

Supplemental Table 1. Characteristics of Environment Evidence for Physical Activity (PA), Healthy Eating (HE), and Breastfeeding (BF) Promotion in Rural Settings (n=188).

Source		Behavior			Setting				
Source Author	Source Type Source Title	BF	HE	PA	Location	Census Region	Rural Typology [§]	Rural Definition	Setting(s)
Abi Nader et al., 2018	Peer reviewed research: Teacher-level factors, classroom physical activity opportunities, and children's physical activity levels.			X	Oregon, USA	West	Unable to determine	Authors describe study setting as rural	Schools
Addy et al., 2004	Peer reviewed research: Associations of perceived social and physical environmental supports with physical activity and walking behavior.			X	Geneva,	-	NA	Authors describe study setting as rural	Churches; parks; playgrounds; recreation facilities; schools streets
Ahmed et al., 2011	Peer reviewed research: Perceptions of middle school educators in Hawai'i about school-based gardening and child health.		X	X	Hawaii	West	Graying America	Author describe study setting as rural	Schools
Ahmed et al., 2018	Peer reviewed research: Fruit and vegetable desirability is lower in more rural built food environments of Montana, USA using the Produce Desirability (ProDes) Tool.		X		Montana	West	Unable to Determine	Used the USDA Rural Urban Continuum Codes (RUCC)	Food retail
Alabama Extension at Auburn University SNAP-Ed, 2018	Grey literature: Live Well Faith Communities: Creating a Healthier Rural Alabama		X	X	Alabama	South	Unable to determine	Authors describe study setting as rural	Churches
Alexander et al., 2015	Peer reviewed research: Childhood obesity perceptions among African American		X	X	Georgia	South	Unable to determine	Authors describe study setting as rural	Food retail; parks; recreation facilities; schools; health department

	caregivers in a rural Georgia community: a mixed methods approach.							
Andress & Fitch, 2016	Peer reviewed research: Juggling the five dimensions of food access: Perceptions of rural low-income residents.	X		West Virginia	South	Working Class Country	Authors describe study setting as rural	Food assistance programs; food retail
Armstrong, 2000	Peer reviewed research: A survey of community gardens in upstate New York: Implications for health promotion and community development.	X	X	New York	Northeast	Unable to determine	Authors describe study setting as rural	Community gardens
Aronson & Oman, 2004	Peer reviewed research: Views on exercise and physical activity among rural-dwelling senior citizens.			Ada and Lindsay, Oklahoma	South	Urban typology, Evangelical Hubs	Authors describe study setting as rural	Recreational facilities; streets
Askelson et al., 2015	Peer reviewed research: Rural school food service director perceptions on voluntary school meal reforms.	X		Iowa	Midwest	Unable to determine	Rural codes were identified by the National Center for Education Statistics	Local food producers; schools
Askelson et al., 2019	Peer reviewed research: Actively involving middle school students in the implementation of a pilot of a Behavioral Economics-Based Lunchroom Intervention in rural schools.	X		Iowa	Midwest	Unable to determine	Authors describe study setting as rural	Schools
Atkinson et al., 2007	Peer reviewed research: Assessment of the nutrition and physical activity education needs of low-income, rural mothers: can technology play a role?	X	X	Maryland	Northeast	Unable to determine	Authors describe study setting as rural	Charitable food systems; food retail; recreation facilities; streets

Atkinson et al., 2010	Peer reviewed research: Assets, challenges, and the potential of technology for nutrition education in rural communities.	X	X	Maryland	Northeast	Unable to determine	Authors describe study setting as rural	Food retail; schools; streets
Babey et al., 2008	Peer reviewed research: Physical activity among adolescents. When do parks matter?		X	California	West	Unable to determine	Authors describe study setting as rural	Parks
Baker, 2017	Peer reviewed research: Implementing and evaluating environmental and policy interventions for promoting physical activity in rural schools.		X	Missouri	South	Unable to determine	Authors describe study setting as rural	Schools
Bardenhagen et al., 2017	Peer reviewed research: Characterizing rural food access in remote areas.	X		Michigan	Midwest	Unable to determine	Authors describe study setting as rural	Food retail
Barnes et al., 2016	Peer reviewed research: Geographic measures of retail food outlets and perceived availability of healthy foods in neighbourhoods.	X		South Carolina	South	Unable to determine	2010 U.S. Census urban classification	Food retail
Barnidge et al., 2013	Peer reviewed research: Association between community garden participation and fruit and vegetable consumption in rural Missouri	X		Missouri	Midwest	Unable to determine	Authors describe study setting as rural	Community gardens
Barnidge et al., 2013	Peer reviewed research: Understanding and addressing barriers to implementation of environmental and policy interventions to support physical activity and healthy	X		Missouri	Midwest	Unable to determine	U.S. Census Bureau classification: rural areas are outside urban clusters.	Community gardens

	eating in rural communities.							
Bauer et al., 2012	Peer reviewed research: High food insecurity and its correlates among families living on a rural American Indian Reservation.	X		South Dakota	Midwest	Native American Lands	Authors describe study setting as rural	Home environment; food retail
Belansky et al., 2010	Peer reviewed research: Early effects of the federally mandated Local Wellness Policy on school nutrition environments appear modest in Colorado's rural, low-income elementary schools.	X		Colorado, USA	West	Unable to determine	Authors describe study setting as rural	Local food producers; schools
Belansky et al., 2013*	Peer reviewed research: Local Wellness Policy 5 years later: Is it making a difference for students in low-income, rural Colorado elementary schools?	X	X	Colorado,	West	Unable to determine	Rural is defined as districts with fewer than 6,000 students and located in an area designated by the Colorado Department of Education as being either a rural, outlying town, or outlying city setting.	Schools
Bevans et al., 2010	Peer reviewed research: Physical education resources, class management, and student physical activity levels: A structure-process-outcome approach to evaluating physical education effectiveness.		X	Maryland and West Virginia	South and Midwest	Unable to determine	Authors describe study setting as rural	Schools
Bishop et al., 2015	Grey literature: Tucumcari HEAL MAPPS Community Report	X	X	Tucumcari, New Mexico	West	Unable to determine	Authors describe study setting as rural	Recreation facilities; schools; parks; playgrounds; streets; food retail
Blumenschine et al., 2018	Peer reviewed research: Prevalence of and differences in salad bar implementation in rural	X		Arizona	West	Unable to determine	National Center for Education Statistics (NCES) urban and rural classification system	Schools

