

The impact and future of QOF in the UK

Dr Stephen Campbell

On behalf of the Quality Theme, National Primary Care Research and Development Centre, University of Manchester, UK

October 2009



Declaration of interests

- Unrestricted research grant from NICE as the external contractor on QOF (2009-2013)
- Not representing any organisation but my own views



4 priority directions for change (NPHCS 2009):

- Key Priority Area 1: Improving access and reducing inequity
- Key Priority Area 2: Better management of chronic conditions
- Key Priority Area 3: Increasing the focus on prevention
- Key Priority Area 4: Improving quality, safety, performance and accountability

Building blocks

- **Regional Integration:** local governance and partnerships
- **IT including eHealth:** EHR, integrate care and patient outcomes
- **Skilled workforce:** flexible, teamwork
- **Infrastructure:** flexible but supportive
- **Financing and system performance:** process and outcomes



4 priority directions for change (NPHCS 2009):

- Key Priority Area 1: Improving access and reducing inequity
- Key Priority Area 2: Better management of chronic conditions
- Key Priority Area 3: Increasing the focus on prevention
- Key Priority Area 4: Improving quality, safety, performance

Presentation

- 1) UK 1) Background: pre-Quality and Outcomes Framework 2004 (2, 4)
- 2) QOF results from Years 1-4 (2004-05 to 2007-08): data on achievement of clinical targets (2), inequalities (1), prevention ? (3) and quality (4)
- 3) Quality of care before and after the introduction of P4P : data on chronic conditions (2), patient perspectives of access and quality (1, 4)
- 4) Primary care staff: what do they think of it all and effect on their work?
(1,2,3,4)
- 5) Conclusions



Some underlying principles

It is not so much about measurement or data or P4P per se but the role that measurement and data play in quality improvement as a systems approach

Understanding variation in performance is key in understanding what to do/not to do next

QOF costs the taxpayer about 1 billion UK pounds each year

QOF is now part of the fabric – so important to get it right

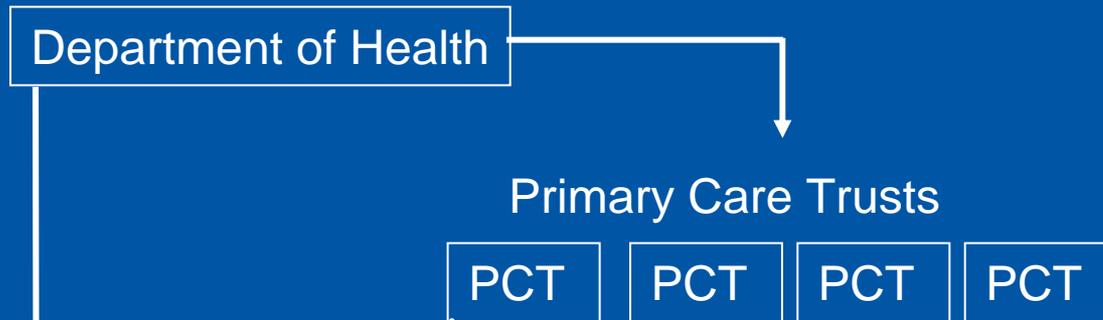


Why measure quality?

- As a basis for **quality improvement**: comparisons can stimulate and motivate change
- As part of **pay for performance** schemes: 1) payment mechanism, or 2) continuous improvement
- As part of **regulation** (e.g. of minimum standards)
- To assist **purchasing** (e.g. contracts which include minimum quality standards)
- To identify areas of need for **future investment**
- To **inform service users**



Structure of general practice in the NHS



Contract

10,000 independent small businesses



- Mostly GP owned (average 4 partners)
- Largest income elements are capitation and (since 2004) quality (QOF)
- Contract provides gross income
- Some direct provision (e.g. IT)
- Practice expenses include staff salaries
- Profits = take home pay
- PHCTs (nurses significant role)
- Practice Based Commissioning: practices Work together in Consortia to address local issues
- Patients register with a 1 practice in a catchment area but plans for change



2009 in the UK

NICE (National Institute for Health & Clinical Excellence)

National: Now lead QOF & Guidelines & public health: e.g. CVD, cancer

Primary Care Trusts

Control, commission and provide local health care

Strategic Health Authorities

Monitor performance and standards of PCTs and Trusts

The Care Quality Commission

The independent regulator of health and social care in England.
Regulate health and adult social care services, whether provided by the NHS, local authorities, private companies or voluntary organisations.

Changes in the UK during the 1990s

Government

- Improving health care became political priority: Care too variable.

Academics

- Developed methods of measuring quality: Quality can be measured

Doctors

- Cultural shift: Quality needs to be measured and improved + opportunity for increased income

1980s: Quality can't be measured / There's no such thing as a bad doctor

By 2000: Care is too variable / Quality can be measured / Care can be improved

- It's expensive to provide high quality care

By 2009: improving quality at no extra cost

1990s in the UK

A decade of quality improvement initiatives, mainly from government.

Were the initiatives evidence based?

... and did they work?



“Building blocks” in UK?

Regional Integration: local governance and partnerships (NSFs, PCTs, partnerships)

IT including eHealth: EHR, integrate care and patient outcomes (huge investment in IT in general practice)

Skilled workforce: flexible, teamwork (PHCT at the core)

