

# **STD Prevention in the US From Past to Present to Future**

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Family Health International**

**Presented at the  
National STD Prevention Conference  
San Diego, California  
March 4, 2002**

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# History of STD Prevention

## “The More Things Change...”

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- **The Past - Ever since Adam and Eve**
- **The Present - Ever since Judy and Jack**
- **The Future - Visions for New Leadership**

# Sexually Transmitted Infections - An Historical Perspective

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- |                 |   |                 |
|-----------------|---|-----------------|
| 1902 - Syphilis | } | • Fatal         |
| 2002 - HIV      |   | • Incurable     |
|                 |   | • Global spread |

Have we made progress?

# The Sexual Network – Roman Hot Stews

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# The Bard

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Men take diseases, one or another.

Therefore let men take heed of their  
company.

William Shakespeare

(1565-1616)

Henry IV, Part II, V, I, 85

# The Professor

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**Know syphilis in all its manifestations and relations,**

**And all things clinical will be added unto you.**

**Sir William Osler (1849-1919)  
“Internal Medicine as a Vocation”  
In Aequinimitas, and Other Addresses**

# STI 100 Years Ago

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- **Sexual Networks -  
regulation of marriage**
- **Syphilis treatment -  
inhalation of mercury  
vapors**

*Source: JAMA 1900;34:500-502*

# STD 100 Years Ago

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- **Morality campaigns –  
“domiciliary segregation”**
- **Prevention suppression –  
“preventives... encourage  
vice by promising  
impunity”**

*Source: Medical Society of New York  
in JAMA 2001;286:2643*



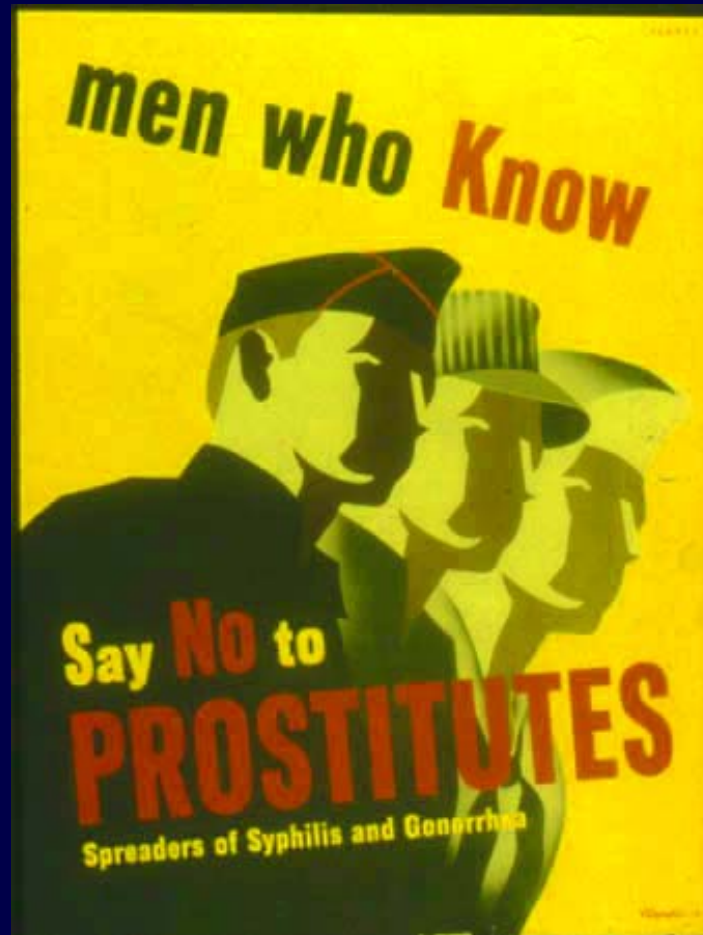
# The Gender Vector

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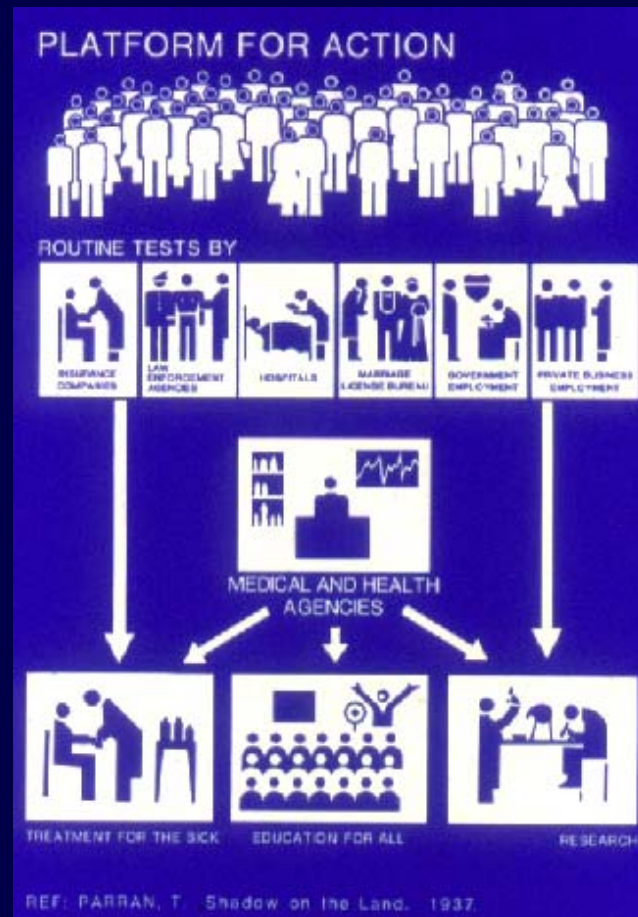


# The Universal Message

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# The Universal Approach



# STD - The Present

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- **The Division**
  - organizational evolution
- **The Organisms**
  - incidence
  - prevalence
- **The Transmission Dynamics**
  - CBD
- **The Strategies**
  - individual/  
population

