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## AIDS at 25: Emerging from the Matrix

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The 9<sup>th</sup> Annual William T. Small, Jr. Keynote Lecture  
February 23<sup>rd</sup>, 2007

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## Disclaimers

- PACHA association
- Focus on U.S. Epidemic

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## Why the Matrix?



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## Agenda

- 25 Year retrospective
- Current HIV Epidemiology in the U.S.
- Testing & Treatment Update
- Sociocultural Dynamics of the Epidemic
  - Native Americans
  - Asian Pacific Islanders
  - Hispanics
  - Black Americans
- Future Directions/Challenges

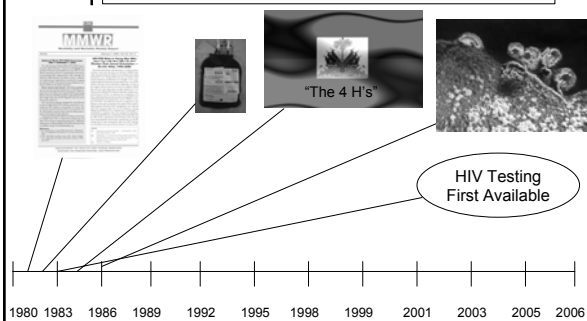
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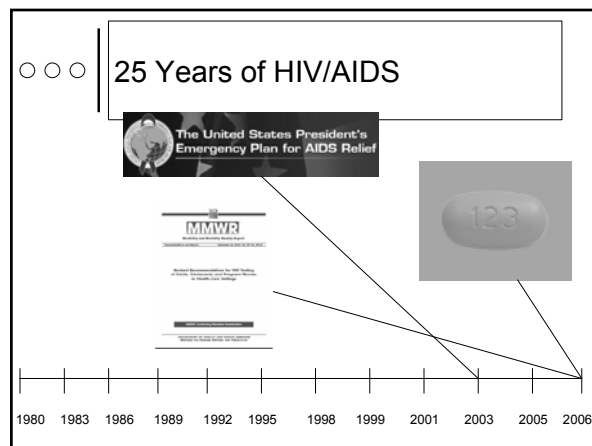
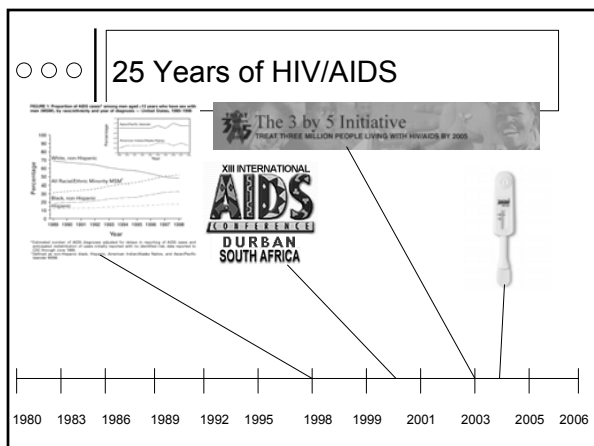
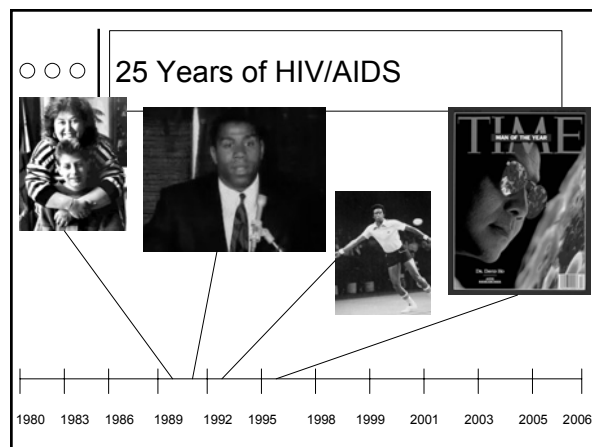
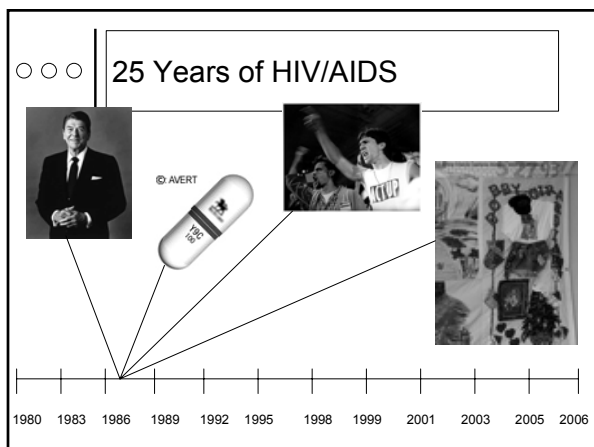
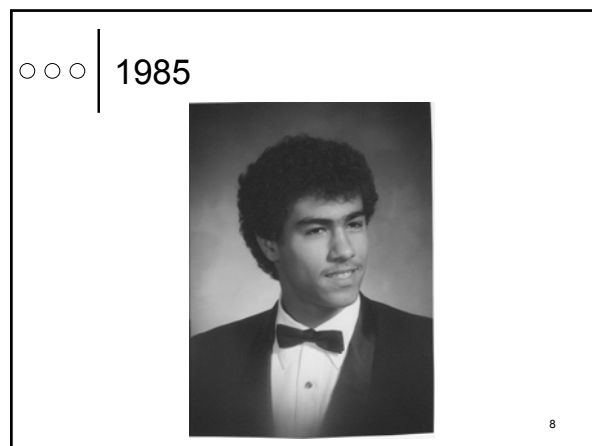
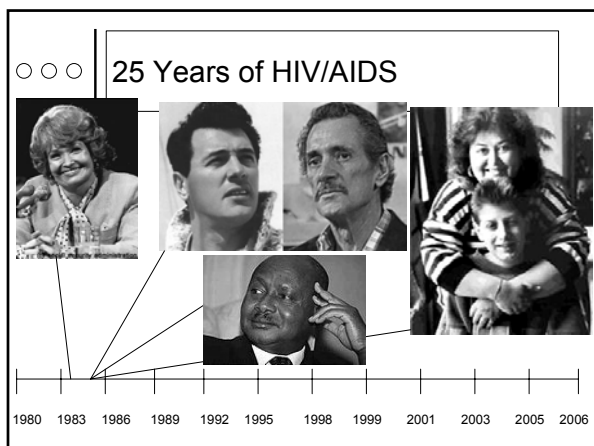
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## 25 Year Retrospective