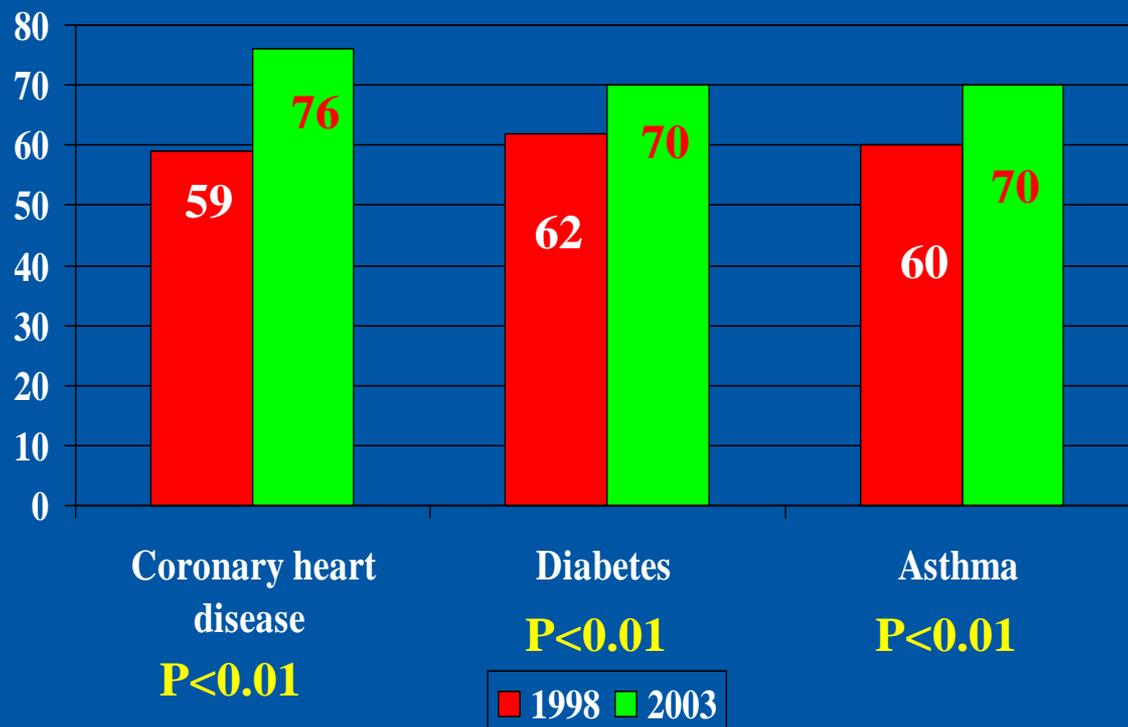
Infrastructure: flexible but supportive (diverse practice structures)

Financing and system performance: process and outcomes (emphasis on monitoring performance)



Quality 1998-2003: pre QOF

- Quality was improving already
- Data extracted from medical records in 42 practices: necessary aspects of care
- So evidence of improvement pre-P4P.



Quality of care in 42 representative English practices.
Campbell et al. BMJ 2005; 331: 1121-1123.



2003 UK pay for performance scheme “Quality and Outcomes Framework”

- 25% of GPs’ income relates to a complex set of initially 146 quality indicators
 - Chronic disease management
 - Practice organisation
 - Additional services
 - Patient experience (consultation length and patient surveys)
- 79% of the 70% of GPs who voted



Target domains and points 2009

Domain	No. of Indicators	Pts	% of total
Clinical	86	697	70% #
Organisational	36	167.5	17% ~
Patient Experience	3	91.5	9% *
Additional Services	9	44	4% +
TOTAL		1000	100%

20 conditions

~ i.e. % of notes summarised

* Largely waiting times and access issues

+ i.e. cervical smears



CHD 7. The percentage of patients with coronary heart disease whose notes have a record of total cholesterol in the previous 15 months.

Point score: from 1 point (25%) to 7 points (90%)

Points range in years 1 and 2 from £76-£120 depending on:

- prevalence of each condition in practice population
- size of practice population
- target achievement

Exception reporting for clinical indicators

Patient excluded from denominator

- Patient refused procedure etc
- Not clinically appropriate
- Newly diagnosed or recently registered
- Already on maximum doses of medication



Impact of incentives?

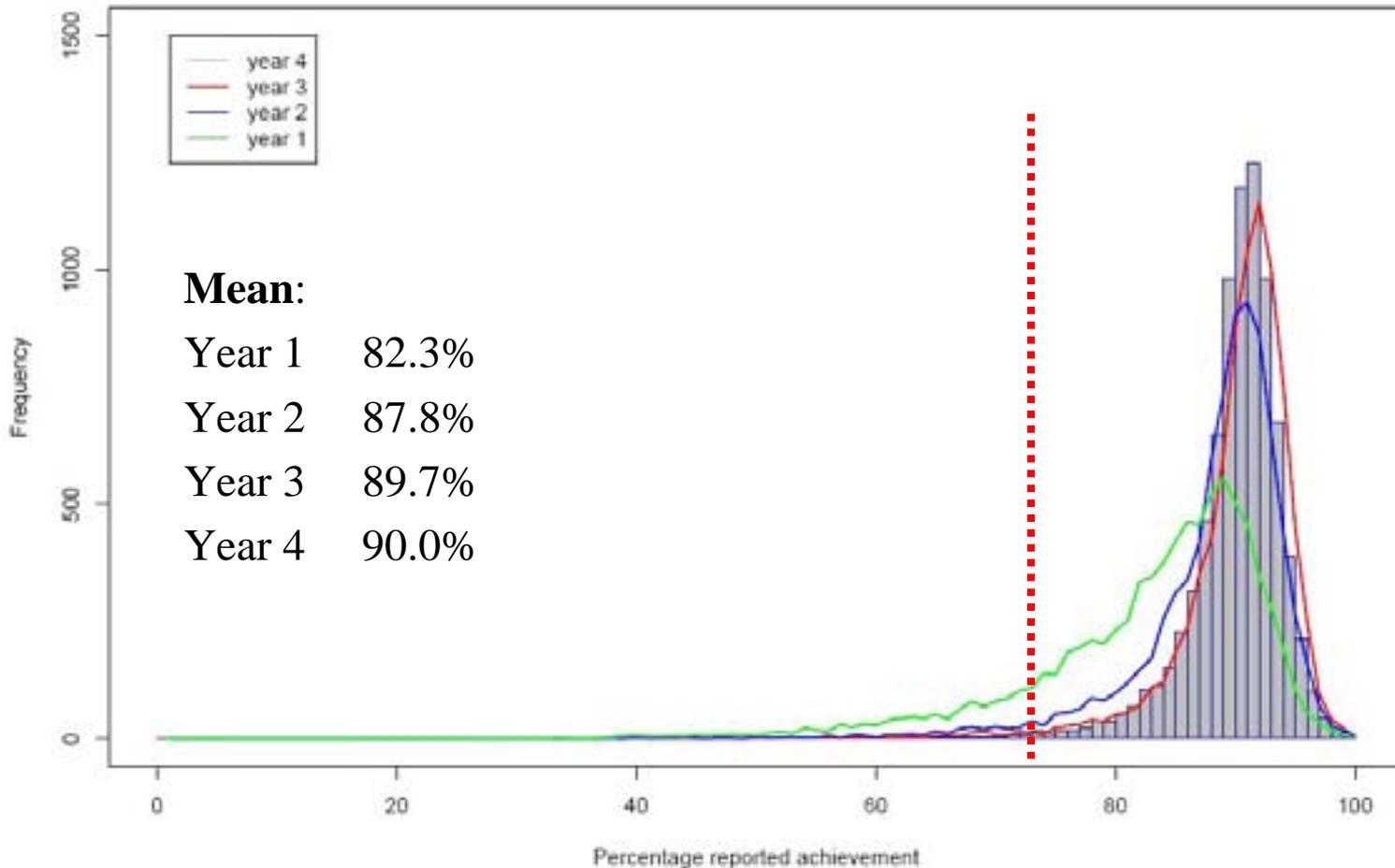
QOF results from Years 1-4 (2004-05 to 2007-08):

