Behavioral Change Interventions for the Prevention Toolbox

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Relevance of HIV Prevention Interventions for STD Prevention and Vice-Versa

- HIV is an STD and other STDs may enhance HIV transmission
- Similar behavioral goals
  - Sexual behavior change
    - Reduce number of partners
    - Condom use
  - Getting tested and getting partner(s) tested
  - Treatment and treatment adherence
- Many interventions developed for HIV prevention impact STD outcomes

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Historical Perspective

- Before HIV
  - Major focus on identification and treatment of bacterial STDs as a means of preventing further spread (secondary prevention)
  - Prevention messages were given as an add-on
- After HIV
  - Increased emphasis on behavioral interventions to prevent acquisition of (incurable) infections (primary prevention)

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Behavioral Interventions Then and Now

- Then
  - Intuitively a good thing to do: “An ounce of prevention is better than a pound of cure”
  - Mostly in the form of education messages:
    - Reduce the number of partners
    - Use condoms
- Now
  - Scientific evidence supports behavioral interventions
  - Major shift of focus from provider-delivered messages to involvement of the client and/or community in developing a tailored prevention plan

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Client-Centered Counseling

Pioneered by the CDC as a behavioral intervention for HIV pre- and post-test counseling to be:

"Counseling conducted in an interactive manner through the use of open-ended questions and active listening. The focus is on developing prevention objectives and strategies with the client rather than simply providing information."

Resource: Centers for Disease Control and Prevention HIV Prevention Case Management Guidelines, 1997

Steps in Client-Centered Counseling

- Personalized risk assessment
- Support patient-initiated behavior change
- Help patient recognize barriers to risk reduction
- Negotiate an acceptable and achievable risk-reduction plan
- Refer patient to other specialized services, if needed

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Open-ended Question Examples

- What do you think your risk is for STD?
- What happened the last time you had sex?
- What made you decide not to use a condom?
- What made you decide to use a condom?
- What do you think you can do to reduce your risk for STDs the next time you have sex?

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STD/HIV Prevention Counseling: Does it Work?

- HIV prevention counseling: >$100 million of the federal prevention budget for HIV/ AIDS
- Critical question: Is HIV/STD prevention counseling effective at changing high-risk behaviors and preventing new infections?
- The efficacy of HIV prevention counseling has not been definitively shown

Courtesy: Mary L. Kamb, MD, CDC

Client-Centered Counseling Problems

- How to best identify steps in the prevention process?
- How to best assist client in developing a prevention plan?

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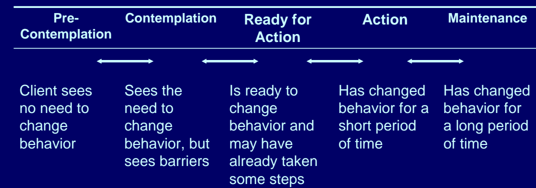
Individual Approaches

Stage of Change / Transtheoretical Model



Pre-Contemplation	Contemplation	Ready for Action	Action	Maintenance
Client sees no need to change behavior	Sees the need to change behavior, but sees barriers	Is ready to change behavior and may have already taken some steps	Has changed behavior for a short period of time	Has changed behavior for a long period of time

Source: Prochaska and DiClemente, 1983

Individual Approaches

Stage-Based Counseling

Rochester STD/HIV Behavioral Counseling Model

- Step 1: Behavioral Risk Assessment
  - R - Nature and status of current sexual relationships
  - N - Number of partners - of both client and their partners and current sexual practices
  - A - History and attitudes about:
    - C - Condom use
    - T - STD/HIV testing
    - S - Substance use for the client and their current partner(s)

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Individual Approaches

Stage-Based Counseling

Rochester STD/HIV Behavioral Counseling Model

- Step 2: Identification of target behavior
  - Use information from risk assessment to select a target behavior with the client
    - Gold standard (sexual behavior)
      - Postpone/avoid sexual intercourse
      - Mutually monogamous relationships
      - Consistent condom use
      - Get STD/HIV testing and treatment
    - Harm reduction (sexual behavior)
      - Consistent condom use with outside partners
      - Non-penetrative sexual practices
      - Condom use for vaginal /anal sex not for oral
      - Other options: any ‘first’ step a client is willing to take

