The West Baltimore Study: Alternative and complementary health practices among older urban African Americans

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Rising popularity of alternative & complementary health practices (ACHP)

- Increasing attention from medical professionals & consumers

- Increasing use among older Americans estimated by population surveys
  - 30% reported using ACHP in 2000
  - 88% reported using ACHP in 2005

Eisenberg 1993, Paramore 1997, Tindle 2005, Barnes 2004, Graham 2005, Foster 2000, Ness 2005.

Why the rise in popularity of ACHP?

- Preventing disease
- Reducing expenses
- Replacing ineffective conventional therapies
- Augmenting conventional care
- Treating chronic conditions

Adams 1986, Astin 1998, Crone 1998, Becker 1998.

Diversity across ACHP

- Different ethnic groups
  - Own systems of traditional medicine
  - Passage from generation to generation
- Different socioeconomic & demographic groups

Boyd 2000, Hufford 1995, Ripley 1986.

General profile of ACHP users in the US

- More common among:
  - Women
  - Middle-aged adults
  - Better educated
  - Higher income earners

Tindle 2005, Barnes 2004.

Minority ACHP users

- ACHP use to prevent & treat illness among US minorities associated with:
  - Lower education
  - Greater reported unfair race-based treatment
  - Financial strain
  - Poorer health status

Bazargan 2005.

What the current knowledge reflects

- ACHP use among adult non-Hispanic Whites
- Little insight into ACHP use among understudied & medically vulnerable groups

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Eisenberg 1993, Paramore 1997, Tindle 2005, Barnes 2004, Graham 2005, Foster 2000, Ness 2005.

The West Baltimore Study

- Population-based telephone survey of older, community-dwelling African Americans contacted by
  - Random digit dialing
  - Community outreach
- Associations of ACHP use with:
  - Chronic health conditions
  - Disabilities
  - Mental well-being
  - Neighborhood characteristics
  - Reaction to race-based unfair treatment