Quality of care before and after the introduction of
P4P



Overall achievement for 50 'stable' indicators

Overall reported achievement (50 indicators)



Number of practices

Mean:

Year 1 82.3%

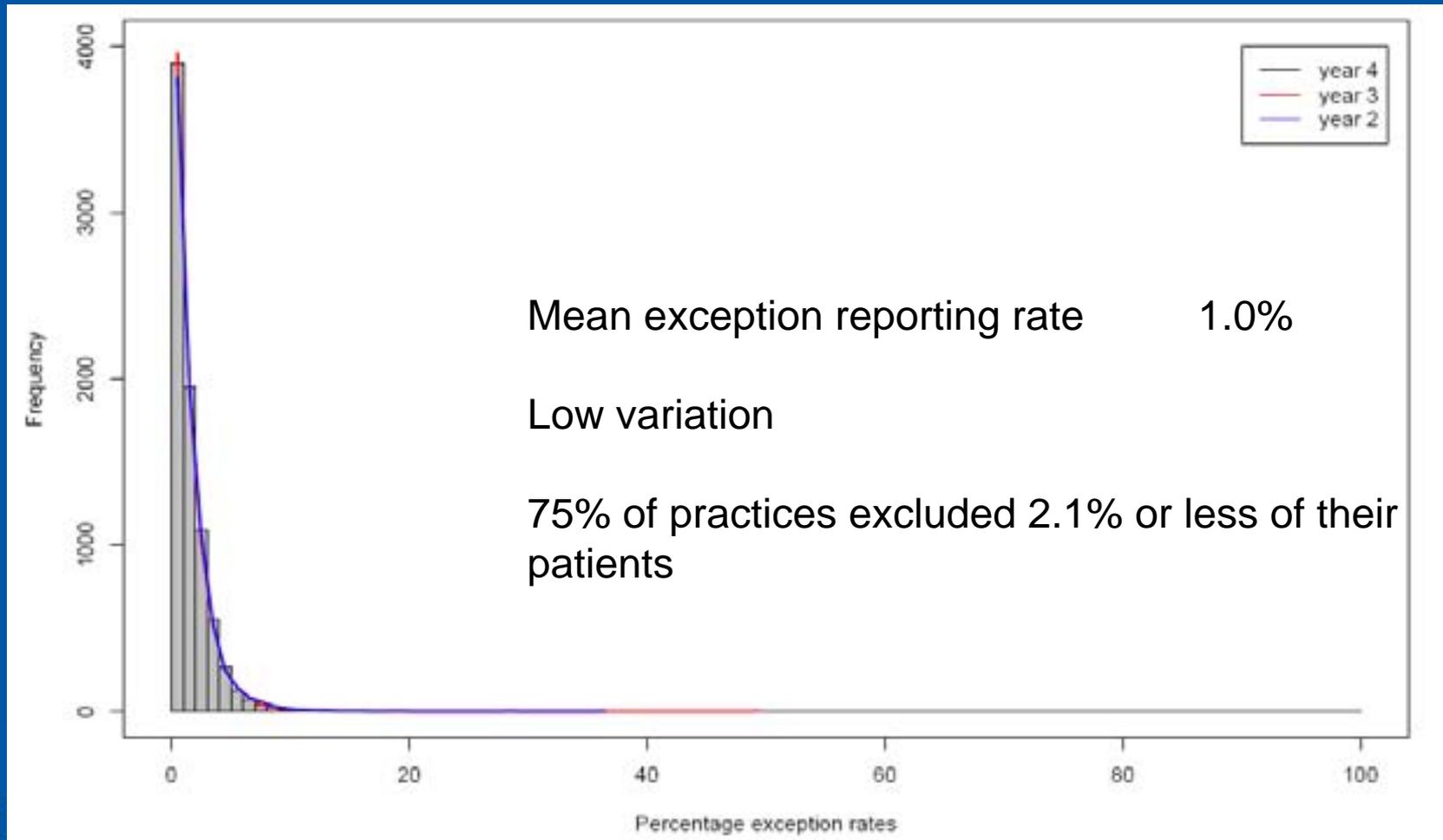
Year 2 87.8%

