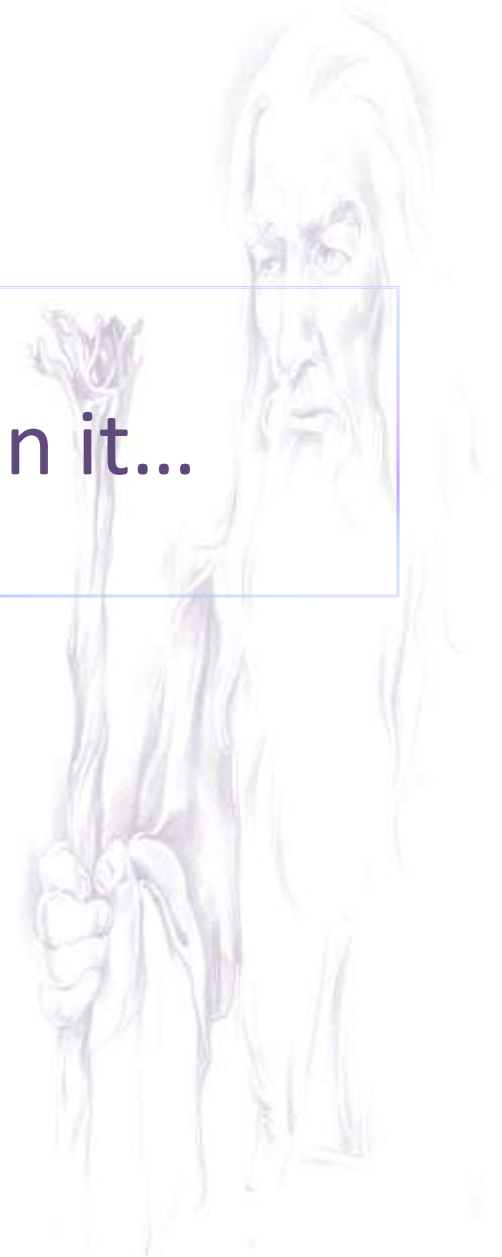


# The HIV Epidemic and my part in it...

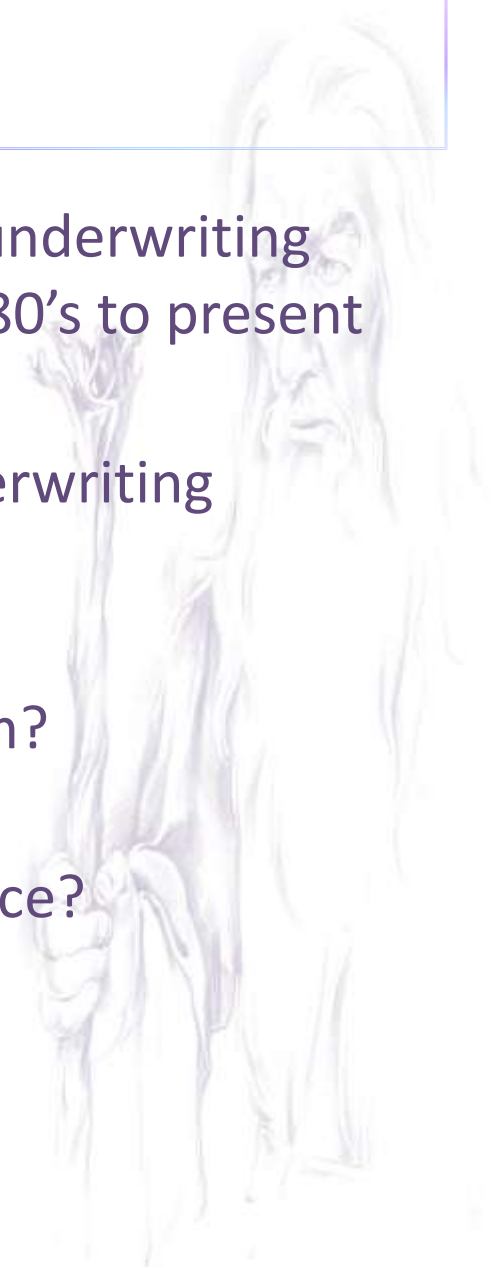
Jerry Brown

Mithrandir Consulting



# Presentation overview

- An overview of the UK's insurance industry's underwriting response to the global HIV epidemic from 1980's to present
- The impact of changes in social attitudes underwriting practices
- Where will future similar challenges arise from?
- What lessons are there from the HIV experience?



