

LOW ADOPTION AND ADHERENCE TO ROUTINE HIV SCREENING RECOMMENDATIONS IN THE SOUTHEAST

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Presentation agenda

Problem

Theory

Research methods

Results

Implications

Limitations

Next steps

Why should physicians screen for HIV?



- 14% of the 1.2 million HIV infected individuals in the U.S. remain undiagnosed
- Individuals with undiagnosed HIV transmit 30% of all HIV infections
- Only 43.7% of U.S. adults ages 18-64 report ever been tested for HIV

Late diagnosis in the Southeastern US and missed opportunities

Advanced immunosuppression at entry to HIV care in the southeastern United States and associated risk factors

Cynthia L. Gay, Sonia Napravnik and Joseph J. Eron Jr



BRIEF OBSERVATION

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Late Diagnosis of HIV Infection: The Role of Age and Sex

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Risk-Based HIV Testing in South Carolina Health Care Settings Failed to Identify the Majority of Infected Individuals

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Terri Stephens, M.S.P.H.,¹ Helmut Albrecht, M.D.,² and James J. Gibson, M.D., M.P.H.¹

CDC recommends HIV testing for all patients ages 13-64 in all health care settings, regardless of HIV risk



**Revised Recommendations for HIV Testing
of Adults, Adolescents, and Pregnant Women
in Health-Care Settings**

INSIDE: Continuing Education Examination

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

CDC and NC recommend routine HIV screening



- Routine, voluntary HIV screening
- Repeat screening of known risk
- Opt-out HIV screening
- Include HIV consent with general consent for care
- Pre-test counseling not required
- HIV tests at first prenatal visit and 3rd trimester; mandatory HIV test at labor and delivery

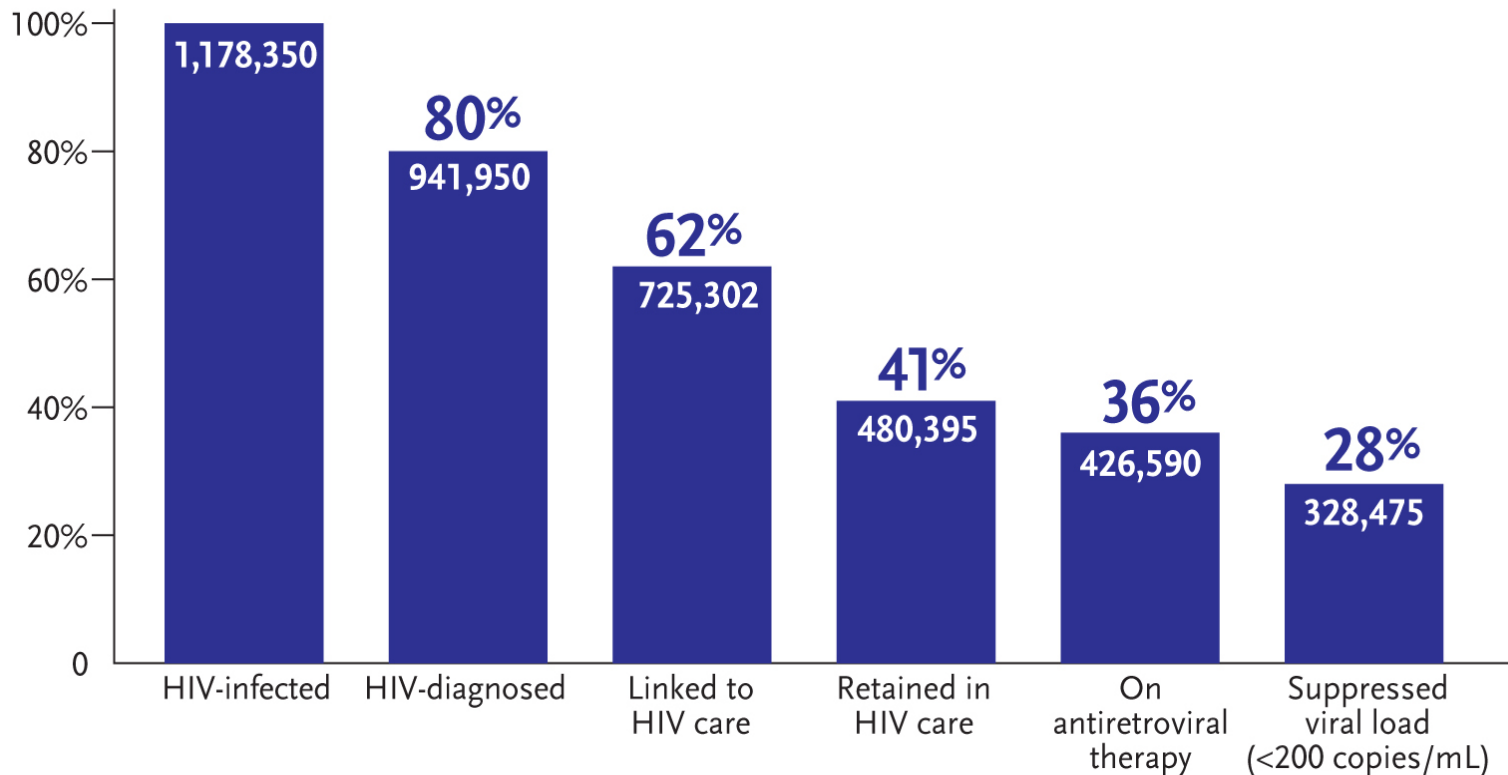
Why is HIV screening important?