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## 25 Years of HIV/AIDS





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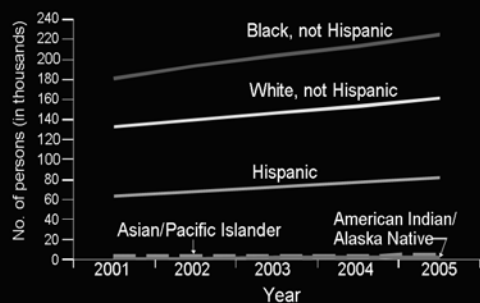
*THERE STILL IS NO CURE*

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## Current HIV Epidemiology

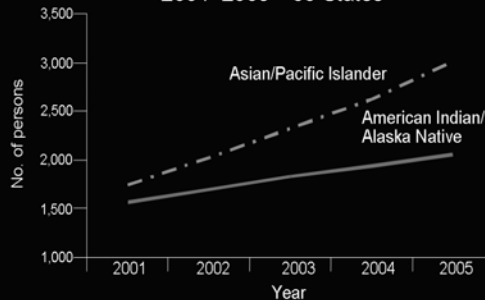
Estimated Number of Persons Living with HIV/AIDS, by Race/Ethnicity, 2001–2005—33 States



Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 33 states with confidential name-based HIV infection reporting since at least 2001. Data have been adjusted for reporting delays.



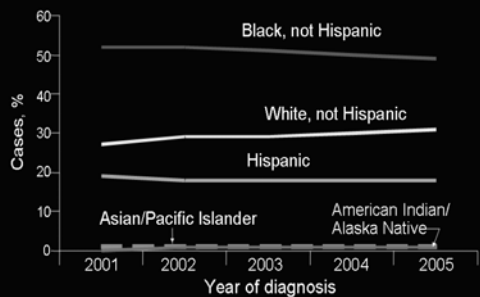
Estimated Number of Asians/Pacific Islanders and of American Indians/Alaska Natives Living with HIV/AIDS 2001–2005—33 States



Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 33 states with confidential name-based HIV infection reporting since at least 2001. Data have been adjusted for reporting delays.



