

# Data visualisation to engage the public

Friday 15<sup>th</sup> June 2012

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UPDATED May 17, 2012

RECOMMEND TWITTER LINKEDIN E-MAIL SHARE

## The Facebook Offering: How It Compares

◀ Prev Next ▶ 1 2 3 4 5

Find a company

Company  
value  
in billions

### The First-Day Pop

On the first day of trading, the average stock rose 32 percent above its offer price. Companies want a first day bump to signal the market's confidence, but too large of an increase can mean a company left too much money on the table.

Facebook rose 0.6 percent on Friday.



New York Times | The Facebook Offering: How It Compares | <http://nyti.ms/JVQg2x>

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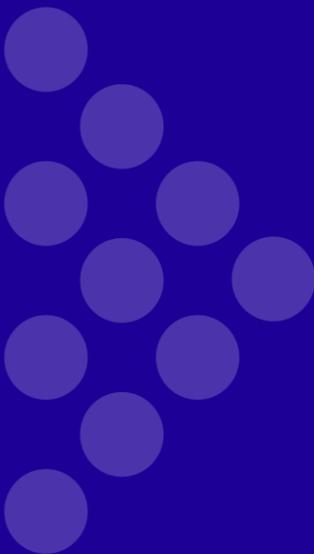
Confucius quote:

**Tell me,** and I will forget

**Show me,** and I may remember

**Involve me,** and I will understand

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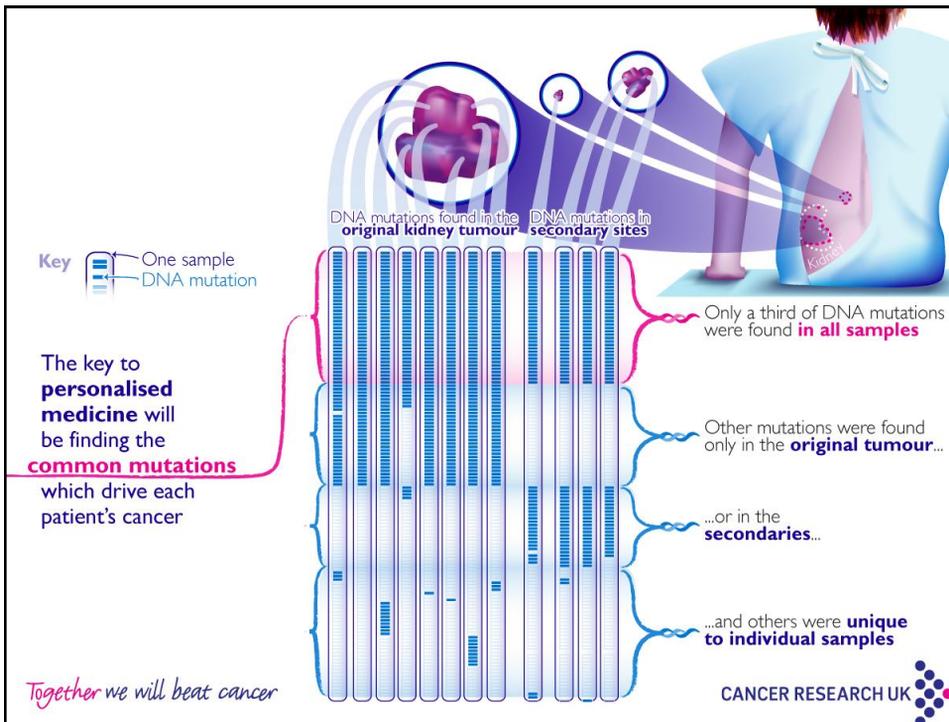
**Involving**  
Being a resource that gives  
people some subject literacy