	versus urban Arizona schools.							
Bopp et al., 2012	Peer reviewed research: Conducting a Hispanic health needs assessment in rural Kansas: Building the foundation for community action.		X	Kansas	Midwest	Hispanic Centers	Authors describe study setting as rural	Parks; recreation facilities; Streets
Bove & Olson, 2006	Peer reviewed research: Obesity in low-income rural women: Qualitative insights about physical activity and eating patterns.	X	X	New York	Northeast	Unable to determine	Rural villages had no more than 2,500 people.	Streets; home environment
Brownson et al., 2000	Peer reviewed research: Promoting physical activity in rural communities: walking trail access, use, and effects.		X	Missouri	Midwest	Unable to determine	Authors describe study setting as rural	Trails; recreational facilities
Brownson et al., 2005	Peer reviewed research: A multilevel ecological approach to promoting walking in rural communities.		X	Missouri, Arkansas and Tennessee	Midwest and South	Unable to determine	Authors describe study setting as rural	Trails
Buro et al., 2015	Peer reviewed research: An Ecological Approach to exploring rural food access and active living for families with preschoolers.	X	X	7 midwestern states	Midwest	Unable to determine	Rural status defined as areas with a population density < 1,000 people per square mile	Recreation facilities; parks; playgrounds; streets; trails
Byker Shanks et al., 2017	Peer reviewed research: Factors influencing food choices among older adults in the rural Western USA.		X	Montana	West	Unable to determine	Rating of > 3 from the 2013 U.S. Department of Agriculture's Rural-Urban Continuum Codes (RUCC).	Food retail
Calodich, 2015	Grey literature: Port Townsend HEAL MAPPS™ Community Report	X	X	Port Townsend, Washington	West	Graying America	Authors describe study setting as rural	Recreation facilities; streets; parks; trails; schools; food retail; community gardens; food assistance programs

Case & Rojina, 2015	Grey literature: <i>Bonanza, Oregon HEAL MAPPS Community Report</i>	X	X	Bonanza, Oregon	Midwest	Graying America	Authors describe study setting as rural	Food assistance programs; churches; food retail; parks; playgrounds; recreation facilities; schools; churches
Caspi et al., 2017	Peer reviewed research: School Breakfast Program participation and rural adolescents' purchasing behaviors in food stores and restaurants.	X		Minnesota	Midwest	Unable to determine	Authors describe study setting as rural	Schools; food retail
Chadwick et al., 2019	Peer reviewed research: Collaborative implementation of a community-based exercise intervention with a partnering rural American Indian community.		X	Oklahoma	South	Evangelical Hubs	Authors describe study setting as rural	Recreational facilities
Chapman et al., 2019	Peer reviewed research: Evaluation of three behavioural economics 'nudges' on grocery and convenience store sales of promoted nutritious foods.	X		North Carolina	South	Unable to determine	Authors describe study setting as rural	Food retail
Chrisman et al., 2014	Peer reviewed research: Perceived correlates of domain-specific physical activity in rural adults in the Midwest.		X	Southeastern Iowa	Midwest	Unable to determine	Authors describe study setting as rural	Streets; schools
Chrisman et al., 2015	Peer reviewed research: Environmental influences on physical activity in rural Midwestern adults: a qualitative approach.		X	Iowa	Midwest	Unable to determine	Rural counties defined as those with no principal city with a population of over 50,000 people.	Natural environments; recreation facilities streets; trails; home environment
Chrisman et al., 2015	Peer reviewed research: Perceived resources and environmental correlates of domain-specific physical		X	Iowa	Midwest	Unable to determine	Authors describe study setting as rural	Streets; workplace; natural environment; recreational facilities

	activity in rural Midwestern adults.							
Clifford et al., 2015	Grey literature: Leadville, CO HEAL MAPPS™ Community Report	X	X	Leadville, Colorado	Southwest	Graying America	Authors describe study setting as rural	Food retail; parks; schools; streets; trails; community garden
Clifford et al., 2015	Grey literature: Ignacio, CO HEAL MAPPS™ Community Report	X	X	Ignacio, Colorado	Southwest	College Towns	“a total population of 697”	creation facilities; schools; parks; playgrounds; streets; food retail; local food producers; community garden
Comstock et al., 2016	Peer reviewed research: Assessing the environment for support of youth physical activity in rural communities.		X	South Dakota and Kansas	Midwest	Unable to determine	Authors describe study setting as rural	Streets; recreational facilities
Cornish et al., 2016*	Peer reviewed research: "Reforms looked really good on paper": Rural food service responses to the Healthy, Hunger- Free Kids Act of 2010.	X		Nationwide	Northeast, West, Midwest, and South	Unable to determine	National Center for Education Statistics (NCES) rural classification system	Schools; local food producers
Crooks, 2003	Peer reviewed research: Trading nutrition for education: Nutritional status and the sale of snack foods in an eastern Kentucky school.	X		Bridges county, Kentucky	Midwest	Evangelical hubs	Authors describe study setting as rural	Schools
Daly et al., 2017	Peer reviewed research: Physical activity, sedentary behavior, fruit and vegetable consumption and access: What influences obesity in rural children?	X	X	Alabama	South	Unable to determine	U.S. Census Bureau: rural areas defined as all territory outside of urbanized areas and urban clusters,	Schools

D'Angelo et al., 2017	Peer reviewed research: Small food store retailers' willingness to implement Healthy Store Strategies in rural North Carolina.	X		Lenoir, Wayne and Wilson Counties, North Carolina	Southeast	Military Posts; African American South	Authors describe study setting as rural	Food retail
Davis et al., 2014	Peer reviewed research: Health impact assessment, physical activity and federal lands trail policy.		X	Cuba, New Mexico	West	Urban Typology	Authors describe study setting as rural	Natural environments; trails
Davis et al., 2017	Peer reviewed research: Milk Options Observation (MOO): A mixed-methods study of chocolate milk removal on beverage consumption and student/staff behaviors in a rural elementary school.		X	Oregon	West	Graying America	Authors describe study setting as rural	Schools
Demment et al., 2015	Peer reviewed research: Rural middle school nutrition and physical activity environments and the change in body mass index during adolescence.	X	X	New York	Northeast	Unable to determine	Authors describe study setting as rural	Schools
Deshpande et al., 2005	Peer reviewed research: Environmental correlates of physical activity among individuals with diabetes in the rural midwest.		X	Missouri, Tennessee, and Arkansas	Midwest and South	Unable to determine	Authors describe study setting as rural	Parks; Recreation facilities; schools; trails
Dev et al., 2020*	Peer reviewed research: Provider reported implementation of nutrition-related practices in childcare centers and family childcare homes in rural and urban Nebraska.		X	Nebraska	Midwest	Unable to determine	Rural counties with <10,000 residents	Childcare

