

Awareness of National Cancer Information Resources

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What is the CIS?

- A program of the National Cancer Institute
- A national information and education network with three fully integrated components:
 - Information Service
 - Partnership Program
 - Research Program
- Operated through government contracts with academic institutions, Comprehensive Cancer Centers & Hospitals



Background of CIS

- Providing service since 1976
- 278,332 contacts to Information Service in 2003
 - 90.5% Telephone (n=251,666)
 - 4.6% LiveHelp (n=12,923)
 - 2.0% Smoking Cessation (n=5,565)
 - 1.8% Email (n=5,097)
 - 1.1% Written response (n=3,082)

Gender, Ethnicity & Race of CIS Users Compared to Information Seekers and Population

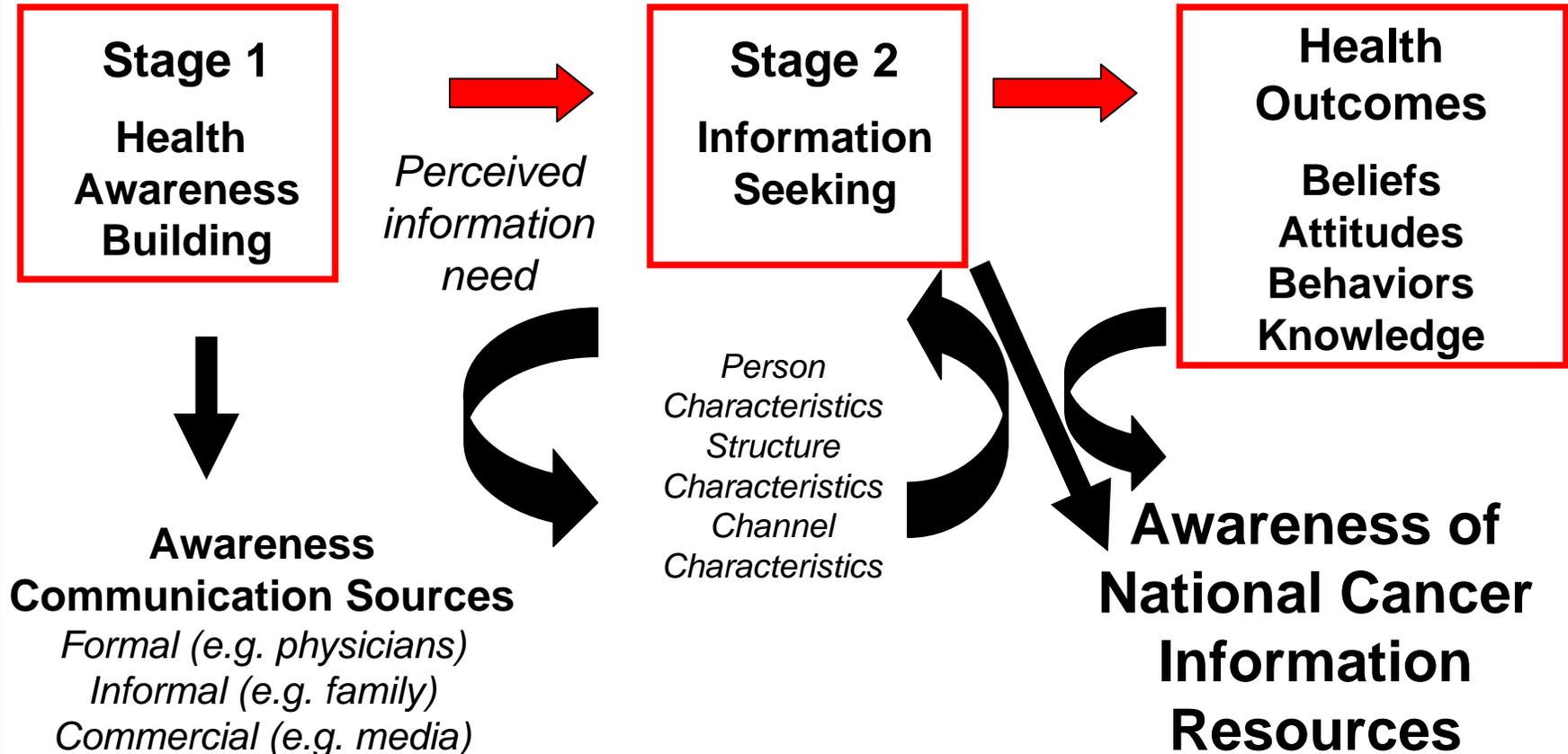
Characteristic	Percent CIS Callers	Percent of Cancer Information Seekers (HINTS)	Percent Population
FEMALE	73.8	60.0	50.9
HISPANIC	9.6	7.3	12.5
RACE			
White	82.6	82.1	75.1
African American	11.5	10.0	12.3
AI/AN	1.7	2.2	0.9
Asian	2.5	2.8	3.6
NH/PI	0.4	0.6	0.1
Other	NA	NA	5.5
Two or more races	1.3	2.3	2.4



Partnership Program

- Collaborates with trusted organizations to reach minority & medically underserved populations with cancer information
- Participates in cancer control efforts
- 15 regional offices
- Over 70 staff nationwide

Consumer-Oriented Health Communication



Adapted from Nelson et al. (2004)



Research Questions

- Which socio-demographic characteristics are associated with awareness of the CIS or other national cancer information resources?
- Is personal history of cancer associated awareness of the CIS or other national cancer information resources?
- Is “information seeking” associated with awareness of the CIS or other national cancer information resources?



Independent Variables

Demographics

- Gender
- Age
- Ethnicity/race
- Marital status
- Education
- Income
- Employment status

Cancer History

- Ever had cancer?

Health Care Access

- Health insurance?
- Usual provider?

Information Seeking

- Ever looked for cancer information?
- Ever had someone look for cancer information for you?

Dependent Variables

HC-34. Now, I'm going to read you a list of organizations. Before being contacted for this study, had you ever heard of...

	<u>YES</u>	<u>NO</u>
a. the National Institutes of Health?	1	2
HC34aNIH		
b. the American Cancer Society?	1	2
HC34bACS		
c. the Cancer Information Service?	1	2
HC34cCIS		
d. the National Cancer Institute?	1	2
HC34dNCI		
e. the 1-800-4-Cancer information number?	1	2
HC34eCancerHotline		
f. the United States Center for Cancer Prevention Research? ...	1	2
HC34fUSCenter		



Methods

Created a CIS Composite Measure:

- Those who had heard of either the CIS or the 1-800-4-CANCER information number
- 25.4% had heard of CIS based on this composite (n=1,120)
- Excluded: Those who said yes to fake organization (n=1,966)



