Data visualisation
to engage the public

Friday 15th June 2012

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Together we will beat cancer

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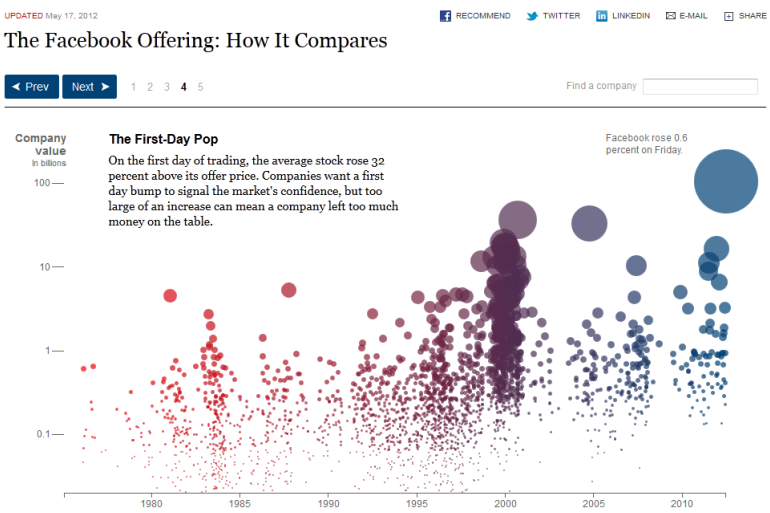

New York Times | The Facebook Offering: How It Compares | http://nyti.ms/JVQg2x

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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

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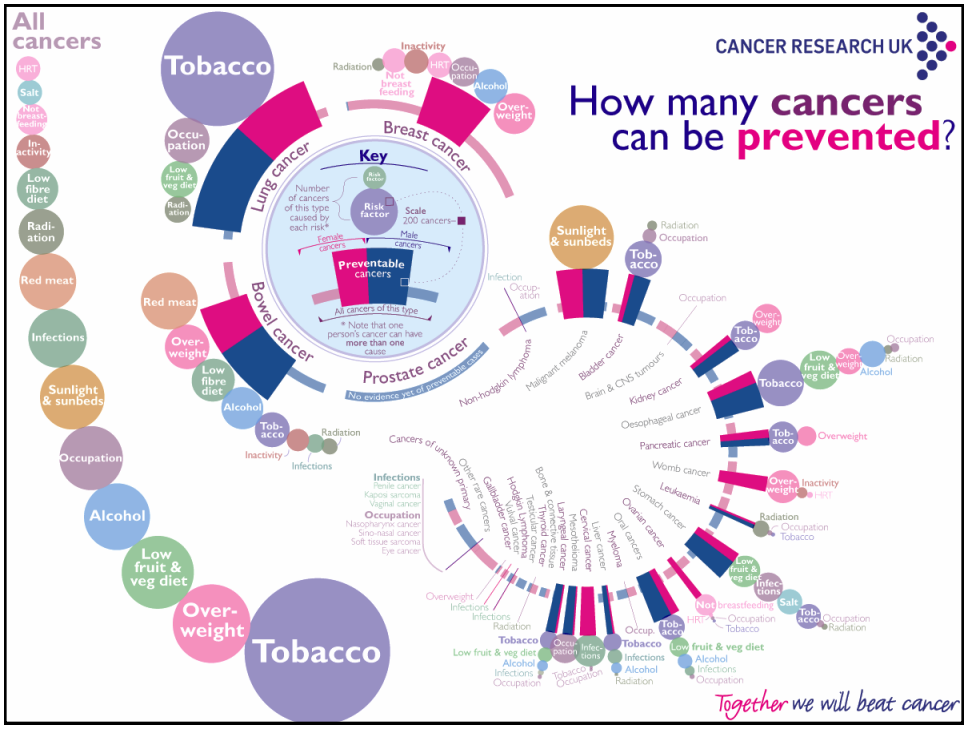
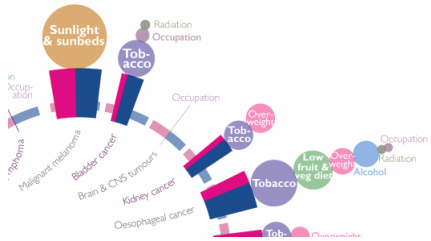


Progressive disclosure:

Folding up complexity, so details are disclosed on demand.

Information as navigation.



