

10 years of performance measurement in England – where next?

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Institute of Health Economics 9 April 2010



- Contexts
 - The UK, its demography, politics and health system
 - How is reporting performance supposed to work?
 - Tin Openers and dials
 - Success and Problems
 - Moving forward – tin openers revisited?
-

Context 1 – the UK

4 countries

- England c.50m
- Scotland c.5m
- Wales c.3m
- N Ireland c.2m

Ageing population

Relatively rich, relatively unequal (by European standards)

Post industrial economy

- Founded 1948
 - Free at point of care
 - “The closest the UK has to a constitution”
 - Excludes “social” care (long stay nursing home, most home care services) – throwback to local/national arguments in the 1940s Labour party
 - Co-payments for prescription charges (c. \$12 per item), dental, optician, charges, but widespread exemptions from payment
 - Private insurance largely via employers, and almost entirely for rapid outpatient consultation and elective surgery (about 10% of population)
 - Currently broad political consensus of tax funded free at the point of use, but some degree of plurality of provision
-

England - deterrence orientated regulation and markets
(with side bets on centralised IM&T development and
collaborative quality improvement)

Scotland - professionalism and collaborative quality
improvement within single system working

Wales - localism in terms of public health focus integrated
with local authorities

N Ireland - history of politician-free managerialism

Nuffield Trust (2009) study suggests England won



CareQuality
Commission

The macro politics of health in England
since 1997

Pious hope - 1997

Clinical governance - 1999

More money and clear accountability (the
NHS plan) - 2001

Licensing and competition (pious hope
redux?) - 2005



CareQuality
Commission

The macro politics of health in England
in 2010

Clinically led improvement (Darzi - 2008)

plus

Public Information

plus

Genuine regulation

plus

Some degree of plurality and choice

plus

Integration of health and social care



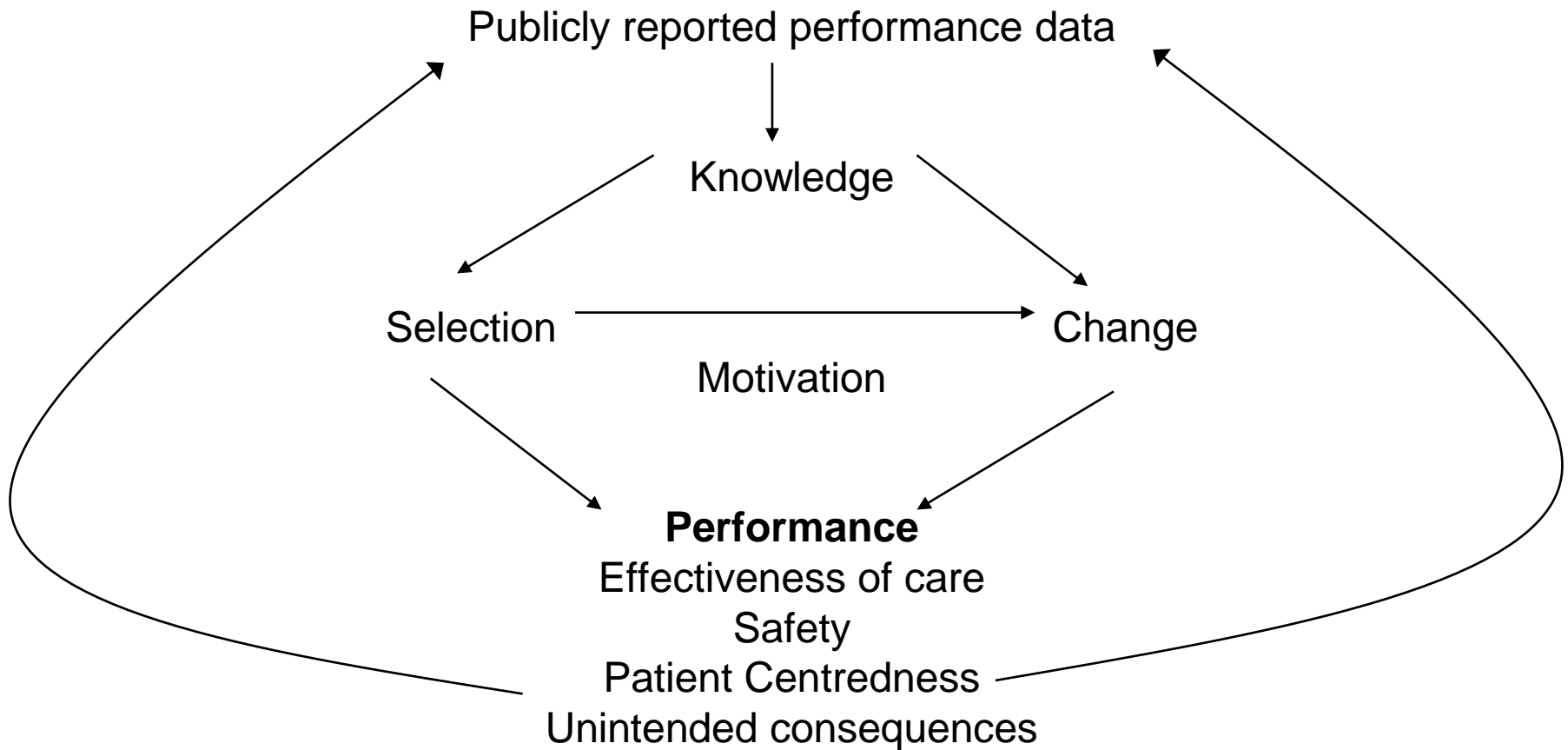
CareQuality
Commission

The role of the Care Quality Commission

- The Care Quality Commission is the independent regulator of health and social care in England
 - We exist to make sure people get better care
 - We do this through:
 - Registering all providers of health and social care against legally enforceable standards and monitoring and enforcing to make sure that these standards remain in place
 - Regular reviews of performance
 - Special reviews of specific services
 - Publication of information
-

Context 2 – how does measuring stuff drive improvement

How is reporting performance supposed to work?



- Judgement or comparison?
 - Publish or keep within system?
 - Drive improvement or provide accountability?
-

Incentive Type	Example	Information purpose and publication	UK example
Intrinsic	Altruism, professionalism	Comparative, improvement focused, shared inside system	National clinical audit programme
Implicit	Kudos, censure	Could be judgemental/ comparative, accountability focused, published	Star ratings/AHC
Indirect	Market advantage	Usually comparative, accountability focused, published	NHS choices
Direct	Payment or other reward for a given requirement	Usually judgemental, accountability focused, could be published or just shared inside system	QOF (early iterations of star ratings)

Context 3 – measuring for what? Of tin-openers and dials

Concept from Carter and Klein (e.g. 1992)

Tin openers open up cans of worms

Dials measure things

Most of the time you need to ask questions as much as you need to answer them



The last 10 years in health have been dominated by dials

- Star ratings
 - Targets
 - National Priorities
 - Vital Signs
 - QOF
 - Etc, etc, etc
 - Single measures to single issues and points make prizes
-

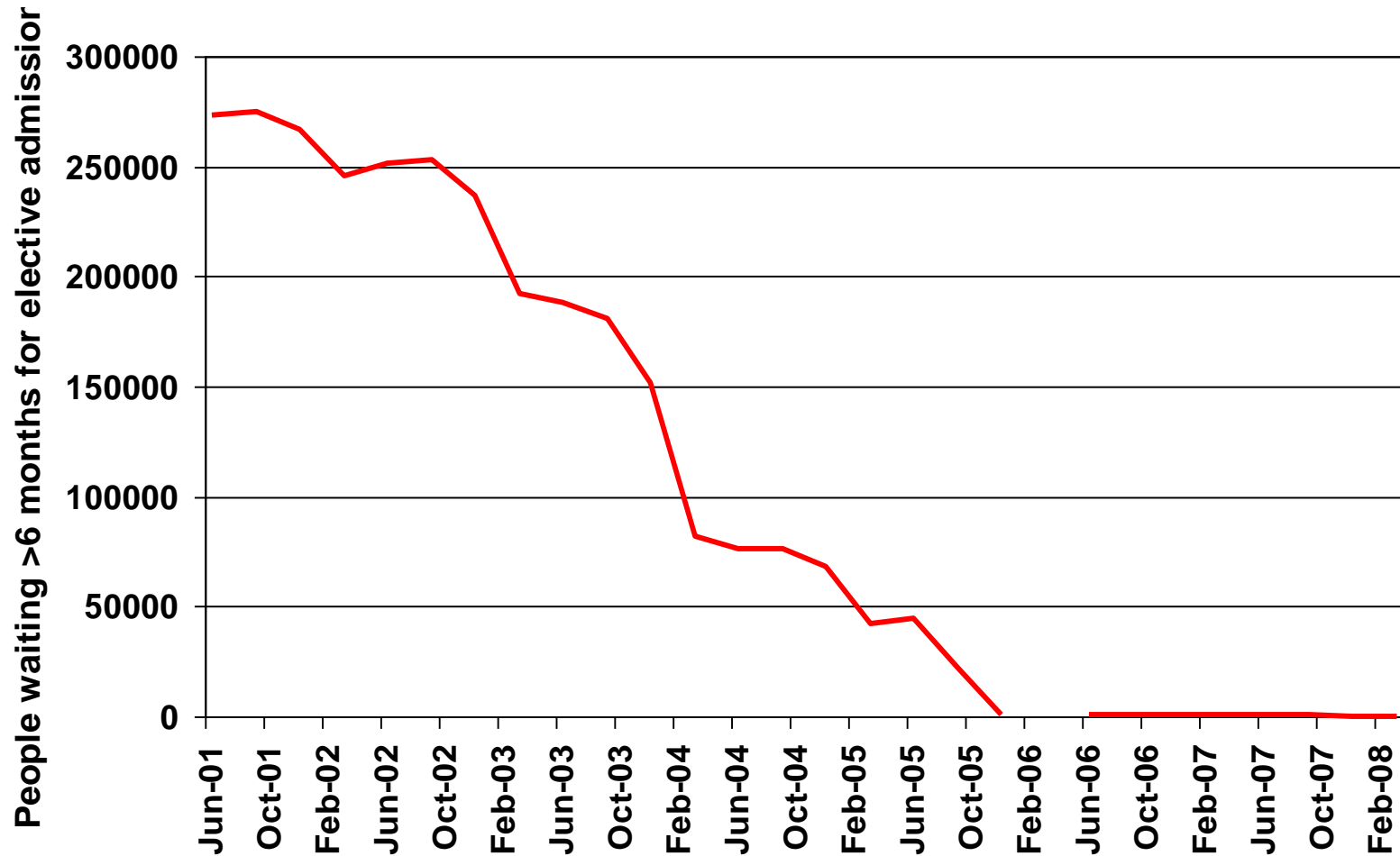
England in the noughties – successes and unintended consequences