# My Dad works with AIDS...

- I acquired AIDS in 1985
  - fortunately not literally
- Lets put the year in perspective
  - Margaret Thatcher was Prime Minister
  - The miners' strike ends after one year
  - Live Aid pop concerts in London and Philadelphia
  - Wayne Rooney was born
  
  - South Africa ends its ban on interracial marriages
  - The first smoking ban in restaurants in the United States is passed in Aspen, Colorado
  
  - The CD was invented the year before
  - The Dire Straits album, Brothers In Arms, becomes the first million selling compact disc
  
  - The first British mobile phone call is made
  - No internet
  - Commodore launches the Amiga personal computer
  - Nintendo releases a limited batch of Nintendo Entertainment System and Super Mario Bros was born



# The era in perspective - 1985

- First meeting of the Government's Expert Advisory Group on AIDS
- Publication of 'HTLV-III Antibody testing - To Test Or Not To Test'.
- Blood donation centres commence screening donated blood for HIV.
- Death of Rock Hudson from an AIDS-related illness.
- Britain's STD clinics commence an HIV screening service.
- 2,748 UK HIV reports.
- 265 UK AIDS cases (140 deaths; 125 patients still living).



# The era in perspective - 1986

- The Government launches its first AIDS health promotion campaign
- Life insurance companies start to ask questions about HIV tests
- House of Commons stages an emergency debate on AIDS
- 5,300 UK HIV reports
- 610 AIDS cases (293 deaths; 317 patients still living).



# The “Lifestyle” questionnaire

- 1 In which of the following sexual groups would you place yourself?  
Heterosexual  Homosexual  Bisexual
- 2 Have you ever belonged to either of the sexual groups not selected in Question 1? Yes  No   
If 'Yes', please state which, in the box overleaf
- 3 Are you now or have you ever been an intravenous (I.V.) drug user, or taken drugs other than for medical purposes? Yes  No   
If 'Yes', please state which and provide full details including type of drug and dates of use, in the box overleaf
- 4 Do you, or have you ever, suffered from a blood clotting disorder (e.g. Haemophilia)? Yes  No   
If 'Yes', please give full details, in the box overleaf
- 5 Have you ever undergone any surgical procedure outside the UK or Eire or been a recipient of blood or blood products outside the UK or Eire? Yes  No   
If 'Yes', please give full details including dates, countries and circumstances, in the box overleaf
- 6 Are you now, or have you ever been, a sexual partner of anyone in the following categories:
- |  |                              |                             |
|--|------------------------------|-----------------------------|
| Homosexual   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Bisexual   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Intravenous (I.V.) Drug User                                   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Haemophiliac   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Anyone whose normal residence is or was outside the UK or Eire | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
- If 'Yes', please give the country of residence and date(s), in the box overleaf
- 7 a) Have you ever tested positive for HIV/AIDS or are you awaiting the results of such a test? Yes  No
- b) Have you ever been tested or treated for other sexually transmitted diseases or Hepatitis B or C? Yes  No
- If you answer 'Yes' to b, please give full details including dates, results and name of doctor or clinic attended. For additional confidentiality, these may be sent direct in a sealed envelope to the Chief Medical Officer at Legal & General Assurance Society Ltd, PO Box 1186, Hove, East Sussex, BN3 1SD.
- Please indicate if you are taking this course of action Yes  No
- 8 If your Life Assurance application is in connection with a mortgage, please state the name and relationship of the co-purchaser, if any.



# Underwriting changes

- Lifestyle questionnaires required at £50k-£100k
- HIV testing introduced at £100k-£150k
- High risk occupations (ROFL!)
- Ratings for all low risk “high risk” group members
  - £3 to £5 per mil per p.a.