Year 3 89.7%

Year 4 90.0%

Exception reporting rate

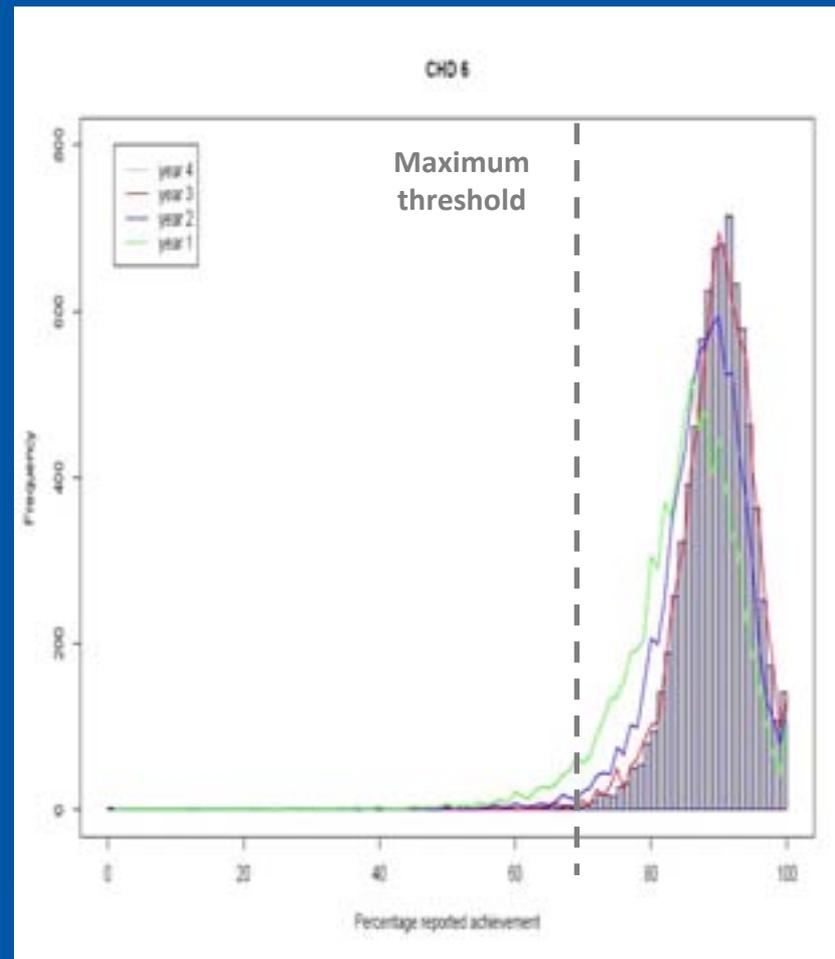
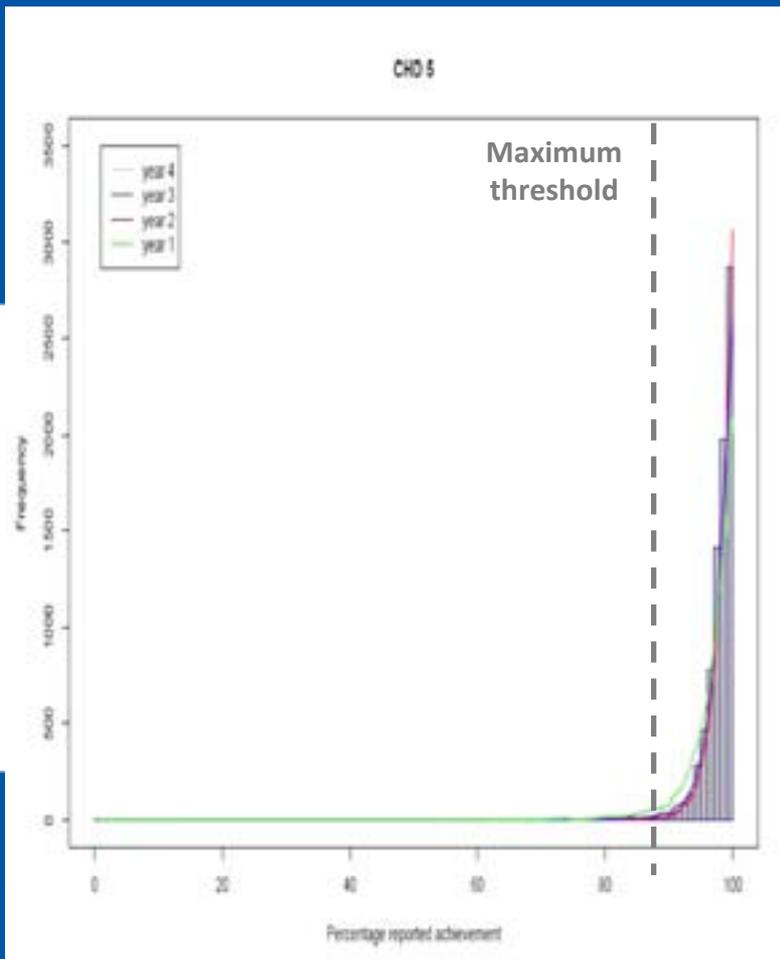
Years 2 to 4 (2005-06 to 2007-08)



Achievement of clinical targets-
CHD5: record of blood pressure in
previous 15 months

