

# Hormonforstyrrende stoffer, hormonsygdomme og fertilitetsforstyrrelser

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Rigshospitalet og Københavns Universitet

ehp

Environmental Health  
**perspectives**  
Supplements

WHO workshop 1991  
Miljøminister Per Stig Møller

Impact of the Environment on  
Reproductive Health



Miljøprojekt  
nr. 290

1995

Male Reproductive Health  
and  
Environmental Chemicals  
with Estrogenic Effects

1995

Ministry of Environment and Energy, Denmark  
Danish Environmental Protection Agency

Miljø- og Energiministeriet **Miljøstyrelsen**

Inside Trump's Haunted House / Death of the Keyboard

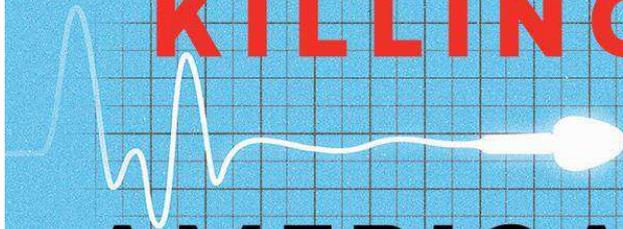
**Newsweek**

**WHO'S**

09.22.2017

The sudden rise in male infertility is a scary national crisis.

**KILLING**



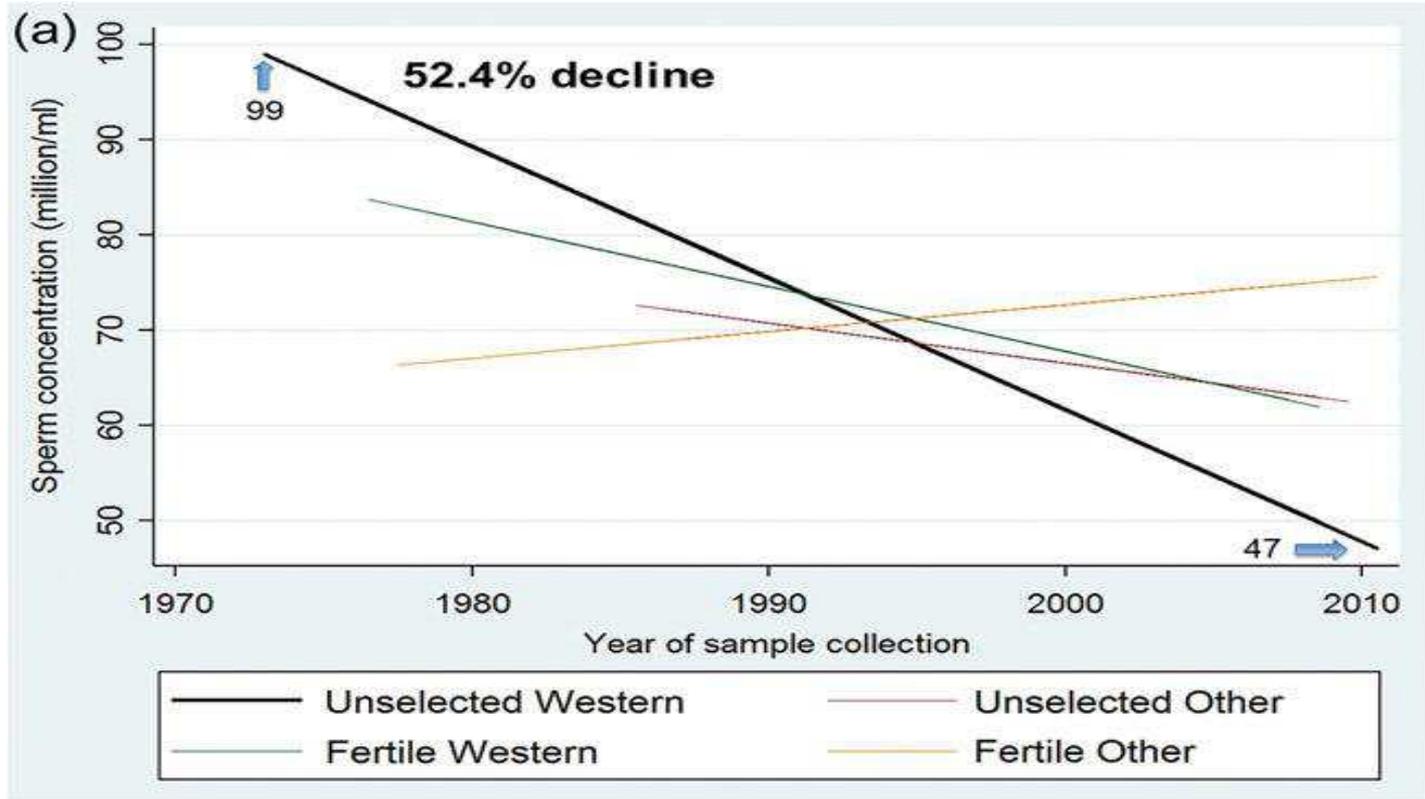
**AMERICA'S**

And we can't blame it on Trump—or can we?

