

What do others do?

David Spiegelhalter

@d_spiegel

*winton professor for the public understanding of risk,
university of cambridge*

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In theory ...

	Optimal action: Remain with family	Optimal action: take into care
Action taken: Remain with family	Correct decision	Type II Error
Action taken: Take into care	Type I Error	Correct decision

The theory of rational decision-making says that if we

- (a) knew the *relative* costs of the two types of errors
- (b) could assess the probability p that the optimal action was to take into care

Then we could specify an optimum threshold for p

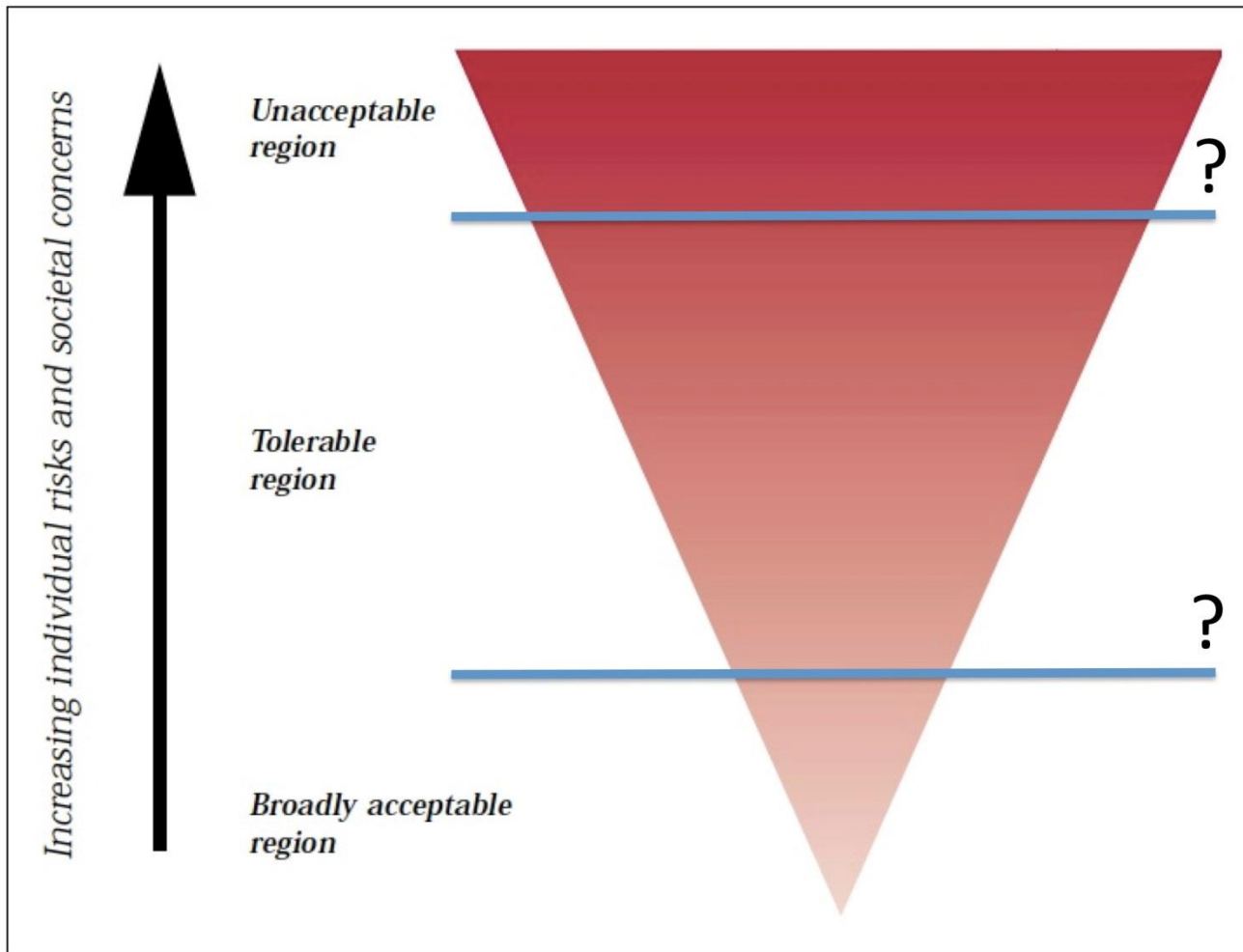
Among the many reasons why this is only theory..

