

Prostate Cancer Education for the Deaf and Hard of Hearing Community

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Background: Deaf and Hard of Hearing community

- 25 million community members
 - 28% Early deafened
 - 90% born into hearing families
 - ASL vs. English
- Multiple barriers to health information/care
 - English literacy - syntax and vocabulary
 - ASL literacy

Methods

Eligibility:

- deaf and hard of hearing men
- \geq age 18
- Living in Southern California
- Sufficient literacy to give informed consent

Pre-test

Educational Intervention – slide presentation

Immediate post-test

Focus groups

Sample Description

Age range = 15 to 83

Mean age = 40, sd 14.29

Education = 91% \geq high school

Ethnicity = 60% Caucasian

Medical Insurance = 79%

Sample size = 121 deaf and hard of hearing males

Communication Characteristics

Most frequent communication methods

Signing (73%)

Signing and lip reading (26%)

Most comfortable communication methods

Signing (70%)

Signing and lip reading (19%)

Most frequent communication method with doctor

Interpreter (45%)

Write notes (26%)

Text to Email (76)%

Health Information Barriers

Participants listed no barriers (26%), one barrier (36%), two barriers (24%), three or more barriers (23%)

Most commonly listed barriers – How many ways can you describe “Communication barriers”?

Sources of Health Information

Percent who gave sources of information:

- One source (11%)
- Two sources (5%)
- Three or more (84%)

Most common sources of information:

- Print (59%)
- Doctor (50%)
- Internet (41%)

Sources of Print Information

Most common sources of print information

- Doctor's office (55%)
- Newspaper and magazines (42%)
- Internet (30%)

Average English literacy is at 3rd to 4th grade level

Even college educated report difficulty reading patient oriented medical information... "I look up every 10th word and eventually I give up?"

How well Health Providers Inform on Cancer Prevention and Early Detection

Well informed = 14%

Some information = 24%

Don't get much cancer information = 19%

Need encouragement to get more info = 16%

Have not received any information = 37%

Access to Cancer Information

	Have NO information	Have a little information	Have fair amt. of information	Have a lot of information
Age	60 (50%)	41 (34%)	13 (11%)	6 (5%)
Gender	48 (40%)	34 (28%)	27 (22%)	11 (9%)
Marital	78 (65%)	29 (24%)	8 (7%)	5 (4%)
Education	66 (55%)	40 (33%)	10 (8%)	3 (3%)
Throat	72 (60%)	30 (25%)	14 (12%)	4 (3%)
Head	45 (37%)	40 (33%)	25 (21%)	8 (7%)
Neck	42 (35%)	39 (32%)	23 (19%)	15 (12%)
Other disease	43 (36%)	35 (29%)	30 (25%)	10 (8%)
Total	83 (60%)	71 (51%)	13 (11%)	2 (2%)