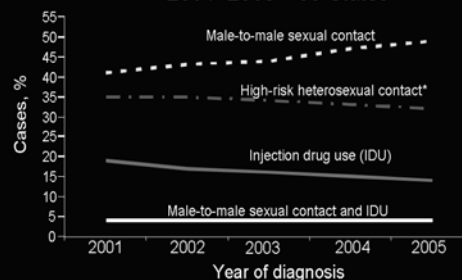
Proportion of HIV/AIDS Cases among Adults and Adolescents, by Race/Ethnicity, 2001–2005—33 States



Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 33 states with confidential name-based HIV infection reporting since at least 2001. Data have been adjusted for reporting delays.



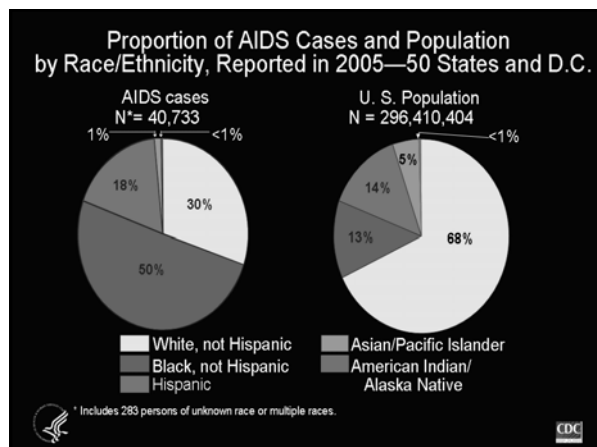
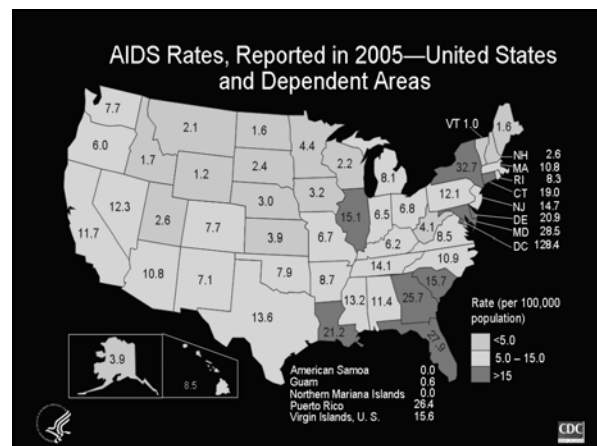
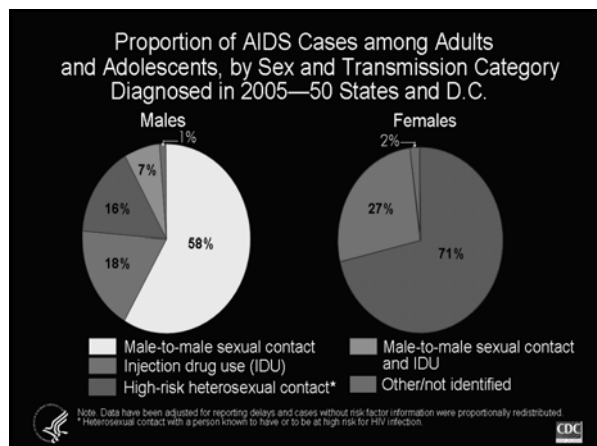
Proportion of HIV/AIDS Cases among Adults and Adolescents, by Transmission Category 2001–2005—33 States



Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 33 states with confidential name-based HIV infection reporting since at least 2001. Data have been adjusted for reporting delays and cases without risk factor information were proportionally redistributed.

\*Heterosexual contact with a person known to have or to be at high risk for HIV infection.





## Testing and Treatment Update

**CDC Testing Recommendations, 2006**

**MMWR**  
Morbidity and Mortality Weekly Report  
September 20, 2006 / Vol. 55 / No. 38

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

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL CENTER FOR HUMAN IMMUNODEFICIENCY

**Rationale for New Recommendations**

- Effectiveness of risk group-based testing diminished
- Universal HIV screening strategies effective
- Lack of progress decreasing sexual transmission
- Routine prenatal HIV testing works
- Low perceived risk and disclosure
- Providers often preferred for HIV testing

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## HIV Testing Recommendations for Adults