**SPERM?**

22 sept. 2017

# Nyt fald i sædkvaliteten blandt mænd i vestlige lande



# To unge sessionsdeltagere

Concentration: 125 mill/ml

## Motility

Progressive: 76%

Non-progressive: 13%

Immotile: 11%



Concentration: 39 mill/ml

## Motility

Progressive: 38%

Non-progressive: 17%

Immotile: 45%



# Flere barnløse mænd i Danmark

Mænd født i 1945 :	14% barnløse
Mænd født i 1960:	> 20% barnløse

Priskorn et al. IJA, 2012

## NEWS

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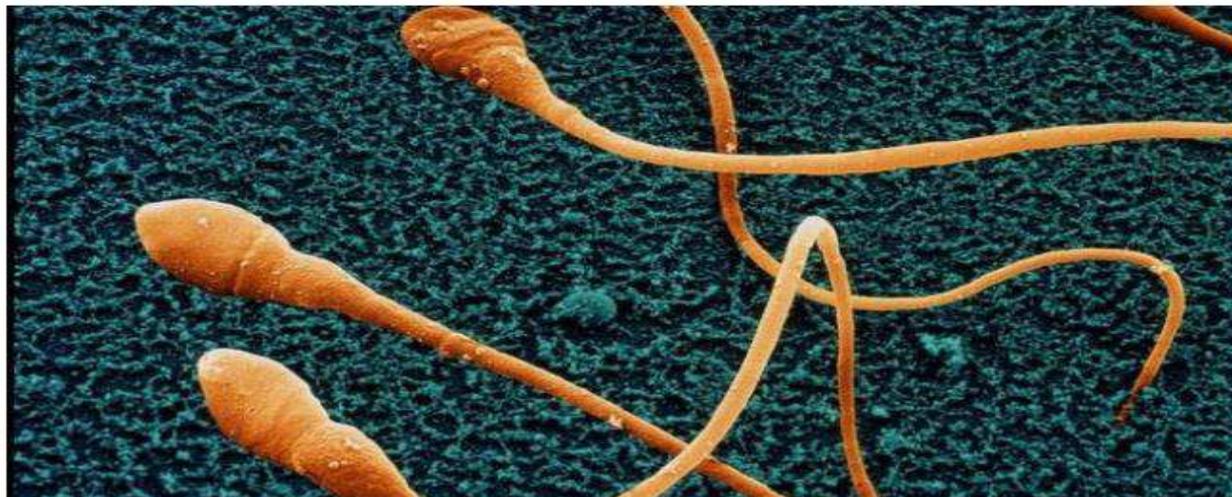
# Sperm count drop 'could make humans extinct'

By Pallab Ghosh  
Science correspondent, BBC News

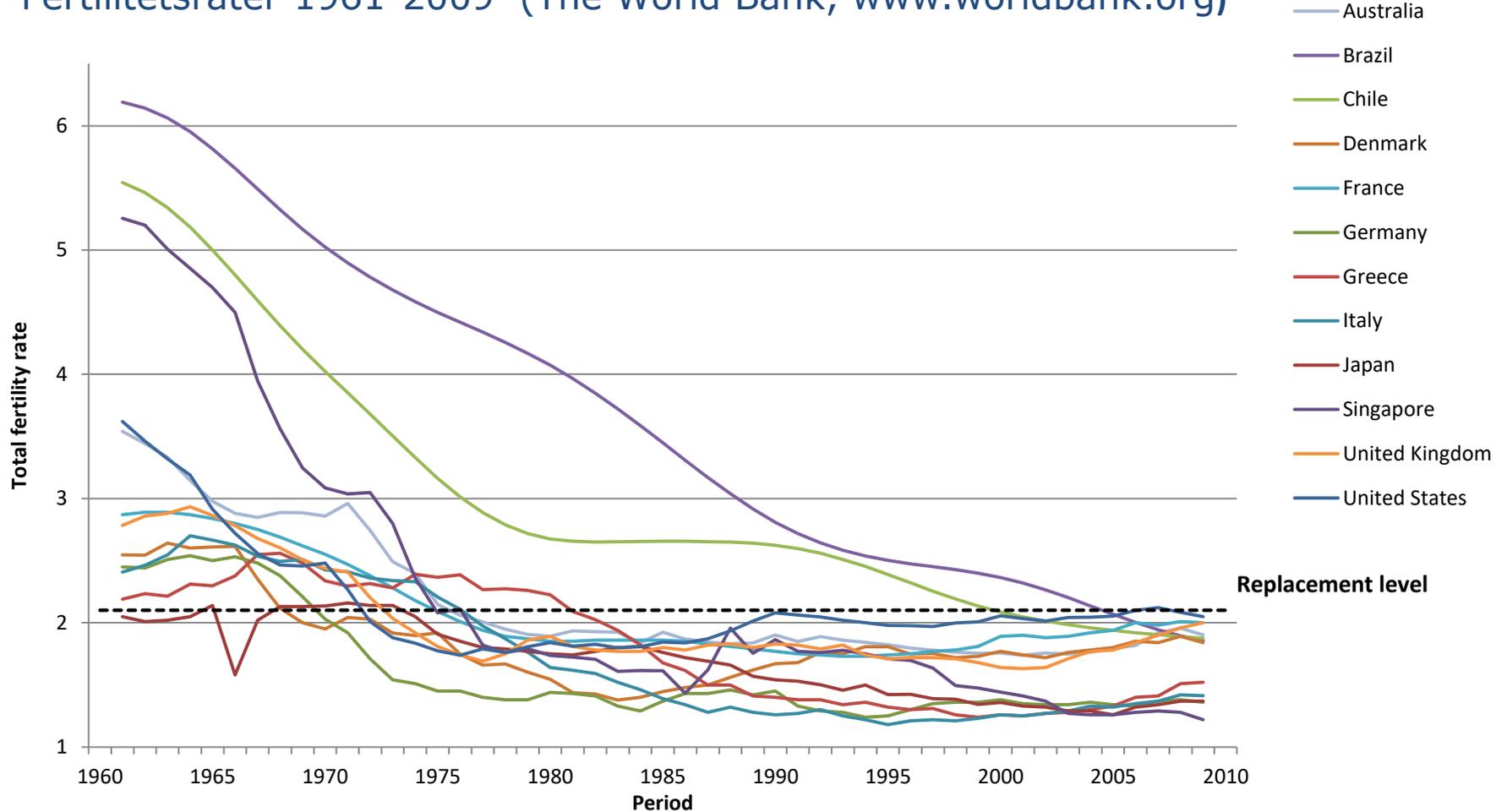
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# Fertilitetsrater 1961-2009 (The World Bank, [www.worldbank.org](http://www.worldbank.org))



# Internationalt fokus på fertilitetsproblemer

## Falling Japanese population puts focus on low birth rate

Unless re-energised, demographics will erode Japan's superpower status

© Wed, Dec 2, 2015, 01:00

David McNeill in Tokyo



Elderly people work out with dumb-bells by a temple in Tokyo recently. The estimated number of people aged 80 or older in Japan has topped 10 million for the first time. Photograph: Yoshikazu Tsuno/AFP.

**THE STRAITS TIMES.**  
MICA (P) 100/11/2010 TUESDAY, JANUARY 18 2015 A SINGAPORE PRESS HOLDINGS PUBLICATION ESTABLISHED 1845 90 CENTS

**New year, new destinations**  
LIFE! PAGES C4-5

**Good start for art**  
LIFE! PAGE C8

**Caroline who? The identity crisis in women's tennis**  
SPORT, PAGE H8

**INSIDE 22 PAGES IN FOUR PARTS**

**Fertility figures hit all-time low**  
Shortage of babies a key hurdle to achieving a sustainable population

**Tax dodgers' exposed**

**Fertility**

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## Germany's birthrate is the lowest in Europe - and falling fast