Analyses

- Cross-tabulation
- Logistic regression

Sociodemographic
Cancer history
Access to health care
Information seeking

Awareness

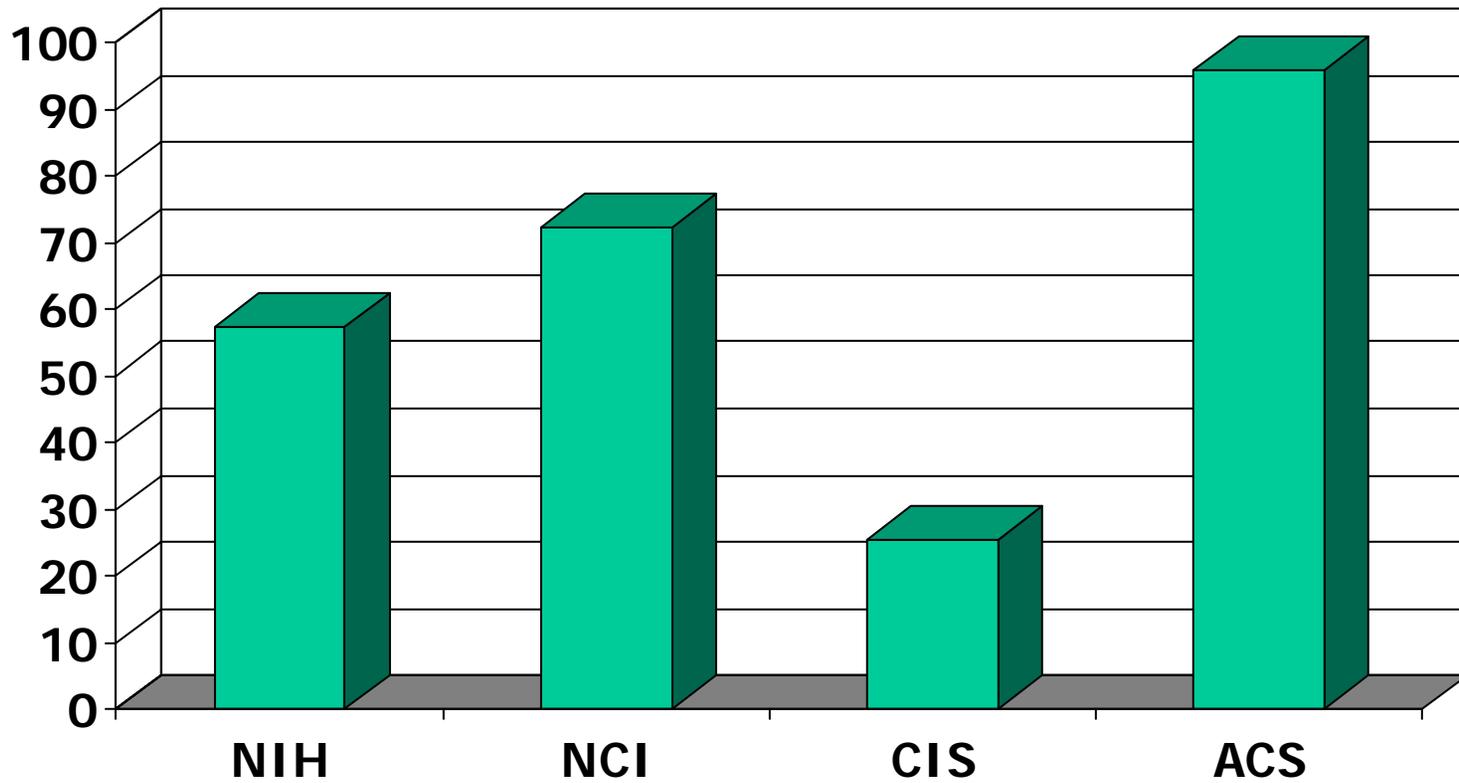
- CIS
- ACS
- NIH
- NCI



