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Editor's choice: Mid Staffs and mortality data (BMJ 2013;346:f638)

• Feature: How the message from mortality figures was missed at Mid Staffs (BMJ 2013;346:f562)



he extensive hearings of the inquiry into failings of care at Mid Staffordshire NHS m Trust give perhaps the most intimate insight into the workings of the modern d NHS yet glimpsed by outsiders—but it m makes for dismal reading.

The line that consistently emerged throughout the inquiry was that those responsible at the trust and in the wider NHS were simply unaware of the scale and extent of the problems on the wards of Stafford Hospital—at least until the Healthcare Commission investigation of 2008-09. But a close analysis of the evidence generated by the inquiry casts doubt on this version of events. Indeed, the evidence suggests that there were ample warnings for all to see, yet they were seemingly dismissed, discounted, and disregarded.

Early warnings

As early as 2001, there were warning signs about the quality of clinical performance at Mid Staffs. In January, the first annual *Dr Foster Hospital Guide* was published, providing adjusted hospital

WHO KNEW WHAT, AND WHEN, AT MID STAFFS?

The Francis report into the appalling failings of care at Mid Staffordshire NHS Trust has finally been published. **Philip Carter** and **Brian Jarman** explain how events unfolded

death rates. Dr Foster uses hospital standardised mortality ratios (HSMRs) to assess hospitals those with a score of less than 100 have fewer deaths than expected, and those with a score of more than 100 have more than expected.

The 1998-99 HSMR for Mid Staffs was significantly higher than expected, at 108. It was to be the pattern for the coming years: the HSMRs from 2001-02 to 2007-08 were all significantly high (at the 95% confidence interval level).¹

Over the course of the public inquiry, the importance attached to these HSMRs would become a central source of contention. But the inquiry also uncovered many other warning signs that went seemingly unheeded.

On 3 August 2001 the chief executive of the south western Staffordshire PCT warned that Stafford hospital's leadership was not competent and that this had an "impact on patient care." ³

By January 2002, a clinical governance review by the Commission for Health Improvement, the now defunct NHS government watchdog, noted "urgent action required." It had a range of concerns, including emergency admissions, staff training, and complaints.⁴

Little more than a year later, and this time the concern centred on care of critically ill or injured children. A peer review visit on 20 May 2003 identified that the trust had not met several of the standards relating to medical and nurse staffing in emergency departments and was relatively unresponsive to the review and lacking in insight.⁵ And in July 2004, the Healthcare Commission gave the trust a no star rating.

From 2005 the trusts, strategic health authority (SHA), and primary care trust (PCT) were using Dr Foster's real time monitoring system. Up to March 2009 staff logged on 8000 times, when they would have seen the mortality alerts and HSMRs on the default opening screen.

On 11 January 2006, the trust's care of critically ill and critically injured children was examined again for the West Midlands NHS Specialised Services Commissioning Group. A letter to the trust set out a number of "immediate risks to clinical safety or clinical outcomes."⁶

MID STAFFORDSHIRE—WHAT HAPPENED WHEN

April 2007

June 2007

Mid Staffordshire's application to become an NHS foundation trust goes to the regulator Monitor. Andy Burnham, health minister, says, "I am delighted that Mid Staffordshire General Hospitals NHS Trust has now reached a high enough standard to be considered as an NHS foundation trust ... I would like to congratulate all of the staff of the trust on this achievement."





July 2007 Dr Foster starts to send letters to Mid Staffordshire's chief executive, Martin Yeates, warning of higher than expected mortality.

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2007

Royal College of Surgeons writes a highly critical report on surgery at the trust but fails to check that its recommendations are followed up (*BMJ* 2011;343:d4189).

University of Birmingham.