# Showing Using our powerful abilities in visual memory and processing

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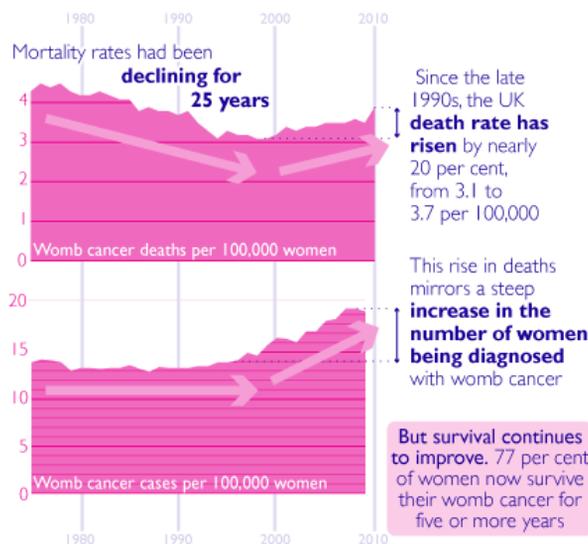
Women with a faulty RAD51D gene  
**are around 6 times**  
 more likely to develop ovarian cancer



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## Womb cancer death rates



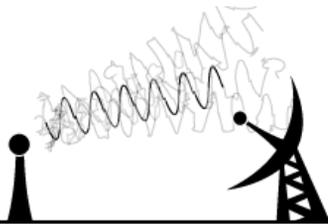
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## Signal to noise ratio:

- Send signal in form best able to be received
- Remove unnecessary distractions (noise)
- Careful additions to the signal can remove ambiguity and enhance clarity

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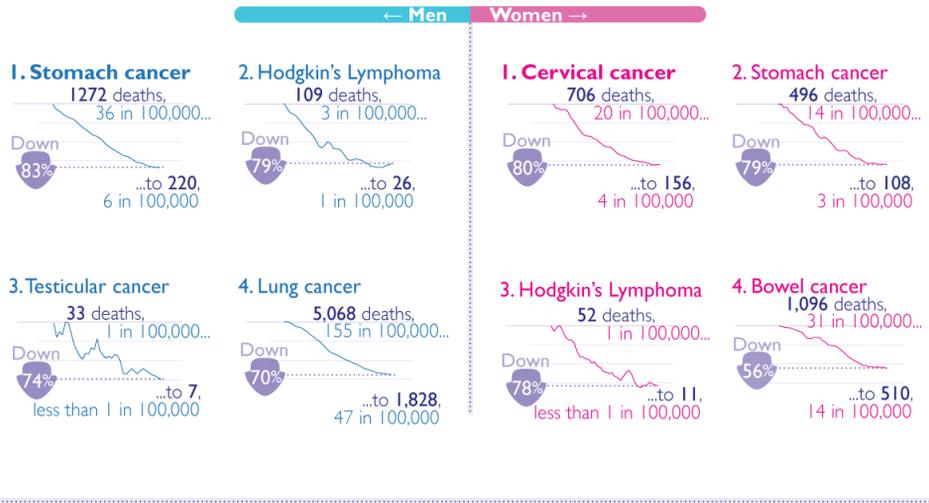
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## Telling well

Using context to make facts fit  
into meaningful impressions

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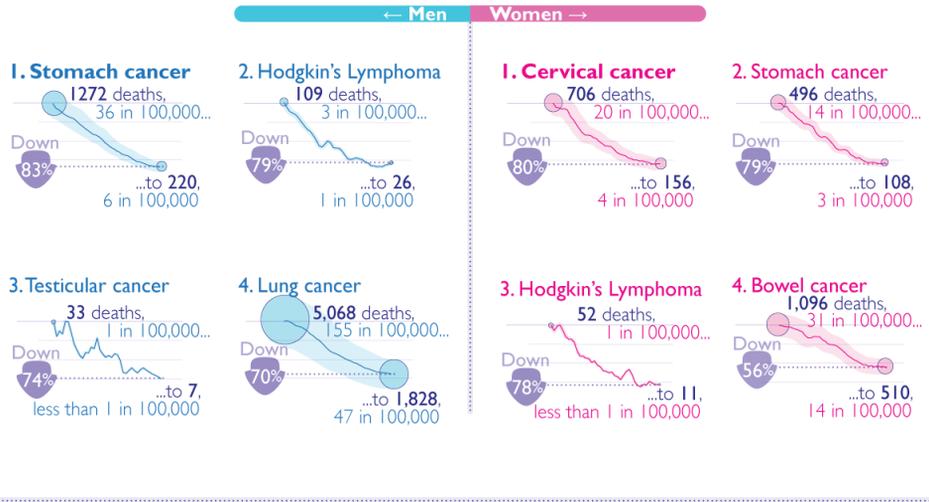
The cancer types with the **biggest reductions in death rates** are:  
(people in the UK aged 50-59, from 1971 to 2010)



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## Cancer deaths among middle aged drop by 40% to record low thanks to better screening and treatment

The biggest fall in death rates among men came for stomach cancer, which fell by 83 per cent. This was followed by Hodgkin's lymphoma and Papillary cancer. The biggest fall for women was cervical cancer, which fell by 80 per cent, followed by stomach cancer and Hodgkin's lymphoma.