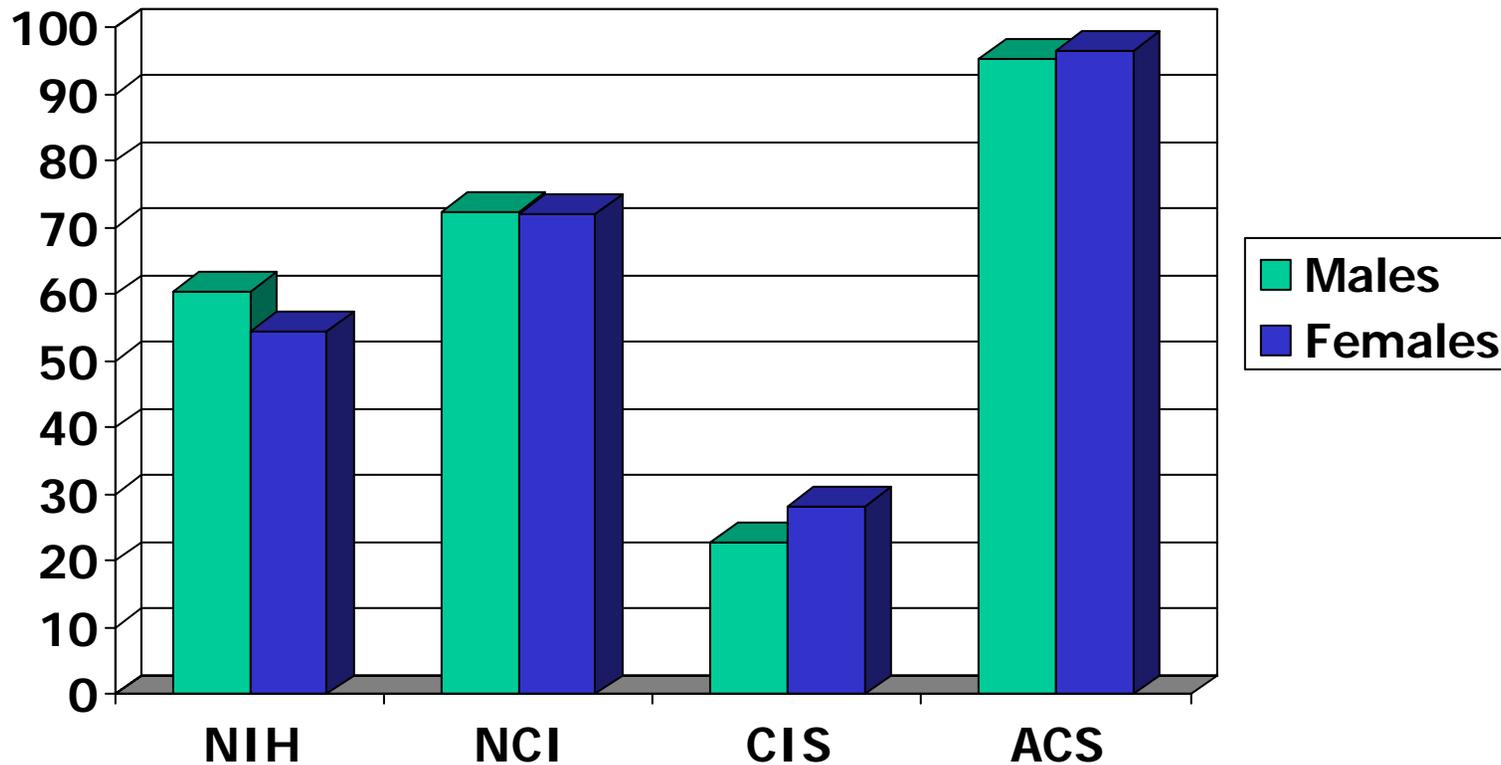
Results

- **Cross-tabulation**
 - Logistic regression

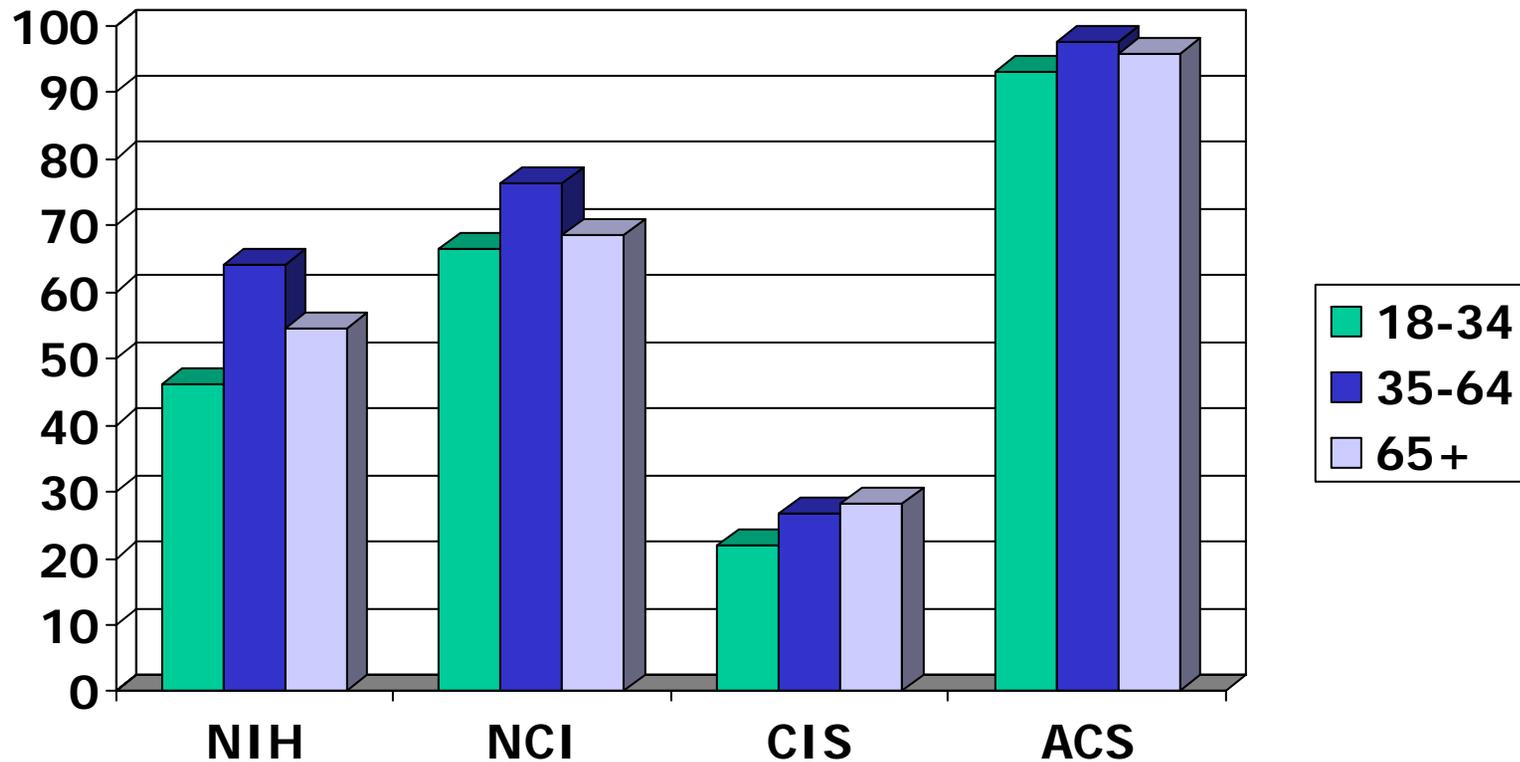
Awareness of Organizations



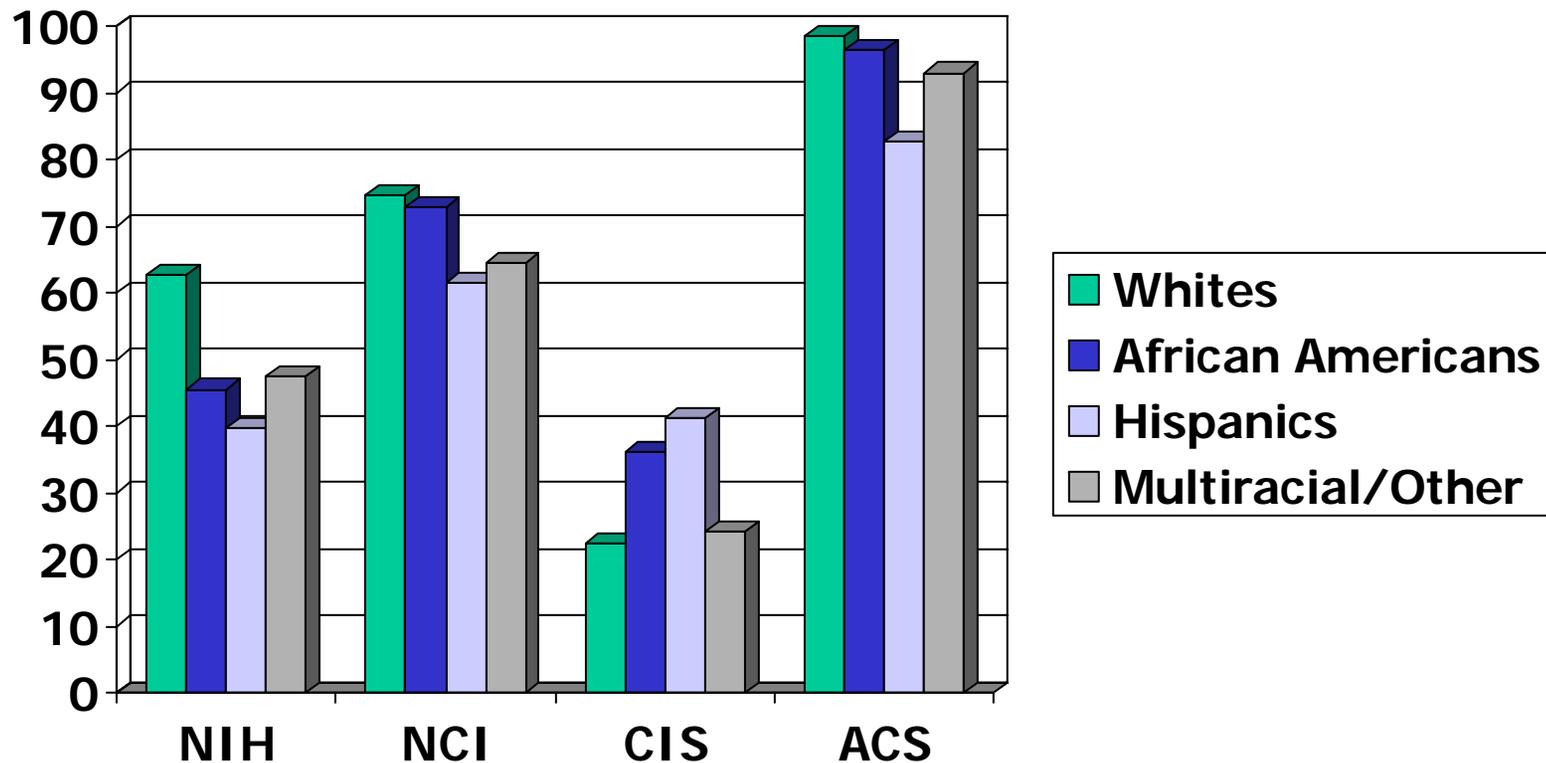