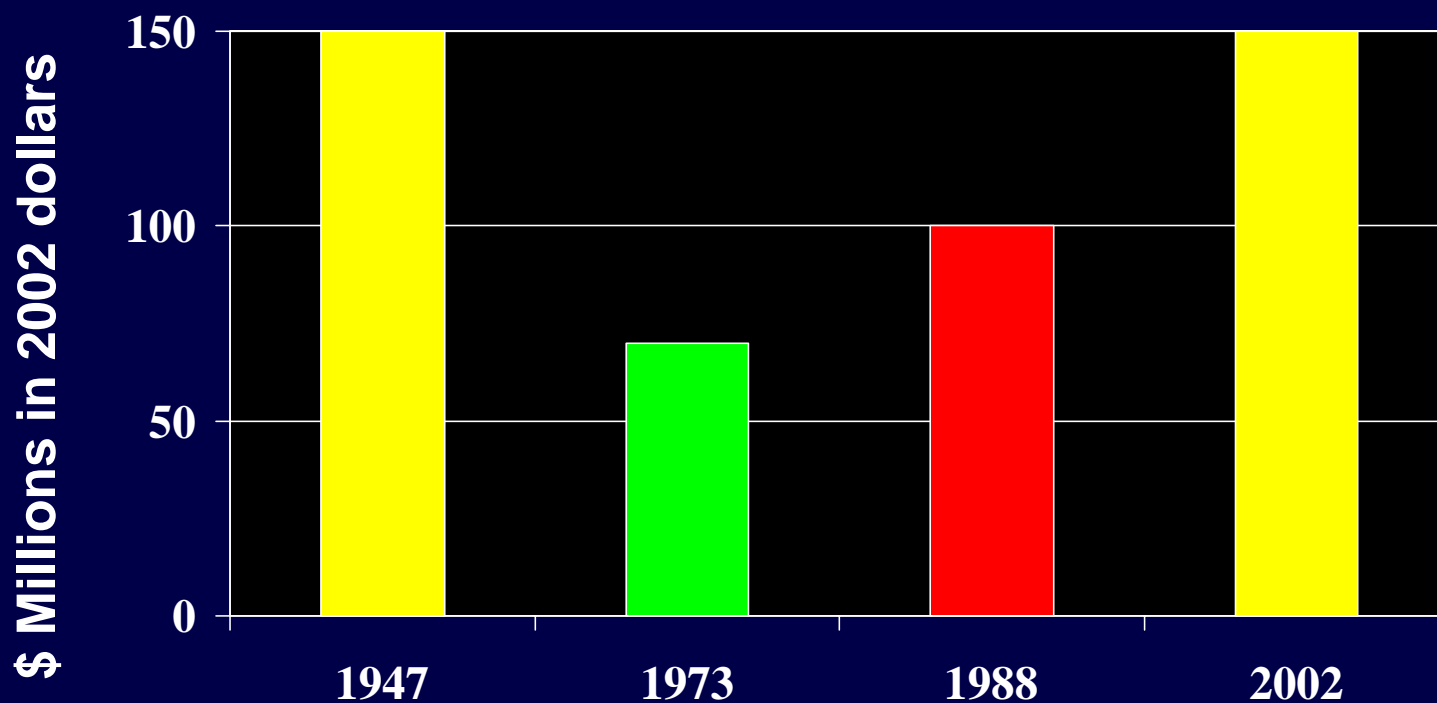
# STD Division Within CDC – Past/Present

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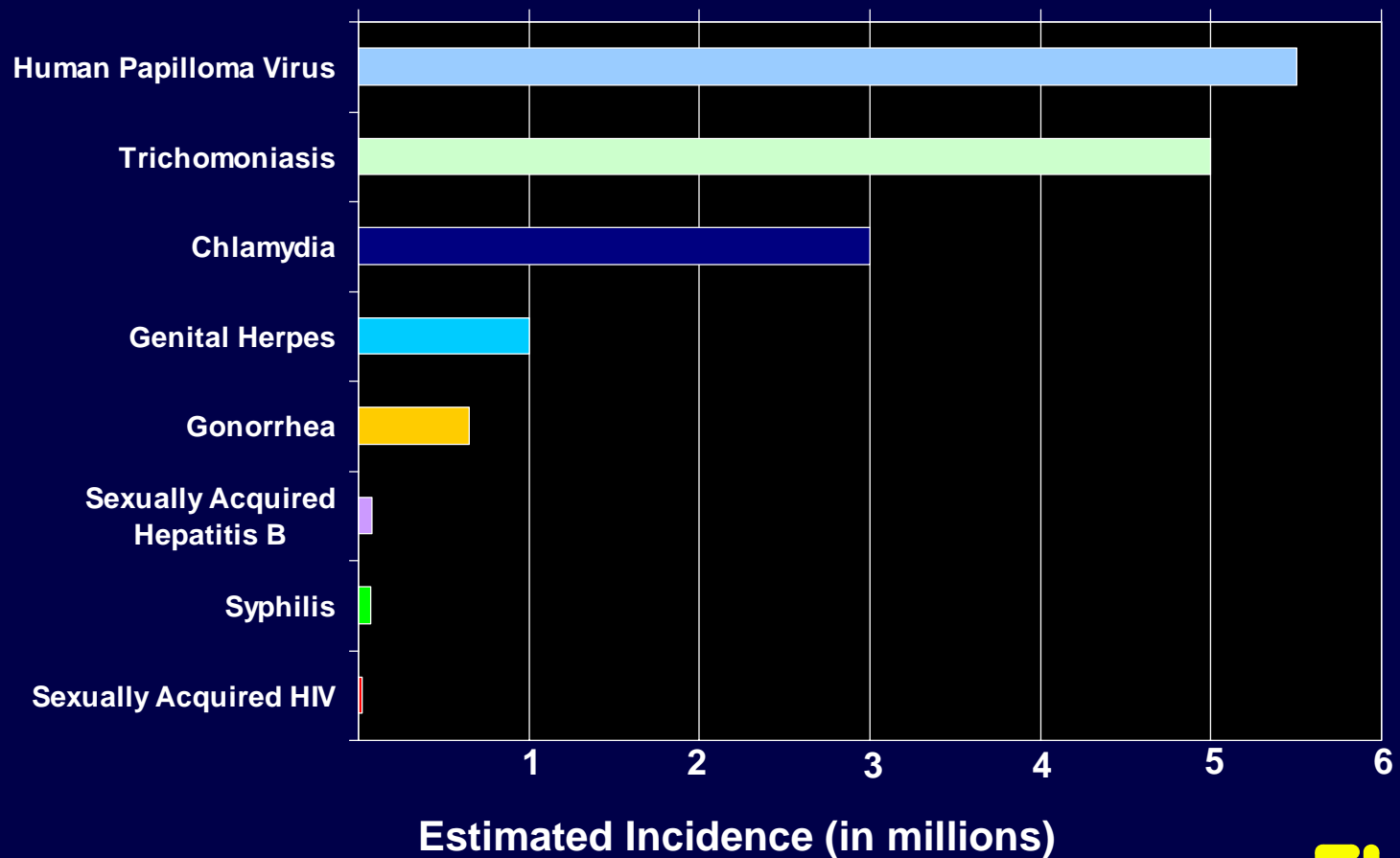
## Division Name Change