Achievement of clinical targets-
CHD6: blood pressure $\leq 150/90$
mmHg

Number of practices

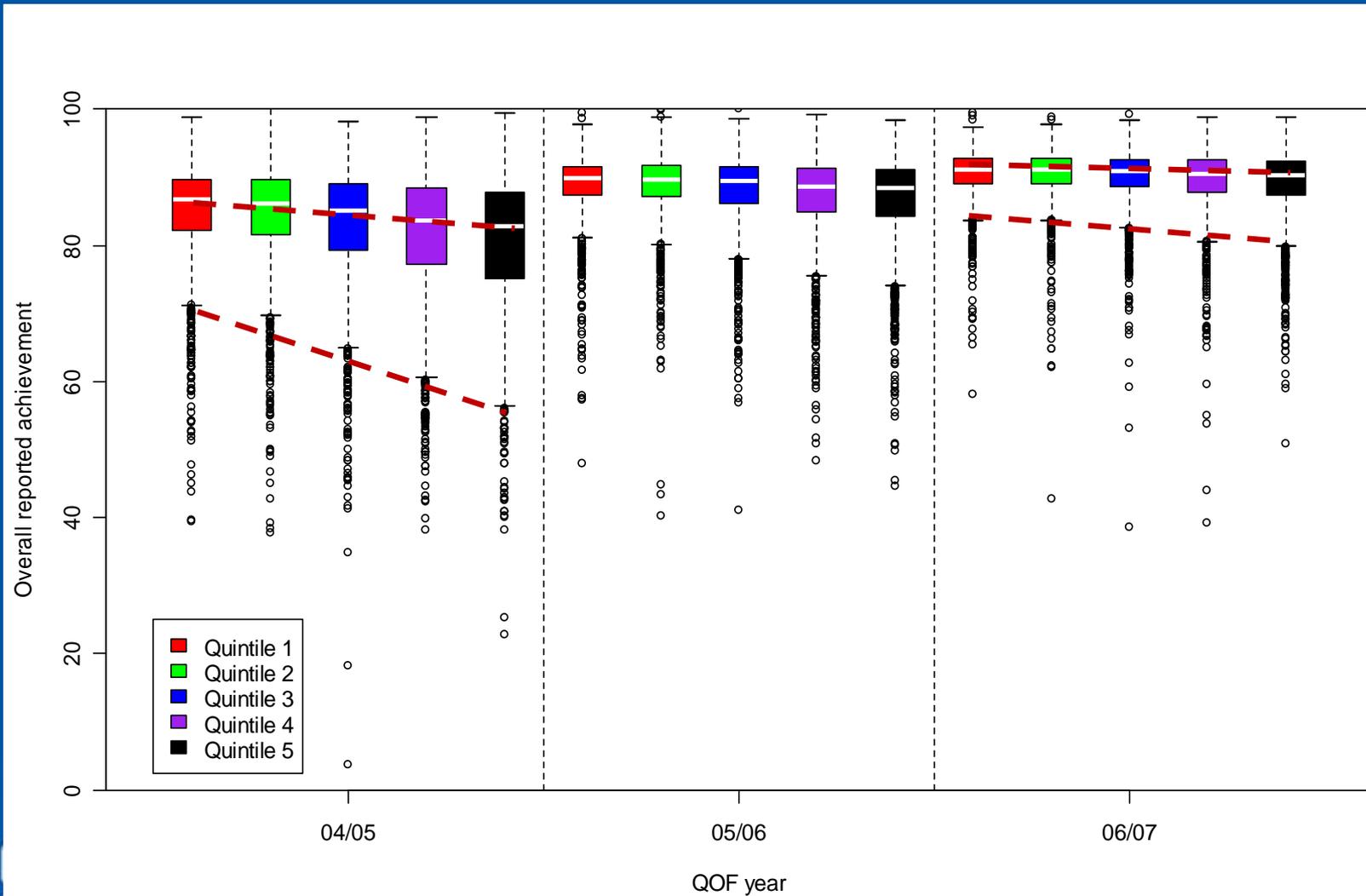


Percentage achievement



Inequality in quality of care

Achievement by area deprivation quintile



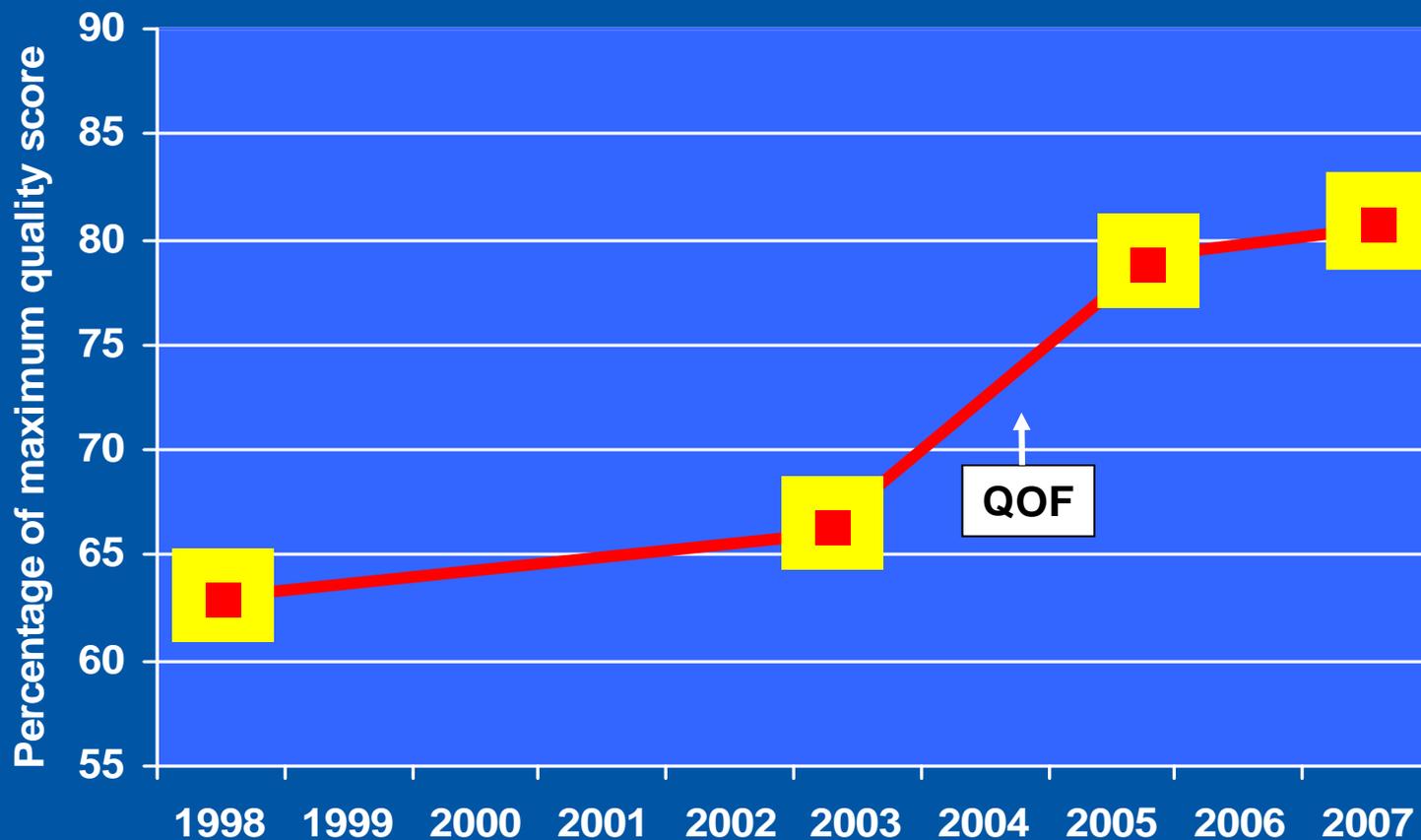
Impact of incentives?