- Star ratings/ annual health check – kudos and censure
 - Quality and Outcomes framework – P4P
-

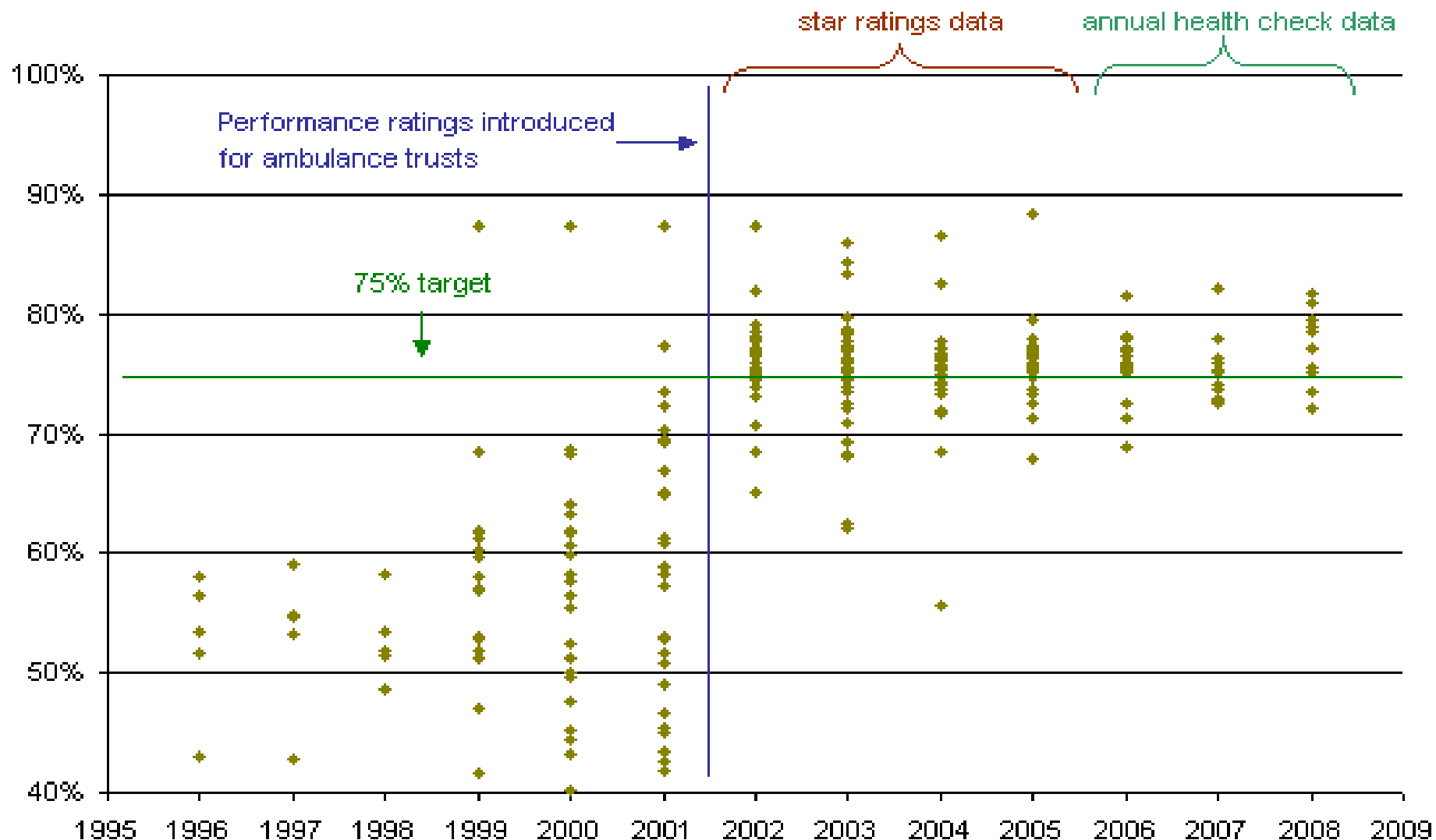
- Star ratings (2000-05) 0 – 3 stars based on:
 - achievement of a range of mandated national targets (primarily around access)
 - moderated with some quasi clinical indicators
 - Annual Health Check (2006-09) four point rating (weak, fair, good, excellent) based on:
 - achievement of a range of mandated national targets (primarily around access)
 - ability to demonstrate meeting some core basic standards of quality of care
-

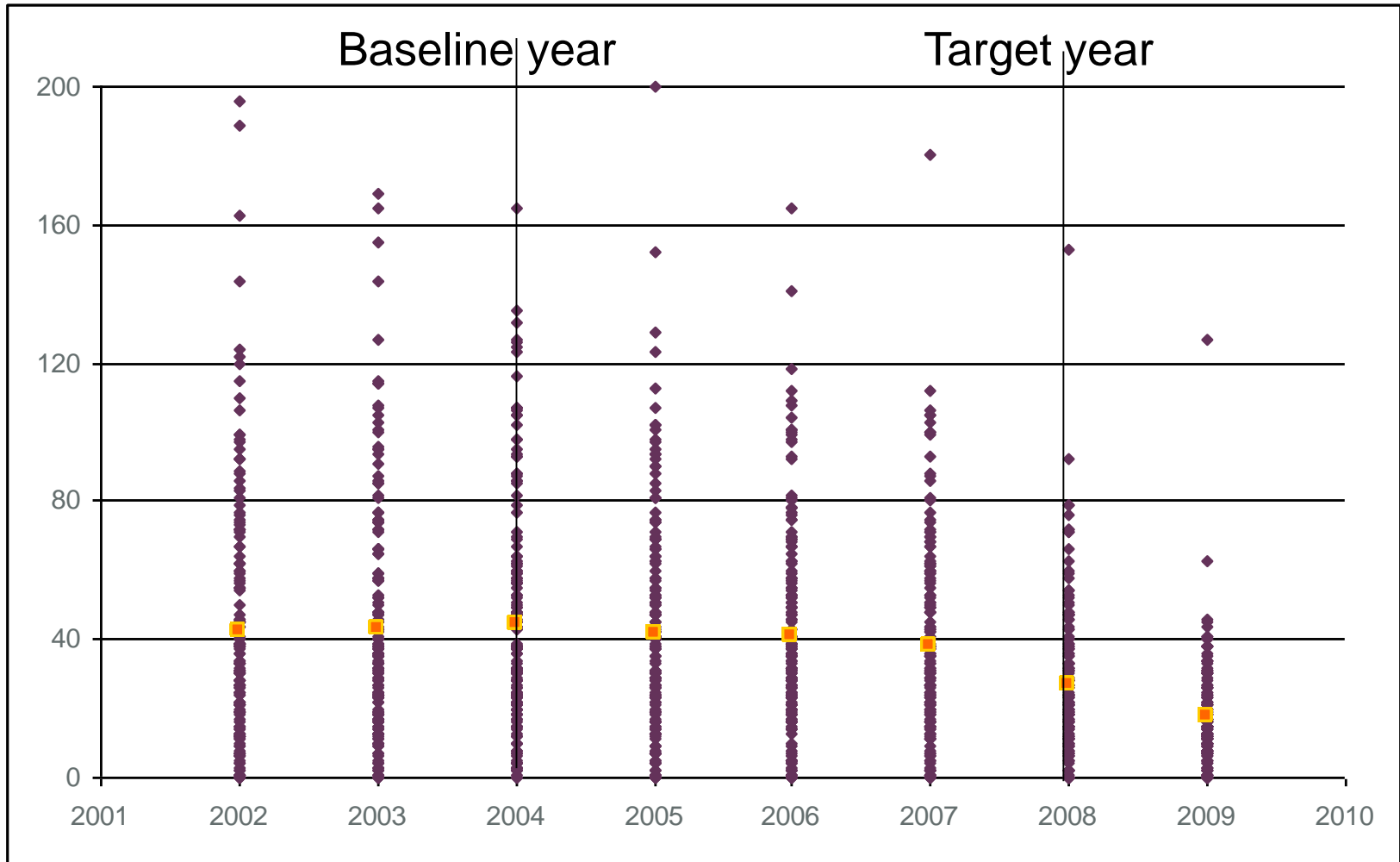
- Waiting lists
 - Ambulances
 - Hospital Acquired Infection
-

