage 30 minutes of physical activity daily at school (60.5)	Encourage new school sitings central to residential areas (7.3)
RAISING AWARENESS	Community-Wide Efforts	
	Interventions to change PA by building supportive social networks (44.6)	Counter-advertising media against sedentary activity to reach youth (18.1)
	School/ Worksites	
	Classroom-based health education programs (52.9)	College-based physical health education programs (11.2)

Percentage of LHD Practice (any role) Summed within Categories

Healthy Eating

Policy/ Built Environment	Any Role (%)
Nutrition Asst. Programs	53
School/Worksites	39
Neighborhood	32
Restaurants/ Food	17
Raising Awareness	
Targeting Families/ Children	42
Community-Wide efforts	38

Physical Activity

Policy/ Built Environment	Any Role (%)
In Communities	40
School/Worksites	32
Raising Awareness	
School/Worksites	38
Community-Wide Efforts	32

Results Part 3



**THE RELATIONSHIP BETWEEN LHD
STRUCTURES AND PROCESSES WITH THE
ROLE OF LHDS IN HEALTHY EATING AND
PHYSICAL ACTIVITY**

Strength and Type of LHD Role in Healthy Eating: *Built Environment/Policy Activities*



	Strong Leader	Moderate Leader	Strong Collaborator	Moderate Collaborator
Pop. 50K-<500K (v. <50K)	2.1	2.8	3.4	2.0
Pop. 500K+ (v. <50K)	8.1	5.5	6.2	2.5
Local govern. (v. state)	1.1	0.7	0.5	0.6
Shared govern. (v. state)	0.7	1.0	0.7	1.0
Formal Strategy (y v. n)	4.0	2.1	3.1	2.6
CHA/CHIP (y v. n)	2.2	1.7	2.9	1.8
Surveillance/Eval. (y v. n)	13.5	6.5	4.8	2.6
Dedicated FTEs (y v. n)	4.4	2.3	1.7	1.5
Partnerships (y v. n)	17.8	3.2	10.7	6.1

Strength and Type of LHD Role in Healthy Eating: *Raising Awareness Activities*



	Strong Leader	Moderate Leader	Strong Collaborator	Moderate Collaborator
Pop. 50K-<500K (v. <50K)	1.4	2.0	1.8	1.8
Pop. 500K+ (v. <50K)	3.7	4.1	2.0	3.3
Local govern. (v. state)	1.2	1.2	0.8	0.6
Shared govern. (v. state)	1.4	1.6	1.3	0.9
Formal Strategy (y v. n)	2.9	1.5	1.5	2.5
CHA/CHIP (y v. n)	2.0	1.4	3.5	1.7
Surveillance/Eval. (y v. n)	4.8	3.4	3.1	2.5
Dedicated FTEs (y v. n)	3.4	1.4	1.4	1.9
Partnerships (y v. n)	11.4	4.4	5.3	5.8

Strength and Type of LHD Role in Physical Activity: *Built Environment/Policy Activities*



	Strong Leader	Moderate Leader	Strong Collaborator	Moderate Collaborator
Pop. 50K-<500K (v. <50K)	1.6	1.6	3.3	2.5
Pop. 500K+ (v. <50K)	4.9	3.0	13.4	4.2
Local govern. (v. state)	2.0	2.4	1.4	0.6
Shared govern. (v. state)	1.1	1.6	1.3	1.1
Formal Strategy (y v. n)	4.5	3.0	6.7	4.5
CHA/CHIP (y v. n)	2.2	2.4	3.0	2.9
Surveillance/Eval. (y v. n)	4.9	3.4	4.5	3.0
Dedicated FTEs (y v. n)	7.5	2.6	3.2	1.9
Partnerships (y v. n)	10.3	5.4	7.7	6.5

Strength and Type of LHD Role in Physical Activity: *Raising Awareness Activities*



	Strong Leader	Moderate Leader	Strong Collaborator	Moderate Collaborator
Pop. 50K-<500K (v. <50K)	1.6	1.6	4.4	1.5
Pop. 500K+ (v. <50K)	2.7	1.7	6.3	2.6
Local govern. (v. state)	1.0	2.2	0.9	0.9
Shared govern. (v. state)	1.3	1.8	0.6	0.9
Formal Strategy (y v. n)	4.5	2.1	2.7	3.3
CHA/CHIP (y v. n)	3.3	1.6	2.8	2.2
Surveillance/Eval. (y v. n)	3.9	1.4	5.0	2.3
Dedicated FTEs (y v. n)	4.6	2.2	2.5	2.7
Partnerships (y v. n)	16.3	2.6	8.3	2.6

Some preliminary conclusions...