Devine et al., 2012	Peer reviewed research: Process evaluation of an environmental walking and healthy eating pilot in small rural worksites.	X	X	New York	Northeast	Unable to determine	Authors describe study setting as rural	Workplace
Dewitt et al., 2017	Peer reviewed research: Community-based marketing campaign at farmers markets to encourage fruit and vegetable purchases in rural counties with high rates of obesity, Kentucky, 2015-2016.	X		Kentucky	South	Unable to determine	Authors describe study setting as rural	Food retail
Dinkel et al., 2018	Peer reviewed research: Improving the physical activity and outdoor play environment of family childcare homes in Nebraska through Go Nutrition and Physical Activity Self-Assessment for childcare.		X	Nebraska	Midwest	Working Class Country, Rural Middle America, Hispanic Centers, Graying America, EH, Aging Farmlands	Rural areas with a population less than 10,000	Community gardens; recreation facilities; childcare
Dye & Cason, 2005	Peer reviewed research: Perceptions of older, low-income women about increasing intake of fruits and vegetables.	X		South Carolina	South	Unable to determine	Authors describe study setting as rural	Food retail; food assistance programs
Edwards et al., 2011	Peer reviewed research: Opportunities for extracurricular physical activity in North Carolina middle schools.		X	North Carolina	South	Unable to determine	Modified version of the National Center for Educational Statistics (NCES) classification system, including rural (town/rural distant and remote) and rural fringe (town/rural fringe) categories.	Schools
Edwards et al., 2013	Peer reviewed research: Place disparities in supportive environments for		X	North Carolina	South	Unable to determine	National Educational Statistics (NCES) classification system	Schools

	extracurricular physical activity in North Carolina middle schools.							
Edwards et al., 2014	Peer reviewed research: Promoting youth physical activity in rural southern communities: practitioner perceptions of environmental opportunities and barriers.		X	North Carolina	South	Unable to determine	Authors describe study setting as rural	Churches; natural environments; parks; recreation facilities; schools
Erinosho et al., 2018	Peer reviewed research: The quality of nutrition and physical activity environments of child-care centers across three states in the southern U.S.	X	X	Georgia; Mississippi and Kentucky	South	Unable to determine	Rural-Urban Commuting Area (RUCA) codes	Childcare; schools
Erinosho et al., 2019	Peer reviewed research: The quality of nutrition and physical activity environments of family child-care homes in a state in the Southern United States.	X	X	Mississippi	South	Unable to determine	Rural-Urban Commuting Area (RUCA) codes	Childcare
Escoffery et al., 2011	Peer reviewed research: A qualitative examination of the role of small, rural worksites in obesity prevention.	X	X	Georgia	South	African American South	Authors describe study setting as rural	Workplace
Eyler & Vest, 2002	Peer reviewed research: Environmental and policy factors related to physical activity in rural white women.		X	Missouri and Illinois	Midwest	Unable to determine	Based on the U.S. Census Bureau classifications	Recreational facilities; streets; workplace
Eyler, 2003	Peer reviewed research: Personal, social, and environmental correlates of physical activity in rural		X	Missouri and Illinois	Midwest	Unable to determine	U.S. Census Bureau classification: rural defined as all territory, population, and housing units located outside an urbanized area or an urban cluster.	Recreational facilities; streets

	Midwestern white women.						
Feldman, 2017	Grey literature: Year One of the USDA FINI Program: Incentivizing the Purchase of Fruits and Vegetables Among SNAP Customers at the Farmers Market	X		27 states	NA	NA	Authors describe study setting as rural Food assistance programs; food retail
Findholt, 2011	Peer reviewed research: Photovoice engages rural youth in childhood obesity prevention.	X	X	Union County, Oregon	West	Graying America	Authors describe study setting as rural Recreation facilities; food retail; natural environments
Findholt, 2011	Peer reviewed research: Environmental influences on children's physical activity and eating habits in a rural Oregon County.	X	X	Union County, Oregon	West	Graying America	Authors describe study setting as rural Environments; natural streets recreation facilities; food retail; schools
Flamm, 2011	Peer reviewed research: Barriers to EBT use at farmers' markets: Lessons in empowerment evaluation from rural Ohio.	X		Oxford, Ohio (Butler County)	Midwest	Urban typology	Authors describe study setting as rural Food retail
Flood, 2017	Peer reviewed research: Breastfeeding supports and services in rural Hawaii: Perspectives of community healthcare workers.	X		Hawaii	West	Graying America	"A population of 42,916" Hospitals; workplaces
Flower et al., 2008	Peer reviewed research: Understanding breastfeeding initiation and continuation in rural communities: A combined qualitative/quantitative approach.	X		North Carolina and Pennsylvania	South and Northeastern	Unable to determine	Authors describe study setting as rural Workplace
Fredericks et al., 2015	Grey literature: <i>Kalama, Washington</i>	X	X	Kalama, Washington	Northern Pacific	Graying America	Authors describe study setting as rural Parks; playgrounds; schools; streets; food assistance programs;