Multiple Choice, Single Answer Questions

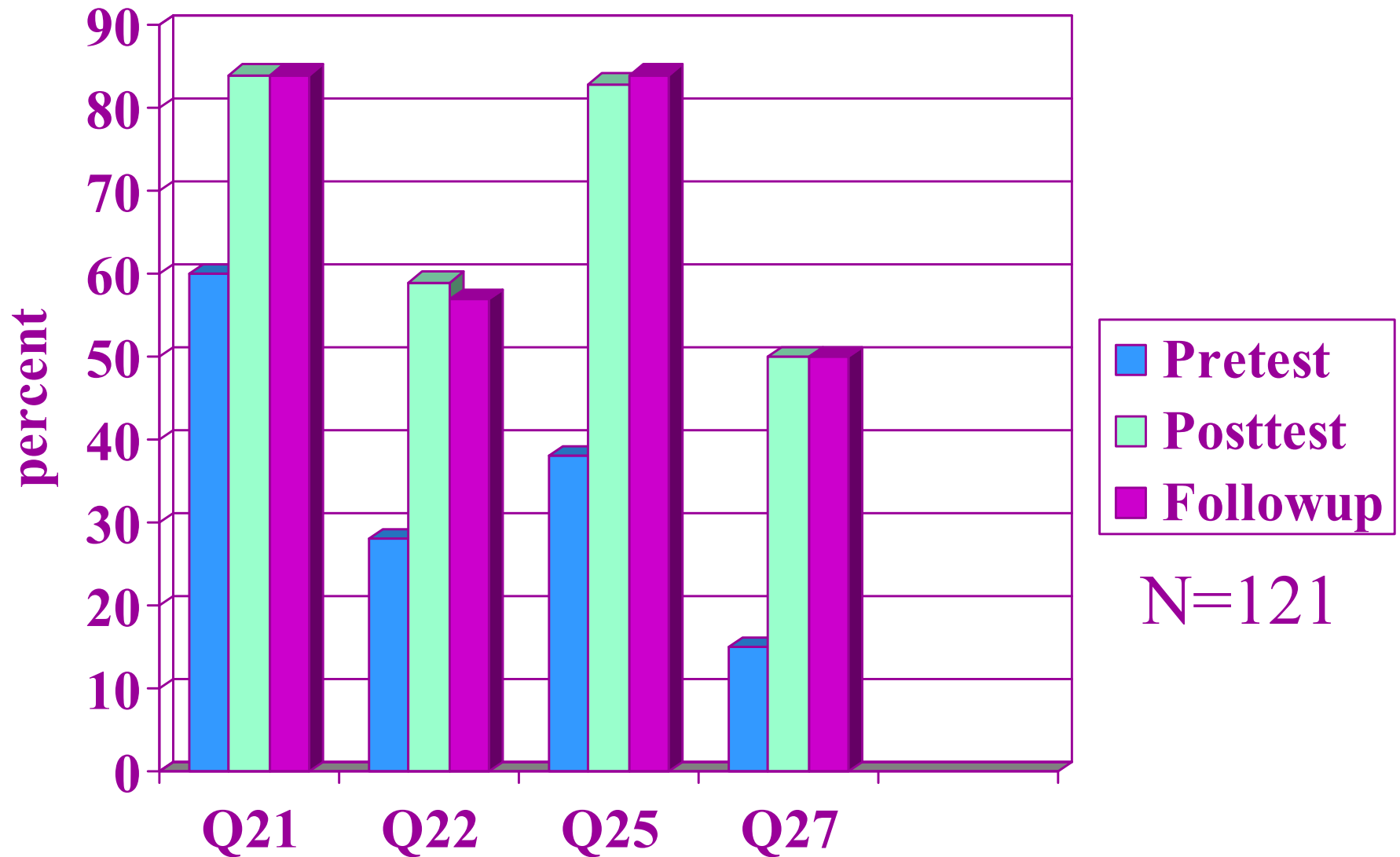
Q21: Where is the prostate gland located?

Q22: What is the function of the prostate gland?

Q25: To examine the prostate gland for cancer, the doctor . . .

Q27: How does the prostate-specific

Percent Answering Correctly to Multiple Choice Questions



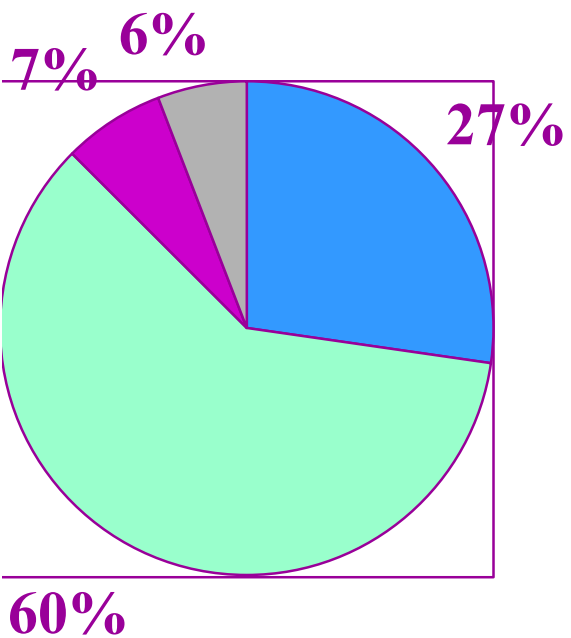
Multiple Choice, Multiple Answer Questions

Q23: What are the biggest risk factors for prostate cancer?

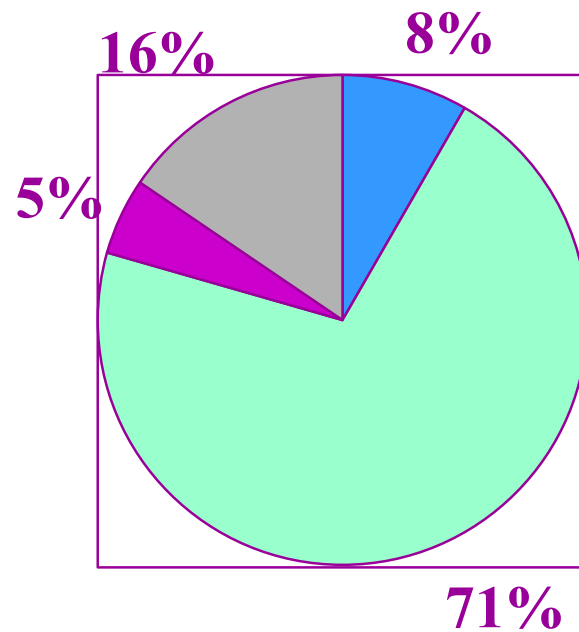
- Being a man
- Growing older
- Having a family history of the disease

