

Implementing Decision Aids in Clinical Practice

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Research Sponsored by FIMDM

FIMDM Primary Care Implementation Network

- **Group of academic and community primary care practices working to implement decision aids in different clinical settings, since 2005**
- **Different approaches (and different decision aids) but sharing of information on strategies, problems, solutions**
- **Annual meeting and monthly videoconference calls**

FIMDM Primary Care Implementation Network



USPSTF Guidelines: Prostate Cancer Screening

Rating: I

“... evidence is insufficient to recommend for or against routine PSA screening ...”

“Clinicians should discuss possible benefits, harms, gaps in evidence, patient risk profile and personal preferences”

USPSTF guidelines: Colon cancer screening

Rating: A

**Screening strongly recommended.
Several options with different advantages
and disadvantages.**

**“Clinicians should talk to patients about
the benefits and potential harms
associated with each option before
selecting...”**

Preference-Sensitive Care

- Involves tradeoffs -- more than one treatment exists and the outcomes are different
- Scientific evidence re: outcomes is incomplete
- Decisions should be based on the patient's own preferences and values
- **But Provider Opinion Often Determines Which Option is Chosen**

Decision Quality

- 1. Patient demonstrates knowledge of key facts**
- 2. Patient's choice matches their values and preferences**

(Sepucha KR, Fowler FJ, Mulley AG. Health Affairs, 2004.)

Barriers to Implementing SDM

■ Clinicians

- Challenge to physician autonomy
- Don't recognize preference sensitive decisions
- Evidence difficult to extract, interpret, communicate

■ Practice

- Logistics
- Lack of time
- Lack of reimbursement

■ Patients

- "Patients don't want to participate"
- Variation in role preference

Impact of Decision Aids:

Cochrane review of 51 RCTs

- **Increase patient involvement**
- **Improve patient knowledge**
- **Clarify patient values**
 - **Improve concordance between values and choices**
- **Reduce patient decisional conflict, regret**
 - **Improve realistic expectations**
 - **Decrease number who are undecided**

3 Examples of Decision Making

- Usual Care: Often *No* SDM!
- Attempting SDM
- SDM after a DA

Challenges of DA distribution in Primary Care

- **Primary care is busy; multiple agendas**
- **How to identify appropriate patients**
- **Logistics of distribution**
 - **Visit based: pre-visit, at visit, post-visit**
 - **Non visit based: population management**
- **How to “close the loop”**
- **Lack of skill and knowledge for SDM**

Incorporating Decision Aids for Cancer Screening into Primary Care

- **UNC: clinic population approach, not tied to clinic appointment**
- **Dartmouth: 2 large academic IM practices with 3 models of distribution tied to clinic appointment**
- **UCLA: multiple small FP and IM community practices, visit based**

Implementing Widespread Use of a Colon Cancer Screening Decision Aid in an Academic Practice

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Background

- Our previous studies have identified limitations to visit-based distribution of cancer screening decision aids:
 - Challenging to identify eligible patients in “real-time”
 - Limited space and time in practice
 - Difficulties in operationalizing decisions (e.g. test ordering for CRC screening)
- Providing decision aids outside of the visit may help overcome some of these barriers

Purpose

- To determine if mass mailing of a decision aid about colon cancer screening to unscreened patients in our practice:
 - Result in decision aid viewing
 - Increase colon cancer screening compared to usual care
- Estimate cost per additional patient screened

Outside Office Visit Approach

- Mail out approach emphasis “reach”
 - All patients opportunity to have decision aid
- Colon cancer screening recommended and goal to promote screening
- Informed decision making model
 - Less emphasis on generating discussion between providers and patients
 - Activating patients
- Decision quality not measured
 - Previous study CRC DA increases conversations and screening

Methods

- Eligible patients: adults 50-75 not up to date with screening based on UNC databases
- Patients divided into intervention and wait-list control groups (usual care)
- Mail to intervention patients in 4 waves
 - Test methods for most effective and least costly
- Close the loop: standing orders to improve implementation of patient's choice

Practice Characteristics

- Academic internal medicine practice
- Attending and resident physicians practice together (trainees of Internal Medicine)
- Diverse patient population
- Over 12,000 patients (6000 over age 50)
- 50% up to date with colon cancer screening

Demographics of Unscreened Patients

	Attending Patients N= 630		Resident Patients N= 1396	
	Intervention n = 335	Control n = 295	Intervention n = 710	Control n = 686
Average Age (years)	61	61	60	60
Black	27%	27%	46%	45%
White	66%	67%	49%	45%
Female	57%	55%	51%	52%
No Insurance	8%	12%	29%	30%