<i>HEAL MAPPS Community Report.</i>							community gardens; food retail
Friedman et al., 2014*	Peer reviewed research: Provider communication and role modeling related to patients' perceptions and use of a federally qualified health center-based farmers' market.	X	South Carolina	South	Unable to determine	Authors describe study setting as rural	Food retail; healthcare
Gamble et al., 2017*	Peer reviewed research: Not enough time in the day: A qualitative assessment of in-school physical activity policy as viewed by administrators, teachers, and students	X	Mississippi	South	Unable to determine	Authors describe study setting as rural	Schools
Gangeness, 2010	Peer reviewed research: Adaptations to achieve physical activity in rural communities.	X	Minnesota	Midwest	Unable to determine	Population of less than 1,000 and did not have a community of more than 2,500 people within a 15-mile radius.	Trails; streets
Garasky et al., 2006	Peer reviewed research: The effects of the local food environment and social support on rural food insecurity.	X	Iowa	Midwest	Unable to determine	Authors describe study setting as rural	Food retail; local food producers; home environment
Gilbert et al., 2019	Peer reviewed research: A qualitative study identifying barriers and facilitators of physical activity in rural communities.	X	Missouri	Midwest	Unable to determine	U.S. Census Bureau's classification system: communities were non-micropolitan (less than 9,999) or micropolitan (10,000 to 49,999).	Trails
Glagola Dunn, 2018	Graduate research - <i>Examining Faith Based Communities as Leverage Points for The Prevention of Childhood and Adolescent Obesity</i> [Dissertation]	X X	Columbia, South Carolina	Southeast	African American South	Authors describe study setting as rural	Churches
Griffin et al., 2011	Peer reviewed research: A university,	X	South Carolina	South	Evangelical Hubs	Authors describe study setting as rural	Trails

	community coalition, and town partnership to promote walking.							
Gustafson et al., 2017	Peer reviewed research: Direct Effects of the home, school, and consumer food environments on the association between food purchasing patterns and dietary intake among rural adolescents in Kentucky and North Carolina, 2017.	X		Kentucky and North Carolina	South	Unable to determine	Authors describe study setting as rural	Home environment; schools
Gustafson et al., 2018	Peer reviewed research: Examining key stakeholder and community residents' understanding of environmental influences to inform place-based interventions to reduce obesity in rural communities, Kentucky 2015.	X	X	Kentucky	South	Unable to determine	Authors describe study setting as rural	Food retail; streets; trails
Gustafson et al., 2019	Peer reviewed research: The association between the "Plate it Up Kentucky" supermarket intervention and changes in grocery shopping practices among rural residents.	X		Kentucky	South	Working Class Country, Evangelical Hubs	USDA Rural-Urban Continuum Codes (RUCC)	Food retail
Gustafson et al., 2019	Peer reviewed research: Community-wide efforts to improve the consumer food environment and physical activity resources in rural Kentucky.	X	X	Kentucky	South	Unable to determine	U.S. Department of Agriculture Rural Urban Continuum Codes (RUCC; code of 7 or higher).	Food retail; parks; trails

Haas et al., 2015	Grey literature: Wray, CO HEAL MAPPS™ Community Report	X	X	Wray, Colorado	Southwest	Hispanic Centers	Authors describe study setting as rural	Food retail; parks; recreation facilities; streets; schools; trails
Halverson & Devlin, 2015	Grey literature: <i>Estacada HEAL MAPPS Community Report</i>	X	X	Clackamas County, Oregon	South	Exurbs	Authors describe study setting as rural	Food assistance programs; church; food retail; parks; schools; streets
Halverson, 2015	Grey literature: Molalla HEAL MAPPS™ Community Report 2015	X	X	Clackamas County, Oregon	South	Exurbs	Authors describe study setting as rural	Churches; parks; playgrounds; recreation facilities; schools; streets
Hampson et al., 2009	Peer reviewed research: A social marketing approach to improving the nutrition of low-income women and children: An initial focus group study.	X		Oregon	West	Unable to determine	Authors describe study setting as rural	Food retail
Hanawa Peterson & Procter, 2019	Peer reviewed research: A case study of independent grocers in the U.S. rural Midwest.	X		Kansas and Nebraska	Midwest	Working Class Country, Rural Middle America, Aging Farmlands	Communities with less than 2500 people, which is the urban population threshold used to define the most rural counties in the 2013 Rural–Urban Continuum Codes.	Food retail
Harden & Rudolph, 2015	Grey literature: <i>Rainier HEAL MAPPS Community Report</i>	X	X	Columbia County, Oregon	Northwest	Rural Middle America	Authors describe study setting as rural	Food retail; natural environment; natural parks; playgrounds; recreational facilities; schools; streets; trails
Harden & Rudolf, 2015	Grey literature: Clatskanie HEAL MAPPS™ Community Report 2015	X	X	Columbia County, Oregon	Northwest	Rural Middle America	Authors describe study setting as rural	Food assistance programs; food retail; parks; playgrounds; recreational facilities schools; trails
Hartline et al., 2017	Peer reviewed research: A mixed-methods case study of 4 rural schools before initiating local Farm-to School-Programs.	X		Nebraska	Midwest	Unable to determine	Authors describe study setting as rural	Schools; local food producers

Haynes-Maslow et al., 2018*	Peer reviewed research: Best practices and innovative solutions to overcome barriers to delivering policy, systems and environmental changes in rural communities.	X	15 states, United States	Northeast, West, Midwest, and South	Unable to determine	Authors describe study setting as rural	Charitable food systems; community gardens; food assistance programs; food retail; schools
Hearst et al., 2018*	Peer reviewed research: Altering the school breakfast environment reduces barriers to school breakfast participation among diverse rural youth.	X	Minnesota	Midwest	Unable to determine	Authors describe study setting as rural	Schools
Hennessy et al., 2010	Peer reviewed research: Active living for rural children: community perspectives using PhotoVOICE.	X	Appalachia, KY, Central Valley, CA, Mississippi River Delta, MS, Southeast, SC	West and South	College Towns; African American South	National Center for Education Statistics locale codes	Streets
Hill et al., 2016	Peer reviewed research: Do the features, amenities, and quality of physical activity resources differ between city and county areas of a large rural region?	X	Virginia and North Carolina.	South	Unable to determine	USDA Rural Urban Community Area (RUCA) codes of 4 or greater, with a handful of census tracts that have RUCA codes of 2 or 3.	Parks, recreation facilities; streets
Holston et al., 2020	Peer reviewed research: Perceptions of the food environment and access among predominantly Black low-income residents of rural Louisiana communities.	X	Louisiana	South	African American South	Rural-Urban Continuum Codes 4-9	Food retail; food assistance programs
Honeycutt et al., 2012	Peer reviewed research: Research to reality: A process evaluation of a	X	Georgia	South	Unable to determine	Authors describe study setting as rural	Churches; workplace