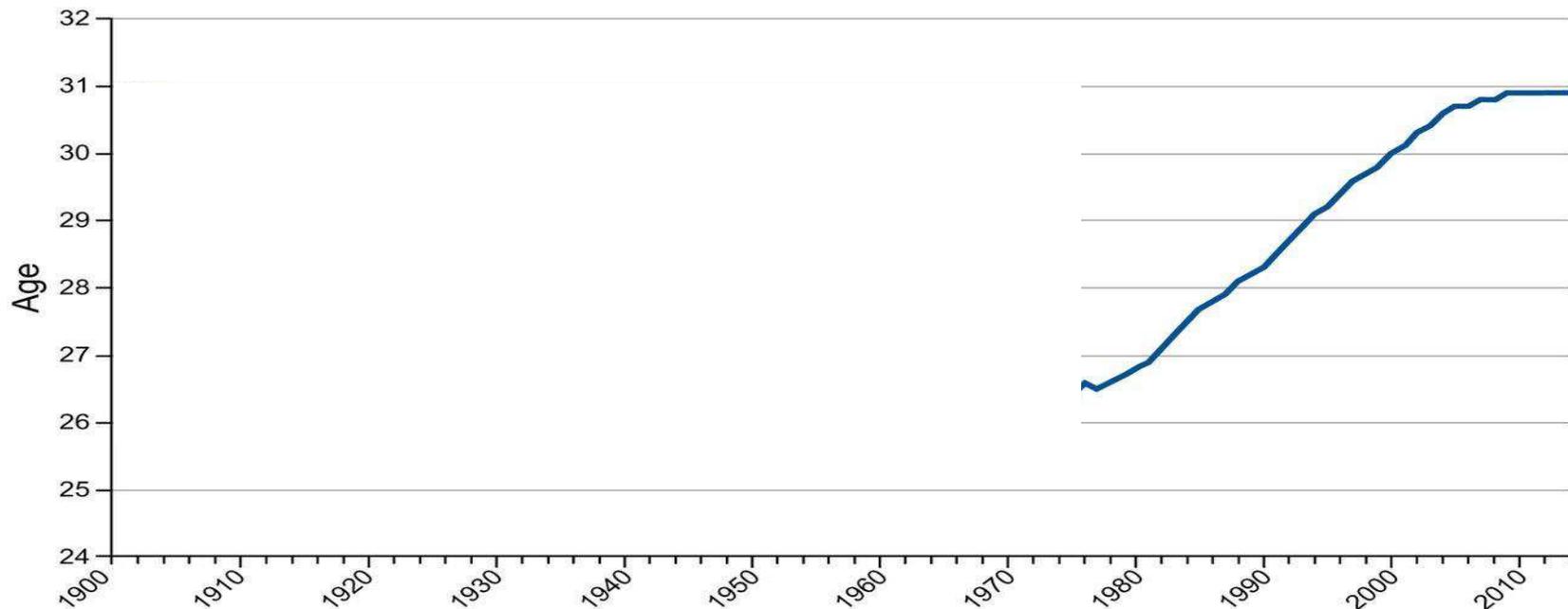
After generous parental allowances fall to reverse the trend, experts call for a different approach



The birthrate in Germany is falling. Many believe this is due to the problems of working women finding childcare. Photograph: Adam Gault / Alamy/Alamy

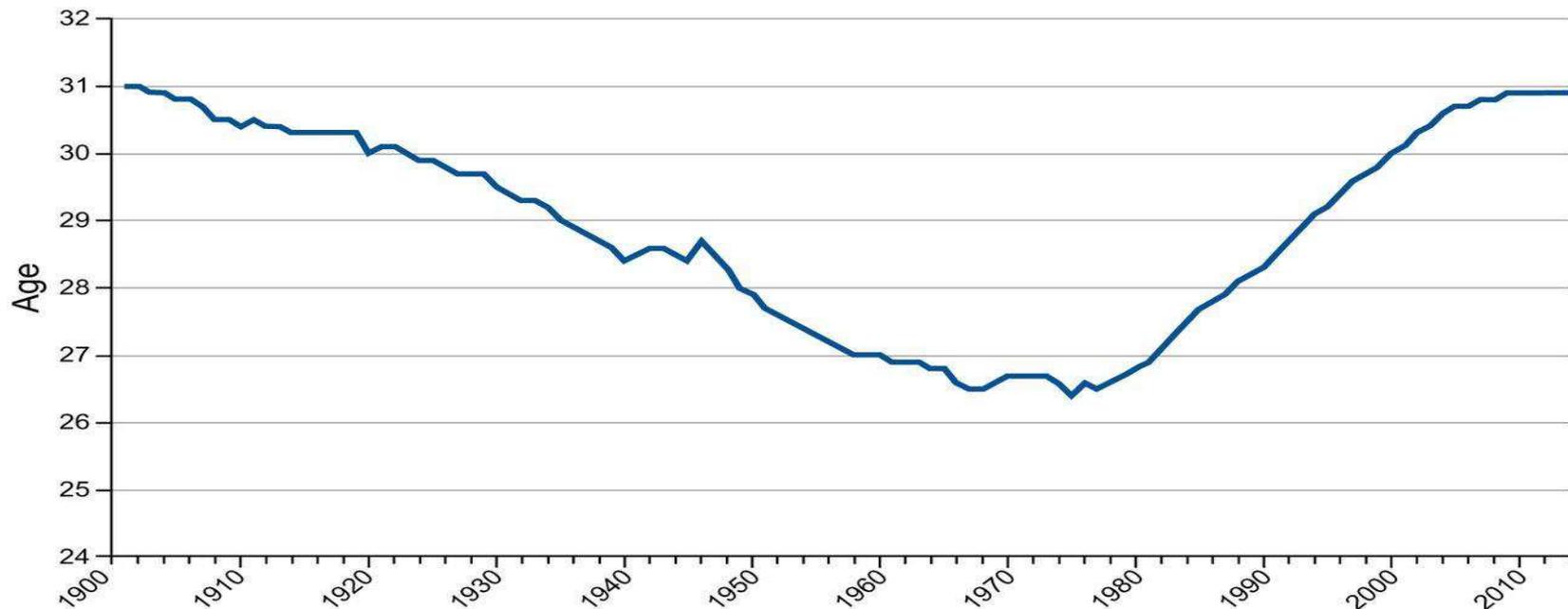
50% færre unge tyskere,  
25% færre unge danskere!