Intervention Packet Contents

	A letter encouraging colon cancer screening	Eligibility survey	Information Sheet	Decision aid, <i>Colon Cancer Screening: Deciding What's Right for You</i>
Attending Wave 1	✓	✓	✓	✓
Attending Wave 2	✓	✓	✓	Sent by request
Resident Wave 3	✓	✓	✓	Sent by request and to non-responders
Resident Wave 4	✓	✓	✓	Sent by request

Outcome assessment

- Decision aid use assessed by self-report
 - Wave 1: written and phone surveys
 - Waves 2-4: written survey only
- Screening assessed by medical record review
- Stratified analysis to explore patient characteristics and response to the mailed intervention
- Cost per additional patient screened

Outcome: Decision aid viewing

	Attending Wave 1 N = 137	Attending Wave 2 N = 194	Waves 3 and 4 N = 710
Self-reported Decision Aid Use by Written Survey and Telephone Interview	16%		
Self-reported Decision Aid Use by Written Survey Only		1%	1%

Outcome: Proportion of Patients Screened

	Intervention	Control	Difference	95%CI
Attending Wave 1	14.5%	4%	10.5%	3.5, 17.6
Attending Wave 2	13.4%	4.1%	9.3%	3.8, 14.8
Resident Waves 3 and 4	0.9%	1.6%	-0.6%	-1.8, 0.6

Exploratory Analysis

	Difference in proportion of patients screened intervention vs control	
Patient Characteristics	Attending Patients	Residents Patients
Age 50-69	9%	-1%
Age 70-75	10%	1%
White	7%	1%
Non-White	15%	1%
Insured	11%	1%
Uninsured	-8%	0%

Estimated Cost Per additional Patient Screened

	Attending Wave 1	Attending Wave 2	Resident Waves 3 and 4
Cost per additional patient screened	\$94	\$19	no additional patients screened

Conclusions

- Mass mailing intervention increased CRC screening for patients of attending physicians, but not for patients of residents physicians
- Self-reported decision aid use was low in all groups
- Cost per additional patient screened
 - Less when initial mailing did not include DA
 - May not be worth additional cost

Challenges Encountered

Challenges encountered:

- Decision Aid use low
- Difficult to determine what activates patients
- Some factors such as insurance not mutable

Next Steps

- Mass mailing of Advanced directives program
 - Confirm results not due to CRC topic
- Re-implement visit-based approach
 - Provider interest in PSA video
 - Chronic diseases
 - patients may be more activated
 - Systems in place to assure distribution
 - Database to ID potential patients
 - Care assistants to work within visit constraints

Implementation and Impact of Two Cancer Screening Decision Aids in Primary Care Practice

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GOALS

Assess:

- 1. Feasibility of routine use of decision aids in Primary Care**
- 2. Impact of DAs on patient decision making**
- 3. Patient and Clinician Satisfaction**

METHODS

Dartmouth Hitchcock Medical Center

Pre-visit (PSA and CRC)

- PSA video mailed to men age 50-75 before preventive medicine visit
- Patient self selects exclusion criteria
- CRC video mailed to eligible men and women requesting the video before preventive medicine visit
- Patient completes pre- and post questionnaire

White River Junction VA Medical Center

Post-visit (PSA only)

- Video distributed after any primary care visit
- Health techs screen for exclusion criteria
- Patient completes pre- and post questionnaire

Outcome Measures

- 1. DA distribution**
- 2. Patient Choice**
- 3. Decision Quality: Knowledge, Values**
- 4. Patient and Clinician Satisfaction**

RESULTS

DA Video Distribution

	PSA	CRC
Distributed	2208	95
Returned video	1536	79
Enrolled in study (completed questionnaire)	801	26

RESULTS

PSA Screening Preference

Preference (n=801)	Before vs After Video	
Unsure	27%	16% *
No PSA screening	25%	41% *
PSA Screening	49%	43% *
CHANGED THEIR MINDS		29%*

* P < .01

RESULTS

CRC Screening Preference

Preference (n=26)	Before vs After Video	
Unsure	42%	8% *
No CRC screening	4%	15% *
Get CRC screening	54%	77% *
CHANGED THEIR MINDS		33%*

* P < .03

RESULTS

Decision Quality

Patient knowledge of key facts

Average test score	(% correct)
PSA screening (n = 801)	92%
Colon Cancer (n=26)	81%

Decision Quality: Patient Values Predicting Screening

Patients who feel it is more important to **“Know if you have cancer”** are **MORE** likely to choose PSA screening (OR 1.7 (95% CI 1.4-2.0)).

Patients who feel it is more important to **“Find cancer early”** are **MORE** likely to choose PSA screening (OR 1.3 (95% CI 1.1-1.5)).