- First step in the HIV treatment continuum of care
- First step in biomedical prevention activities
 - ▣ Pre-exposure prophylaxis (PREP)
- Effective intervention to prevent transmission of HIV
 - ▣ Blood transfusions and during pregnancy

1 in 7 HIV-infected individuals in the US remain undiagnosed

Proportion of HIV-positive Individuals in the U.S. at Each Stage of Care



Source: CDC

Courtesy of Dr. Evelyn Quinlivan.

Why aren't physicians testing for HIV?

Policy barriers

- Burdensome consent process
- Pre-test counseling requirement
- Inadequate reimbursement

Educational barriers

- Lack of knowledge/training
- Lack of patient acceptance

Logistical barriers

- Insufficient time
- Competing priorities
- Language

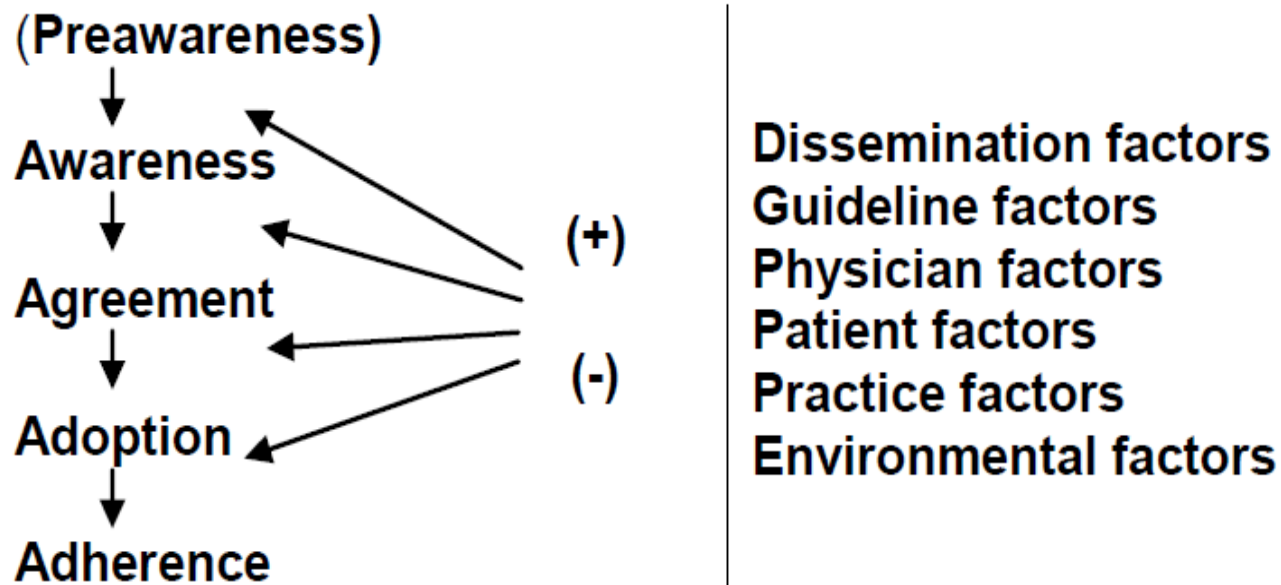


How can we change physicians' HIV screening behavior?

Theory development

Research methods

Awareness to Adherence model



The Awareness to Adherence Model

Information, Motivation, and Behavioral Skills Model of Health Behavior Change



Question

Goals

What are the barriers and facilitators to routine HIV screening from a physician's perspective?