Dramatic reductions in numbers waiting a long time for elective surgery



Emergency ambulance response times improve





- Presenting here some work by Tim Doran from Manchester University
-

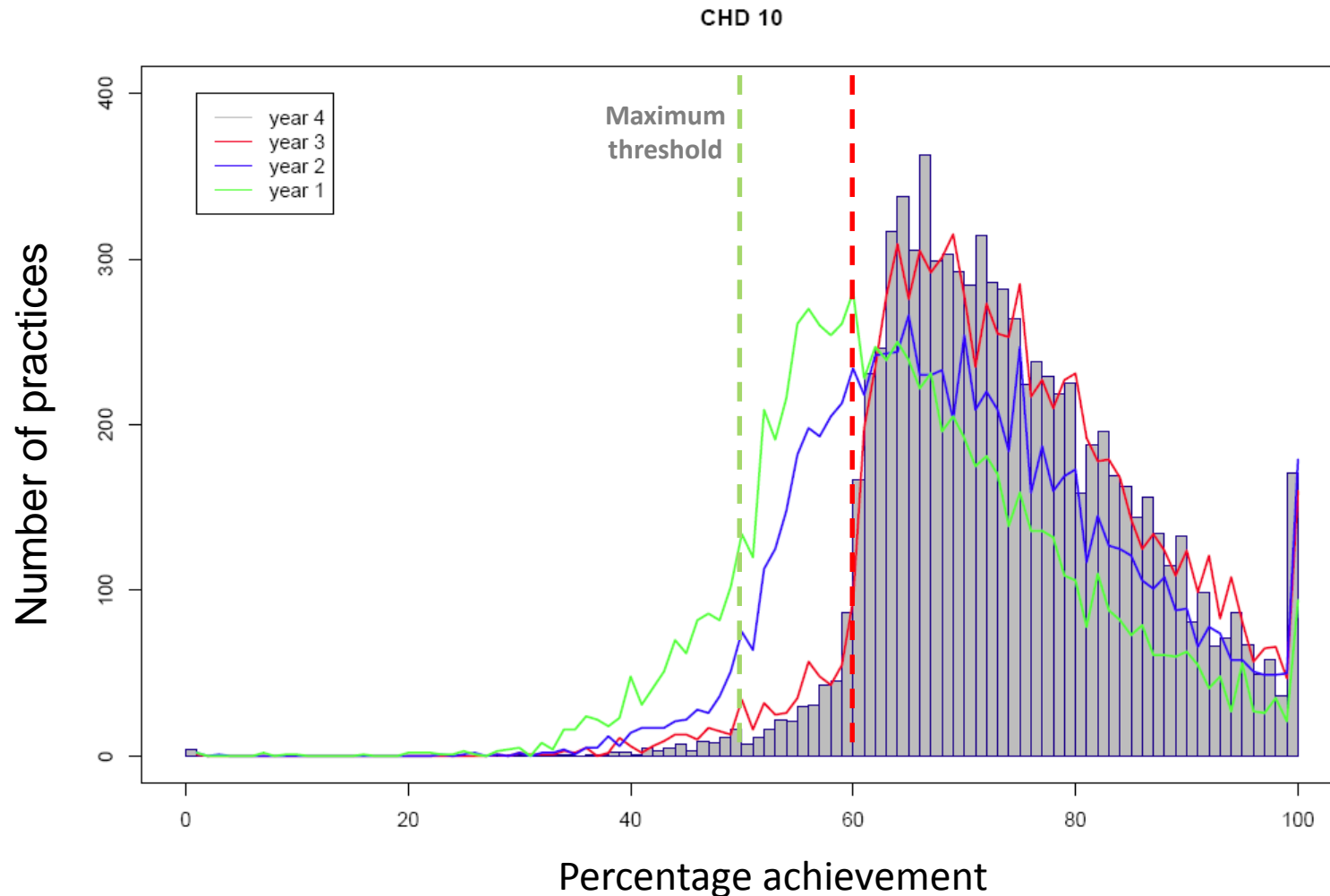
Results for Years 1-4

Points scored and remuneration

Year	% of total points scored	Mean earnings per physician
2004-05	91.3%	£22,750
2005-06	96.3%	£39,490
2006-07	95.5%	£37,300
2007-08	96.8%	£37,800

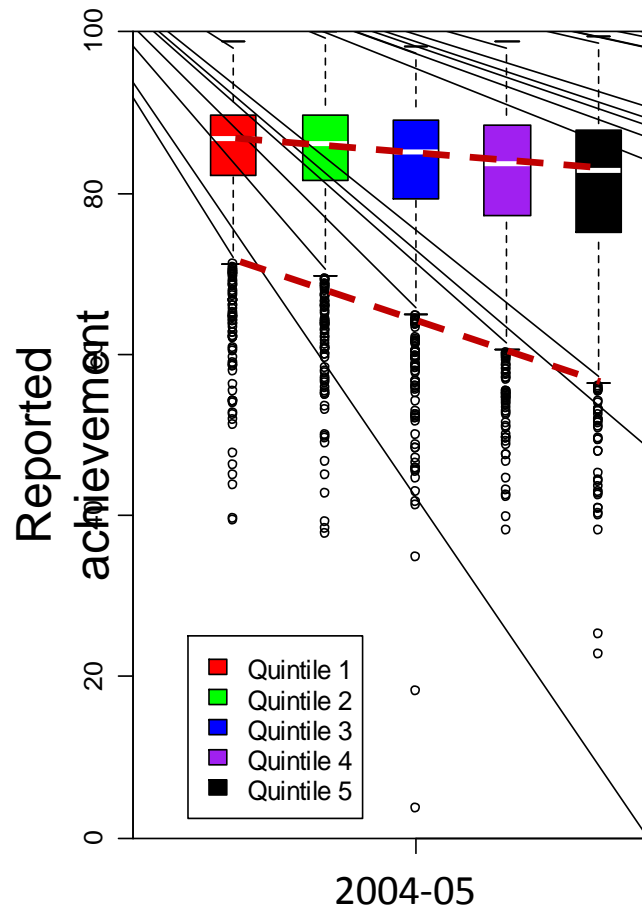
Achievement of clinical targets

Treatment: treated with beta blocker



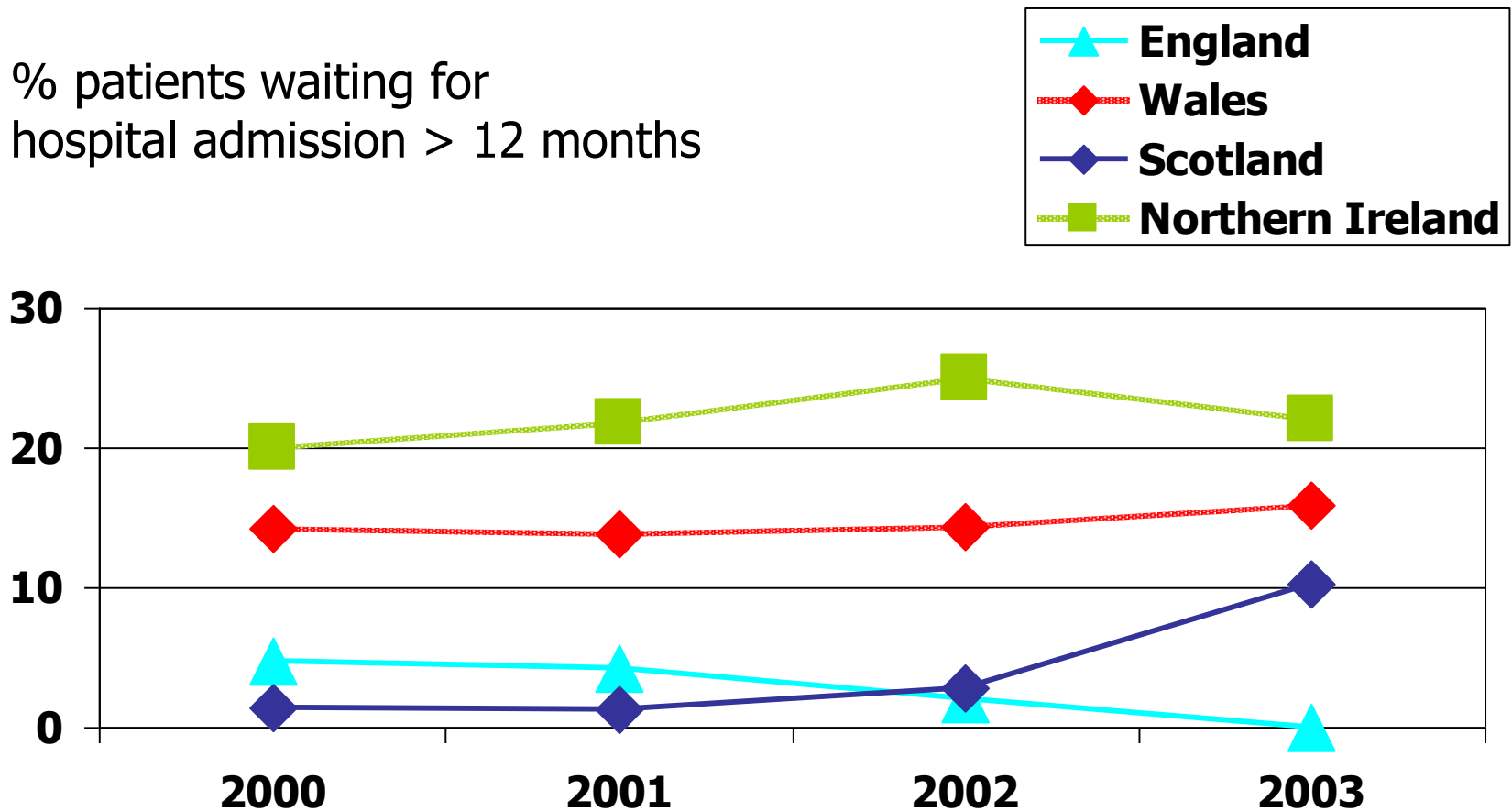
Inequality in quality of care

Achievement by area deprivation quintile



Was it the measurement schemes that caused this?

% patients waiting for
hospital admission > 12 months



Source: <http://www.statistics.gov.uk> National Health Service hospital waiting lists by region: Regional Trends 35, 36, 37 & 38

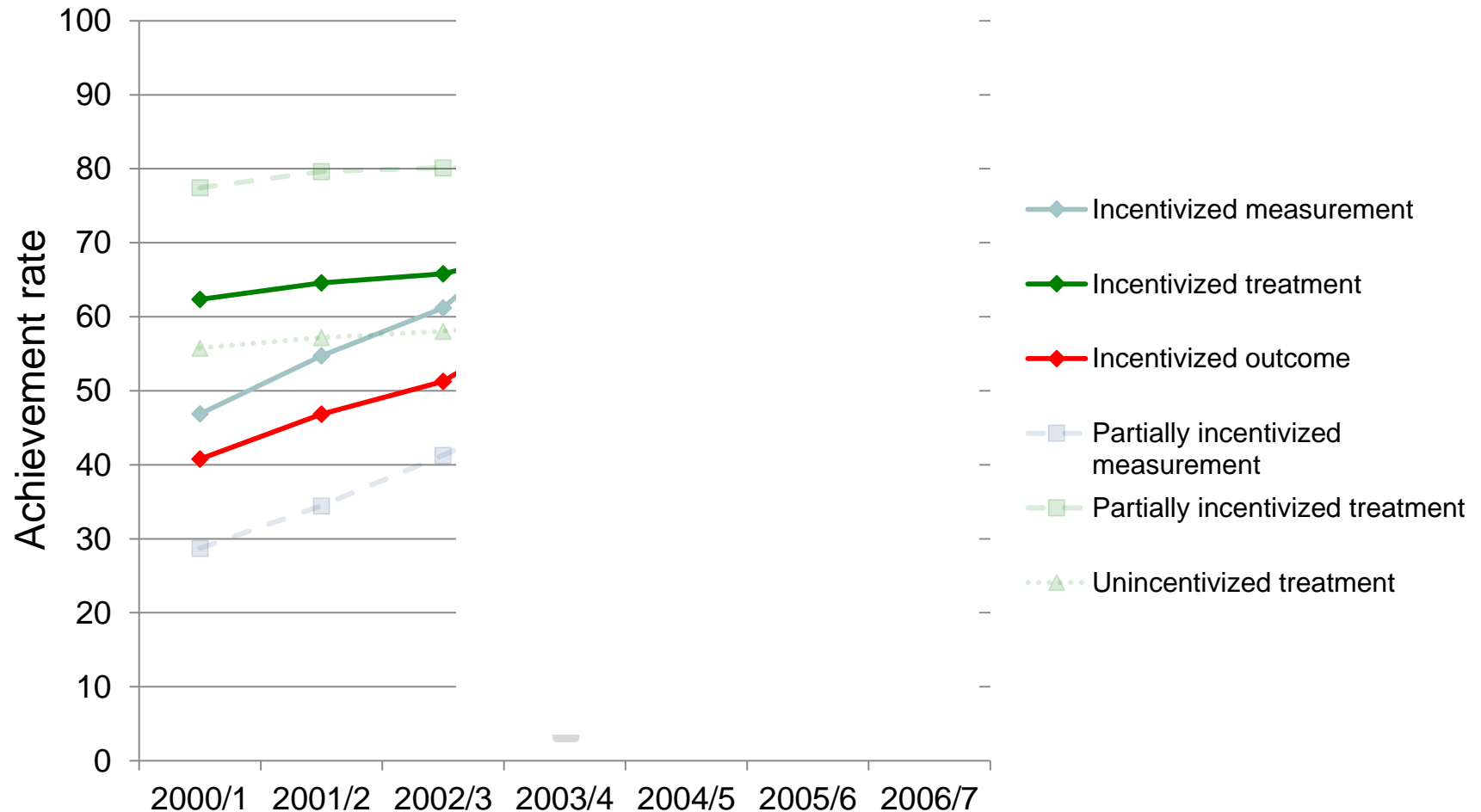
Indicator groups

	Fully incentivized	Partially incentivized	Not incentivized	<i>Total</i>
Measurement	17	9	0	26
Treatment	6	4	7	17
Outcome	5	0	0	5
<i>Total</i>	28	13	7	48

