

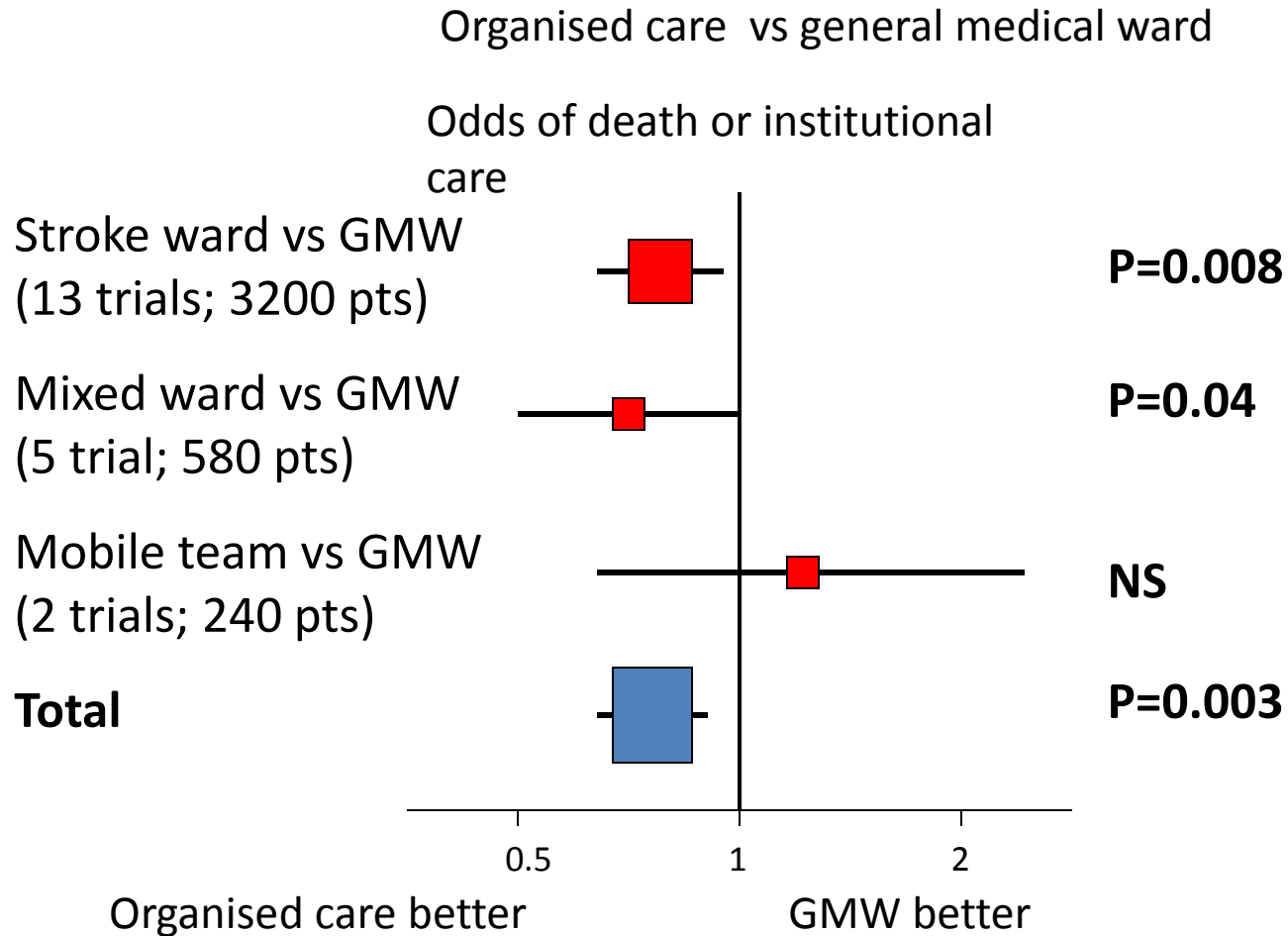
Delivering Effective Implementation of Hyper-Acute Stroke Units

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London Stroke Clinical Director

10th June 2011

Stroke Units





But what is a stroke unit?



Or this.....

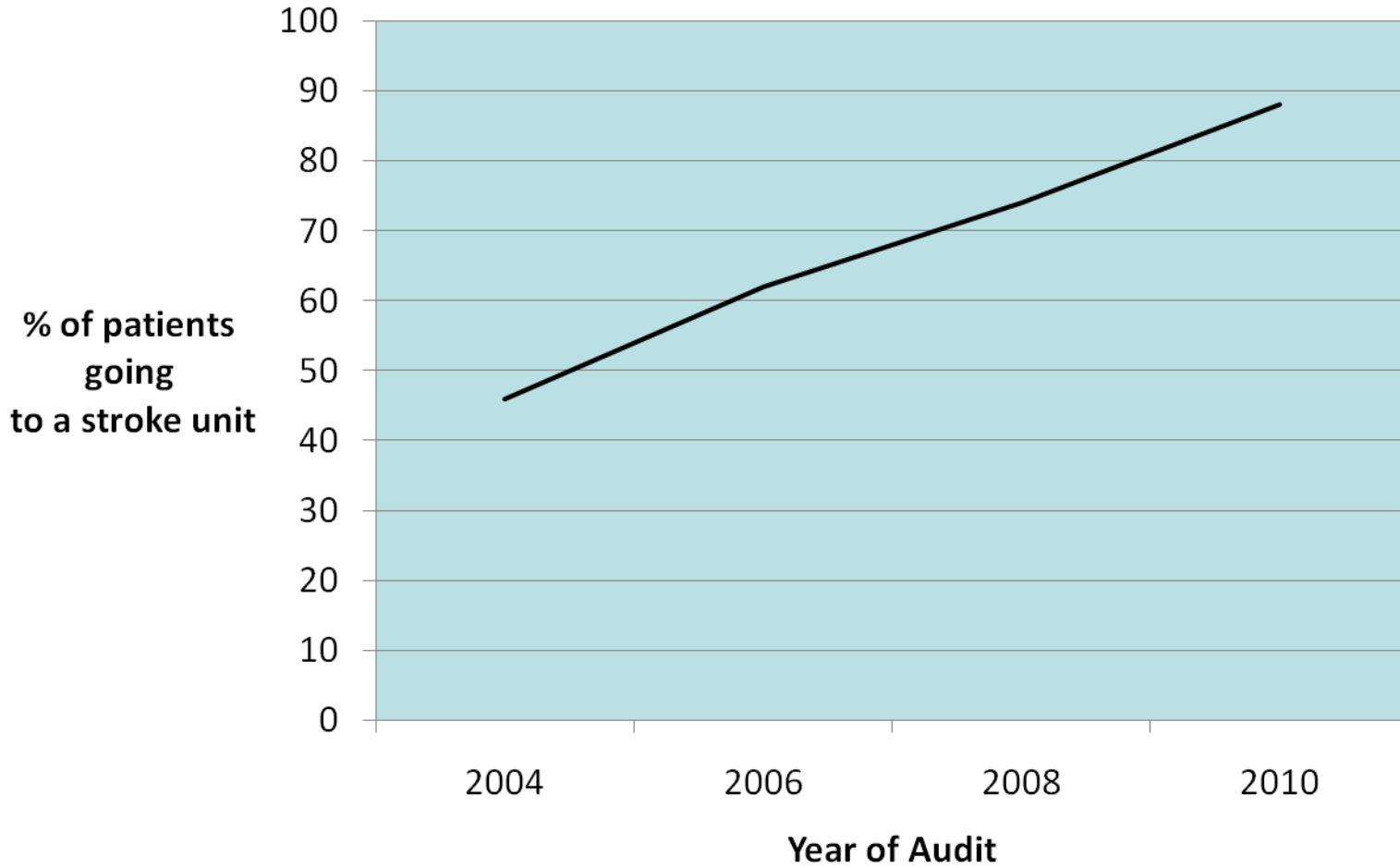
Stroke Unit Care

88% of patients were treated on a stroke unit at some stage during their hospital admission

This has increased from 74% of patients in 2008

60% of patients spent **90%** of their stay on a stroke unit (*Domain 6*)

Stroke Unit Admissions over Time



Location to which patient was initially admitted

	National
Admissions / Medical Assessment Unit / Clinical Decisions Unit	57%
Coronary care unit	1%
Intensive Care Unit / High Dependency Unit	1%
Acute / Combined Stroke Unit	36%
Other Ward	4%

Key Message

All patients should be directly admitted to a stroke unit equipped to manage acute stroke patients

Comparing Quality of Care on Stroke Units with Other Wards

% COMPLIANCE WITH EACH INDICATOR FOR APPLICABLE PATIENTS	Patients admitted to stroke unit	Patients not admitted to a stroke unit
Screened for swallowing disorders within first 24 hours of admission	86%	58%
Brain scan within 24 hours of stroke	99%	91%
Commenced aspirin by 48 hours after stroke	93%	89%
Physiotherapy assessment within first 72 hours of admission	93%	73%
Assessment by an Occupational Therapist within 4 working days of admission	85%	59%
Weighed at least once during admission	88%	57%
Mood assessed by discharge	83%	44%
Rehabilitation goals agreed by the multi-disciplinary team	80%	40%

Thrombolysis

- **571 (5%)** patients received clot busting treatment
- **14% (approx)** of patients were appropriate for thrombolysis (presented within 3 hours, 80 yrs or under, infarction)

Key Message

All patients should have access to a stroke service that can deliver thrombolysis safely and effectively

Models for Hyper-Acute Care

- Routinely provided at all DGHs
 - Essex
- Regional hospital rota
 - West Kent
- Hub and spoke for thrombolysis patients all other acute care admitted to DGH
 - Manchester
- Hub and spoke for all acute stroke patients
 - London
- Telemedicine
 - East Kent

Why not just provide routinely at all hospitals?

