

## Choices: The Key to Preventing New Infections and Reversing the Epidemic

### HIV Prevention – What is the Optimal Strategic Combination?

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## Plan of Presentation

- Evidence Base for available HIV prevention tools/Strategies
- Key actions and issues to amplify impact of prevention efforts – what have we learned?
- Sustaining gains
  - Building national capacity
  - Creating a social movement for change
  - Challenge is to change behaviour
- Conclusions

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## Evidence Base

Consensus exists around broad array of proven, effective HIV-prevention strategies...

- Change sexual and drug-using behaviours
- Promote correct and consistent use of male and female condoms
- Reduce the number of sexual partners
- Improve management of STIs
- Broaden access to testing and counselling
- Increase access to harm-reduction programmes for IDUs
- Ensure infection control in health-care settings
- Promote medical male circumcision ???

Source: UNAIDS 2008

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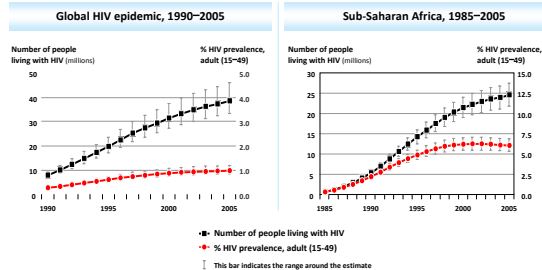
## Newer Strategies

- Microbicides – 2006 onwards (large human trials)
- Female diaphragm
- Adult male circumcision
- pMTCT
- Post-exposure prophylaxis
- Pre-exposure prophylaxis (PEP)
- Secondary benefits from ARVs
- Research on Vaccines – ongoing since 2003 – “ultimately the world’s best hope for reversing the epidemic: UNAIDS 2006”

As of March 2008, 8 trials under way – incl. CAPRISA’s – first trial of microbicide incl. ARVs

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## Estimated number of people living with HIV and adult HIV prevalence



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Year	Adult (15-49) HIV prevalence percent		
	Estimate	low estimate	high estimate
1990	0.8	0.5	1.2
1991	1.2	0.8	1.9
1992	1.9	1.3	2.8
1993	2.9	2.2	4.1
1994	4.4	3.3	5.9
1995	6.2	4.8	8.1
1996	8.4	6.7	10.7
1997	10.6	8.7	13.2
1998	12.8	10.5	15.4
1999	14.5	12.1	17.4
2000	15.9	13.4	18.8
2001	16.9	14.3	19.9
2002	17.6	14.9	20.5
2003	17.9	15.2	20.9
2004	18.1	15.4	21.1
2005	18.2	15.4	21.1
2006	18.2	15.4	21.0
2007	18.1	15.4	20.9

Source: 2008 Report on the global AIDS epidemic. UNAIDS/WHO, July 2008.

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## Issues (1)

- Prevention is most effective when **involve** "strategic combinations of **evidence-informed** strategies that meet **specific** needs of **people at risk**" (UNAIDS)
- Begs answer to several Qs:
- What IS the best combination of available approaches?
  - i.e. Is there an ideal mix...should we follow it?
  - How arbitrate on this mix? CEA? Other ways?
- What does 'involve' actually entail – issues of scale required
  - Stover et al. 2006 – bringing combination HIV prevention to scale would avert over half of all new infections projected to occur 2005-15
- Evidence: population-based behaviour changes lowered incidence by 50-90% on average
  - Auerbach et al. 2006 – based on observation in countries with 'early years' implementations
- Who are the most-at-risk-populations? (MARPs) 15-24's ??
- What in fact are their specific needs – for a temporary panacea, or a more lasting 'cure'?

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## Intensifying HIV Prevention – is the intensity currently enough?

