

Message

---

**From:** Vallance, Patrick (GO-Science) [P.Vallance1@go-science.gov.uk]  
**Sent:** 17/04/2020 13:30:06  
**To:** Graham Medley [Graham.Medley@**I&S**]  
**CC:** Government Chief Scientific Adviser (GO-Science) [GCSA@go-science.gov.uk]  
**Subject:** RE: OFFICIAL: Hospital metrics

Dear Graham

Thanks for sharing that. I think that is what we have been driving at in SAGE and I will reinforce again with the accountable departments that this is a very very key area that they need to get on top of.

Patrick

---

**From:** Graham Medley <Graham.Medley@**I&S**>  
**Sent:** 17 April 2020 12:56  
**To:** Vallance, Patrick (GO-Science) <P.Vallance1@go-science.gov.uk>  
**Subject:** Fwd: OFFICIAL: Hospital metrics

Dear Patrick

This has just been sent to me by Tom Finnie at PHE. It is "embargoed" but I did not feel that I could see this and not share with you. It shows deaths by date of registration (so, not date of death) for deaths recorded from home, care home and hospital. The deaths at home and in care homes are continuing to increase, whilst deaths in hospital are plateauing. There is some caution involved in interpretation, if, for example, the delays between death and registration are different for hospitals and care homes.

However, there are two conclusions that are relatively robust I think. First, is that the number of deaths in hospital is <50% of all deaths. Second, that deaths at home and in care homes are not plateauing. The plateauing in hospitals might be partly explained by changes in admission practice.

Nonetheless, I do think that the community transmission does have  $R < 1$ . Consequently, my reading of the situation is that we have wide-spread on-going transmission in the health and social care systems. Hospital and community-health and social care appear to be driving transmission, and potentially at an increasing rate. In effect, this is the opposite of shielding - vulnerable are being preferentially infected.

The other consequence is that the current social distancing measures are the wrong priority. Removing infection and keeping it out of the health and social care is now more critical in terms of reducing deaths.

Graham

**Graham Medley**

*Professor of Infectious Disease Modelling*

*Director of CMMID*

Dept of Global Health and Development

London School of Hygiene and Tropical Medicine

**Irrelevant & Sensitive**

Begin forwarded message:

**From:** Name Redacted @phe.gov.uk  
**Subject:** RE: OFFICIAL: Hospital metrics  
**Date:** 17 April 2020 at 10:53:41 BST  
**To:** Graham Medley <Graham.Medley@I&S>

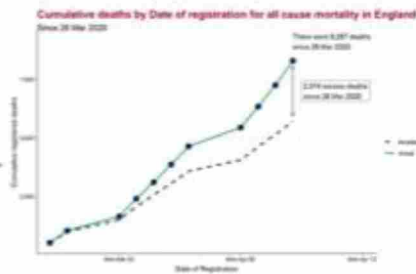
**OFFICIAL**

Hi Graham,  
Will do.

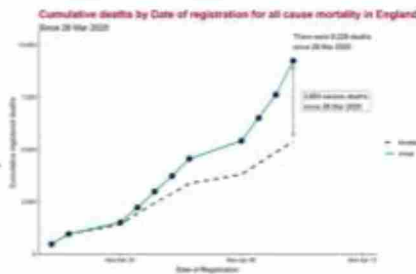
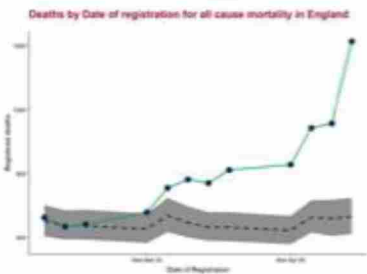
I've just seen an early, embargoed (copied here so that you can see what I'm seeing, still subject to checking etc.), all-cause mortality analysis from the health improvement team in PHE and I am concerned with what we are seeing in the place of death part of the data. There is some evidence of plateauing in the secondary care deaths (as per the forecasts) but far from that in the community deaths. NB. These are by date of report so it could be some weird system effect but still at least worth being aware of.

