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# Alternative and complementary health practices (ACHP) among older urban African Americans


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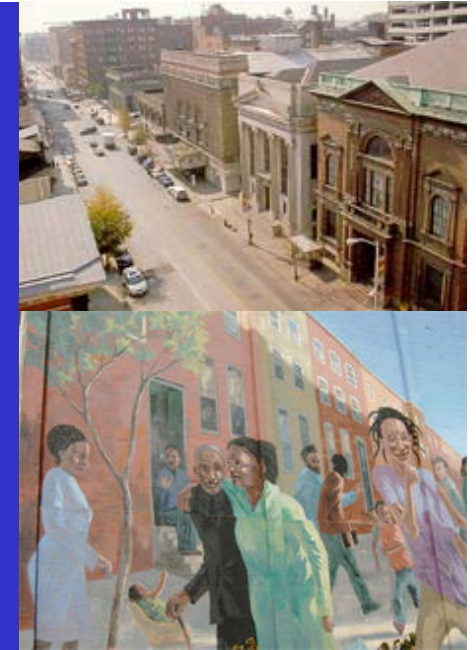
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# The West Baltimore Study: Alternative and complementary health practices among older urban African Americans



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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

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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

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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

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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

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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

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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

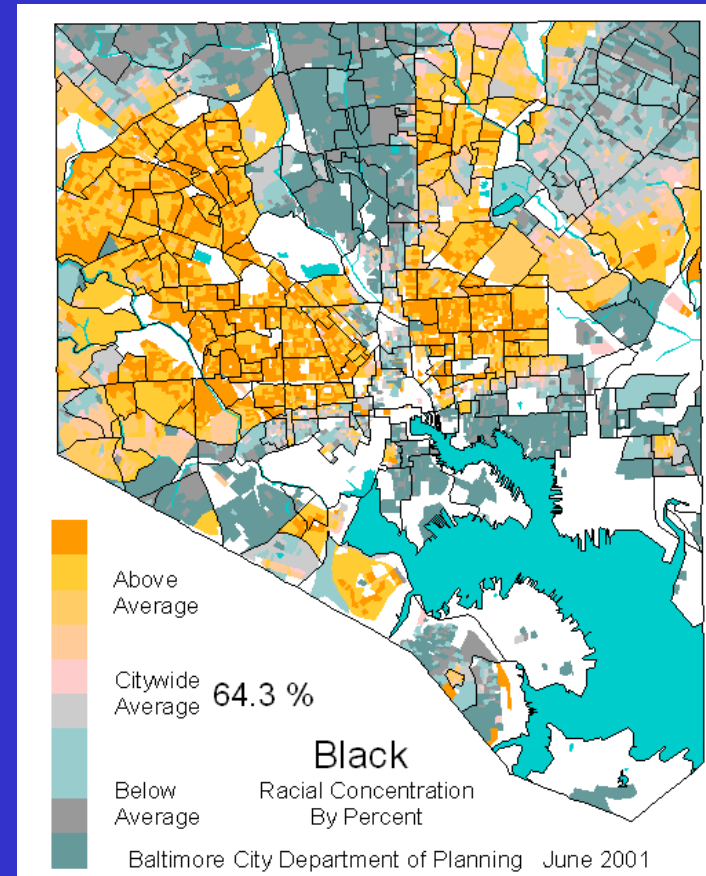
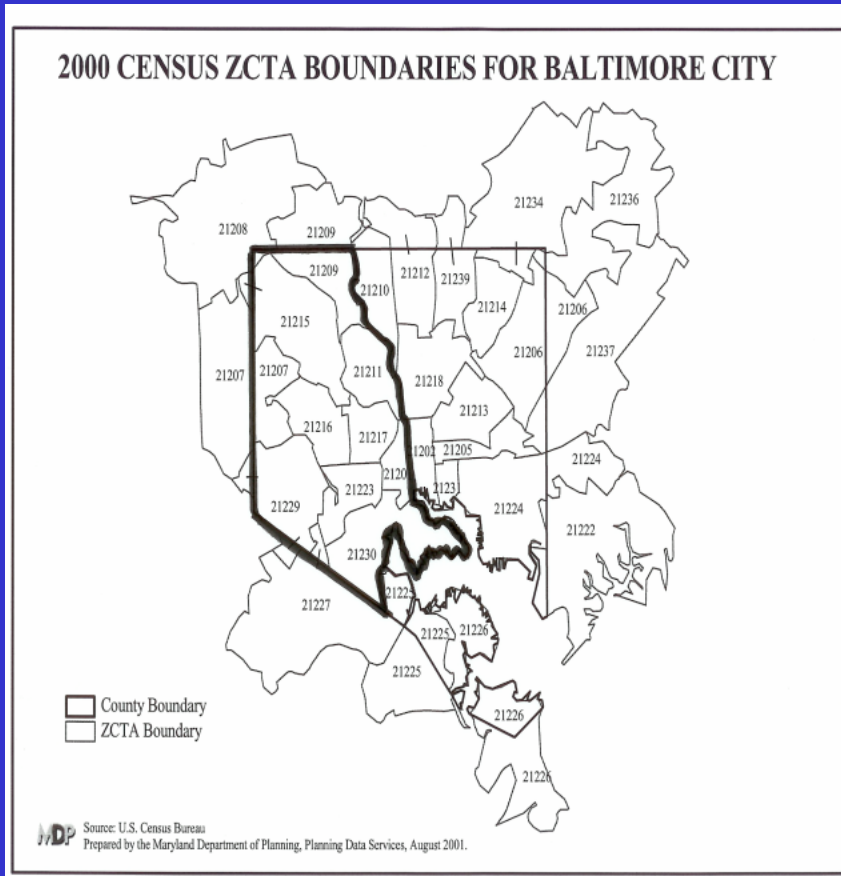
West Baltimore City resident

