

[REDACTED]

---

From: [REDACTED]  
Sent: [REDACTED]  
To: [REDACTED]  
Cc: [REDACTED]  
Subject: [REDACTED]  
Attachments: [REDACTED]

Importance: [REDACTED]

From: [REDACTED]  
Sent: 06 August 2015 15:19  
To: [REDACTED]  
Cc: [REDACTED]  
Subject: Action: Statistical note on mortality associated with weekend hospitalisation  
Importance: High

INTERNAL EMAIL IN DH

[REDACTED]

Following discussions between analytical colleagues here and in NHS England, I wanted to make sure you are sighted on what we are going to do about releasing further information about the basis for the 6,000 excess deaths figure. [REDACTED] has very helpfully prepared the attached note. We will publish this on the DH website, at: [https://www.gov.uk/government/publications?keywords=&publication\\_filter\\_option=research-and-analysis&topics%5B%5D=all&departments%5B%5D=department-of-health&official\\_document\\_status=all&world\\_locations%5B%5D=all&from\\_date=&to\\_date](https://www.gov.uk/government/publications?keywords=&publication_filter_option=research-and-analysis&topics%5B%5D=all&departments%5B%5D=department-of-health&official_document_status=all&world_locations%5B%5D=all&from_date=&to_date)

The leading text on the website will be:

## Research and analysis

### Higher risk of death associated with weekend hospitalization

From: Department of Health

First published: [Digital Team insert date]

Applies to: England

The approach taken to estimate the number of excess deaths associated with weekend admissions to hospital.

## Document

### Higher risk of death associated with weekend hospitalization

PDF [doc size and no.of pages inserted by DH Digital]

## Detail

This information is intended to help clarify the following statement in Health Secretary Jeremy Hunt's speech Making healthcare more human-centred and not system-centred: "Around 6,000 people lose their lives every year because we do not have a proper 7 day service in hospitals." We have decided, in discussion with NHS England, to publish this information following representations made by the UK Statistics Authority and Full Fact about the source of the number.

Published: [insert date]

From: Department of Health

Our Press Office will want lines to take on the note and related issues: I am working with them on these on the basis of the attached draft.

If you have any concerns about this, please could you let me know urgently.

[REDACTED]

REDACTED UNDER  
SECTION 35

Many thanks.

[REDACTED]



Department  
of Health

[REDACTED]  
[REDACTED]  
Department of Health

[REDACTED] Richmond House, 79 Whitehall, SW1A 2NS

E: [REDACTED] @dh.gsi.gov.uk T: 020 7210 [REDACTED]

Blackberry: [REDACTED]

Follow us on Twitter @DHgovuk

---

This e-mail and any files transmitted with it are confidential. If you are not the intended recipient, any reading, printing, storage, disclosure, copying or any other action taken in respect of this e-mail is prohibited and may be unlawful. If you are not the intended recipient, please notify the sender immediately by using the reply function and then permanently delete what you have received.

---

Incoming and outgoing e-mail messages are routinely monitored for compliance with the Department of Health's policy on the use of electronic communications. For more information on the Department of Health's e-mail policy click here <http://www.dh.gov.uk/terms>

---

## Higher risk of death associated with weekend hospitalisation

### Summary

The note sets out the approach taken to estimate the number of excess deaths associated with weekend admissions to hospital. The calculations are derived from the paper by Freemantle, Richardson, Woods, Ray, Khosla, Shahian, Roche, Stephens, Keogh and Pagano (2012).

### Derivation

Freemantle *et al* analysed all admissions to the English National Health Service (NHS) during the financial year 2009/10, following up all patients for 30 days after admission and accounting for risk of death associated with diagnosis, co-morbidities, admission history, age, sex, ethnicity, deprivation, seasonality, hospital trust and day of admission

The following table is derived from figure 3 of that paper. It shows the mortality risk ratio for admission on each day of the week compared with admission on Wednesday, having adjusted for other factors.

	<i>Risk ratio</i>	<i>Lower 95% CI</i>	<i>Upper 95% CI</i>
<i>Sunday</i>	1.16	1.14	1.18
<i>Monday</i>	1.02	1.01	1.04
<i>Tuesday</i>	1.00	0.99	1.02
<i>Wednesday</i>			
<i>Thursday</i>	1.00	0.98	1.01
<i>Friday</i>	1.00	0.98	1.02
<i>Saturday</i>	1.11	1.09	1.13

There were 199,993 in-hospital deaths within 30 days after admission to hospital in 2009/10. The breakdown by day of week of admission is given in the table below.

	<i>In-hospital deaths</i>	<i>Deaths if risk was the same as Wednesday</i>	<i>Difference</i>
<i>Sunday</i>	24,175	20,841	3,334
<i>Monday</i>	31,373		
<i>Tuesday</i>	30,579		
<i>Wednesday</i>	29,898		
<i>Thursday</i>	29,657		
<i>Friday</i>	29,988		
<i>Saturday</i>	24,323	21,913	2,410
<i>TOTAL</i>	199,993		

The estimated excess in-hospital deaths associated with admission on Saturday or Sunday compared with Wednesday is 5,745. The 95% confidence interval for this is [4,977, 6,486].

### References

Weekend hospitalization and additional risk of death: An analysis of inpatient data; Freemantle N, Richardson M, Wood J, Ray D, Khosla S, Shahian D, Roche WR, Stephens I, Keogh B, Pagano D; Journal of the Royal Society of Medicine; 2012

