



PENN CECCR: Effects of Public Information in Cancer (EPIC) 2003-2008

University of Pennsylvania

Behavior is Central

- *Prevention – Exercise, Diet, Smoking*
 - keeping people from starting; helping them stop
- *Screening - Colon, Breast, Cervical, Prostate?*
- *Post-Diagnosis – Choosing treatments, Survival activities*

If behavior is the goal, is communication the answer?

- Alternatives:
 - Natural Diffusion
 - Institutional/Structural changes
 - Medical system changes
 - Personal education

If communication is the answer what needs doing?

- Reach
- Effectiveness
- Efficiency

**Each of our 4 CECCRs
addresses one or more of
these three issues.**

EPIC CECCR at Penn

- **3 major research projects**
 - **Seeking & Scanning of Cancer Information**
 - **Effective Anti-Smoking Advertising**
 - **Effective Framing of Genetic Risks**
- **Theory and Methods Core**
- **Pilot Projects**
- **Training Core**

5/9/2006

EPIC CECCR
Penn

Research about Reach

- The messy public communication environment
- A place to start – what do people do now?
 - *Scanning public media*
 - *Seeking specific information*

What are the research questions?

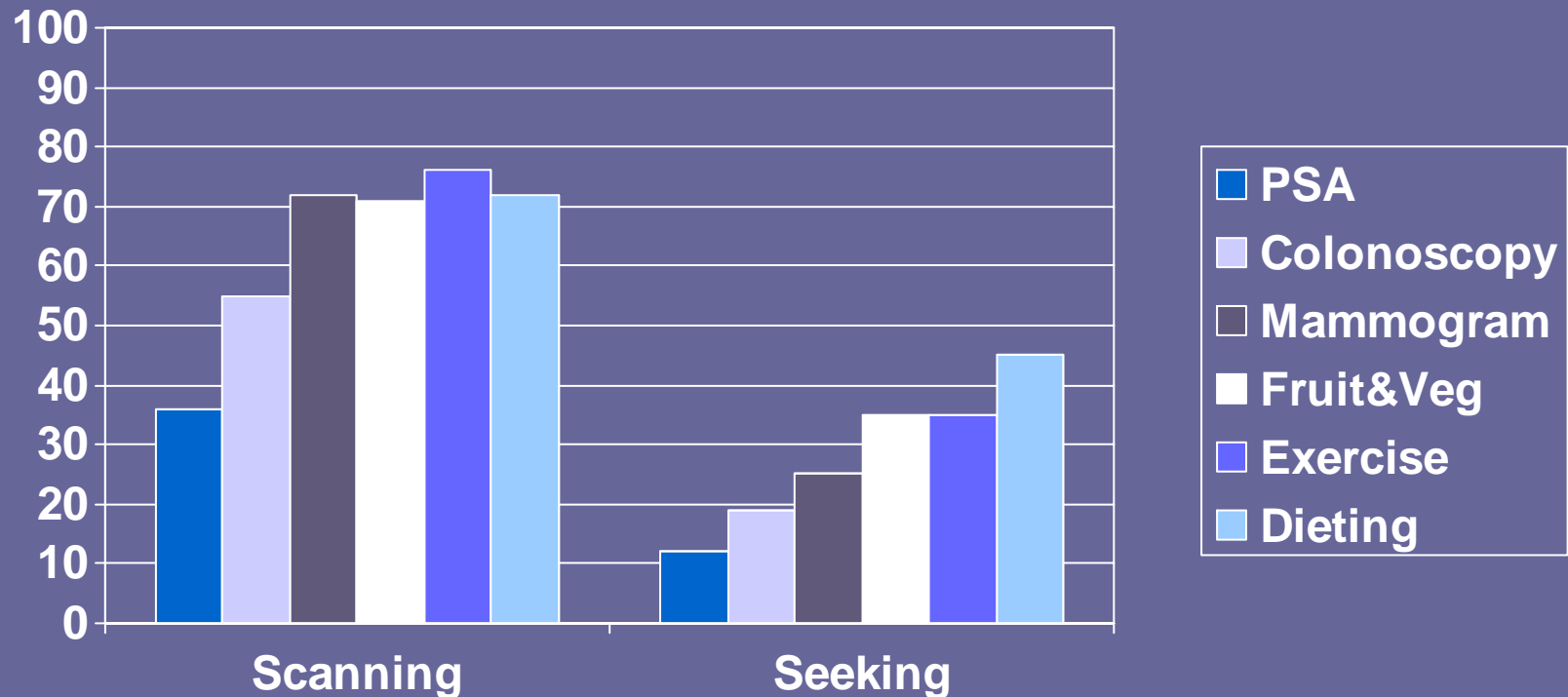
- How much seeking and scanning (SSB) is there?
- Who does it and who does not?
 - Disparities
 - Personal style
 - Prevention vs. screening vs. post-diagnosis
- Does it matter for cancer decisions?

