Adding value to health care

Cyril Chantler

Hong Kong June 2011

“Value in any field must be defined around the customer, not the supplier. Value must also be measured by outputs, not inputs. Hence it is patient health results that matter, not the volume of services delivered. But results are achieved at some cost. Therefore, the proper objective is… patient health outcomes relative to the total cost.”

Porter ME. (2008). What is Value in Health Care?

Harvard Business School. See also NEJM 363, 2477-2481, 2010

Rationing or a restricted service

- What is provided
- When it is provided
- To whom it is provided

Why should clinicians be involved with management?

- **Ethical responsibility to practise with efficacy, effectiveness,efficiency,equity and economy**
- **To maximise clinical freedom for the benefit of patients**
- **To provide LEADERSHIP**

HOSPITALS

What is performance?

$$\text{VALUE} = \frac{\textbf{CLINICAL QUALITY} + \text{FUNCTIONAL OUTCOME} + \text{PATIENT EXPERIENCE}}{\text{COST}}$$

- Level of the individual condition
- Clinical quality includes outcomes and safety
- Functional outcome as measured by PROMs
- Patient experience includes access and satisfaction measures

Source: VHA; Michael Porter

dr fosterhealth.co.uk™

What are Hospital Standardised Mortality Ratios?

The Hospital Standardised Mortality Ratio (HSMR) is an indicator of healthcare quality that measures whether the death rate at a hospital is higher or lower than you would expect.

The HSMR compares the expected rate of death in a hospital with the actual rate of death. Dr Foster looks at those patients with diagnoses that most commonly result in death- for example, heart attacks, strokes or broken hips.

Like all statistics, HSMRs are not perfect. If a hospital has a high HSMR, it cannot be said for certain that this reflects failings in the care provided by the hospital.

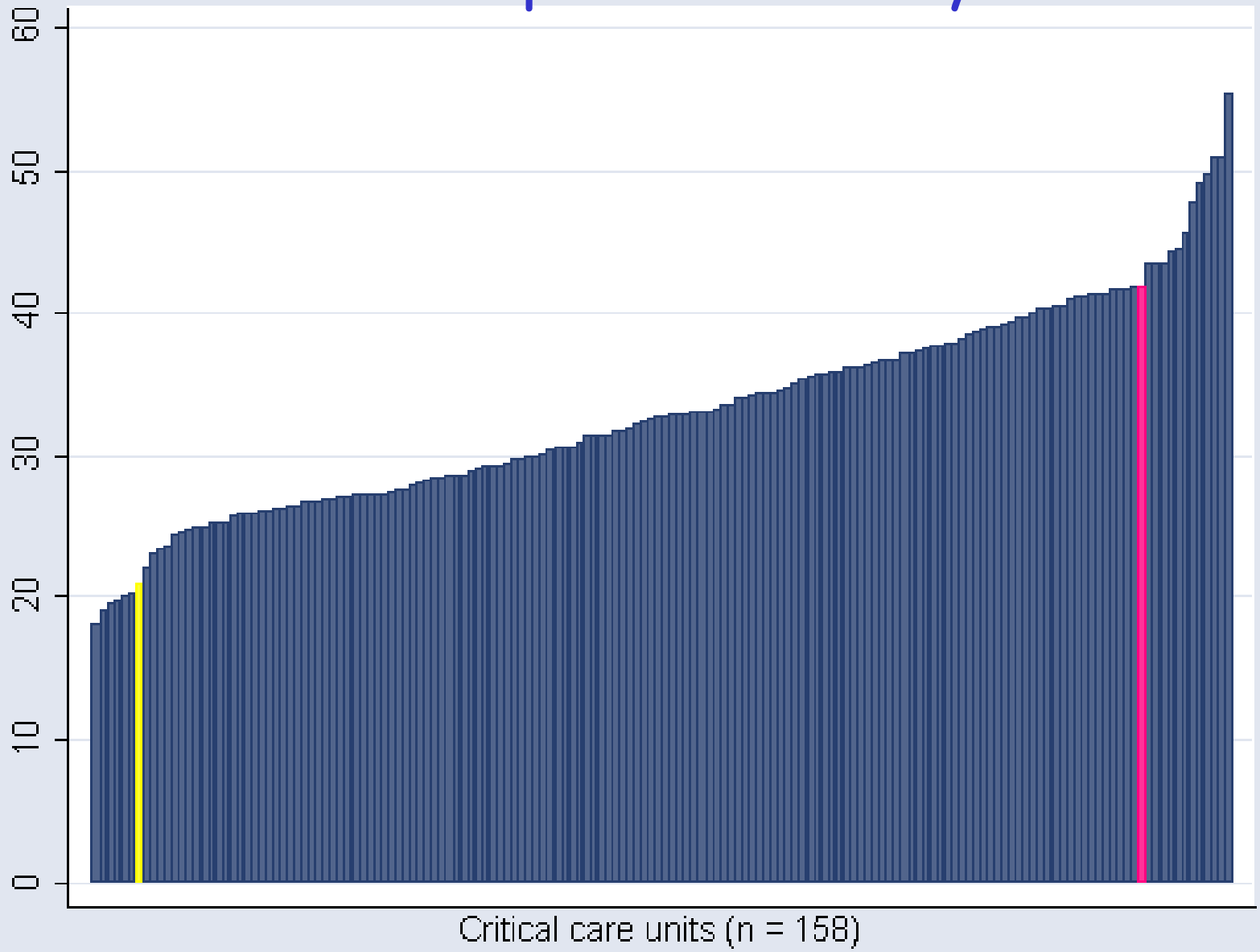
However, it can be a warning sign that things are going wrong.

Hospital guides based on mortality data: Requirements for meaningful comparisons of effectiveness

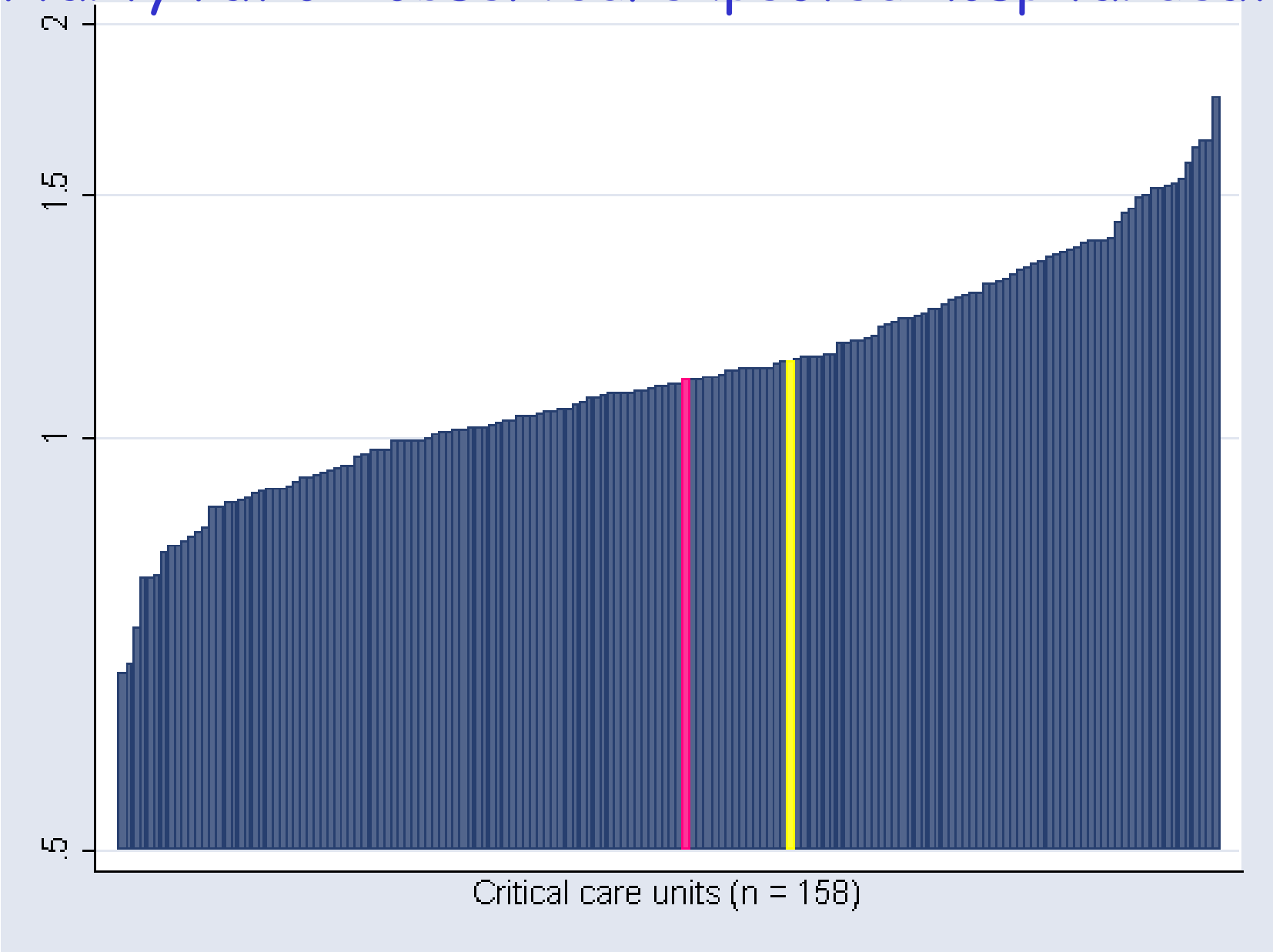
Nick Black
London School of Hygiene & Tropical Medicine