Inclusion criteria

≥60 years old

Self-identified
African American/Black

Access to landline telephone

English-speaking

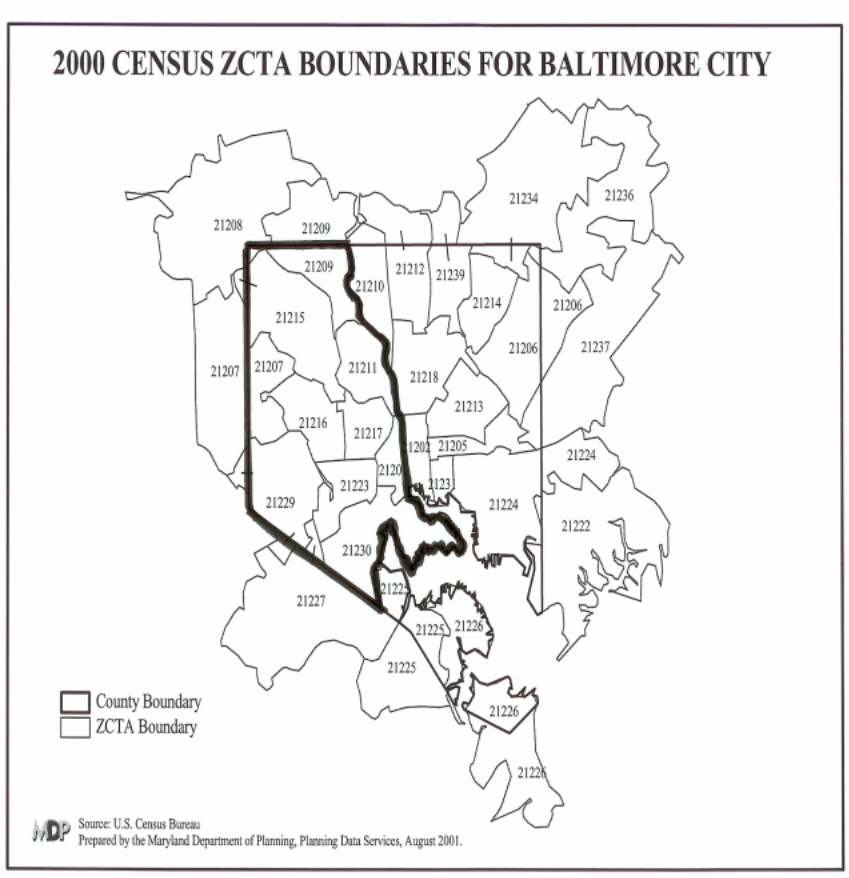
West Baltimore City resident

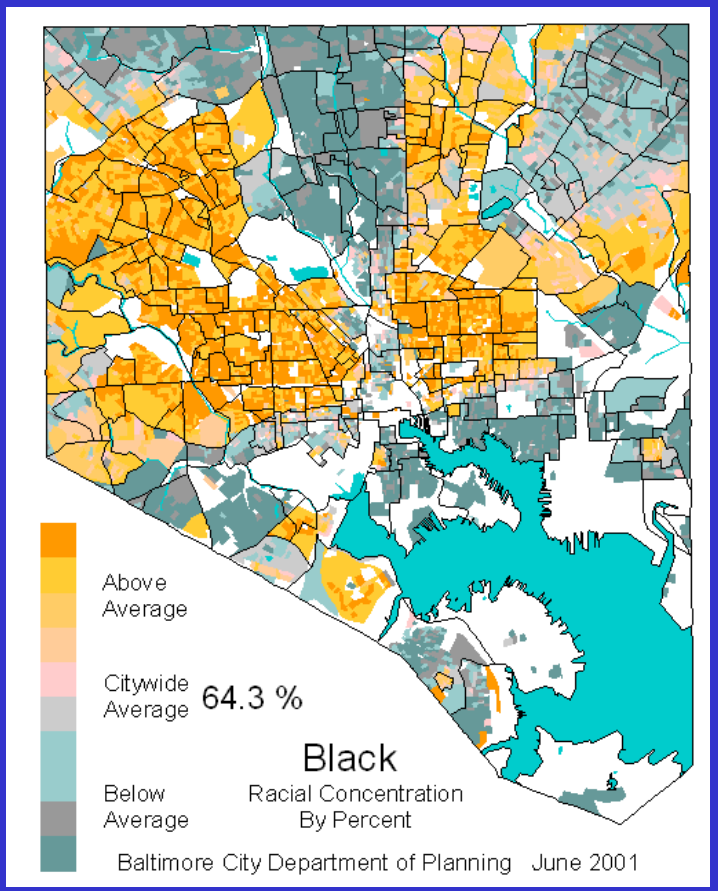
Exclusion criteria

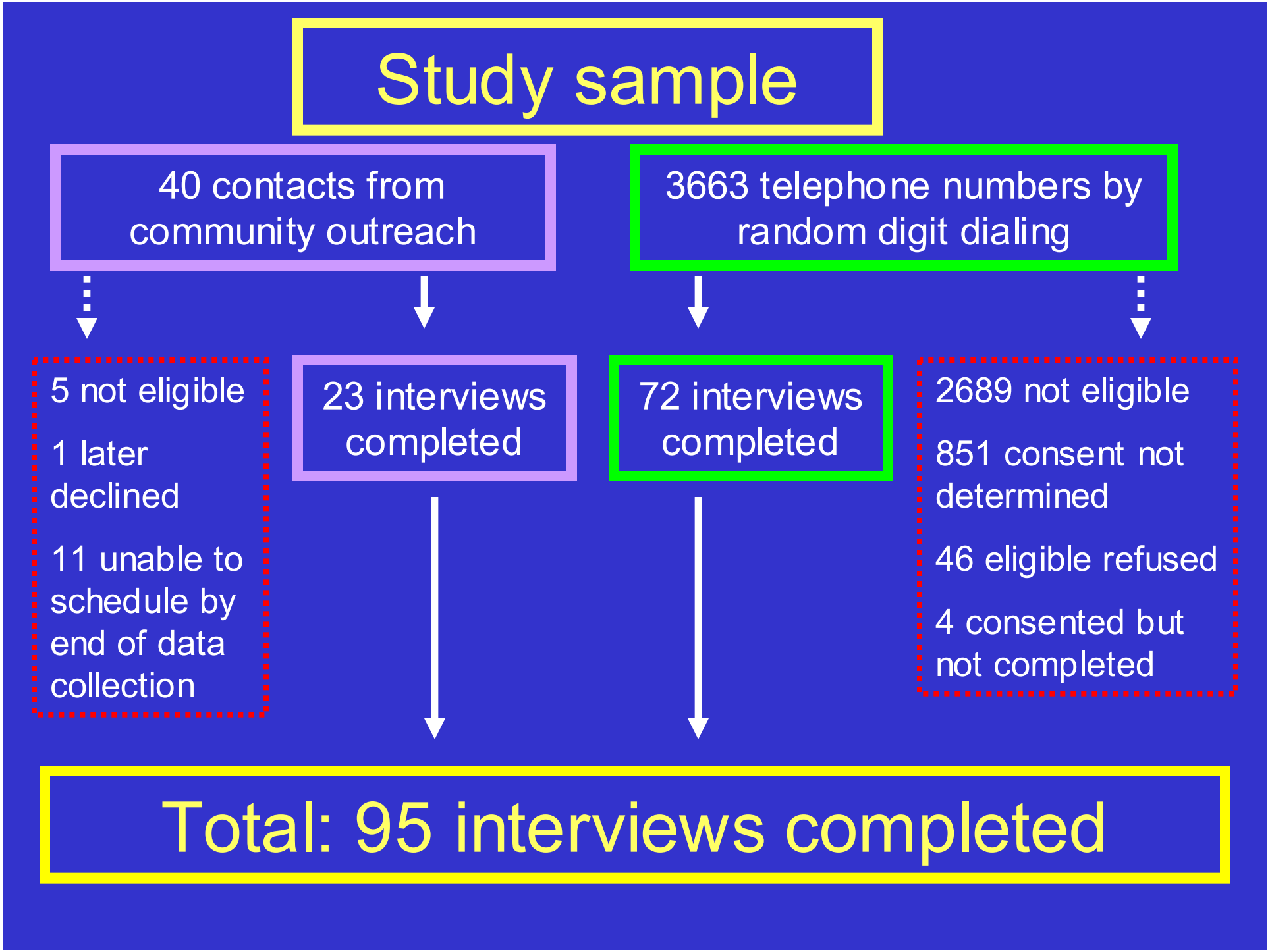
Institutional residence

Cognitive impairment

Study area



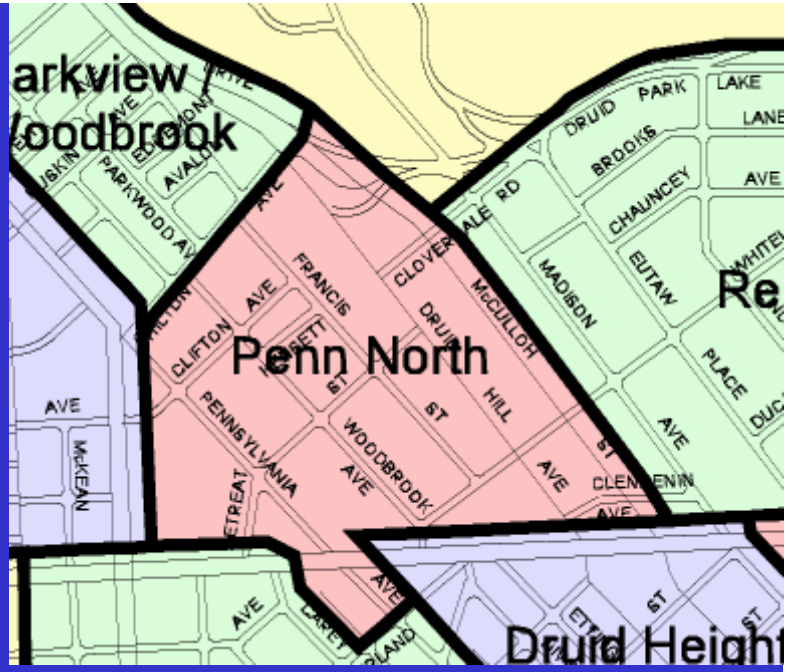




Measures: self-report of past year's ACHP use, excluding individual prayer

- Questions similar to 2002 National Health Interview Survey CAM Supplement
- Reasons for using 8 modalities
  - Acupuncture
  - Chiropractic
  - Group spiritual practices
  - Herbs/home remedies/rootwork
  - Individual prayer
  - Massage
  - Meditation/visualization techniques
  - Relaxation/biofeedback