# Middelalder fødende danske kvinder



Fra Danmarks Statistik

# Middelalder fødende danske kvinder

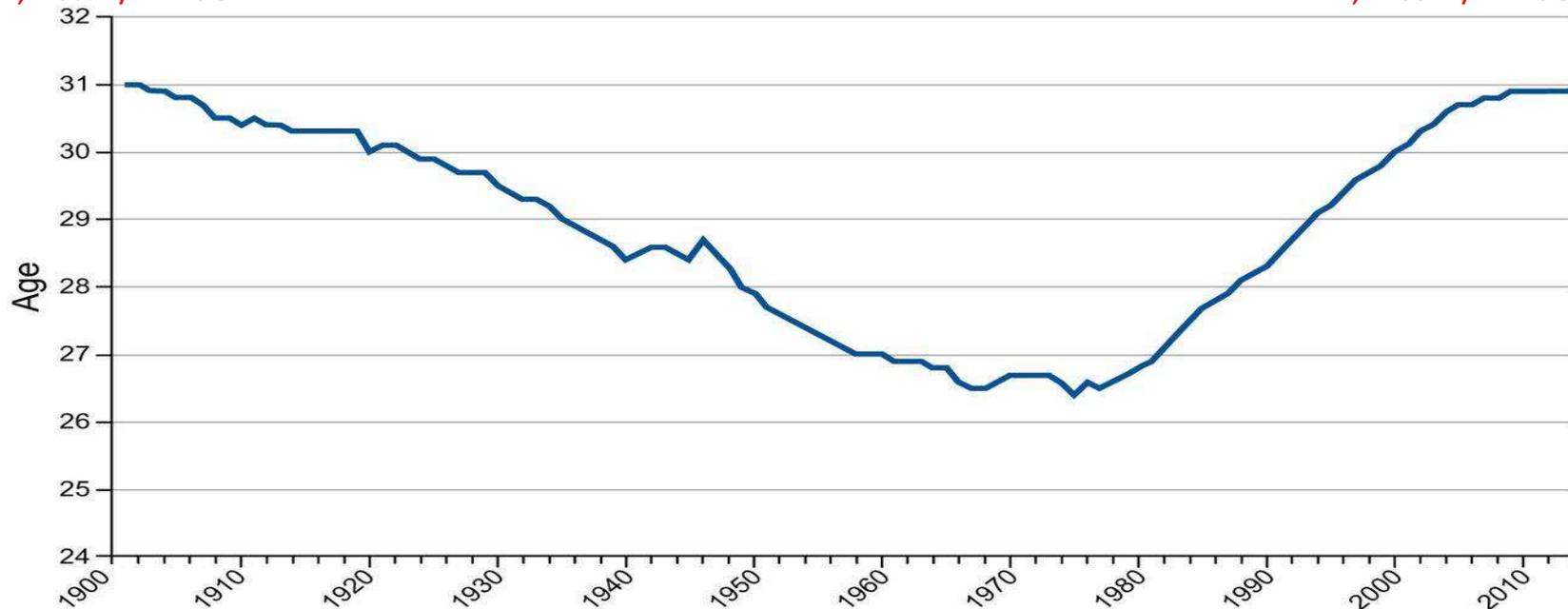


Fra Danmarks Statistik

# Middelalder fødende danske kvinder

4,1 barn/kvinde

1,7 barn/kvinde

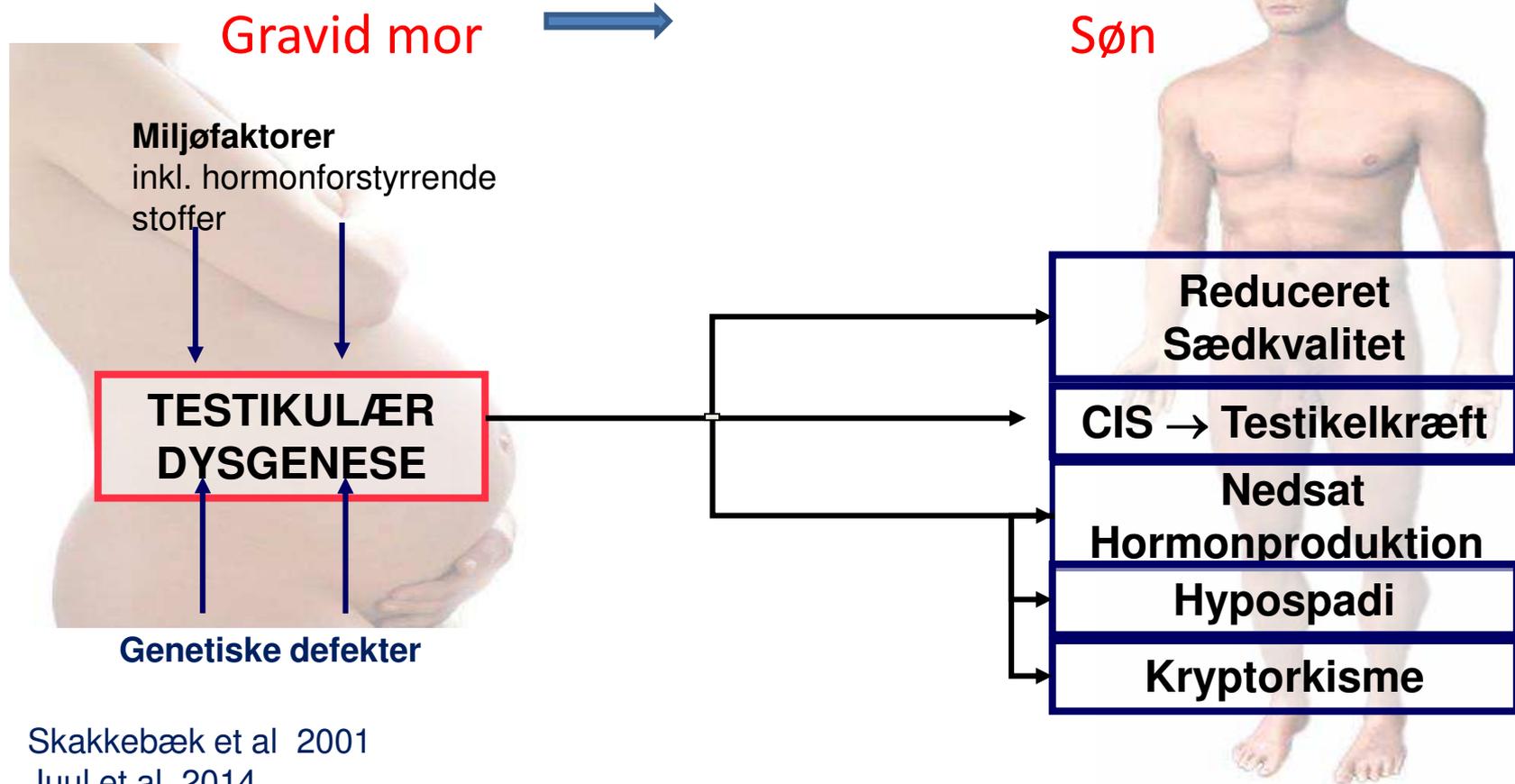


