An American Sign Language HIV Video Survey for Deaf Adolescents

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Introduction

- Essential to survey all subpopulations who might be at risk of acquiring HIV.
- To determine their HIV knowledge, attitudes and risk behaviors.

Difficulties surveying deaf populations:

- American Sign Language (ASL) has no written form.
- ASL has a syntax and grammar unlike English.

- Some deaf persons read poorly.
- May not understand English idioms.
- Deaf culture has norms which differ from the majority hearing culture.

The problem: How to survey deaf youth about their HIV knowledge and risk.

- Deaf youth are:
  - at risk as are hearing youth.
  - have fewer sources of information about HIV.

- Historically deaf schools had lower levels of sex education than others.
- Deaf youth have fewer opportunities than others to learn about HIV.

Objective:

- To develop a method for surveying deaf adolescents who use ASL as their main mode of communication about their HIV knowledge, attitudes, and risk behaviors.

Study Methods

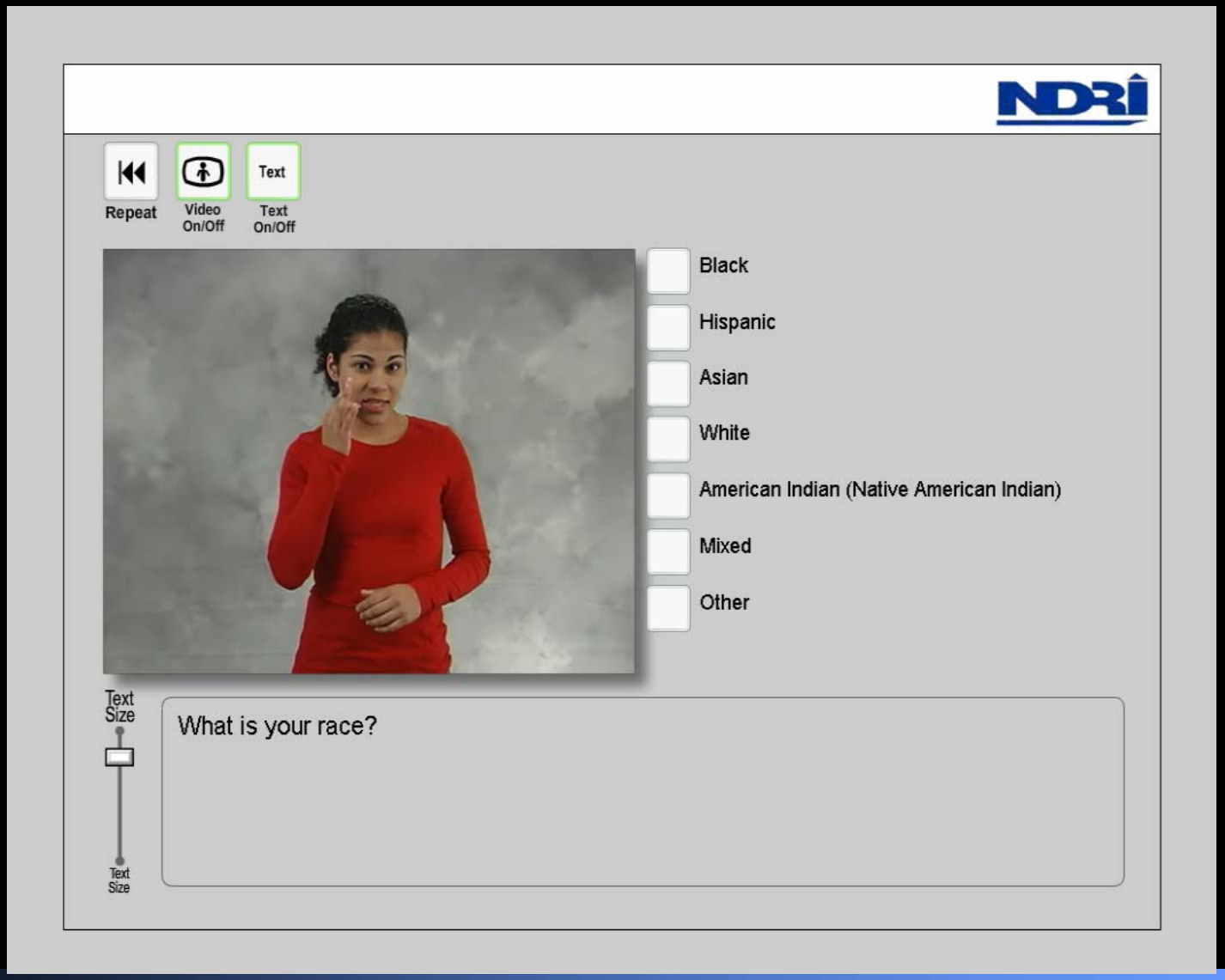
- We developed a bilingual, self-administered Video Survey available in ASL and written English on laptop computer.

Survey Creation

- Item selection from relevant domains
  (e.g. demographics, deaf identity, drug and alcohol use, HIV knowledge, HIV stigma, sexual risk behavior).
- Translation of items into ASL by a translation team.
- Expert review and back translation.
- Conduct focus groups to review translations.

- Analysis of focus group transcripts, expert ASL review, back translations.
- Revision of some items
- Create final ASL and English 'scripts’.
- Hire sign models.
- Digital videotaping.
- Programming of survey.

Survey Screen



Survey Implementation

- Establish contact with high school for the deaf throughout US.
- Obtain school approvals.
- Establish school liaisons to arrange logistics and obtain parental consent/student assent.
- Travel with laptops to each school to administer survey.

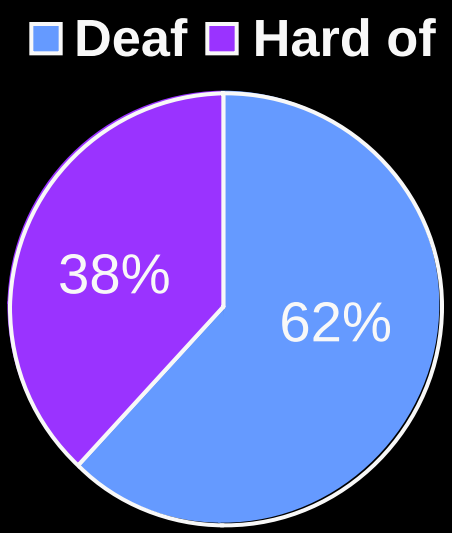
Preliminary Results

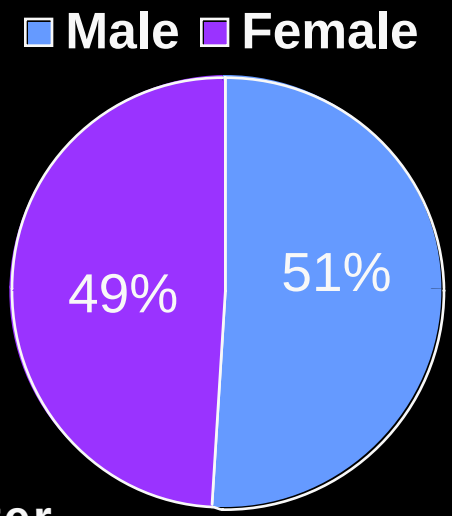
N = 157

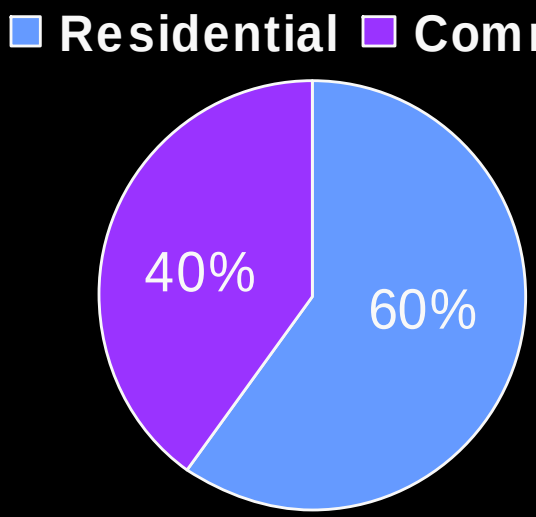
Demographics:

Number of schools: 5
Mean age: 17.7 yrs
Range: 14 - 21.7 yrs
Median :18 yrs

Demographics:







Demographics:

Racial Identity	Percent
African-American	22%
Hispanic	15%
Asian	7%
White	40%
Native American	3%
Mixed	9%

Sexual Identity	Percent
Straight	78%
Gay/Lesbian	4%
Bi-Sexual	7%
Don't know/ Unsure	11%

HIV Knowledge:

HIV Knowledge Scale score (13 items)
Mean: 6.9, Range: 0- 13, Median: 7.0

- Can deaf people get HIV?
- Can a man's semen contain HIV?
- Can a woman's vaginal fluids contain HIV?
- Can a pregnant woman who has HIV pass it on to her newborn baby?
- Can a woman give HIV to a man during vaginal intercourse without a condom?

- Can a man give HIV to a woman if they are having sex without a condom?
- Can you tell if a person has HIV by looking at him?
- If a person becomes sick with AIDS at age 21, could that person have gotten HIV when they were a teenager?
- Can condoms prevent HIV?
- Can a person get HIV from sharing a needle with a drug user who has HIV?
- Can a man with HIV pass it on to another man through sexual intercourse?
- Is there now effective medicine to treat HIV?
- What comes first HIV or AIDS?

Sources of HIV Information:

Sources:	Percent reporting:
School	75%
Friends	55%
Family	45%
Internet, newspapers, magazines	64%
Television	47%

- Students could report up to 5 sources.
- The more sources named, the higher the knowledge score (except TV).
- Each named source raised the score by one point, except “internet, newspapers, and magazines” which raised the score 2 points.

- In another question, 72% reported receiving HIV prevention information in school.

- If this question is considered alone, it is a significant predictor of HIV knowledge score ($p<.01$).

Risk Behavior:

- 62% reported some sexual experience.
- 23% reported having had anal sex.
- Students identifying as gay or bisexual were more likely to report this behavior
- 15% reported having a sexual partner who is 5 or more years older.

Conclusion:

- HIV knowledge is low among deaf high school students attending high schools for the deaf.
- In our sample, 75% reported learning about HIV in school as compared to a national average of 88%.[1]
- Rates of sexual activity are comparable to those in the hearing population, given the older age of our high school students.[1]

1. Grunbaum, J., Kann, L., Kinchen, S., Ross, J., Hawkins, J., Lowry, R., et al. (2004, May 21) Youth Risk Behavior Surveillance United States, 2003. *MMRW*. Retrieved July 19, 2007, from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5302a1.htm#top

- The methodology may have application to other low literacy populations.
- With the addition of sound for hearing populations, this method could be used to deliver oral surveys with the support of pictures and graphics.
- A survey in multiple languages could be stored on a single computer.

- This survey method is standardized, self-administered, and private yet interactive with a videotaped “interviewer”.
- Technology provided a solution to meeting the needs for a survey of deaf youth. In the future, we hope to see other applications of this type of survey.