Analysis

- Study period divided into:
 - pre-intervention (2000/1 to 2002/3)
 - 'preparatory' (2003/4)
 - post-intervention (2004/5 to 2006/7)
- Annual achievement rates calculated as N_i/D_i
- Logit transformations applied to reduce floor and ceiling effects
- Two-level mixed multivariate regression. Covariates included:
 - mean patient age
 - patient gender
 - control variables for differences in indicator denominators
- Main outcome:
 - 'Uplift' in achievement
 - i.e. difference between actual and projected achievement

Fully incentivised processes & outcomes

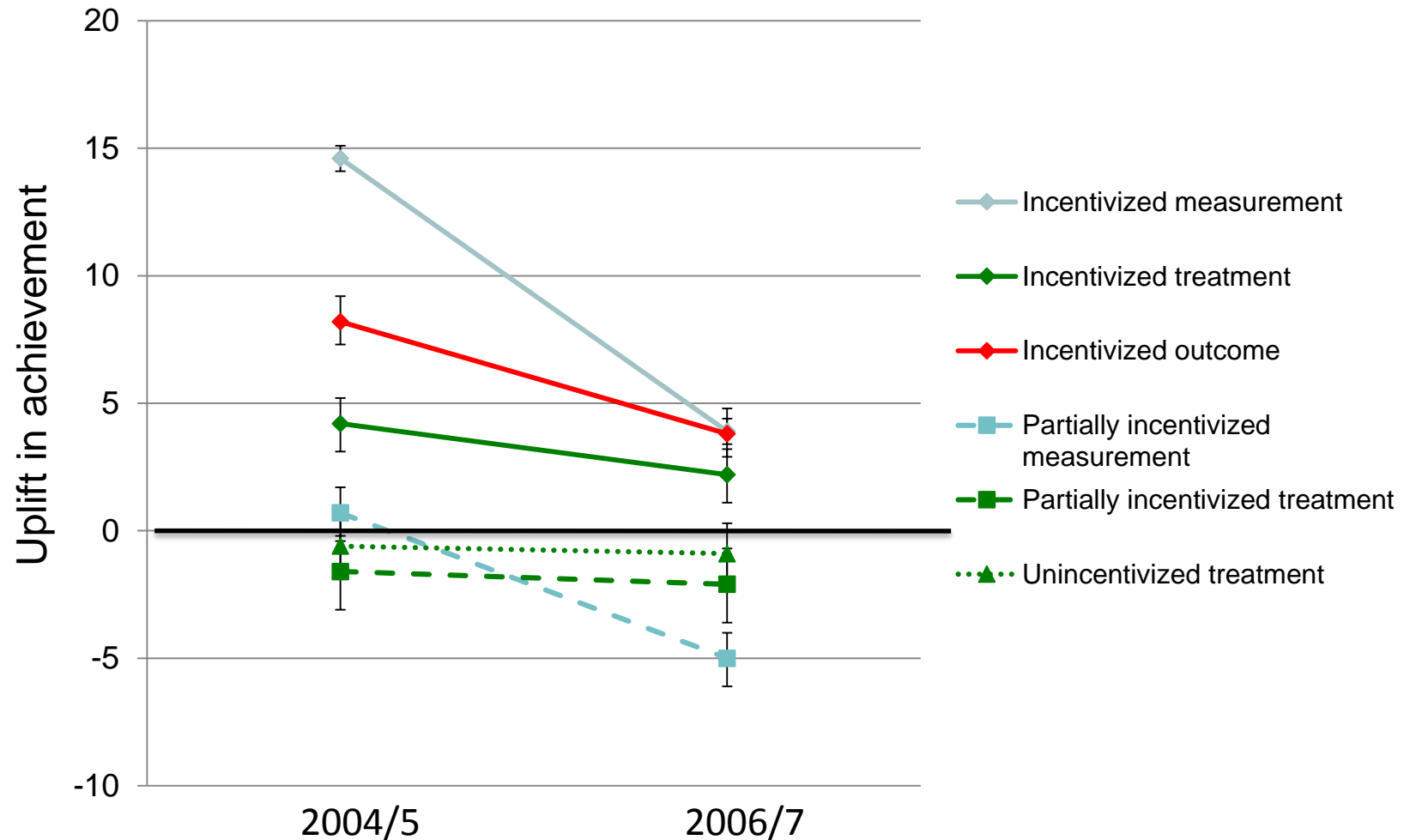


Partially incentivised & unincentivized processes



Uplift in achievement

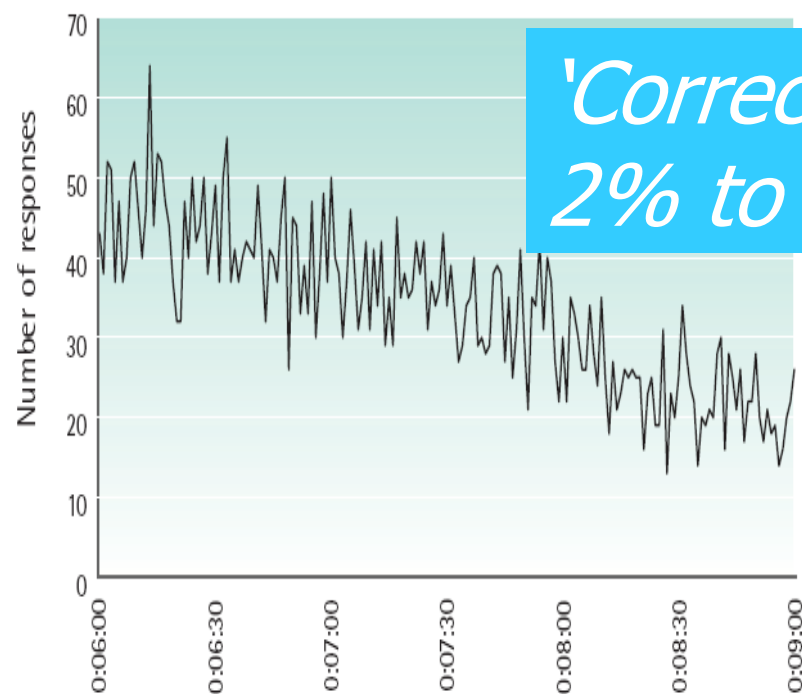
By indicator group





So given the success why
the worry

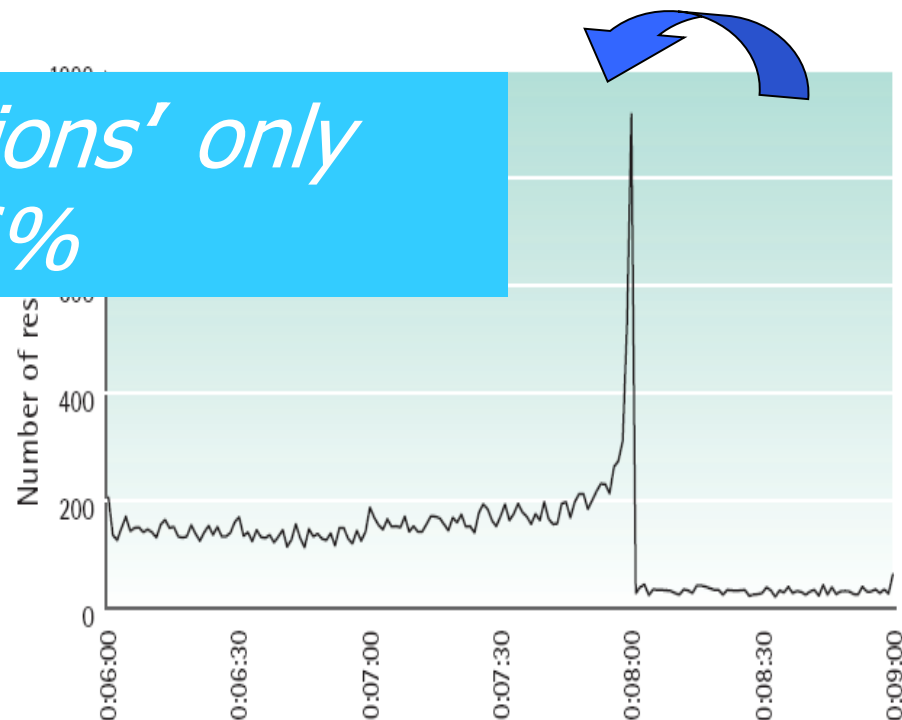
- Gaming (or management to measure)
 - Complexity and tripping over each other
 - “The synecdoche problem”
-