- 1982 - DVDC → DSTD
- 1985 - DSTD → DSTD/HIVP
- 1995 on - DSTDP

# STD Budget Within CDC – Past/Present



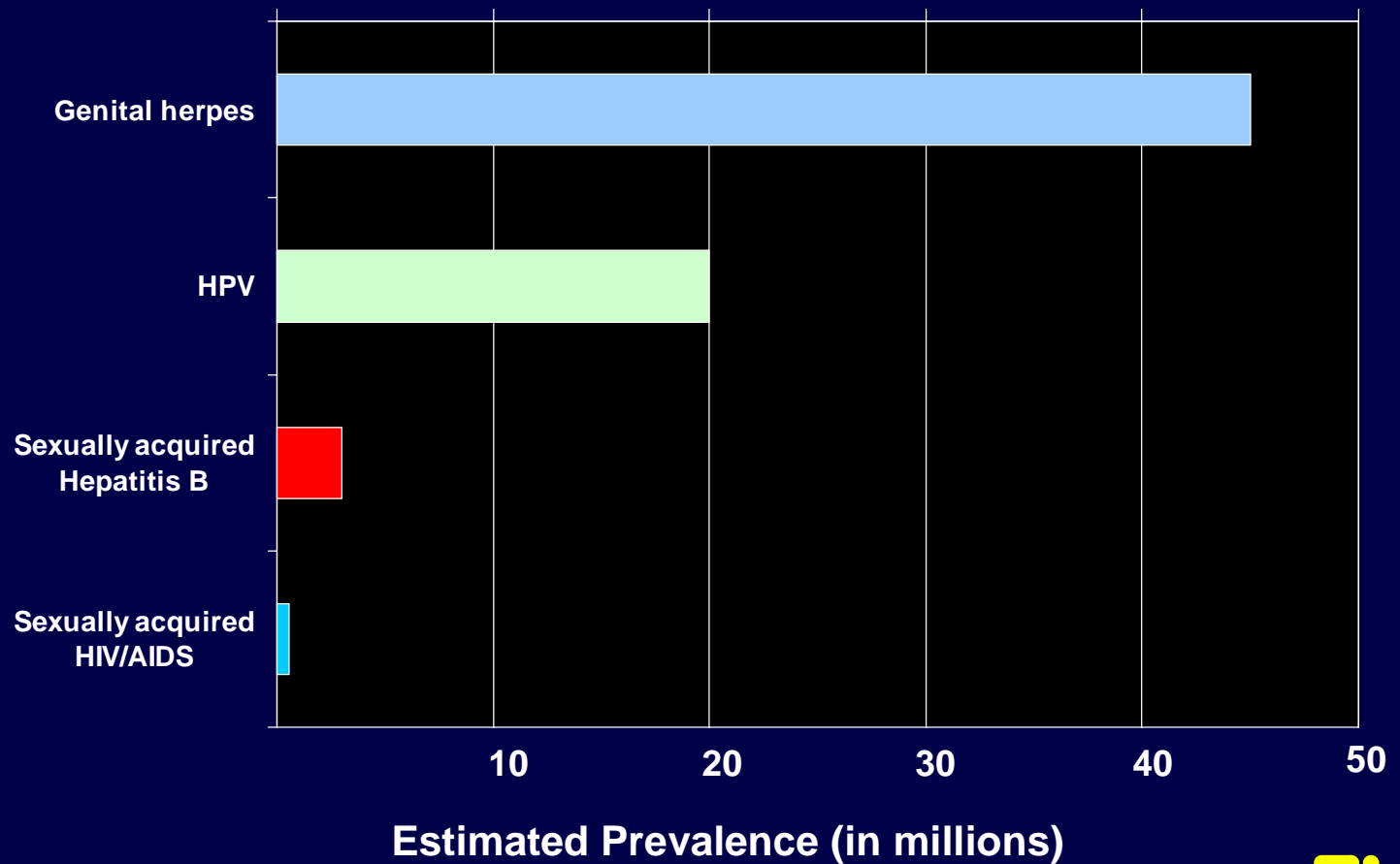
# Estimated Incidence of STDs, US, 1996



Source: ASHA, 1998



# Estimated Prevalence of Viral STDs, US, 1996



Source: ASHA, 1998



# STD Prevention – Transmission Dynamics

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$$R_0 = CBD$$

When  $R_0 > 1$  epidemic is sustained

**C** = Partners exposed

**B** = Efficiency of transmission

**D** = Duration of