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Showing
Using our powerful abilities in visual memory and processing

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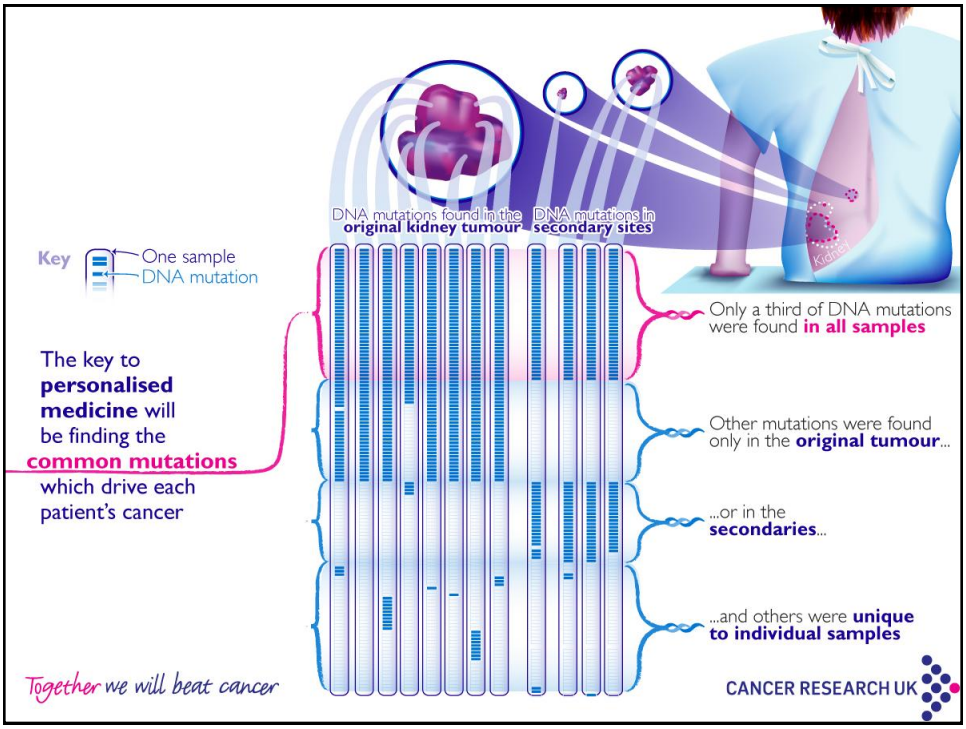
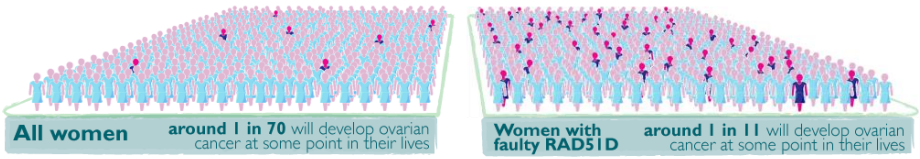


Women with a faulty RAD51D gene

are around 6 times

more likely to develop ovarian cancer



All women **around 1 in 70** will develop ovarian cancer at some point in their lives

Equals 1.4%, or 7 in every 500. Source: Loveday et al, Nature Genetics, August 2011

Women with faulty RAD51D **around 1 in 11** will develop ovarian cancer at some point in their lives

Equals 9.1%, or 45 in every 500. Source: Loveday et al, Nature Genetics, August 2011

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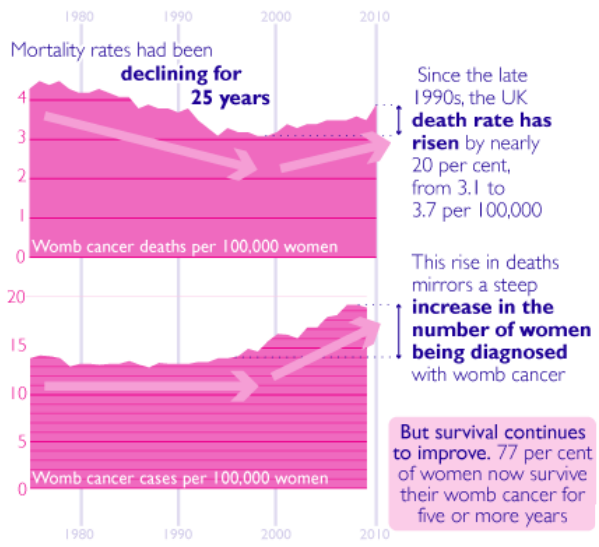
Womb cancer death rates



Since the late 1990s, the UK **death rate has risen** by nearly 20 per cent, from 3.1 to 3.7 per 100,000

This rise in deaths mirrors a steep **increase in the number of women being diagnosed** with womb cancer

But survival continues to improve. 77 per cent of women now survive their womb cancer for five or more years

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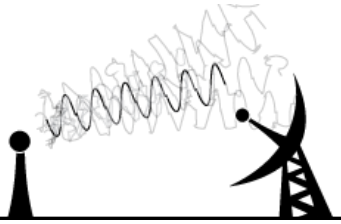
Signal to noise ratio:

- 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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Telling well

Using context to make facts fit into meaningful impressions

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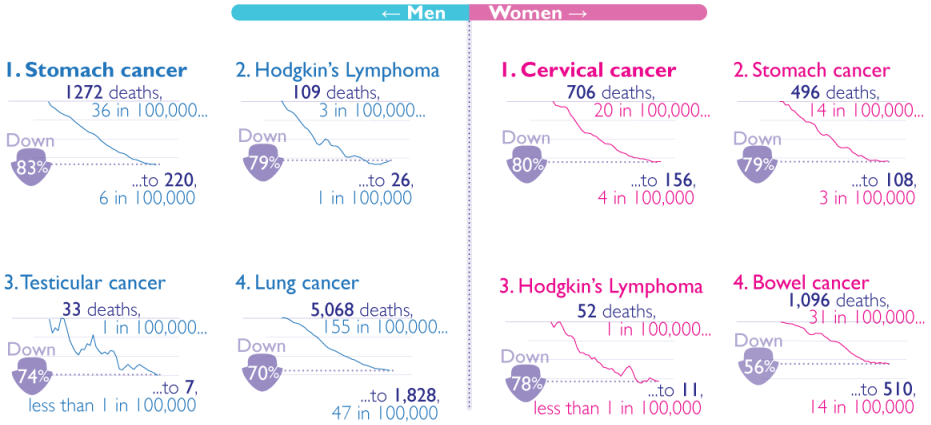
The cancer types with the **biggest reductions in death rates** are:
(people in the UK aged 50-59, from 1971 to 2010)



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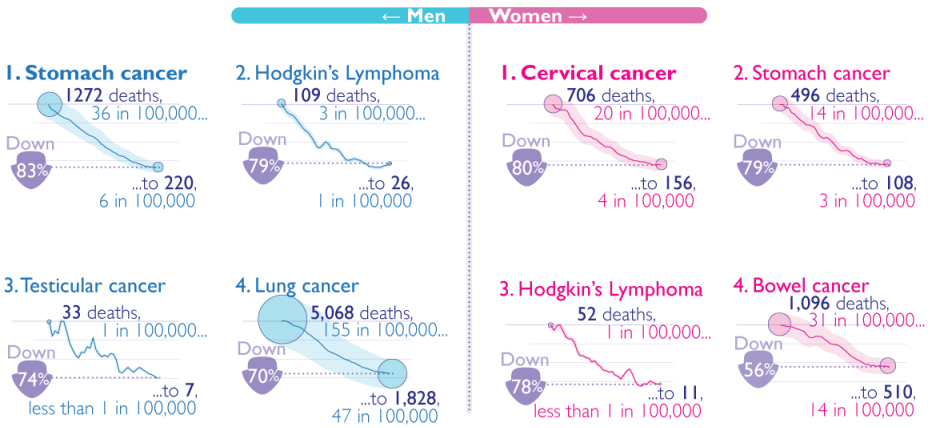

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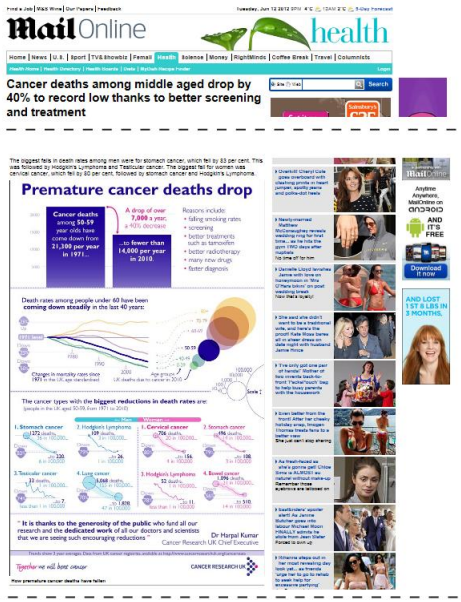

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Figure/Ground:

- 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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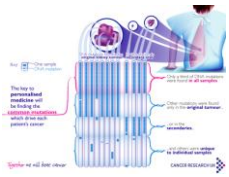
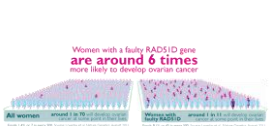
Involving

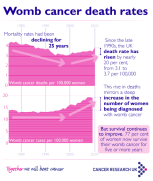
Progressive disclosure

Showing

Signal : Noise

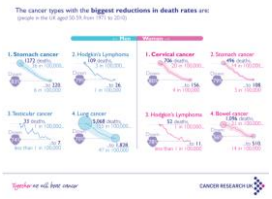






Telling well

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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