West Midlands Strategic Health

Authority's board, chaired by

Cynthia Bower, discusses data

company Dr Foster showing

that six hospitals in the area

had high mortality rates. Board agrees to write to Dr Foster and to commission a report into Dr Foster's methods from the

from the healthcare information

MID STAFFS INQUIRY

• Feature: Did the government ignore criticisms of the NHS in the run up to the Mid Staffs scandal? Nigel Hawkes reports (*BMJ* 2013;346:f652)



The Healthcare Commission national staff survey for 2006 showed that less than half of staff at Mid Staffs said that they were happy with the care at the trust. In several areas, such as "were there enough nurses on duty to care for you," it was in the worst performing 20% of NHS trusts in England.⁷ In the 2007 patient survey only five of 454 asked said "yes" to the question "were you ever asked to give your views of the quality of your care."⁸

In March 2007, Dr Val Suarez, the trust's newly appointed medical director, asked the Royal College of Surgeons to review the hospital's colorectal and laparoscopic cholecystectomy service because of longstanding complaints and concerns. She told the inquiry that it was unlikely that the South Staffordshire PCT or West Midlands SHA "would have been aware of the review."⁹ The college did not follow up to confirm that the recommendations from its 2007 review had been implemented.

The college conducted a second review in 2009, and its report found serious concerns with the cases of four of the five surgeons in the colorectal department and referred to the trust providing "grossly negligent" care.¹⁰

Questions over figures

When the Dr Foster good hospital guide was published in the *Telegraph* newspaper in April 2007 Mid Staffs' HSMR was 127—one of the highest in the country. There was consternation at the trust. They were expecting an HSMR of 114. On 8 May 2007 Philip Coates, responsible for clinical governance at Stafford Hospital, sent an email headed, "Some fairly urgent advice needed" to Dr Foster Intelligence, copied to Suarez and others in the trust. It started "We have to meet our SHA to explain our mortality figures."¹¹

But the bad news about the trust's high mortality rates did not tarnish its bid to become a foundation trust. On 7 June 2007, just a few months after the death rates were published, the health secretary approved the bid. The Department of Health was, the inquiry was later told, seemingly unaware of the trust's high HSMRs.¹²

In response to the Dr Foster report, in July 2007 the trust set up a group to look into mortality, but much of its effort was put into establishing whether the high rate was due to poor recording of clinical information. The group's findings were later relayed to the board: "coding issues (accuracy and depth) had been identified as being responsible for the high figure published and that a review by the trust showed that its SMR is within the national average range (1.5%-3%)."¹³

Meanwhile, a series of mortality alerts—indications that patients may be exposed to greater than expected risk—were issued to Mid Staffs.

On 3 July 2007 the Dr Foster Unit at Imperial College sent Martin Yeates, the chief executive of Mid Staffs, a mortality alert for operations on the jejunum. Over the next four months, the unit issued three further mortality alerts concerning aortic, peripheral, and visceral artery aneurysms; peritonitis and intestinal abscess; and other circulatory disease.¹⁴ The alerts carried a 0.1% false alarm rate. The Healthcare Commission also issued three mortality alerts before November 2007.

The public inquiry heard that there was growing evidence of serious concerns in the emergency department at the same time. Chris Turner, who began work as specialist registrar at the department in October 2007, described it to the public inquiry as "an absolute disaster."¹⁵ Staff were threatened on a near daily basis that they would lose their jobs if they did not get patients through the department within the four hour target, he claimed. The result was "significant numbers of patients in distress and, as a department, we were immune to the sound of pain."¹⁶

In November, Julie Bailey's mother, Bella, died after spending the last weeks of her life in Stafford Hospital. The poor care her mother received prompted her to form the campaign group Cure the NHS.¹⁷

On 23 November 2007 Helen Moss, director of nursing at Mid Staffs, wrote to Craig Watson, assessment manager at the trust regulator Monitor stating that the trust had not found any other factors besides coding to explain the high mortality rates.¹⁸

The specific mortality alerts, sent by letter to the trust, were not made known to the assessment team either by the Healthcare Commission or by the trust despite the fact that they were effectively contemporaneous with the assessment.^{19 20}

On 5 December 2007 a meeting was held between Monitor and Mid Staffs for its application for foundation trust status. Monitor was told: "Our SMR is currently 101: we do not have a problem with mortality."²¹

The following day the Department of Health held a meeting on foundation trusts. A note of the meeting retained by West Midlands SHA stated: "Ministers do not want any slow down of FT approvals, a slow down would be seen as the new administration going slow on NHS reform."²² Later, as the Mid Staffs scandal unfolded in 2009

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April 2009

Trust calls in

a team from

Royal College



February 2008

Mid Staffordshire is granted foundation status by Monitor. Ben Bradshaw, a health minister at the time, told the Francis inquiry in September 2011 that this was "already a disaster" (*BM*/ 2011;343:d5744).