Goal 1: Examine the adherence and adoption of routine HIV screening among NC primary care physicians

Goal 2: Increase earlier identification of HIV-infected individuals and prevent secondary spread

Mixed methods research design

Qualitative study

- In-depth interviews (n=18)
- Inclusion:
 - ▣ Primary care physician
 - ▣ ambulatory care settings
- Exclusion:
 - ▣ Specialist physicians
 - ▣ HIV specialists
 - ▣ Non-physicians

Quantitative study

- Survey (n=351)
- Inclusion:
 - ▣ Primary care physician
- Exclusion:
 - ▣ Not practicing medicine
 - ▣ No primary care services to outpatient adults
 - ▣ Practicing in a VA
 - ▣ Practicing in a correctional facility

Sampling internal and family medicine physicians

Qualitative



- Purposive sampling
 - ▣ Known to the investigators
- Snowball sampling
 - ▣ Referred from participants



Quantitative

- NC Medical Physician Database of licensed clinicians
- Stratified random sample
 - ▣ 60% family medicine physicians
 - ▣ 40% internal medicine physicians



Cognitive Interviews

Qualitative methods



- 18 in-depth semi-structured individual interviews
- January 2011 - March 2012

- **Domains**
 - Awareness/Knowledge
 - Attitudes/Beliefs
 - Barriers & Facilitators to routine HIV screening

- **Analysis**
 - Descriptive
 - Deductive Codes (a priori)
 - Inductive Codes (emergent themes)

Table 1: Characteristics of Physician Interview Participants and Results of Routine HIV Testing Questionnaire

Sociodemographical Characteristics of Physician Interview Participants (N=18)

Age

Mean (\pm SD) years 50.5 (\pm 9.4)

Gender [N (%)]

Female 13 (73%)

Male 5 (28%)

Race/Ethnicity [N (%)][#]

African-American 5 (29%)

Asian-Pacific Islander 4 (24%)

White, non-Hispanic 8 (47%)

Physician Specialty [N (%)]

Family Medicine 12 (67%)

Internal Medicine 6 (33%)

Provider Practice Type [N (%)][#]

Community Health Center 2 (12%)

Solo Practice 2 (12%)

Group Practice 3 (18%)

Hospital-based Clinic 2 (12%)

Student Health 8 (47%)

Geography of Practice [N (%)]

Rural 6 (33%)

Urban 12 (67%)

What are the issues at the policy level?



□ **Policy barrier**

- Lack of 3rd party reimbursement

□ **Policy facilitators**

- Third Party Reimbursement
- Elimination of written consent
- Requiring physicians to routinely screen

What are the issues at the community level?

- **Community barriers**
 - ▣ Social Stigma
 - ▣ Lack of privacy in rural communities

- **Community facilitators**
 - ▣ Public HIV campaigns
 - ▣ Economically Depressed Community

*“So if they have a campaign and everybody has heard about it, when you ask the question **it legitimizes** the question and they can respond really easy”*

- African-American female physician, Student Health

What are the issues at the practice level?

□ Practice barriers

- Competing clinical priorities
- Oral HIV test

□ Practice facilitator

- Delegation to nurses

“we have patients who come in with really bad stuff,HIV kind of falls way, way down on the list, plus having to see more and more patients, and trying to get the time in to do it”

- Male physician, rural NC hospital-owned practice

Time is money



“With the OraQuick, I have to do it with the patient. And then I take the specimen usually to the lab, so physically walk down to my cell and then the patient waits here 20-30 minutes. And then I have to bring the patient to my office between my other patients. So I feel like for us OraQuick is more a barrier even though it’s cheaper than the blood test.”

- Physician, Student Health

What are the issues at the provider level?

□ **Provider barriers**

- Lack of habit of routine screening
- Underestimating patients' risks
- Lack of awareness of HIV as a problem
- Discomfort communicating about HIV testing
- Concerns of cost-effectiveness of HIV testing

□ **Provider facilitators**

- USPSTF A-level recommendation
- Physician HIV education

“Show me the numbers and show me data as to why I should do it on every patient. What is the reason behind it or why should I do it for every patient.”

- Asian female physician, urban practice

What are the issues at the patient level?

- **Patient barriers**

- Male Gender
- Marriage
- Older Age

- **Patient facilitator**

- Patient request

“Or if somebody has, you know, it seems like we have more men will turn it down than women. Women are ready to... I want to know, I want to know. **Guys are more likely to have a reason not to get tested, especially if they are at high risk.**”