- UNAIDS - (see Position Paper 2006/7) advocates "expanded focus should complement **intensive** knowledge and behaviour change (KBC) interventions"
- [www.scn.bdi.com/docs/7448959/2006GRCD06en](http://www.scn.bdi.com/docs/7448959/2006GRCD06en)
- **Expanded** => Hyper endemic countries require broad-based societal mobilization against sociocultural & economic practices that contribute to unsafe sexual behaviour.
- **Intensive** => KBC – key is reduce numbers have sex with nonregular partner, or multiple concurrent partnerships.
  - (UNAIDS 2008 CH4, p100)
  - **Access to Male Circumcision to be scaled-up. (2007 UNAIDS)**

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## Intensifying HIV Prevention – is the intensity currently enough?

- UNAIDS 2008 now focuses not on individual components, rather is more selective ... "high-impact steps for maximising the impact of **existing** HIV prevention approaches"
- By using evidence-informed HIV prevention more strategically – and by finally addressing many key issues that have been ignored or under-prioritized – accelerated progress can be achieved to the ultimate goal of reversing the global epidemic by 2015 (MDG 6)
- Is there a need for NEW approaches therefore?
- HIV Vaccines and Microbicides Resource Tracking Working Group says yes : A recent report by the Global HIV Prevention Working Group **calls for a major scale-up** of global HIV prevention programs, citing new data which indicate that expanded access to **existing** prevention methods could avert approximately half of the 60 million HIV infections expected to occur by 2015. The report provides additional support for the view that **existing** prevention efforts have not kept pace with the epidemic and **need to be supplemented by new approaches**".

Source: Global HIV Prevention Working Group. Bringing HIV Prevention to Scale: An Urgent Global Priority. (June 2007)

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## Investments in Preventive HIV Vaccine R&D by Country in 2006.

- **Over US \$25 million:** United States
- **US \$10 to 25 million:** Canada, Netherlands, United Kingdom
- **US \$5 to 10 million:** Ireland, **South Africa**
- **US \$1 to 5 million:** Australia, China, Denmark, France,
- Germany, Italy, Japan, Norway, Sweden
- **US \$500k to 1 million:** Brazil, **Russian Federation**
- **US \$50k to 500k:** Cuba, Finland, Thailand
- **TOTAL = c. \$ 800 mn.**

Source: BUILDING A COMPREHENSIVE RESPONSE: "Funding for HIV Vaccine, Microbicide and New Prevention Tools Research and Development 2000 to 2006" November 2007 by HIV Vaccines and Microbicides Resource Tracking Working Group\* Table 4. National Public Sector

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## Political Economy

Support for vaccine R & D is provided by the:

Alliance for Microbicide Development (AMD), the AIDS Vaccine Advocacy Coalition (AVAC), the International AIDS Vaccine Initiative (IAVI), and the International Partnership for Microbicides (IPM) and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

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## HSRC 2008: assessing against NSP (2007-2011)

In addition to understanding the current epidemic, trend analysis on data from the three surveys provides critical information on the dynamics of the epidemic. Input to mid-term review.

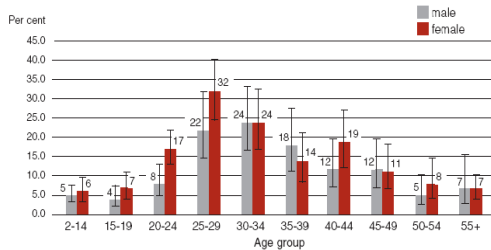
Need combined information – x-sections AND time-series - to assess the extent to which South Africa is making progress in responding to the HIV challenge. HSRC (2009) supplies:

1. results from national data - 2008 HIV prevalence estimates for the population aged 2+ years stratified by five-year age groups and sex of the respondent.
2. national trend data that allows assessment of the impact of HIV prevention programmes based on outcomes on HIV prevalence and to some extent on the incidence of HIV.

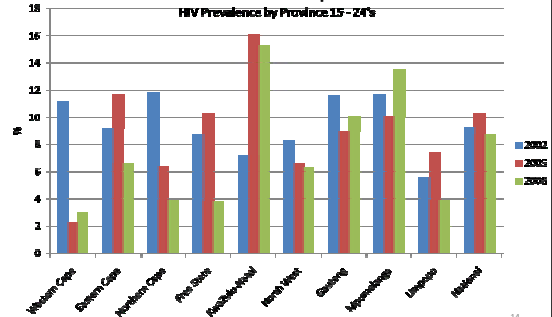
Some findings for discussion follow...