Ongoing studies

- Populations
 - Cancer Patients
 - General Population
- *Focus: breast, prostate, colon cancers*
- Methods
 - *In-depth interview*
 - *Large national (40-70 year olds) or statewide (patients) samples -- prospective studies*

How much SSB is there?

% seeking or scanning by behavior

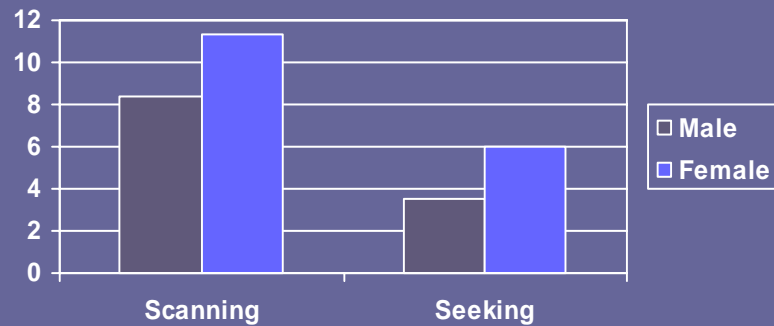


5/9/2006

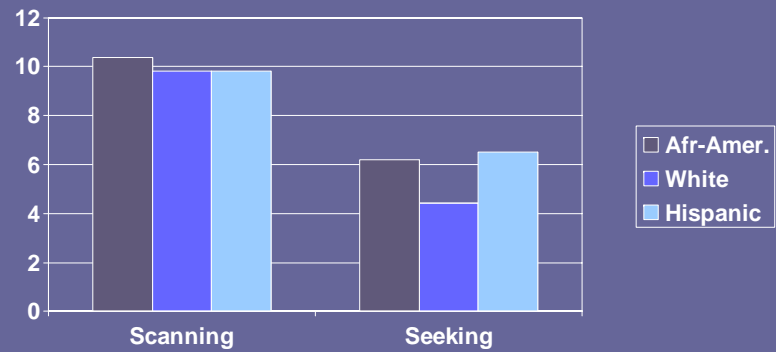
EPIC CECCR
Penn

Who does it?

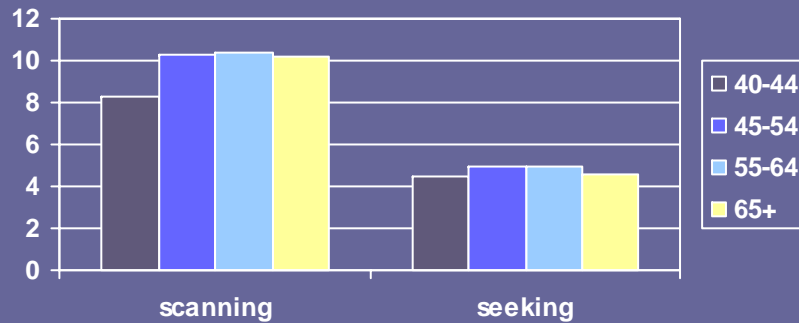
sources across behaviors by gender



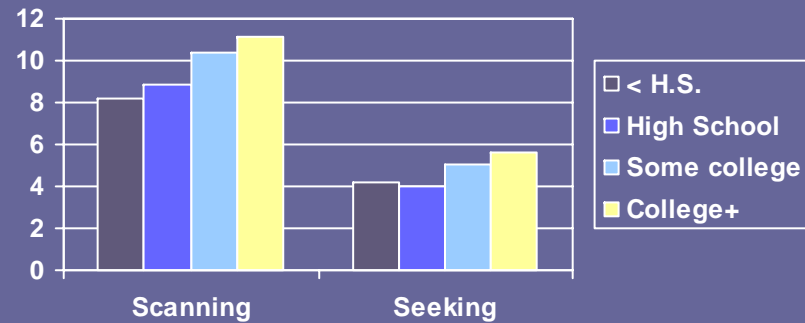
sources across behaviors by race-ethnicity