This was something scary going on

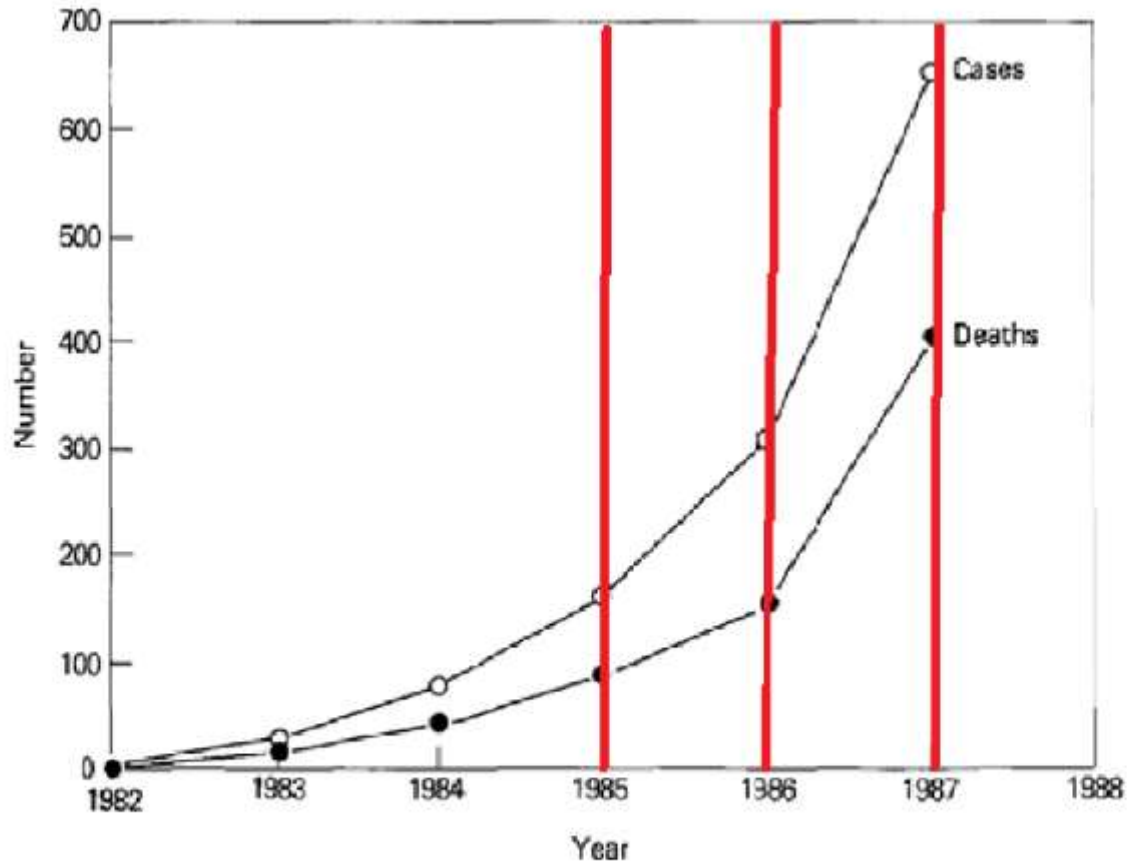


Figure 1. Reported cases of AIDS and deaths from AIDS in the U.K. 1982-87.





# The era in perspective – 1987/8

## 1987

- ‘National AIDS Week’ broadcast on all UK television channels
- 7,648 UK HIV reports.
- 1,227 AIDS cases (697 deaths; 530 patients still living)

## 1988

- Publication of the Cox Report on projected AIDS cases.
- 9,287 UK HIV reports.
- 1,982 UK AIDS cases (1,059 deaths; 923 patients still living).