Name Redacted

**Home deaths**



**Care home (nursing or residential)**



**Hospital (acute or community, not psychiatric)**



Name Redacted

Principal Modeller  
Emergency Response Department Science and Technology (ERD S&T)  
Health Protection Directorate, Public Health England,  
Porton Down, Salisbury, Wiltshire, SP4 0JG

Name Redacted @phe.gov.uk

Tel: I&S

[www.gov.uk/phe](http://www.gov.uk/phe)

---

**From:** Graham Medley [<mailto:Graham.Medley@> Irrelevant & Sensitive]

**Sent:** 17 April 2020 10:21

**To:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>

**Cc:** Name Redacted @phe.gov.uk

**Subject:** Re: OFFICIAL: Hospital metrics

Hi Name

Please do bring this up on Monday. You are right that we are assuming non-bias (or at least not being able to correct for the bias) when sampling different subpopulations / outbreaks / networks. Can you write 1/2 page for SPI-M to read? Its a good way of looking at the problems and would be food for thought / inspiration for the group.

Thanks

Graham

**Graham Medley**

*Professor of Infectious Disease Modelling*

*Director of CMMID*

Dept of Global Health and Development

London School of Hygiene and Tropical Medicine

Irrelevant & Sensitive

On 17 Apr 2020, at 09:15, SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)> wrote:

Hi Name Redacted

Apologies for not getting back to you sooner but I was off the last couple of days as my partner is unwell.

I have asked internally and there is currently no suitable data source being fed into NHSX that fits your requirement (am chasing to see if I can get a non-NHSX source). Can I suggest that you raise the requirement at the next SPI-M meeting as I believe this will allow us to get the data added to the data stream.

All the best,

NR

Operational Research Analyst  
Global and Public Health Analytical Branch,

INQ000260625\_0003

Department of Health and Social Care,  
6<sup>th</sup> Floor - North, 39 Victoria Street, London SW1H 0EU  
E: **NR** [@dhsc.gov.uk](mailto:NR@dhsc.gov.uk) T: **I&S**  
[Follow us on Twitter @DHSCgovuk](#)

---

**From:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>  
**Sent:** 14 April 2020 14:52  
**To:** **Name Redacted** [@phe.gov.uk](mailto:NameRedacted@phe.gov.uk)>  
**Cc:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>  
**Subject:** RE: OFFICIAL: Hospital metrics

Hi **Name Redacted**

I see what you mean but won't that be cofounded by the change in patient behaviour due to the pandemic? Assume you could make an assumption based on relative changes between months and assume that patient behaviour during the pandemic was constant....

Am looking into the availability of a suitable dataset so will get back to you when I find out anything.

All the best,

**NR**

Operational Research Analyst  
Global and Public Health Analytical Branch,  
Department of Health and Social Care,  
6<sup>th</sup> Floor - North, 39 Victoria Street, London SW1H 0EU  
E: **NR** [@dhsc.gov.uk](mailto:NR@dhsc.gov.uk) T: **Irrelevant & Sensitive**  
[Follow us on Twitter @DHSCgovuk](#)

---

**From:** **Name Redacted** [@phe.gov.uk](mailto:NameRedacted@phe.gov.uk)>  
**Sent:** 14 April 2020 14:40  
**To:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>  
**Subject:** RE: OFFICIAL: Hospital metrics

**OFFICIAL**

Hi **NR**

Yes, The year bit is because we just need to be careful that we don't fall into a seasonality trap (I would be amazed if there were wasn't a difference in the number and type and demography of referrals made in January and those in May in a typical year). To do this really rigorously we may possibly want to get an average and variance by day/week across a few non-pandemic years and compare that with what we have seen this year in the categories discussed below.

