Does marriage decrease HIV risk? NO
(and even if it did, it is a bad idea to encourage pro-marriage programmes)

Francois Venter
Wits Reproductive Health and HIV Institute (RHI)
Why are we here?


<table>
<thead>
<tr>
<th>Age groups (years)</th>
<th>2002–2005 (%)</th>
<th>95% CI</th>
<th>2005–2008 (%)</th>
<th>95% CI</th>
<th>2008–2012 (%)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>15–49 years</td>
<td>2.2</td>
<td>0.9–4.0</td>
<td>1.9</td>
<td>0.8–3.3</td>
<td>1.9</td>
<td>0.8–3.1</td>
</tr>
<tr>
<td>Males</td>
<td>1.2</td>
<td>0.1–3.0</td>
<td>1.6</td>
<td>0.6–3.0</td>
<td>1.6</td>
<td>0.6–2.7</td>
</tr>
<tr>
<td>Females</td>
<td>3.2</td>
<td>1.8–5.0</td>
<td>2.2</td>
<td>1.0–3.6</td>
<td>2.1</td>
<td>1.0–3.4</td>
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<tr>
<td>15–24 years</td>
<td>2.8</td>
<td>1.7–4.2</td>
<td>2.3</td>
<td>1.2–3.5</td>
<td>1.5</td>
<td>0.8–2.3</td>
</tr>
<tr>
<td>Males</td>
<td>0.6</td>
<td>0.1–1.6</td>
<td>1.4</td>
<td>0.5–2.3</td>
<td>1.0</td>
<td>0.4–1.6</td>
</tr>
<tr>
<td>Females</td>
<td>5.3</td>
<td>3.6–7.1</td>
<td>3.5</td>
<td>2.1–4.9</td>
<td>2.1</td>
<td>1.2–3.1</td>
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</tbody>
</table>

Plausible...

- ‘Dose’-associated risk of HIV – decrease the dose ie: number of sexual partners → less HIV
- Marriage – a form of socially-enforced monogamy (‘faithful’ polygamy; modern relationships nonwithstanding – gay, open, etc)
- Other benefits – encourages social cohesion, cheaper together, more ‘moral’
- Marriage unusual and late in South Africa
Constant appeals to morality, family values and a better time....

- Modern relationships, pornography, concurrency, video games, promiscuity, drug use, degradation of respect, sugar daddies, single people, TV, materialism

- “Our youth now love luxury. They have bad manners, contempt for authority; they show disrespect for their elders and love chatter in place of exercise; they no longer rise when elders enter the room; they contradict their parents, chatter before company; gobble up their food and tyrannize their teachers.”

- Socrates ≈ 400 BC
Marriage protective?

• Its easy to be cynical
• Tiger Woods, Bill Clinton, Angelina Jolie, Jacob Zuma, King Mwswati, Elizabeth Tailor...
• PEP experience...
Marriage history

• The notion of routine ‘romantic marriage’ is a recent one... historically seen as dangerous

• Most marriage was transactional or they cemented family ties

• Many used women as ‘objects’ – but many exceptions!
MARRIAGE =

MAN + WOMAN
(NUCLEAR FAMILY)
Genesis 2:24
-wives subordinate to their husbands
-interfaith marriages forbidden
-marriages generally arranged, not based on romantic love
-bride who could not prove her virginity was stoned to death

MAN + BROTHER'S WIDOW
(LEVRATE MARRIAGE)
Genesis 38:6-10
-widow who had not borne a son required to marry her brother in law
-must submit sexually to her new husband

MAN + WIVES + CONCUBINES
Abraham (2 concubines), Gideon (1), Nahor (1), Jacob (1), Eliphaz (1), Gideon (2), Caleb (2), Manassah (1), Solomon (300), Belshazzar (>1)

RAPIST + HIS VICTIM
Deuteronomy 22:28-29
-virgin who is raped must marry her rapist
-rapist must pay victim's father 50 shekels of silver for property loss

MAN + WOMAN + WOMAN'S PROPERTY
Genesis 16
-man could acquire his wife's property including her slaves

MALE SOLDIER + PRISONER OF WAR
Numbers 31:1-18, Deuteronomy 21:11-14
-under Moses' command, Israelites kill every Midianite man, woman and child; save for the virgin girls who are taken as spoils of war
-wives must submit sexually to their new owners