Decision Quality: Patient Values Predicting No Screening

Patients who feel it is more important to **“Avoid worry from false alarm”** are **LESS** likely to choose PSA screening (OR 0.7 (95% CI 0.6-0.8)).

“Avoid surgery side effects” was not predictive of screening choice (OR 1.0 (95% CI 0.9-1.1)).

RESULTS

Role Preference

Role in decision making	PSA (n=801)	CRC (n=26)
I decide, with doctor's opinion	68%	50%
Doctor and I share decision	31%	46%
Dr. decides, with my opinion	1%	4%

RESULTS

Patient Satisfaction

ACCEPTABILITY of Video (% yes)	PSA (n=801)	CRC (n=26)
Helpful in making a screening decision	86	96
Recommend video to others facing the decision	95	100

RESULTS

Clinician Satisfaction

- 1. Satisfied with use of PSA DA**
- 2. The video helps patients to make a decision consistent with their values**
- 3. The video saves time and changes the conversation during the appointment**

CONCLUSIONS

1. **Systematic use of PSA / CRC screening decision aids in primary care is feasible**
2. **These DA videos helped patients make a quality decision about PSA and CRC screening**
3. **Patients and clinicians were satisfied with the process**

Next Steps

- **Offering Chronic condition DAs (in progress)**
- **Move to targeted distribution strategy for PSA/CRC**
 - All 50 y.o. men and new patients
 - Clinician triggered
 - Patient triggered
- **Other delivery/DA options: “patient report”**
 - Print
 - Website
 - Streaming video
- **Feeding forward: “clinician report”**

Beyond the Ivory Tower: Integrating patient decision aids in community-based primary care

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Gaps in research and practice

- Most decision aid research in the US has been done in academic medical practices.
- Patient populations have been predominately Caucasian.
- Independent solo/2-physician practices make up 43% of primary care practices in the United States.
- Little is known about how useful these tools are in community-based practices.
- Urgent need for research on implementing decision aids in these settings.