# Actuarial projections – we are all doomed!

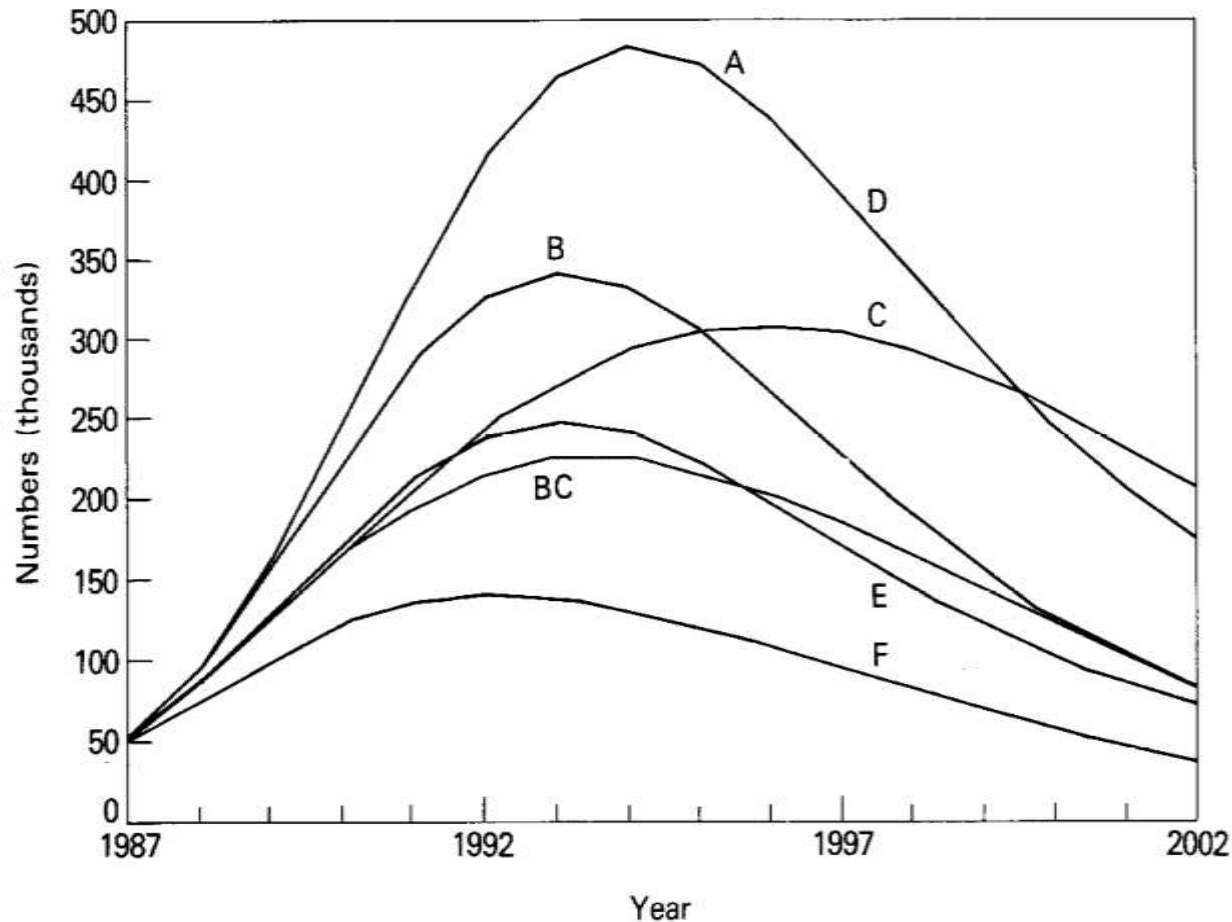


Figure 6. Projected numbers HIV-positive at 31 December each year. Projections A-F.



# Product design

- Premiums increased significantly
- Lifestyle questions were included in application forms
- One insurer launched an AIDS free life product
  - HIV test required to qualify
  - AIDS/HIV excluded as a cause of death
- HIV/AIDS exclusions introduced as standard policy exclusion for IP and CI
- HIV cancellation clause also added to IP contracts
  - Contract void if person insured becomes HIV positive
- Occupational scheme underwriting adjusted to load or decline high risk schemes
  - Cabin crew



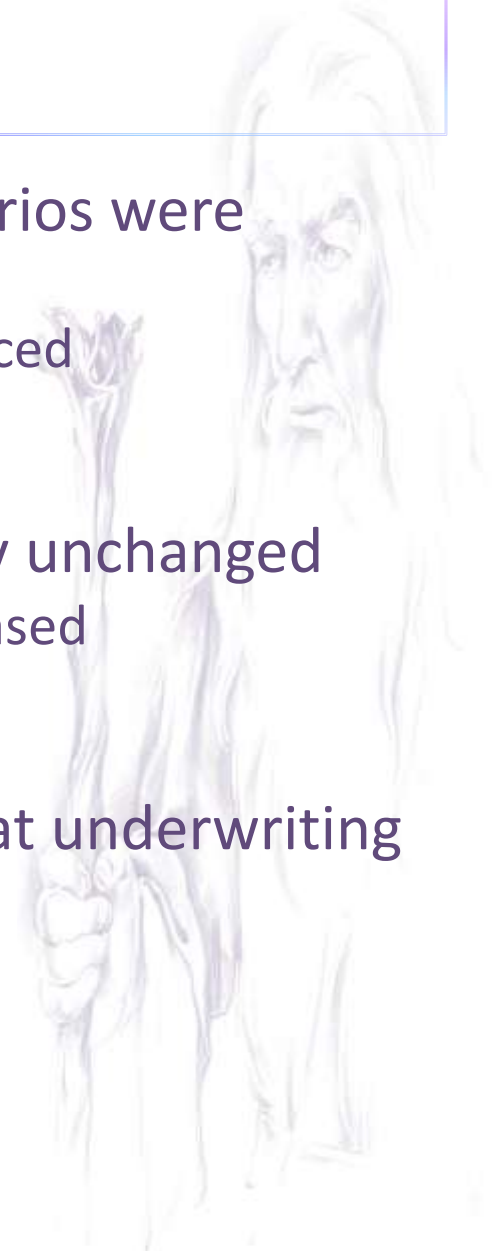
# The Gay Times years...

- Gaining insight into how effective our underwriting practices were
  - to be tested or not
  - the use of GU clinics
  - anonymous testing
  - the difficulty in identifying AIDS deaths
- Monitoring AIDS death claims
- Essential research material
  - Gay Times subscription
  - various books with title guaranteed to embarrass
  - openly read on the train...
- The Cheltenham incident...