- Accurate (valid and reliable) and complete data on
  - inputs (patients)
  - outcomes
- Need to adjust for differences in case mix
- See also BMJ 338 2009 page 783-784 & 817-820

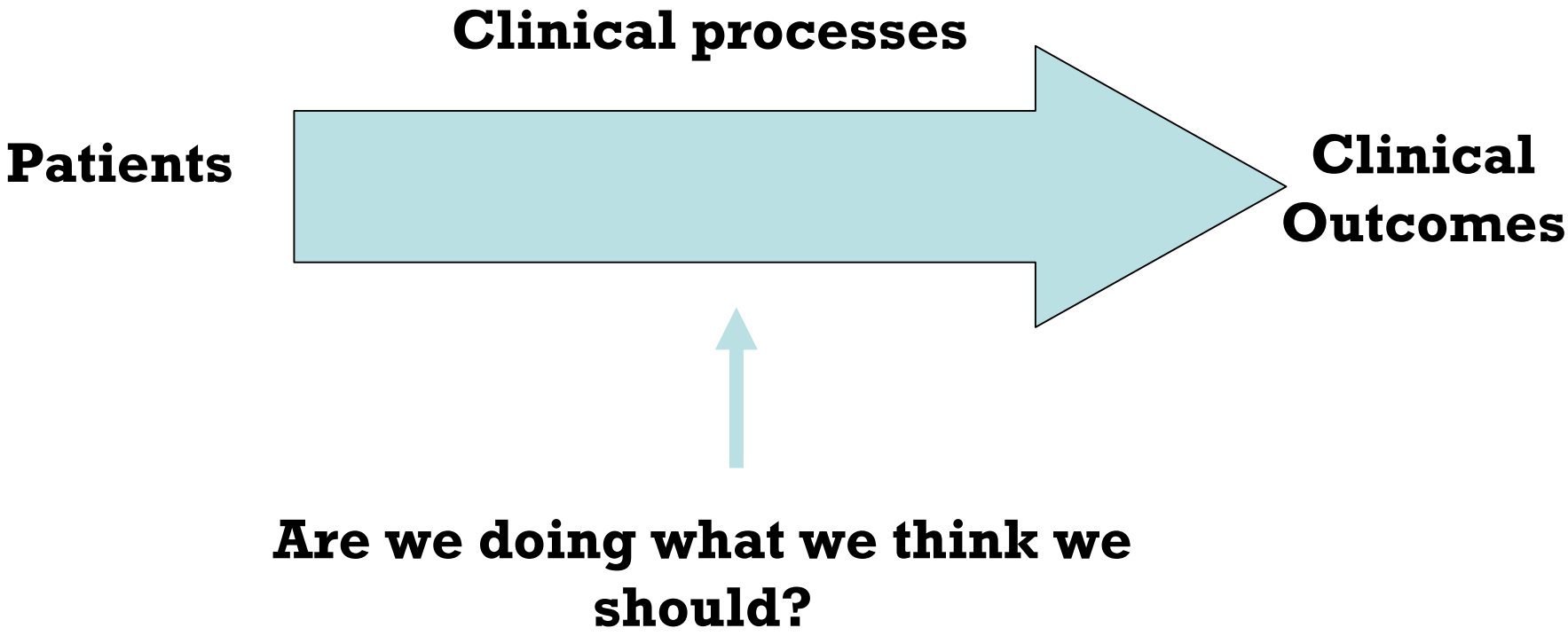
Crude hospital mortality:



Mortality ratio – observed/expected hospital deaths:



Process Control



What are Care Bundles

A set of individual components which when combined, make a set of qualitative indicators, for a specific treatment, condition or procedure.

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The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Veterans Affairs Initiative to Prevent Methicillin-Resistant *Staphylococcus aureus* Infections

Rajiv Jain, M.D., Stephen M. Kralovic, M.D., M.P.H., Martin E. Evans, M.D., Meredith Ambrose, M.H.A., Loretta A. Simbartl, M.S., D. Scott Obrosky, M.S., Marta L. Render, M.D., Ron W. Freyberg, M.S., John A. Jernigan, M.D., Robert R. Muder, M.D., LaToya J. Miller, M.P.H., and Gary A. Roselle, M.D.

ABSTRACT

BACKGROUND

Health care–associated infections with methicillin-resistant *Staphylococcus aureus* (MRSA) have been an increasing concern in Veterans Affairs (VA) hospitals.

METHODS

A "MRSA bundle" was implemented in 2007 in acute care VA hospitals nationwide in an effort to decrease health care–associated infections with MRSA. The bundle consisted of universal nasal surveillance for MRSA, contact precautions for patients colonized or infected with MRSA, hand hygiene, and a change in the institutional culture whereby infection control would become the responsibility of everyone who had contact with patients. Each month, personnel at each facility entered into a central database aggregate data on adherence to surveillance practice, the prevalence of MRSA colonization or infection, and health care–associated transmissions of and infections with MRSA. We assessed the effect of the MRSA bundle on health care–associated MRSA infections.

Developing Sustainable Models of Care Using a Care Bundle approach to Improving patient care

(Robb et al BMJ 340 861-863 2010)

- Looked at top 25 causes of mortality

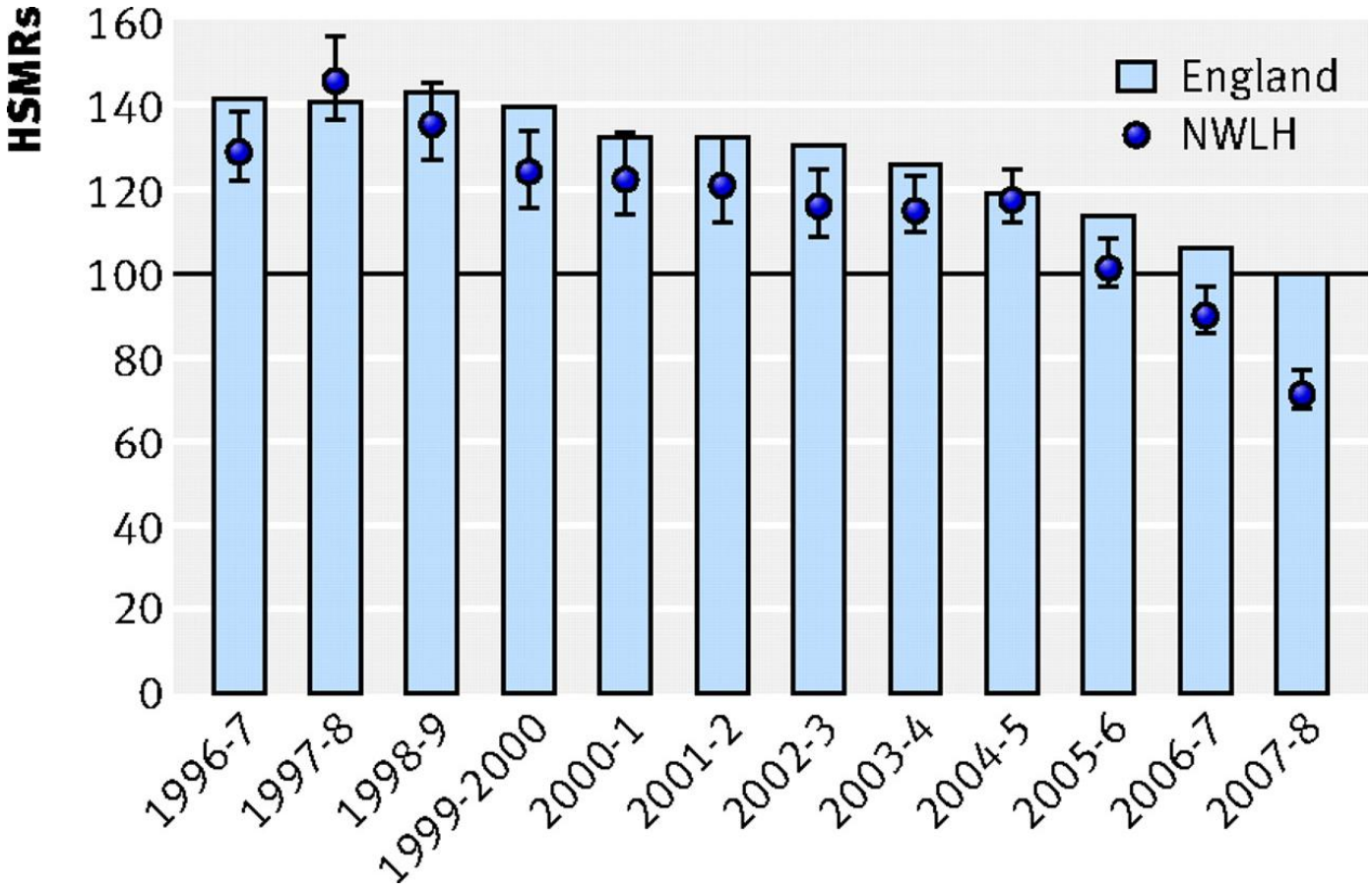
- Targeted eight areas for care bundles:

> Stroke	> COPD	> VAP
> Heart Failure	> MRSA	> SSI
> C.Diff	> CVC	

Targeted diagnoses from Clinical Classification System

Peritonitis and intestinal abscess Senility and organic mental disorders
Pleurisy pneumothorax pulmonary collapse
Aspiration pneumonitis food/vomitus
Skin and subcutaneous tissue infections
Acute bronchitis
Urinary tract infections
Acute cerebrovascular disease
Other gastrointestinal disorders
Septicaemia (except in labour)
Pneumonia
Chronic obstructive pulmonary disease and bronchiectasis
Congestive heart failure non-hypertensive

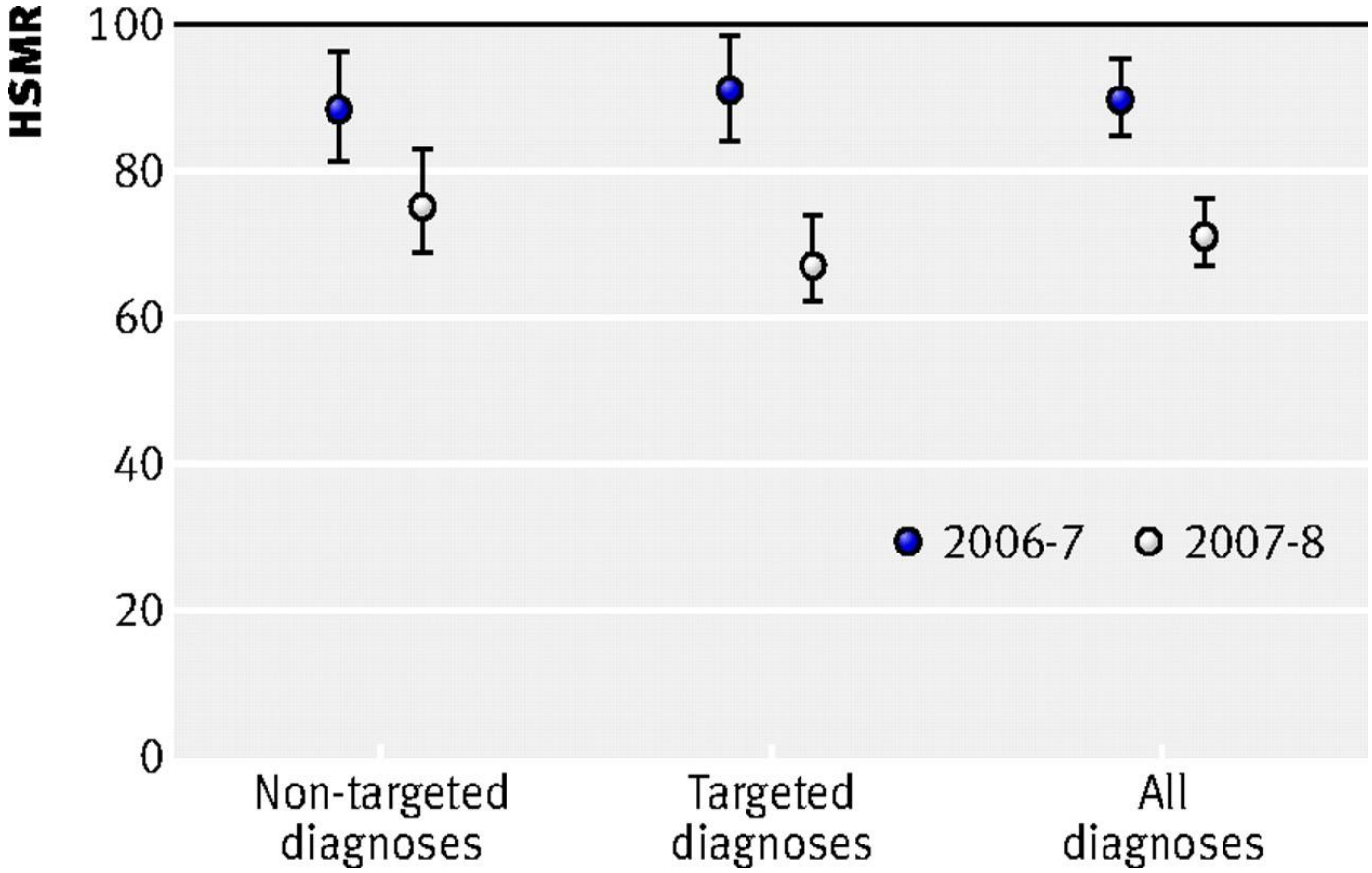
Hospital standardised mortality ratios (HSMRs) for North West London Hospitals NHS Trust and England, using 2007-8 reference baseline (England=100); bars indicate 95% confidence intervals



Robb et al BMJ 340 861-863 2010

BMJ

Hospital standardised mortality ratios (HSMRs) 2006-7 and 2007-8, calculated with 2007-8 national baseline; bars indicate 95% confidence intervals



Robb et al BMJ 340 861-863 2010

BMJ

What is performance?

$$\text{VALUE} = \frac{\text{CLINICAL QUALITY} + \textbf{FUNCTIONAL OUTCOME} + \text{PATIENT EXPERIENCE}}{\text{COST}}$$

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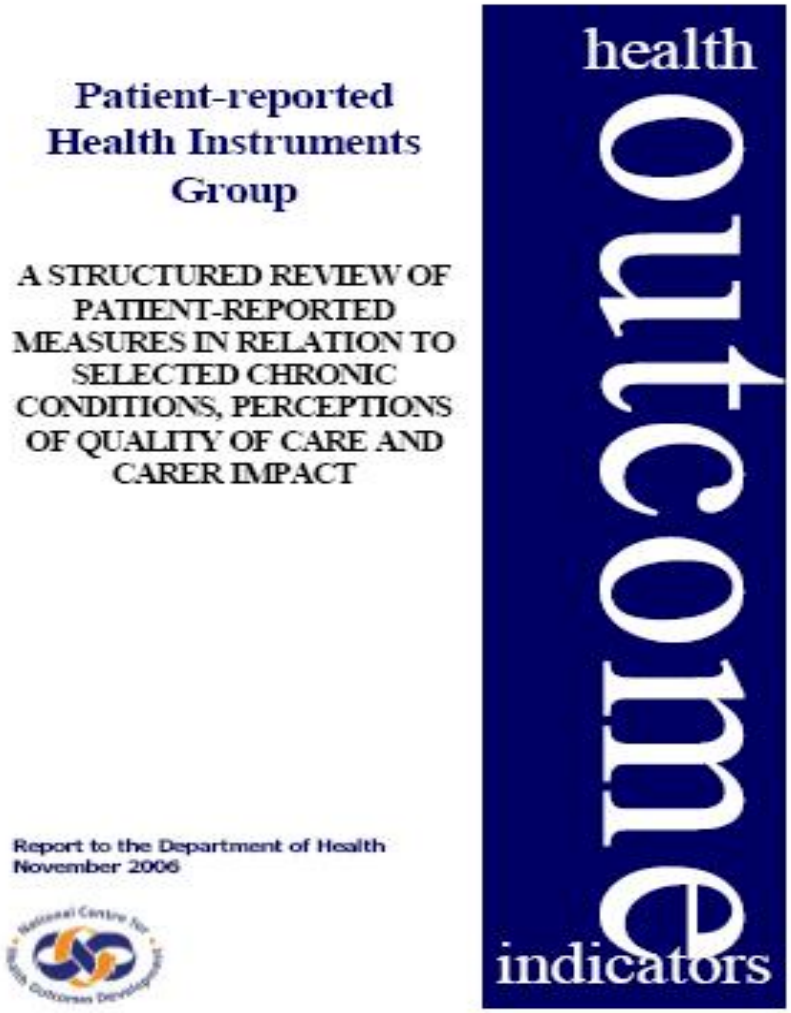
Source: VHA; Michael Porter