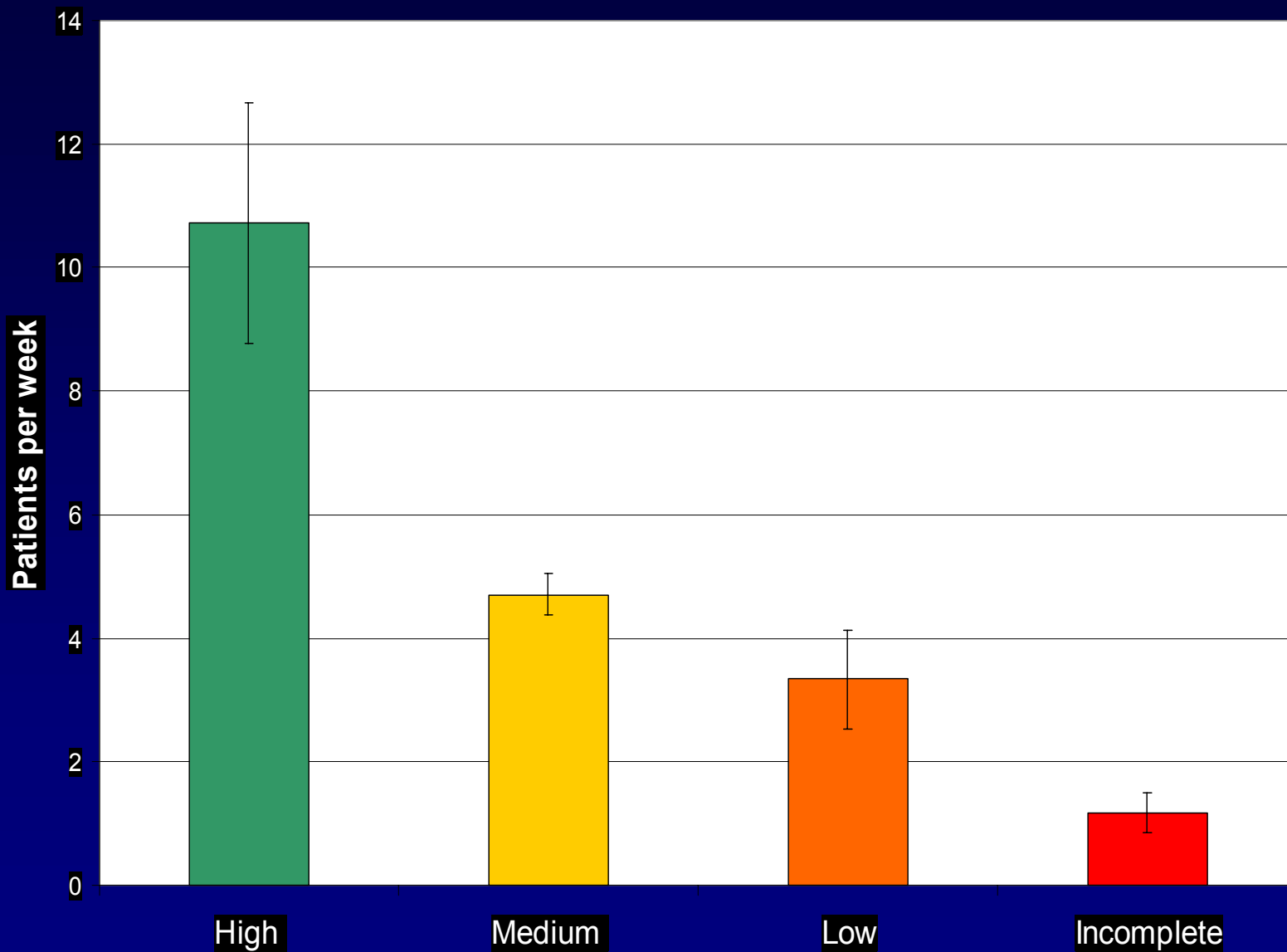
Current study

- 12 primary care practices in predominately underserved communities in Los Angeles participated.
- Each practice agreed to enroll 20 patient participants in pamphlet (n=10) and video decision aid (n=10) groups.
- Decision aids focused on prostate and colon cancer screening decisions.
- Patients complete initial questionnaire after viewing decision aid, but before seeing MD.
- Second questionnaire completed immediately after consultation.