sources across behavior by age

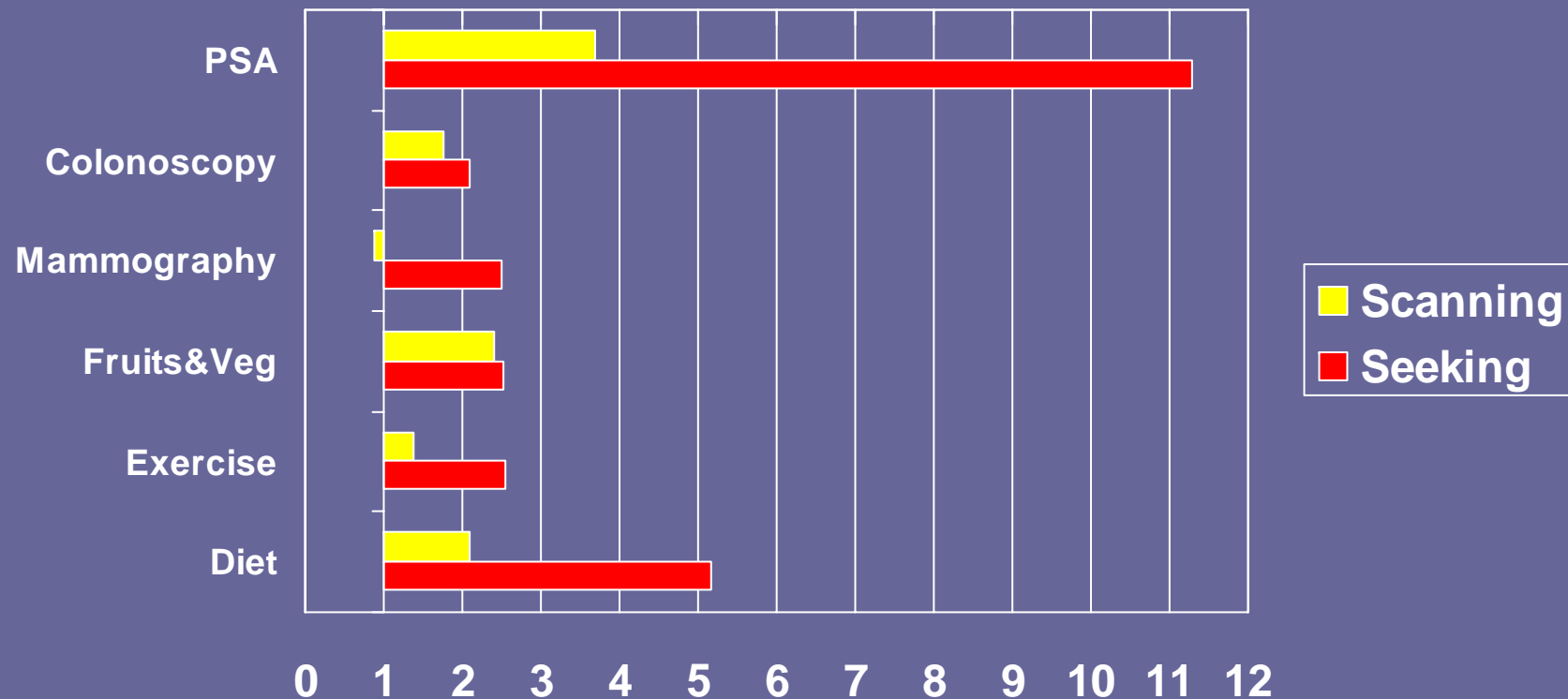


sources across behaviors by education



Is it related to behavior?

Relative odds of doing 6 behaviors by whether did or didn't scan or seek



5/9/2006

EPIC CECCR
Penn

Cancer Patients from 44 in-depth interviews

- Lots of MD dependence (98% rely on MD for information about treatment decisions)
- Substantial use of other media (44% use printed sources, 44% Internet, 21% broadcast media for treatment decisions)
- Information from one source drives use of others
 - 35% checked one source against another
 - 65% MD sent them to a mediated source

- We do research on reach
- Also we do research on effectiveness of messages
 - *Lerman- Anti-Smoking PSAs*
 - *Cappella- Framing Genetic Risk*

Effectiveness of Smoking Cessation PSAs

Research question:

- How do argument strength and message sensation value matter in effects of PSAs?

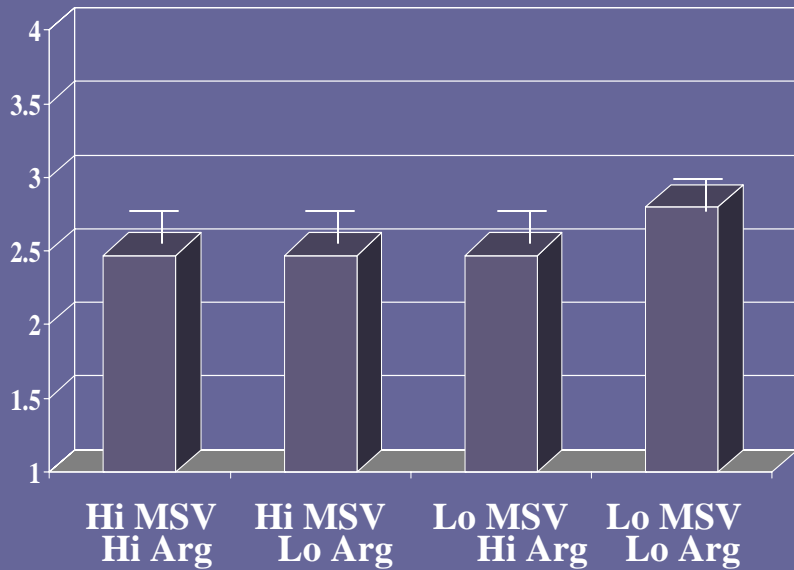
Methods:

- Experiment: 160 subjects 2 x 2 design
- Multiple approaches to measuring response
 - Self report
 - Physiology
 - (and fmri, eye tracking)

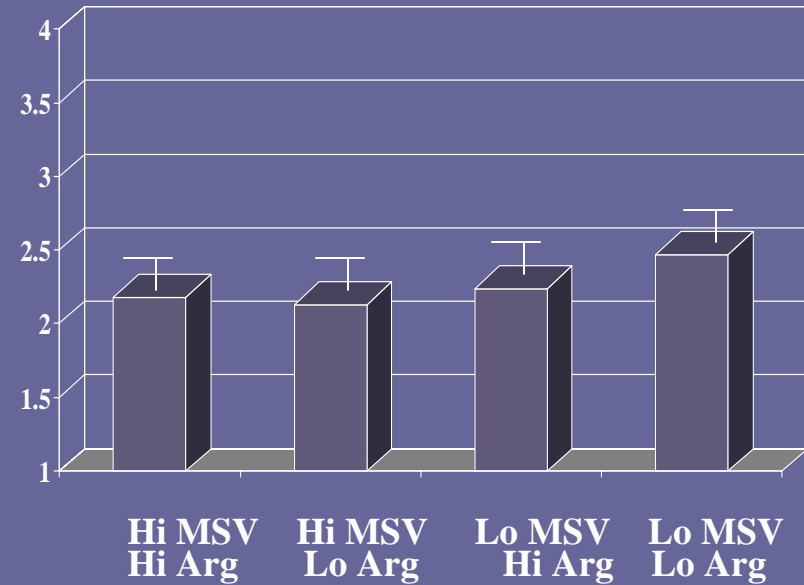
5/9/2006

EPIC CECCR
Penn

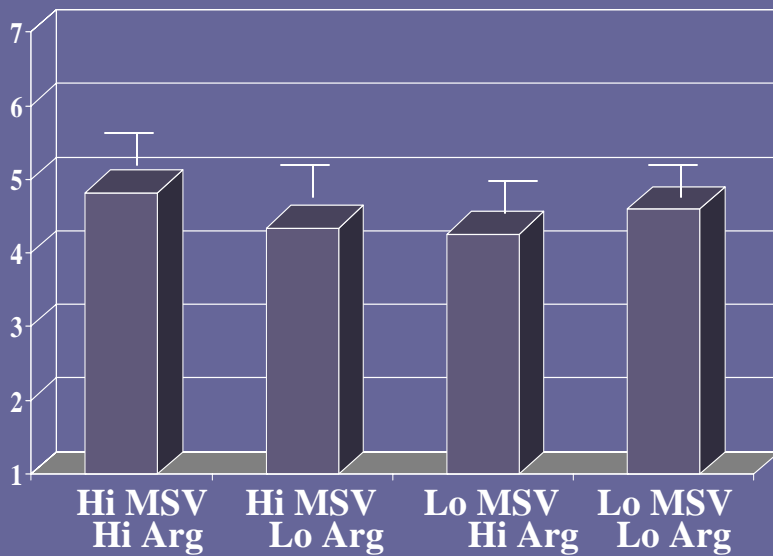
Intent Try to Quit (n=66)



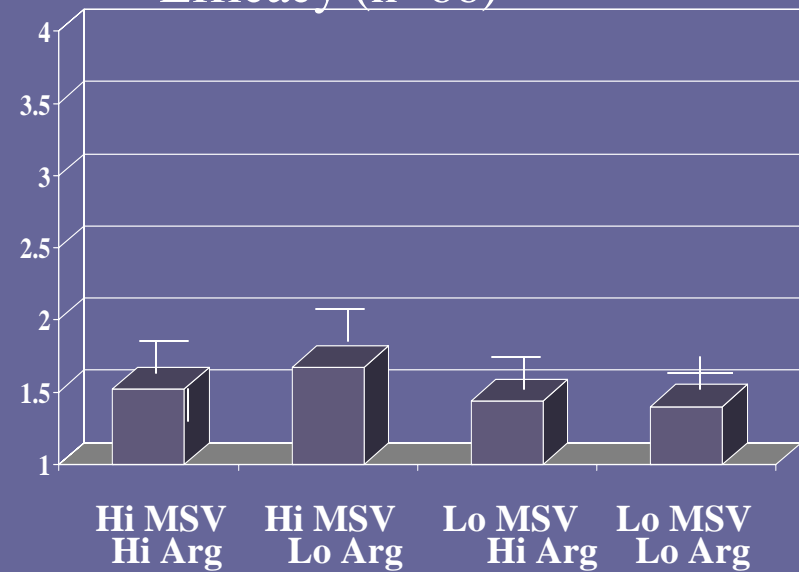
Intent Will Quit (n=66)