infection

# STD Prevention – Transmission Dynamics Simplified

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Sexual activity



Sexual exposure to  
infected person



Acquisition of infection



Transmission of  
infection



Reduce rate  
of exposure = C

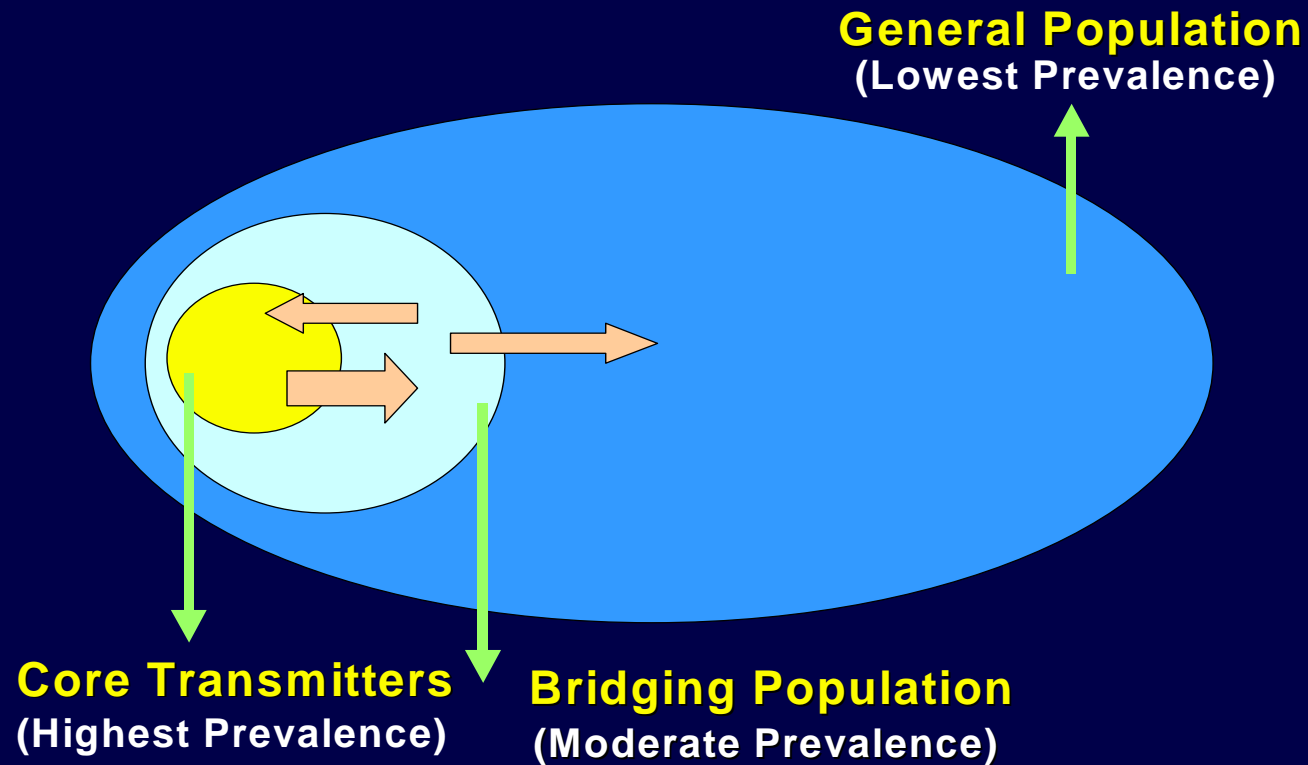


Reduce  
efficiency of  
transmission = B



Shorter  
duration of  
infectivity = D

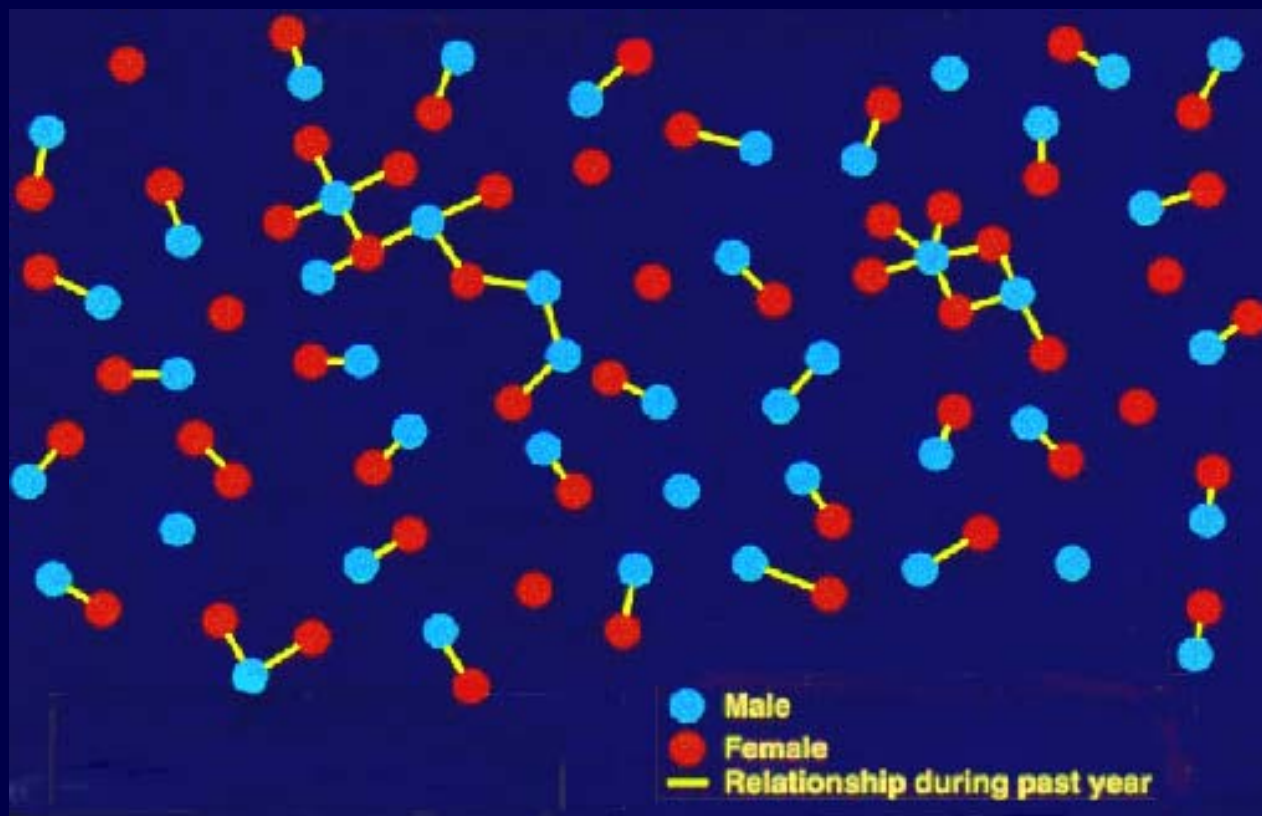
# Sexual Networks - Terminology



Source: Adapted from Aral (1999) and Van Dam (1999)