The National Centre for Health Outcomes Development
http://phi.uhce.ox.ac.uk

Diabetes (Chapter 6)

Ninety one articles were surveyed. Six generic instruments were identified for use in diabetes: SF-36; SF-12; Sickness Impact Profile; Health Utilities Index; Quality of Well-Being Scale; EQ-5D.

Recommendations:

Of the generic instruments, SF-36 is recommended

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Source: VHA; Michael Porter

Real-time Patient Experience (Satisfacion)

A tool to measure and improve quality of healthcare

Dr Neal Bacon
www.iwantgreatcare.org

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Source: VHA; Michael Porter

Devolved Clinical Engagement

- Accountable clinical management structure
- Service line management – ‘Profit Centres’

Service Line Management

(management accounts with decentralised clinical budgets)

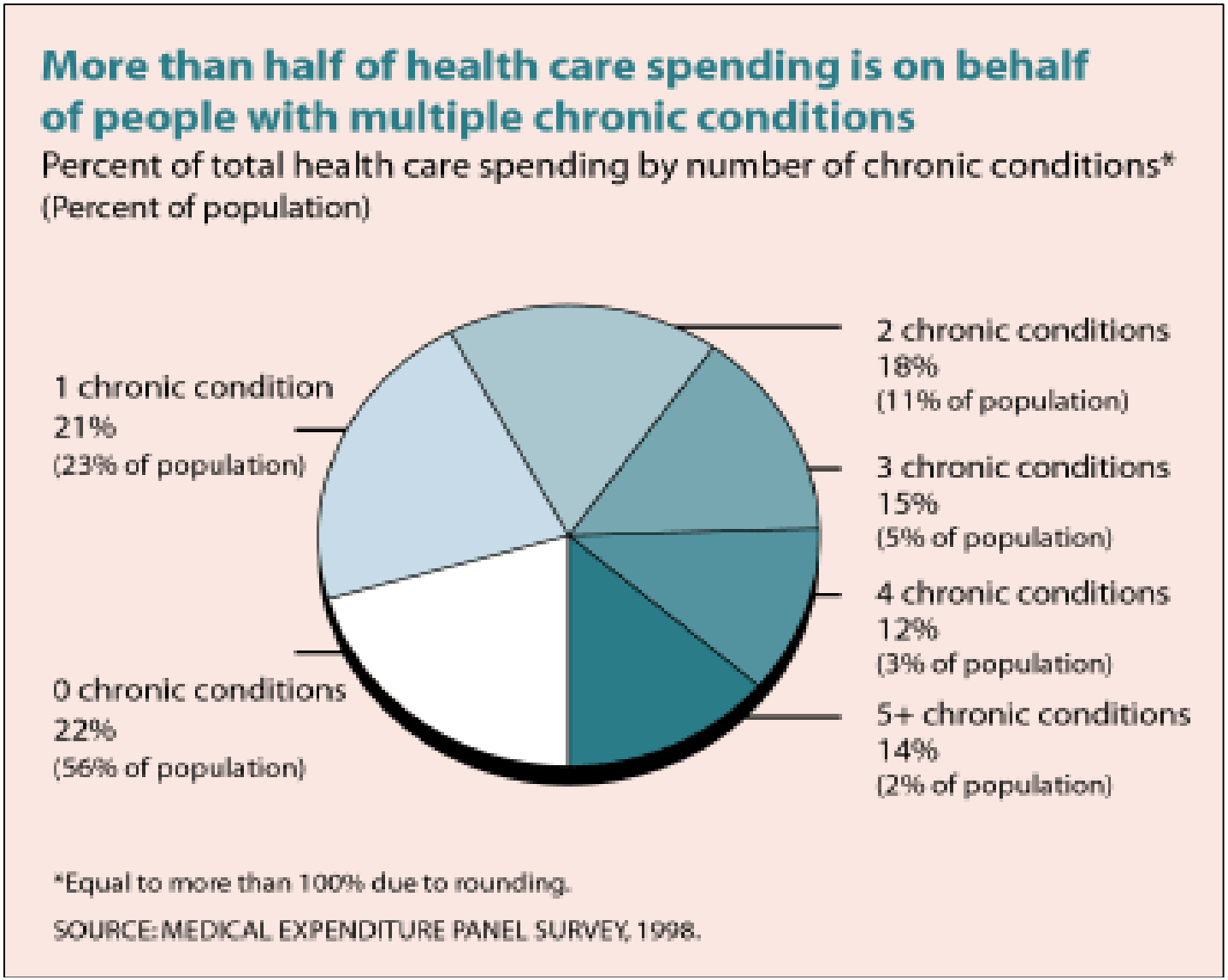
- **Define services provided and patients treated**
- **Identify clinical and other staff involved**
- **Measure costs (direct and indirect) and outcomes**
- **Determine profitability**
- **Develop service plan**
- **Establish annual budgeting and reporting process**

Involvement of clinicians

- **Responsibility**
- **Authority**
- **Accountability**

BUT

80% of health care spending is on chronic conditions which afflict 44% of the population



Chronic Disease ; problems

- **Wide variation in outcomes, clinical practice and management costs inc. hospital usage**
- **Need for care planning and audit (outcome measures)**
- **Continuous care requires a continuous accessible, facilitative electronic clinical record which can be interrogated**

Wagner chronic care model

Community resources and policies: Provider organisations need links with community-based resources

Healthcare organisation: Organisations need to view chronic care as the priority.

Self-management support: Patients themselves become the principal caregivers

Delivery system design: Redesign of the structure of medical practice may be required

Decision support: Evidence-based guidelines provide standards for optimal care. These should be available to patient and healthcare staff alike.

Clinical information systems: data, held in electronic form, facilitates efficient and effective management of care; for example, patient registries and reminder systems.

RCP London 2004

Kaiser Permanente Is Transforming from a Traditional "Sickness Model" to Proactive Care That Helps Prevent Debilitating Illness

KAISER PERMANENTE®

What is required is a new *patient-centric* care model, which is characterized by:

- Proactive Care Processes
- Care Delivered by a Health Care Team
- Care Integrated across Time, Place, and Conditions
- Care Delivered through Group Appointments, Nurse Clinics, Telephone, Internet, E-mail, Remote Care Technology
- Self-Management Support that Is Integral to the Delivery System

In today's complex health care world, in which chronic illness is a larger burden than ever before, a single physician cannot fulfill all the functions necessary to optimize health outcomes for patients in a series of short interactions.

Value: chronic diseases

Outcomes and costs of a year in the life of ?

What is performance?

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Source: VHA; Michael Porter

Toward an Outcomes-Based Health Care System

A View From the United Kingdom

James Mountford, MD, MPH

Charlie Davie, MD

THE CORE PURPOSE OF A HEALTH SYSTEM SHOULD BE to maximize the health of the population. When the main challenge is managing long-term conditions, maintaining health rather than delivering health care per se should be the goal.