Awareness of Organizations by Gender



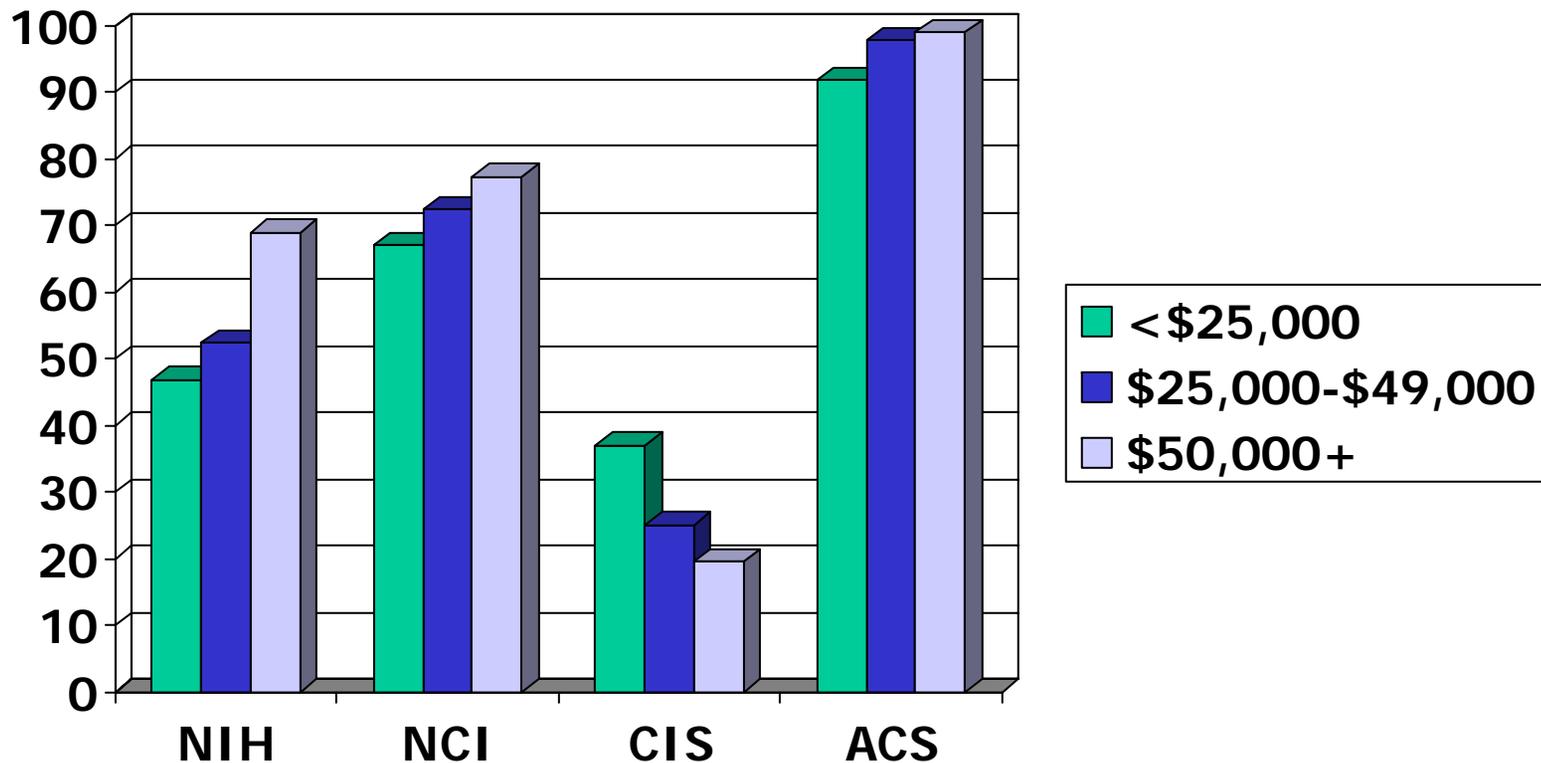
Awareness of Organizations by Age



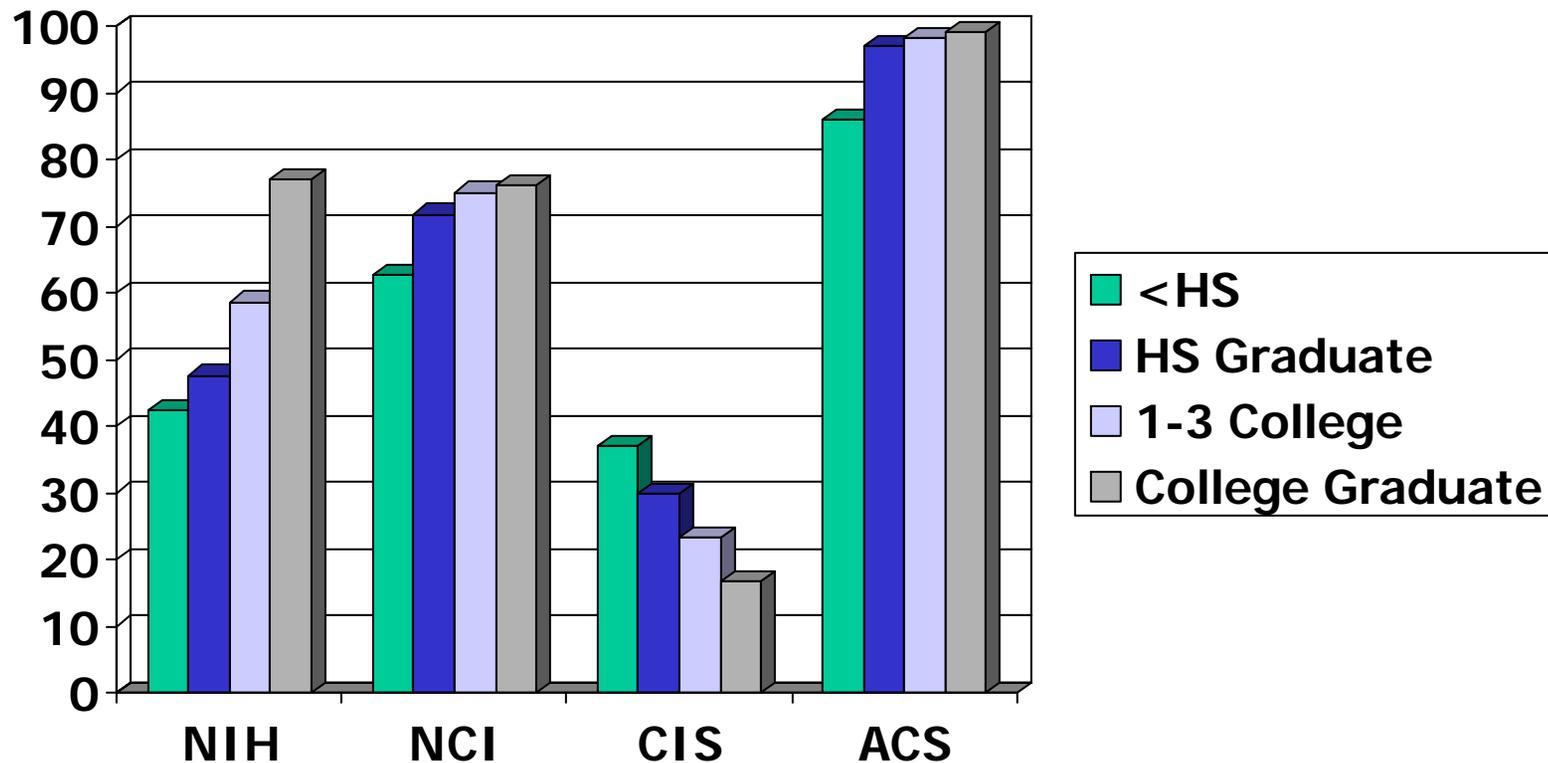
Awareness of Organizations by Race/Ethnicity