**Name Redacted**

---

**Name Redacted**

Principal Modeller  
Emergency Response Department Science and Technology (ERD S&T)  
Health Protection Directorate, Public Health England,  
Porton Down, Salisbury, Wiltshire, SP4 0JG

**Name Redacted**

Tel: **I&S**

[www.gov.uk/phe](http://www.gov.uk/phe)

---

**From:** SPI-M [<mailto:SPI-M@dhsc.gov.uk>]

**Sent:** 14 April 2020 14:28

**To:** **Name Redacted** [[@phe.gov.uk](mailto:Name Redacted@phe.gov.uk)]

**Cc:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>

**Subject:** RE: OFFICIAL: Hospital metrics

Hi **Name Redacted**

I understand now, I think I was thrown by your request for a year's worth of data – surely you only need data from during the pandemic?

Will see what I can find.

All the best,

**NR**

Operational Research Analyst  
Global and Public Health Analytical Branch,  
Department of Health and Social Care,  
6<sup>th</sup> Floor - North, 39 Victoria Street, London SW1H 0EU  
E: **NR** [[@dhsc.gov.uk](mailto:NR@dhsc.gov.uk)] **I&S**  
[Follow us on Twitter @DHSCgovuk](#)

---

**From:** **Name Redacted**

**Sent:** 14 April 2020 14:10

**To:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>

**Subject:** RE: OFFICIAL: Hospital metrics

**OFFICIAL**

Hi **NR**

What I'm looking for is signal of changes in primary care referral behaviour in response to the pandemic. I would like to be sure that the drops in secondary care admissions / bed usage etc. are due to reduced transmission in the community rather than a diverting of portions of the population. (I'm also interested in what care homes are doing with their referral behaviour but believe that this might be harder to get data for).

The epidemic as a whole is made up of lots of little outbreaks. Our measures assume that we are sampling from all of these in an unbiased way, or at least a consistently biased way. (The whole nosocomial discussion is based around fact

that we are possibly oversampling from the pool of people in/around hospitals and then thinking that the epidemic is bigger than it really is.) I'm looking for data to refute the opposite, that compared to before, or early on in, the pandemic, we are under-sampling certain groups in the community (e.g. upper age categories, people with certain comorbidities or care-home residents). The danger is that if we miss these types of group in the figures that we are using to perform the modelling, then they will only reappear much later when we see the all-cause mortality data.

**Name Redacted**

Principal Modeller  
Emergency Response Department Science and Technology (ERD S&T)  
Health Protection Directorate, Public Health England,  
Porton Down, Salisbury, Wiltshire, SP4 0JG

**Name Redacted**

Tel: **I&S**  
[www.gov.uk/phe](http://www.gov.uk/phe)

---

**From:** SPI-M [<mailto:SPI-M@dhsc.gov.uk>]  
**Sent:** 14 April 2020 11:57  
**To:** **Name Redacted** <[NameRedacted@phe.gov.uk](mailto:NameRedacted@phe.gov.uk)>  
**Cc:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>  
**Subject:** RE: OFFICIAL: Hospital metrics

Hi **Name Redacted**

Happy to look into this, but it would be useful to get a better understanding of what effects you are interested in exploring. Could you provide a bit more detail as I am unsure of what this data would tell us?

All the best,

**NR**

Operational Research Analyst  
Global and Public Health Analytical Branch,  
Department of Health and Social Care,  
6<sup>th</sup> Floor - North, 39 Victoria Street, London SW1H 0EU  
E: **NR** <[NR@dhsc.gov.uk](mailto:NR@dhsc.gov.uk)> T: **I&S**  
[Follow us on Twitter @DHSCgovuk](#)

---

**From:** **Name Redacted**  
**Sent:** 14 April 2020 11:19  
**To:** SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)>  
**Subject:** OFFICIAL: Hospital metrics

**OFFICIAL**

Hi SPI-M secretariat,

As we've seen in the last round of short term forecasts the measures of COVID-19 activity in hospitals appear to be dropping. This is a good thing. However, before we get too excited it would seem prudent to explore the possibility of effects of changes in referral practice and healthcare seeing behaviour.

At first pass, would it be possible to get hold of the choose and book (e-referrals) figures by age, sex, referral type (ICD10 or however it is recorded) and NHS region for the last year?

I fully expect the absolute numbers to have dropped but envisage a fairly simple analysis of the change in demographics, in particular for respiratory complaints, to either re-enforce the forecasts or alert us to alternative interpretations. At a deeper level does the department have or know of timely datasets that report on primary care consultations and outcomes?