	mini-grants program to disseminate evidence-based nutrition programs to rural churches and worksites.						
Hooker et al., 2005	Peer reviewed research: Perceptions of environmental supports for physical activity in African American and white adults in a rural county in South Carolina.	X	South Carolina	South	Unable to determine	Authors describe study setting as rural	Recreation facilities; streets
Houghtaling et al., 2019*	Peer reviewed research: Rural independent and corporate Supplemental Nutrition Assistance Program (SNAP)-authorized store owners' and managers' perceived feasibility to implement marketing-mix and choice-architecture strategies to encourage healthy consumer purchases.	X	Virginia	South	Unable to determine	Authors describe study setting as rural	Food retail
Houghtaling, 2020	Peer reviewed research: Perceptions of rural SNAP-authorized food store owners and managers about healthy product availability.	X	Virginia	South	Unable to determine	Authors describe study setting as rural	Food retail
Hutson, 2017	Graduate research: <i>Women, Infants, and Young Children: Exploring Barriers to Social Assistance Programs in Rural Areas</i> [Ph.D.].	X	Tennessee	South	Unable to determine	Authors describe study setting as rural	Food assistance programs; food retail.
Izumi et al., 2015	Peer reviewed research: Formative evaluation to increase availability of healthy snacks and beverages in stores near	X	Oregon	West	Graying America	Authors describe study setting as rural	Food retail

	schools in two rural Oregon Counties, 2013.								
Jahns et al., 2014	Peer reviewed research: Barriers and facilitators to being physically active on a rural U.S. Northern Plains American Indian reservation.		X	North Dakota	Midwest	Unable to determine, Native American Lands	Authors describe study setting as rural	Recreation facilities; streets trails; parks	
Jensen et al., 2015	Grey literature: <i>Grangeville, ID HEAL MAPPs Community Report.</i>	X	X	Oregon Grangeville, ID	Northwest	Working Class Country	“a population of 16,215 residents.”	Food retail; parks; playgrounds; recreation facilities; schools	
Jernigan et al., 2012	Peer reviewed research: Addressing food insecurity in a Native American reservation using community-based participatory research.		X	California	West	Graying America	Authors describe study setting as rural	Food retails; recreation services	
Jernigan et al., 2018*	Peer reviewed research: Using community-based participatory research to develop healthy retail strategies in Native American-owned convenience stores: The THRIVE study.		X	Oklahoma	South	Native American Lands	Authors describe study setting as rural	Food retail	
Jilcott Pitts et al., 2009	Peer reviewed research: Perceptions of the community food environment and related influences on food choice among midlife women residing in rural and urban areas: A qualitative analysis.		X	X	North Carolina	South	Unable to determine	Authors describe study setting as rural	Food retail
Jilcott Pitts et al., 2015	Peer reviewed research: Farmers' market shopping and dietary behaviours among Supplemental Nutrition		X	X	Pitt County, North Carolina	South	African American South	Authors describe study setting as rural	Food assistance programs; food retail

	Assistance Program participants.							
Jilcott Pitts et al., 2015	Peer reviewed research: Associations between neighborhood-level factors related to a healthful lifestyle and dietary intake, physical activity, and support for obesity prevention polices among rural adults.	X	X	Lenoir County, North Carolina	South	African American South	Authors describe study setting as rural	Streets; parks; recreation facilities; trails; food retail
Jilcott Pitts et al., 2017	Peer reviewed research: Examining the association between intervention-related changes in diet, physical activity, and weight as moderated by the food and physical activity environments among rural, Southern adults.	X	X	Lenoir County, North Carolina	South	African American South	Authors describe study setting as rural	Food retail; parks: recreation facilities; streets
Jilcott Pitts et al., 2018	Peer reviewed research: One-year follow-up examination of the impact of the North Carolina Healthy Food Small Retailer Program on healthy food availability, purchases, and consumption.	X		North Carolina	South	Unable to determine	Authors describe study setting as rural	Food retail
Jilcott Pitts et al., 2018	Peer reviewed research: Impact on dietary choices after discount supermarket opens in low-income community	X		Greenville, North Carolina	South	African American South	Authors describe study setting as rural	Food retail
Johnson et al., 2017	Peer reviewed research: "God always provides": Challenges and barriers in food assistance delivery in Mississippi.	X		Mississippi	South	Unable to determine	Authors describe study setting as rural	Food assistance programs

Kasehagen et al., 2012	Peer reviewed research: Associations between neighborhood characteristics and physical activity among youth within rural-urban commuting areas in the U.S.			Nationwide	Northeast, West, Midwest, and South	Unable to determine	Rural-Urban Commuting Area (RUCA) codes	Parks; recreation facilities; streets
Kegler et al., 2008	Peer reviewed research: A qualitative examination of home and neighborhood environments for obesity prevention in rural adults.	X	X	Georgia	South	Graying America, Aging Farmlands	Authors describe study setting as rural	Local food producers; food retail; recreation facilities; streets; trails
Kegler et al., 2012	Peer reviewed research: Environmental influences on physical activity in rural adults: The relative contributions of home, church and work settings.			Georgia	South	Evangelical Hubs, African American South	Authors describe study setting as rural	Churches; workplace; home environment
Kegler et al., 2013	Peer reviewed research: "Positive deviants": A qualitative study of physically active adults in rural environments.			Georgia	South	Unable to determine	Authors describe study setting as rural	Streets; home environment
Kegler et al., 2014	Peer reviewed research: The influence of rural home and neighborhood environments on healthy eating, physical activity, and weight.	X	X	Georgia	South	Unable to determine	Authors describe study setting as rural	Recreational facilities; homes environment; streets; food retail
Kegler et al., 2015	Peer reviewed research: Rural neighborhood walkability: Implications for assessment.			Georgia	South	Unable to determine	Authors describe study setting as rural	Streets
Ko, 2018	Peer reviewed research: Food availability and food access in rural agricultural	X		Washington	West	Unable to determine	Authors describe study setting as rural	Food retail