QOF results from Years 1-4 (2004-05 to 2007-08):

Quality of care before and after the introduction of
P4P



Quality of care before and after the introduction of P4P



QUIP_ 1998-2007

Interrupted time series analysis including clinical quality (audit) scores and patient evaluation (GPAQ) of access, continuity of care and interpersonal communication

Changes in clinical quality 1998-2007

Mean scores, 42 practices

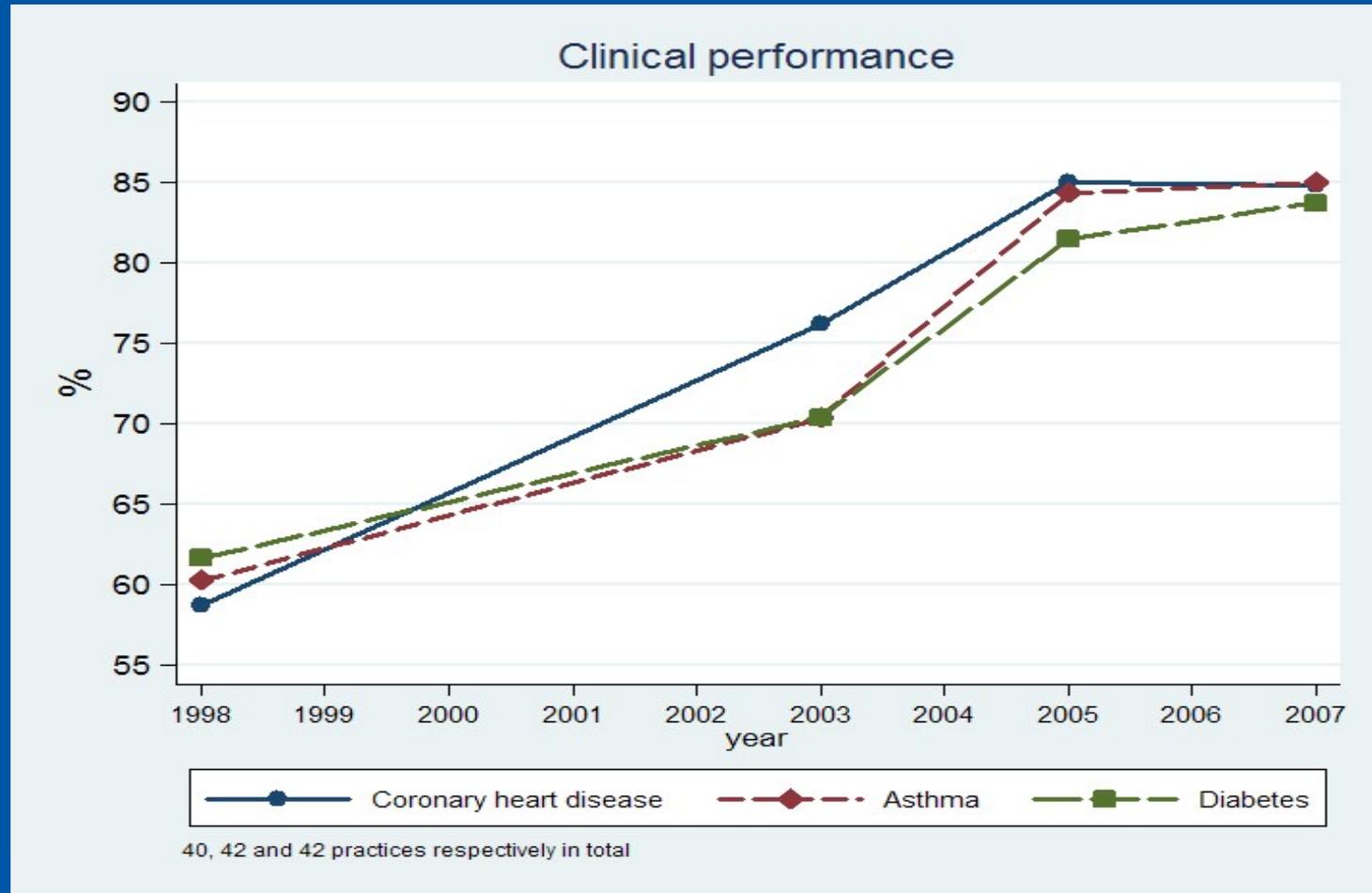
	1998	2007	p
CHD (15 indicators)	56.6	84.8	<0.001
Diabetes (22 indicators)	61.6	83.7	<0.001
Asthma (13 indicators)	60.2	85.0	<0.001

How much is due to QOF?

Campbell et al NEJM 2007; 357: 181-190 & NEJM 2009; 361: 368-378



Data from QuIP: 1998-2007



Campbell et al NEJM 2007; 357: 181-190 and 2009; 361: 368-378



Clinical and patient scores 1998-2007



Figure 1: Mean Scores for (a) Clinical Quality at the Practice Level for Coronary Heart Disease, Asthma, and Type 2 Diabetes, 1998 to 2007 and (b) for patient evaluations of communication with their physician, access to care and continuity of care, 1998 to 2007

Campbell et al NEJM 2007; 357: 181-190 and 2009; 361: 368-378



The story from the data so far...

Improving quality of care

- Achievement for most incentivised activities increased over the first 3 years, but little improvement in Year 4
- Improvement over underlying trend for indicators with a low baseline
- Continuity of care has fallen

Reducing variations in quality of care

- The poorest performing practices improved at the fastest rate
- Overall inequalities in quality of care for incentivised activities almost disappeared by Year 3



Unintended consequences

Outcomes that are not (or not limited to) the results originally intended by a particular action



Example of an unintended outcome

Indicator: Patients should be able to make an appointment to see a doctor within 48 hours

Response: Advanced Access – offer unlimited appointments ‘on the day’

Consequence: Patients are unable to book ahead, and can only book on the day



Unintended consequences

- Enhanced role for nurses in managing long-term conditions/. Nurses are the primary provider for QOF
- Can lead to de-skilling of GPs
- Team members not rewarded...
- Dual (doctor-patient) agendas?