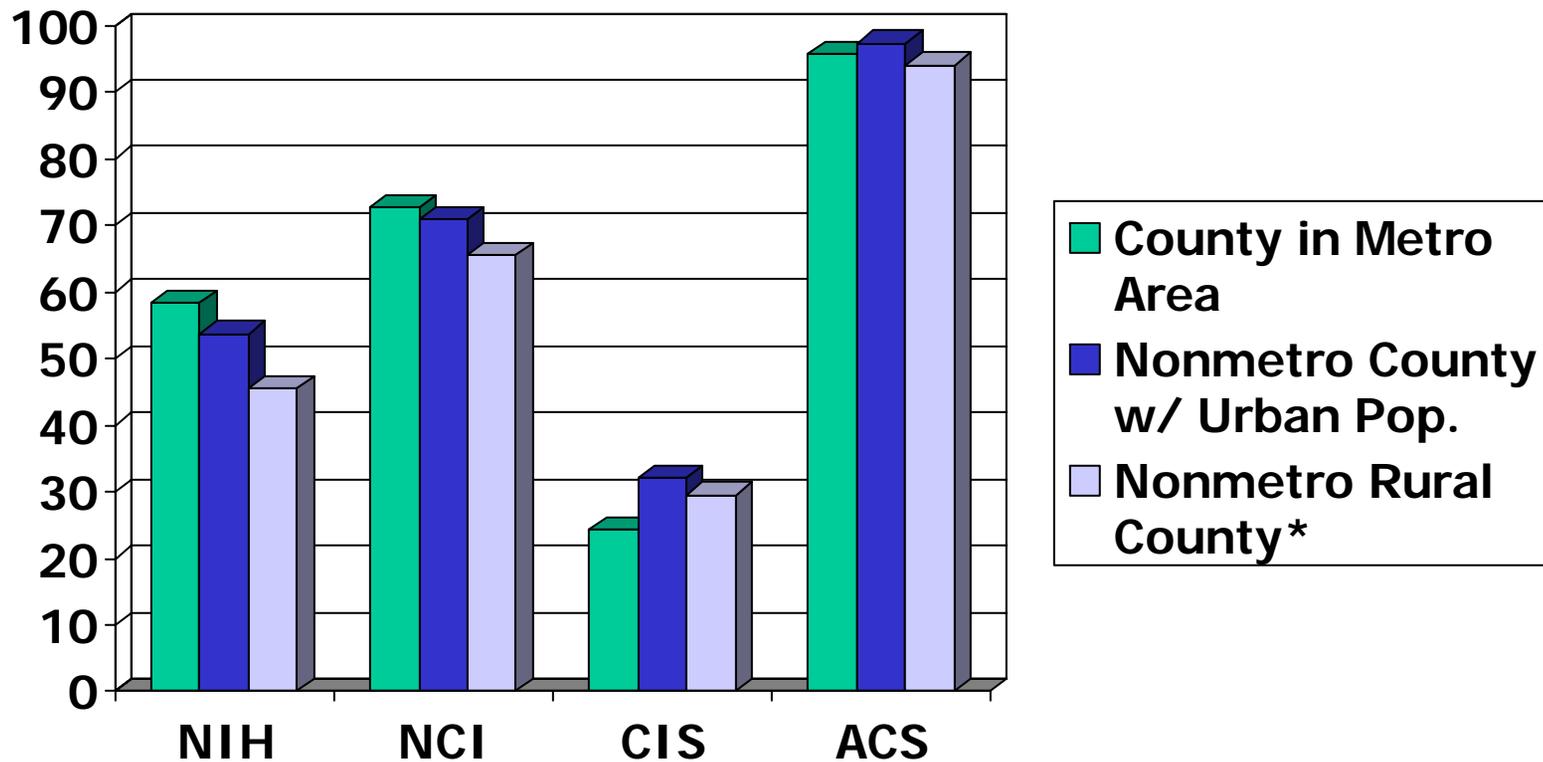
Awareness of Organizations by Income



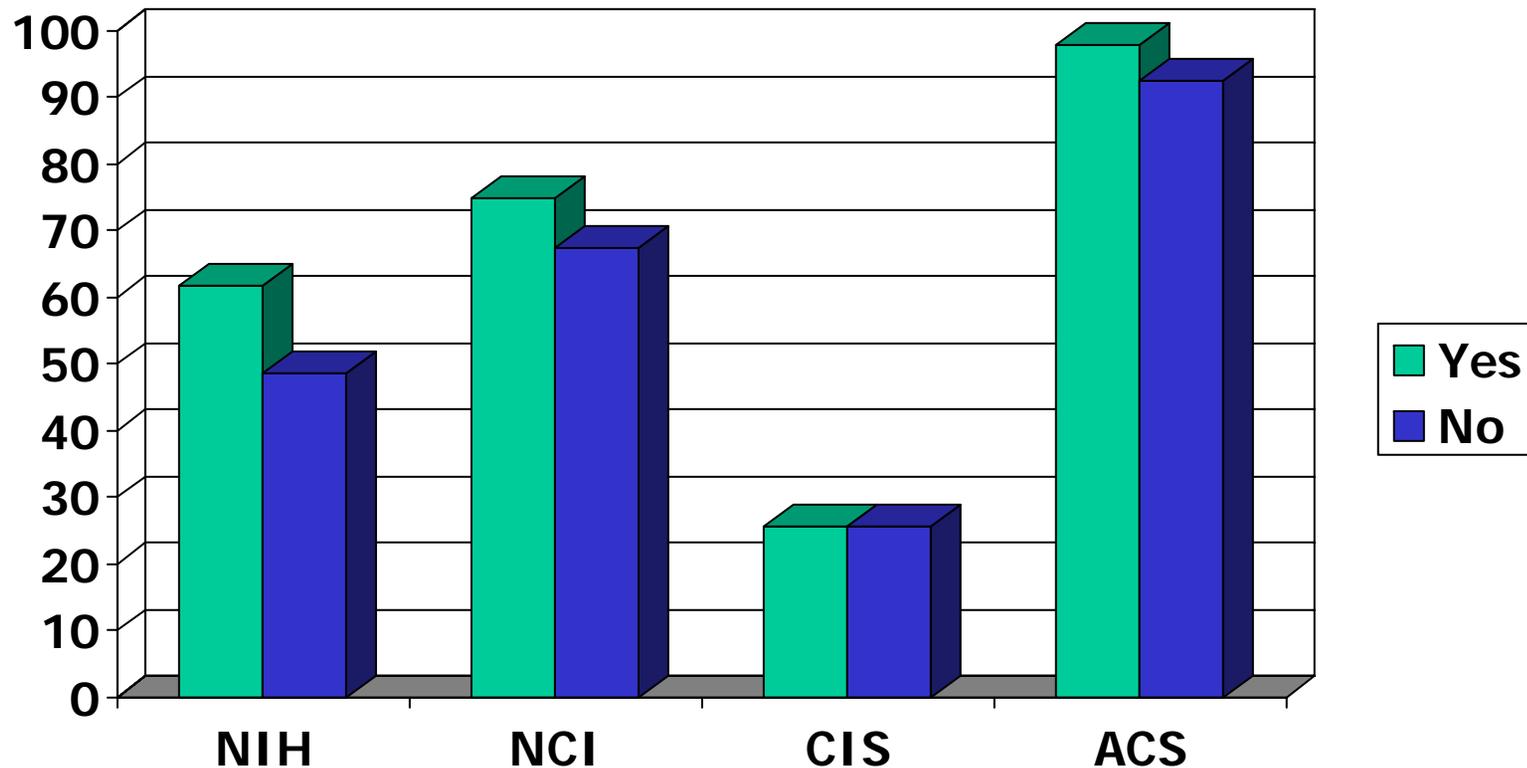
Awareness of Organizations by Education



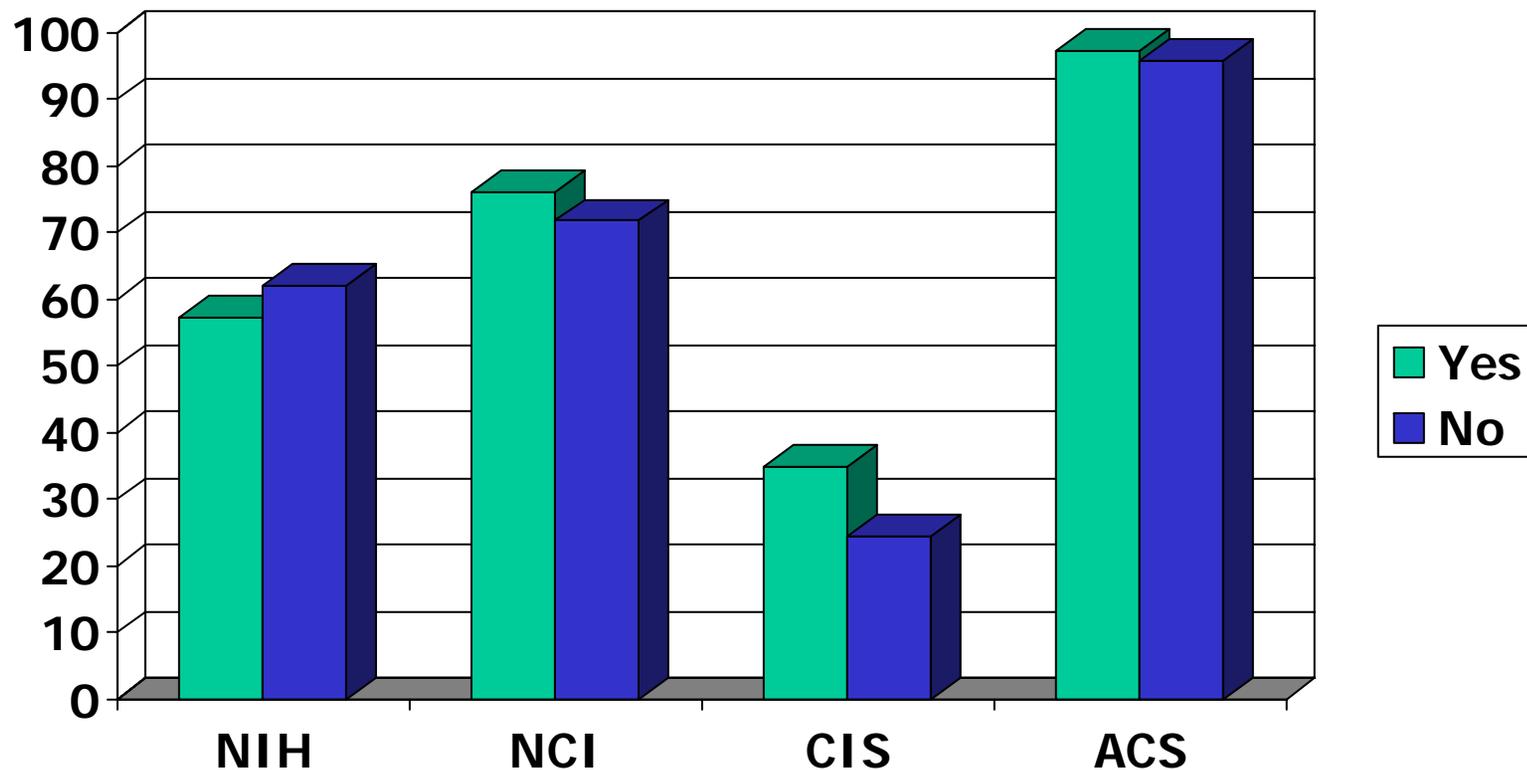
Awareness of Organizations by Rural-Urban Continuum