*'Corrections' only
2% to 6%*

Response time

75% < 8 minutes

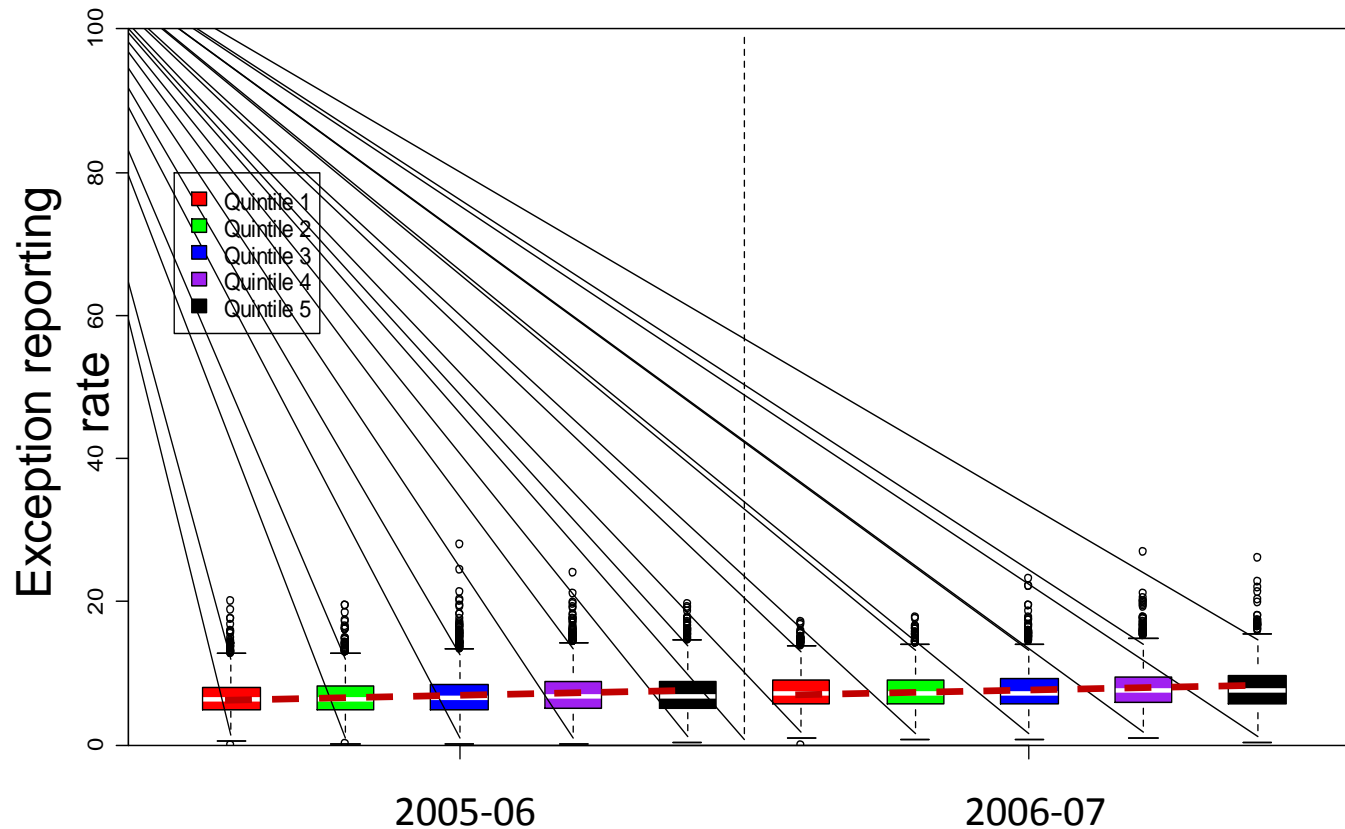


Response time

75% < 8 minutes

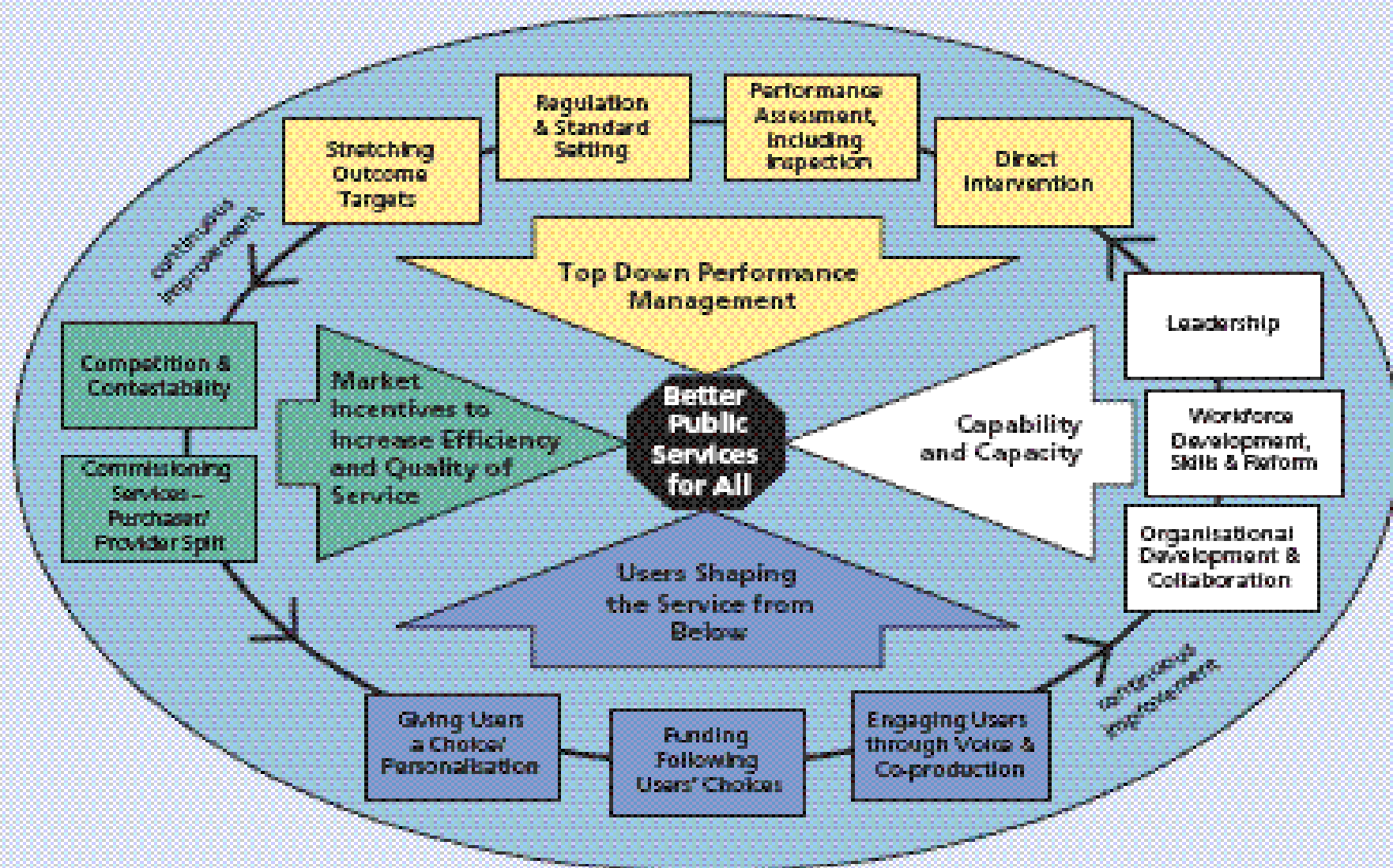
- The response in Wales was to set progressively less taxing targets
 - Scotland and Northern Ireland did nothing until 2007
 - So saved lives and encouraged dishonesty?
-

Exception reporting – what scale



- What happens when one piece of information becomes the be-all and end-all and you know what will be counted as good and bad?
 - *“Any observed statistical regularity will tend to collapse once pressure is placed on it for control purposes”* Goodheart 1984
-

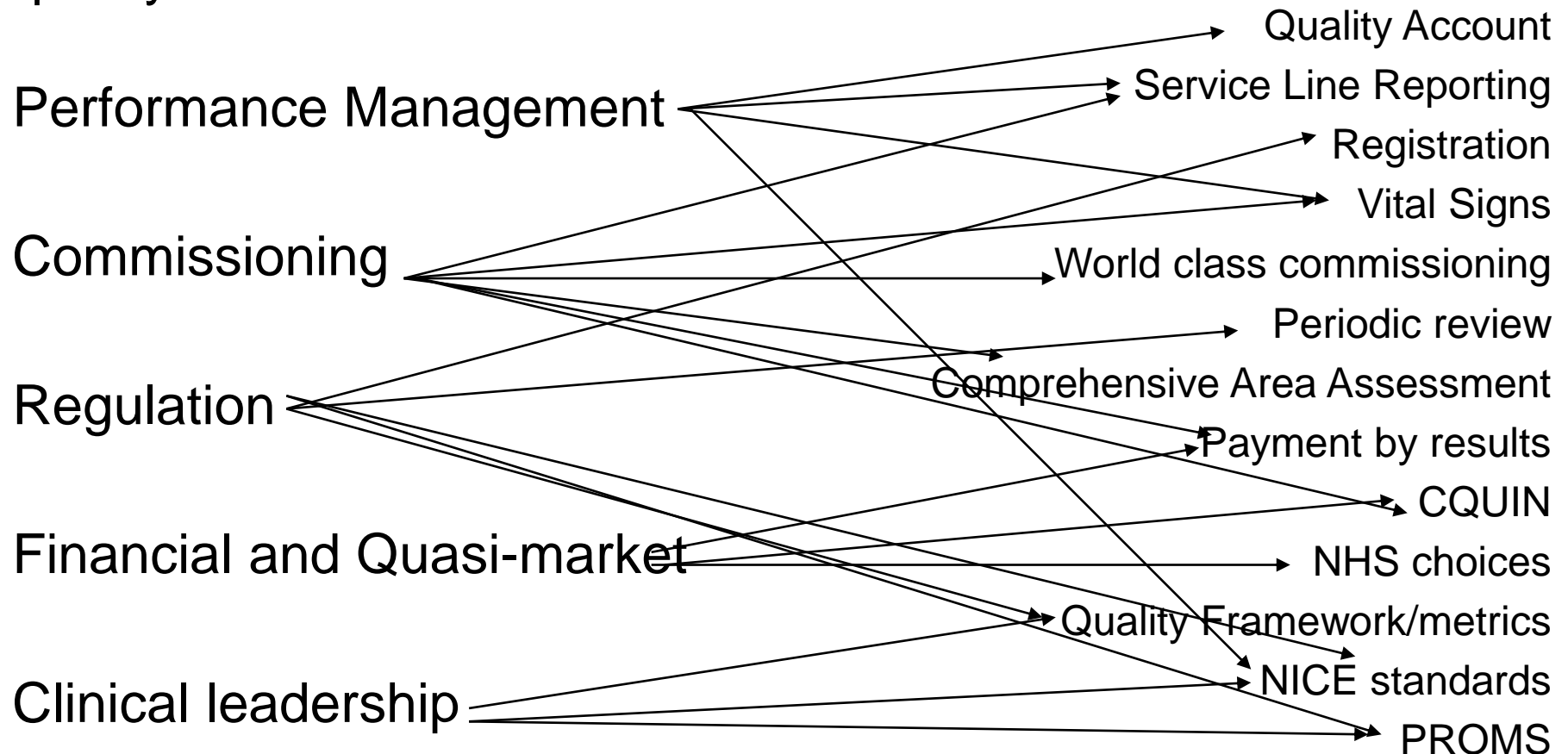
Chart A: The UK Government's Model of Public Service Reform – A Self-Improving System



Confusion!