- Focuses on box ticking and procedures but not the whole patient

(Campbell et al *Annals of Family Medicine* – 2008; 6: 228-234)



“It will not provide the care for the whole person. It doesn’t allow that I have sat in this chair for over twenty years and I know my patients really well. It doesn’t allow for that. You can’t count that...and you can’t count the caring element” [GP]

Roland M, Campbell S, Bailey N, Whalley D, Sibbald B. *Primary Health Care Research and Development* 2006; 7: 70-78

“In some respects my role hasn’t changed and never will do, as far as I can see and not in my lifetime anyway. A, person comes in the door, sits down and I ask them what’s wrong and you try and fix it. That hasn’t changed” (gp21).

(Campbell et al Annals of Family Medicine – 2008; 6: 228-234)



Changes in workforce/workload

Three elements of workload

1) Volume (hours)

- Relatively unchanged but 'contracted hours' declined
- Staffing levels in practices gone up (continuation of post-war trend)

2) Pace (patients per hour)

- Number of patients seen per hour by GPs & nurses declined between 2003 and 2007: (GP: 5.2 – 4.4) (nurse: 3.1 – 2.9)

3) Difficulty (self-reported complexity)

- Both GPs and nurses report more complex consultations in 2007 v 2003



Conclusion

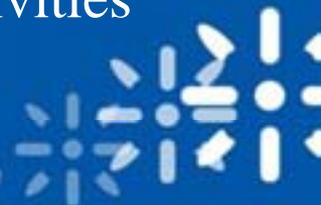
Intended outcomes of the QOF/P4P

Improving quality of care

- Quality was already improving pre-QOF & most practices already achieving upper thresholds
- Achievement for most incentivised activities increased over the first 3 years, but there was little improvement in Year 4
- Improvement over underlying trend for processes with low baseline
- Marginal improvement over trend for outcomes (IO) activities

Reducing variations in quality of care

- The poorest performing practices improved at the fastest rate
- Overall inequalities in quality of care for incentivised activities almost disappeared by Year 3



How are we going to use data in the future?



NICE and QOF

- Since April 2009, the **National Institute for Health and Clinical Excellence** now oversee an “independent process for prioritising, developing, piloting and reviewing QOF clinical and health improvement indicators for England”
- Process will create a “national menu of approved indicators”
- NHS Employers negotiate with General Practitioners Committee (BMA) to determine which indicators should be applied nationally and their value



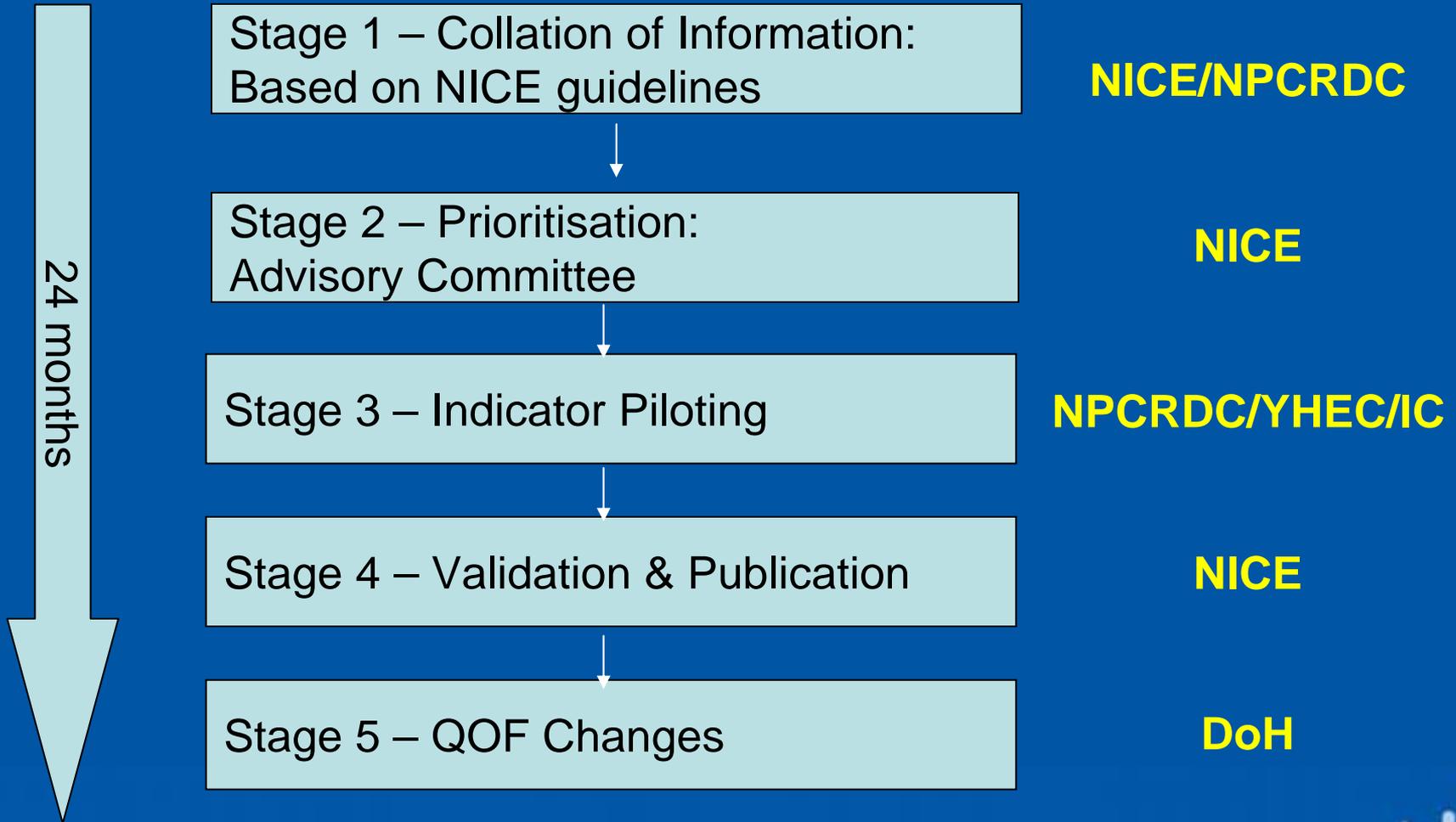
Piloting indicators

Why Pilot?