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Stage-Based Counseling

Rochester STD/HIV Behavioral Counseling Model

- **Step 3: Assess client's readiness to change**
- **Step 4: Utilize a counseling strategy most likely to influence behavior change**

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Stage-Based Counseling

Rochester STD/HIV Behavioral Counseling Model
Influencing Factors

Pre-Contemplation	Contemplation	Ready for Action	Action and Maintenance
Risk Appraisal: Knowledge Perceived risk Perceived benefits Outcome expectancies	Self Perceptions: Attitudes Beliefs Self-efficacy Emotion/Arousal Social Influence: Sexual relationship dynamics Perceived social norms Family Religious norms Environmental and Structural factors	Self Perceptions: Self-efficacy Skills Environmental and Structural Access Policy Law	Responding to changes in: Self-efficacy Support Emotion and Arousal Social norms sexual relationships

Stage-Based Counseling

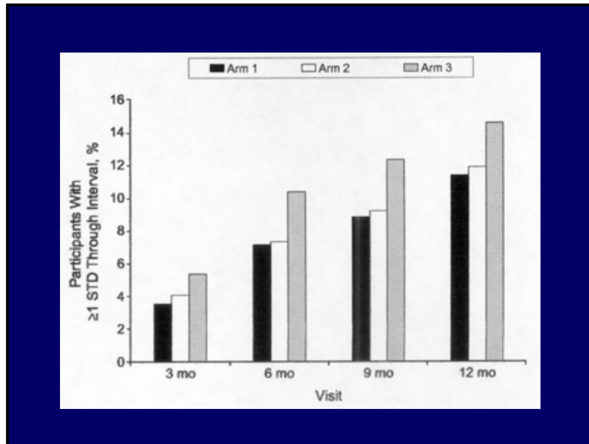
Rochester STD/HIV Behavioral Counseling Model
Counseling Strategy

Pre-Contemplation	Contemplation	Ready for Action	Action and Maintenance
Tell 'story' about case similar to client's *Give information* specific to client's situation *Discuss impact* of client's behaviors on others	Focus on client's ambivalence and the *cost/benefit* to change Offer substitute behaviors / *harm reduction* options Explore client's *self-image* in relation to behavior	Build *self-efficacy* Teach and practice *skills* Develop specific *prevention plan* Increase *access* to prevention services *Refer* to additional services/resources	Help client develop *support system* Help client become a *role model* Assist client to recognize and *avoid cues* to risky behavior Assist client to find *substitutes* Identify *rewards* for change

Behavioral Interventions: What is the Evidence?

- **Project Respect (N=5758) –**
  - RCT involving 5 STD clinics
  - Target population = heterosexual HIV-
  - Outcome self-reported 100% condom use for vaginal sex and STD
  - Arm 1 (enhanced counseling)
  - Arm 2 (CDC counseling)
  - Arms 3 and 4 (didactic)

Kamb ML et al. JAMA, October 7, 1998



Next Challenge: Prevention for Positives

- Rising concern about increased risk behaviors among persons with HIV infection as a result of
  - HAART optimism
  - Prevention burn-out
  - Younger at-risk individuals not being reached by old messages
- Increasing need for appropriate behavioral interventions for persons with HIV inside and outside the care setting

Case 1

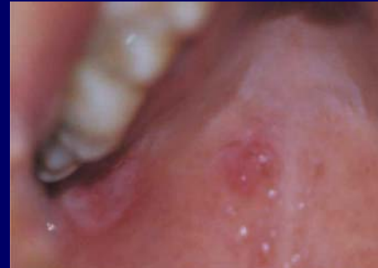
- KH is a 40+yo WM who presented to ED with fever and sore throat. Sore throat +/- odynophagia x 1 month
- ROS - +sores in mouth, +myalgias, +fever and chills, +cough due to throat irritation. Remainder negative.