- Numbers of experienced specialist stroke physicians for a rota
- Availability of sufficient specialist hyperacute stroke nurses at all times
- Cost
- Insufficient experience within a single DGH catchment area
 - 250,000 population about 300 admissions per year and therefore maybe 30 thrombolysis patients, 2 patients with malignant MCA syndrome, 2 basilar artery occlusions

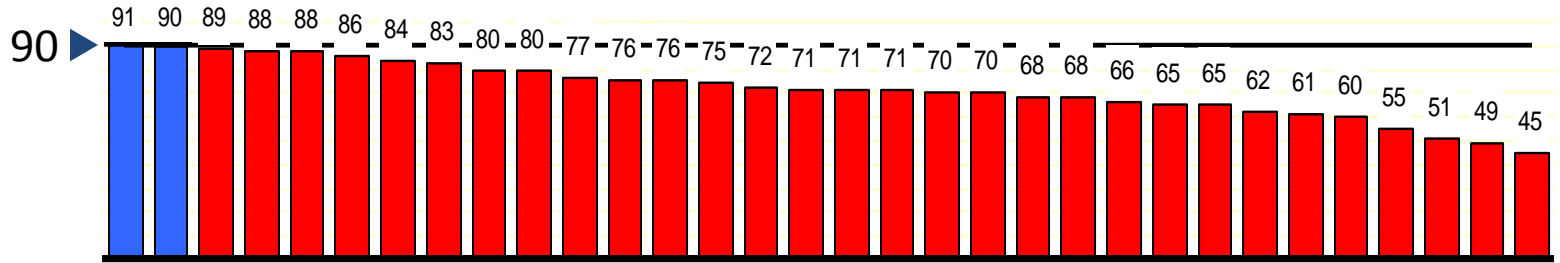
The London Story

The Case for Change

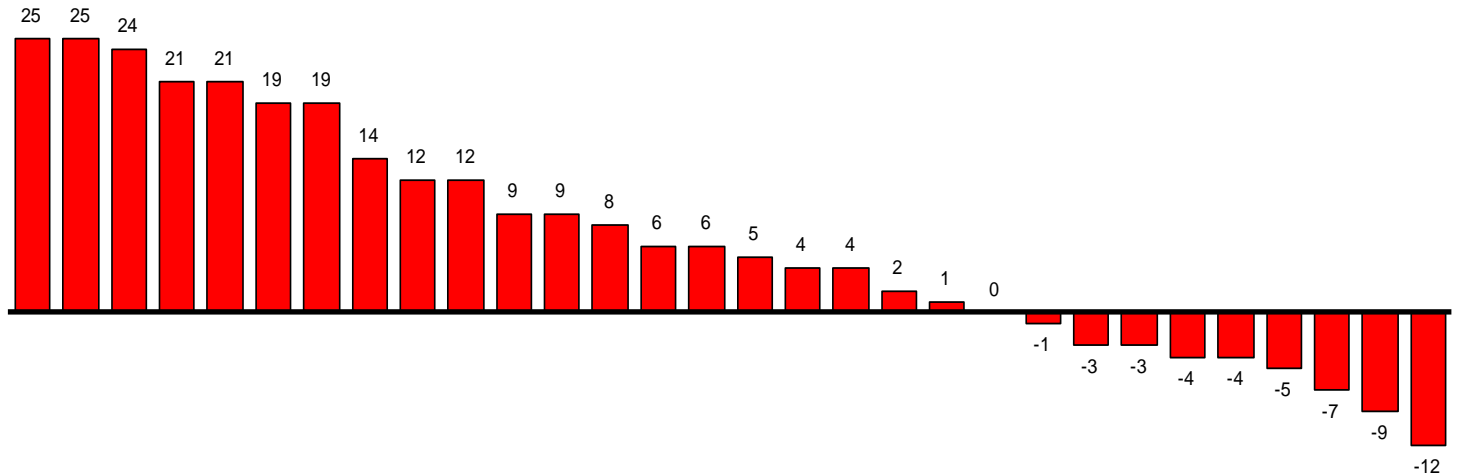
London Stroke Units Sentinel Audit Comparison 2004 and 2006



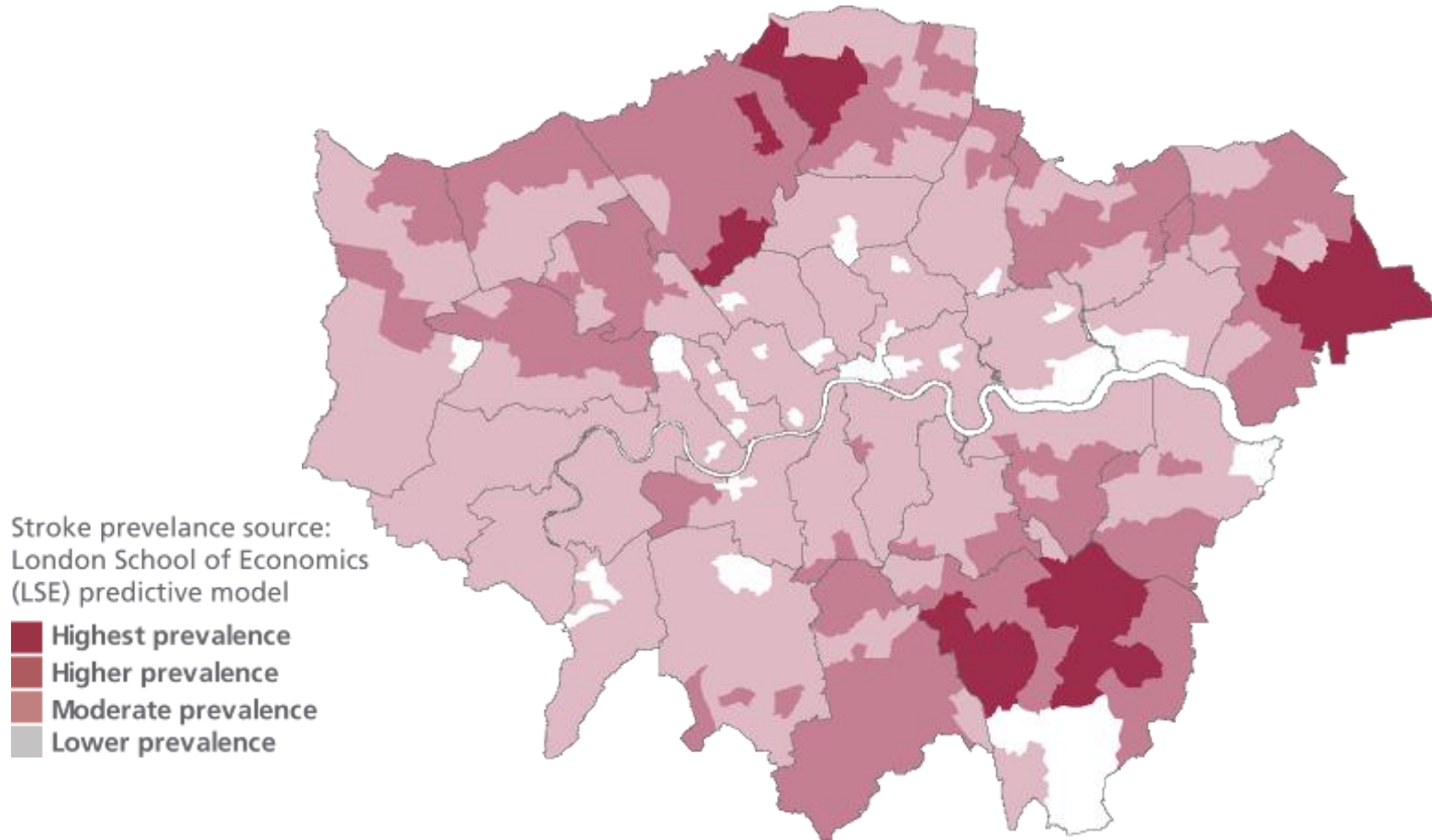
London Stroke Providers against Sentinel Audit 12 key indicators 2006