- What are the 'costs' involved in 'errors'?
- Could we specify what was the 'correct' decision?
- Could we give probabilities of the best option?

Can an organisation admit that things can never be 'safe'?

Health and Safety Executive's Tolerability of Risk framework

Figure 1: HSE framework for the tolerability of risk



- A 1 in 1,000,000 annual chance of being killed at work is considered *'acceptable'*
- 1 in 1000 in *'unacceptable'*
- In between the risks should be made *As Low As Reasonably Practicable (ALARP)*
- Crucial issue: admits zero-risk is impossible

UK Chief Medical Officers' Alcohol Guidelines Review

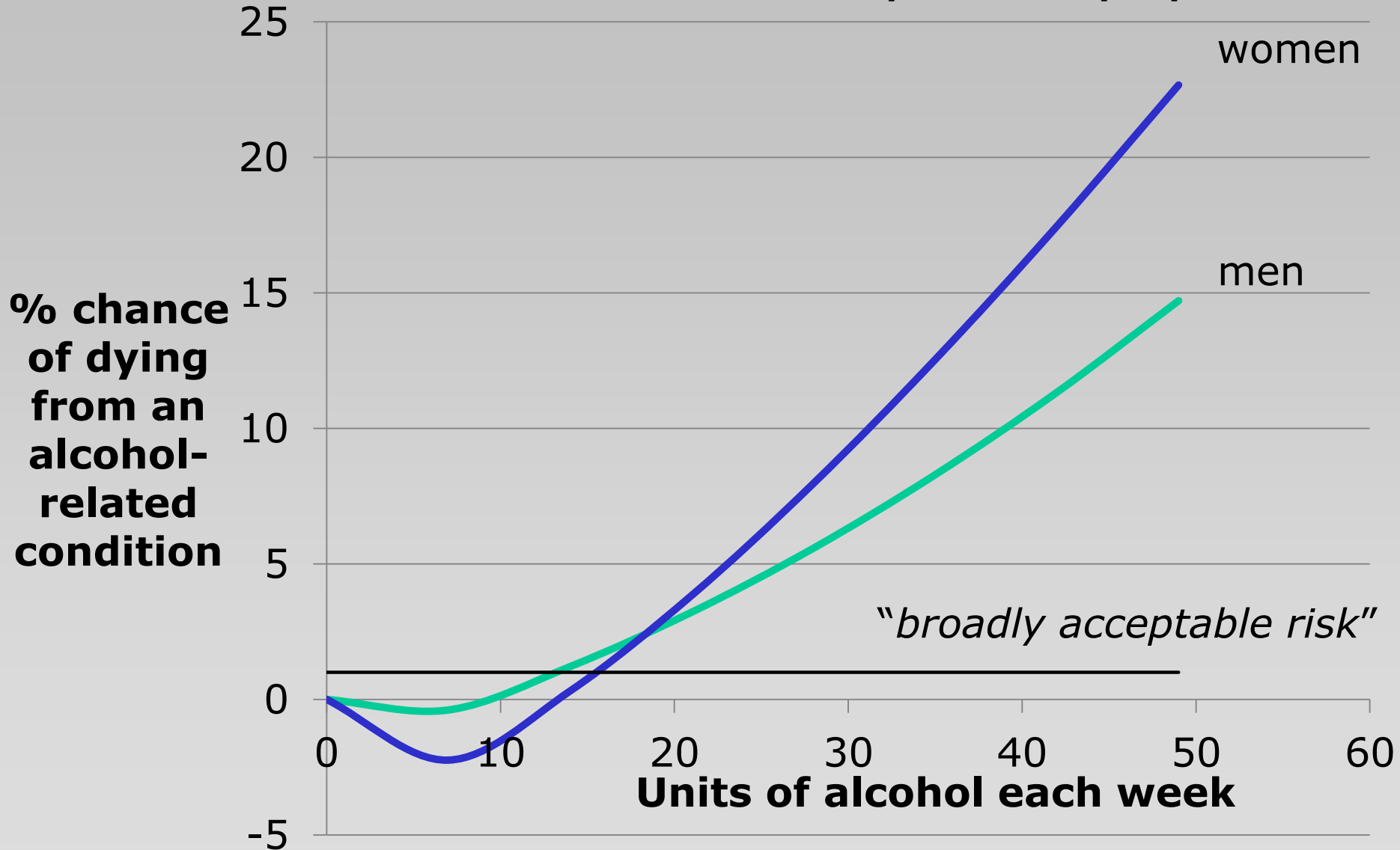
Summary of the proposed new guidelines

"Drinking any level of alcohol regularly carries a health risk for anyone"

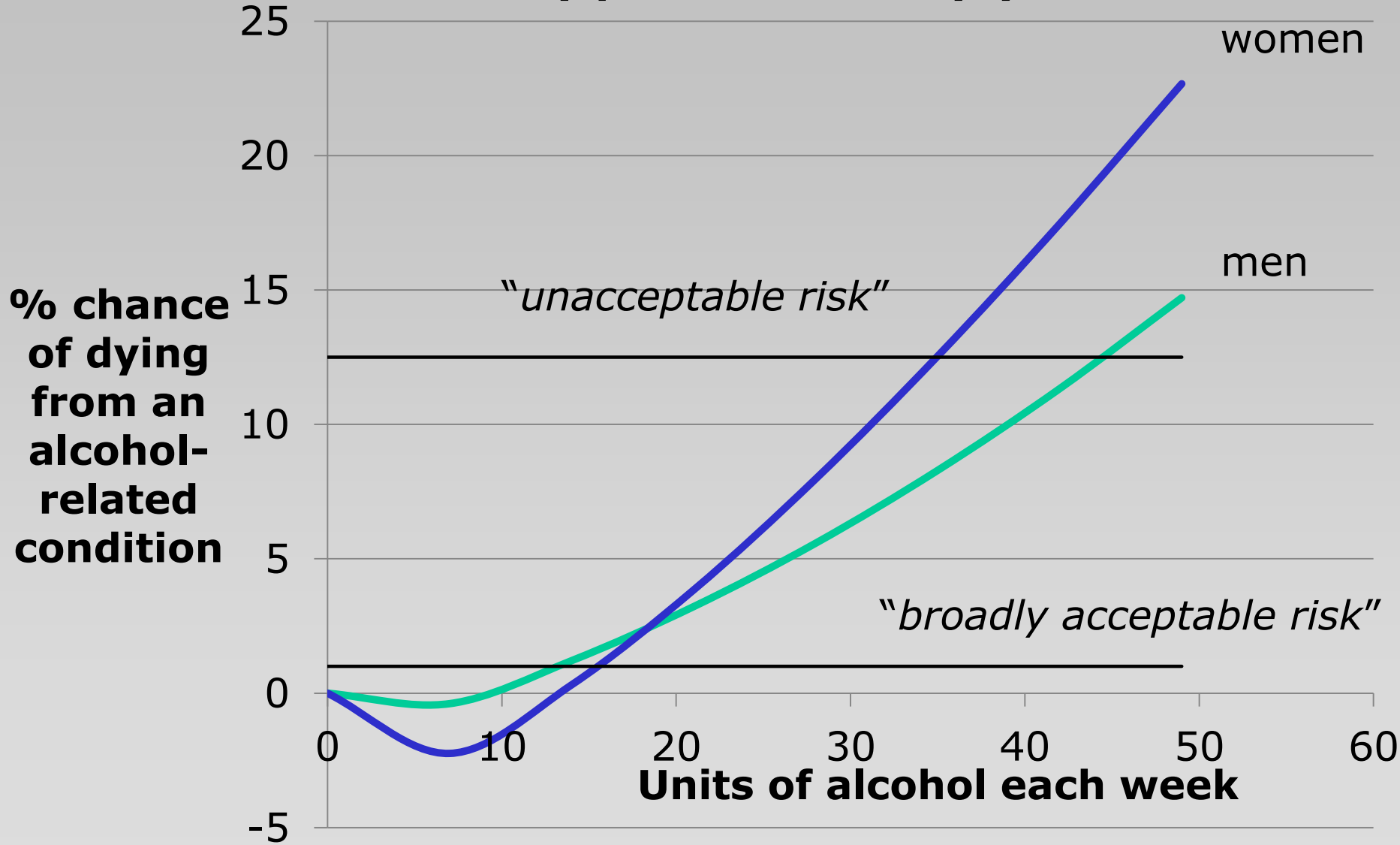


Estimated lifetime risk from weekly alcohol consumption (spread over 5 days)