Many thanks and apologies if this already being done.

**Name Redacted**

Principal Modeller  
Emergency Response Department Science and Technology (ERD S&T)  
Health Protection Directorate, Public Health England,  
Porton Down, Salisbury, Wiltshire, SP4 0JG

**Name Redacted**

Tel: **I&S**

[www.gov.uk/phe](http://www.gov.uk/phe)

\*\*\*\*\*  
The information contained in the EMail and any attachments is confidential and intended solely and for the attention and use of the named addressee(s). It may not be disclosed to any other person without the express authority of Public Health England, or the intended recipient, or both. If you are not the intended recipient, you must not disclose, copy, distribute or retain this message or any part of it. This footnote also confirms that this EMail has been swept for computer viruses by Symantec.Cloud, but please re-sweep any attachments before opening or saving. <http://www.gov.uk/PHE>

\*\*\*\*\*  
This e-mail and any attachments is intended only for the attention of the addressee(s). Its unauthorised use, disclosure, storage or copying is not permitted. If you are not the intended recipient, please destroy all copies and inform the sender by return e-mail. Any views expressed in this message are not necessarily those of the Department of Health and Social Care. Please note: Incoming and outgoing email messages are routinely monitored for compliance with our policy on the use of electronic communications.

\*\*\*\*\*  
The information contained in the EMail and any attachments is confidential and intended solely and for the attention and use of the named addressee(s). It may not be disclosed to any other person without the express authority of Public Health England, or the intended recipient, or both. If you are not the intended recipient, you must not disclose, copy, distribute or retain this message or any part of it. This footnote also confirms that this EMail has been swept for computer viruses by Symantec.Cloud, but please re-sweep any attachments before opening or saving. <http://www.gov.uk/PHE>

\*\*\*\*\*  
This e-mail and any attachments is intended only for the attention of the addressee(s). Its unauthorised use, disclosure, storage or copying is not permitted. If you are not the intended recipient, please destroy all copies and inform the sender by return e-mail. Any views expressed in this message are not necessarily those of the Department of Health and

Social Care. Please note: Incoming and outgoing email messages are routinely monitored for compliance with our policy on the use of electronic communications.

\*\*\*\*\*

The information contained in the EMail and any attachments is confidential and intended solely and for the attention and use of the named addressee(s). It may not be disclosed to any other person without the express authority of Public Health England, or the intended recipient, or both. If you are not the intended recipient, you must not disclose, copy, distribute or retain this message or any part of it. This footnote also confirms that this EMail has been swept for computer viruses by Symantec.Cloud, but please re-sweep any attachments before opening or saving. <http://www.gov.uk/PHE>

\*\*\*\*\*

This e-mail and any attachments is intended only for the attention of the addressee(s). Its unauthorised use, disclosure, storage or copying is not permitted. If you are not the intended recipient, please destroy all copies and inform the sender by return e-mail. Any views expressed in this message are not necessarily those of the Department of Health and Social Care. Please note: Incoming and outgoing email messages are routinely monitored for compliance with our policy on the use of electronic communications.

This e-mail and any attachments is intended only for the attention of the addressee(s). Its unauthorised use, disclosure, storage or copying is not permitted. If you are not the intended recipient, please destroy all copies and inform the sender by return e-mail. Any views expressed in this message are not necessarily those of the Department of Health and Social Care. Please note: Incoming and outgoing email messages are routinely monitored for compliance with our policy on the use of electronic communications.

\*\*\*\*\*

The information contained in the EMail and any attachments is confidential and intended solely and for the attention and use of the named addressee(s). It may not be disclosed to any other person without the express authority of Public Health England, or the intended recipient, or both. If you are not the intended recipient, you must not disclose, copy, distribute or retain this message or any part of it. This footnote also confirms that this EMail has been swept for computer viruses by Symantec.Cloud, but please re-sweep any attachments before opening or saving. <http://www.gov.uk/PHE>

\*\*\*\*\*