- LHDs with larger jurisdictions, formal strategy, recent CHA/CHIP, surveillance/eval, dedicated FTE's, and external partnerships were more likely to play a strong role in healthy eating and physical activity
- Patterns of associations varied with respect to type of LHD role (leader v. collaborator) and areas of practice in healthy eating and physical activity
- Limitations: cross-sectional data
- Next steps:
 - examine specific details about LHD characteristics (e.g., types of external partners, specifics about CHA/CHIP process)
 - explore results further with multivariable adjustment models
 - Test-retest reliability
 - comparisons with NACCHO Profile Data

Dissemination and Translation



REPORT TO LHD STUDY PARTICIPANTS

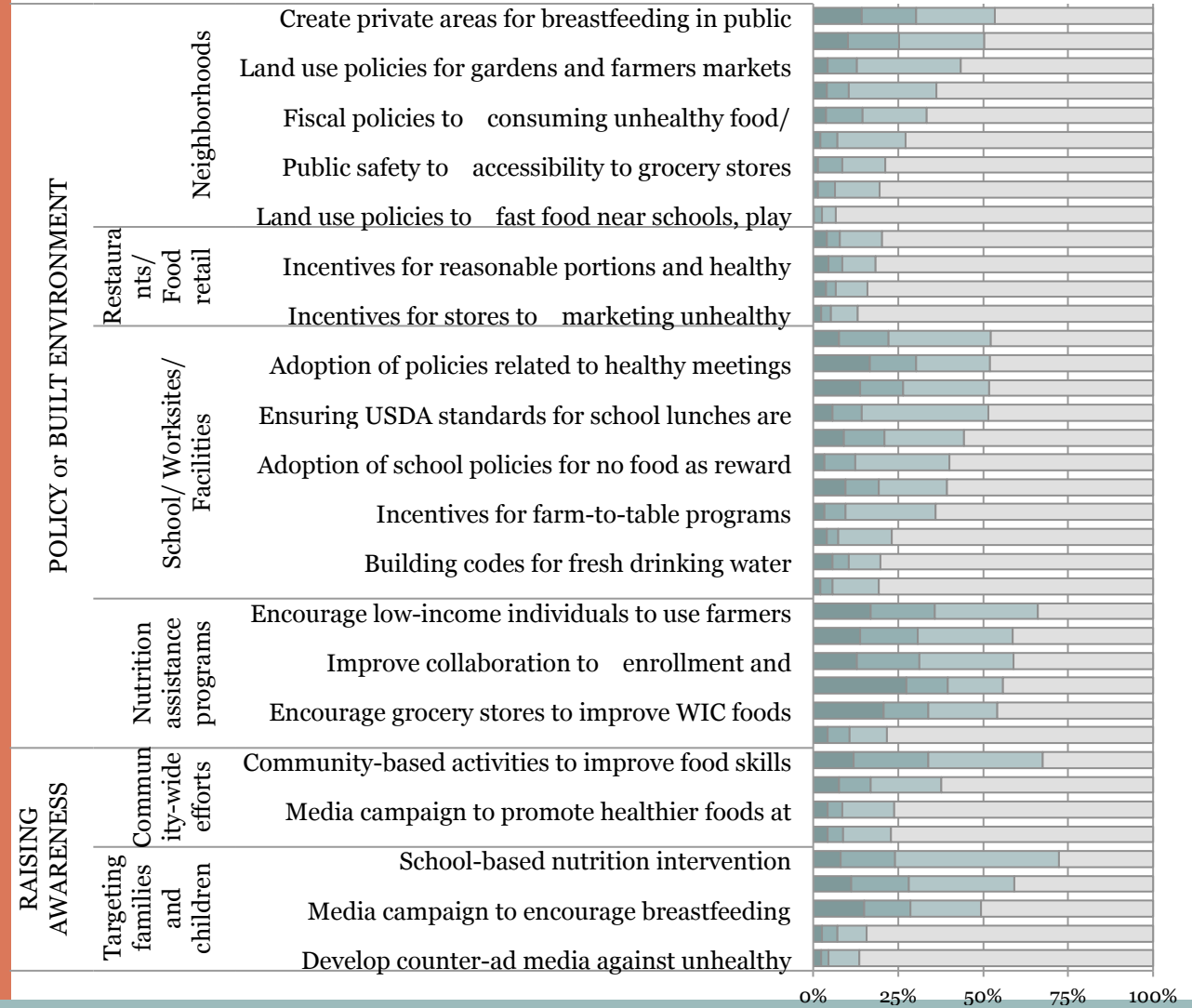


Healthy Eating Activities

Graph as presented to LHDs in dissemination report

Healthy Eating Aggregate Results from National Study of Local Public Health Activities to Prevent Obesity 2013 (n=388)