Change in London Stroke Providers against Sentinel Audit 12 key indicators 2006 vs 2004 scores

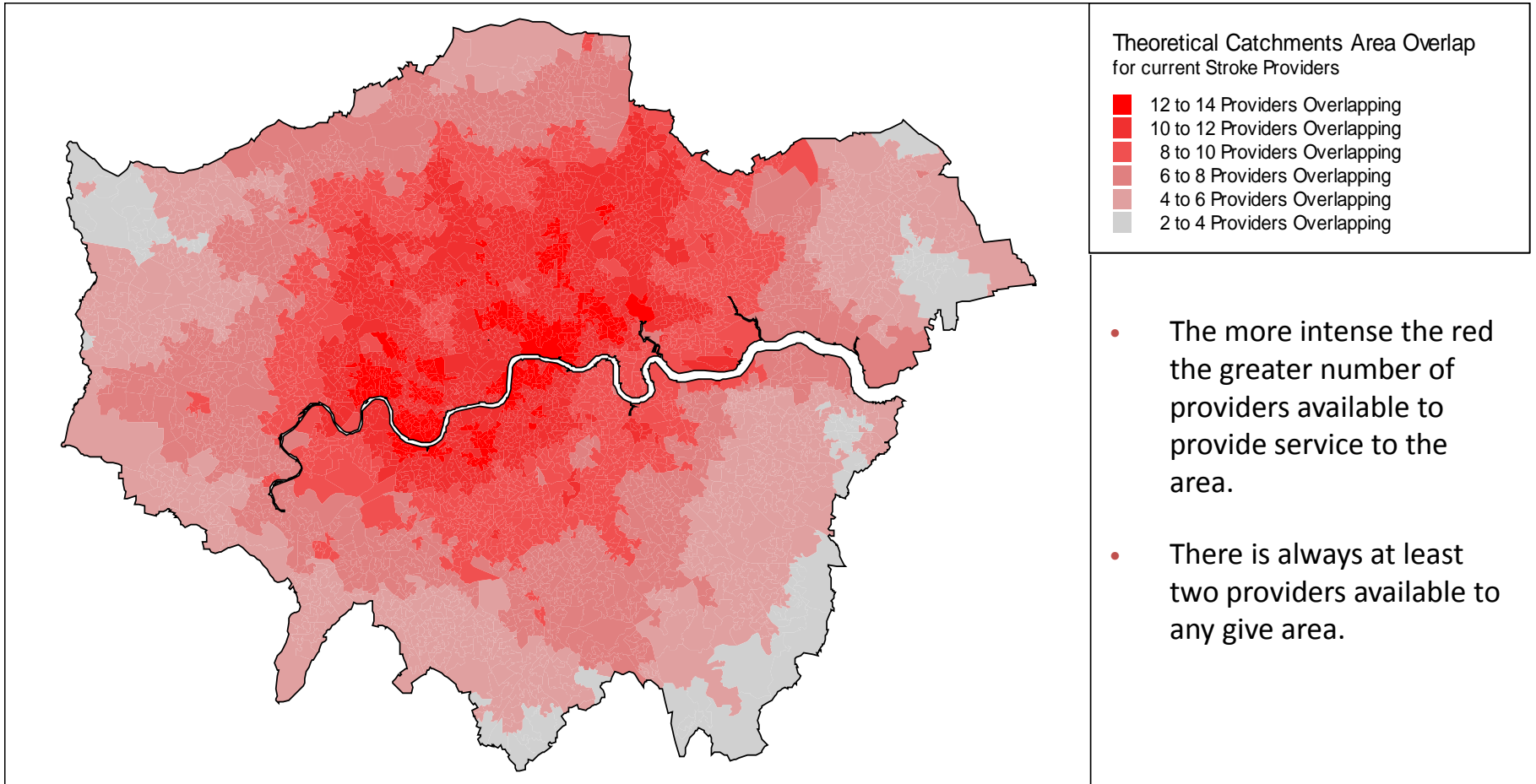


The scale of the problem of stroke in London



- Second biggest killer and most common cause of disability
- 11,500 strokes a year in London – 2,000 deaths

Availability of Potential Stroke Providers



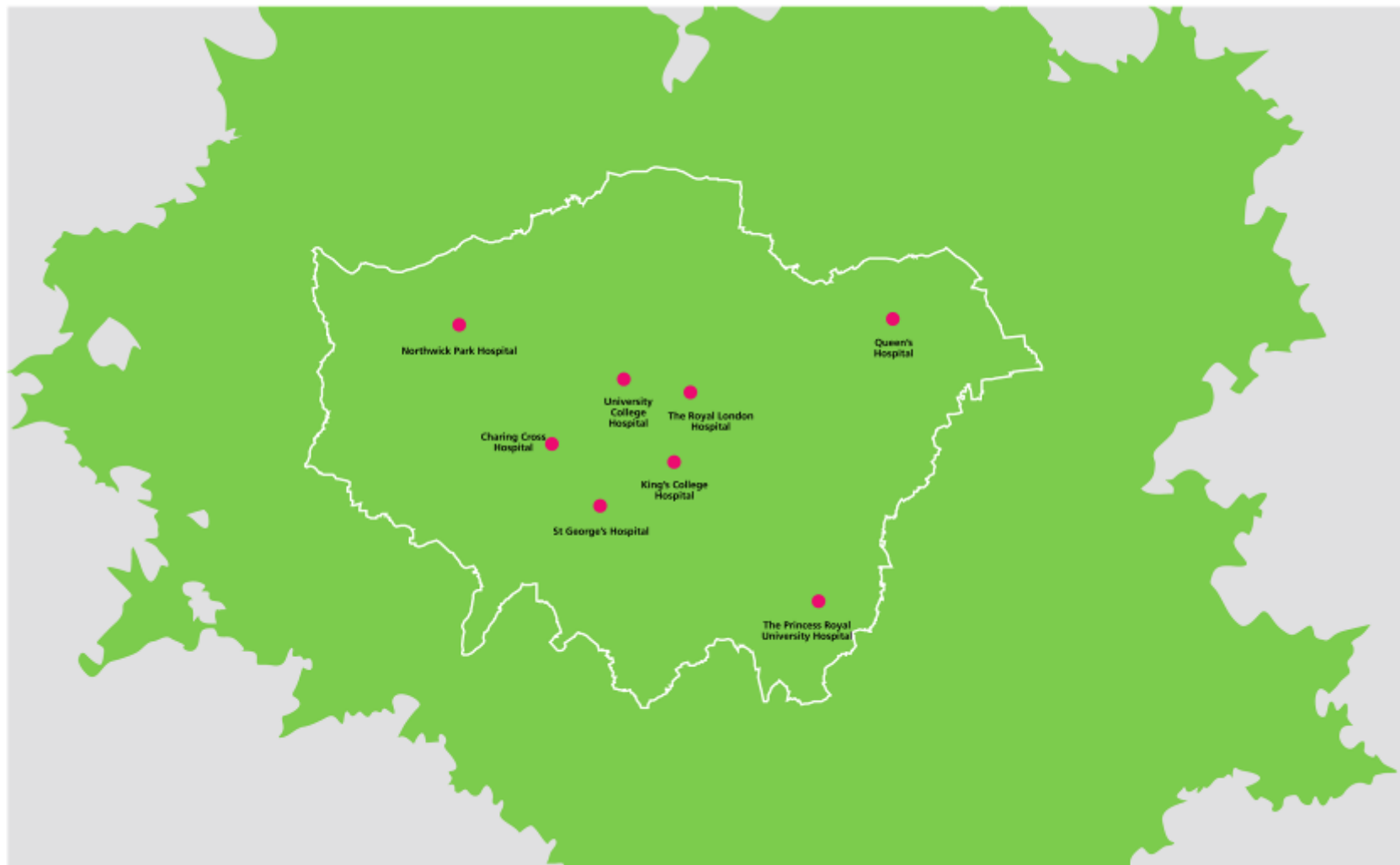
London SHA Stroke Strategy

- Additional £20m pa for stroke care from the PCTs but only paid if hospitals delivering the required quality
- Centralise HASU care into 8 units situated to provide easy access to the whole population
- All acute stroke patients admitted to HASU. This is not just a thrombolysis service