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### S.A. - HIV age and sex distribution (2005/8)



### The 15-24 Group : Key to the Future Course of the Epidemic



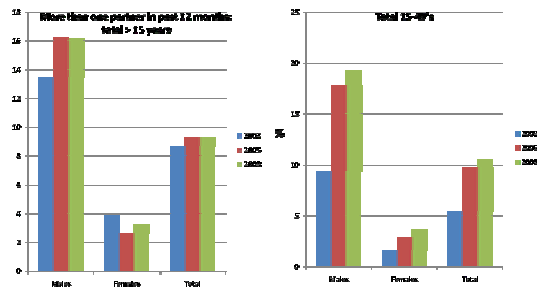
### Intensive vs Expanded Focus

- Expanded** => Hyper endemic (15%+ prev.) countries require broad-based societal mobilization against sociocultural & economic practices that contribute to unsafe sexual behaviour.
  - Some of the practices in SA:
    - Having babies before marriage to show fertility (Leclerc-Madlala 2008)
    - Sex-for-goods
    - Image of man as conqueror => many partners
    - Marriage contracts, Lobola etc. Perpetuate sex before marriage
  - How will social mores be changed?

### Intensive knowledge and behaviour change (KBC) interventions

- Intensive => KBC – key is reduce numbers have sex with nonregular partner, or multiple concurrent partnerships.
- Part of emphasis on behavioural determinants
  - Sexual debut
  - Intergenerational Sex
  - Multiple Partnerships
  - Condom Use
  - Awareness of Status
  - Knowledge of HIV/AIDS
  - Exposure to Communication Programmes

More than one partner in past 12 months: total > 15 years vs.  
More than one partner in past 12 months: total 15-49 years



### Need #1

- Effective strategies for youth urgently needed
  - School-based programmes – as per Kenya and Zimbabwe e.g's
  - Community-based programmes for young
  - Mass media
  - Youth services
  - Church-based programmes
- All have yielded positive, sometimes, strong, behavioural results

## Need #2

- Check, then reduce prevalence among MARPs
  - African females 20-34 (32.7 %)
  - African males 25-49 (23.7 %)
  - High-risk drinkers (13.9 %)  
2008 figures
- However, between 2002 and 2008, significant increases in multiple sexual partnerships
  - African females 20-34 - 1.3% to 4.3%
  - African males 25-49 – 7% to 17.4%
  - Drinkers show steady high rates of MSP
- 'One-love' campaign a start in right direction, belatedly, but needs large-scale to make difference

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## Need #3

- Mass communication and moderate levels of knowledge do not necessarily translate into change of behaviour...but it is possible over medium term
- Opportunity cost of persevering with 'newer' methods/approaches is high – sacrifice of effective education programmes etc.
- Prevalence has only 'levelled off' – no cause for complacency as c. 11% of > 2+, and 19 % of 15-49s.
- These estimates are fraught with problems, and should be treated with caution, and confirmed by ante-natal survey data, and local data where possible (v. high levels in KZN and MP – both over 23 % of 15-49s.)
- Don't yet know effect of ART on transmission – higher adult survival affects prevalence ratio. Mortality changes affect denominator.
- Incidence (numerator) is unreliably estimated from prevalence => caution! Await confirmation of this key indicator from HSRC.
- Only lowering incidence can reverse the epidemic ultimately.

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## Conclusions

- Some key challenges in changing risk-behaviour, now in mainstream thinking
  - E.g. Global HIV Prevention Group 2008
- All agree by now that reducing partners, esp. MCPs (overlaps) is essential to success – MARP context
- Debate now is HOW... => investigate theories of behaviour change and conduct local empirical studies
- Will govt fund – or left to donors/NGOs?
- Moral choices to be made – will enough money be committed?
- Is money alone enough? Necessary vs. Sufficient conditions
- Will govt talk straight to the problem?
- Narrow path and broad path...life and death

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## Thank You

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