MAN + WOMAN + WOMAN + WOMAN...
(POLYGANY)
Lamech (2 wives), Esau (3), Jacob (2), Ashur (2), Gideon (many), Elkanah (2), David (many), Solomon (700), Rehoboam (3), Abijah (14), Jehoram, Joash, Ahab, Jeholachin, Belshazzar

MALE SLAVE + FEMALE SLAVE
Exodus 21:4
-slave owner could assign female slaves to his male slaves
-female slaves must submit sexually to their new husbands
Complex cultural issues

• Like lobola
• Even the definition of marriage...
• HSRC 2012: Marriage minority (30-40%); similar cohabiting
• Tax breaks, cheaper to live together, socially encouraged... some strong incentives to marry
Reality

- US: Up to 80% of one or both partners cheat in a relationship
- KZN: 1/3 men cheated over 5 years
- Shisana/HSRC: Married women higher risk than married men
Mistake – confusing correlation and causation
Sex and death

Number of people killed by a normalised hurricane versus perceived masculinity or feminity of its name (1 = most masculine)

- **Low-damage storm**
- **High-damage storm**

*Adjusted for wind speed, category and minimum central pressure

Source: Jung et al, Proceedings of the National Academy of Sciences
Number of people who were electrocuted by power lines correlates with

Marriage rate in Alabama

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of people who were electrocuted by power lines</th>
<th>Marriage rate in Alabama</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>127</td>
<td>10.8</td>
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<tr>
<td>2000</td>
<td>99</td>
<td>10.1</td>
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<td>2001</td>
<td>83</td>
<td>9.4</td>
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<td>2002</td>
<td>109</td>
<td>9.9</td>
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<td>2003</td>
<td>96</td>
<td>9.6</td>
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<td>2004</td>
<td>94</td>
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<td>2005</td>
<td>105</td>
<td>9.2</td>
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<tr>
<td>2006</td>
<td>93</td>
<td>9.2</td>
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<tr>
<td>2007</td>
<td>88</td>
<td>8.9</td>
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<tr>
<td>2008</td>
<td>84</td>
<td>8.6</td>
</tr>
<tr>
<td>2009</td>
<td>71</td>
<td>8.3</td>
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<tr>
<td>2010</td>
<td>63</td>
<td>8.2</td>
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</tbody>
</table>

Correlation: 0.903602
• But it IS more plausible that marriage is tied up with HIV risk...
• BUT also may be simply the ‘coffee’ phenomenon – association, not causation
Mistake

• Believing the data shows this
<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th></th>
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<th>Males</th>
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<th></th>
<th>Females</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>95% CI</td>
<td>n</td>
<td>%</td>
<td>95% CI</td>
<td>n</td>
<td>%</td>
<td>95% CI</td>
<td>n</td>
<td>%</td>
<td>95% CI</td>
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<tr>
<td><strong>Marital status</strong></td>
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<tr>
<td>Married/Civil union</td>
<td>6,741</td>
<td>10.0</td>
<td>8.5–11.8</td>
<td>2,983</td>
<td>9.3</td>
<td>7.4–11.6</td>
<td>3,758</td>
<td>10.8</td>
<td>8.7–13.2</td>
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<tr>
<td>Going steady or Living together (not married)</td>
<td>6,168</td>
<td>24.3</td>
<td>22.3–26.5</td>
<td>2,737</td>
<td>19.2</td>
<td>16.7–21.9</td>
<td>3,431</td>
<td>29.5</td>
<td>26.6–32.6</td>
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<tr>
<td>Single (not in a relationship)</td>
<td>4,987</td>
<td>14.3</td>
<td>12.1–16.8</td>
<td>2,348</td>
<td>9.4</td>
<td>6.3–13.6</td>
<td>2,639</td>
<td>19.9</td>
<td>16.8–23.3</td>
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<tr>
<td>Widowed</td>
<td>1,773</td>
<td>13.8</td>
<td>11.1–17.0</td>
<td>288</td>
<td>15.0</td>
<td>9.6–22.8</td>
<td>1,485</td>
<td>13.5</td>
<td>10.6–17.0</td>
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<tr>
<td>Divorced</td>
<td>693</td>
<td>12.3</td>
<td>8.6–17.3</td>
<td>232</td>
<td>16.1</td>
<td>9.1–27.1</td>
<td>461</td>
<td>10.3</td>
<td>6.9–15.1</td>
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<tr>
<td><strong>Household economic situation</strong></td>
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<tr>
<td>Not enough money for basic things like food and clothes</td>
<td>11,209</td>
<td>14.7</td>
<td>13.6–15.8</td>
<td>5,088</td>
<td>11.8</td>
<td>10.5–13.1</td>
<td>6,121</td>
<td>17.5</td>
<td>16.0–19.0</td>
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<tr>
<td>Money for food and clothes, but short of many other things</td>
<td>8,825</td>
<td>12.6</td>
<td>11.1–14.3</td>
<td>3,924</td>
<td>10.3</td>
<td>8.3–12.7</td>
<td>4,901</td>
<td>14.6</td>
<td>12.6–16.8</td>
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<tr>
<td>Have most of the important things, but few luxury goods</td>
<td>4,300</td>
<td>5.8</td>
<td>4.3–7.9</td>
<td>1,879</td>
<td>4.8</td>
<td>3.0–7.6</td>
<td>2,421</td>
<td>6.8</td>
<td>5.0–9.2</td>
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<tr>
<td>Money for extra things such as holidays and luxury goods</td>
<td>1,006</td>
<td>2.2</td>
<td>1.3–3.8</td>
<td>470</td>
<td>1.6</td>
<td>0.7–3.4</td>
<td>536</td>
<td>2.8</td>
<td>1.5–5.5</td>
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<tr>
<td>Variables</td>
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<td>HIV incidence % (95% CI)</td>
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<td><strong>Marital status</strong></td>
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</tr>
<tr>
<td>Married</td>
<td>3,660</td>
<td>0.55 (0.45–0.65)</td>
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<tr>
<td>Living together</td>
<td>1,499</td>
<td>3.08 (2.48–3.68)</td>
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</tr>
<tr>
<td>Going steady</td>
<td>4,276</td>
<td>1.99 (1.61–2.37)</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>Single</td>
<td>4,432</td>
<td>2.28 (1.82–2.74)</td>
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</tbody>
</table>
Conflicting data....


