



How successful is the NHS in the different regions at delivering on referral to treatment waiting time targets for cancer?



# How successful is the NHS at delivering the targets in general?

Is cancer = cancer?

- Are there differences between cancer types for waiting times?
- Should there be?



# How successful is the NHS at delivering the targets in general?

## Targets:

- A patient should start treatment in 62 days after initial referral..." (NHS source)
- Alternatives:
  - Different targets for different cancer types? (Types by mortality, effectiveness of treatment)
  - Different targets for different risk groups? (Recovery rates for different age groups)



# How successful is the NHS at delivering the targets in general?

How should we evaluate if the targets are met?

- By the percentage of patients waiting longer than the target? (NHS Source)
- Alternatives?
  - By counting the average number of days above the target.



# How successful is the NHS in the different regions at delivering on referral to treatment waiting time targets for cancer?

## National Statistics:

- Percentage over target (62 days): 25%
- Average total days over target: 52 days.

## By cancer type:

- ...
- ...
- ...

	Region	Product	Subsidiary	Store s	Sales	Inventory	Returns
322	United States	Slipper	New York	24	\$252,758	\$1,069,30	\$6,603
323	United States	Sport Sho	New York	23	\$22,190	\$141,140	\$847
324	United States	Women's C	New York	10	\$178,842	\$438,055	\$4,236
325	United States	Women's D	New York	17	\$288,972	\$1,129,09	\$10,257
326	United States	Boot	Seattle	15	\$70,750	\$226,678	\$9,089
327	United States	Men's Cas	Seattle	6	\$66,842	\$112,688	\$3,385
328	United States	Men's Dre	Seattle	10	\$132,397	\$274,310	\$9,153
329	United States	Sandal	Seattle	10	\$6,596	\$18,758	\$181
330	United States	Slipper	Seattle	10	\$165,265	\$553,602	\$6,277
331	United States	Sport Sho	Seattle	29	\$80,408	\$108,266	\$1,021
332	United States	Women's C	Seattle	2	\$17,252	\$28,510	\$790
333	United States	Women's D	Seattle	21	\$130,406	\$392,307	\$4,037
334	Western Europe	Boot	Copenhagen	2	\$1,663	\$4,657	\$129
335	Western Europe	Men's Cas	Copenhagen	1	\$38,492	\$90,672	\$757
336	Western Europe	Men's Dre	Copenhagen	2	\$12,415	\$36,074	\$686
337	Western Europe	Slipper	Copenhagen	4	\$15,906	\$59,133	\$594
338	Western Europe	Sport Sho	Copenhagen	1	\$1,927	\$17,603	\$31
339	Western Europe	Sport Sho	Copenhagen	15	\$101,922	\$327,742	\$4,204

## Waiting times dataset

- Download
- Sources (NHS1, NHS2, ODS)
- Repository

The question is shared and readers can interact with it...

How does \_\_\_\_\_ compare to the UK in  
Meeting the NHS cancer referral targets?

How does the South East compare to the UK in meeting the NHS cancer referral targets?



“A patient should start treatment in 62 days after initial referral...”

- NHS source
- Discuss



Jane J.

How does South East compare to the UK in meeting **the NHS cancer referral targets?**

# How does the South East **compare** to the UK in

## Meeting the NHS cancer targets?



How should we evaluate if the targets are met?

- By the percentage of patients  
waiting longer than the target?

☐

- By counting the average number of days  
above the target.

☐

.. Suggest another measure

# How does the South East **compare** to the UK in

## Meeting the NHS cancer targets?



How should we evaluate if the targets are met?

- By the percentage of patients  
waiting longer than the target?



- By counting the average number of days  
above the target.



.. Suggest another measure

# How good is the NHS **in general** at meeting the cancer referral targets?

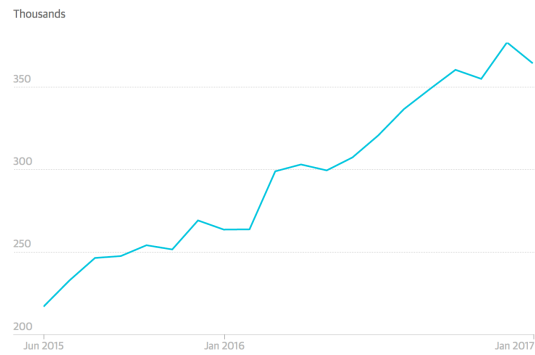
The NHS is...