Numbers from Guideline Development Group report



Estimated lifetime risk from weekly alcohol consumption (spread over 5 days)



'Never-events'

- 'Never-events' cannot be traded off
- Entirely preventable by good practice/adherence to checklists etc
- In health-care, dying at surgery is not a never-event
- Taking out the wrong (healthy) kidney is a never-event

TABLE ONE: Never Events 1 to 31 March 2016 by type of incident with additional detail

PROVISIONAL DATA: SUBJECT TO CHANGE AS LOCAL INVESTIGATION COMPLETED	
Type and brief description of Never Event	Number
Wrong site surgery	16
PICC line inserted that was intended for another patient	1
Wrong area of kidney biopsied	1
Wrong area of thyroid biopsied	1
Wrong incision for harvest of bone graft	1
Wrong procedure - Gastroscopy rather than Colonoscopy	1
Wrong side block	7
Wrong side chest drain	1
Wrong side nephrostomy and stent	1
Wrong tooth/ teeth removed	2
Retained foreign object post procedure	9
Guide wire - CVC line	1
Guide wire - urethral catheter	1
Part of a guide wire - ACL guide wire	1
Part of surgical instrument	1
Protective corneal shield	1
Surgical instrument - hip guide	1
Throat pack	2
Vaginal swab	1

Wrong implant/ prosthesis	4
Hip prosthesis	3
Lens	1
Misplaced naso or oro gastric tube	4
NG tube in respiratory tract	4
Transfusion or transplantation of ABO incompatible blood components or organs	2
Incorrect unit of platelets transfused	1
Wrong blood transfused	1
Failure to install functional collapsible shower or curtain rails	1
Anti ligature blinds failed to collapse	1
Total	36

Note As described above, two reported serious incidents were duplicate entries, 4 reported serious incidents occurred before March 2016 (see table 3) and one was still in draft form and has not been confirmed as a Never Event

Never-events for children in care?

- Similarities to release into the community of potentially dangerous individuals
- If assume that murder by a disturbed stranger is a 'never-event', then in principle would never release anyone with non-zero risk
- Accept some risk of serious adverse events?

Quality assurance and quality improvement

- *Assurance*: safety, minimum standards, few performance indicators
- *Improvement*: more complex, aspirational
- Don't just look at *averages*, learn from *variability*

Looked after children who returned home as a percentage of all looked after children who ceased to be looked after by Local Authority - 1 April 2009 to 31 March 2012