In a comprehensive, publicly funded system like the United Kingdom's National Health Service (NHS) there is an overriding imperative to deliver maximum health benefit per pound spent. Quality, effectiveness, and efficiency are the goals. Traditionally, physicians and other health vantages. For example, they are often easier to measure than outcomes, they require less risk adjustment, and there are many examples in which a favorable patient outcome has resulted despite a defective process (or in which an unfavorable outcome has followed a faultless process). However, undue focus on process and proxy measures can have serious and often surprising consequences. Patients may have worse outcomes as a result. For example, higher mortality in high-risk patients with type 2 diabetes was associated with aggressive intervention to achieve normal glycated hemoglobin levels.[5]

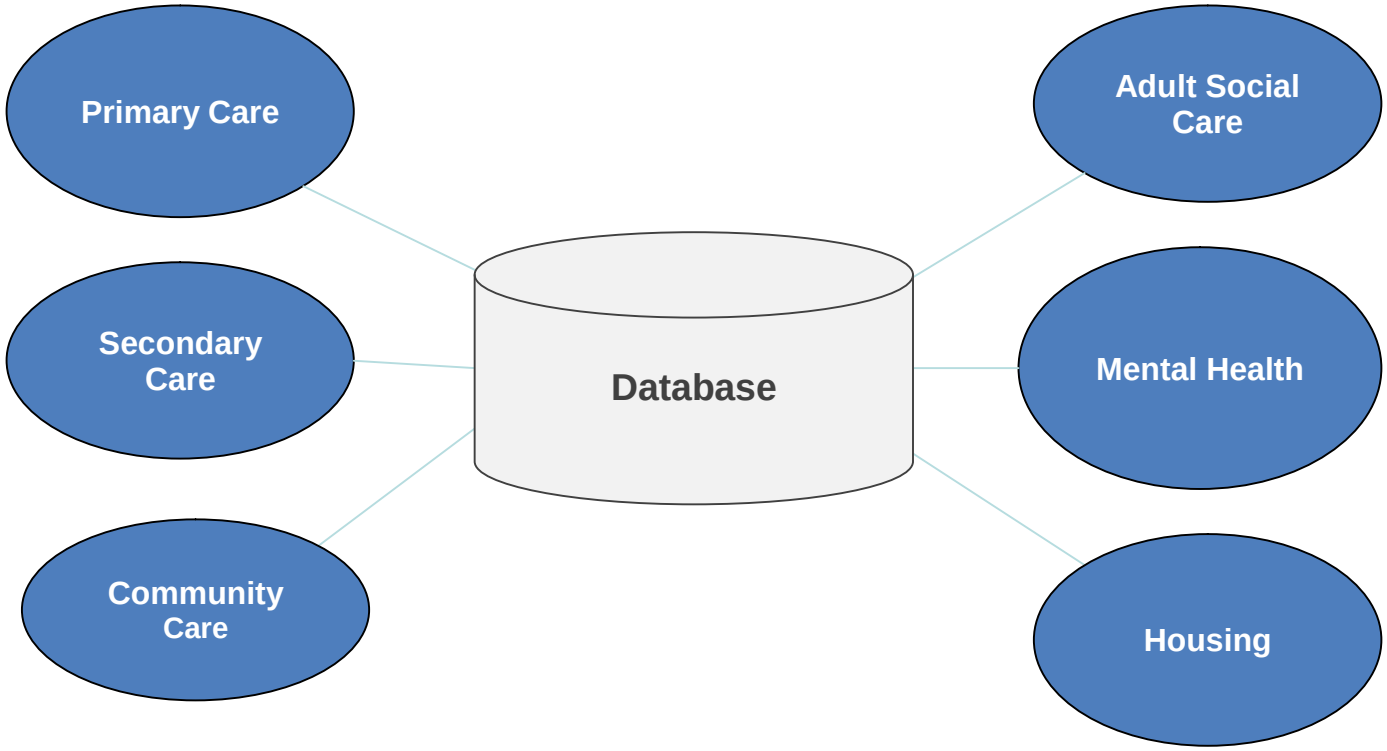
2. Only viewing the tip of the quality iceberg.

An English hospital's quality rating today depends largely on its standardized mortality rate and rates of hospital-

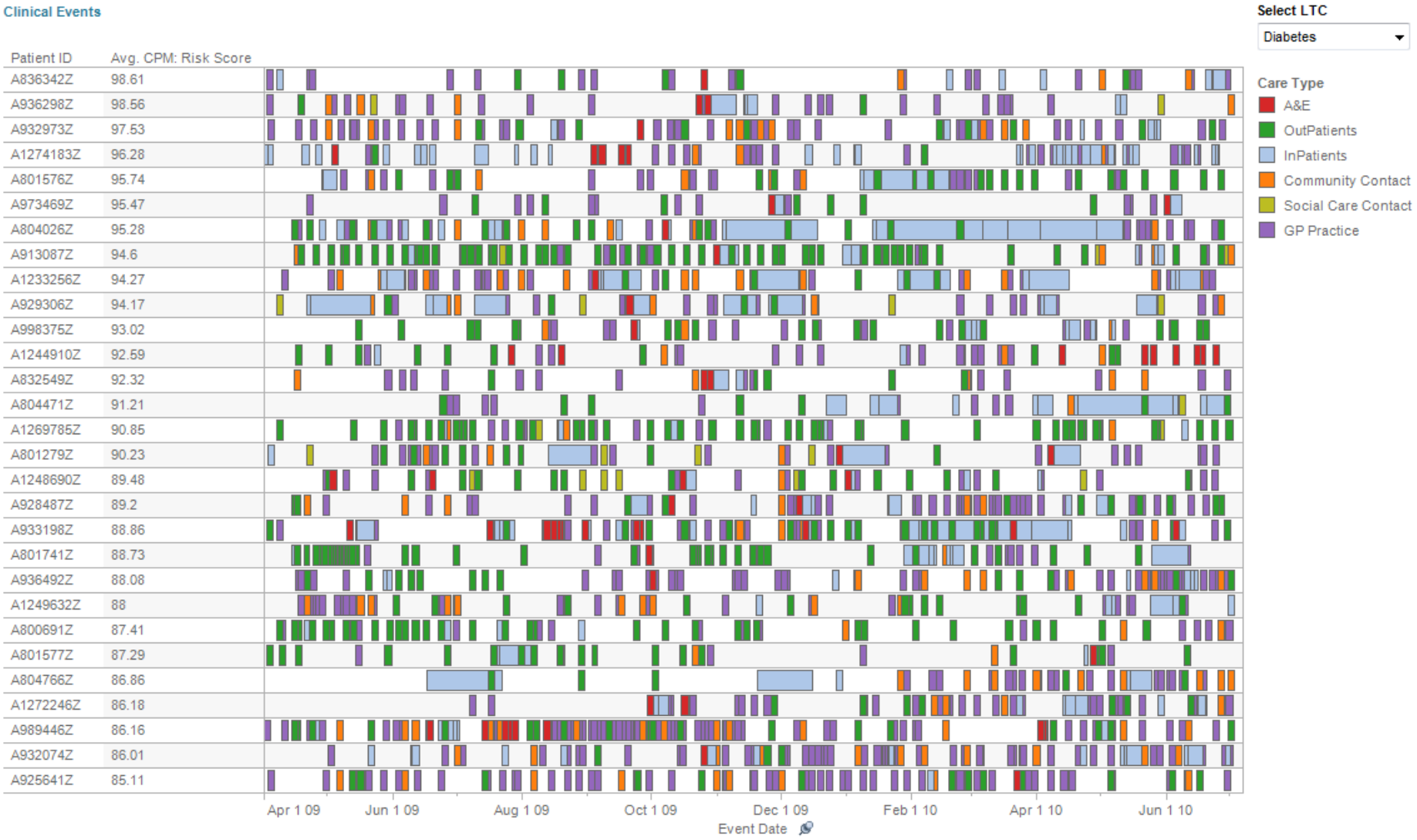
JAMA 304 2407-2408 2010

Patient Care Pathway Plus provides the capability to monitor and predict future usage of the local healthcare system