■ LEADER ■ BOTH ■ COLLABORATOR ■ NEITHER/ DON'T KNOW

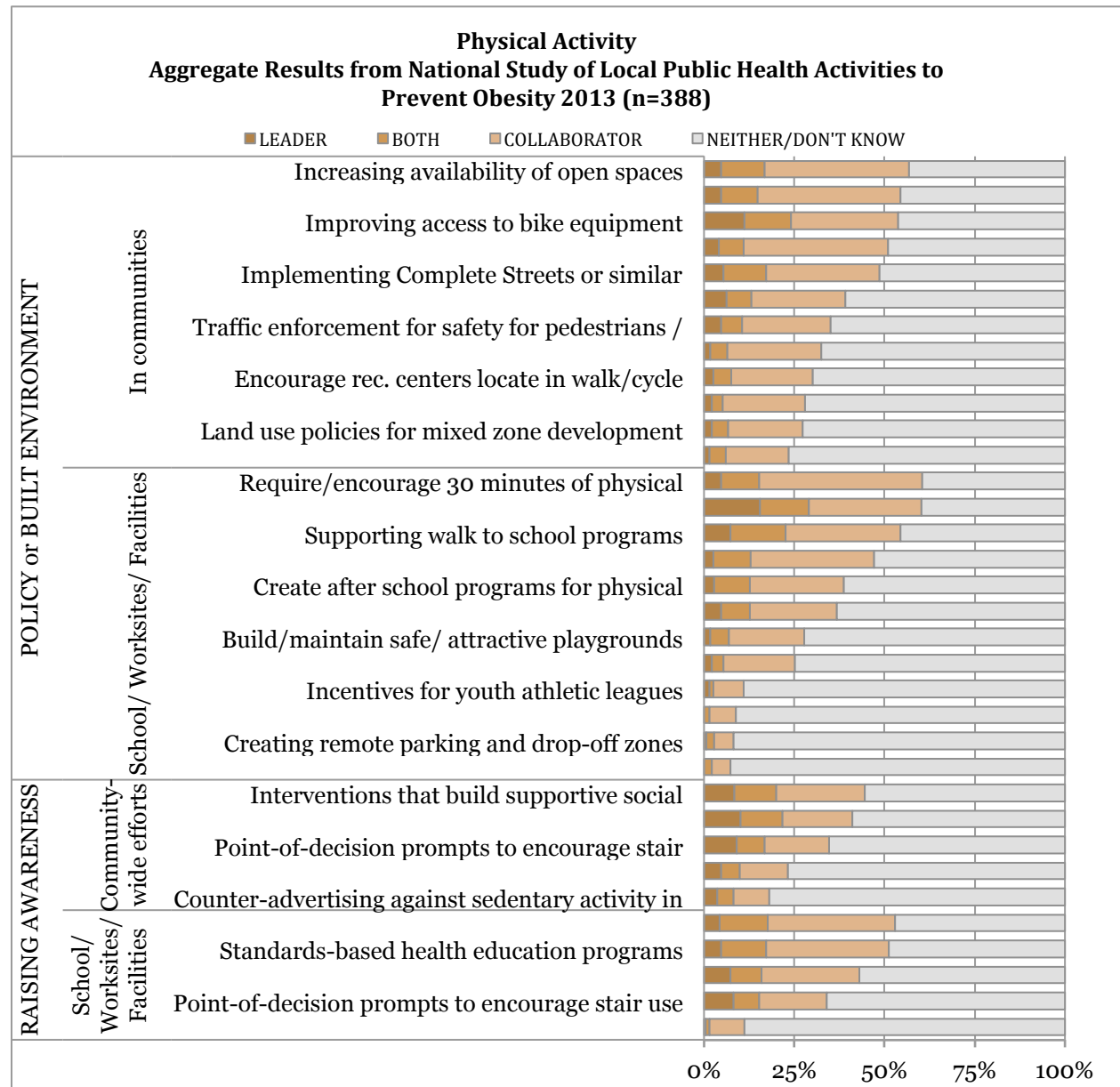


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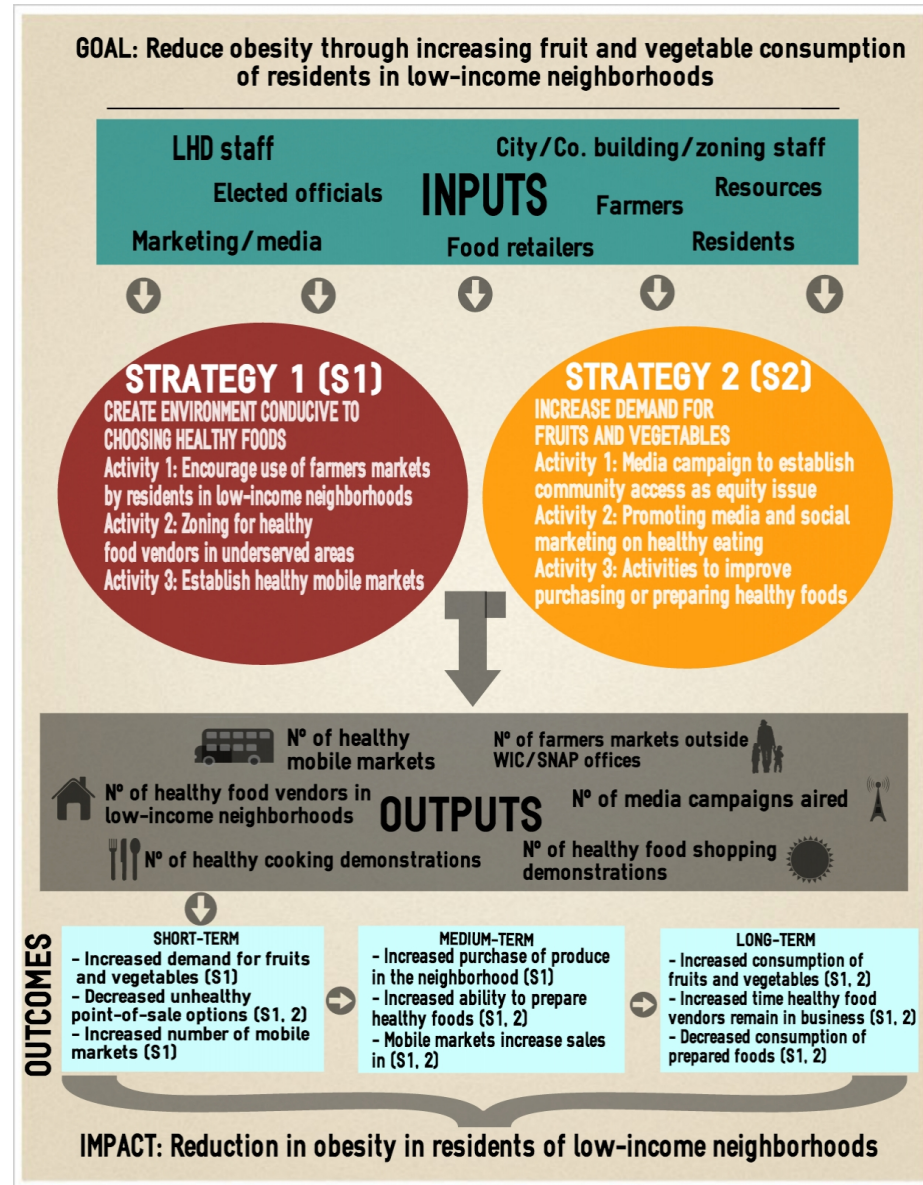
Physical Activity Activities

Graph as presented to LHDs in dissemination report



LOGIC MODEL

Activities from the survey were used to create a sample logic model for the LHDs



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