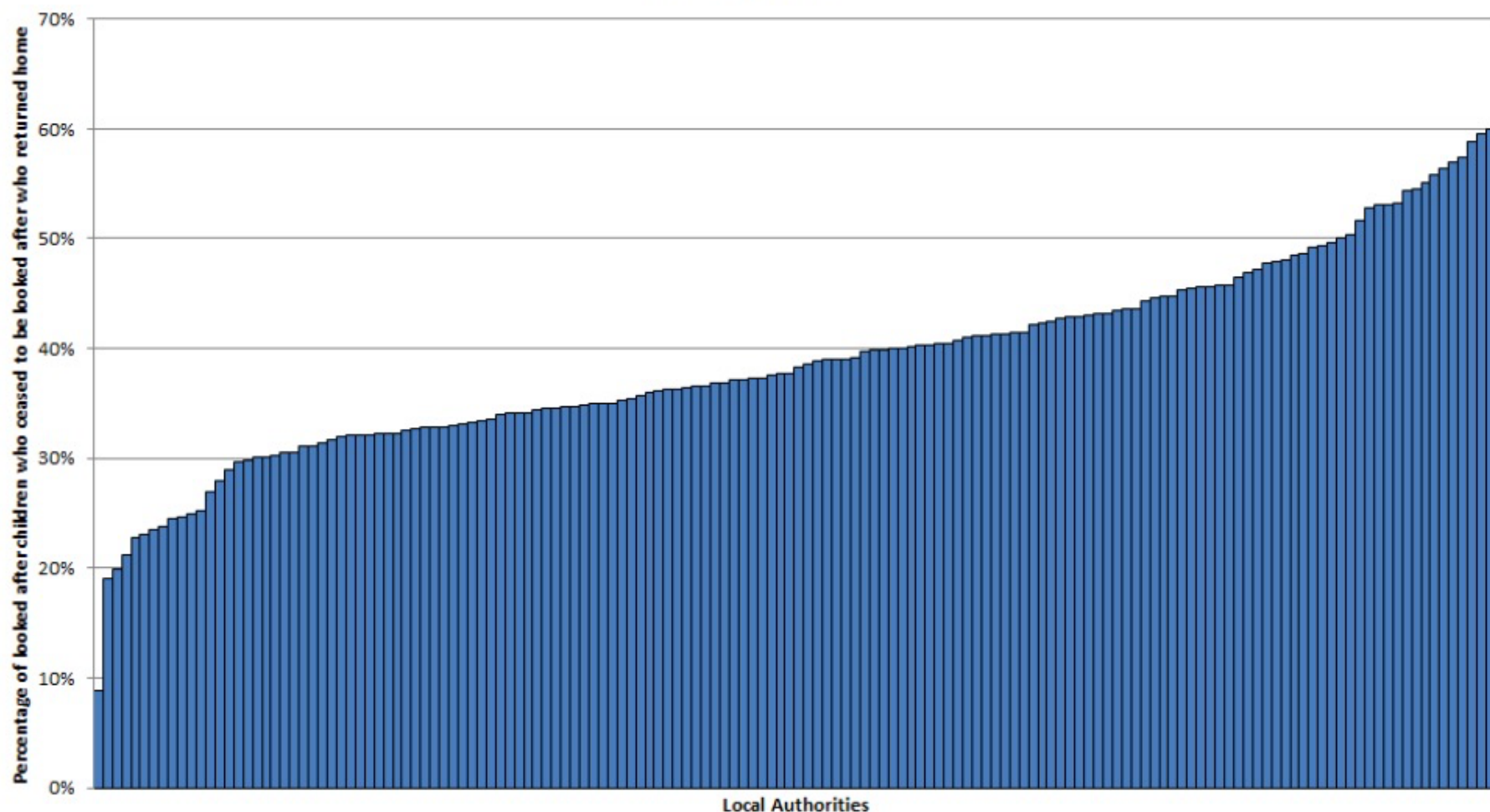
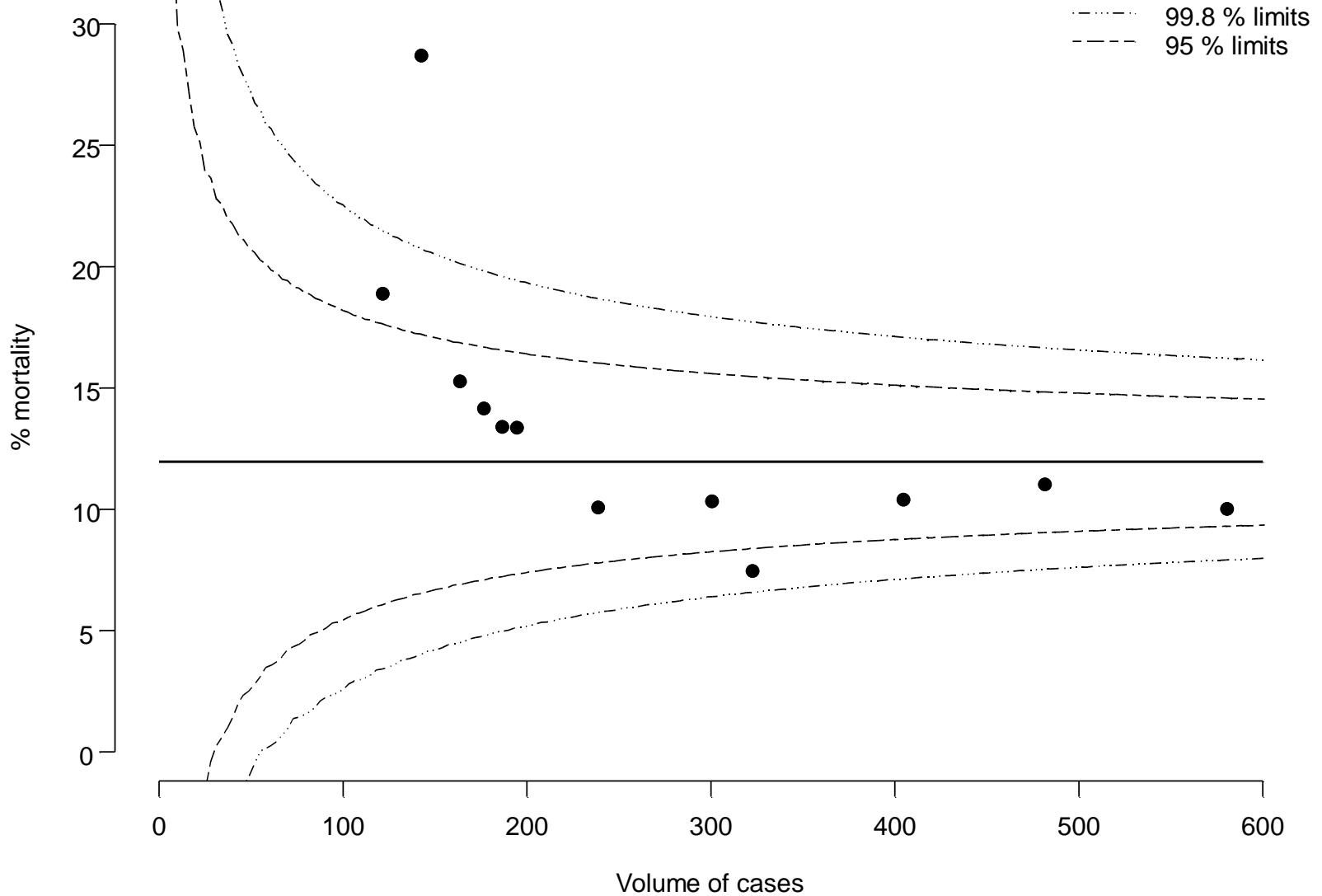