Linked up patient level information

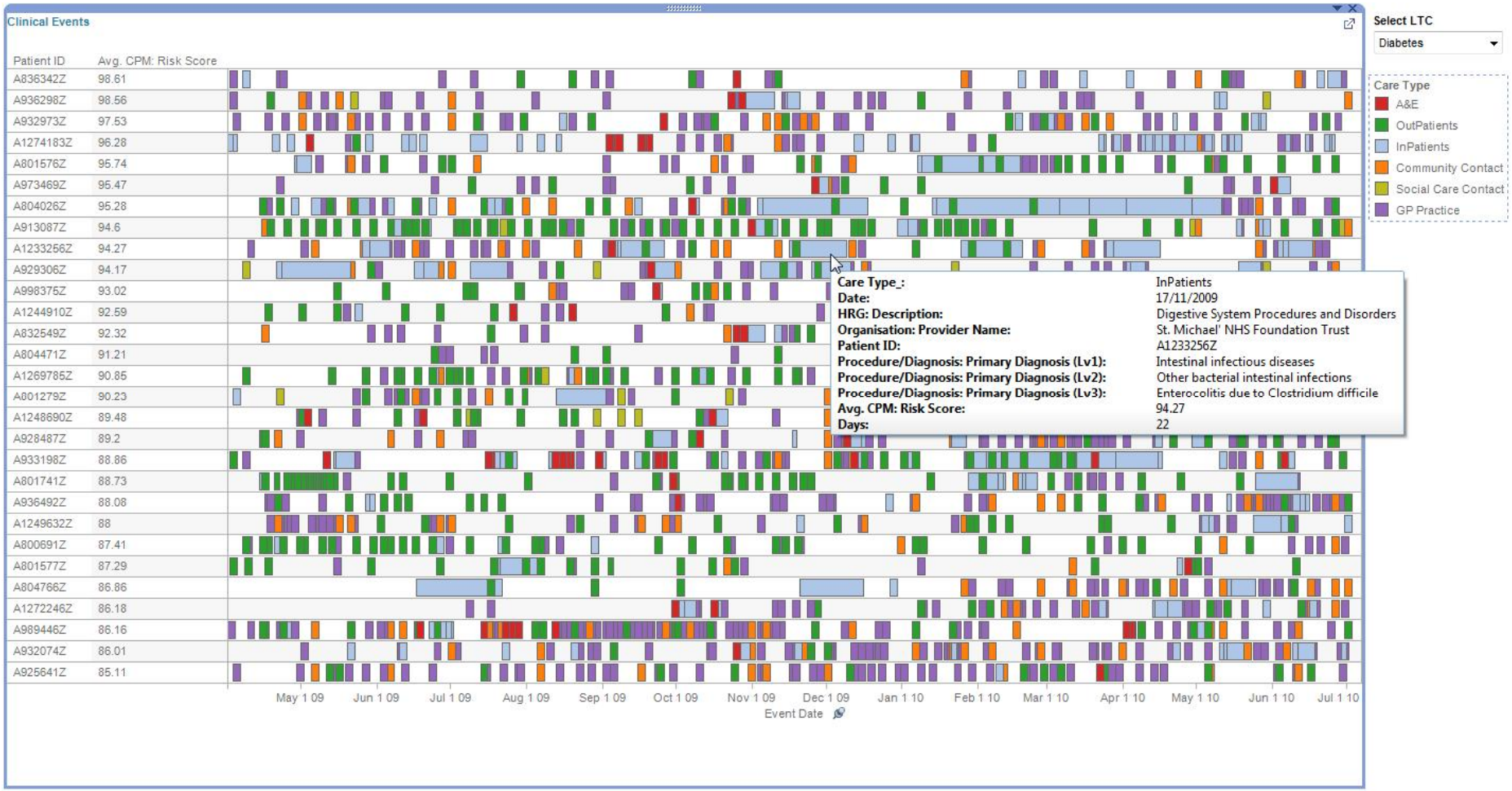


A year in the life of a group of high risk diabetic patients



CONCENTRA

A year in the life of a group of high risk diabetic patients



CONCENTRA

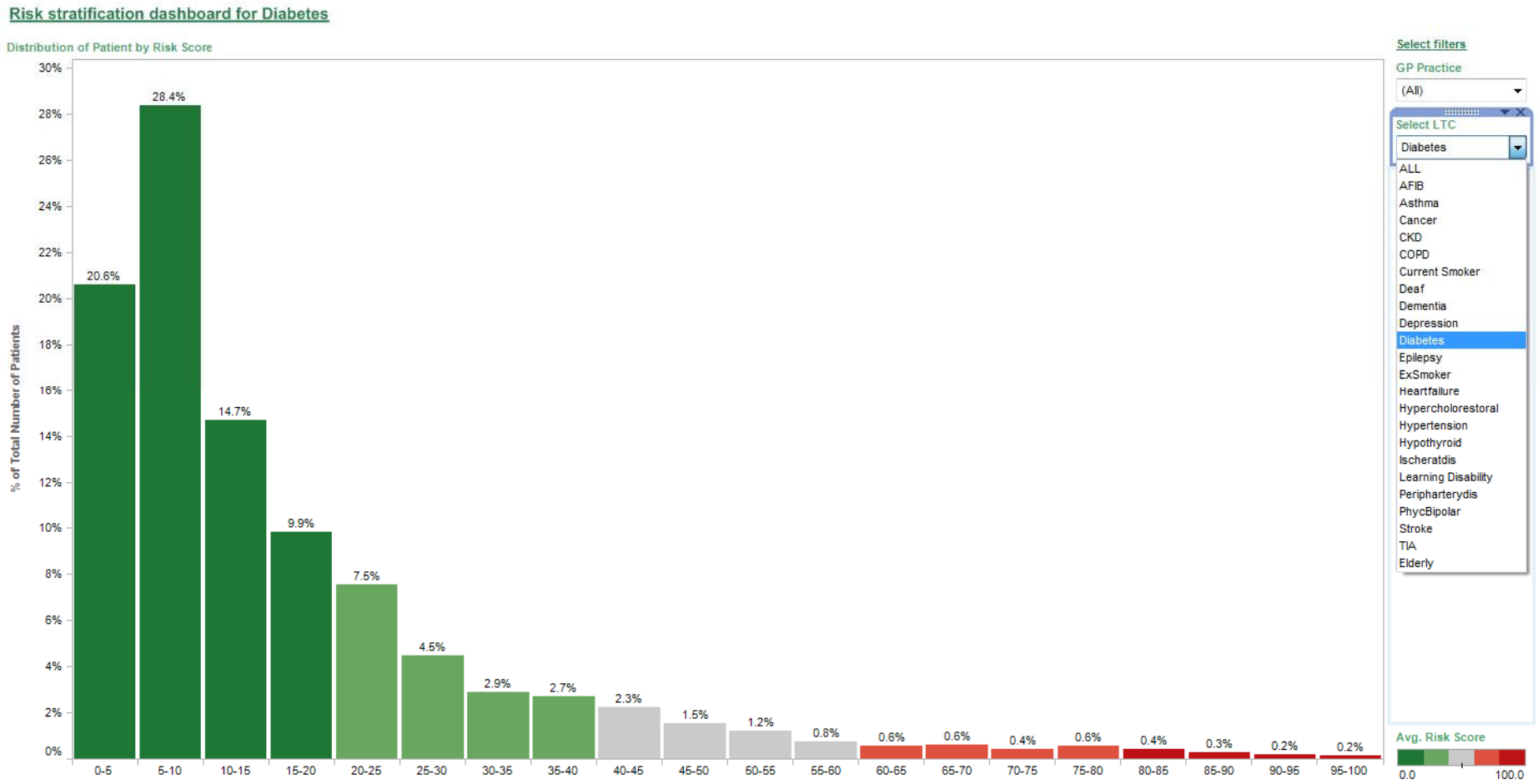
COMBINED PREDICTIVE MODEL

FINAL REPORT & TECHNICAL DOCUMENTATION

DECEMBER 2006

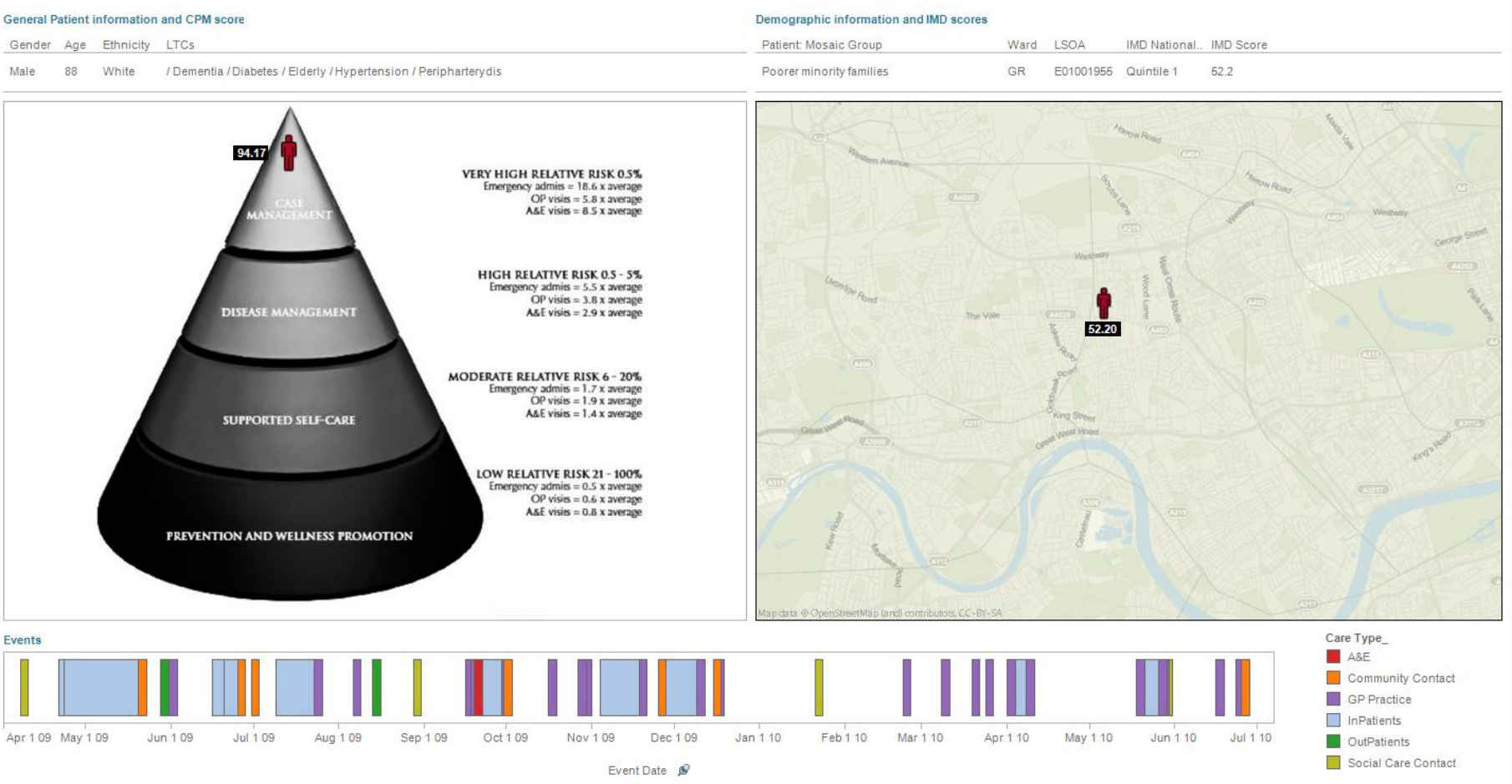