London SHA Stroke Strategy

- Bidding process to provide HASU, SU and TIA care
- Funding biased towards SU to encourage repatriation and importance of delivering high quality rehabilitation
- Networks key to delivery, working closely with commissioners
- London Clinical Director

30-minute blue light ambulance travel time from the hyper-acute stroke units



The green area shows the areas that are within 30 minutes travel time (under ambulance blue light conditions) of a proposed HASU

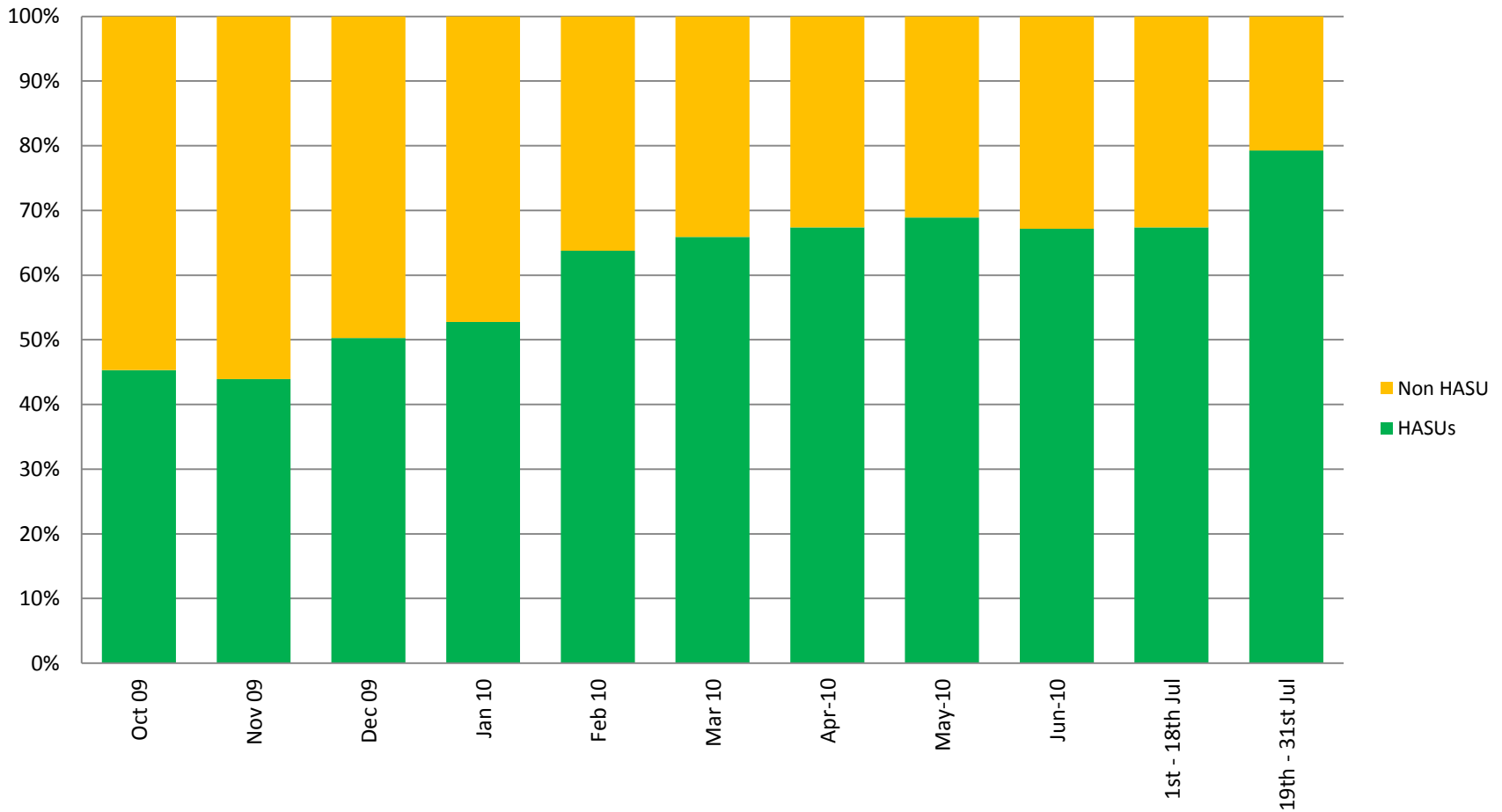
Prophets of Doom Predictions

- Not possible to implement major system reorganisation in London for a condition as complex as stroke
- Staffing requirements unachievable
 - Recruitment – where will staff come from?
 - Training – how will staff develop the necessary skills?
 - Leadership – who can provide the necessary leadership?
 - There is a risk that the available workforce will be consumed by early implementers, leaving later implementers unable to recruit to posts.

Prophets of doom predictions

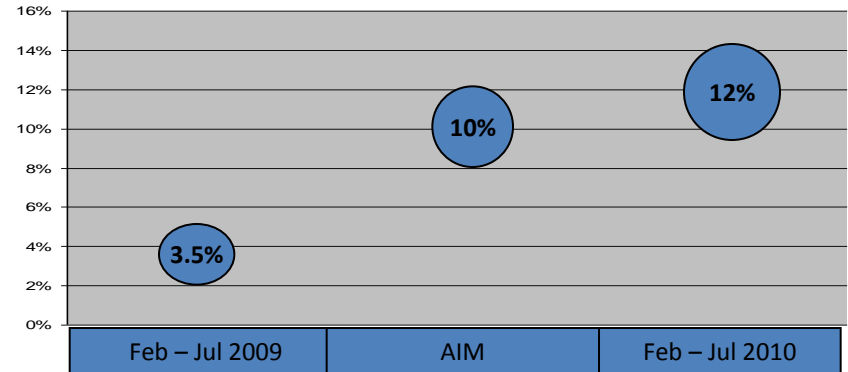
- Patients will not accept being taken to a hospital that is not local to them
- Not possible to transport people within 30 minutes to a HASU
- Repatriation will fail and HASUs will quickly become full
- Trusts will fight to the bitter end to retain services e.g. Judicial review
- Even if get acute services working it will fail because impossible to change community services
- Unsustainable

% of Neurological Emergency and Stroke to HASU and non HASU



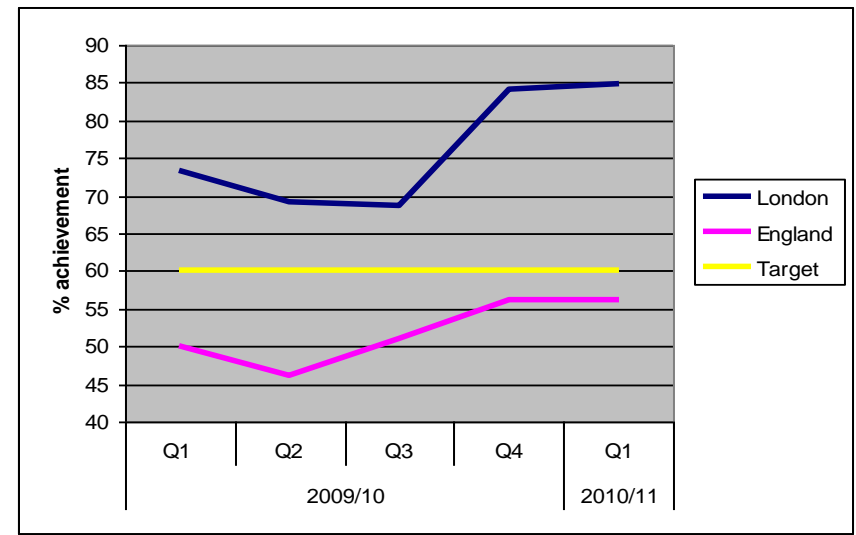
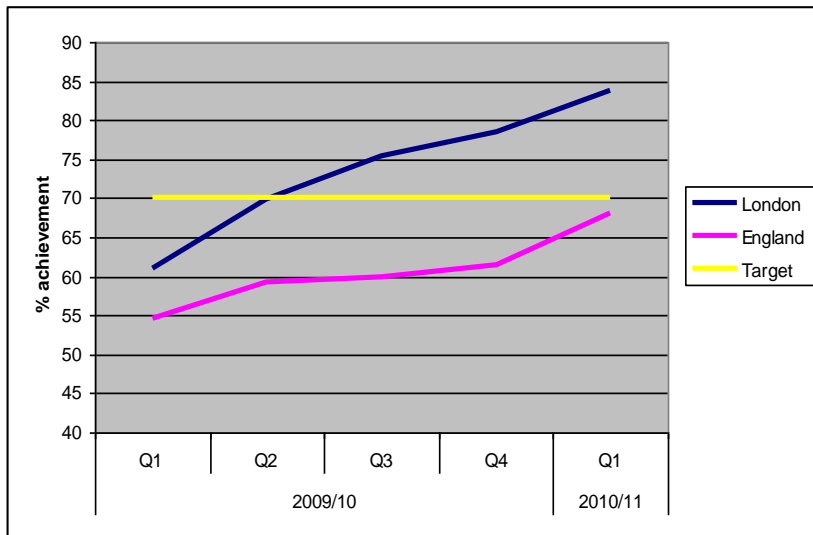
Performance data shows that London is performing better than all other SHAs in England