	communities: Use of mixed methods.							
Kristjansson et al., 2015	Peer reviewed research: Needs assessment of school and community physical activity opportunities in rural West Virginia: the McDowell CHOICES planning effort.		X	McDowell County, West Virginia	South	Working Class Country	West Virginia Bureau for Public Health classification.	Recreation facilities
Kumar et al., 2016	Peer reviewed research: Identifying barriers, perceptions and motivations related to healthy eating and physical activity among 6th to 8th grade, rural, limited-resource adolescents.	X	X	Kansas	Midwest	Unable to determine	Authors describe study setting as rural	Schools
Lewis et al., 2015	Grey literature: <i>Carson Valley HEAL MAPPS Community Report.</i>	X	X	Carson valley, Nevada	East	Exurbs	Population of 31,500	Community garden; food retail; local food producers; parks; playgrounds; recreation facilities; schools; streets; trails
Li et al., 2015	Peer reviewed research: Perceptions and barriers to walking in the rural South of the United States: The influence of neighborhood-built environment on pedestrian behaviors.		X	Starkville, Mississippi	South	Urban typology	U.S. Census Bureau classification	Streets
Li et al., 2018	Peer reviewed research: Neighbourhood built environment and walking behaviours: Evidence from the rural American South.		X	Starkville, Mississippi	South	Urban typology	U.S. Census Bureau classification	Streets
Lin & Fly, 2016	Peer reviewed research: USDA Fresh Fruit and Vegetable Program is more effective in town	X		Indiana	Midwest	Unable to determine	National Center for Education Statistics, following the urban-centric	Schools; home environment

	and rural schools than those in more populated communities.						coding system from the U.S. Census Bureau.	
Gatzke et al., 2015	Grey literature: Caliente, NV HEAL MAPPS™ Community Report	X	X	Caliente, Nevada	Northeast	College Towns	Authors describe study setting as rural	Food retail; local food producers; parks; playgrounds; recreation facilities; schools; streets; trails
Lo et al., 2017	Peer reviewed research: Environmental influences on physical activity among rural adults in Montana, United States: Views from built environment audits, resident focus groups, and key informant interviews.		X	Montana	West	Unable to determine	Rural-Urban Commuting Area (RUCA) Codes	Natural environments; recreation facilities; streets;
Ma, 2018	Graduate research: <i>Food Acquisition And Shopping Patterns And Associations With Body Mass Index</i> [Dissertation], University of South Carolina; 2018.		X	South Carolina	South	Unable to determine	Census Bureau classification system	Food retail system
Mackenzie et al., 2019	Peer reviewed research: Healthy Stores Initiative associated with produce purchasing on Navajo Nation.		X	New Mexico, Arizona, and Utah.	West	Native American Lands	Authors describe study setting as rural	Food retail
Majee et al., 2016	Peer reviewed research: Four years later: Rural mothers' and employers' perspectives on breastfeeding barriers following the passage of the Affordable Care Act.		X	Missouri	Midwest	Unable to determine	Authors describe study setting as rural	Workplace
Mann et al., 2017*	Peer reviewed research: Smart snacks in school standards in		X	Virginia	South	Unable to determine	Authors describe study setting as rural	Food retail; schools

	Appalachian Virginia middle schools.							
Marcusson et al., 2015	Grey literature: Laughlin HEAL MAPPS™ Community Report	X	X	Laughlin, Nevada	Northeast	Big Cities	Authors describe study setting as rural	Community gardens; food retail; parks; recreation facilities; streets; trails; natural environment
Martínez-Donate et al., 2015*	Peer reviewed research: Evaluation of a pilot healthy eating intervention in restaurants and food stores of a rural community: A randomized community trial.	X		NA	Midwestern	Unable to determine	Authors describe study setting as rural.	Food retail
Mead, 2018	Graduate research: <i>Neighborhood Influences on Physical Activity and Physical Function among Older Adults</i> [Dissertation]			Wisconsin	Midwest	Unable to determine	U.S. Census Bureau classification: urban areas as geographic areas with more than 50,000 residents and urban clusters as areas with between 2,500 and 50,000 residents; all other geographic areas are considered rural.	Parks; recreation facilities; streets; sidewalks; trails
McGuirt et al., 2014	Peer reviewed research: Examining the influence of price and accessibility on willingness to shop at farmers' markets among low-income eastern North Carolina women.	X		Pitt county, Greenville, North Carolina	South	African American South	Urban was defined as living within a city municipal boundary, and Rural was defined as living outside of city municipal boundary.	Food retail
McGuirt et al., 2014	Peer reviewed research: Factors influencing local food procurement among women of reproductive age in rural eastern and western North Carolina, USA.	X		North Carolina	South	Unable to determine	Authors describe study setting as rural	Food assistance programs; Local food producers
McGuirt et al., 2015	Peer reviewed research: A mixed methods	X		Lenoir County, North	Southeastern and West	African American South; Big Cities	Authors describe study setting as rural	Food retail

	comparison of urban and rural retail corner stores.		Carolina/ and Los Angeles County, California				
Misyak et al., 2015	Peer reviewed research: Low-income mothers' perceptions of barriers to using farmers markets: A SNAP-Ed Initiative to understand access points to local foods.	X	Virginia	South	Unable to determine	Authors describe study setting as rural	Food retail
Moore et al., 2010	Peer reviewed research: A qualitative examination of perceived barriers and facilitators of physical activity for urban and rural youth.	X	North Carolina	South	Unable to determine	Defined based on the 2000 U.S. census definition: rural areas having less than 1000 persons per square mile and lacking an urbanized area of 50 000 persons or more.	Recreation facilities; schools
Moore et al., 2013	Peer reviewed research: Association of the built environment with physical activity and adiposity in rural and urban youth.	X	North Carolina	South	Unable to determine	Authors describe study setting as rural	Streets
Ndirangu et al., 2007*	Peer reviewed research: Conducting needs assessment using the comprehensive participatory planning and evaluation model to develop nutrition and physical activity interventions in a rural community in the Mississippi delta.	X X	Unknown	South	Unable to determine	Authors describe study setting as rural	Streets; food retail
Nothwehr et al., 2014*	Peer reviewed research: Statewide dissemination of a rural, non-chain restaurant intervention: Adoption, implementation and maintenance.	X	Iowa	Midwest	Unable to determine	Rural was defined as having no city with 50 000 or more residents.	Food retail