5 Policy Drivers to improve quality

13 New (ish) Information rich schemes

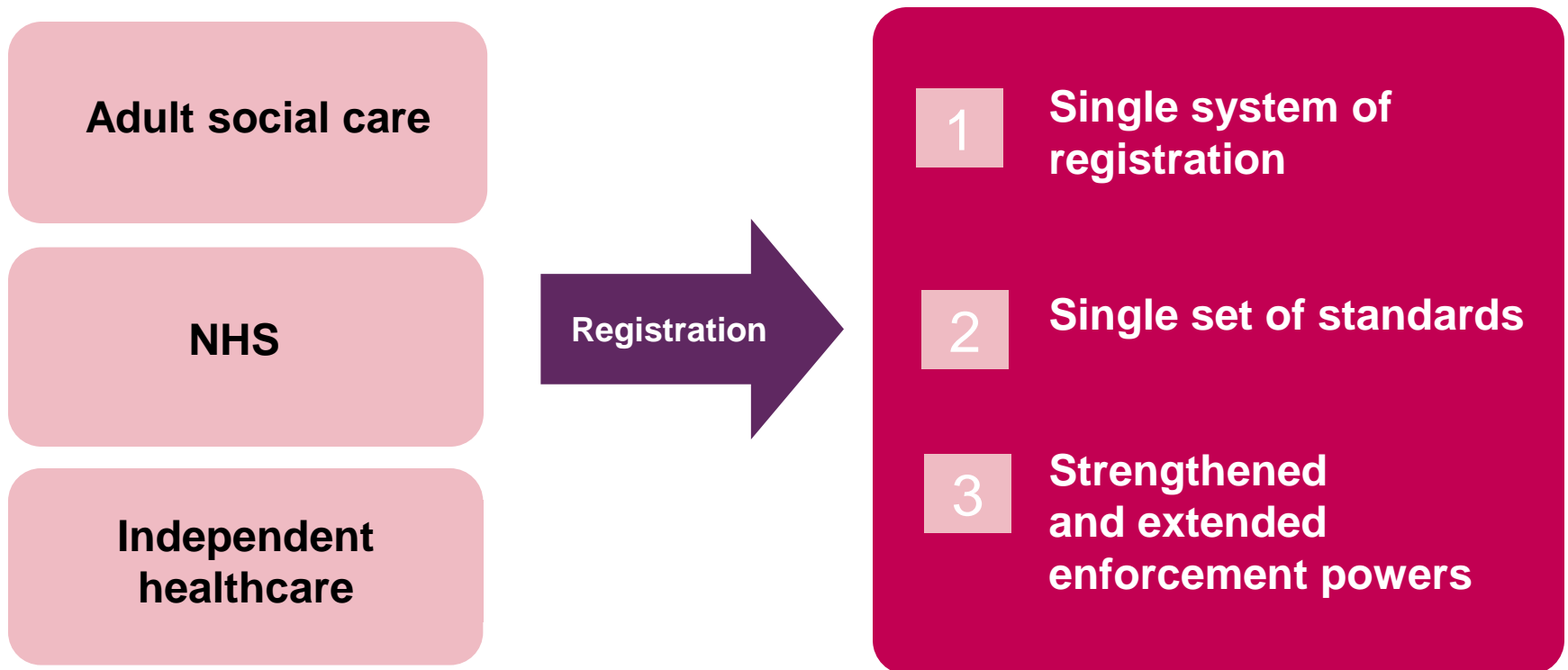


- How realistic to describe a C\$1bn organisation in one word?
 - You can't measure everything
 - And some of what matters is hard to measure
 - So you end up with a small group of measures trying to describe everything
 - Distraction, management to measure
 - Value?
 - What happens when there are conflicting claims (e.g. CQC and Dr Foster November 2009)
-

- A new regulatory system of real time monitoring of compliance against standards
 - Assessing risk from the data – using humans to make judgements
 - Real, legal teeth for the first time
-

- Tin openers revisited
 - Use the data
 - Use lots of it
 - Use it to start asking questions rather than making judgements
-

People can expect services to meet essential standards of quality, protect their safety and respect their dignity and rights.





**April
2010**

NHS Trusts



**Oct
2010**

**Adult social care and independent healthcare
providers (CSA)**



**April
2011**

**Primary dental care (dental practices)
and independent ambulance services**



**April
2012**

**Primary medical services
(GP practices and out of hours)**

The difference registration will make



- All health and adult social care providers are meeting a single set of **essential standards of quality and safety**
- Standards are **focused on what is needed to make sure people who use services have a positive experience** - a direct result of what people said they wanted
- A **single regulatory framework** across health and adult social care; people receive safe and quality care no matter which part of the care system they experience and where

Guidance about compliance

Summary of regulations, outcomes and judgement framework



December 2009

Guidance about compliance

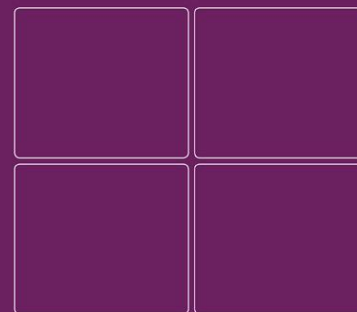
Essential standards of quality and safety



What providers should do to comply with the section 20 regulations of the Health and Social Care Act 2008
December 2009

Guidance about compliance

Judgement framework



How we will judge providers' compliance with the section 20 regulations of the Health and Social Care Act 2008
December 2009

CQC's guidance about compliance: example of an OUTCOME

Plain English

People focused

Outcome Based

Safeguarding people who use services from abuse

OUTCOME 7

What should people who use services experience?

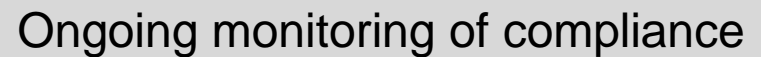
People using the service:

- Are protected from abuse, or the risk of abuse, and their human rights are respected and upheld

That is because providers who are compliant with the law will:

- Take action to identify and prevent abuse from happening in a service
- Respond appropriately when it is suspected that abuse has occurred or is at risk of occurring
- Ensure that Government and local guidance about safeguarding people from abuse is accessible to all staff and put into practice
- Make sure that the use of restraint in a way that respects dignity and protects human rights, and where possible respects the preferences of people who use services
- Protect others from the negative effect of any behaviour by people who use services





- Tin openers revisited
 - Use the data
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 - Use it to start asking questions rather than making judgements
-

MATERNITY DASHBOARD

			Goal	Red Flag	Measure	Comment	Data Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Comments Actions this Month
Activity	Mothers delivered	Benchmarked to 8802 per annum	8802 (740)	>780	Mothers delivered	Birth ratio will=1:38	Oxmat	723	687	757	758	765	746	803	782	725	684			
	Scheduled Bookings	Bookings (1st visit) scheduled	9600 (800)	>850	Bookings	Tolerance 15%	Oxmat	808	756	820	838	819	831	881	870	784	737	706		
	Early access	Number booked by 12+6wks	>76%	<67%		To include ethnicity when available	Oxmat						66%			60%				
	Inductions of Labour	Inductions of labour	<23%	>25%			Oxmat	24%	26%	20%	23%	21%	22%	24%	23%	27%	21%			
	Normal Birth	SVD	60%	50%				63%	65%	68%	63%	62%	61%	62%	56%	63%	64%			
	Instrumental del	Forceps & Ventouse	10-15%	<5% or >20%			Oxmat	16%	16%	14%	16%	17%	16%	17%	17%	17%	17%			
	C-Section	Total rate planned and emergency	<23%	>25%	c-section birth		Oxmat	18%	16%	20%	21%	21%	23%	21%	24%	20%	18%			
Workforce	Staffing levels	Weekly hours of Consultant presence on Labour Ward	60hrs	<40hrs	Hrs per week	Current aim is to provide 40hrs increasing to 60	Consultant rota	45	45	45	45	45	45	45	45	45	45			
		Midwife /birth ratio	01:34	01:38	WTE/births	5yr plan to reduce to 1:30	Dep HCM	01:34	01:32	01:35	01:35	01:35	01:34	01:37	01:38	01:33	01:31			
		Supervisor to midwife ratio	<1:15	>1:20			Con.SCM	01:15	01:15	01:15	01:15	01:15	01:15	01:15	01:15	01:15	01:15			
Clinical Indicators	Maternal Morbidity	3rd/4th Degree Tear	<1%	>3%			Risk Report	2.8%	4.0%	2.9%	3.0%	3.0%	2.5%	1.7%	2.0%	2.5%	1.8%			
		Failed Instrumental Delivery	<1%	>3%			Risk Report	0.30%	0.50%	0.80%	0.50%	0.65%	0.50%	0.70%	0.60%	0.80%				
		ICU Admissions	0	2	Expectation 10 per year	Direct Transfers from Maternity	Risk Report	0	0	0	0	0	2	1	0	1				
		Maternal Deaths	0	1			Risk Report	0	0	0	0	0	1	0	0	0	1			
	Neonatal Morbidity	Massive PPH>2L	1%	2%			Risk Report	1%	1%	0.80%	0.30%	0.20%	0.50%	0.50%	0.39%	0.68%				
		Shoulder Dystocia	<1.5%	>1.5%		0.5-1.5% OF Del no per 1000	Risk Report	1%	1.25%	0.20%	1%	0.80%	1.30%	1.40%	0.50%	0.50%				
		Stillbirths	<5.3	>8			Risk Report	9.7	2.9	3.9	5.2	2.8	4	6.2						
		Unexpected NNU admissions	<2%	>3%			Risk Report	1.80%	1.40%	1.50%	2.20%	2%	2%	1%	1.80%	1.50%				
Health Check	Number of SUIs	Number of SUIs	1	3		Investigations undertaken	Risk Report	0	0	0	0	1	2	0	0	0	1			
		Number of Complaints	3	6			Directorate	9	5	3	2	0	3	3	3	5	5			
		Number of Women Smoking at delivery	<10%	>11%		Report quarterly	Oxmat			7.60%				8%		7.70%				
		Number Initiating Breastfeeding	80%	>75%		Report quarterly	Oxmat			77.60%				78%		77%				