Thrombolysis rates have increased since implementation began to a rate higher than that reported for any large city elsewhere in the world



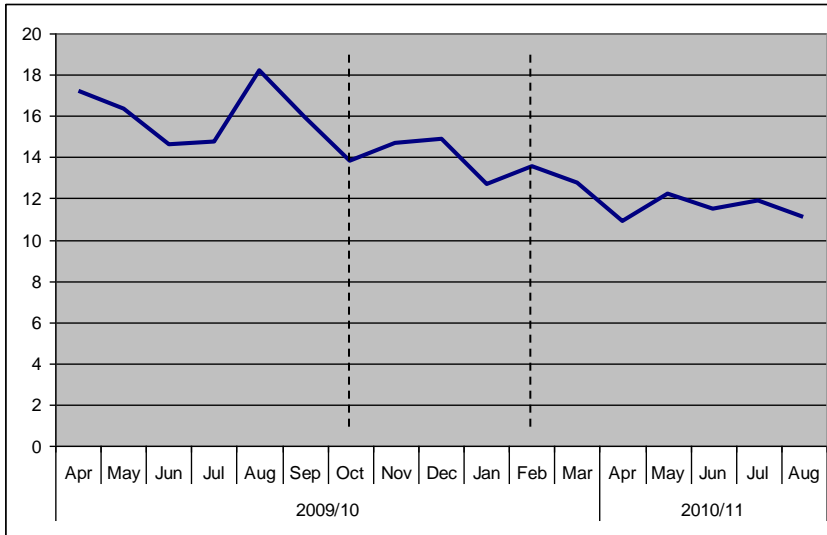
% of patients spending 90% of their time on a dedicated stroke unit

% of TIA patients' treatment initiated within 24 hours

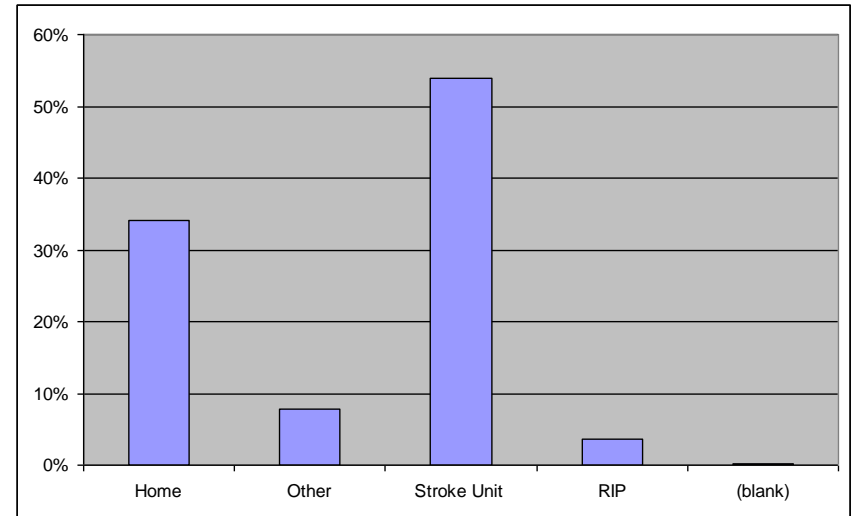


Efficiency gains are also beginning to be seen

Average length of stay



HASU destination on discharge



- The average length of stay has fallen from approximately 15 days in 2009/10 to approximately 11.5 days in 2010/11 YTD
- This represents a potential saving of approximately [DN - insert figure]

- Approximately 35% of patients are discharged home from a HASU. The estimate at the beginning of the project was 20%.

London Stroke Care: How is it working?

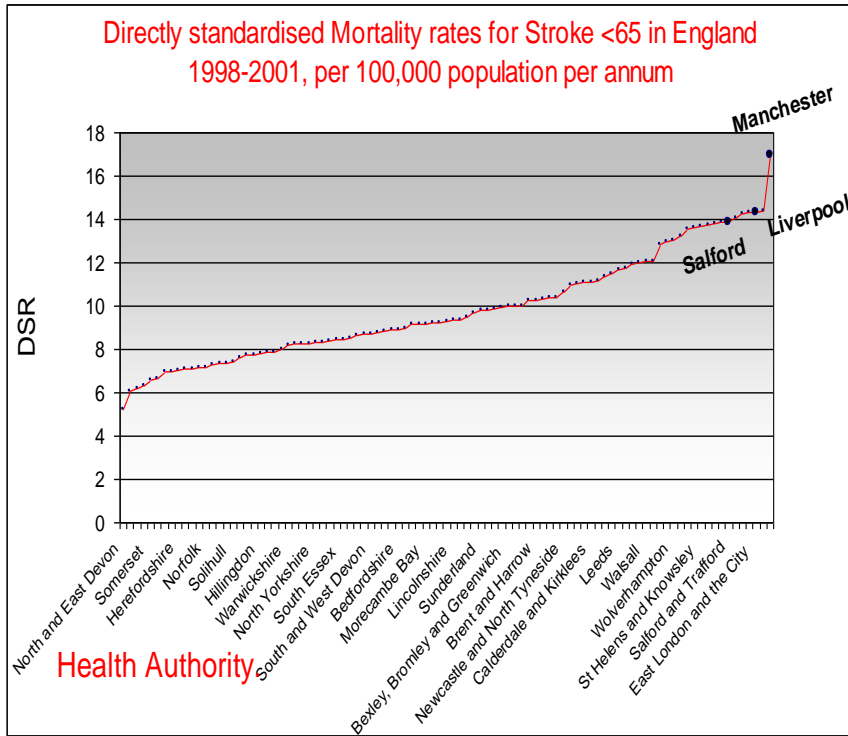
- No significant problems with repatriation to SUs. Good exchange of patient information.
- Significantly improved quality of care in SUs
- Evidence of constructive collaboration between hospitals
 - SU Consultants joining HASU rotas and participating in post-take rounds and educational meetings
- Very positive anecdotal patient feedback

Workforce Initiatives

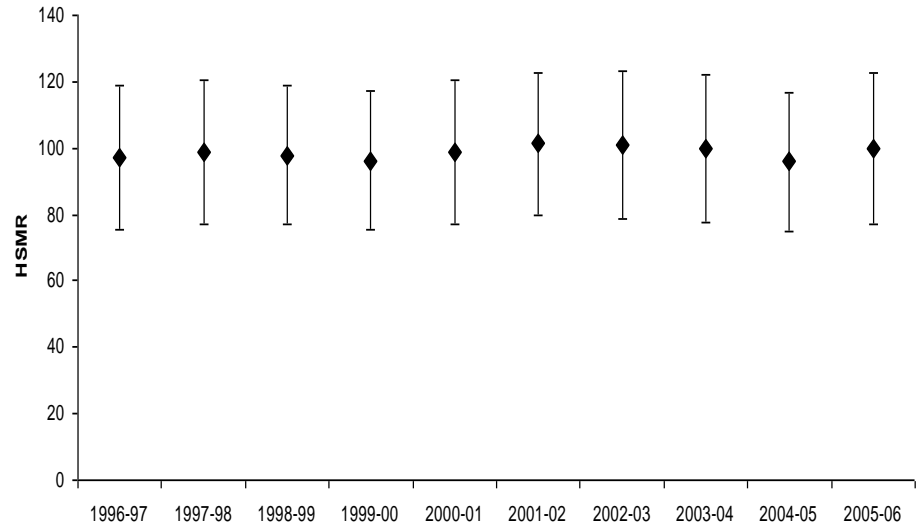
- 1 month intensive training for consultants on HASU rota
- 6 month fast track training post CCST
- E learning programme in development
- Simulation centre courses funded and being developed
 - Senior doctors and nurses
 - Band 5 nurses and junior doctors