# Present Sexual Networks - 1

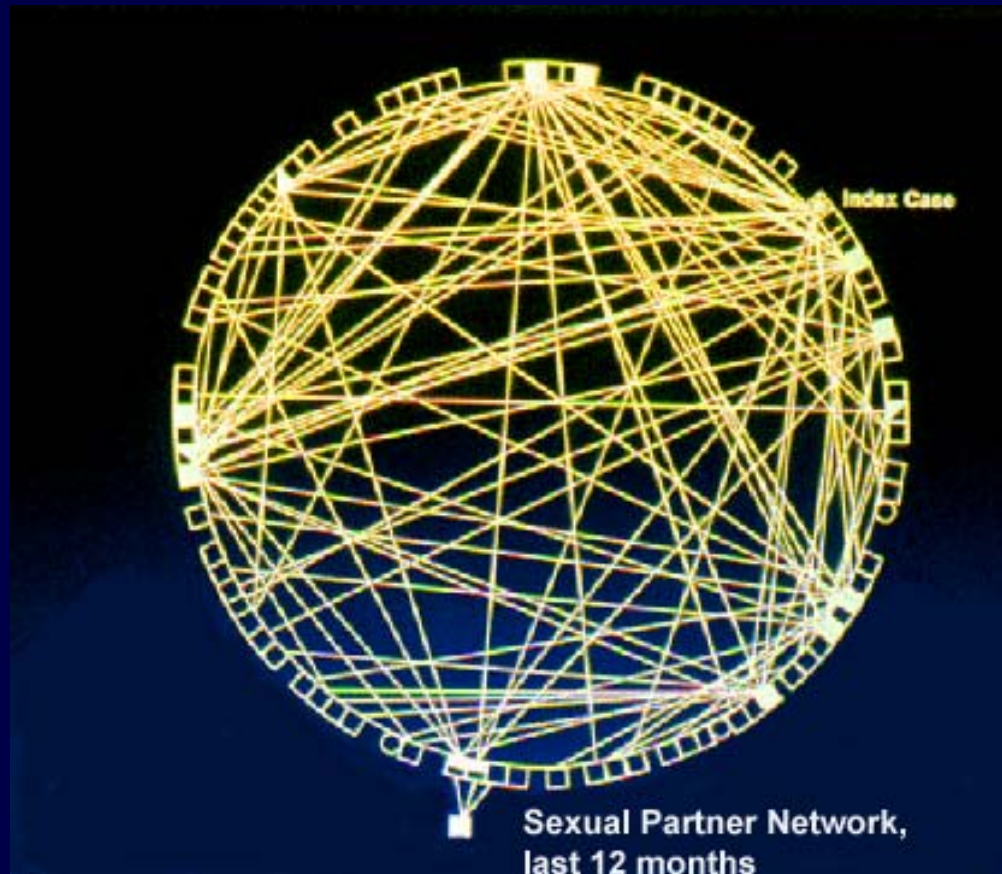
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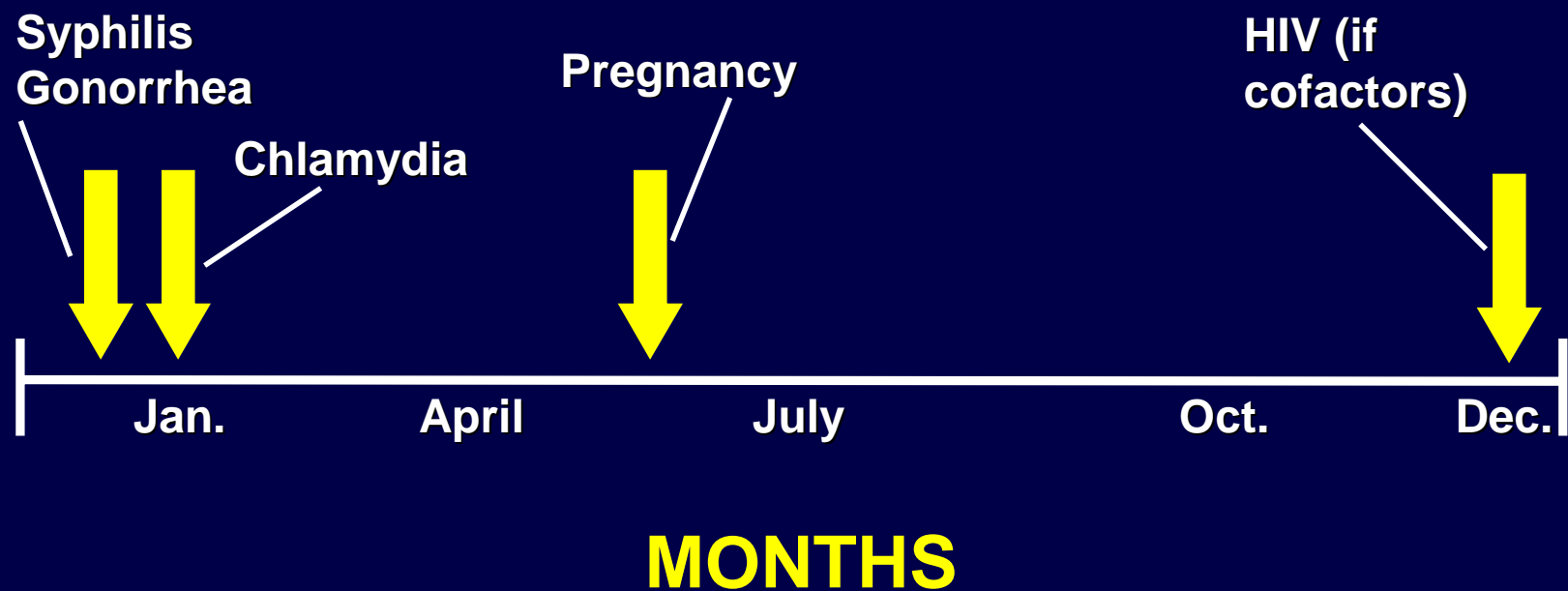
Source: Michael RT et al., 1994. *Sex in America: A Definitive Survey*

# Present Sexual Networks - 2

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# Estimated Risks from 2 Acts of Unprotected Intercourse Per Week



# But If Protected by Condoms



# STDs – Present Diagnostic Approaches

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- **More accurate** – molecular focus
- **More convenient** – urine-based
- **Less expensive** – automated reading
- **Rapid feedback** – on-site information



# IC Strip

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# STDs – Present Treatment Approaches

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- **More convenient** – single daily doses
- **Fewer side effects** – broader acceptability
- **Less expensive** – global availability
- **More choices** – minimize resistance

# **HIV – Therapeutic Issues**

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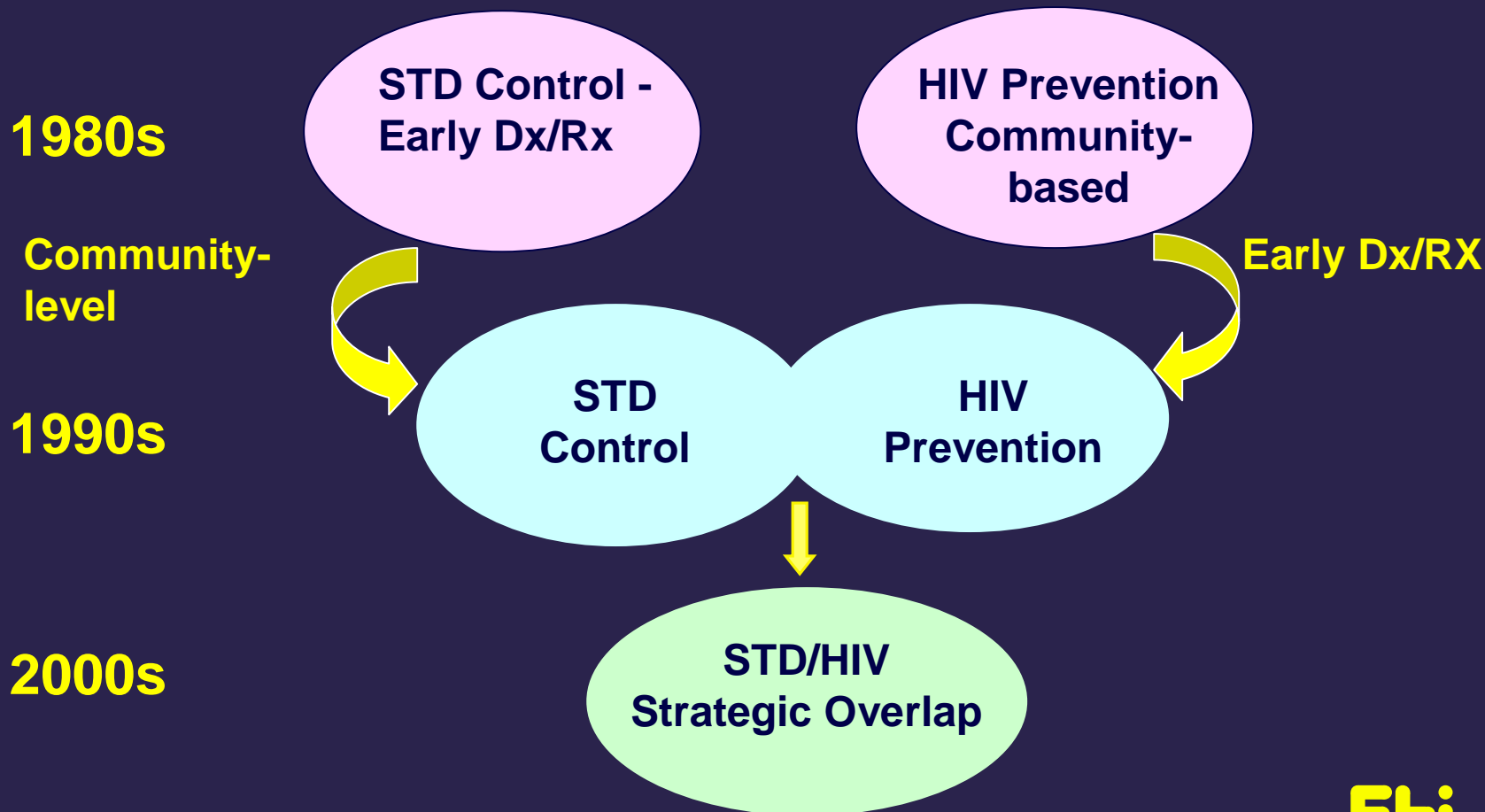
- **HAART available/effective**
- **Adherence difficulties – cumbersome**
- **Resistance concerns**
- **Unleashing unsafe behaviors**
- **Prevention implications - viral load**