- ☐ always on target
- ☐ often on target
- ☐ mostly on target
- ☐ somewhat target
- ☒ mostly above target
- ☐ often above target
- ☐ always above target

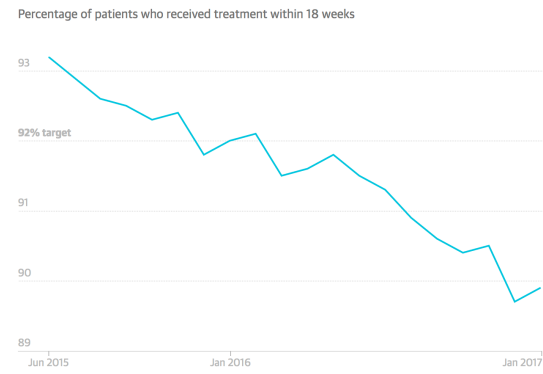
In fact, the NHS hasn't met the target in the last 11 years...

Trend over last years,  
per cancer type etc...

**The number of patients not receiving treatment within 18 weeks of referral has gone up by 100,000 since January 2016**



**The target of treating patients within 18 weeks of referral has not been met for 11 months**



# How does waiting times compare for the South East to London?

Are services in the South East..

☐ much better at delivering the targets

☒ better

☐ similar

☐ worse

☐ much worse

than services in London at delivering the targets?



# How does waiting times compare for the South West to the South East?

Are services in the South West..

☐ much better at delivering the targets

☐ better

☐ similar

☒ worse

☐ much worse

than services in the South East at delivering the targets?



Which factors do you think influence the ability of the NHS to deliver on the waiting time targets?

The number of G

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And how much do they contribute relatively?

*Distribute the bars according to the factors importance.*

The number of GPs



The number of nurses



The number of hospital beds



We've trained a model of waiting times according to your predictors. Here is what the optimal weights look like:

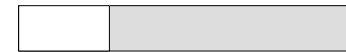
The number of GPs



The number of nurses



The number of hospital beds



According to your predictors this is how the map of waiting time targets would look like...

The South West has

- average number of GPs
- high number of nurses
- average number of hospital beds

According to your model the NHS would be below average on delivering on the waiting times targets in the South West.



# This is the true map of waiting time targets

Waiting times for the South West:

Percentage of patients waiting for treatment after the target: 25%

Your prediction: 50%



Why did you think the number of GPs would have only a weak impact on the ability to deliver on the targets?

Your guess

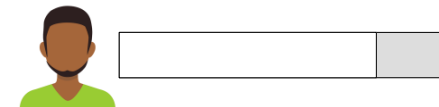
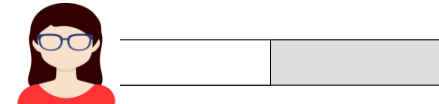
Model weight

Doctors can

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# Here are some other factors people deemed important:

Financial performance of the hospitals in the region.



How important do you think is this factor?



Why did you think the South West would perform worse than the South East delivering the NHS targets when in fact they are similar?



# Here are some other predictions around the NHS cancer referral targets:



*Similar to your prediction*

**The NHS needs more GPs in rural areas**

The NHS cannot achieve the targets for rural areas.

Given that GPs contribute an important factor in achieving the targets we need...



*Other opinions:*



**The NHS needs more funding**



**Hospitals need to improve their administration**



# Would you like to share your thoughts with the community?

**The NHS needs more GPs in rural areas but also better administration**

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**Predicting NHS targets:**

**Your model predictions**



*Other opinions:*



**The NHS needs more funding**



**Hospitals need to improve their administration**

Through interaction with the readers the initial question grows into a body of

- prior expectations,
- regional comparisons and opinions,
- alternative storylines...

These could then be combined into one final piece:



# How successful is the NHS in the different regions at delivering on referral to treatment waiting time targets for cancer?

## What are the targets:

... ..



**The NHS needs risk-specific targets**

...

## National statistics NHS

Percentage over target (62 days):  
25% ... Average total days over  
target: 52 days.



**The NHS did not achieve the targets  
in the last 11 years**

...

## Regional differences

...





# How successful is the NHS in the different regions at delivering on referral to treatment waiting time targets for cancer?

## Regional differences

... ..

## Reader Expectations

...



**The NHS in the South West is underfunded**

...