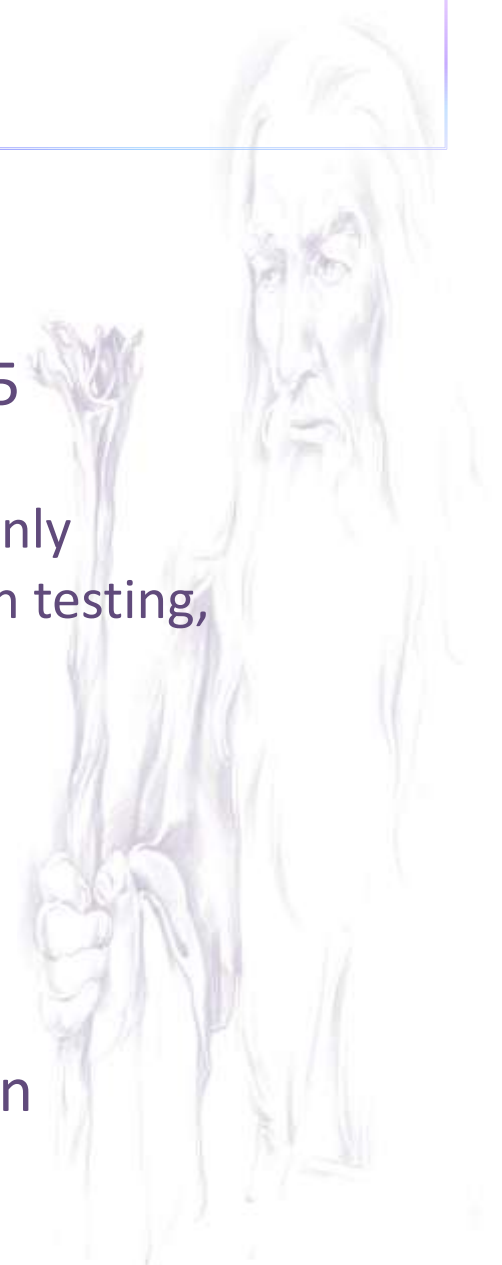
# And the status quo was maintained for the next 10 years...

- As it emerged that even the best case scenarios were overly pessimistic
  - additional AIDS reserves were gradually reduced
  - premium loads removed
- But underwriting practices continued largely unchanged
  - HIV testing limits gradually started to be increased
  - Lifestyle questioning remained unchanged
- It wasn't until the late 90's and early 00's that underwriting practices began to be really challenged



# The beginning of the end...

- ABI HIV Working Group in 2003
- HIV Statement of Best Practice October 2005
  - End of lifestyle questioning
  - HIV test questions restricted to positive tests only
  - Insurers must comply with agreed standards on testing, collection/use/accuracy of information etc
- Testing limits increased
- Policy restrictions and exclusions removed
- HIV infection becomes an insurable condition



# Future challenges?

- Recent close shaves...
  - BSE
    - new variant Creutzfeldt–Jakob disease
    - by end 2009 it had killed 166 people
  - SARS
- An ongoing challenge
  - Genetic testing/screening
- What next...



# Judging by Cinema and TV...





# More of the same...

Areas reporting confirmed human cases for influenza A(H7N9) to WHO from 2013-06-01 \*



\*All dates refer to onset of illness  
Data as of 09/04/2014  
Source: WHO

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# More of the same...

Is Middle East Respiratory

www.thedailybeast.com/articles/2014/05/03/is-middle-east-respiratory-syndrome-mers-the-next-sars.html

THE DAILY BEAST POLITICS ENTERTAINMENT WORLD NEWS TECH + HEALTH FASHION GREAT ESCAPES WOMEN BOOKS

WRITTEN BY  
Dr. Anand Veeravagu, MD

## Is Middle East Respiratory Syndrome (MERS) the Next SARS?

The first U.S. case of MERS landed in Indiana—smack-dab in the heartland. Is it time to panic?

More than 7,000 miles: this is the linear distance from Riyadh, Saudi Arabia to Munster, Indiana, the location of the first American case of Middle East Respiratory Syndrome (MERS).

The carrier, a health care provider, flew from Riyadh to Chicago, by way of London, and then boarded a bus to Indiana. One of the initial challenges to the Centers for Disease Control (CDC) will be precisely tracing his journey and all individuals who may have been exposed to the virus. This is no simple task, but one that the CDC is somewhat familiar with. (You may recall that the CDC had to conduct the same surveillance for patients diagnosed with SARS several years ago.)