# STD Prevention Strategies

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- **Individual level**
  - C – avoid risky partners**
  - B – use condoms**
  - D – get tested**
  
- **Population level**
  - C – reduce population prevalence**
  - B – change social norms**
  - D – improve clinic services**

# The STD/HIV Strategies - 1980s to New Millennium



# **New STD Leadership – Future Visions**

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- **Global View** – **beyond US**
- **Condom Promotion** – **safe norms**
- **Media Alliances** – **prevention awareness**
- **Healthy Sex** – **positive lifestyle**

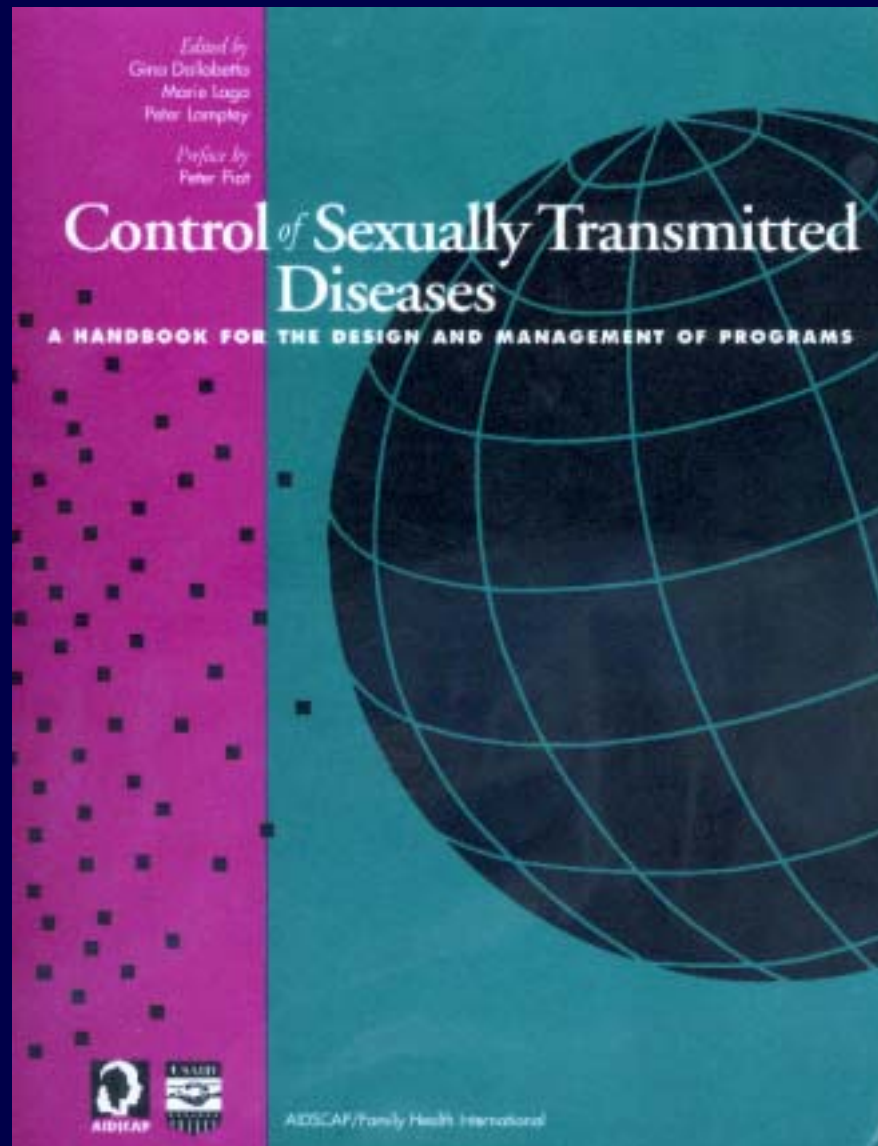
# Estimated New Cases of Curable STDs\* Among Adults, 1999



\* gonorrhea, chlamydia, syphilis and trichomoniasis

Source: WHO, 2001

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Edited by  
Peter R. Lumley, MD, DPH  
Helene D. Gayle, MD, MPH

Preface by  
Peter Piot

# HIV/AIDS Prevention *and* Care in Resource-Constrained Settings

A HANDBOOK FOR THE DESIGN AND MANAGEMENT OF PROGRAMS



**Fhi**

Family Health International  
Funded by  
The United States Agency for International Development

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# FHI HIV/AIDS Handbook

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- **Hardcopy**
- **CD-ROM**
- **Internet – [www.fhi.org](http://www.fhi.org)**

# NIH Condom Report: The Scientific Evidence

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- Effectiveness against HIV, Gc, and pregnancy
- Data since 6/00 also support effect on Ct, HSV
- Main reason for ineffectiveness is **NON-USE**
- Thus, condom promotion campaigns needed

# NIH Condom Report: Scientific/Political Questions

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- **Data inadequacies, especially HPV**
- **Misrepresentation of findings**
- **Focus on perfection obscures public health messages**

# Condoms: The Take Home Messages

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- Condoms ARE effective
- Correct, consistent use essential
- Reinforcement needed from multiple levels
- New condoms – greater “pleasure”