### Premature cancer deaths drop

Cancer deaths among 55-69 year olds have come down from 17,889 a year to fewer than 14,000 per year in 2012.

Reasons include:

- Falling smoking rates
- Screening
- Better treatments, such as tamoxifen
- Better radiotherapy
- Many new drugs
- Faster diagnosis

Death rates among people under 60 have been coming down steadily in this last 40 years.

The cancer types with the biggest reductions in death rates are:

1. Stomach cancer (83% reduction)
2. Hodgkin's lymphoma (80% reduction)
3. Cervical cancer (80% reduction)
4. Papillary cancer (78% reduction)
5. Breast cancer (68% reduction)
6. Lung cancer (67% reduction)
7. Prostate cancer (67% reduction)
8. Kidney cancer (66% reduction)
9. Bladder cancer (65% reduction)
10. Ovarian cancer (65% reduction)
11. Colon cancer (65% reduction)
12. Endometrial cancer (65% reduction)
13. Testicular cancer (65% reduction)
14. Liver cancer (65% reduction)
15. Pancreatic cancer (65% reduction)
16. Thyroid cancer (65% reduction)
17. Esophageal cancer (65% reduction)
18. Gallbladder cancer (65% reduction)
19. Stomach cancer (65% reduction)
20. Uterine cancer (65% reduction)

It is thanks to the generosity of the public who fund all our research and the dedicated work of all our doctors and scientists that we are seeing such encouraging reductions.

Dr Harpal Kumar  
Cancer Research UK Chief Executive

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## Figure/Ground:

- Everything is split into foreground and background
- Foreground receives direct attention
- Background influences processing of foreground, and provides context

## Visual hierarchy:

In what order will elements be attended to?

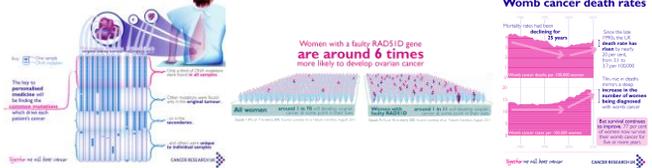
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**Involving**  
**Progressive disclosure**



**Showing**  
**Signal : Noise**



**Telling well**  
**Figure / Ground**



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**Resources, links, references, contact**

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**Some lists of free tools that might help with DIY data visualisation:**

**The Guardian's top free tools (mostly quite user friendly):**

<http://www.guardian.co.uk/news/datablog/2012/mar/28/data-visualisation-tools-free>

**Another more detailed but older selection:**

<http://www.visualisingdata.com/index.php/resources/>

**Another list of more advanced tools (most need programming ability):**

<http://selection.datavisualization.ch/>

**Free, fairly beginner-friendly design software (I mostly use Adobe Illustrator which is neither):**

<http://inkscape.org/>

**A visualisation of good visualisation sites, showcases and blogs:**

<http://moebio.com/datavisnetwork/>

**Some good showcase sites:**

<http://infosthetics.com/>

<http://www.fastcompany.com/tag/infographic-day>

<http://chartporn.org>

<http://spatialanalysis.co.uk/>

**Some good blogs:**

<http://flowingdata.com/>

<http://visual.ly/blog/>

**A good blog listing lots of other good blogs:**

<http://flowingdata.com/2012/04/27/data-and-visualization-blogs-worth-following/>

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**Some references...**

Overviews of progressive disclosure, signal to noise ratio, figure/ground: **(2010)**

**Universal Principles of Design, Rockwell Press**

Visual memory: **Palmer (2002) Vision Science, MIT Press**

Tangibility (aka grounded cognition): **Barsalou (2008) Grounded Cognition, Annual Review of Psychology, Vol. 59**

Map metaphor for knowledge: **Landauer & Dumais (1997) A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. Psychological Review, Vol 104(2)**

**Contact us**

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