The Manchester Story

Local Imperatives for Change

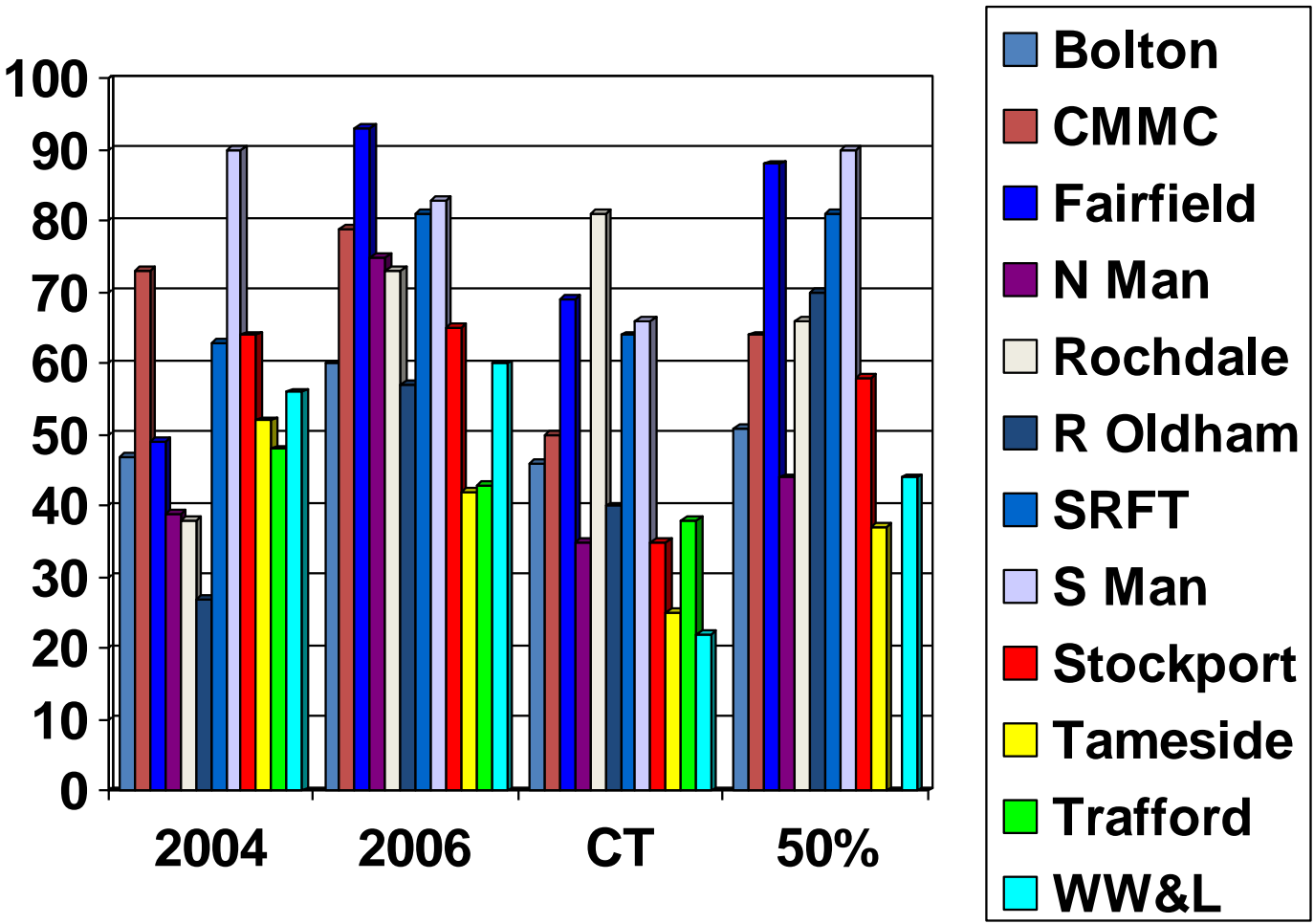


High DSMRs for Stroke in NW



NW SHA Stroke HSMR has not improved in a decade

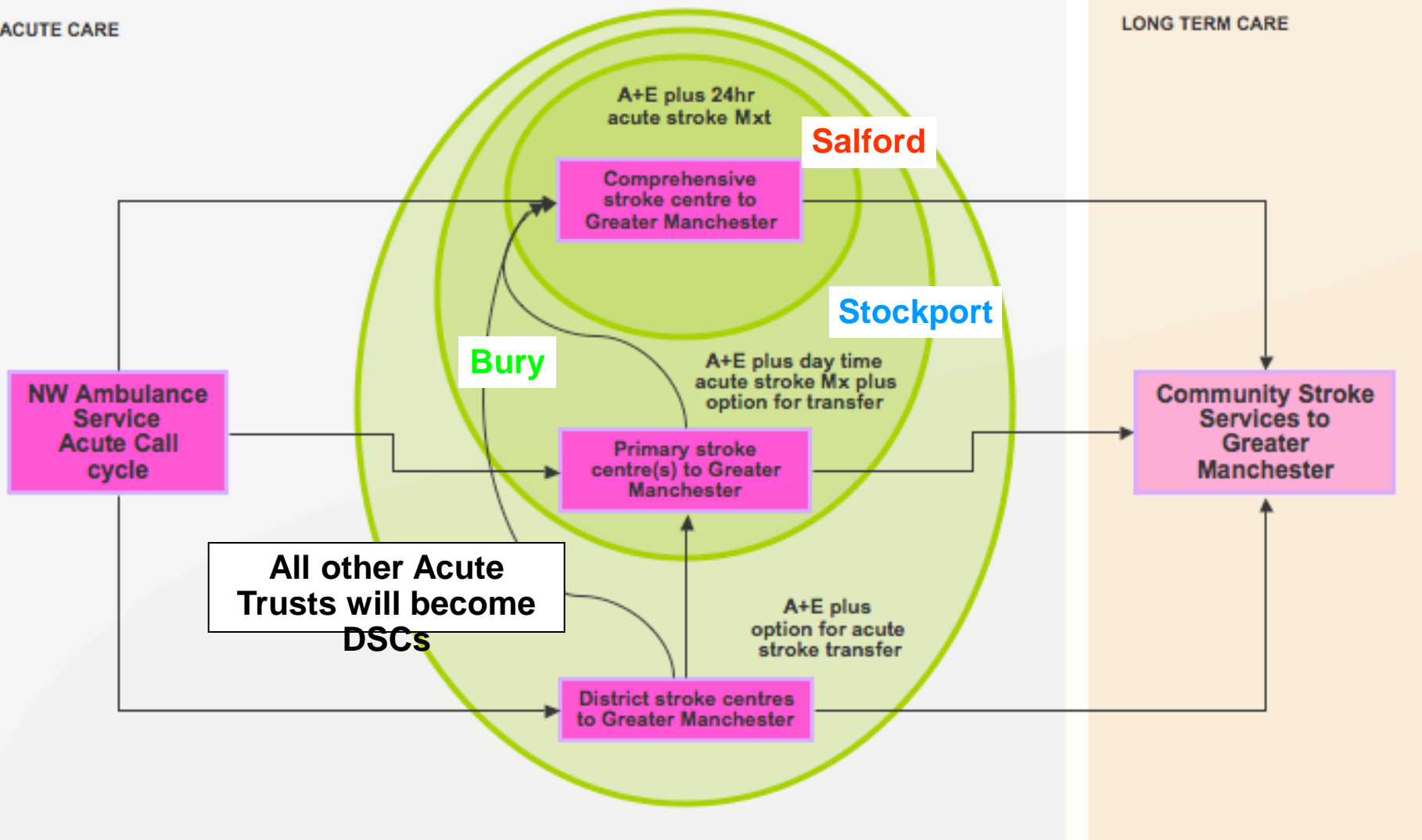
Variation in Performance across Greater Manchester