# New Latex Condoms



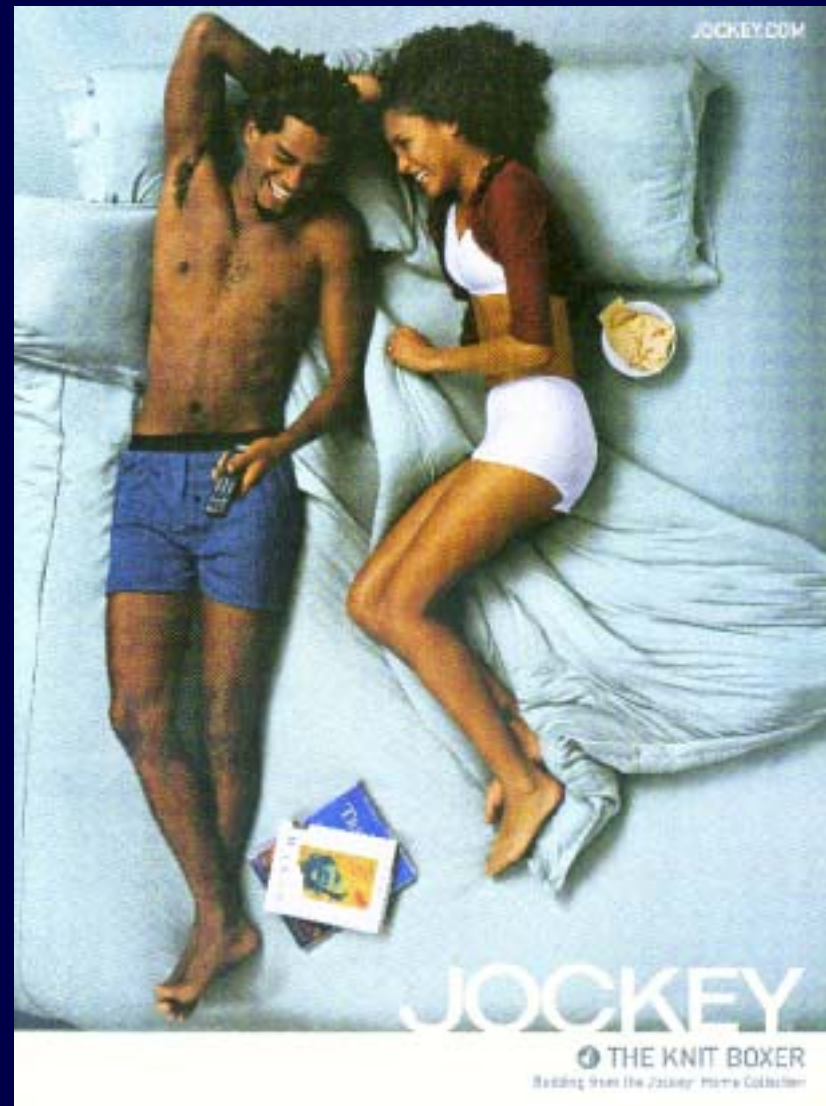
Design desires: to improve sensation and use

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# STD Prevention and The Media

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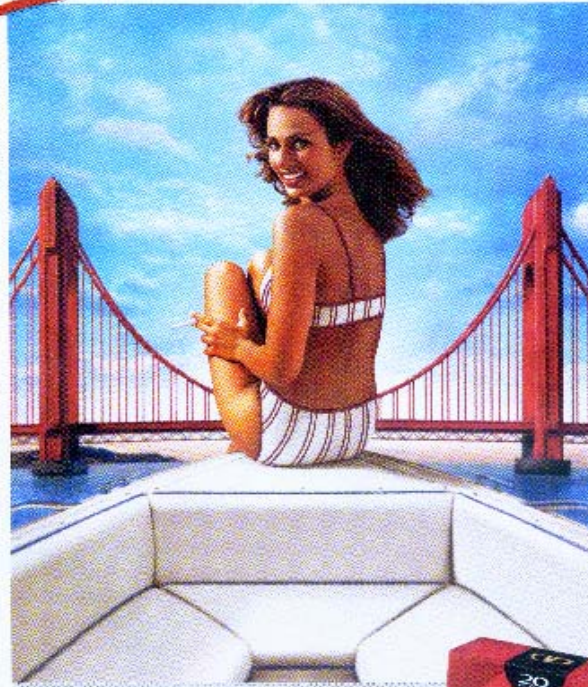
- **Sex Sells**
- **For Profit or Prevention**
- **Media as an ally**



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*New Splendidly Blended*



You Gotta *Taste This*



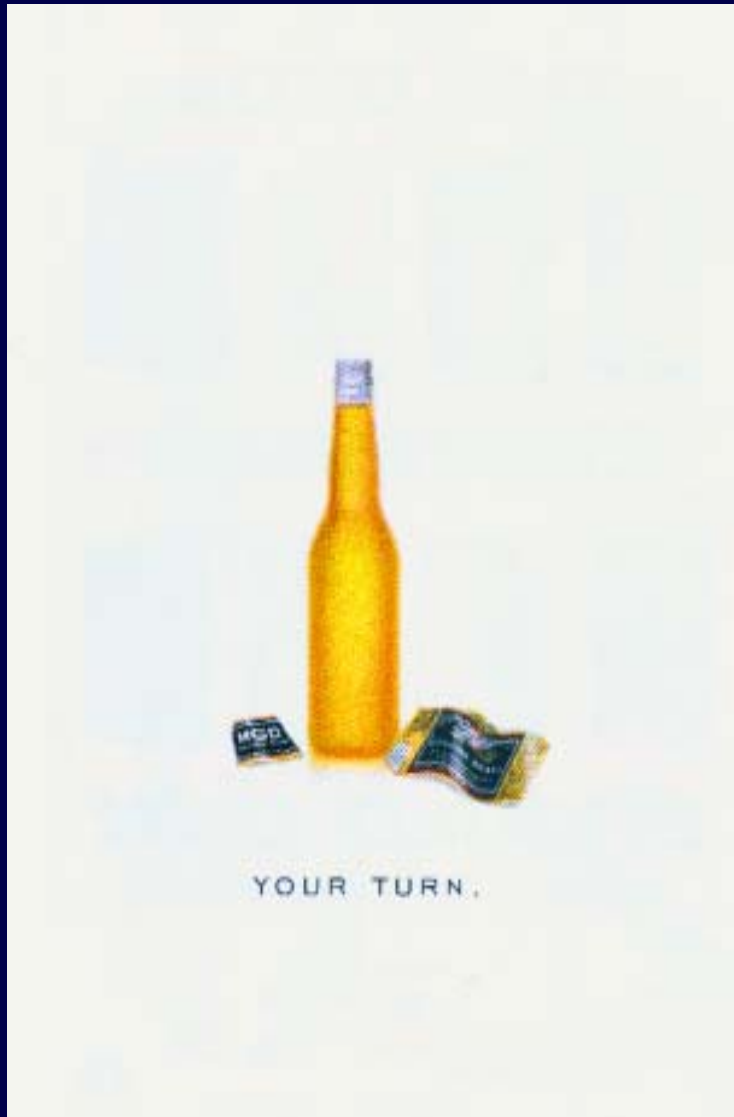
15 mg "tar," 1.2 mg nicotine av. per cigarette by FTC method.  
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**SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.**