March 2009

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Healthcare Commission finds "appalling" standards of care at Mid Staffordshire. Management had "significantly" reduced staff in a bid to save money in its drive to become a foundation trust, which resulted in higher than normal death rates in the emergency department, with an increasing trend from 2005 to early 2007. Death rates for diabetes, epilepsy or convulsion, and repair of abdominal aortic aneurysm were also significantly high (*BM*/ 2009;338:b1141). Figures leaked later indicated that there had been between 400 and 1200 excess deaths at the trust's Stafford Hospital between 2005 and 2008 (*BM*/ 2011;342:d2900).

On the same day, the *BMJ* publishes a version of a report by the University of Birmingham, which concluded that the Dr Foster mortality figures were not fit for purpose (*BMJ* 2009;338:b780).



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of Surgeons. This time the college found that the surgery service was "inadequate, unsafe, and, at times, dangerous." Gall bladder surgery was found to have a death rate 10-15 times as high as expected. Report was not made public till March 2011, as part of the public inquiry (*BMJ* 2011;342:d1581). an email from John Holden, deputy director of NHS operations at the time, to Warren Brown, head of the Department of Health's foundation trust team, relayed how he and a colleague had done "a reasonable job of explaining to Ben [Bradshaw, a health minister] some of the context for the Mid Staffs decision (momentum of pipeline in a relatively weak wave of applicants, etc) and the process which led to its receiving SOS support.

"Despite this, Ben feels the concerns

expressed in the supporting paperwork (especially the assessment template, which describes the application as "difficult to support") were not adequately reflected in the submission to Ministers."²³

A further Monitor board meeting was held in January 2008. It was told: "the Trust received a 127 mortality rate for 2005/6 from Dr Foster. This has reduced to c101 between May and August 2007/08 as a result of significant improvements to coding for co-morbidities."

This claim later became of interest to the Department of Health. In an email on 9 March 2009 John Guest, a member of the department's foundation trust team, wrote to Monitor asking urgently among other things: "if you could advise on the source of the c101 figures as colleagues in the DH Medical Directorate cannot reconcile it to any of the numbers we have." The response from Monitor: "The figure of 101 was based on screen prints from Dr Foster's real time monitoring for the trust. This covered the period May to August 2007."²⁴ The HSMR for May and August 2007 was in fact 108.7²⁵

Formal investigation

Just a month after Monitor formally awarded Mid Staffs foundation status in February 2008, the Healthcare Commission launched a formal investigation into the hospital's mortality rates. The hospital's chief executive issued a press release saying, "Following identification of our systems for monitoring mortality rates as a matter of concern, we carried out our own investigation, from which we concluded that this was due to problems in the recording and coding of information about patients."²⁶

During the 11 months between the publication of the Mid Staffs HSMR in the *Telegraph* in April 2007 and the March 2008 announcement of the

> Healthcare Commission inspection of Mid Staffs, the number of observed deaths at Mid Staffs exceeded expected deaths for all inpatient admissions by more than 200, according to the

Dr Foster website data.

But early in 2009, senior

Healthcare Commission

civil servants and politicians

began to grasp the severity of

the findings uncovered by the

On 19 May 2008 the chief executive and chairman of the Healthcare Commission met David Nicholson, now promoted from West Midlands SHA to become chief executive of the NHS. They described "an overwhelming response from local people on the questions of quality of care" at Mid Staffs. "David was clearly concerned about the investigation into Mid Staffordshire." Nicholson was noted to caution them that they should "remain alive to something which was simply lobbying . . . as opposed to widespread concern."²⁷ Nicholson later denied this account of the meeting.²⁸

On 23 May 2008, the Healthcare Commission sent a letter to the trust regarding "almost complete lack of effective clinical governance in A&E [accident and emergency]." The trust told Monitor that it was employing an accident and emergency "turnaround specialist" and had appointed management consultants PricewaterhouseCoopers (PwC) to advise it.²⁹

Heather Wood of the Healthcare Commission wrote to Yeates in July 2008 raising concerns "in the strongest possible terms" about the role of PwC, which she states is running "in effect a parallel investigation." She expresses alarm at "the potential for confusion and distraction for staff at all levels."³⁰

The theory persisted that coding, not the quality of care for patients, was to blame for high mortality rates at the trust.