More history…

- HIV dx 2004. Last CD4 1100 with VL <50 when last measured. Lost insurance and out of care since 2005
- RUE DVT
- Soc – lives with mom in W-S, no tobacco x 5yr (former 15pkyr), +"social" alcohol use (former heavy use assoc. with DUI 2000), +IV crystal meth (last 1 wk PTA)

Exam

- T-100.7, P – 80, R – 20, BP – 124/80, 100% sat on RA
- WNWD in NAD. OP- mild pharyngeal erythema, 0.5cm ulcer to left of uvula, shoddy submandibular LA. Skin – multiple tattoos.



Labs and such…

- CBC, hepatic and FBP nl
- Flu-
- UA -
- Blood cx x 4 –
- Throat cx – nl flora
- GC throat cx – neg
- HSV throat cx – neg
- HSV-1 Ab equivocal
- HSV-2 Ab+
- Hep A Ab-, HBsAb-, HbsAg-, HCV Ab-
- UDS - + amphetamines

- CXR – normal
- CT angio – No PTE. Prominent axillary, subpectoral and supraclavicular nodal tissue
- Echo – normal. No veg.
- Patient discharged…

RPR 1:256

3 weeks lapsed between discharge and presentation to clinic

Additional History

- Syphilis in 2004, treated in Atlanta with 2.4 million units of Bicillin.?stage ?total duration course. + Jarisch-Herxheimer rxn
- Former stripper, sex with men only, 10 partners/6mo, last contact 2 days ago, exposure at all orifices

Clinic Visit

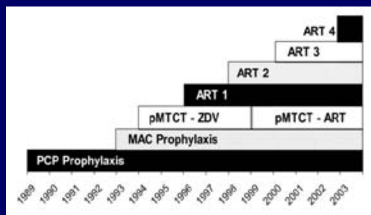
- Throat pain and sores continue
- "Well yes, I do have places on my penis but I thought they were nothing…."
- "BTW…I have ringing in my ears and I don't think I hear as well as I used to"

Additional work-up

- LP
  - WBC 55 (100% mono)
  - RBC 0
  - Protein 38 (15-45)
  - Glucose normal
  - VDRL 1:2
- Now s/p 10d IV PCN G (in house)

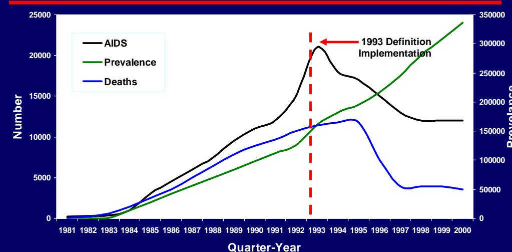
This is reality!

History of HIV Treatment



Walensky et al. JID 2006

Estimated AIDS Incidence*, Deaths and Prevalence, By Quarter-Year Of Diagnosis/Death – United States, 1981-2000



HIV and AIDS--United States, 1981-2000. *MMWR.* 2001;50:430-4.

Sena et al. AIDS Patient Care 2008; 22(12): 955-963

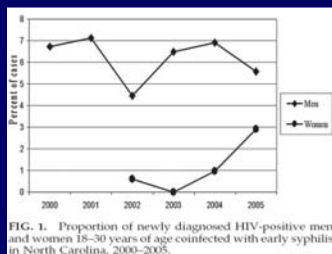


FIG. 1. Proportion of newly diagnosed HIV-positive men and women 18–30 years of age coinfected with early syphilis in North Carolina, 2000–2005.

What to do?

Provider-Delivered Interventions in the HIV Primary Care Setting

- **Partnership for Health**
  Richardson JL et al, AIDS 2004
- **Options/Opciones Project**
  Fisher JD et al, JAIDS 2005
- **Positive STEPS**
  Gardner LI et al, AIDS Patient Care and STDs 2008
- **Ask, Screen, Intervene**
  NNPTC, AETC collaboration

Conclusions

- **Several scientifically proven brief behavioral interventions are available for use in the STD and the HIV clinic setting**
- **As clinicians, we should strive to incorporate tailored, risk-reduction interventions into our individual patient encounters**

Resources

- National Network of Prevention Training Centers (www.NNPTC.org)
- AL/NC STD/HIV PTC (www.stdptc.org)
- North Carolina Department of Health (www.epi.state.nc.us/epi/hiv/training.html)