## Exclusion criteria

Institutional residence

Cognitive impairment

# Study area



# Study sample

40 contacts from  
community outreach

3663 telephone numbers by  
random digit dialing

5 not eligible  
1 later declined  
11 unable to schedule by end of data collection

23 interviews completed

72 interviews completed

2689 not eligible  
851 consent not determined  
46 eligible refused  
4 consented but not completed

Total: 95 interviews completed

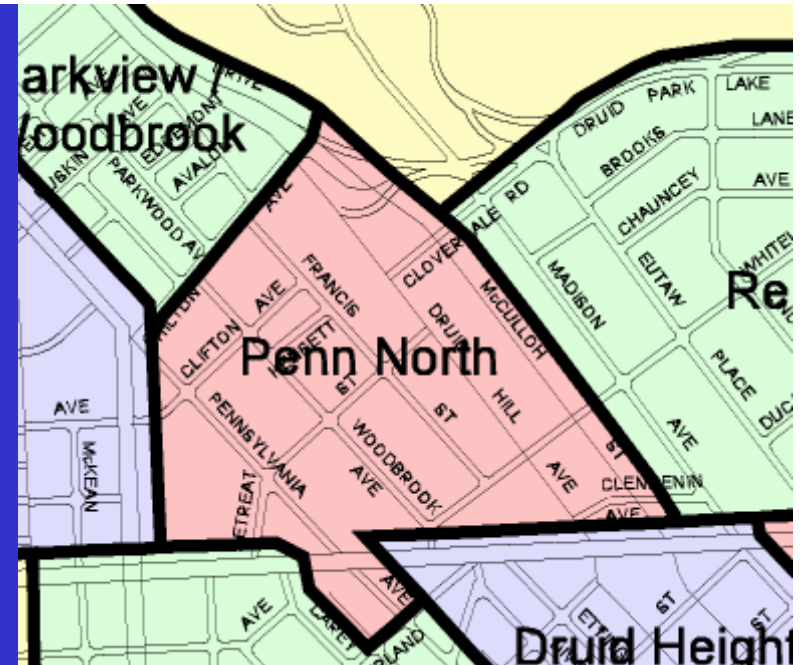
# Measures: self-report of past year's ACHP use, excluding individual prayer