In August, Edward Lavelle, regulatory operations director at Monitor, emailed the chair Bill Moyes: "Bill, Just to update main points coming out of the call with PwC this morning ... Mortality: high SMR (127) appears to be coding (25-30% due to wrong coding)." ³¹

Reality dawns

But early in 2009, senior civil servants and politicians began to grasp the severity of the findings uncovered by the Healthcare Commission. It sent Whitehall into action mode as officials began to anticipate the fall-out from the impending report.³² There was also a dawning realisation that key staff at Mid Staffs and the SHA had moved to and from government bodies.

On 26 February, Nigel Fisher, head of the foundation trusts applications team at the Department of Health, emailed colleagues about the lines to take on Mid Staffs. He wrote: "Depending how far people want to dig, do we need a line on the fact that our assessment director is now their FD [finance director, Mike Gill, who moved from the health department's foundation trust assessment director to deputy chief executive and finance director of Mid Staffs trust in 2008] and that the CEO of the SHA that 'should have' spotted this is now the CEO of the CQC [Cynthia Bower of the Care Quality Commission]. Small world."³³

After the chair and chief executive of the trust stepped down on 3 March 2009, Fisher sent a further email to colleagues with the subject line: "Mid staffs lines to take etc." It posed a series of anticipated questions and suggested answers.

July 2009

The health secretary, Andy Burnham, sets up the first Francis inquiry into care provided by Mid Staffordshire Foundation NHS Trust

November 2009

Dr Foster Intelligence publishes its Good Hospital Guide, based on 2008-9 data, rating Mid Staffordshire among the highest performing hospitals in England, with the best improvement in hospital standardised mortality ratio

over the previous three years of any hospital. The improvement turns out to be largely based on coding changes that flattered the trust's

mortality figures.



February 2010

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An independent inquiry, chaired by Robert Francis QC (the Francis report), found that

appalling failures in patient safety and care were caused by inadequate training of staff, staff cutbacks, and overemphasis on government targets by the trust's senior management. Francis said that senior managers had ignored concerns raised by many staff (*BM*) 2010;340:c1137).



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March 2010

Mid Staffordshire is granted limited registration by the Care Quality Commission (CQC) under the new tougher system for regulating standards in the NHS. The commission found that the trust had not complied with six of the 16 essential standards of safety and quality. There was still a deficit in nursing staff of 11% at the end of January 2010 (*BMJ* 2010;340:c1608).



October 2011

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CQC issues formal warning to Stafford Hospital that staff shortages could still be endangering the safety and welfare of patients in the emergency department (*BM*) 2011;343:d6562).



Among these:

"Q: Why didn't you [or the SHA or others in the chain] pick up the clinical failings/concerns being expressed by clinicians?

A: During the period of SHA and DH assessment (ie up to SoS [secretary of state] support) the first Dr Foster report had only just been published, April 2007 ... At this time, the issue was thought to be largely one of clinical codings. It was only after further Dr Foster reports were published, from July 2007, focusing on specific patient groups was it recognised (including by HCC) that here was potentially greater cause for concern. Even so the HCC did not launch its investigation until March 2008.³³⁴

On 10 March 2009 the health secretary briefed the Cabinet on Mid Staffs, eight days before the Healthcare Commission published the results of its year long investigation that reported "appalling" care at the trust.³⁵

The Healthcare Commission also cleared the SHA of any knowledge of problems before April 2007. "The SHA was not aware of any concerns regarding the quality of services provided by the trust before Dr Foster Intelligence published its Hospital Guide [with HSMRs] in April 2007."³⁶

Where are we now?