NHS | DH Department of Health | NYU Robert F. Wagner Graduate School of Public Service | King's Fund | Health Dialog UK

Risk of admission of individual patients over a one year period



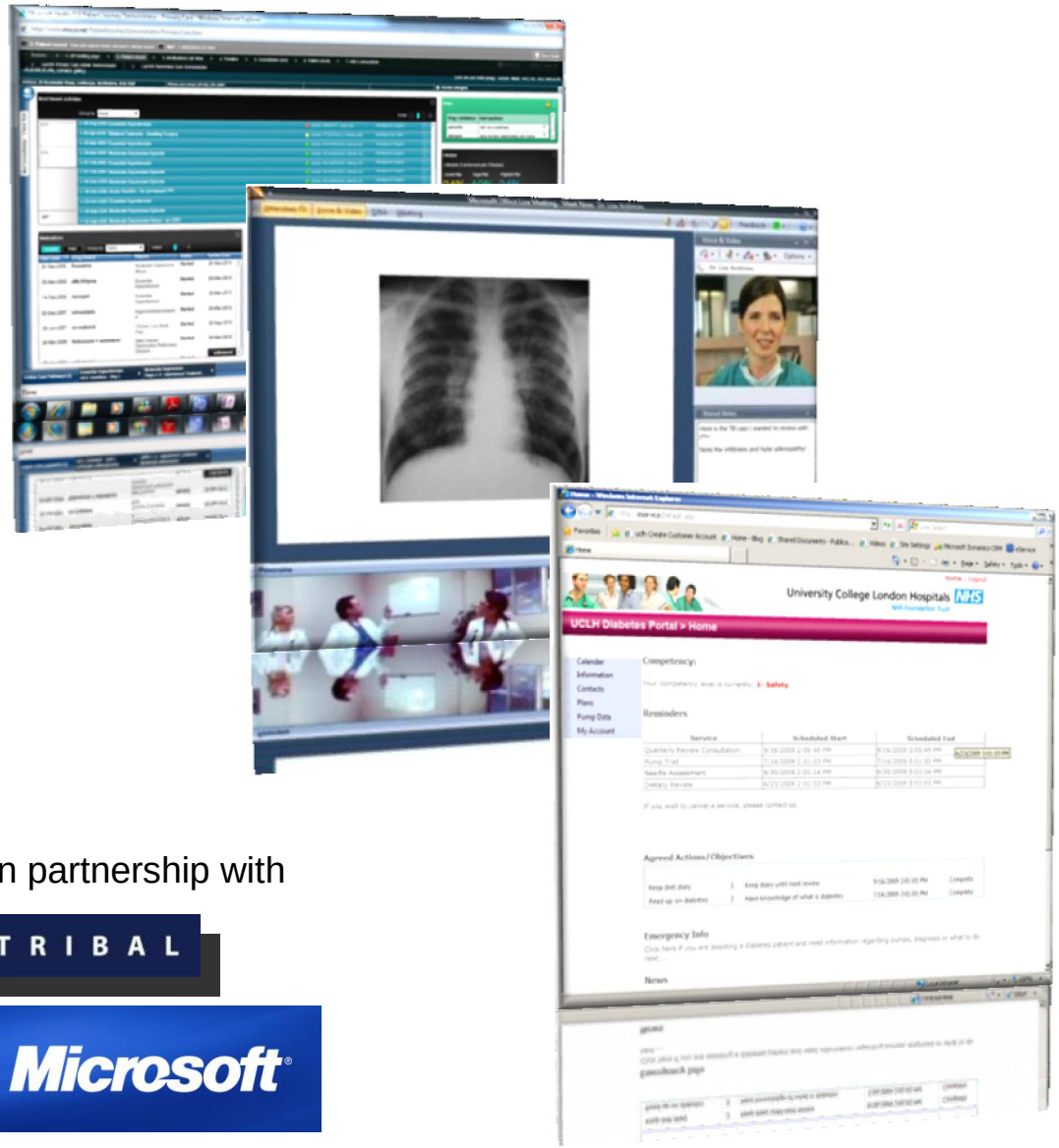
CONCENTRA

Case management indicator for an individual patient



CONCENTRA

Diabetes:Changing how patients and clinicians work together



Patient owned record, able to interact with their information and clinicians using:

- Web tools
- Email
- Telephone consultations and applications

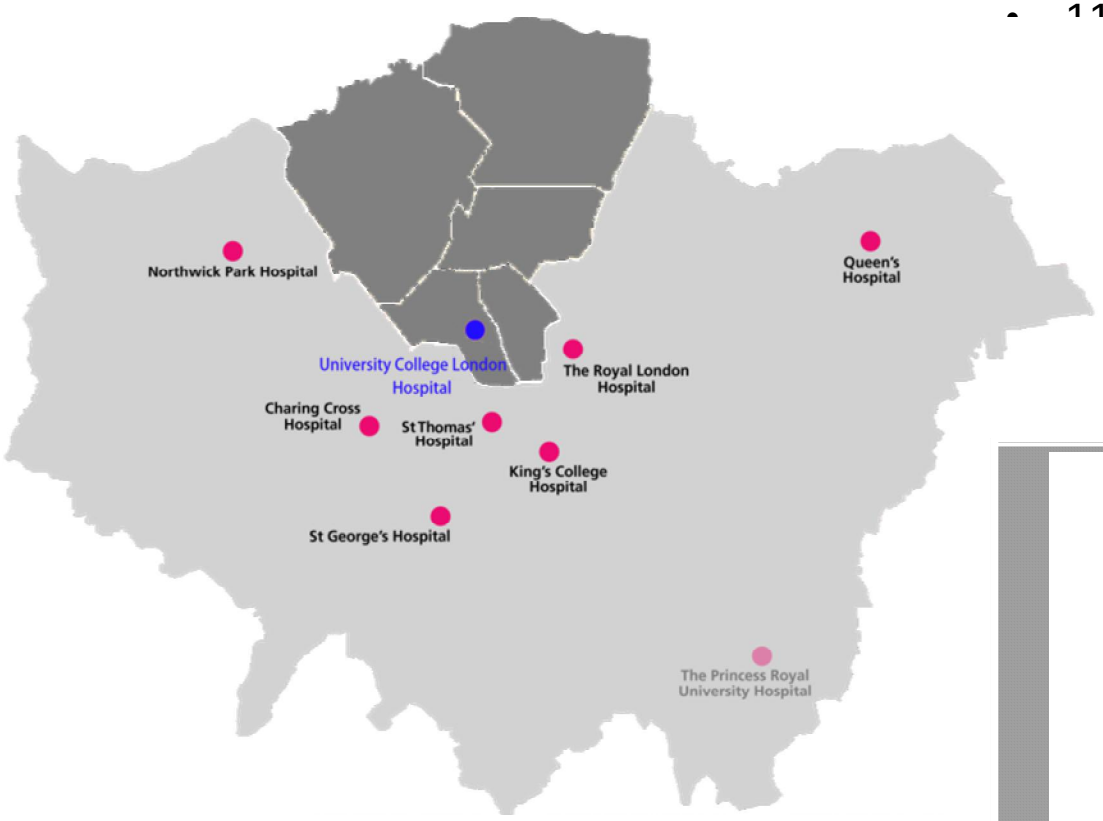
Creating expert patients

In partnership with

TRIBAL

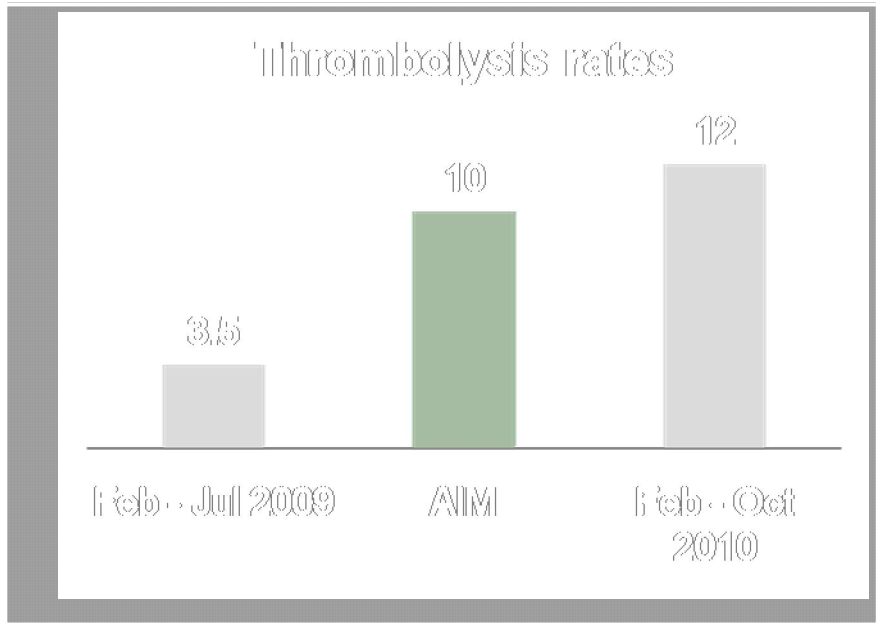
Microsoft

Impact on pan London thrombolysis rates



Across London:

- 116 beds now open across 8 units
- dian ambulance time to HASU 14 iutes – enhanced thrombolysis duced mortality



HASU=hyper acute stroke unit

Three dimensions of Integrated Care

- **Integration between Primary and Secondary Care**
- **Integration between health and health care**
- **Integration between health professionals and carers inc. conventional and complementary practitioners and social support**

Whole pathway quality measurement: Stroke example – work in progress

	Element of pathway	Potential outcome measure
1.	**Stroke education and public awareness**	• Population awareness of risk factors • Population awareness of FAST
2.	**Primary prevention and population risk factors**	• Population incidence of stroke
3.	**Stroke and TIA hospital admissions (acute management and treatment)**	• Acute mortality • %discharges direct to home from (H)ASU • Readmissions
4.	**Rehabilitation/ access to services/ PROMS/ Mortality**	• Functional status, e.g. return to pre-stroke life role, hobbies, SF36
5.	**Follow-up/ secondary prevention and hospital readmissions**	• Secondary incidence • Population mortality
6.	**Measurement of patient experience**	• Willingness to recommend • Treated with dignity score • 'Connectivity'

Mountford J, Davie C. *JAMA*. 2010;304:2407-2408.

ANALYSIS

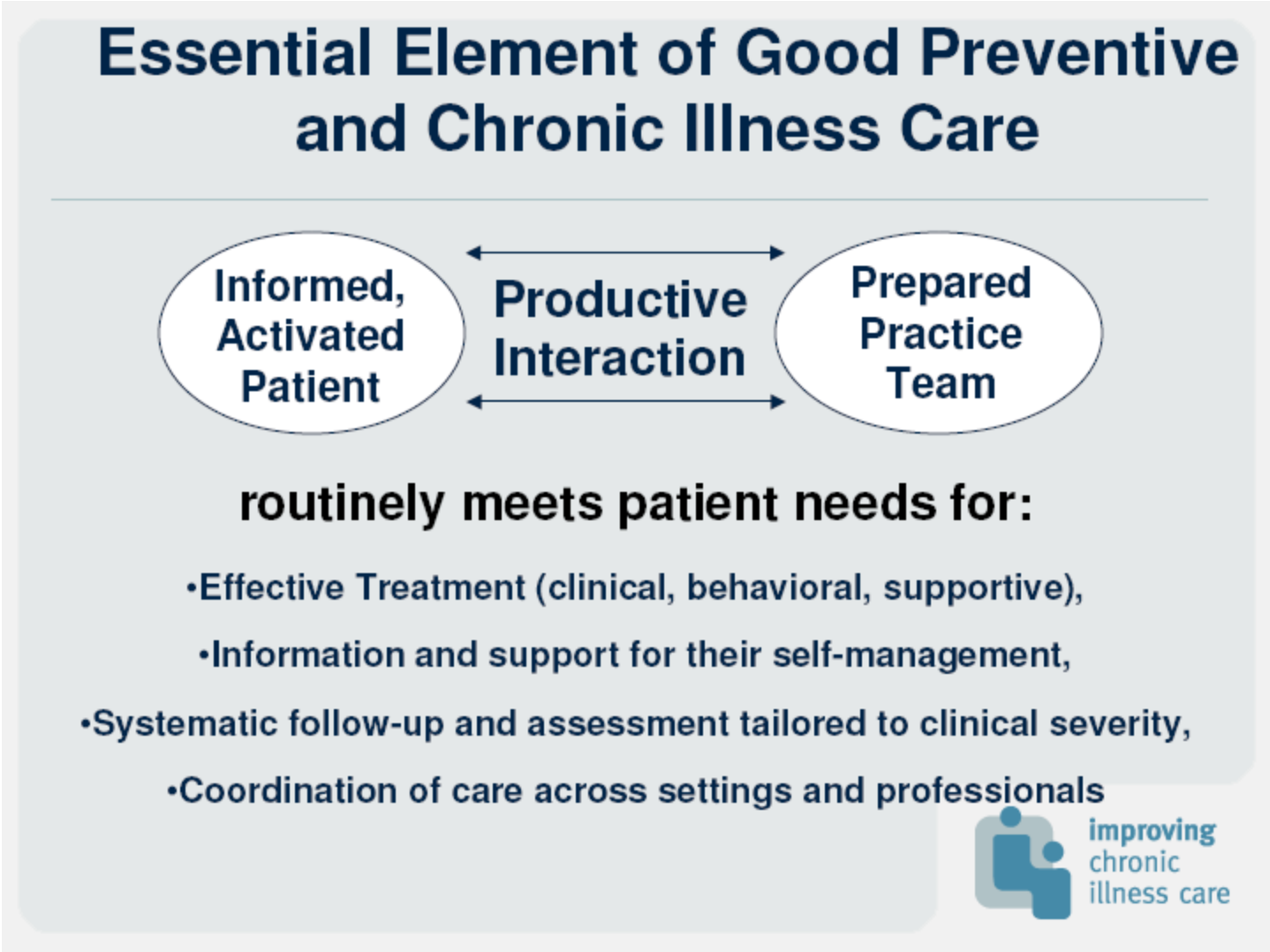
bmj.com
More articles about the NHS reforms in England at bmj.com/nhsreforms

Clinically integrated systems: the future of NHS reform in England?

Recent reforms to the NHS in England seem to make integration of care harder rather than easier. But **Chris Ham**, **Jennifer Dixon**, and **Cyril Chantler** argue that integration is not incompatible with competition and that it is essential for more efficient care

MARK THOMAS

BMJ 342 740-742 2011



E Wagner 2009

Priority for action and incentives

- **Quality of care**

=VALUE

- **Cost & Productivity**
- **Integrated services**
- **Improving health and staying healthy**
- **Reducing inequalities**