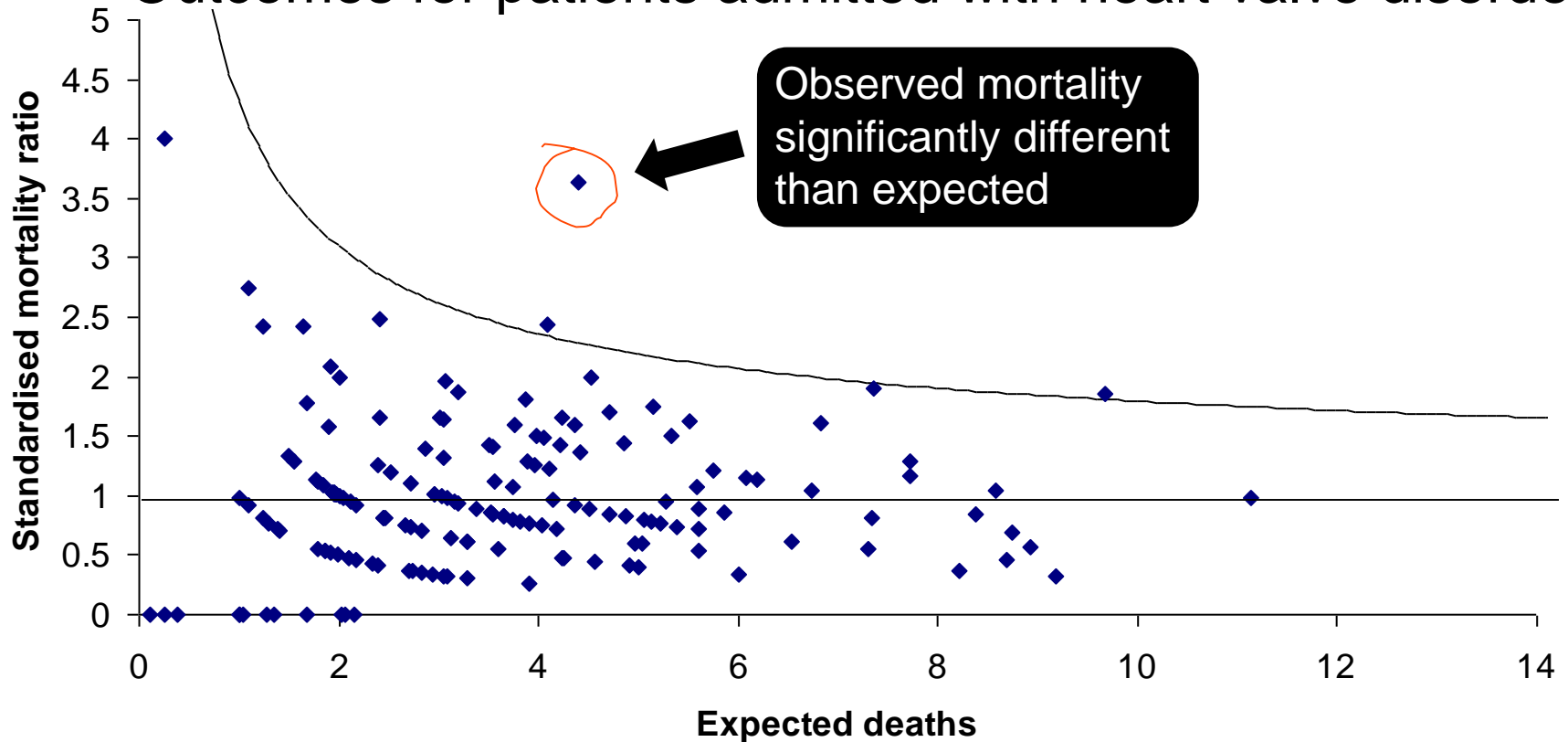
- QRP is a way of gathering all we know about organisation so as to assess risk that organisations are failing to comply with registration standards
 - And thus ***prompt*** front line regulatory activity and allow the judgements of this activity to be made robustly and add to the knowledge base
 - It is not a rating, ranking, league table or judgement in and of itself
 - Inspectors make judgements about compliance not the QRP
 - In other words the information and risk estimate are “tin-openers” not dials
-

What sort of information do we have

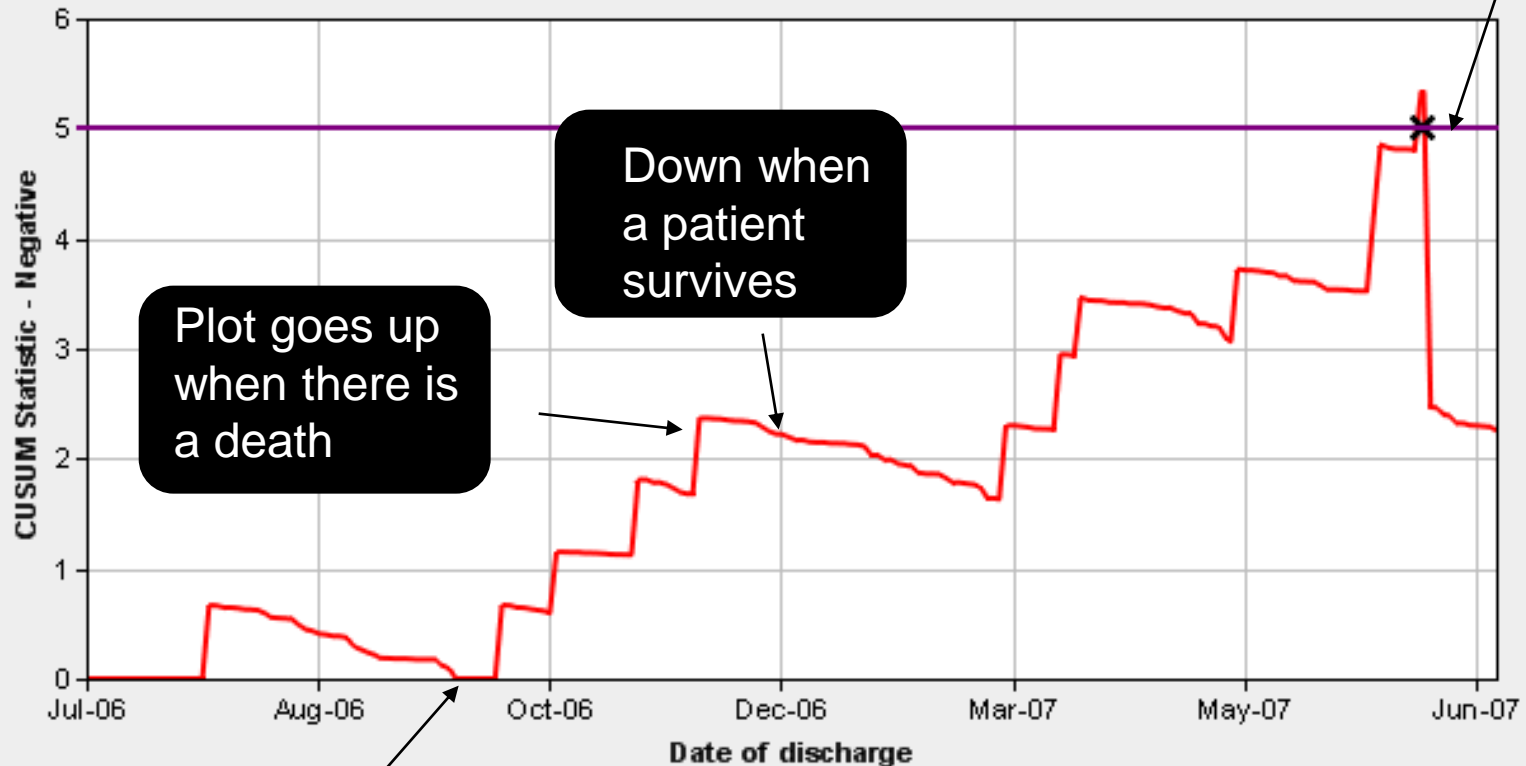
- Hospital episode statistics – up to 240 items of data on every admission into hospital in England
 - Mental health minimum data set – additional relevant info on mental health care
 - Annual national patient and staff surveys (in excess of 100,000 respondents each)
 - Clinical audit data for selected diseases
 - Other organisations' data – e.g monitoring of c.diff and MRSA incidence
 - Notifications of incidents to the National Patient Safety Agency
 - 'Soft' local intelligence based on what patients, carers, their representative groups and staff say about care
 - In total about 650 separate items of data enter the model from around 95 data sets from around 30 sources
-

Don't make judgements
from the data – spot
outliers and ask
questions

Outcomes for patients admitted with heart valve disorders



Mortality (in-hospital) | Complications of surgical procedures or medical care



Plot can never fall below zero

Quality and Risk Profile



Provider : Melchester Hospitals NHS Trust
Service: Melchester Hospitals Maternity Service
Sites: Melchester Hospital, 1 Melchester Road Melchester, MC4 RR1 (30 Beds)
Kingsbay, 42 Kingsbay Ave, Kingsbay, MC1 AA1 (10 Beds)
Regulated Activities: Maternity & Midwifery

Provider ID: AAA42
Service ID: ZZ3456
Registered: 1 April 2010
Conditions: Yes / No

Regulatory Risk Profile

Provider Wide Information

Contextual Information

Involvement and Information



Personalised Care, Treatment and Support



Safeguarding and Safety



Suitability of Staffing



Quality and Management



Suitability of Management

No information

Inherent Risk

Situational Risk

Population Risk

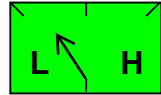




Uncertainty Risk

Section 1

Involvement and Information

Back to cover sheet (Page 1)



	Previous Judgement	Current Performance Risk Estimate	View more detail
<u>Outcome 1 (R17)</u> Respecting and involving people who use services	Compliant		
<u>Outcome 2 (R18)</u> Consent to care and treatment	Almost met		
Outcome 3 (R21) Fees	Compliant	No Information	

Section 1: Involvement and Information

Outcome 1 - Respecting and Involving people who use services (Regulation 17)