- Test feasibility: e.g. IT issues, workforce
- Establish baselines and trends
- Test reliability: comparing like with like
- Test value for money: what is the extent of improvement from baseline? Identify baseline levels: know where you started from
- Find out what people think of them!



UK development process



Proposed Process - 3

Stage 3 – Indicator Development

Indicators requiring further consideration and new areas identified are fed to NPCRDC/YHEC

Indicator PILOTING – 6 MONTHS in 30 practices:
Rolling programme

Indicator development: feasibility (IT, codes etc, achievement), interview practice staff, workload diaries (who does what and how long does it take), data gathering, interview patients

YHEC use a NICE “analytical methodology” for assessing cost effectiveness of QOF indicators



Why retire indicators?

Indicator not effective

- evidence against the activity : evidence of harm or not cost effective
- unintended consequences of the activity
- indicator not practical

Indicator does not promote quality improvement

- achievement on the indicator has reached a ceiling
- duplicates other indicators
- ‘failing’ indicator

Omission is negligence (e.g. measuring BP for hypertensive patients)





Incentivised process: QOF DM4: Smoking advice offered in previous 15 months (5 points)

Significant step change after QOF from low baseline to near ceiling

Improvement over underlying trend for processes with low baseline



Incentivised intermediate outcome: QOF DM12: Last recorded blood pressure is \leq 145/85 mmHg (17 points)

Trend shows impact of P4P but nominal

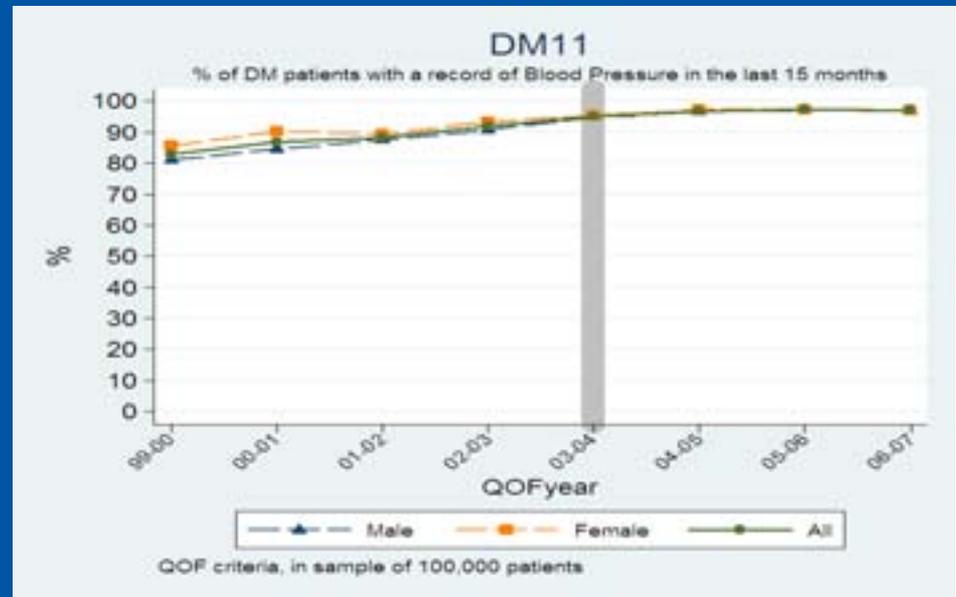
Still room for improvement



Example of potential retiree

DM11: diabetic patients with a record of blood pressure (3 points)

In Year 4 (2007-08):	
Mean points scored	2.996
No. of practices scoring maximum points	8228 (99.2%)
Mean reported achievement	98.4%
No. of practices with 100% achievement	1733 (20.9%)
Mean exception reporting rate	1.0%
Remuneration for 'average' practice	~£374.50
Cost to NHS	~£3.1m



Continuation of trend from high baseline to near ceiling. Little room for improvement. This will be retired in April 2011 with 7 others (all process indicators)



Is everything QOFable?

No

- Can't solve different life expectancies across the UK
- Issues have to be:
 - Common and important in terms of morbidity and mortality (so heart disease not ear infections)
 - Directly under control of primary care (BP control not death from CVS)
 - Every PCHT can do (so not dependent upon access to expensive scans etc)
 - Underpinned by evidence: leads to better outcomes
 - Can be captured accurately on computer (so not where diagnosis is subjective)



Conclusion: How can we use data to best improve quality?

- Establish and look at baselines and trends of all new indicators to help set thresholds - most practices were already achieving above maximum thresholds before 2004
- Remove indicators once an agreed balance of achievement/exception reporting and variation has been sustained
- Monitor achievement in areas where indicators are removed
- Pilot all new indicators for intended and unintended consequences
- Need a systems approach (national, regional, local, team/ practice & individual): systems improvement drives quality improvement and reducing health inequalities. P4P in combination with other initiatives, such as accreditation (PMCPA)
- Quality improvement scheme: limited size, focus on clinical indicators with a cycle of piloting and removal



4 priority directions for change (NPHCS 2009):

- Key Priority Area 1: Improving access and reducing inequity
- Key Priority Area 2: Better management of chronic conditions
- Key Priority Area 3: Increasing the focus on prevention
- Key Priority Area 4: Improving quality, safety, performance and accountability

Presentation

- 1) UK access has not improved significantly. But continuity has declined
- 2) QOF has improved chronic care performance but from high baselines
- 3) Evidence of reduction in inequalities using QOF
- 4) Limited focus on and effect on prevention: this needs wider strategy
- 5) Must have data: starting place and desired outcomes. Also, place patients at the heart of assessments over quality/performance/accountability



Thank you for listening.

Dr Stephen Campbell, Senior Research Fellow, NPCRDC,
Williamson Building, University of Manchester, Oxford
Road, Manchester, M13 9PL

Tel: 00441612757655

stephen.campbell@manchester.ac.uk