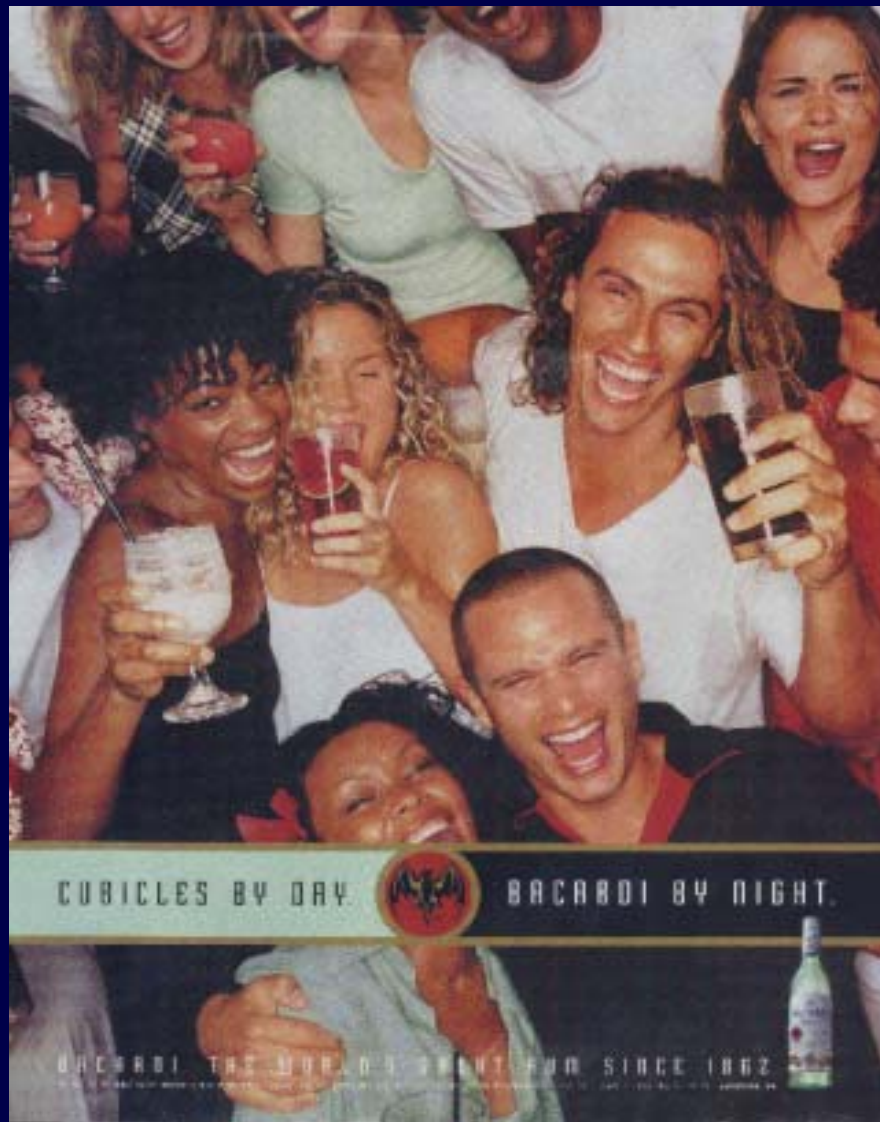
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Call toll-free 7-866-BLENDS5 or visit [www.smokerswelcome.com](http://www.smokerswelcome.com)  
Cigs and wpts are tested to smokers 21 years of age and over.

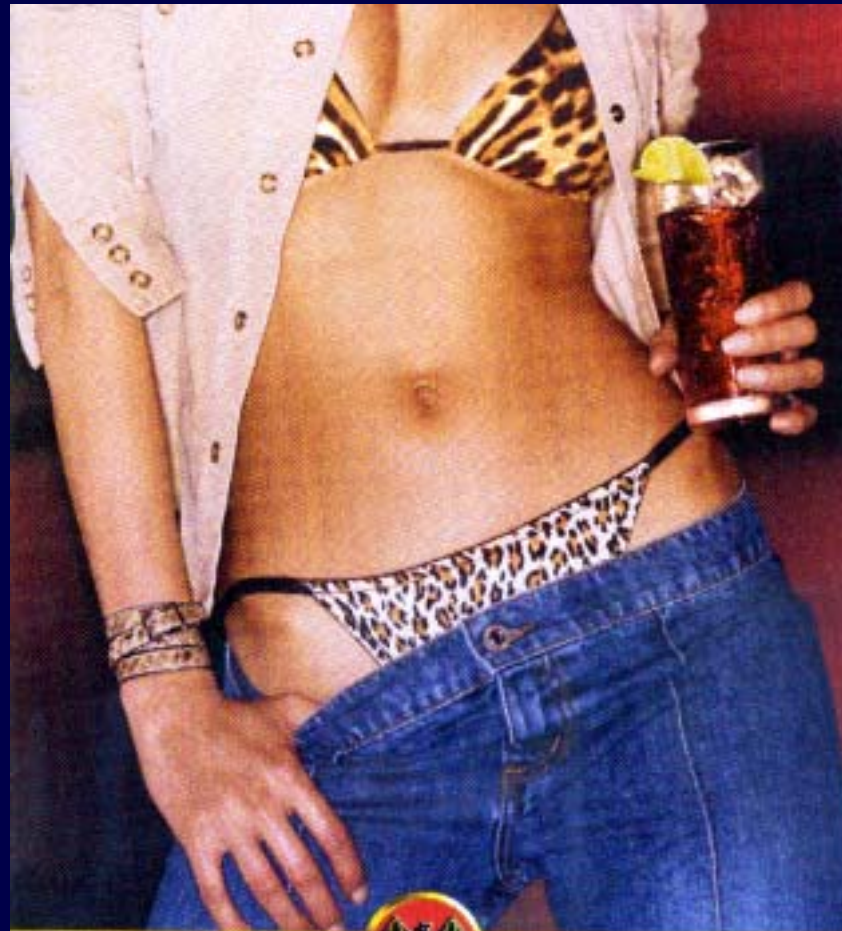
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ESTD 1862

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when you know

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# Underlying Foundation for STD Prevention

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- **“Absence of Disease”**
  - Old Millennium
  - Negative Message
- **Healthy Sex**
  - New Millennium
  - Positive Message

# Healthy Sex - Definition

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- Consensual
- Non-exploitive
- Honest
- Mutually pleasurable
- Protected



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