Fra Danmarks Statistik

# Fra Dansk Fertilitetselskab

**8-10 % af en fødselsårgang fødes efter kunstig befrugtning**  
I gennemsnit to børn i hver skoleklasse

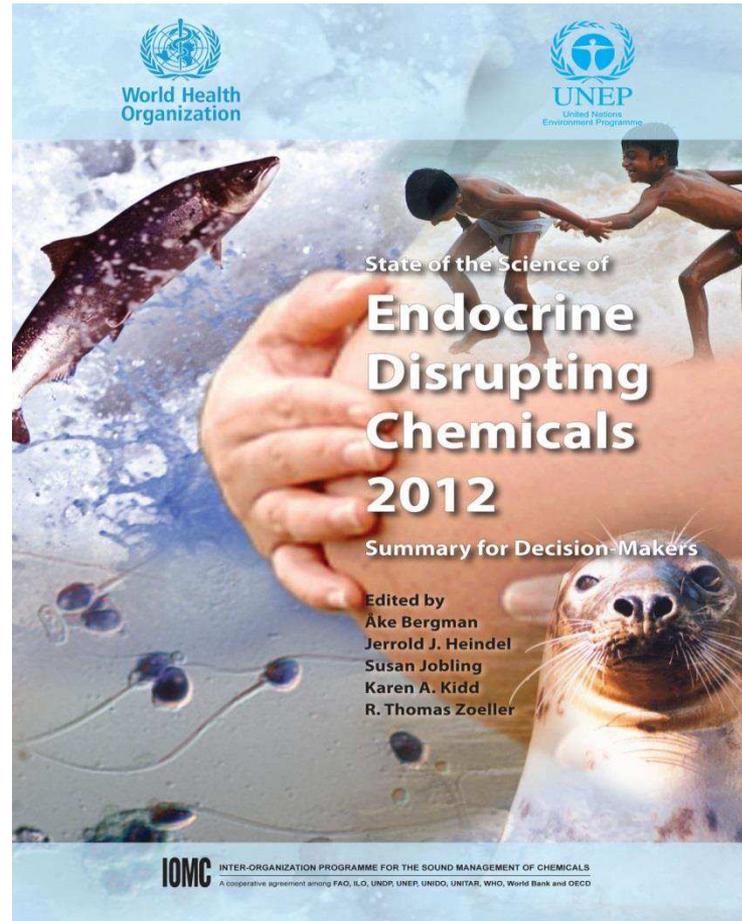
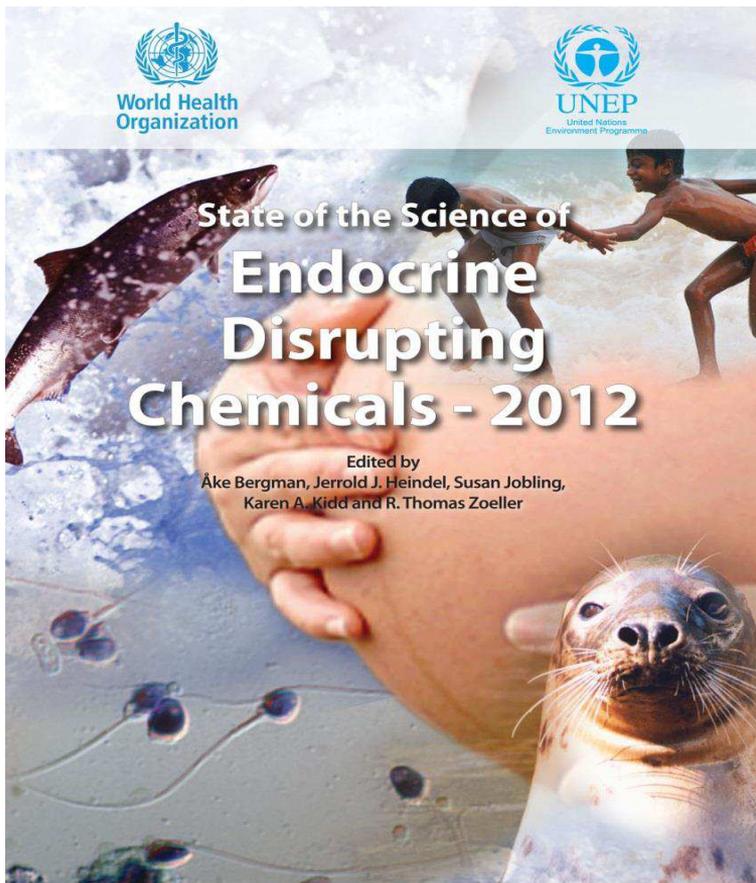
# Testikulært Dysgenese Syndrom, TDS