- Lesotho and Zim – married women more likely to be infected: Marriage, widowhood, divorce and HIV risks among women in sub-Saharan Africa. Tenkorang EY Int Health. 2014.

- Unsurprising: marriage may correlate with different cultural (and hence HIV modifying behaviours) by time, geography, religion, finances....
• In poorer married households, both partners great risk for having HIV; but significantly higher for women
• Equivalent risk in richer households
Mistake

• Unintended consequences of ‘encouraged marriage’?
Parachute

• Do we need evidence when we know its a good idea?

Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials

Gordon C S Smith, Jill P Pell
• Do we need evidence when we know it’s a good idea?
The book of public health harms is yet to be written.

Unfortunately, this is how the brain works:

Sir! We are receiving information that conflicts with the core belief system!

Get rid of it.
Other associations...

- Gender violence in relationship α strongly with HIV (and 30-60% are abused, depending on definitions, population surveyed)
- No one in marriage uses condoms
- Staying in school, not falling pregnant associated with lower HIV
How may a pro-marriage programme promote HIV?

• Encourage (especially young) women to enter relationships before they are independent
• Earlier pregnancy, financial implications (Economist 2012)
• Early exit from school, university
• Earlier economic dependence, less flexibility, trapping people
• Infidelities can be catastrophic – condom use not negotiable, hence no disclosure; acute HIV within a relationship
• Traditional ‘widowhood’ rites may put women at risk
Percentage of ever-married women who have experienced spousal physical or sexual violence by their current or most recent husband or partner in the past 12 months, by age

Source: Demographic and Health Survey
(a last aside...)

• Cultures with polygamous relationships more protective than monogamous ones

Polygyny, partnership concurrency, and HIV transmission in Sub-Saharan Africa, Reniers G, Demography 2012
What **SHOULD** we be doing?

- Empowering young people (ESPECIALLY women) to demand better quality relationships
- Not tolerating emotional or physical abuse
- Not adding to social pressure to settle down early
- Making healthy sexual choices (teaching sex for pleasure, not just conception (*but that too!*))
- Mutually agreed child-rearing responsibilities
- Improving economic opportunities to decrease reliance on partners, decrease being trapped in relationships
- Beware of moralising, stigmatising programmes that are coated in HIV prevention conventional wisdom
“I've changed my mind Donald. I don't want to put a little spice back into our marriage anymore.”
SAVE TAC, SAVE LIVES

SOUTH AFRICA NEEDS TAC NOW MORE THAN EVER!

Donate TODAY!

www.tacgivengain.org