Number of Risk Factors Identified at Pre-test, Post-test and Follow up

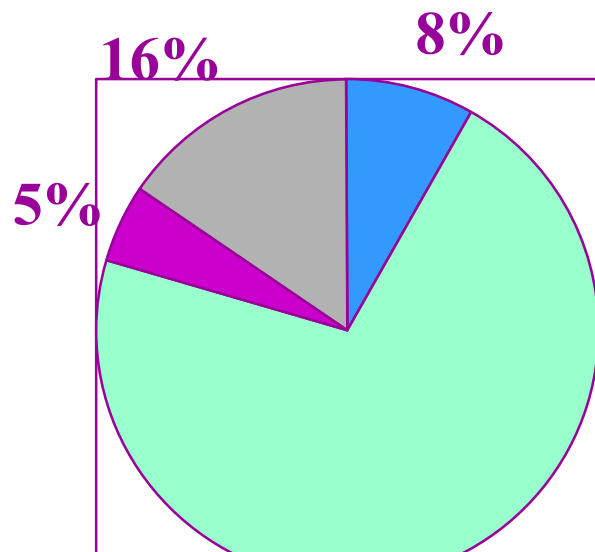
Pretest



Posttest*



Followup



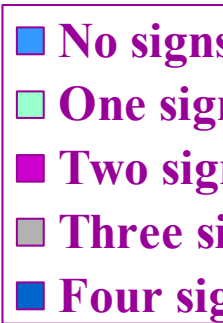
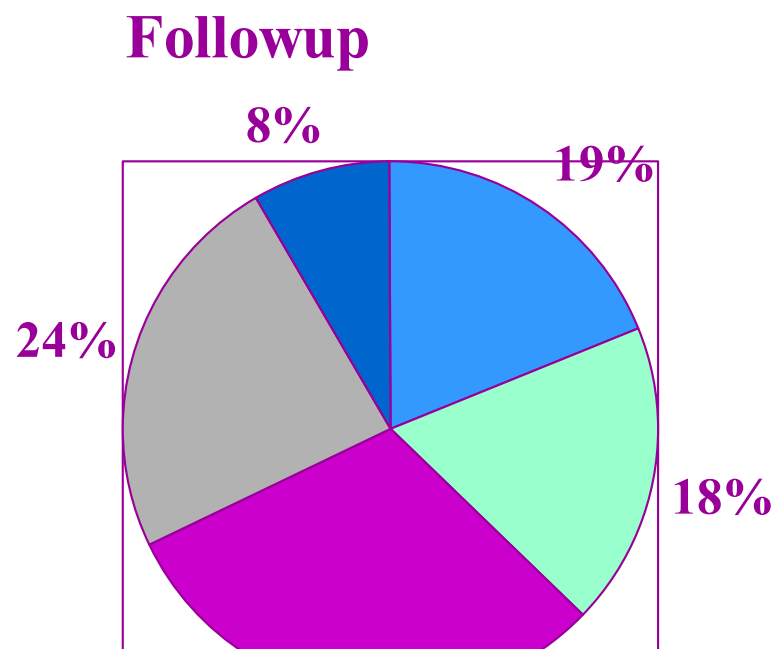
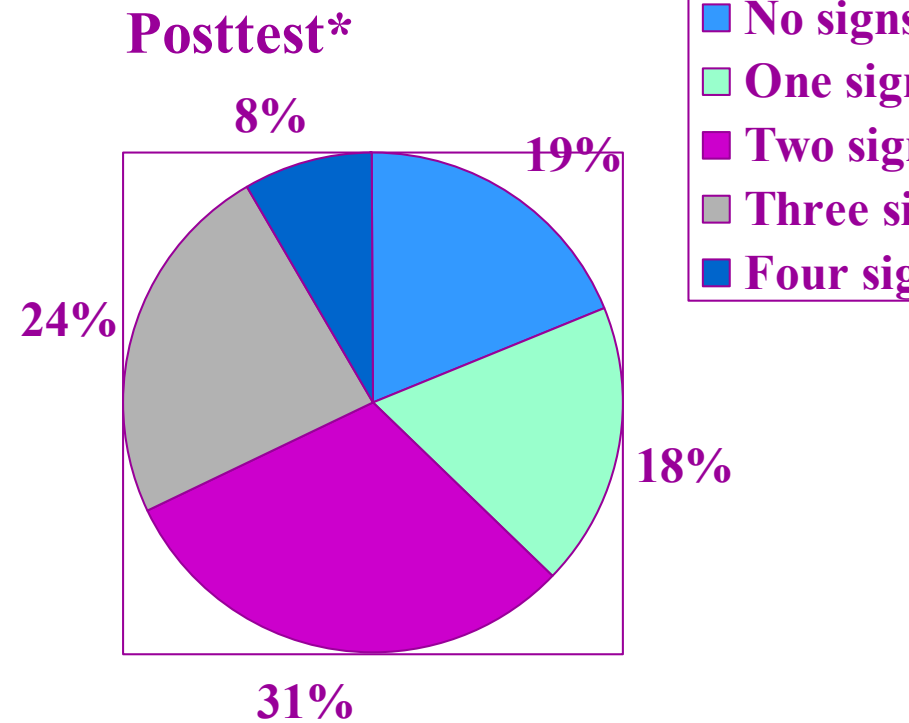
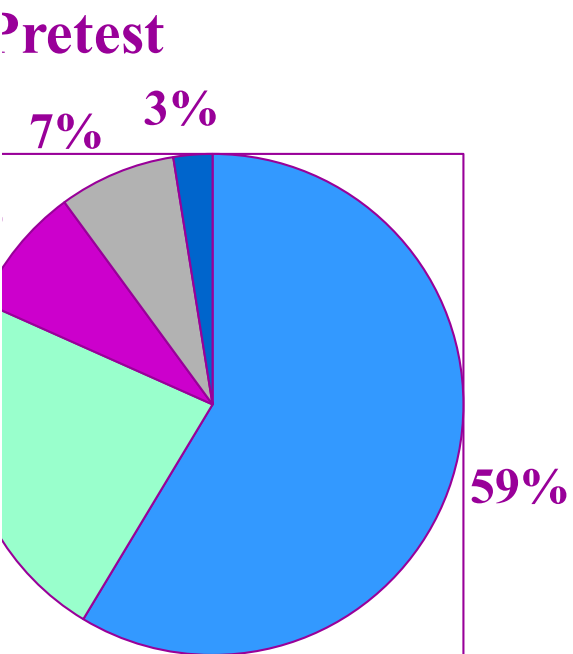
p=.0005 from pretest to posttest