- Screening performed routinely for all patients aged 13-64 years
- No screening unless prevalence of undiagnosed HIV infection  $\leq 0.1\%$
- All patients starting treatment for TB
- All patients seeking treatment for STIs
- Repeat screening at least annually for persons at "high risk" \*\*

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## HIV Testing Recommendations for Adults

- Screening should be VOLUNTARY
- Oral or written notification of HIV testing unless they decline \*
- Informational materials available
- Documentation if patient declines testing



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## Pros and Cons – Routine HIV Testing

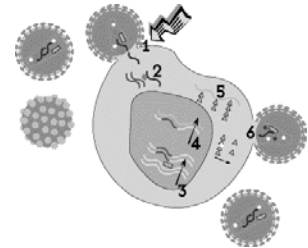
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|--|--|
| ○ No screening by "risk groups"                            | ○ Bypasses pre-test & post-test counseling                       |
| ○ Decreasing stigma of test & testing process              | ○ Lack of insight & infrastructure for increased treatment needs |
| ○ Knowledge of HIV status = decreased sexual risk behavior |  |

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## Medications

- 20 FDA-approved medications
- 5 additional combination medications
- Once-daily therapy standard now
- Over 60 meds in clinical trials



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## Future treatment options...

- Gene therapies
- CXCR4/CCR5 receptor blockers
- Integrase inhibitors
- Maturation inhibitors
- Maintenance/induction ARV approach
- Protease Inhibitor monotherapy

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## Successes

1. Highly active antiretroviral therapy (HAART)
2. Prevention of opportunistic infections
3. Reduction in vertical transmission

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## Sociocultural Dynamics of the Epidemic



## HIV & Native Americans

- Comprise < 1% of total HIV/AIDS cases
- Trauma, IVDU & ↑ Risk among women<sup>1</sup>
- ↑ Alcohol use predicts risky sexual behavior<sup>2</sup>
- AIDS cases ↑ 900% from 1990-2001<sup>3</sup>
- Incomplete knowledge and misconceptions among women<sup>4</sup>
- Unemployment predicts IVDA risk<sup>5</sup>

<sup>1</sup>Simoni et al., 2004; <sup>2</sup>Baldwin et al., 2000; <sup>3</sup>Mitchell et al., 2004; <sup>4</sup>Morrison-Breedy et al., 2001; <sup>5</sup>Reynolds et al., 2000

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## HIV & Asian Pacific Islanders

- Acculturation & sexual risk behavior<sup>1</sup>
- College students & alcohol use<sup>1</sup>
- MSM social stressors and HIV risk behavior<sup>2-4</sup>
- Class dynamics and sexual risk in massage parlors<sup>5</sup>
- Male-to-Female Transgendered Women and HIV risk<sup>6</sup>

<sup>1</sup>So et al., 2005; <sup>2</sup>Poon & Ho, 2002; <sup>3</sup>Yoshikawa et al., 2004; <sup>4</sup>Wilson & Yoshikawa, 2004; <sup>5</sup>Nemoto et al., 2005; <sup>6</sup>Operario & Nemoto, 2005

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## HIV & Hispanics<sup>1</sup>

- “Machismo” and sexual risk behavior
- Access & literacy issues
- Issues with migrant worker populations
- Immigration status/Acculturation
- Sexual education barriers
- Latino MSM unique issues
- Women and gender role dynamics

<sup>1</sup>National Council of La Raza, 2006

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## The Racial Disparity among Black MSM<sup>1</sup>

- Known contributors:
  - High prevalence of STIs
  - Late or undiagnosed HIV infection
  - Late Testing
- Probable contributors:
  - Sexual networks
  - Lower rates of circumcision
  - CCR5 Delta 32 Deletion

<sup>1</sup> Millett, Peterson, Wolitski & Stall, 2006

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## The Racial Disparity among Black MSM<sup>1</sup>

- Conflicting Data:
  - Access to healthcare
  - Incarceration
  - Substance use/abuse
- Non-contributory:
  - Higher rates of UAI
  - Number of male sexual partners
  - Commercial sex work
  - Non-gay identity/non-disclosure

<sup>1</sup> Millett, Peterson, Wolitski & Stall, 2006

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## Factors Influencing Sexual Risk Among Black Women

- Social
  - Shallow pool of available men
  - Incarceration rates of Black men
  - Sexual concurrent relationships
  - Situational sex (exchange for drugs, money)
  - Violence/gender power dynamics
  - Childhood sexual abuse

Adimora 2002; Wecsberg et al 2005; Korte et al 2004; Turner 2002; Schwartz 1997; Halperin 1999; Arriola 2006.