Implementation approach

- Show decision aids in practice, before office visit.
- Pamphlet decision aid reviewed in waiting room.
- Video decision aid reviewed using:
 - » Portable DVD player and headphones in waiting room & exam room (n=6)
 - » Small screen television used in:
 - Waiting room (n=2)
 - Storage room (n=1)
 - Staff lounge (n=2)
 - Exam room (n=1)

Patient recruitment - Decision aid utilization



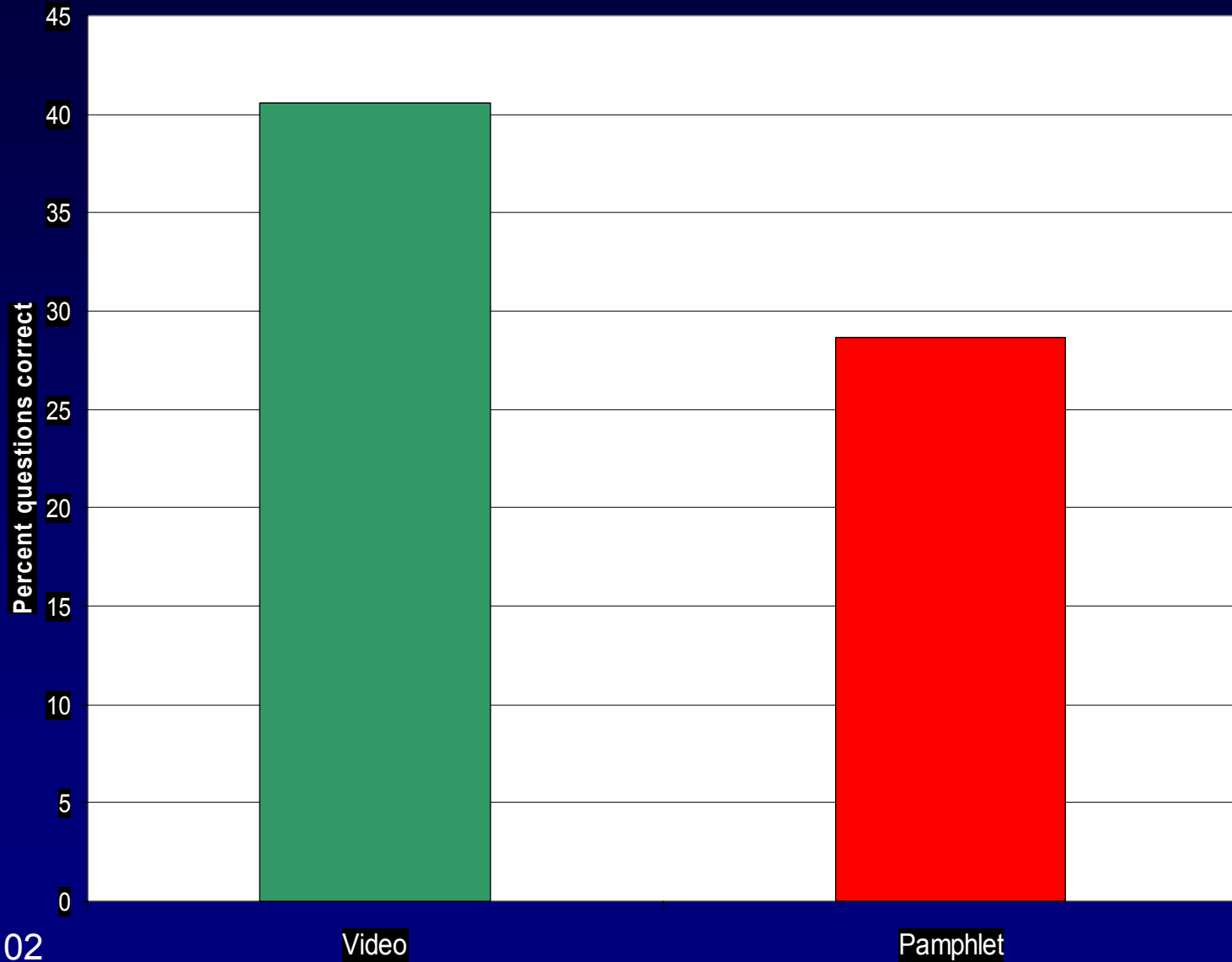
What explains the variability?