The virus, MERS-CoV, belongs to a family of coronaviruses (CoV) and causes a

### READ THIS. list

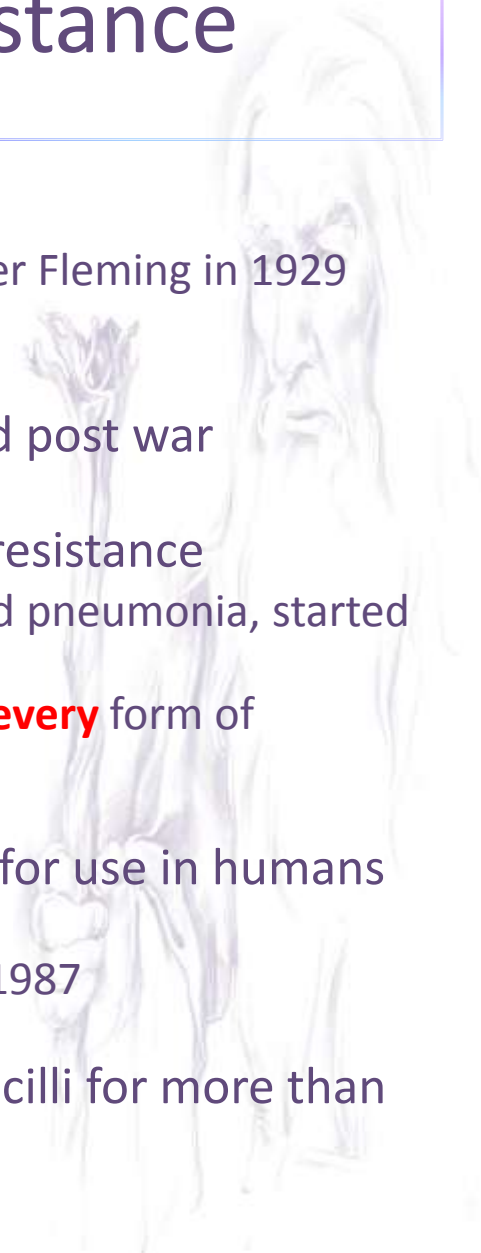
- 1 The Virus That Traveled 7,000 Miles  
*by Dr. Anand Veeravagu, MD*
- 2 'In Cold Blood' in Ukraine  
*by Jamie Dettmer*
- 3 Obamacare Truthers Lose Another One  
*by Michael Tomasky*
- 4 Is The NSA Hiding Another Heartbleed?  
*by Joshua Kopstein*
- 5 Call Of Duty: Kevin Spacey  
*by Amy Zimmerman*

3001  
03/05/2014



# More of the past - antibiotic resistance

- Antibiotics revolutionised medicine
  - The first antibiotic, penicillin, was discovered by Alexander Fleming in 1929
  - It was not extensively used until the 2nd World War
- Many more antibiotics were developed were developed post war
- It took less than 20 years for, bacteria to show signs of resistance
  - *Staphylococcus aureus*, which causes blood poisoning and pneumonia, started to show resistance in the 1950s
  - today there are different strains of *S. aureus* resistant to **every** form of antibiotic in use
- Two systemic antibacterial agents have been approved for use in humans by the U.S. FDA from 2008 through the current year.
  - Compare that to sixteen that were approved from 1983-1987
- No new classes of antibiotics to treat Gram-negative bacilli for more than 40 years...



# Climate Change

- French vineyards have been buying south facing hills in Scotland
- Sea level rise and temperature change will
  - compress populations
  - reduce availability of agricultural land
  - increase pressure on water supplies
- Tropical diseases will move to previous temperate zones
- Perfect conditions for infectious diseases to spread...



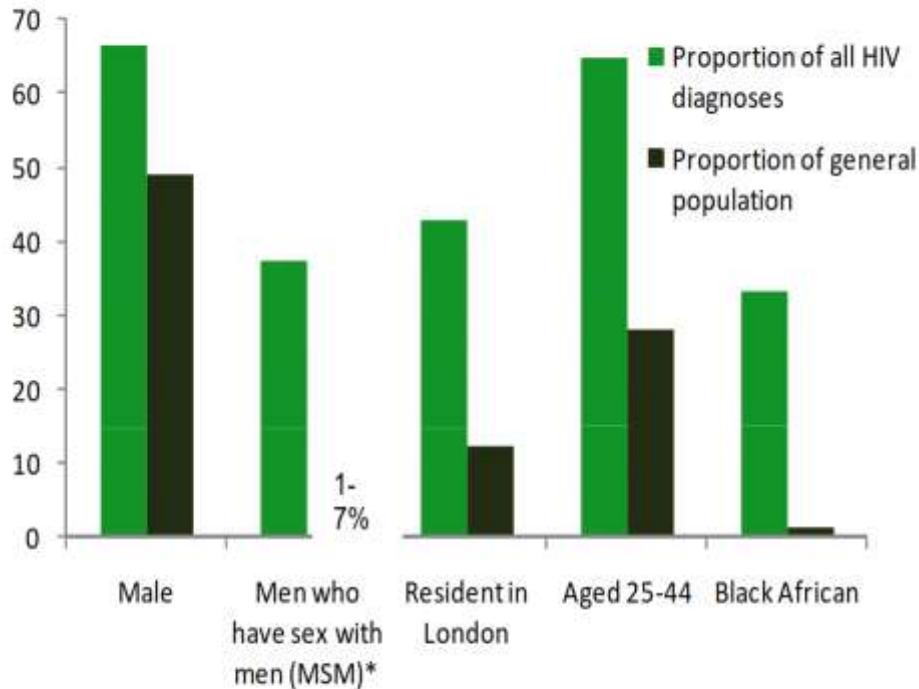
# HIV/AIDS – lessons learned?