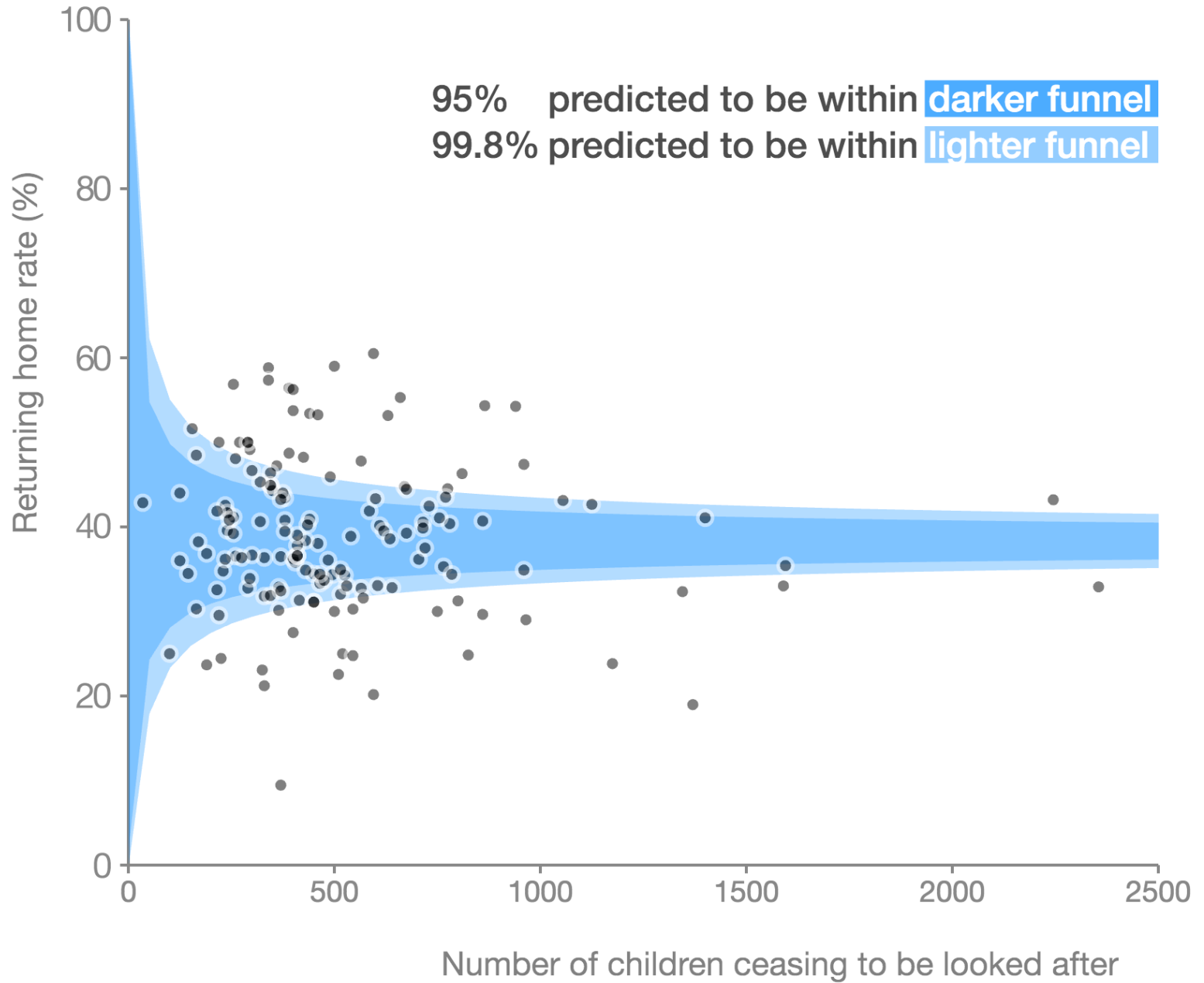
Figure 13: Looked after children who returned home as a percentage of all looked after children who ceased to be looked after by local authority between 1 April 2009 and the 31 March 2012.