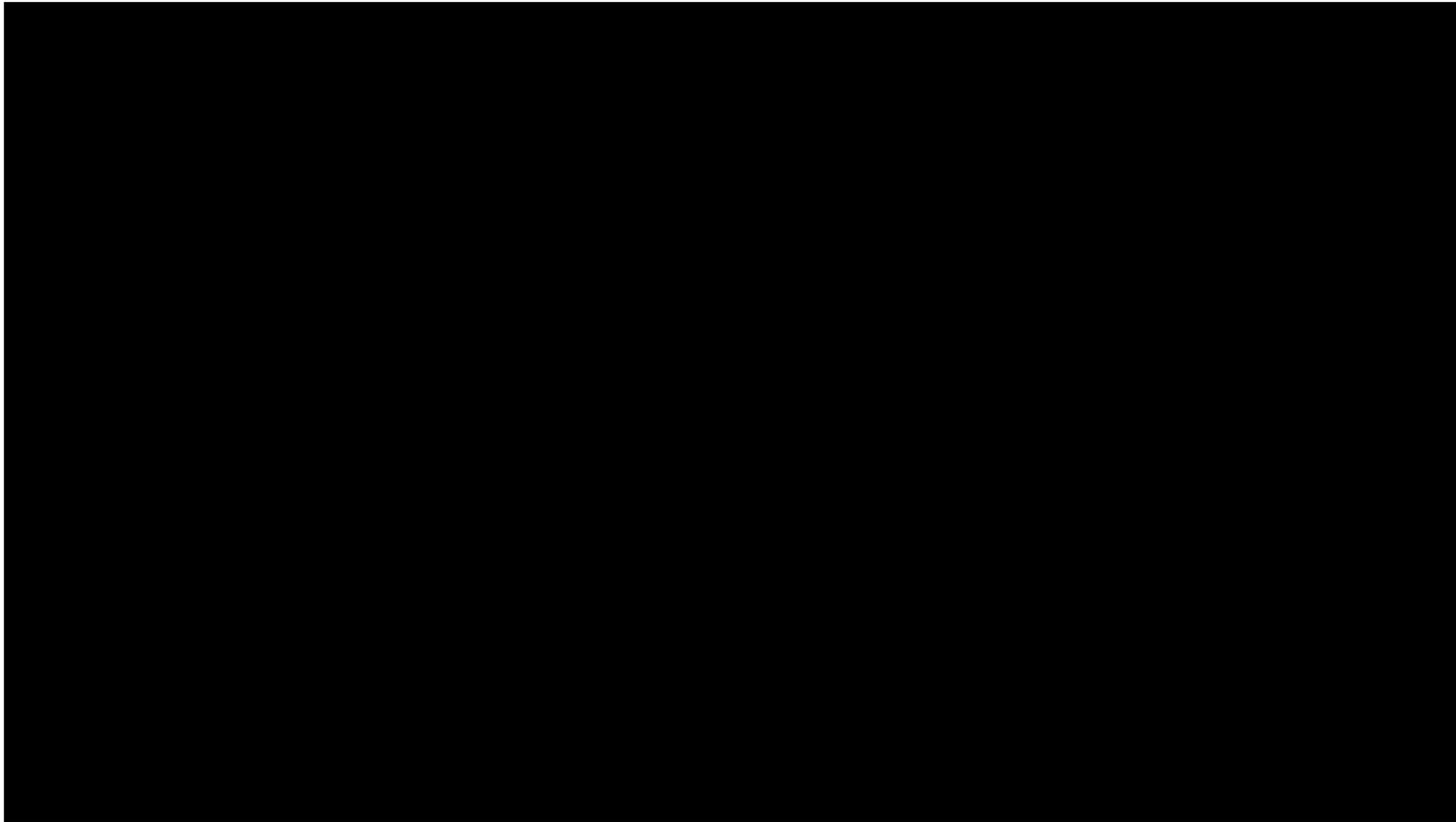


Skakkebæk et al 2001

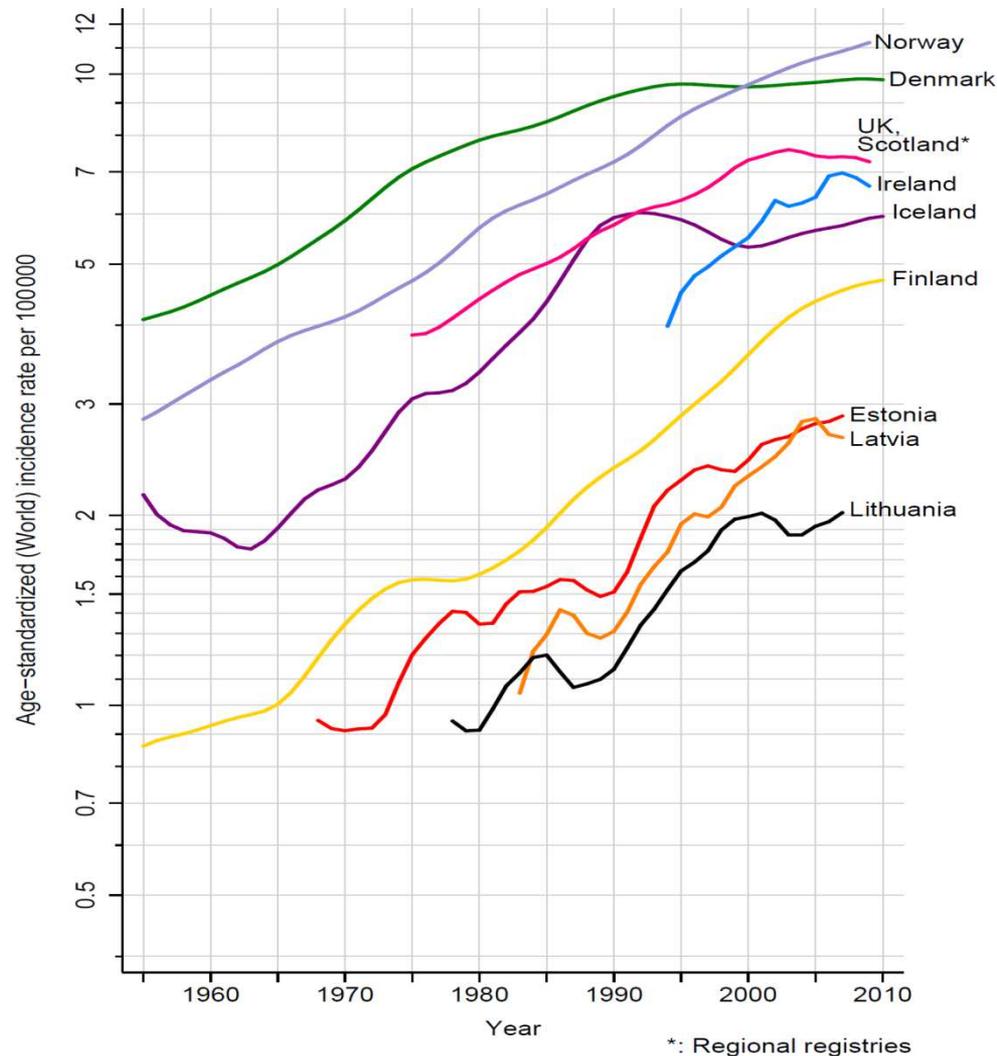
Juul et al. 2014

# UNEP/WHO rapport om hormonforstyrrende stoffer





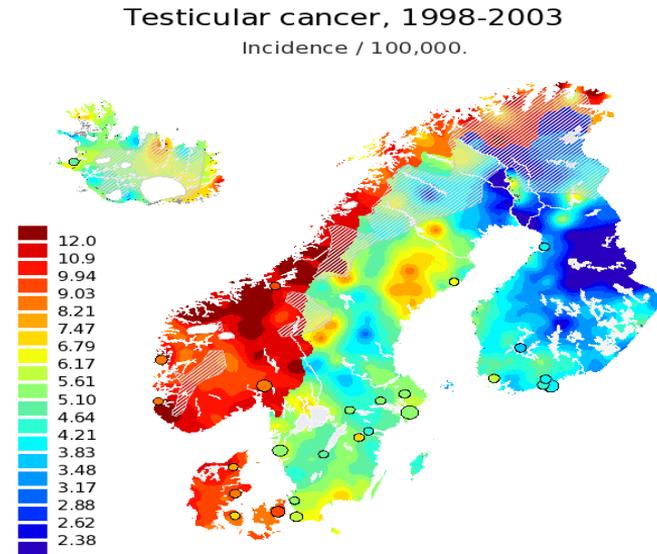
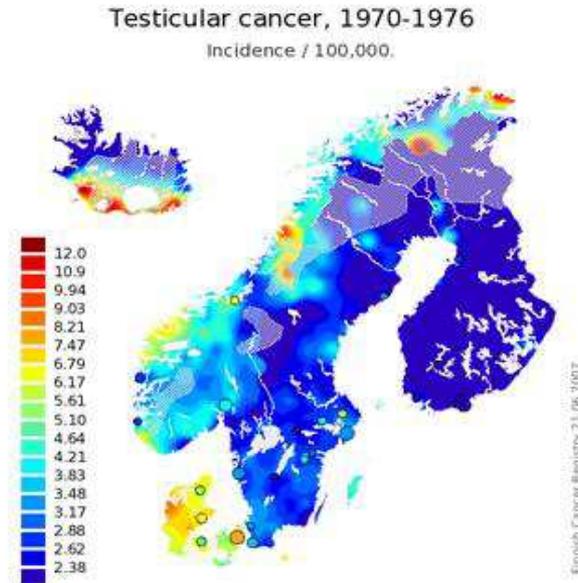
# Trends i testikelkræft