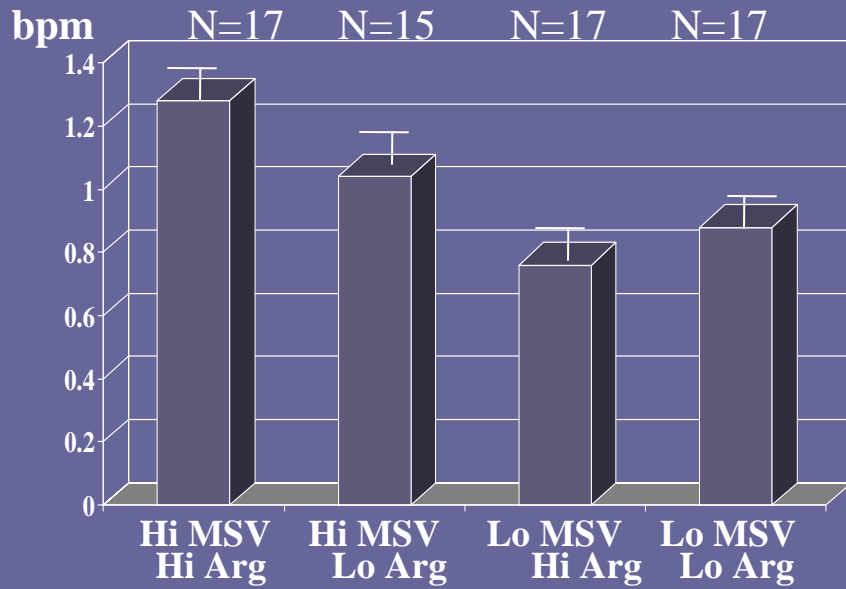
Attitudes (n=66)



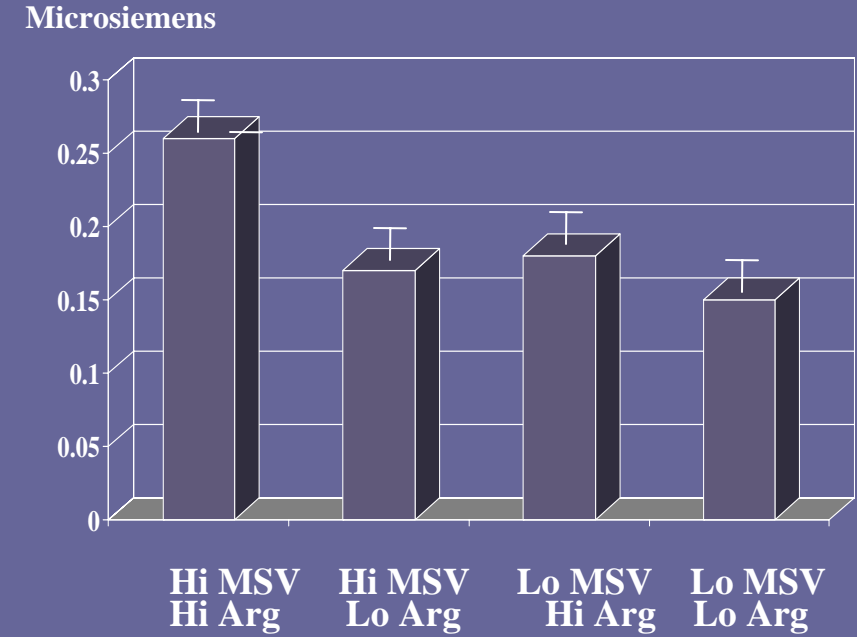
Efficacy (n=66)



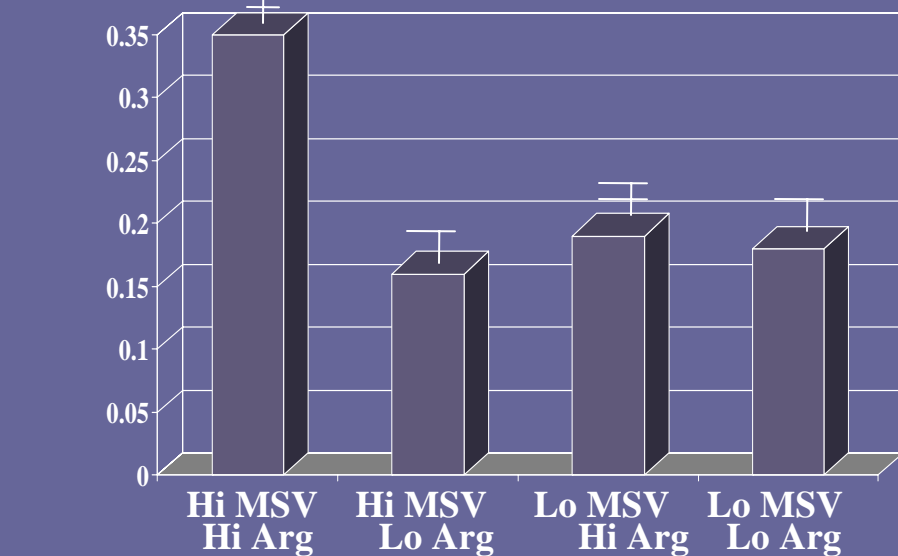
Heart Rate Change (n=66)