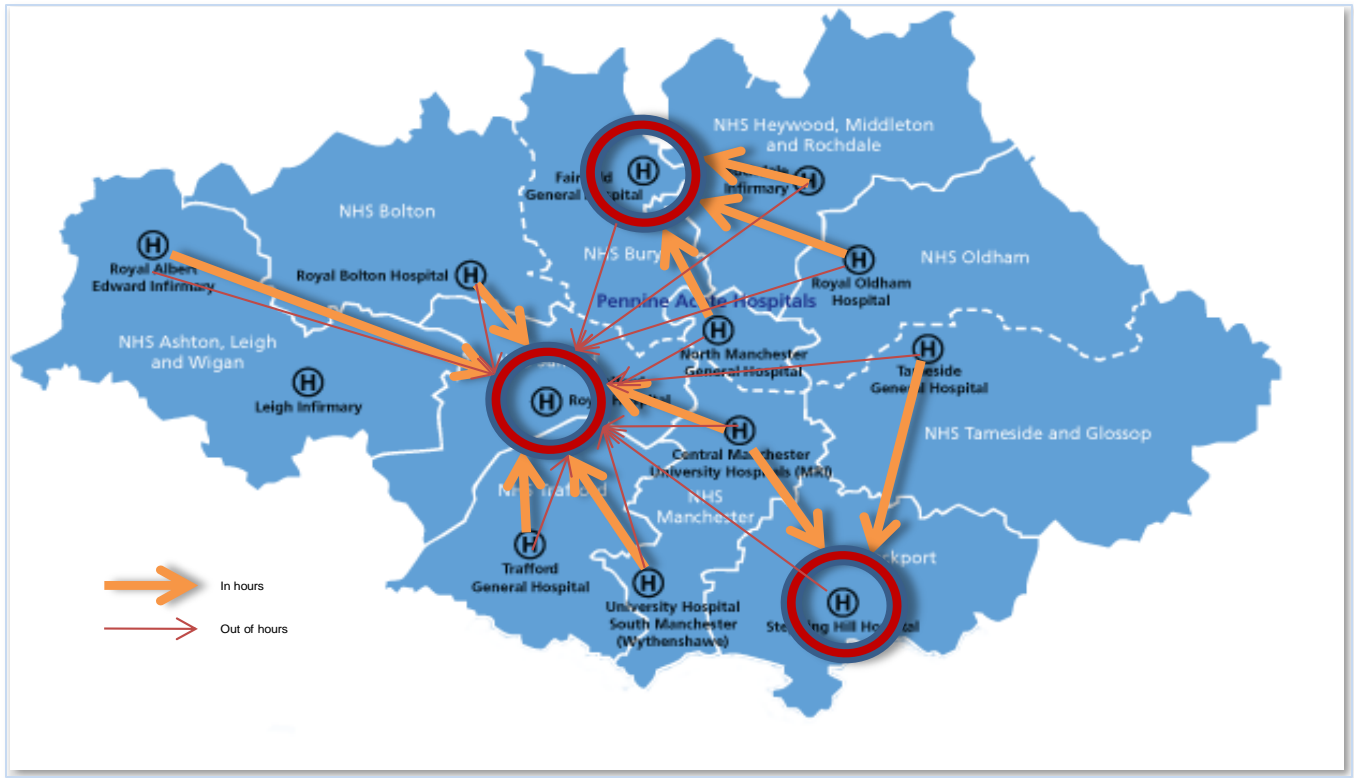
Greater Manchester Integrated (Acute) Stroke Service