	Physician	Clinic Staff	Structural factors
High	Assists with recruitment, structural integration	Proactive in identifying patients, work independently, flexible	Only use appointments to schedule patients, clear division of labor among staff
Medium	Assists with structural integration, but not recruitment	Proactive in identifying patients, ensure continuity among staff	Use appointments but also allow walk-ins
Low	Variable assistance with recruitment, structural integration	Variable engagement in identifying patients, some discord among staff	No appointments, work flow is erratic, unpredictable
Incomplete	Not involved	Overburdened with competing demands, discord among staff, management	No appointments, work flow is erratic, unpredictable

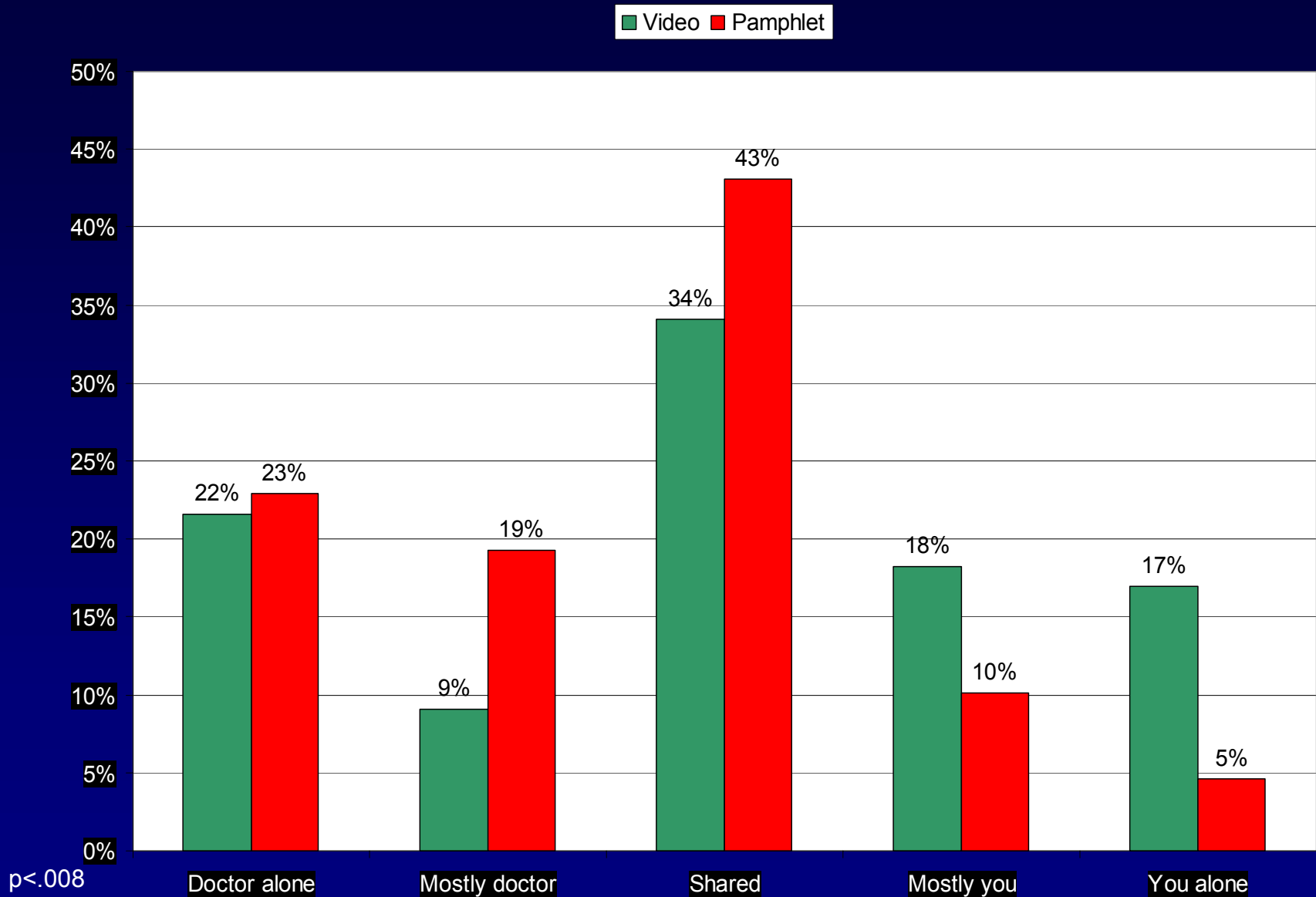
Patient characteristics

	Pamphlet (n=109)	Video (n=89)
Age (Mean, SD)	60.8 (9.5)	62.2 (10.7)
Gender % male	54.6%	59.6%
Married	47.5%	50.6%
Ethnicity African Amer.	36.8%	39.3%
Latino	42.5%	39.3%
Asian	6.9%	11.9%
Caucasian	10.3%	7.1%
Education 8 th grade or less	34.6%	27.1%
High school	15.4%	31.8%
More than high school	50.0%	41.2%
Income \$25k or less	64.5%	51.4%
Uninsured	23.1%	10.8%