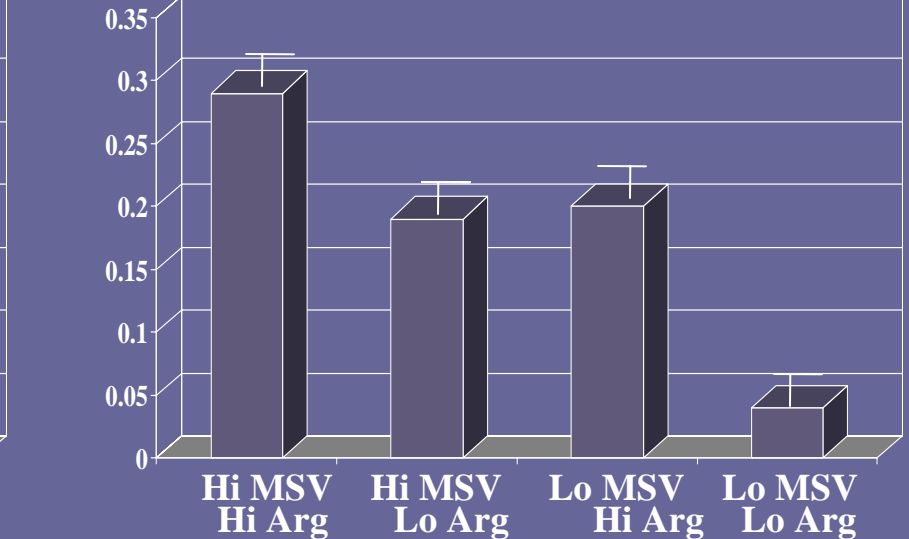
SCR Change (n=66)



Zygomatic (EMG) (n=66)



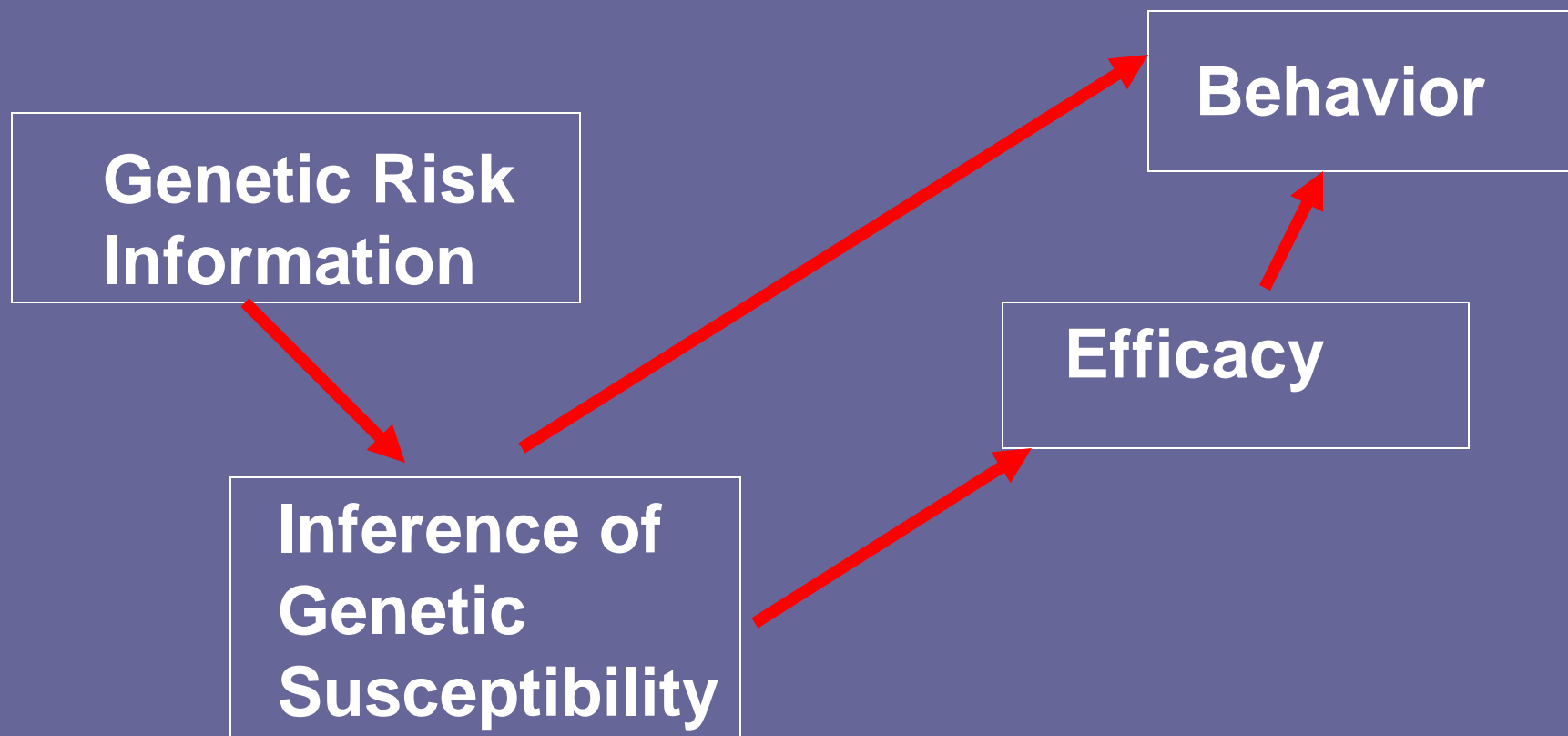
Corrugator (EMG) (n=66)