ACUTE CARE

LONG TERM CARE

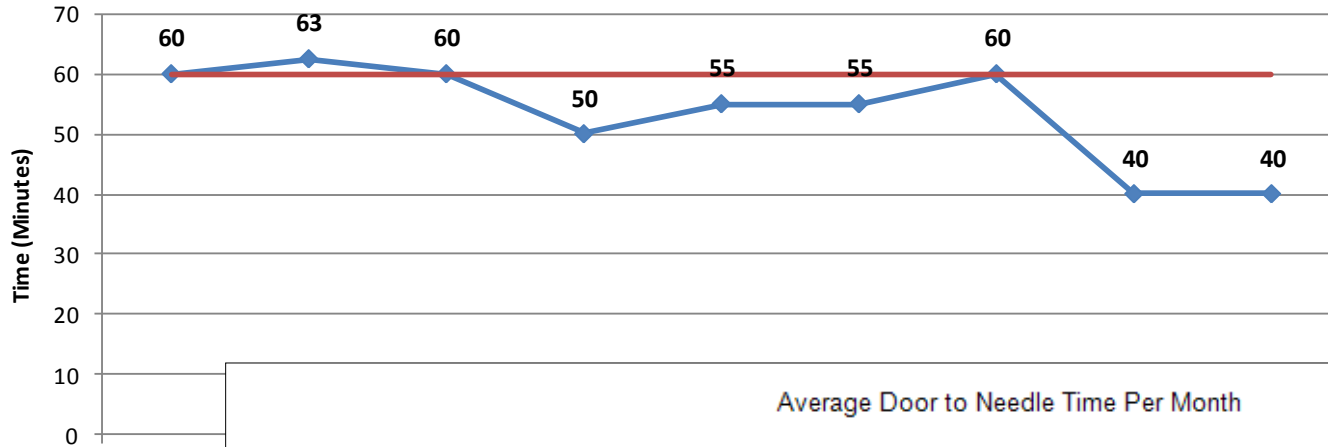


GM Hyperacute Stroke Service



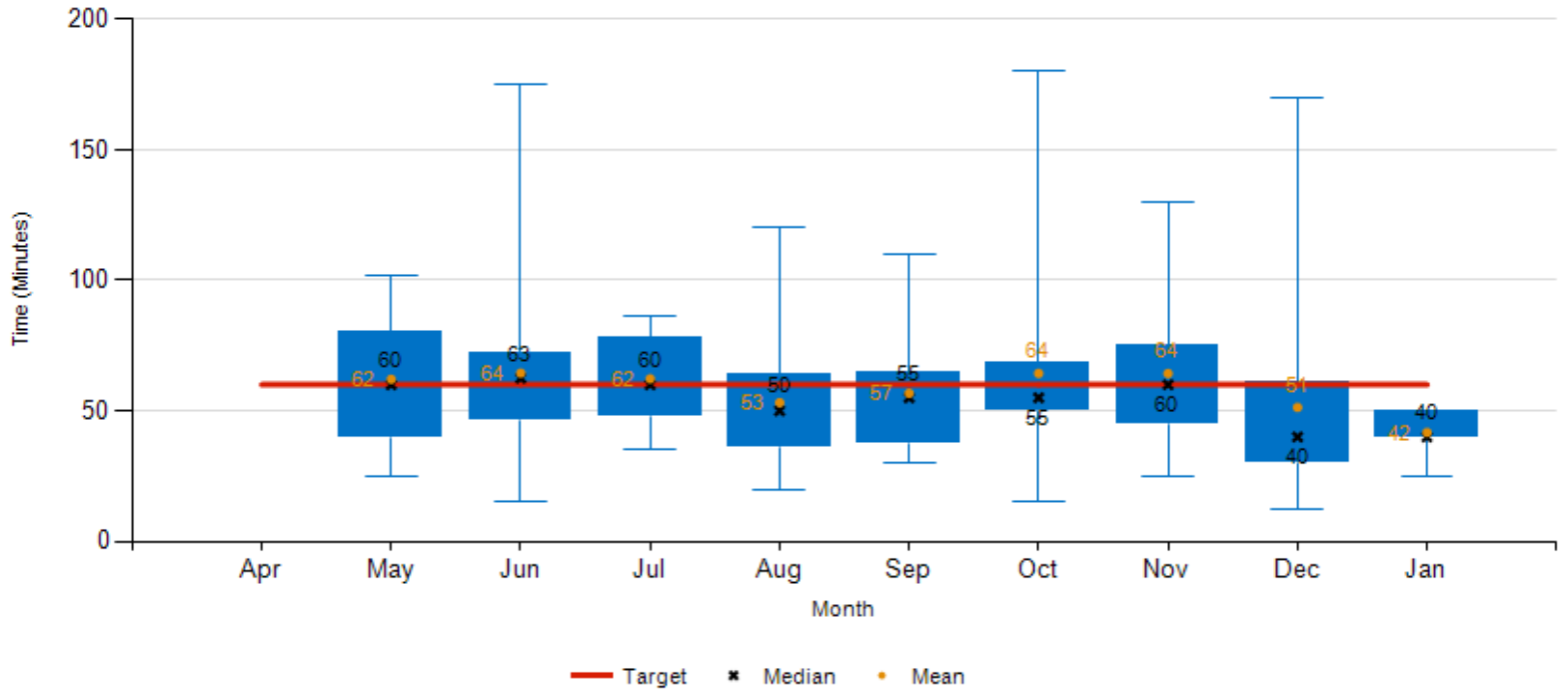
Door to Needle

Median - Door to Needle time



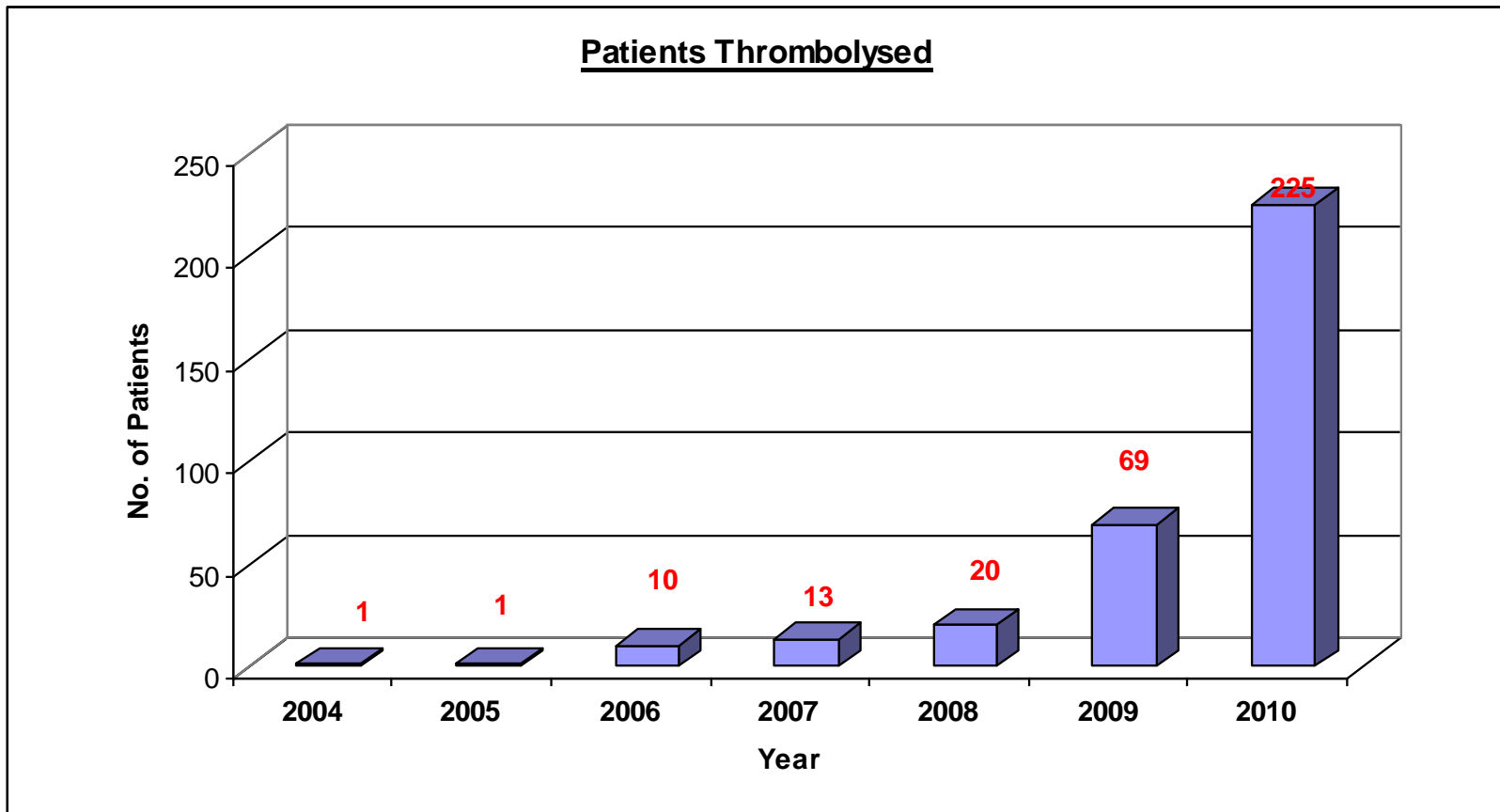
May

Average Door to Needle Time Per Month



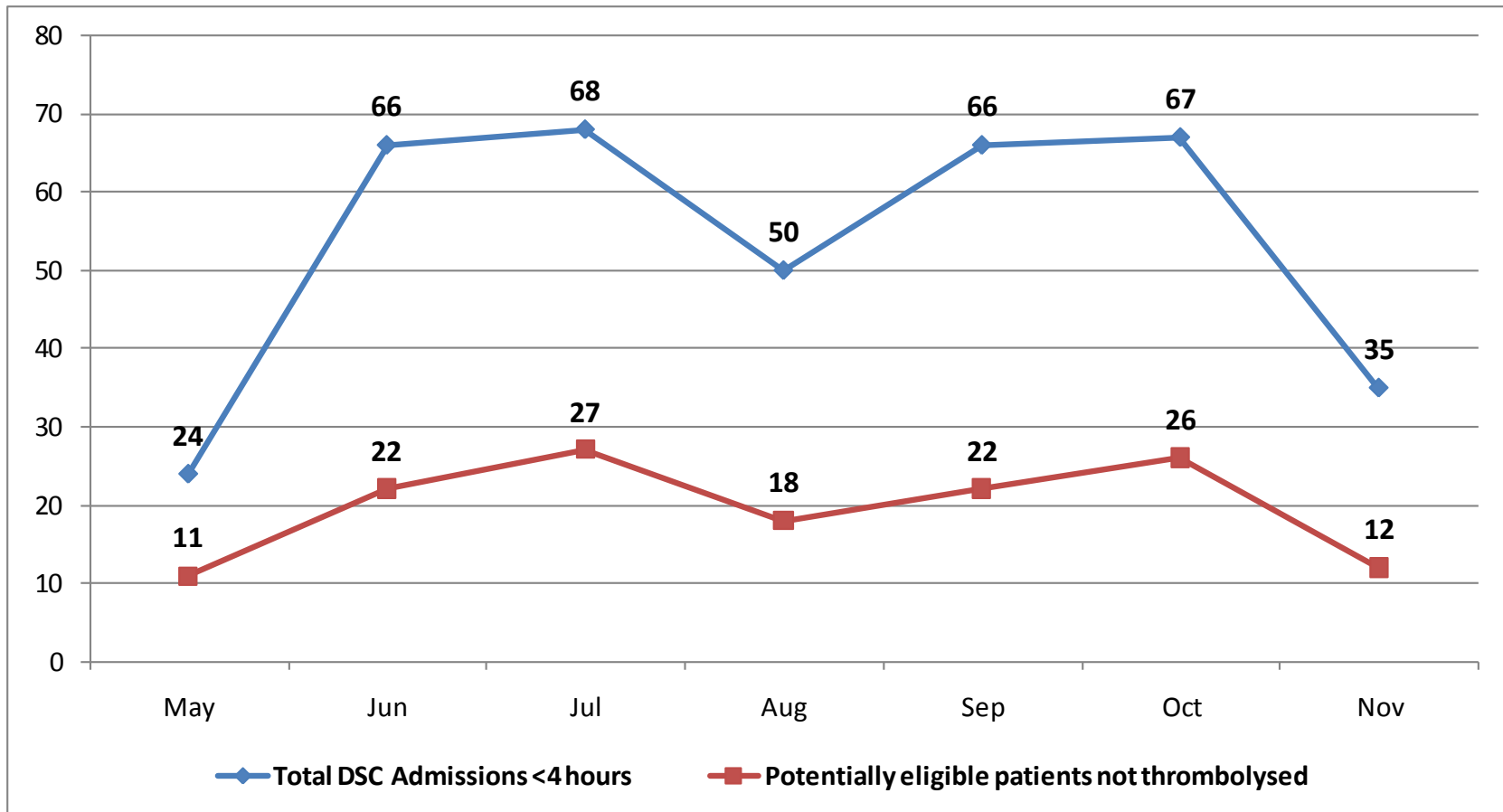
Thrombolysis Across Greater Manchester

- 24/7 service fully operational since 20 Apr. 10
- 225 patients thrombolysed during 2010



DSC Admissions <4 hours:

Potentially eligible patients not thrombolysed



- 37% of patients were potentially eligible for thrombolysis
- 138 potentially eligible patients admitted directly to a DSC (May 2010 to Nov 2010 data)

Telemedicine

How to deliver better acute care to more people: Telemedicine





Evaluation

- SDO grant to compare London and Manchester implementation
- London SHA funding health economic evaluation

Research

- HASU model fantastic opportunity to develop and participate in hyperacute research
 - 3 additional SRN research nurses
 - But also challenges with patients being repatriated
- Need studies on
 - IA thrombolysis
 - Clot extraction
 - Perfusion scanning
 - New agents
 - Acute rehabilitation

What does the future hold?

- Can the enhanced tariff be sustained in London?
- How will GP Commissioning affect the new stroke models?
- How will GP commissioning affect similar projects elsewhere in England – concerns expressed by Kings Fund?
- Will the Secretary of State seek to open up the market for stroke care in London and Manchester?

Might this be a way of saving time?