At the latest inquiry the West Midlands SHA said: "Sir, we underline, as you're aware, that the SHA prior to the HCC investigation was not aware of the existence of disease-specific mortality alerts and had never seen any such alerts with either this or any other trust." ³⁷

Cynthia Bower, the former head of the West Midlands SHA, told the inquiry that "There was no requirement by the Department of Health to take any action following the publication [of the April 2007 HSMRs]. To the best of my knowledge this was the fifth year of the publication of the Dr Foster report, and I know of no SHA producing a comprehensive response or looking into HSMRs." $^{\rm ^{38}}$

She added: "I absolutely wished that the HSMR work had included an inspection and included a user voice, and I think that was the biggest single failing that we—the biggest single mistake that we made."

In an email to Bruce Keogh, medical director of the NHS, Barry McCormick, the former chief economist at the Department of Health, noted that the Healthcare Commission "only began analysing mortality in summer 2007—ten years after Bristol [heart surgery scandal], and the recognition that HSMR monitoring was desirable. This appears less than acceptable, and if so constitutes a form of analytical system failure." ³⁹ Questioned at the inquiry whether Mid Staffs would have been spotted sooner if that work had happened earlier, Keogh replied: "I guess that's fair comment."⁴⁰

But Keogh also expressed confidence that processes now in place would detect a case like Mid Staffs sooner. "The HSMR information and the question in the staff survey about whether the member of staff would be happy for someone in their family to be treated at the hospital are two examples of where the problems at the trust would have been identified by the current position." ⁴¹

But as the evidence unearthed by the inquiry shows, both of these signals were there. Yet the problems of Mid Staffs continued unchecked. It raises the question why patients today should share Keogh's optimism.

After problems were uncovered with children's heart surgery at Bristol two paediatric cardiac specialists (Hunter and de Leval) spent a month at the unit, identified problems such as low staffing and inadequate equipment, and made recommendations. Within a year the adjusted death rate for open heart surgery in children under 1 year fell from 29% to 8% and reduced further to 4% two years later.⁴²

A very different story emerged over the course of the Mid Staffs inquiry, where the problems at the trust continue. Last month, Monitor concluded

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that the trust was financially and clinically unsustainable.⁴³

The inquiry also heard frank testimony about the overbearing political pressures exerted on the NHS. Three of the most powerful figures in the NHS each described the reach of politics over patient safety.

Bill Moyes, former chair of Monitor, said: "The culture of the NHS, particularly the hospital sector, I would say, is not to embarrass the minister."⁴⁴ Baroness Barbara Young of the Care Quality Commission described "huge government pressure, because the government hated the idea that—that a regulator would criticise it by dint of criticising one of the hospitals or one of the services that it was responsible for."⁴⁵

It seems even the secretary of state for health is not seen to be immune, with Andy Burnham, who held the post during 2009-10, telling the public inquiry that: "The impression of us all was that we would just, you know, constantly do what was meant to be the thing that Number 10 wanted, or that we were all unthinkingly piling this stuff through. We weren't."⁴⁶

For the recommendations of the new Francis report to endure they will need to overcome the politics of the NHS. Scarcely believably, after all the damning coverage the trust has endured, a baby was reported to have had a dummy taped to its mouth last month at the hospital. Many relatives of those who suffered at Mid Staffs will pray that the report's recommendations are not similarly stifled.

Philip Carter, producer, Empirica Films

Brian Jarman, director, Dr Foster Unit, Faculty of Medicine, Imperial College, London **b.jarman@ic.ac.uk**

Competing interests: BJ gave evidence to the Mid Staffs public inquiry.

Provenance and peer review: Commissioned; not externally peer reviewed.

References are in the version on bmj.com. Cite this as: *BMJ* 2013;346:f726

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November 2011

Two army emergency doctors and four nurses are drafted in to plug staff shortages threatening safety at Stafford Hospital's emergency department, which has only four of its complement of six consultants. Thought to be the first time this has happened (*BMJ* 2011;343:d7566)



February 2012

Cynthia Bower resigns from her post as CQC chief executive after a damning report from the Department of Health on the failure of the commission. She was previously chief executive of NHS West Midlands, the strategic health authority responsible for Stafford Hospital when the scandal emerged (*BMJ* 2012;344:e1396).

October 2012 A coalition of 150 charities publishes Not the Francis Report, calling for urgent action to prevent another scandal like that at Mid Staffordshire (*BM*/ 2012;345:e6956).



February 2013 Francis publishes the report of his public inquiry into the events at Stafford Hospital.