Factors of interest



- Herbal medication use
- Sociodemographics
- Economic status
- Social support
- Physical health
- Mental health
- Discrimination & reaction to race
- Neighborhood characteristics

Analysis

- Comparisons of ACHP users & nonusers
  - Chi-square tests
  - T-tests
- Factors associated with ACHP use
  - Multivariable logistic regression models

Table 1. Demographics

Variable	ACHP users (N=48)	ACHP nonusers (N=47)	p-value	Total (N=95)
Male sex	16 (76.2)	5 (23.8)		21 (22.1)
Age (mean ± SD)	72.4 ± 7.6	69.1 ± 7.8	0.042	70.7 ± 7.8
Education (mean y ± SD)	12.2 ± 2.9	11.4 ± 2.8		11.8 ± 2.9
Annual household income < $15k	42 (63.4)	4 (57.1)	0.080	46 (63.0)
Currently married	10 (20.8)	10 (21.3)		20 (21.5)
Attends religious services at least once a week	27 (58.7)	32 (66.7)		59 (67.8)
Lives alone	32 (66.7)	27 (58.7)		59 (62.8)
Can count on family/friends all of the time	32 (66.7)	27 (58.7)		59 (62.8)

Table 2. Bivariate analysis: health status

Variable	ACHP users[1] (N=48)	ACHP nonusers (N=47)	p-value	Total (N=95)
Self-rated health excellent, very good, or good	33 (68.8)	28 (59.6)		61 (64.2)
Reported diagnoses[2] (mean ± SD)	7.0 ± 3.1	5.4 ± 2.9	0.009	6.2 ± 3.1
Depressive symptoms[3]	7 (14.6)	8 (17.0)		15 (15.8)
SF-12 measures[4]				
PCS-12 (mean ± SD)	42.2 ± 9.9	46.6 ± 10.9	0.041	44.4 ± 10.5
MCS-12 (mean ± SD)	54.2 ± 9.6	51.3 ± 9.5		52.7 ± 9.5
Physical function	44.3 ± 13.3	48.8 ± 12.53	0.035	46.5 ± 10.4
Bodily pain	30.1 ± 17.1	26.9 ± 16.9		28.5 ± 13.6
Vitality	50.7 ± 10.9	50.8 ± 11.1		50.7 ± 13.6
Body mass index				
Underweight	0	2 (4.3)		2 (2.1)
Desirable weight	8 (16.7)	9 (19.2)		17 (17.9)
Overweight	14 (29.2)	19 (40.4)		33 (34.7)
Obese	26 (54.2)	17 (36.2)		43 (45.3)

Table 3. Health insurance & healthcare utilization

Variable	ACHP users (N=48)	ACHP nonusers (N=47)	p-value	Total (N=95)
Health insurance				
Medicare	41 (89.1)	31 (66.0)	0.008	72 (77.4)
Medicaid	11 (23.4)	10 (22.2)		21 (22.8)
Private/supplemental	25 (54.4)	30 (66.7)		55 (60.4)
Uninsured	-	3 (6.4)		3 (3.2)
Prior year healthcare visits[5] (mean no. ± SD)	11.2 ± 14.8	11.0 ± 18.1		11.1 ± 16.4
Prior year completion of preventive exams & procedures[6]	10 (20.8)	9 (19.2)		19 (20.0)
Usual source of healthcare				
None	-	1 (2.2)		1 (1.1)
Physician	36 (76.6)	28 (60.9)		64 (68.8)
Hospital	11 (23.2)	7 (15.2)		18 (19.4)
Clinic	4 (8.5)	11 (23.9)		15 (16.1)
Emergency department	4 (8.5)	-		4 (4.3)