Novotny et al., 2011*	Peer reviewed research: Development and implementation of a food system intervention to prevent childhood obesity in rural Hawai'i.	X		Hawaii	West	Graying America	Authors describe study setting as rural	Food retail; local food producers
Omura et al., 2017	Peer reviewed research: Shared use agreements between municipalities and public schools in the United States, 2014.	X		Nationwide	West, Midwest, South, and Northeast	Unable to determine	Urban/rural status was based on the percent of the population in an incorporated place that live in an urbanized area based on the 2010 U.S. Census data; urban (>50% urban) and rural (≤50% urban).	Recreation facilities
Page-Reeves et al., 2014	Peer reviewed research: Implementing a childhood obesity prevention coalition in a tribal community in the Southwest.	X		New Mexico	West	Unable to determine, Native Americans Lands	Authors describe study setting as rural	Playgrounds; streets
Panzera et al., 2017	Peer reviewed research: Mapping a WIC Mother's journey: A Preliminary Analysis.	X		Kentucky	South	Unable to determine	Authors describe study setting as rural	Food assistance programs; childcare
Perry et al., 2011	Peer reviewed research: Intrapersonal, behavioral, and environmental factors associated with meeting recommended physical activity among rural Latino youth.	X		Washington	West	Unable to determine	Rural Urban Commuting Area (RUCA) Code	School
Peutz, 2015	Grey literature: Fruitland, Idaho HEAL MAPPS™ Community Report	X	X	Fruitland, Idaho	Northwest	Exurbs	Authors describe study setting as rural	Streets, recreation facilities; schools; food retail; parks; playgrounds; trails
Pinard et al., 2016	Peer reviewed research: The future of the small rural grocery store: A qualitative exploration.	X		Nebraska	Midwest	Unable to determine	Authors describe study setting as rural	Food retail
Polacsek et al., 2018	Peer reviewed research: A supermarket Double-Dollar Incentive	X		Portland, Maine	Northeast	College Towns	Authors describe study setting as rural	Food assistance program

	Program increases purchases of fresh fruits and vegetables among low-income families with children: The Healthy Double Study.							
Powers et al., 2019	Peer reviewed research: Multilevel Faith-Based Public Health Initiative in rural Alabama, 2017.	X	X	Alabama	South	Unable to determine	Authors describe study setting as rural	Churches; community gardens
Powers-Hammond et al., 2015	Grey literature: Connell HEAL MAPPSTM Community Report	X	X	Washington	Northwest	NA	Authors describe study setting as rural	Food retail; local food producers; school; parks; recreation facilities; schools; streets; trails
Quandt et al., 2006	Peer reviewed research: Experiences of Latino immigrant families in North Carolina help explain elevated levels of food insecurity and hunger.	X		North Carolina	South	Unable to determine	Authors describe study setting as rural	Home environment; food retail; food assistance programs
Ramadurai et al., 2012	Peer reviewed research: Rural food insecurity in the United States as an overlooked site of struggle in health communication.	X		Texas	South	Unable to determine	Census data from 2000 were used to identify communities of less than 7,000 residents that are located more than 25 miles from the nearest metropolitan area	Home environment; food assistance programs; food retail
Riley-Jacome et al., 2010*	Peer reviewed research: Enhancing community capacity to support physical activity: The development of a community-based indoor-outdoor walking program.		X	Albany, New York	Northeastern	Rural Middle America, Graying America	Authors describe study setting as rural	Schools
Russomanno & Jabson, 2016	Peer reviewed research: Farmers' markets' uptake of food assistance programmes in East Tennessee, USA.	X		Tennessee	South	Working Class country, Graying America, Evangelical Hubs	No definition provided	Food assistance programs; food retail

Sánchez et al., 2014*	Peer reviewed research: School wellness policy implementation: insights and recommendations from two rural school districts.	X	X	New Mexico	West	Unable to determine	Author describe study setting as rural	Schools
Sanderson et al., 2002	Peer reviewed research: Environmental, policy, and cultural factors related to physical activity among rural, African American women.		X	Alabama	South	African American South	Author describe study setting as rural	Streets; recreation facilities; parks; trails; playgrounds
Sanderson et al., 2003	Peer reviewed research: Personal, social, and physical environmental correlates of physical activity in rural African American women in Alabama.		X	Alabama	South	African American South	Economic Research Service from the U.S. Department of Agriculture classifications, including nonmetropolitan and completely rural counties.	Recreation facilities
Sant et al., 2015	Grey literature: Preston, ID HEAL MAPPS™ Community Report	X	X	Preston, Idaho	Northwest	NA	Author describe study setting as rural	Churches; food assistance programs; natural environment; community garden; food retail; local food producers; streets; parks; recreation facilities
Scanlin et al., 2014	Peer reviewed research: Development of a pedestrian audit tool to assess rural neighborhood walkability.		X	Georgia	South	Unable to determine	Author describe study setting as rural	Communities
Schetzina et al., 2009	Peer reviewed research: Developing a coordinated school health approach to child obesity prevention in rural	X	X	Tennessee	South	Unable to determine	Author describe study setting as rural	Schools

	Appalachia: Results of focus groups with teachers, parents, and students.							
Scott & Wilson, 2011	Peer reviewed research: Social determinants of health among African Americans in a rural community in the Deep South: An ecological exploration	X	X	Georgia	South	Unable to determine	Author describe study setting as rural	Recreation facilities; streets; food retail
Seguin et al., 2014	Peer reviewed research: Understanding barriers and facilitators to healthy eating and active living in rural communities.	X	X	Multistate: Alaska, Arkansas, Kansas, Missouri, Montana, Pennsylvania, and Wisconsin	South, Midwest, West, and Northeast	Unable to determine	Rural townships defined as having a population of fewer than 15,000 people.	Recreation facilities; food retail; home environment; community garden
Shah et al., 2019	Peer reviewed research: Leaders' experiences in planning, implementing, and evaluating complex Public Health Nutrition Interventions.	X		California	West	Unable to determine	Centers for Disease Control and Prevention. NCHS Urban-Rural Classification Scheme for Counties	Food assistance programs
Sharkey et al., 2011	Peer reviewed research: Association of household and community characteristics with adult and child food insecurity among Mexican-origin households in colonias along the Texas-Mexico Border.	X		Texas	South	Working Class Country, African American South	Author describe study setting as rural	Food retail
Sharkey et al., 2012	Peer reviewed research: Use of Vendedores (Mobile Food Vendors), Pulgas (Flea Markets), and Vecinos o Amigos (Neighbors or Friends) as	X		Texas	Southwest	Unable to determine	Author describe study setting as rural	Food retail