- The HIV epidemic appeared to be the perfect storm...
  - easily transmitted, few/no symptoms
  - no effective treatment & rapid decline to death
  - affecting the affluent sector of population
- Time showed it was quite the opposite
  - but that is easy to say with a considerable degree of hindsight
- In fact it was the perfect model for how to do it the next time around...
- We just need to ensure that our practices evolve more rapidly with emerging understanding



# Were we wrong....

Chart 2 below illustrates data for characteristics positively correlated with HIV infection.



Note: The prevalence of homosexuality/bisexuality is a matter of debate, and its estimation is subject to definitional and methodological difficulties. The range of 1% to 7% presented in the chart is simply a halving of the numbers in a 2% to 14% range from a review of major studies into prevalence in Western societies (the range is halved because it is prevalence of male homosexuality/bisexuality under consideration)



# The Genie is out of the bottle...

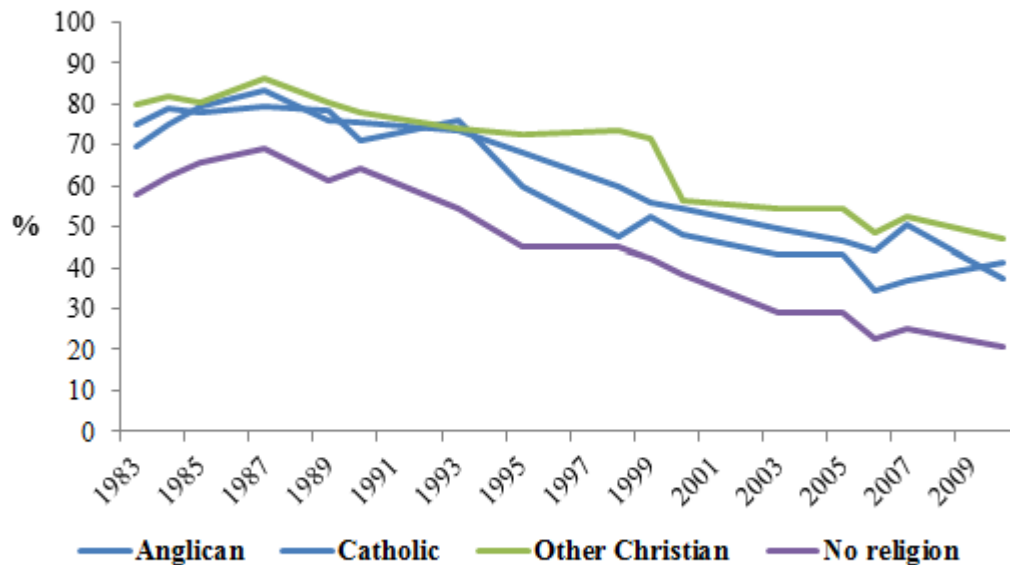
- Genetic testing set the precedent for restrictions on insurers right to underwrite
  - industry inability to handle the press
  - DoH perception that research would be held back
  - Politics, and the timing of the next election!
- Whilst we need to defend our right to underwrite we must operate within socially and politically acceptable parameters



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# Times and attitudes change

**Figure 1** Attitudes towards sexual relations between adults of the same sex ('always wrong' or 'almost always wrong'), 1983-2010



Source: BSA surveys. Weighted data.