Framing Genetic Risk

- *How do you inform people of their genetic risk (for addiction to tobacco) without undermining their belief that healthy behavior (stopping smoking) is within their control?*

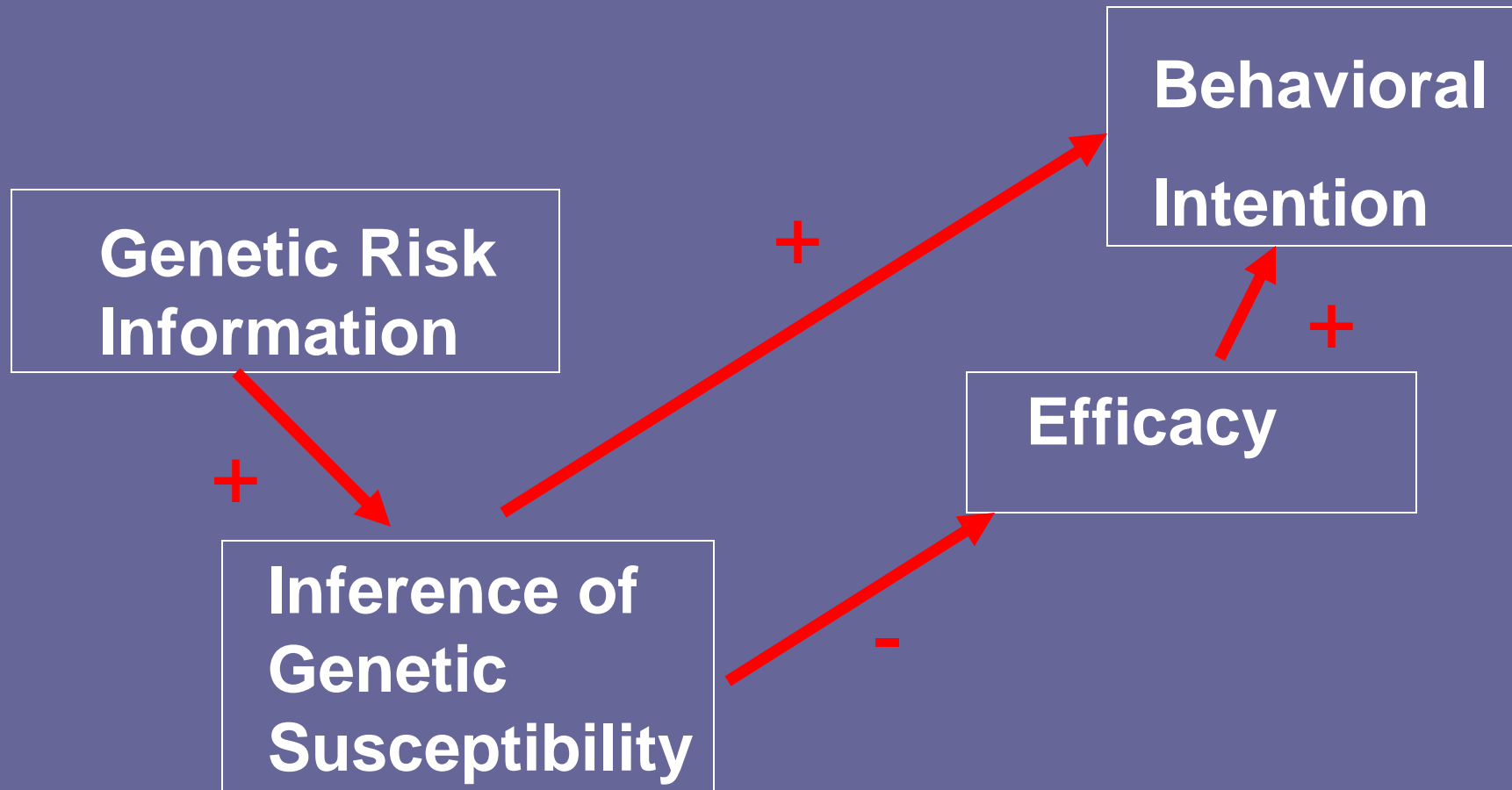
Research Questions



The research model

- **Expose to information**
 - about genetic risk
 - about efficacy to avoid an action with bad consequences
- **Measure**
 - Inference of genetic susceptibility
 - Belief that it is within their power to change behavior (efficacy)
 - Intention to engage in healthy behavior