- 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<br>(N=48) | ACHP nonusers<br>(N=47) | p-value | Total<br>(N=95) |
|--|----------------------|-------------------------|---------|-----------------|
| Male sex   | 16 (76.2)            | 5 (23.8)                |         | 21 (22.1)       |
| Age (mean $\pm$ SD)                                | 72.4 $\pm$ 7.6       | 69.1 $\pm$ 7.8          | 0.042   | 70.7 $\pm$ 7.8  |
| Education (mean y $\pm$ SD)                        | 12.2 $\pm$ 2.9       | 11.4 $\pm$ 2.8          |         | 11.8 $\pm$ 2.9  |
| Annual household<br>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<br>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<br>all of the time     | 32 (66.7)            | 27 (58.7)               |         | 59 (62.8)       |



## Table 2. Bivariate analysis: health status

| Variable  | ACHP users <sup>1</sup><br>(N=48) | ACHP nonusers<br>(N=47) | p-value | Total<br>(N=95) |
|---|-----------------------------------|-------------------------|---------|-----------------|
| Self-rated health excellent, very good, or good | 33 (68.8)                         | 28 (59.6)               |         | 61 (64.2)       |
| Reported diagnoses <sup>2</sup> (mean $\pm$ SD) | 7.0 $\pm$ 3.1                     | 5.4 $\pm$ 2.9           | 0.009   | 6.2 $\pm$ 3.1   |
| Depressive symptoms <sup>3</sup>                | 7 (14.6)                          | 8 (17.0)                |         | 15 (15.8)       |
| SF-12 measures <sup>4</sup>                     |                                   |                         |         |                 |
| PCS-12 (mean $\pm$ SD)                          | 42.2 $\pm$ 9.9                    | 46.6 $\pm$ 10.9         | 0.041   | 44.4 $\pm$ 10.5 |
| MCS-12 (mean $\pm$ SD)                          | 54.2 $\pm$ 9.6                    | 51.3 $\pm$ 9.5          |         | 52.7 $\pm$ 9.5  |
| Physical function                               | 44.3 $\pm$ 13.3                   | 48.8 $\pm$ 12.53        | 0.035   | 46.5 $\pm$ 10.4 |
| Bodily pain                                     | 30.1 $\pm$ 17.1                   | 26.9 $\pm$ 16.9         |         | 28.5 $\pm$ 13.6 |
| Vitality  | 50.7 $\pm$ 10.9                   | 50.8 $\pm$ 11.1         |         | 50.7 $\pm$ 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<br>(N=48) | ACHP nonusers<br>(N=47) | p-value | Total<br>(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 <sup>5</sup><br>(mean no. ± SD)           | 11.2 ±<br>14.8       | 11.0 ± 18.1             |         | 11.1 ± 16.4     |
| Prior year completion of<br>preventive exams & procedures <sup>6</sup> | 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<br>(N=48) | ACHP<br>nonusers<br>(N=47) | p-value | Total<br>(N=95) |
|--|----------------------|----------------------------|---------|-----------------|
| Satisfaction   |                      |                            |         |                 |
| Very satisfied   | 29 (60.4)            | 29 (63.0)                  |         | 58 (61.7)       |
| Somewhat satisfied   | 18 (37.5)            | 15 (32.6)                  |         | 33 (34.5)       |
| Somewhat dissatisfied  | 1 (2.1)              | 2 (4.4)                    |         | 3 (3.2)         |
| Neighborhood   |                      |                            |         |                 |
| Racial Diversity Index<br>(RDI) <sup>7</sup> (mean no. ± SD)   | 20.8 ± 20.9          | 15.1 ± 15.5                |         | 17.9 ± 18.5     |
| Economic Diversity Index<br>(EDI) <sup>8</sup> (mean no. ± SD) | 66.4 ± 6.9           | 68.8 ± 6.1                 | 0.093   | 67.6 ± 8.6      |
| Proportion of residents<br>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<br>N (%) | Used<br>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) <sup>4</sup> | 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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