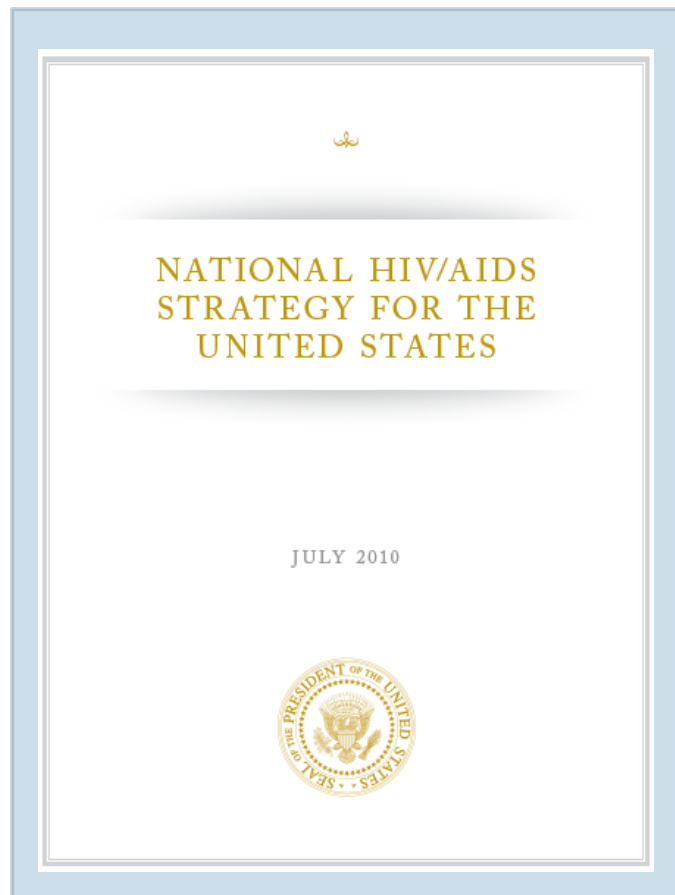
- Female physician, Student Health

Interview results

Multilevel approaches are needed to enhance physician routine HIV screening in primary care settings



New changes impacting our study





Survey

Quantitative methods yield a high response rate

- October 2014 – May 2015
- Survey mailing: Dillman method

- Sampled 630
 - ▣ 587 surveys mailed – 44 ineligible = 543 eligible
 - ▣ 395 surveys returned – 44 ineligible = 351 eligible

- Response rate 65%

Results

North Carolina primary care physicians lack the knowledge, beliefs and organizational practice facilitators to adopt and adhere to routine HIV screening recommendations

Physicians are confident...



- Characteristics:
 - ▣ Majority white male family medicine physicians
 - ▣ 57% single- or multi-group specialty practices
- 84% - 94% of physicians reported high self-efficacy:
 - ▣ Obtaining verbal consent
 - ▣ Interpreting HIV test results
 - ▣ Referring new HIV-infected patients to an HIV provider
- But, in the previous three months, only 5% of physicians' patients seen in clinic had received an HIV screening test

Survey results: awareness to agreement



□ **Awareness**

- 63% were aware of the routine HIV screening recommendations

□ **Agreement**

- 40% disagreed with routine HIV screening
- Among physicians aware of the recommendations, 90% agreed with them
- 70% of participants who were unaware of the recommendations agreed with them

Survey results: adoption to adherence



□ **Adoption**

- 27% adopted the recommendation to routinely screen their patients

□ **Adherence**

- 13% of primary care physicians routinely offered non-risk-based HIV screening during a new patient visit
- 9% routinely offered an HIV test during a follow-up visit

NC primary care physicians...



- Lacked knowledge of routine HIV screening (52%)
- Believed their patients would object to routine HIV screening (43%)
- Were unaware of changes in consent/counseling requirements to ease screening burden (54%)
- Agreed to screen if they believed that third-party payers would reimburse (70%)

Addressing practice barriers



- 5% had policies consistent with routine HIV screening recommendations
- 7% audited charts for adherence to routine HIV screening recommendations
- 8% reported having clinical reminders to screen for HIV

Our results suggest that NC primary care physicians...

- Lack the knowledge, beliefs and organizational practice facilitators to adopt and adhere to routine HIV screening recommendations

- Are more likely to adopt or adhere to routine HIV screening recommendations if they have:
 - ▣ More HIV-related information
 - ▣ More positive beliefs
 - ▣ More organizational facilitators

What will move physicians toward routine HIV screening?



Reduce barriers and increase facilitators to routine HIV screening adoption and adherence

- Changes are needed in education, practice systems, and organizational flow
 - ▣ Increase provider knowledge
 - ▣ Change beliefs
 - ▣ Reduce financial barriers
 - ▣ USPSTF A recommendation – payment systems

Routine HIV screening conveys an individual *and* public health advantage



Link into care



Start on ART medication



Reduce HIV transmission

Limitations



- Did not target patients
- May not be “true” barriers or facilitators
- Qualitative results may not be representative of NC primary care physicians
- Possible presence of social desirability bias

What happens next?



- Pilot feasibility study adapting an evidence-based Veterans Administration intervention
- VA intervention doubled the rate of HIV screening in VHA centers

It takes a village



- **Principal Investigator**

- Becky White, MD, MPH

- **Advisors**

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□ **Participants**

- Physician participants

Questions?



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