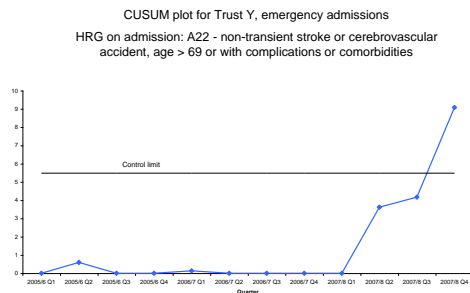


Concerning Items	All Items
0	7

Item Name	Item Description	Item Rationale	Impact Outcome
AHP_MAT44	Proportion of languages that the trust provides advocates for.	The trust should have commissioned an advocacy service to meet the needs of its local population. If the maternity service does not consider whether the advocacy service appropriately meets the needs of families in their care, this should be raised within the trust.	Green
AHP_MAT45	Access to advocates: for home visit	Maternity services are delivered in a range of locations, from a woman's home, community settings and in hospital. For translation services to be fully effective there should be access to a form of these services from all of these locations.	Green
AHP_MAT450	Advocates available who can undertake sign language	People with hearing disability can be excluded from information, a particular problem occurring when it is believed information has been shared but it has not been heard properly. These problems can be alleviated for people who use sign language by provision of a signer by the trust.	Green
AHP_MAT46	Access to Language Line: for home visit	Maternity services are delivered in a range of locations, from a woman's home, community settings and in hospital. For translation services to be fully effective there should be access to a form of these services from all of these locations.	Green
AHP_MAT47	Access to advocates: in community health settings	Maternity services are delivered in a range of locations, from a woman's home, community settings and in hospital. For translation services to be fully effective there should be access to a form of these services from all of these locations.	Green
AHP_MAT48	Access to Language Line: in community health settings	Maternity services are delivered in a range of locations, from a woman's home, community settings and in hospital. For translation services to be fully effective there should be access to a form of these services from all of these locations.	Green
AHP_MAT49	Access to advocates: in hospital	Maternity services are delivered in a range of locations, from a woman's home, community settings and in hospital. For translation services to be fully effective there should be access to a form of these services from all of these locations.	Green



Worrying information starts to come in which relates to Outcome 8 infection control



Sudden increase in c.diff infection rates



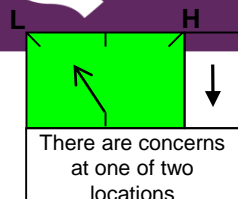
National patient and staff survey results show declining compliance with good infection control practice

I was very concerned

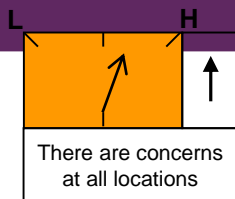
Really bad experience...

Increasing number of negative comments from NHS choices and Patient Opinion etc

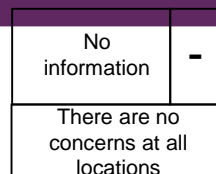
Section 1: Information and Information



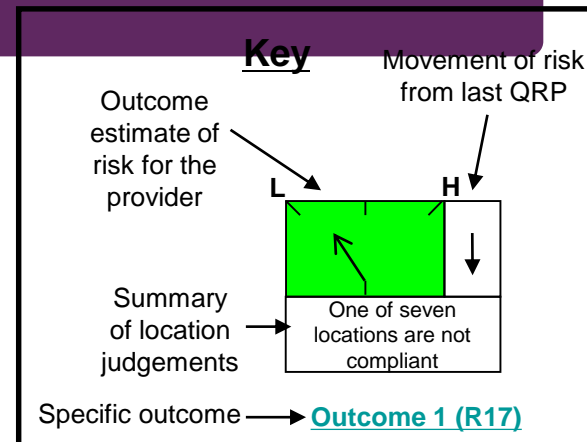
Outcome 1 (R17)
Respecting and involving people who use services



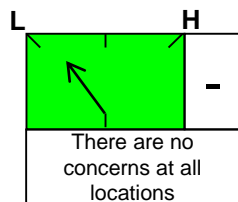
Outcome 2 (R18)
Consent to care and treatment



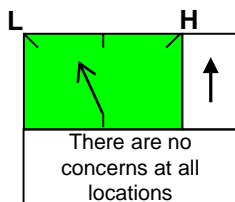
Outcome 3 (R21)
Fees



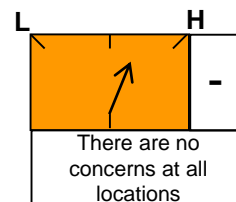
Section 2: Personalised care, treatment and support



Outcome 4 (R9)
Care and welfare of people who use services

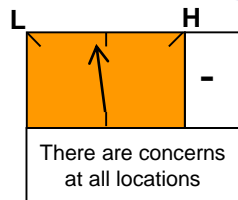


Outcome 5 (R14)
Meeting nutritional needs

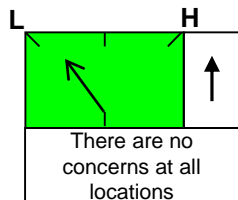


Outcome 6 (R24)
Cooperating with other providers

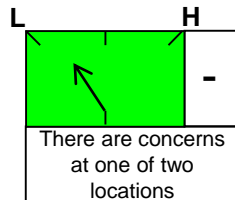
Section 3: Safeguarding and Safety



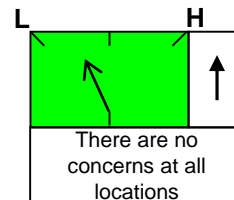
Outcome 7 (R11)
Safeguarding people who use services from abuse



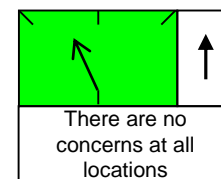
Outcome 8 (R12)
Cleanliness and infection Control



Outcome 9 (R13)
Management of Medicines

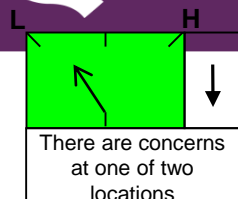


Outcome 10 (R15)
Safety and suitability of premises

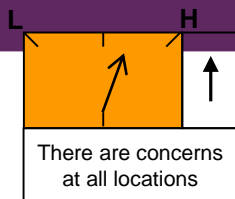


Outcome 11 (R16)
Safety, availability and suitability of equipment

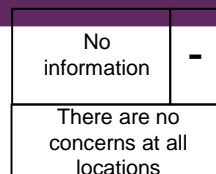
Section 1: Information and Information



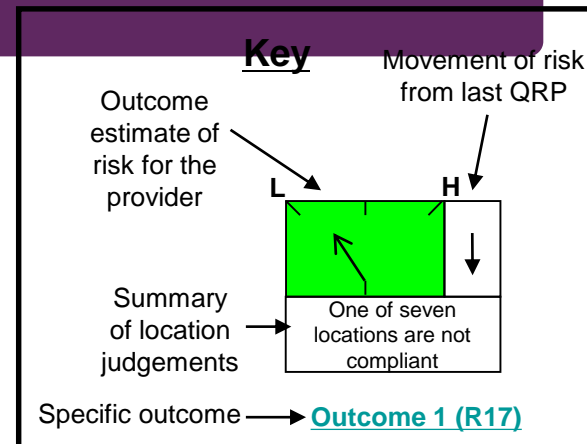
Outcome 1 (R17)
Respecting and involving people who use services



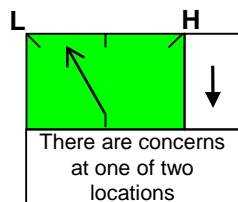
Outcome 2 (R18)
Consent to care and treatment



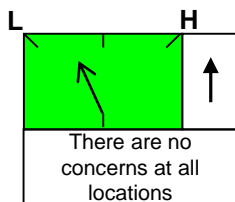
Outcome 3 (R21)
Fees



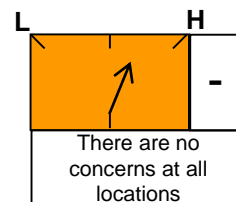
Section 2: Personalised care, treatment and support



Outcome 4 (R9)
Care and welfare of people who use services

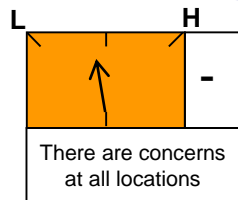


Outcome 5 (R14)
Meeting nutritional needs

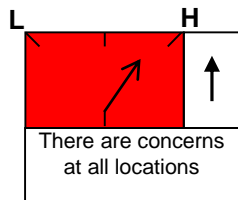


Outcome 6 (R24)
Cooperating with other providers

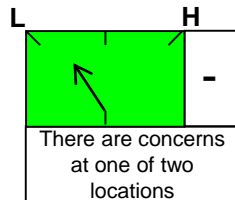
Section 3: Safeguarding and Safety



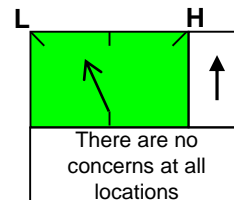
Outcome 7 (R11)
Safeguarding people who use services from abuse



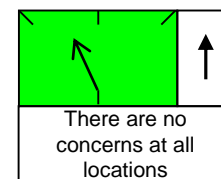
Outcome 8 (R12)
Cleanliness and infection Control



Outcome 9 (R13)
Management of Medicines



Outcome 10 (R15)
Safety and suitability of premises

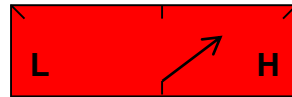
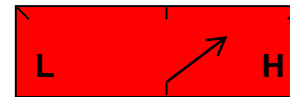


Outcome 11 (R16)
Safety, availability and suitability of equipment

Inspectors and RIEOs work together to respond



Inspector receives alert



RIEO receives alert



RIEO conducts analysis and prepares brief for inspector



Inspector reviews information and decides on course of action using consistent tools such as the judgement framework

RIEO provides advice and analysis as needed



Judgement Framework

Stage 1: Is there enough evidence?



Stage 2: Does the evidence show compliance?



Stage 3: What is the impact on people who use services and the likelihood of this happening?



Stage 4: Validation

Is there:

- > No concern
- > Minor concern
- > Moderate concern
- > Major concern



Using the judgement framework the inspector concludes that there is a moderate concern



As a result of this enforcement action
is taken

- As a result of this enforcement action is taken
 - And the QRP is updated
-

- Ongoing not backward looking
 - Spot and address issues more quickly
 - Greater use of what people say about their experience of care
 - Judgement to reflect local nuances and what is really going on
-

So what did we learn in ten years?

- Need a balance of different types of measurement
 - Need to think very carefully about the change you want to see and how you want it to happen
 - You need to consider what the perverse effects of an initiative might be and how to mitigate them
 - Often the value of information is to prompt questions in the first place rather than provide definitive answers
 - Trying to describe a large and complex organisation in one word is a fool's errand
 - The balance of what you share inside the system and publicly is complex and made more so by societal evolution
 - You need to develop an analytic community able to do this stuff
 - It needs to be in partnership with clinicians – with clinicians in a leading role
-



Many thanks

Any questions?
