

Wellness Indicators in North Charleston, SC

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Background

Background: Our study is a contribution to ongoing research with the MUSC College of Nursing with the aim of evaluating the Berkeley, Charleston, and Dorchester communities in order to gain further insights on the various socio-economic and physical environmental factors as social determinants of health. South Carolina state health data suggests there is room for improvement in health indicators such as prevalence of obesity, children's health, access to health insurance, and public health.

2009 United Health Foundation Determinants by State (SC)	Value	Rank
Prevalence of Obesity (by population)	30.5 %	45
Percent without health insurance	16.1 %	37
Violent Crime (offenses per 100,000)	730	50
Children in Poverty (% under age 18)	19.8 %	33
Public Health Funding (Dollars per person)	\$82.00	20
Preventable hospitalizations (# per 1000)	70.6	26
State rank by all determinants of health		45

Store Observations

Objective: To objectively assess food accessibility within walking distance of Burns and Chicora Elementary School

Methods:

Located 13 stores within the walking vicinity of Chicora and Burns Elementary using geographic mapping software
Measured and classified availability, shelf space, and cost of fresh food, carbonated beverages, and alcohol
Compiled and analyzed survey content in RedCap database

Data

% of Stores	Fresh Foods	Alcohol	Carbonated Beverages
With ≤10ft of shelf space	38%	15%	8%
With 10-100 ft of shelf space	0%	85%	92%

Type of product at store	Median
6 pack of beer w/o tax	\$6.14
64 ounce bottle of malt liquor w/o tax	\$1.74
2 liter carbonated beverage w/o tax	\$1.90
Alcohol related exterior advertisements per store	5

Conclusions:

Accessibility and advertising of alcohol were more prominent than that of fresh fruits and vegetables.

There is a lack of access to grocery stores or affordable fresh foods within walking distance of both schools.

Focus: Burns and Chicora Communities

We focused on the Burns and Chicora Communities in "the Neck" area of Charleston as research has shown this area bears a disproportionate share of the region's air, water, and land based pollution, has negative health outcomes, and a median household income below the city average. **Our design was to utilize store observations, active neighborhood safety surveys, and key informant interviews to assess community members' access to healthy foods, safe environments, and healthcare.** We hope our research helps to further inform our community so as to better develop and implement interventions aimed at improving their overall health.



Active Neighborhood Safety Survey

Objective: Quantitatively and qualitatively capture built environmental inhibitors or inducers to healthy active lives.

Methods:

Quantitative data: Urban planning survey in 2 mile radius of Chicora and Burns Elementary school with assistance and training by DHEC.
Qualitative data: Digital photography of urban planning
Presentation to community task force with elicited feedback

Data:

	Inducers	Inhibitors
Chicora Elementary	<ul style="list-style-type: none"> • Accessible Playgrounds • Handicap Modifications • Community Center • Nonprofit involvement – Community Garden • CCSD Tobacco Free Policy 	<ul style="list-style-type: none"> • Unmaintained sidewalks • Lack of curb deflectors • Railroad without crossing • Lack of crosswalks/speed limit signs/traffic signals on Spruill Ave • Lack of established parking • Lack of access to fresh foods
Burns Elementary	<ul style="list-style-type: none"> • Advanced Bar Crosswalk • Fenced Schoolyard • Established Parking • CCSD Tobacco Free Policy 	<ul style="list-style-type: none"> • School zone after school entrance • Lack of Dorchester Rd medians • Drainage hazards inside and outside schoolyard • Incomplete/interrupted sidewalks • Busy parking lots by schoolyard

Conclusions:

There are urban design inhibitors around Chicora and Burns Elementary that if modified can improve accessibility and opportunity for healthy active living choices.

The Active Neighborhood Checklist and DHEC are resources communities can access to assess and make recommendations for decreasing inhibitors and increasing inducers of healthy active living.

Policy Recommendations

Decreased cost and greater access to fresh foods can be improved in neighborhoods in North Charleston with the addition of farmers' markets, grocery stores, and affordable healthy alternatives such as having local produce sold by local convenience stores.

The Active Neighborhood Checklist can be utilized to assess other communities or schools in the Charleston area to recommend modifications in order to increase inducers and remove barriers to healthy active living. Training and resources are offered by SC DHEC.

Major barriers exist that prevent access to comprehensive mental health care at microsystem, mesosystem, and macrosystem levels in North Charleston. There are many resources that can be accessed, mobilized, and focused on specific goals to improve communities.

Having a centralized health director at chosen economic centers, such as schools, would help coordinated efforts between existing resources and providers of care.

Planning goal oriented interventions will need the interprofessional teamwork of community members, nonprofit or business leaders, policymakers, and professionals.

Key Informant Interviews

Objective: To ask informed members of the community their perspective on barriers to mental health care, indicators of wellness / illness and resources in Berkeley, Charleston, and Dorchester County.

Methods:

Identified key informants using snowball sampling design
Conducted interviews in person or on telephone using IRB approved survey
Compiled content of interviews utilizing the RedCap database
Analyzed data by identifying and organizing comments by response themes

Data and Conclusions:

Gender (15 Female, 3 Male)
Race: (8 African American, 8 Caucasian, 2 Unclassified)
Engaged in Mental Health Field: (13 Yes, 5 No)

Survey Questions	Response Themes	
What are the barriers to mental health care for disadvantage people in Berkeley, Charleston, and Dorchester Counties?	<ul style="list-style-type: none"> • Homelessness • Stigma to mental health • Cultural ideologies • Lack of governmental support 	<ul style="list-style-type: none"> • Access or navigation of health insurance or care • Bilingual health services • Low reimbursement for health providers
What resources do disadvantaged people in Berkeley, Charleston, and Dorchester Counties need to promote wellness?	<ul style="list-style-type: none"> • Access to and navigation with healthcare • Funded support • Education and outreach 	<ul style="list-style-type: none"> • Improved walkability in neighborhoods • Media sensitivity to mental health stigma
If you were to take a picture of something that promotes wellness in the neighborhood, what would it be?	<ul style="list-style-type: none"> • Sidewalks, community parks • Park Circle Farmer's Market • Building transformation in south N. Charleston 	<ul style="list-style-type: none"> • Nonprofit resources • Church outreach • Public servants • Community task forces
If you were to take a picture of something that promotes illness in your neighborhood, what would it be?	<ul style="list-style-type: none"> • Lack of education for living wage employment • Poor physical condition of urban buildings 	<ul style="list-style-type: none"> • Community illness / trash • Usurious lenders / businesses • The homeless