The Bristol Inquiry into excess mortality: 1995

Mortality after paediatric cardiac surgery in under 1's



% of children ceasing to be looked after who return home: LAs 2009-2012



Performance indicators

- Can't know what is going to happen, but should have some idea of what is going on
- Performance *indicators* can be fine
- Danger: they start being used for performance *management*
- Should not be used as targets

Getting better data

- Other areas seek data on *both* short- and longer-term outcomes, including quality-of-life / wellbeing
- Risks can be assessed and performance benchmarked
- Try to understand reasons for variability

Learn from *What Works Centres*?



Cost ▾

Evidence Strength ▾ Months Impact

Arts participation

Low impact for low cost, based on moderate evidence.



+2

Aspiration interventions

Very low or no impact for moderate cost based on very limited evidence.



0

Behaviour interventions

Moderate impact for moderate cost, based on extensive evidence.



+4

Block scheduling

Very low or no impact for very low or no cost, based on limited evidence.



0

Collaborative learning

Moderate impact for very low cost, based on extensive evidence.



+5

Home / Crime Reduction Toolkit

Our effect scale

Our quality scale

About the Crime Reduction Toolkit

Key

Quality of evidence

	No information
	Limited quality
	Moderate quality
	Strong quality
	Very strong quality

Filters

Impact on Crime

(select a range using the markers below)



Crime Reduction Toolkit

Intervention	Impact on crime	How it works	Where it works	How to do it	What it costs	
	Effect	Mechanism	Moderator	Implementation	Economic cost	
Alcohol ignition interlock	 	 	 	 	 	
Alcohol tax and price policies	 	 	 	 	 	
Alley gating	 	 	 	 	 	
Alternative education programmes	 	 	 	 	 	
CCTV	 	 	 	 	 	

Conclusion

- Importance of concepts such as
 - acceptable risk,
 - never-events,
 - costs-of-errors,
 - quality assurance and improvement,
 - learning from variability,
 - well-being etc
- But tricky to make them operational
- Other areas have spent decades trying to do this
- Data is vital, but beware of misuse.