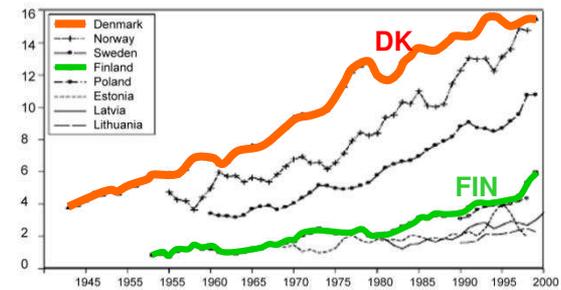
Nordeuropa  
Fra Znaor et al,  
European Urology,  
2014

# Kraftig stigning i testikelkræft hos unge nordiske mænd

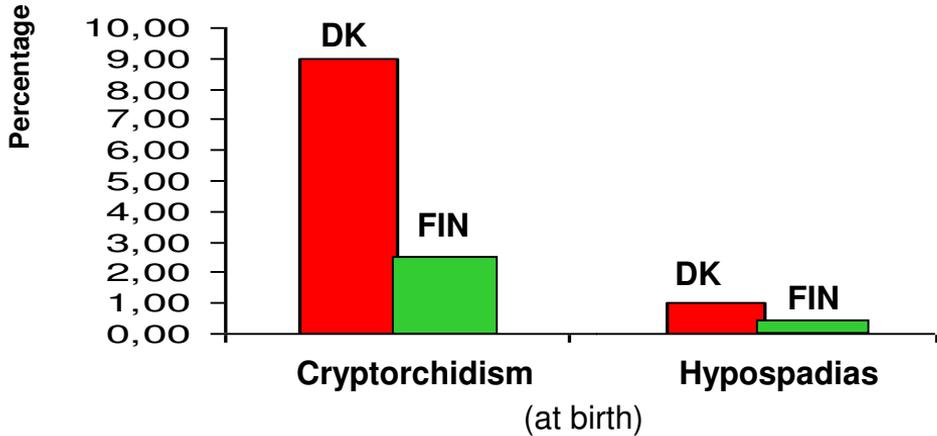
## Danmark og Norge ligger højest



# Danmark vs. Finland

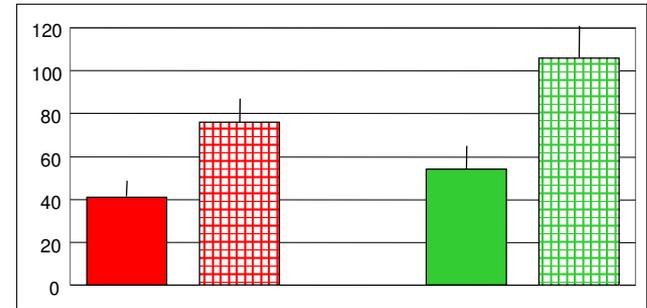


## Prevalence of genital malformations in boys



Boisen et al. Lancet 2004; JCEM 2005

## Sperm concentrations in DK and FIN



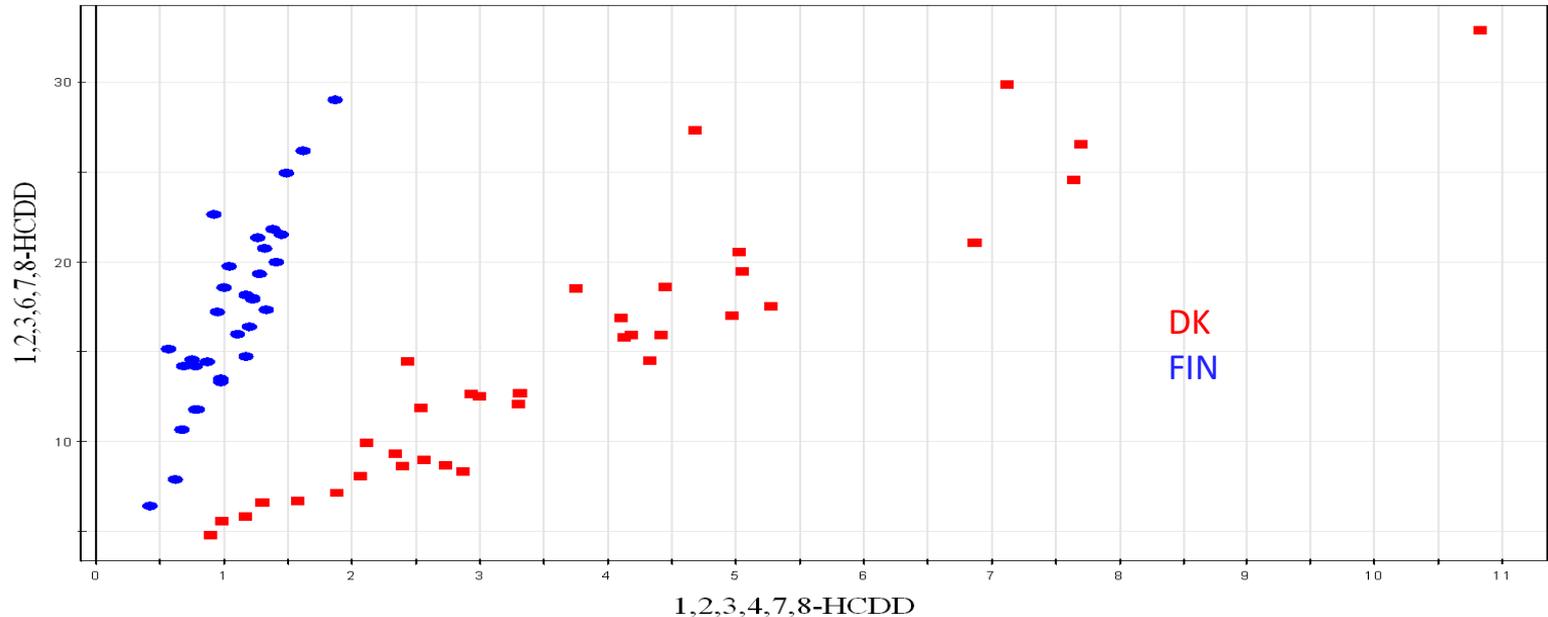
Young unselected men

Fertile men

Jørgensen et al. Hum Reprod 2001; 2002

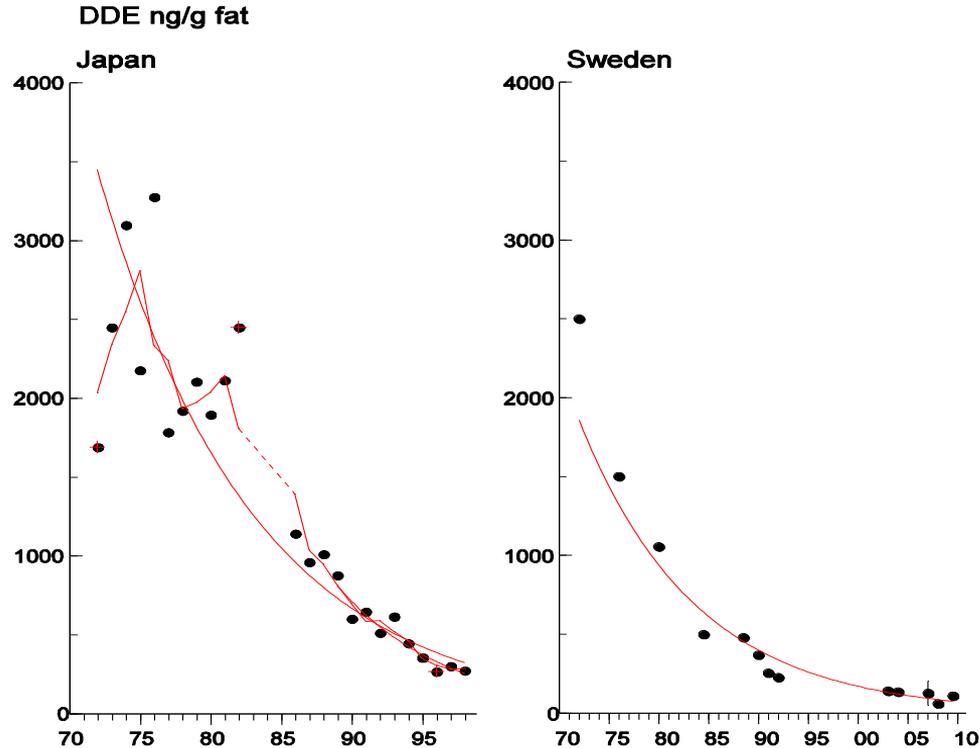
# Vi bærer en kemisk signatur fra det land vi er vokset op i: Dansk modermælk mere forurenet end den finske

Analyser af to dioxiner, Int J Androl. 2010