Multiple Choice, Multiple Answer Questions Continued

Q28: Which of the following are signs that you may have prostate cancer?

- Frequent urination
- Bone pain
- Difficulty urinating or discomfort urinating
- There are no signs of symptoms of prostate cancer in the early stages
- Yellowish discharge

Number of Prostate Cancer Warning Signs Identified at Pre-test, Post-test and Follow up



Analysis of Variance

Age was not significantly associated with knowledge at baseline or post-test

Education was significantly associated with knowledge only for “Beyond college” (N=10)

- Mean knowledge significantly higher than those in any other group

Those who completed college and beyond had greatest improvement in knowledge at post test and 2 month follow-up

Validating Self Reported Screening Behaviors

Number of Participants Reporting Screening Exa

$\leq 23 \geq 50$ years of age	Pre-Test	Post-Test
ever have a BRE	17 (73.9)	19 (82.6)
ever Have a SA*	10 (43.5)	11 (47.8)

Changes in Screening Behavior

N = 23 ≥ 50 years of age	Pre-Test Post-Test	Two Months
Ever have DRE	17 (73.9) 19 (82.6%)	19 (82.6)
Ever have PSA	10 (43.5) 11 (47.8%)	15 (65.2)*

Discussion

Deaf and Hard of Hearing men lack prostate cancer information

Prostate cancer education program produced a
increase in knowledge

Participants engaged in more PSA screening by
two month follow up

Program was culturally sensitive

Program needed to be committed to video

Video needs widespread dissemination

Conclusion

Culturally and linguistically sensitive programs are desperately needed to give the Deaf and Hard of Hearing community access to information

Widespread dissemination of health promotional knowledge is critical

Need clinicians to champion the health needs of the Deaf and Hard of Hearing community

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Cancer Education for the Deaf and Hard of Hearing Community

Internet access:

<http://cancer.ucsd.edu/deafir>

VHS access: