

# Smokers who use Internet and Smokers who Don't: Data from the 2003 and 2007 Health Information National Trends Survey (HINTS)

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#### Smokers and the Internet

- Internet has changed the way information about smoking cessation is disseminated
- Web-assisted Tobacco Interventions
  - Greater reach
  - Greater access
  - Public *ehealth* strategy
- Digital Divide







# Smokers and the Digital Divide: HINTS 2003

- ► HINTS 2003 analysis revealed economic and health disparities between smokers who did/did not report Internet use
- ▶ Non Internet-connected smokers
  - Older
  - Lower income
  - >> Psychological Distress
  - >> > Barriers to Healthcare







# Study Objectives: HINTS 2007

- Update prevalence and correlates of Internet use among smokers
- Assess changes in smokers' use of Internet from 2003 to 2007
  - ▶ Has prevalence of smokers online changed since 2003?
  - Are characteristics of smokers who do/do not use internet in 2007 same/different from 2003?







### Study Variables: HINTS 2003 & 2007

- Internet Use
  - "Do you ever go online to access the Internet or World Wide Web, or to send or receive e-mail?"
- Smoking Status
  - "Have you smoked at least 100 cigarettes in your entire life?"
  - "On how many of the past 30 days did you smoke a cigarette?"







### Study Variables: HINTS 2003 & 2007

- Age
- Gender
- Race/Ethnicity
- Education
- Income
- Employment Status

- Health Insurance
- ▶ Health Status
- Cigarettes per day
- Intent to Quit
- Psychological Distress
- Trust health info on the internet







# Method of Analysis

- Cross-sectional analyses
  - Identify study variables associated with smokers' use of Internet (Chi-Square; Logistic Regression)
- Trend analyses
  - Estimate changes in the odds of Internet use between 2003 and 2007 (Logistic Regression)
  - Determine whether study variables associated with internet use are consistent over time (Chi-Square)







# HINTS 2007 Update

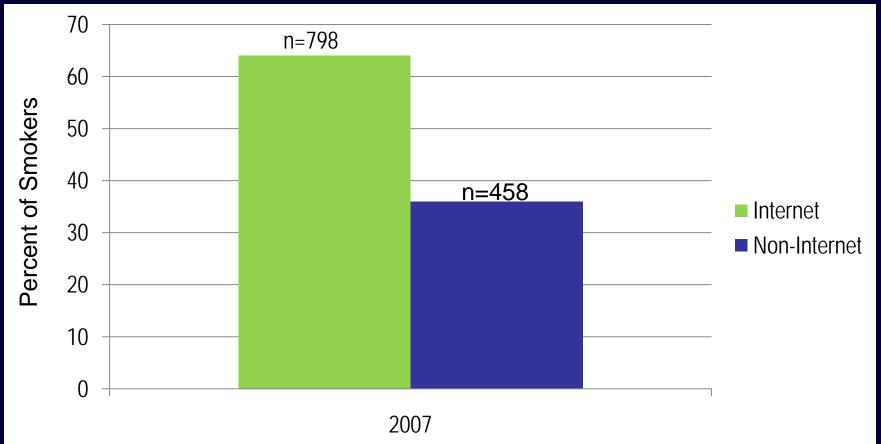
# Prevalence and correlates of Internet use among smokers







### Internet Use: HINTS 2007



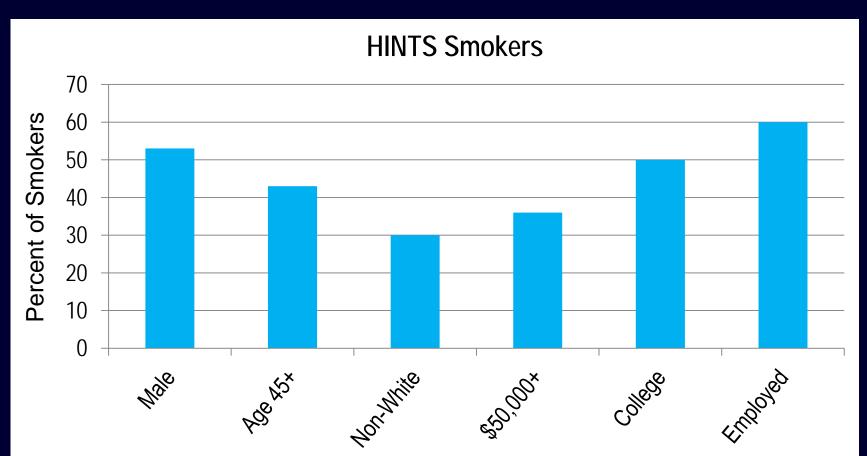






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# Sociodemographics: HINTS 2007

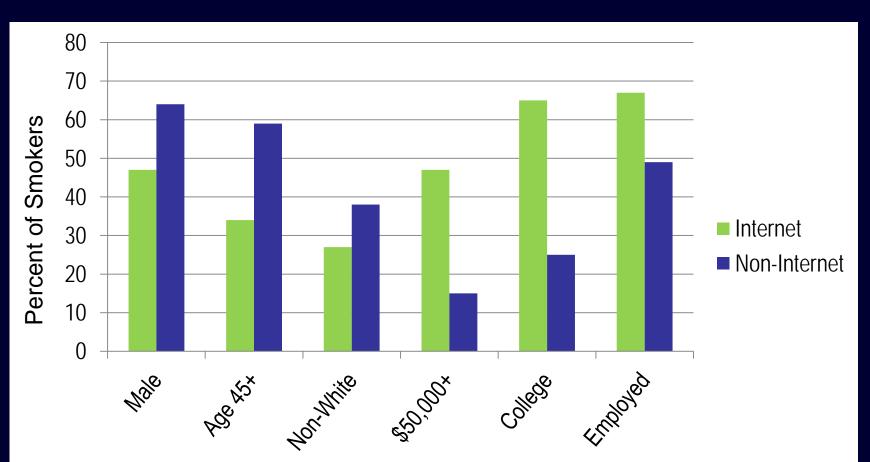








# Sociodemographics: HINTS 2007

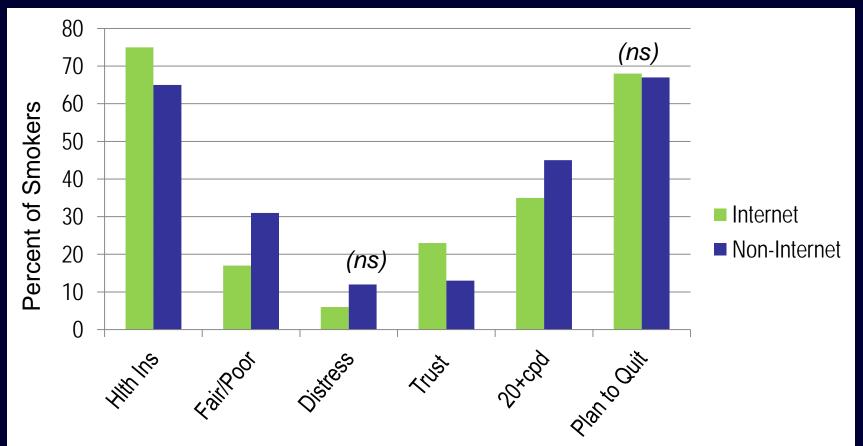








#### Health/Behavior Variables: HINTS 2007







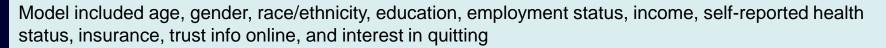


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#### Predictors of Non-Internet Use: HINTS 2007

Variable	OR	95%CI
<b>Age</b> (Ref =45+)		
18-34	.23	.1245
35-39	.50	.17-1.44
40-44	.59	.26-1.30
Gender (Ref=Female)		
Male	2.35	1.43-3.85
Education (Ref=College)		
HS or less	4.11	2.59-6.54
Income (Ref=\$50,000+)		
<\$50,000/yr	3.72	2.02-6.86









#### **HINTS Trends 2003-2007**

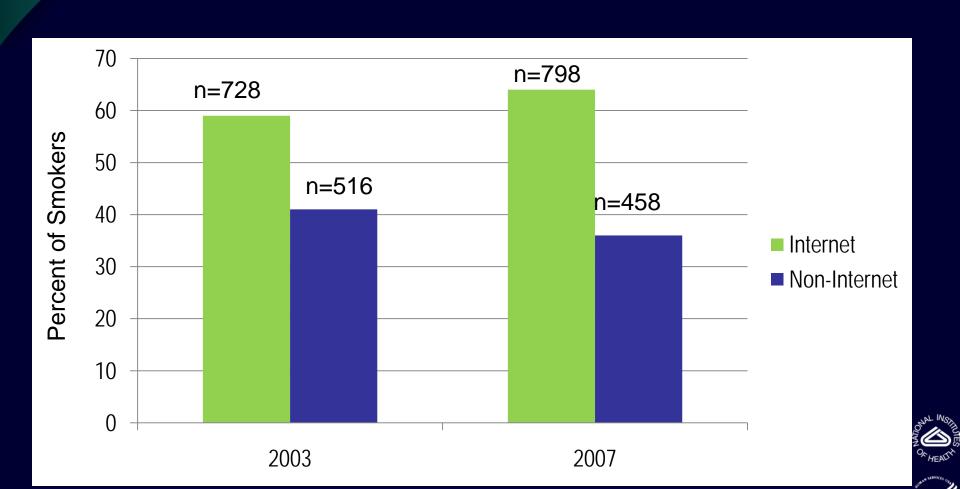
# Assess changes in smokers' use of internet from 2003 to 2007







#### Internet Use: HINTS 2003 & 2007

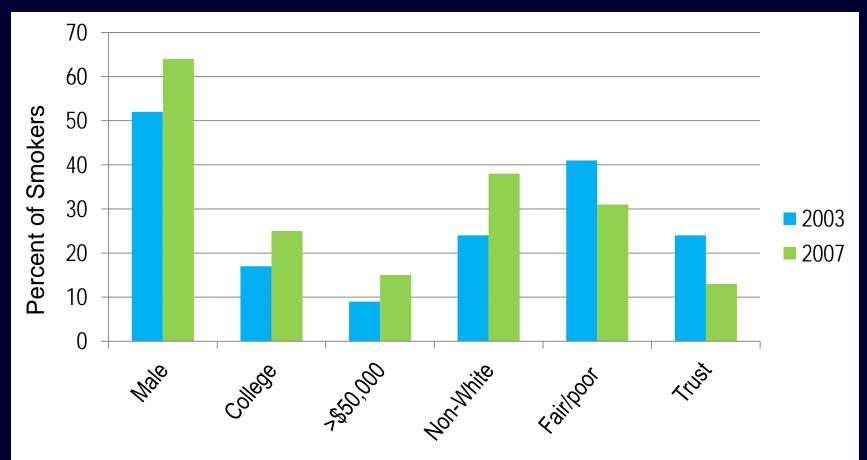


Variable	OR	95%CI	
Survey Year (Ref=2007)			
2003	1.52	1.14-2.03	
<b>Age</b> (Ref =45+)			
18-34	.21	.1431	
35-39	.34	.2056	
40-44	.60	.4091	
Gender (Ref=Female)			
Male	1.58	1.18-2.11	
Education (Ref=College)			
HS or less	4.64	3.41-6.31	
Income (Ref=\$50,000+)			
<\$50,000/yr	4.24	2.94-6.11	
Health Status (Ref=Fair/Poor)			
Excellent/Good	.69	.5095	
Trust Info Online (Ref=No)			
Yes	.58	.3889	
Interest in Quitting (Ref=No)			
Yes	.71	.5396	
Model included survey year, age, gender, race/ethnicity, education, employment status, income, self-reported health status, insurance, psychological distress, trust info online, and interest in quitting			



# Characteristics of Non-Internet Users 2003 v. 2007

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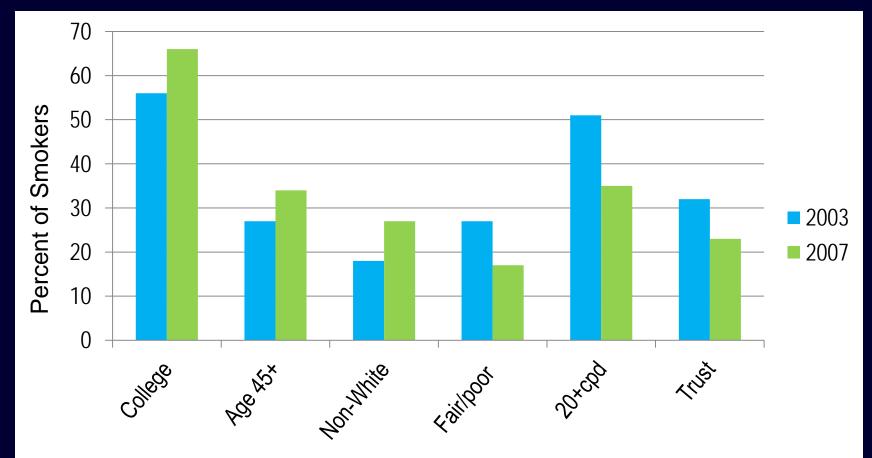






# Characteristics of Internet Users 2003 v. 2007

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# Summary

- ► Economic and health disparities between smokers who did/did not report Internet use persisted in HINTS 2007
- Some encouraging indicators of a narrowing digital divide
- ▶ There remain significant limitations to the use of the Internet to reach and engage subpopulations of smokers







# **Next Steps**

- Formal tests of interactions between survey year and study variables
- Compare smokers' internet use patterns to internet use patterns in the general population
- Manuscript development







#### Acknowledgments

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### Thank You

# **Questions & Comments**