# Regulering hjælper

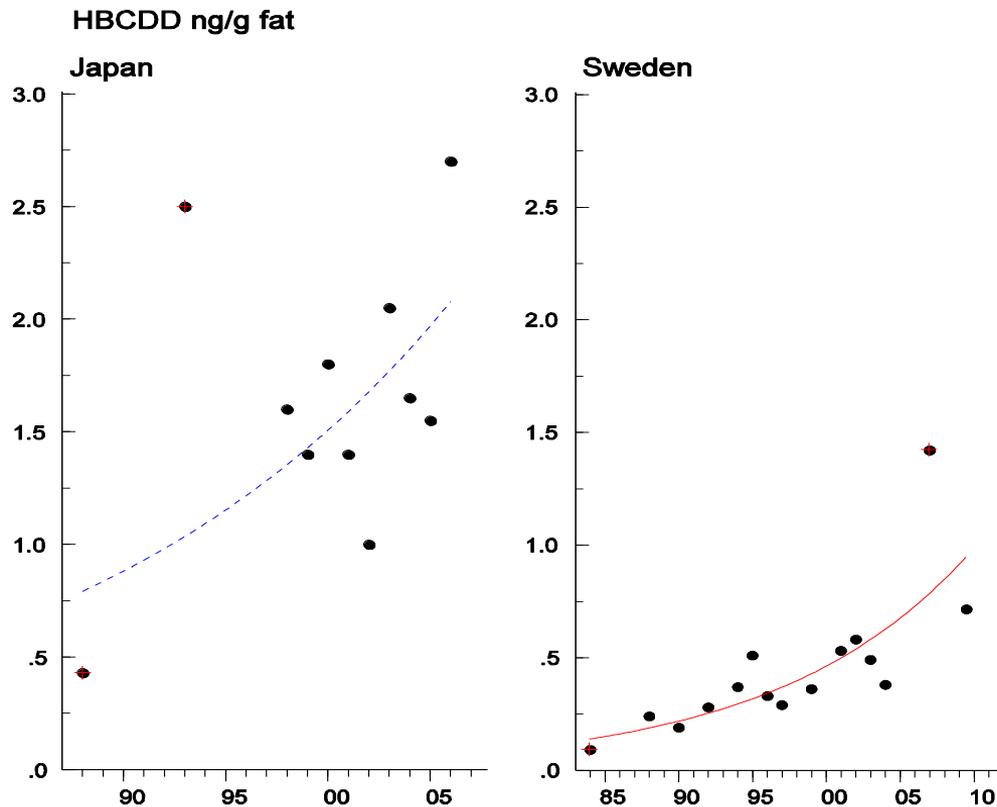
Trends, DDE (ng/g fat) Japan og Sverige  
Fra: Åke Bergman, Stockholm



# Manglende regulering/viden om nye kemikalier giver udslag i øget eksponering af befolkningen

Hexabromocyclododecane (HBCD, Flammehæmmer)

Fra: Åke Bergman, Stockholm



# Forudsætning for regulering er forskning

En regulering, der skal virke, må baseres på meget mere viden end vi har i dag - dvs. grundig udforskning af årsager til og løsninger på de mange hormonsygdomme og fertilitetsproblemer vi ser i befolkningen i dag.

*Se leder i British Medical Journal (BMJ) i dag!*

*‘Our human future will only  
be as healthy as our sperm.....’*

*Nicholas Kristof*

THE NEW YORK TIMES

March 12, 2017