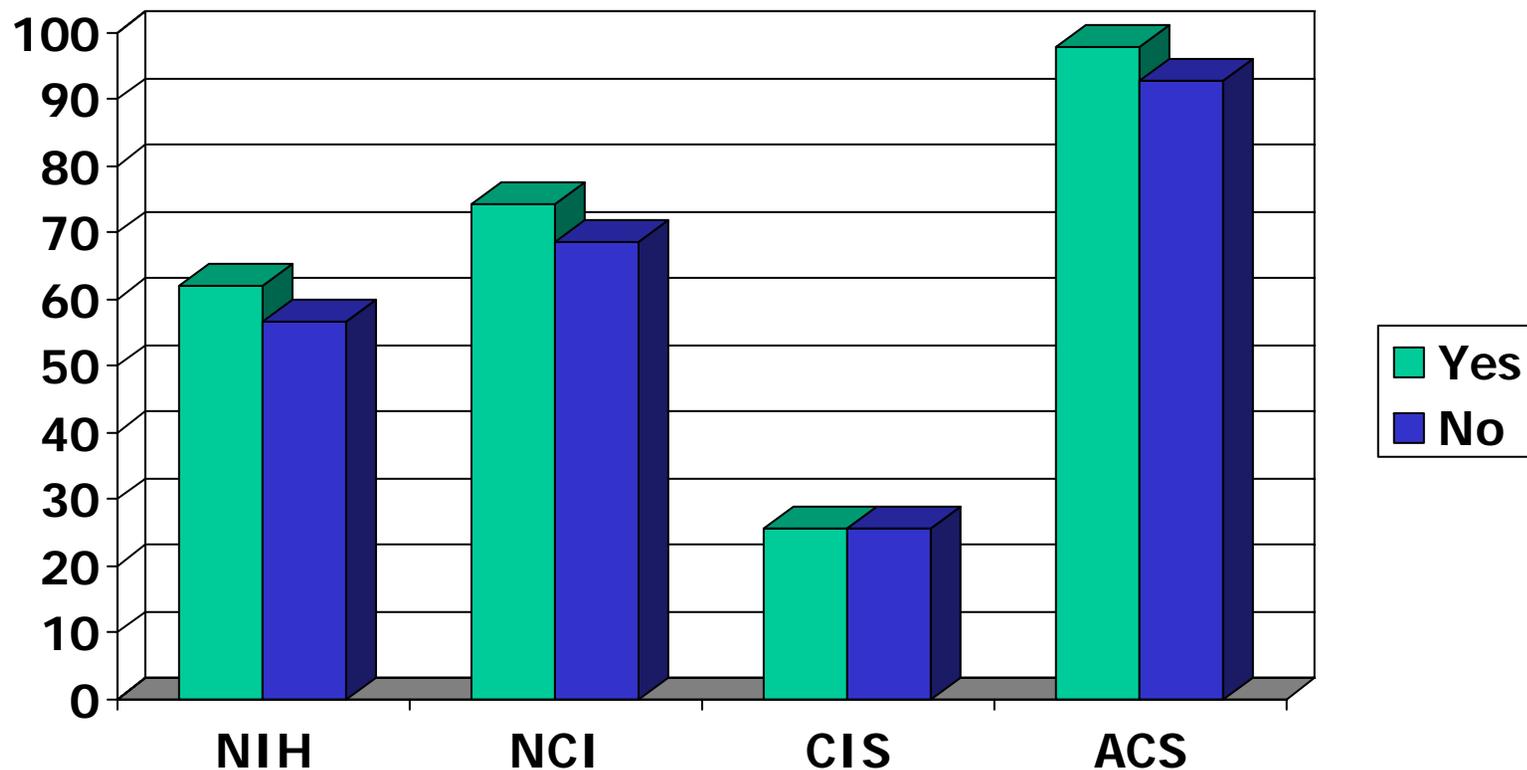
Awareness of Organization by Regular Health Care Provider



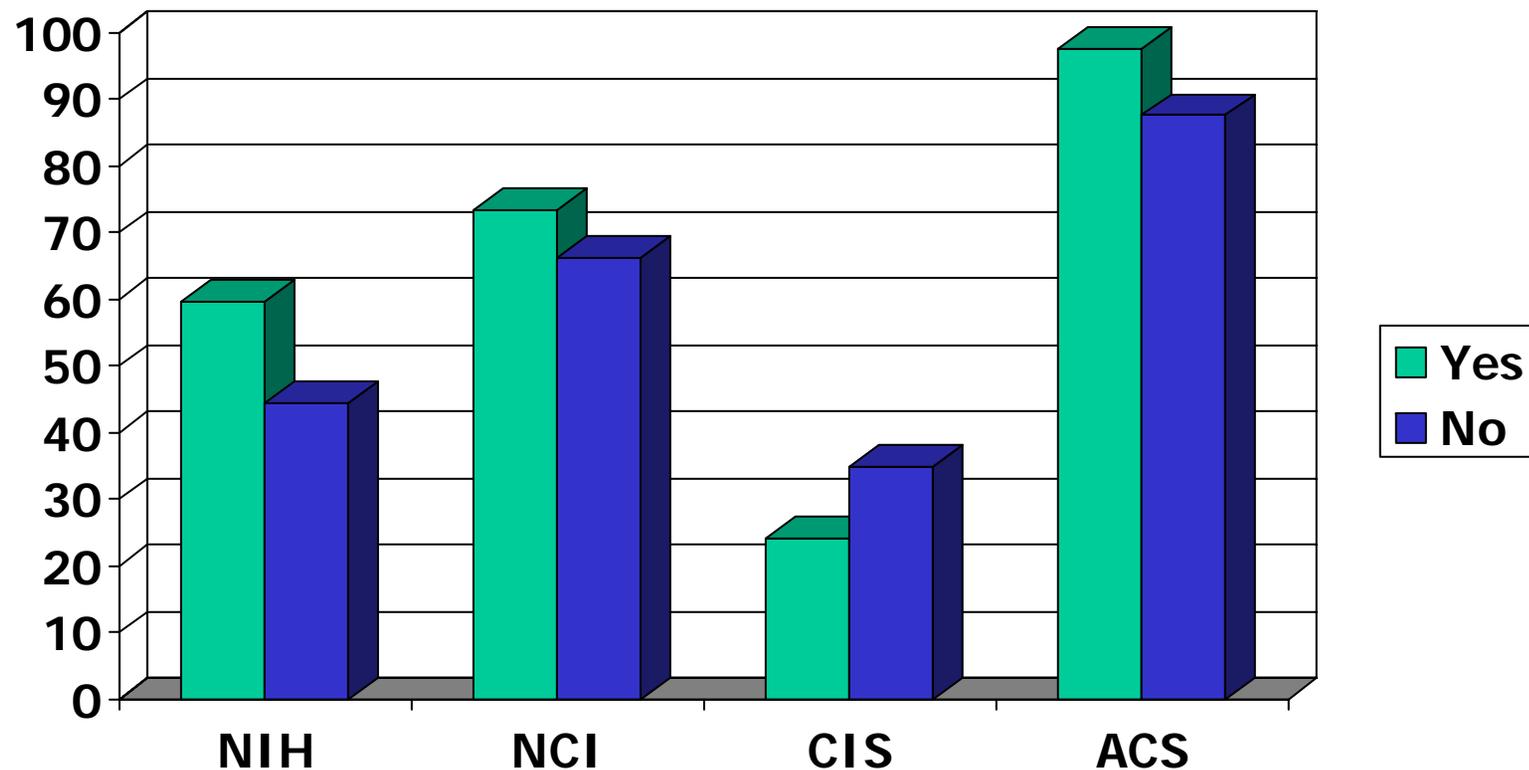
Awareness of Organizations by Personal Cancer History