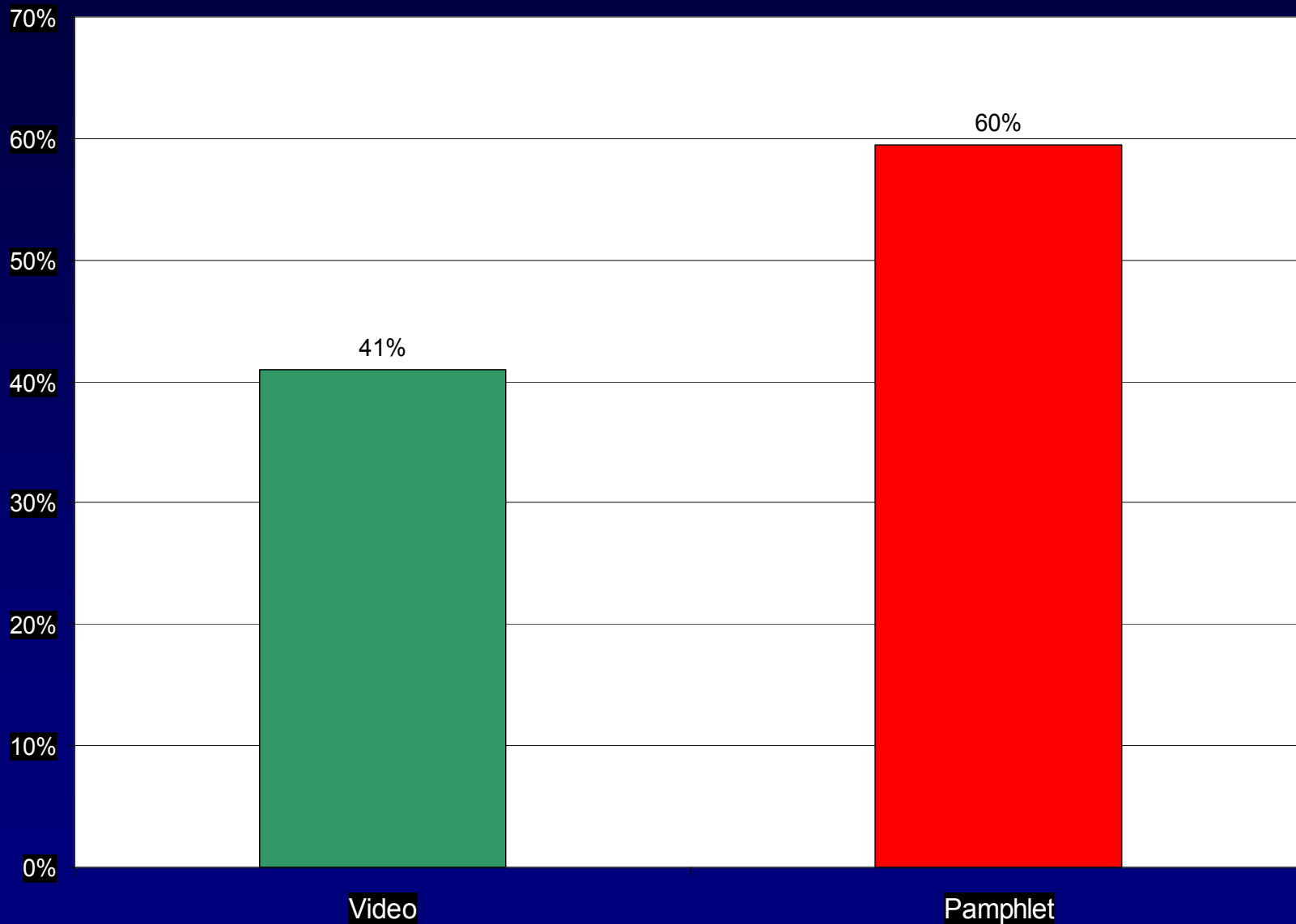
Decision specific knowledge by group



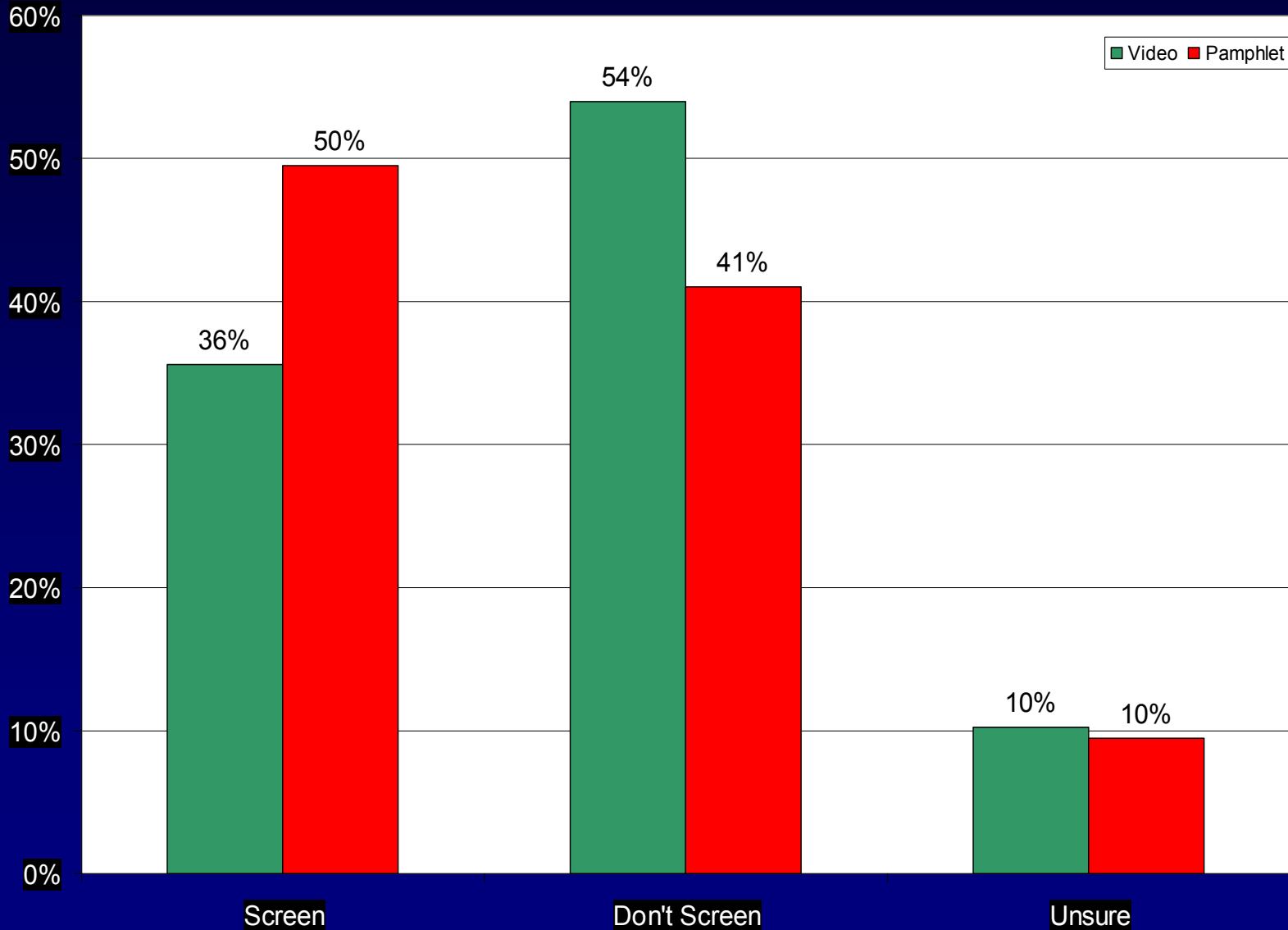
Who should be the final decision maker?



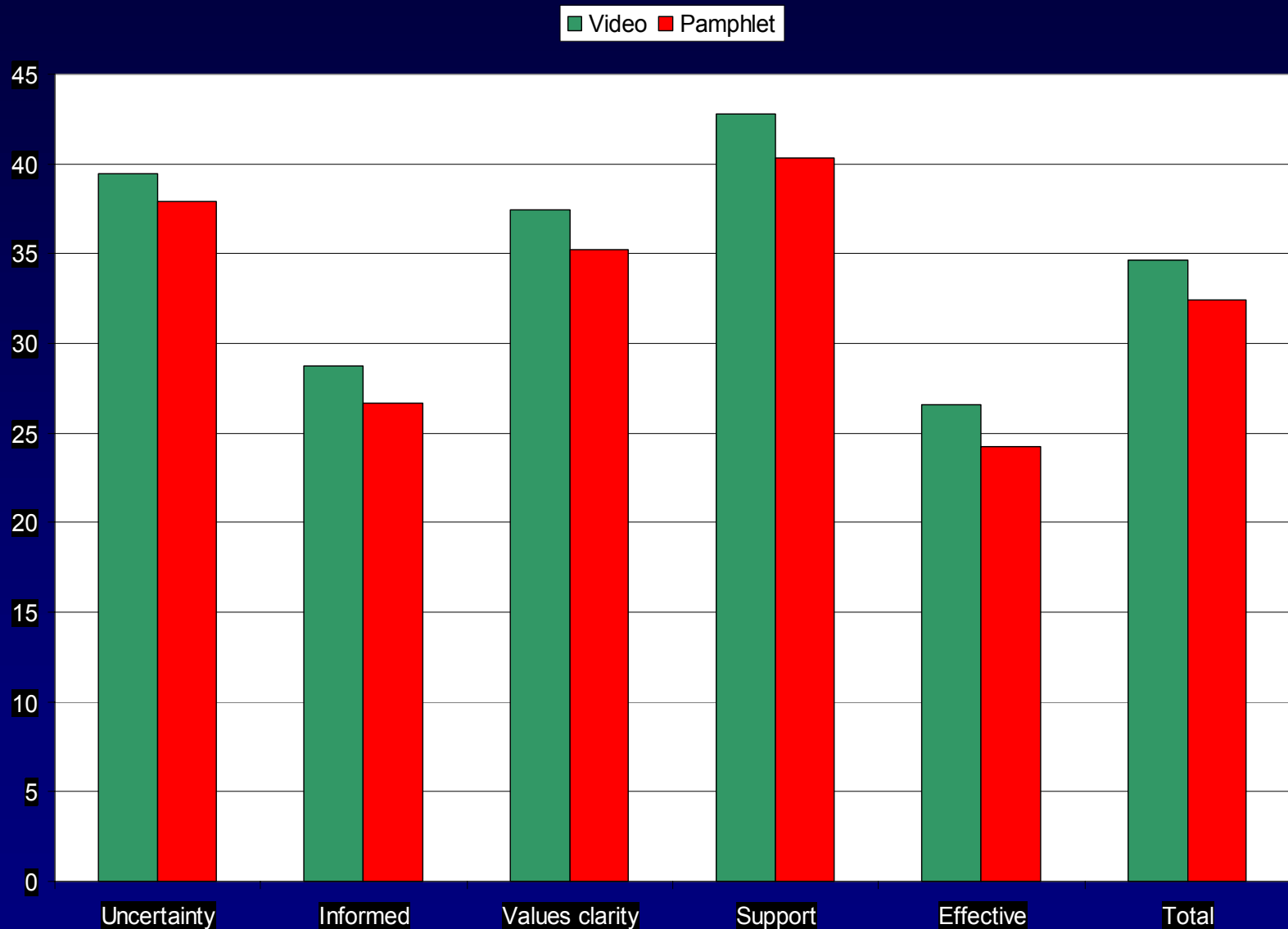
Did you talk to your doctor about screening?



Screening decisions by group



Decisional conflict by group



Summary

- Significant variability in practice' approaches, ability to identify eligible patients and meet research goals.
- Disorganization at various levels appears to account for some of the differences.
- Patients who viewed a video decision aid had better knowledge than patients who viewed a pamphlet.
- They were more likely to prefer being the final decision maker, and less likely to talk to their doctors about screening.
- They were somewhat less likely to choose screening.
- But no differences in decisional conflict compared to pamphlet group.

Limitations and future questions

- Identifying practice disorganization prospectively is challenging.
- Unclear how representative participating practices were.
- Patient assignment to decision aid groups was not randomized.
- Although video decision aid group had higher knowledge, absolute level was still relatively low.
- Unclear when a decision is sufficiently informed.