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## Factors Influencing HIV Sexual Risk Among Black Women

- Behavioral
  - Douching and enema use (bacterial vaginosis)
  - Anal sex rates
  - High rates of sexually transmitted infections (STIs) and inadequate treatment
  - Late HIV testing practices

McCombe et al 2004; Myron 2004; Korte et al 2004; Lane et al 2006; Ferguson et al 2003; Adimora 2002; Manavi et al 2004.

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## Common threads with HIV...

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>○ Men primarily through MSM</li> <li>○ Women primarily through heterosexual contact</li> <li>○ Acculturation an issue</li> <li>○ Youth disconnect</li> <li>○ Gender roles</li> </ul> | <ul style="list-style-type: none"> <li>○ Language and literacy an issue</li> <li>○ Country of origin &amp; geographic differences</li> <li>○ Poverty &amp; Substance abuse</li> <li>○ Discrimination</li> <li>○ Risk perception issues</li> </ul> |
|---|---|

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## Deliver What?<sup>1</sup>

1. to carry and turn over: *to deliver mail*
2. to give into another's possession or keeping; surrender
3. to give forth in words; utter or pronounce: *to deliver a speech.*
4. to strike or throw: *to deliver a blow.*
5. to set free or liberate: *The Israelites were delivered from bondage.*

<sup>1</sup>www.dictionary.com

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## Deliver What?<sup>1</sup>

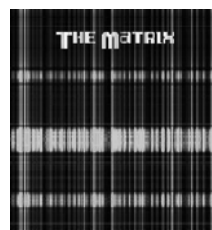
1. to release or save: *Deliver me from such tiresome people!*
2. to assist or give birth to
3. to disburden (oneself) of thoughts, opinions, etc.
4. to make known; assert. —*verb (used without object)*
5. to provide a delivery service for goods and products

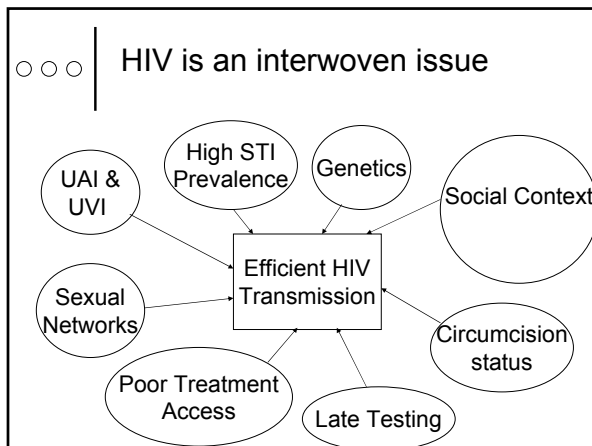
<sup>1</sup>www.dictionary.com

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## To Deliver...





- ○ ○ | Future Directions/Challenges - General
- Remember where we've come from...
  - Learn from previous mistakes (categorizing by "risk group," etc.)
  - Pay attention to diversity within ethnic groups (including "White" and "Black")
  - Stop with mutually exclusive approaches
  - Address heterosexuals (men too!)
  - Change our frame of reference
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- ○ ○ | Future Directions/Challenges - Prevention
- Testing/Treatment by itself is not prevention (think syphilis)
  - More upstream interventions
  - Gender/cultural social empowerment initiatives
  - Addressing mental
  - ABCs – not mutually exclusive
  - Redefining families and social networks as interventions
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- ○ ○ | Future Directions/Challenges - Research
- More "Anna Nicole" coverage
  - Heterosexuals & HIV in the U.S.
  - Immune susceptibility to HIV infection
  - Relationship of social context to immune susceptibility
  - Circumcision as an intervention in U.S.
  - Vaccines/Microbicides \*\*
  - Involvement in clinical studies
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- ○ ○ | Future Directions/Challenges - Treatment
- Funding, Funding, Funding
  - Resistance & side effects issues
  - Chronic disease management
  - Genetics-guided treatment
  - Medical providers representing populations impacted by HIV
  - National HIV initiative needed (like PEPFAR)
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## Final Thoughts...

- Less Beyonce, more critical thinking
- Step away from crisis-based approach to public health
- Focus on improving fundamental causes
- The Global Epidemic is here!

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