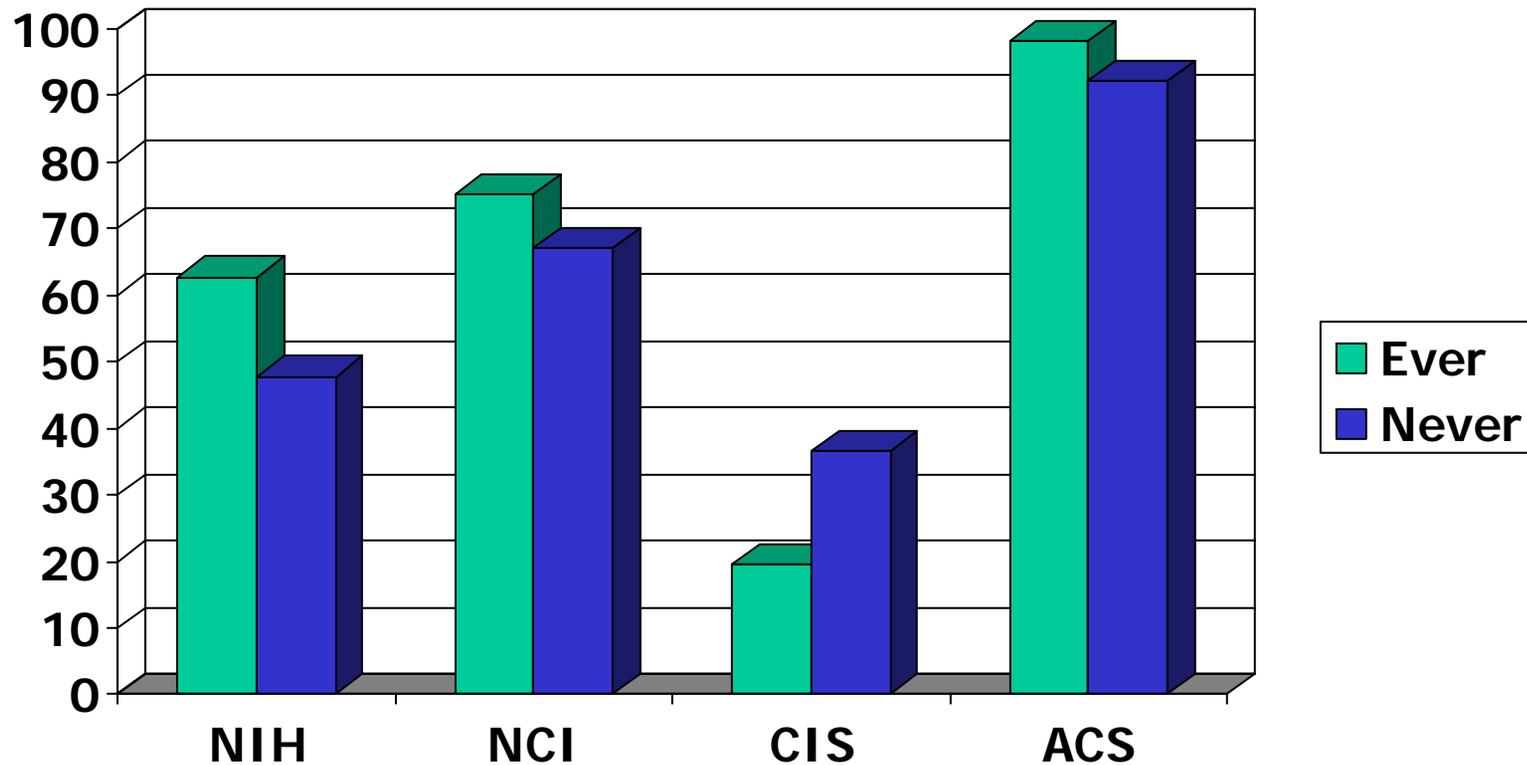
Awareness of Organizations by Familial Cancer History



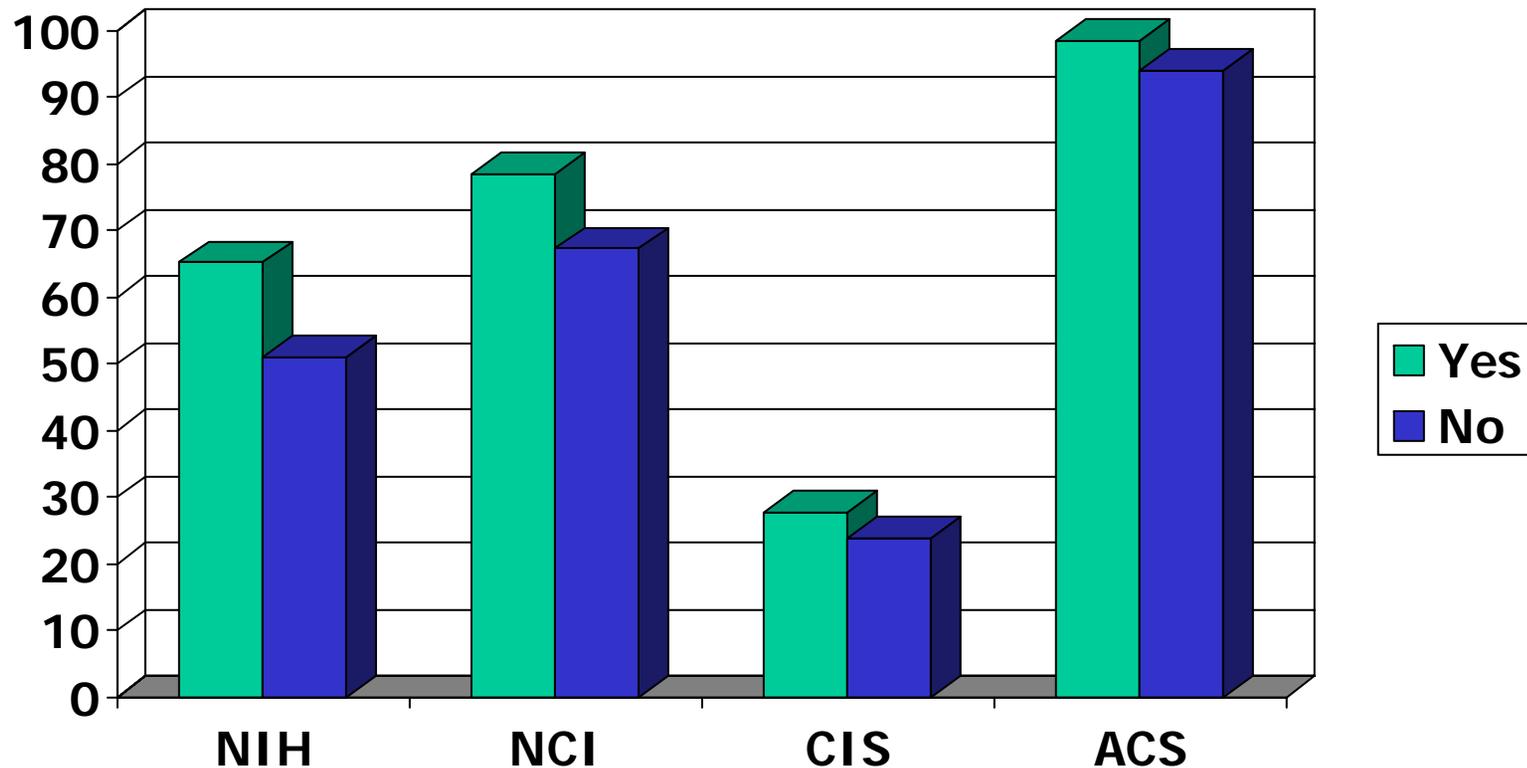
Awareness of Organizations by Health Care Coverage



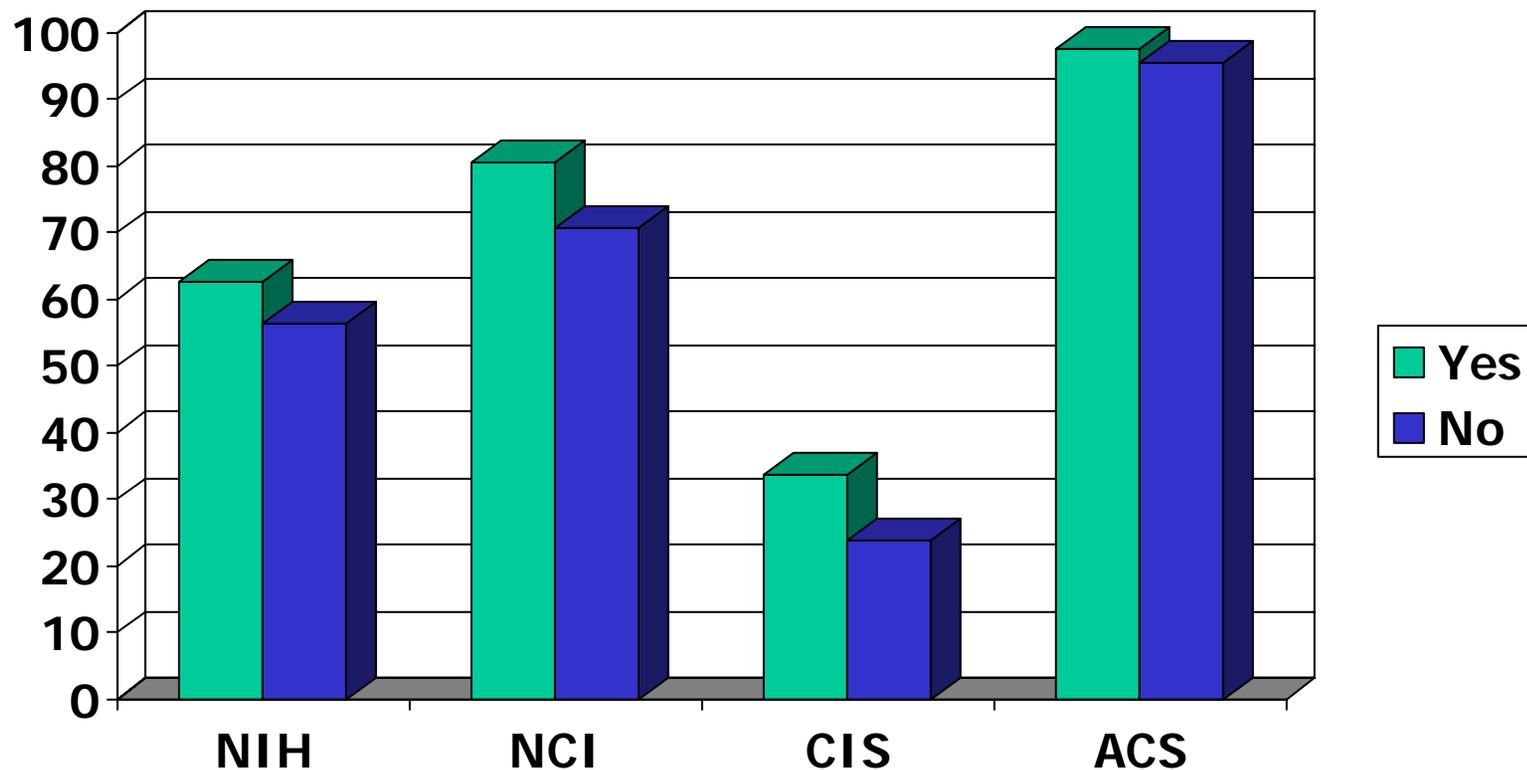
Awareness of Organizations by History of Going On-Line