Table 4. Satisfaction with healthcare & neighborhood characteristics

Variable	ACHP users (N=48)	ACHP nonusers (N=47)	p-value	Total (N=95)
Satisfaction				
Very satisfied	29 (60.4)	29 (630)		58 (61.7)
Somewhat satisfied	18 (37.5)	15 (32.6)		33 (3.2)
Somewhat dissatisfied	1 (2.1)	2 (4.4)		3 (3.2)
Neighborhood				
Racial Diversity Index (RDI)[7] (mean no. ± SD)	20.8 ± 20.9	15.1 ± 15.5		17.9 ± 18.5
Economic Diversity Index (EDI)[8] (mean no. ± SD)	66.4 ± 6.9	68.8 ± 6.1	0.093	67.6 ± 8.6
Proportion of residents below poverty	27.3 ± 8.6	25.3 ± 7.6		26.3 ± 8.1

Table 5. Herb/home remedy use in past Year

SPECIFIC CONDITION	HERB/HOME REMEDY USED
Arthritis/joints	Apple cider vinegar, witches' broom, glucosamine
Colds	Lemon juice, onions
Constipation	Herbal tea
Cough	Horehound & honey
Diabetes	Diabeticine, cinnamon
Foot pain	Lemon juice
Hot flashes	Black cohosh
Hypertension	Garlic, herbal tea
Immune function	Echinacea
Insomnia	Herbal tea
Cholesterol	Oatmeal
Nausea	Mustard
Sight	Lutein
Soreness on skin	Hydrogen peroxide
Swollen thighs	Fat burner pills
To counter effects of smoking	Selenium

Herb/home remedy use in past year: “cleansing”

TYPE OF CLEANSING	HERB/HOME REMEDY USED
General systemic	Watercress, turnip greens, green tea, black tea, “Q-gel Plus, “Kidney Clear pills”
Blood	Sassafras
Digestive system	“Colon cleanser pills”

Herb/home remedy use in past year: prevention, wellness, & overall health

Echinacea, lemon grass, green tea, wheatgrass juice, goldenseal

ACHP knowledge & use in past year

Modality	Heard of N (%)	Used N (%)
Individual prayer	92 (96.8)	80 (84.2)
Herbs/home remedies	90 (94.7)	28 (29.5)
Group spiritual practices	85 (90.4)	16 (17.0)
Meditation/visualization techniques	67 (71.3)	10 (10.6)
Massage	82 (86.5)	6 (6.3)
Chiropractic	86 (90.5)	4 (4.2)
Acupuncture	87 (91.6)	3 (3.2)
Relaxation/biofeedback	54 (56.8)	1 (1.1)

Multivariable logistic regression of ACHP use

(N=95 individuals, 19 neighborhoods)

→ MODEL 1: Individual level only

Factor	Adjusted odds ratio (95% CI)	p-value
Age (y)	1.07 (1.00, 1.14)	0.023
Years of education	1.21 (1.03, 1.43)	0.024
Number of reported diagnoses	1.24 (1.06, 1.45)	0.007

→ MODEL 2: Individual & neighborhood characteristics

Factor	Adjusted odds ratio (95% CI)	p-value
Age (y)	1.09 (1.01, 1.17)	0.023
Years of education	1.24 (1.03, 1.49)	0.024
Number of reported diagnoses	1.17 (0.99, 1.39)	0.070
Residential racial segregation	1.03 (1.00, 1.06) [4]	0.047
Income inequality	0.93 (0.86, 1.00)	0.063

Discussion

- Correlates of ACHP use include:
  - Age
  - Socioeconomic position
  - Physical health/comorbidity

Limitations

- Small sample size
- Low response to RDD recruitment
- Limited generalizability

Strengths

- Population-based recruitment of the majority of participants
- Consideration of effects of unfair race-based treatment
- Consideration of neighborhood health influences

Conclusions

- Greater & more varied use of ACHP than previously suggested
- Higher awareness of ACHP use, especially multi-modal use, important among healthcare providers
  - Vulnerability
  - Interactions
- Larger explorations of ACHP use among older urban African Americans important

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