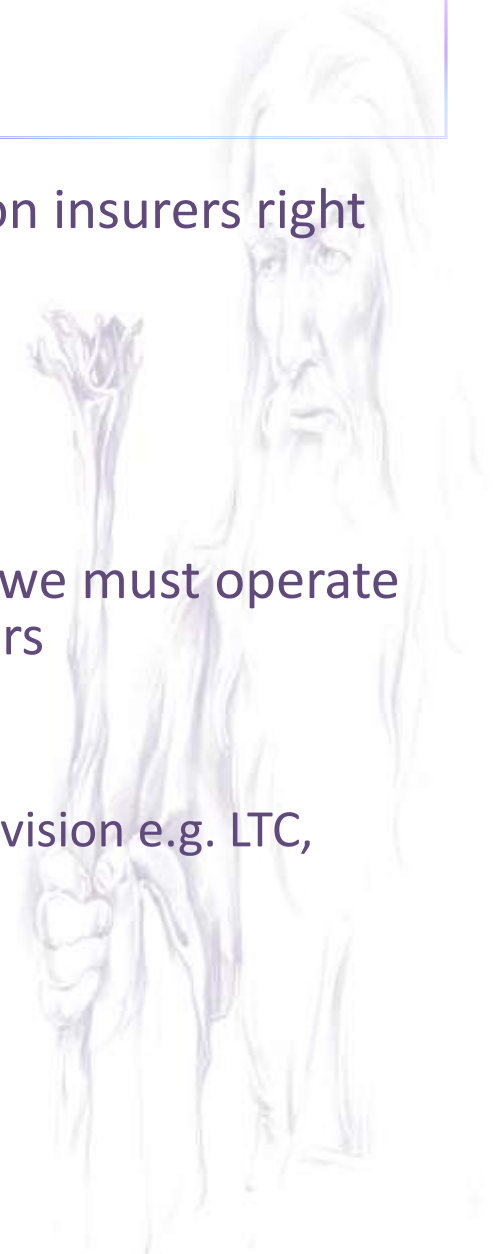
Question: 'About sexual relation between two adults of the same sex. Do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?'





# The Genie is out of the bottle...

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- Whilst we need to defend our right to underwrite we must operate within socially and politically acceptable parameters
- This is particularly so where private insurance is
  - stepping into areas previously satisfied by state provision e.g. LTC, retirement provision
  - a pre requisite for socially important developments



# Private insurance cannot be a barrier to socially important products



**NEWS** | **IMAGES** | **VOICES** | **SPORT** | **TECH** | **LIFE** | **PROPERTY** | **ARTS + ENTS** | **TRAVEL** | **MONEY**

Fashion v / Food & Drink v / Health & Families v / History / Gadgets and Tech v / Motoring v / Dating v / Cross

Life

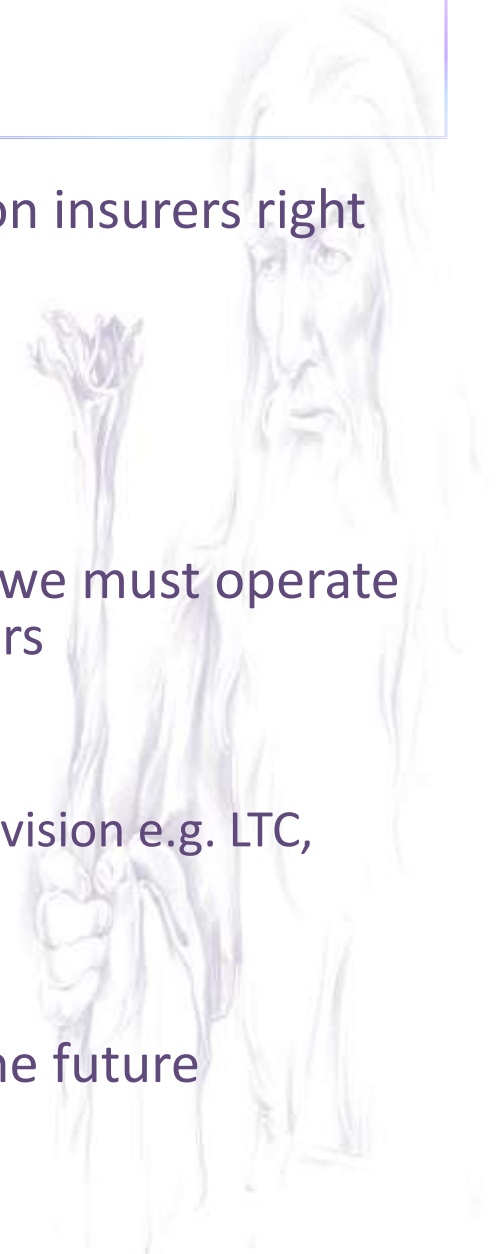
Get this straight: it's an HIV test or no mortgage  
Get this straight: it's an HIV test or no mortgage

**LINDA GRANT** | Sunday 08 January 1995



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  - a pre requisite for socially important products
- Socio-economic red lining likely to be challenged in the future



# The HIV Epidemic and my part in it...

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