Alternative Sources of Food for Purchase among Mexican-Origin Households in Texas Border Colonias.							
Sherry, 2008	Peer reviewed research: An evaluation of elementary school nutrition practices and policies in a Southern Illinois county.	X		Illinois	Midwest	Unable to determine	Author describe study setting as rural Schools
Shores et al., 2009	Peer reviewed research: Extra-Individual correlates of physical activity attainment in rural older adults.		X	North Carolina	South	Unable to determine	White House's Office of Management and Budget (OMB) that identifies a county as rural if it does not fall within a Metropolitan Statistical Area Survey. Recreation facilities; streets
Shores et al., 2010	Peer reviewed research: An examination of triple jeopardy in rural youth physical activity participation.		X	Georgia	South	Unable to determine	Author describe study setting as rural Recreational facilities; schools
Smith & Morton, 2009	Peer reviewed research: Rural food deserts: Low-income perspectives on food access in Minnesota and Iowa.	X		Minnesota and Iowa	Midwest	Unable to determine	Counties identified as having a 1993 Urban Influence Code of 7, 8, or 9. Community gardens; food retail; local businesses; local food producers
Snyder et al., 2019	Peer reviewed research: Exploring rural and urban Go NAP SACC trained childcare providers perceptions and needs regarding the promotion of physical activity and healthy eating.	X	X	Nebraska	Midwest	Unable to determine	Communities designated as rural if they had <20,000 residents. Childcare; home environment
Thatcher et al., 2017	Peer reviewed research: Retail food store access in rural Appalachia: A mixed methods study.	X		One Central Appalachian county in Virginia	South	Unable to determine	Rural-Urban Continuum Code Rural-Urban Continuum Codes Food retail
Thompson et al., 2002	Peer reviewed research: Environmental, policy, and cultural factors		X	Unknown	West	Unable to determine	Authors describe study setting as rural Recreation facilities; trails; streets; workplace

	related to physical activity in sedentary American Indian women.							
Tingey et al., 2015	Grey literature: <i>Wells, NV HEAL MAPPs Community Report.</i>	X	X	Wells, Nevada	West	Graying America	Authors describe study setting as rural	Trails; food retail; local food production; parks; playgrounds; recreation facilities; streets; schools
Turner et al., 2016	Peer reviewed research: Increasing prevalence of U.S. elementary school gardens, but disparities reduce opportunities for disadvantaged students.	X	X	Nationwide	West, Midwest, South, and Northeast	Unable to determine	Authors describe study setting as rural	Schools
Valdez et al., 2012	Peer reviewed research: Mobile and home-based vendors' contributions to the retail food environment in rural South Texas Mexican-origin settlements.	X		Texas	South	Unable to determine	Authors describe study setting as rural	Food retail
Wallace et al., 2019	Peer reviewed research: Community coalitions for change and the policy, systems, and environment model: A community-based participatory approach to addressing obesity in rural Tennessee.	X	X	Tennessee	South	Unable to determine	Authors describe study setting as rural	Community gardens; food retail
Wayne, 2015	Grey literature: <i>Chiloquin, Oregon HEAL MAPPs Community Report</i>	X	X	Chiloquin, Oregon	Midwest	Graying America	Authors describe study setting as rural	Community garden; food assistance programs; food retail; parks; playgrounds; recreation facilities; streets
Wilcox et al., 2000	Peer reviewed research: Determinants of leisure time physical activity in rural compared with urban older and ethnically diverse		X	Nationwide	Northeast, Midwest, South, West	Unable to determine	Authors describe study setting as rural	Recreation facilities; streets

	women in the United States.							
Wilcox et al., 2003	Peer reviewed research: Psychosocial and perceived environmental correlates of physical activity in rural and older African American and white women.	X		South Carolina	South	Unable to determine	Authors describe study setting as rural Rural-urban continuum codes (RUCC): non-metropolitan counties	Streets; recreational facilities
Wilcox et al., 2005	Peer reviewed research: A qualitative study of exercise in older African American and white women in rural South Carolina: perceptions, barriers, and motivations.	X		Fairfield County, South Carolina	South	African American South	Rural-urban continuum codes (RUCC): Continuum Codes Rural-urban continuum codes (RUCC)	Recreation facilities; streets
Wilcox et al., 2018*	Peer reviewed research: Faith, activity, and nutrition randomized dissemination and implementation study: Countywide adoption, reach, and effectiveness.	X	X	Fairfield County, South Carolina	South	African American South	Authors describe study setting as rural	Churches
Wilson et al., 2004	Peer reviewed research: Socioeconomic status and perceptions of access and safety for physical activity.		X	North Carolina	South	Unable to determine	Authors describe study setting as rural	Recreation facilities; streets; trails
Worthen et al., 2015	Grey literature: Fleming, Colorado HEAL MAPPS™ Community Report	X	X	Fleming, Colorado	Southwest	Rural Middle America	Authors describe study setting as rural	Parks; recreation facilities; schools; streets; trails; local food producers; food retail; community gardens
Yousefian et al., 2010	Peer reviewed research: Development of the rural active living assessment tools: Measuring rural environments.		X	Maine,	Northeast	Unable to determine	Populations of the towns defined rural using the National Center for Education Statistics' locale codes, Rural-Urban commuting area (RUCA)	Streets; trails

						codes, or Core-Based Statistical Areas.	
Yousefian et al., 2011	Peer reviewed research: Understanding the rural food environment - perspectives of low-income parents.	X	Maine	Northeast	Unable to determine	Authors describe study setting as rural	Food retail
Zimmermann et al., 2016	Peer reviewed research: Age-associated perceptions of physical activity facilitators and barriers among women in rural southernmost Illinois.	X	Illinois	Midwest	Working Class Country, Graying America, Evangelical Hubs, African American South	2013 Rural-Urban Continuum Codes (RUCC)	Natural environments; parks; recreation facilities; trails