Awareness of Organizations by Ever Looked for Cancer Information



Awareness of Organizations by Ever Had Someone Look for Cancer Information for You





Other Variables Not Associated with Awareness of CIS

- Self-efficacy in finding cancer information
- Trust in cancer information provided by a health care professional
- Having cable or satellite TV in home
- Attending to health information on all media except TV



Results

- Cross-tabulation
- **Logistic regression**

Covariates

Gender	Health Coverage
Age	Cancer History
Race/Ethnicity	Go on-line
Marital Status	Attend to Health Information (Internet)
Employment Status	Looked for cancer info
Salary	Else looked for cancer info
Education	Hours watch TV
MSA	Hours listen to radio

Aware of CIS

	OR	95% CI
Race/Ethnicity		
Non-Hispanic/White	1.00	1.00-1.00
Hispanic	2.15	1.47-3.14
Non-Hispanic Black/AA	1.85	1.30-2.65
Non-Hispanic Other/Multiple	1.21	0.73-2.00
Education		
<HS	1.00	1.00-1.00
HS	0.99	0.74-1.34
Some college	0.87	0.59-1.29
College graduate	0.66	0.45-0.97

Overall Model: Adjusted Wald F=22.62, df=28, p=.00001

Aware of CIS

	OR	95% CI
MSA		
County in metro area	1.00	1.00-1.00
Non-metro county w/ urban pop.	1.41	1.02-1.96
Non-metro county, rural or <25,000		
urban	1.30	0.60-2.83
Cancer history		
Yes	1.00	1.00-1.00
No	0.67	0.46-0.99

Aware of CIS

	OR	95% CI
Go Online		
Yes	1.00	1.00-1.00
No	1.96	1.53-2.53
Attend to Information on Internet		
No	1.00	
Yes	1.96	1.53 – 2.53
Ever Looked for Cancer Info		
Yes	1.00	1.00-1.00
No	0.76	0.59-0.99
Anyone Else Looked for Cancer Info		
Yes	1.00	1.00-1.00
No	0.61	0.46-0.82

Aware of NIH

	OR	95% CI
Gender		
Male	1.00	1.00-1.00
Female	0.70	0.59-0.83
Race/Ethnicity		
Non-Hispanic/White	1.00	1.00-1.00
Hispanic	0.61	0.44-0.84
Non-Hispanic Black/AA	0.67	0.49-0.93
Non-Hispanic Other/Multiple	0.52	0.34-0.80
Age		
18-34	1.00	1.00-1.00
35-64	1.67	1.33-2.08
65+	1.44	1.00-2.09

Overall Model: Adjusted Wald F=21.68, df=28, p=.00001

Aware of NIH

	OR	95% CI
Employment Status		
Employed	1.00	1.00-1.00
Out of work	0.87	0.54-1.41
Retired, student, homemaker	0.90	0.72-1.12
Unable to work	0.61	0.39-0.96
Education level		
<HS	1.00	1.00-1.00
HS	0.88	0.63-1.23
Some college	1.37	0.98-1.93
College graduate	2.53	1.72-3.70

Aware of NIH

	OR	95% CI
Attend to health information on Internet		
No	1.00	1.00-1.00
Yes	1.36	1.07-1.72
Ever looked for cancer info		
Yes	1.00	1.00-1.00
No	0.76	0.61-0.94

Aware of NCI

	OR	95% CI
Race/Ethnicity		
Non-Hispanic/White	1.00	1.00-1.00
Hispanic	0.71	0.52-0.97
Non-Hispanic Black/AA	1.18	0.82-1.70
Non-Hispanic Other/Multiple	0.66	0.41-1.06
Age		
18-34	1.00	1.00-1.00
35-64	1.41	1.07-1.86
65+	1.21	0.77-1.89

Overall Model: Adjusted Wald F=14.76, df=28, p=.00001

Aware of NCI

	OR	95% CI
Employment Status		
Employed	1.00	1.00-1.00
Out of work	0.54	0.33-0.88
Retired, student, homemaker	0.89	0.71-1.12
Unable to work	0.82	0.53-1.27
Ever Looked For Cancer Info.		
Yes	1.00	1.00-1.00
No	0.69	0.56-0.85
Anyone Else Looked for Cancer Info.		
Yes	1.00	1.00-1.00
No	0.74	0.56-0.99

Aware of ACS

	OR	95% CI
Race/Ethnicity		
Non-Hispanic/White	1.00	1.00-1.00
Hispanic	0.10	0.10-0.35
Non-Hispanic Black/AA	0.82	0.30-2.23
Non-Hispanic Other/Multiple	0.53	0.15-1.89
Employment Status		
Employed	1.00	1.00-1.00
Out of work	0.84	0.26-2.69
Retired, student, homemaker	0.40	0.18-0.86
Unable to work	0.49	0.14-1.72

Overall Model: Adjusted Wald F=19.12, df=28, p=.00001



Summary

- Compared to Whites, **Hispanics** were more likely to be aware of CIS and less likely to be aware of each of the other organizations
- **African Americans** were more likely than Whites to be aware of CIS and less likely than Whites to be aware of NIH
- **“Other”** or **Multiracial** were less likely than Whites to be aware of NIH



Summary

Compared to respondents <34 years of age:

- Respondents 35-64 were:
 - more likely to be aware of NCI
 - more likely to be aware of NIH
- Respondents 65+ were:
 - more likely to be aware of NIH



Summary

- Respondents who **never went on-line** were more likely to be aware of CIS
- Respondents who **attend to information on the Internet** were more likely to be aware of NIH
- Respondents who **never looked for cancer information** were less likely to be aware of CIS, NCI & NIH
- Respondents who **never had someone else look for cancer information** were less likely to be aware of CIS & NCI

Summary: Awareness of CIS

- **INCREASE the odds:**
 - Hispanic
 - African American
 - Non-metro county w/ urban pop.
 - Never going on-line
 - Attending to health information on the Internet
- **DECREASE the odds:**
 - No history of cancer
 - College graduate
 - Never looking for cancer info
 - No one else looking for cancer info



Interpretation?

- CIS needs to improve awareness of its services
- CIS may be doing a better job at reaching:
 - some minority groups
 - the uninsured
 - those who do not use the Internet
 - those in non-metropolitan areas with urban populations



Next Steps for the CIS

- **Promotion of the CIS**

- Stronger association with NCI “brand”
- Messages designed to promote “use” to Hispanics and African Americans
 - Identify barriers to use
- Promote to/partner with providers
 - Preferred source for cancer information
 - CIS can aid patient-provider interactions

- **HINTS II**

- Measure use of the CIS and
- Measure reasons for not using
- Continue to track trends in awareness over time