Summary Model-At Risk Groups



Next Research Phase

- *How to deliver genetic information and efficacy information about the value of smoking cessation treatment-seeking so that it does not reduce intention*
- *Two exploratory strategies*
 - Compare exemplars vs. more abstract content (personal vs. impersonal)
 - Offer genetically tailored vs. not genetically-tailored (cessation) treatment

Two legs of our research

- Reach
- Effectiveness

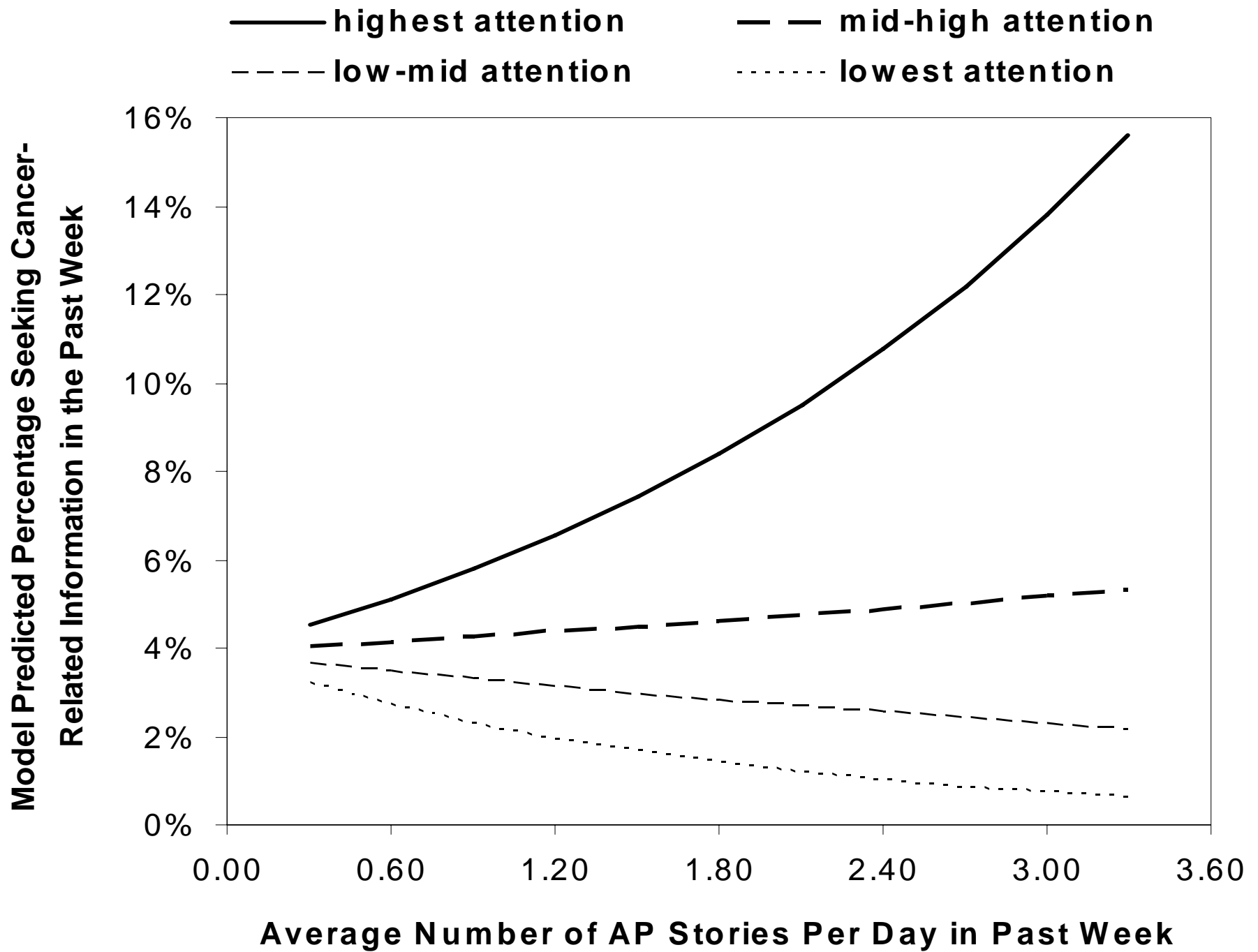
- What about efficiency?

Efficiency and Mass Media

- Weaker per exposure
- But mass, repeated exposure
- Do we know how to construct efficient programs?

Two routes to efficient programs

- Large scale direct media-based education
 - How to reach; how to persuade
 - Legacy Foundation proposed cessation campaign
- Affect what the media say about cancer because the media affect what people do about cancer



The CECCR's Program

- *Reach*
- *Effectiveness*
- *Efficiency*
- *Along with training the next generation of researchers*