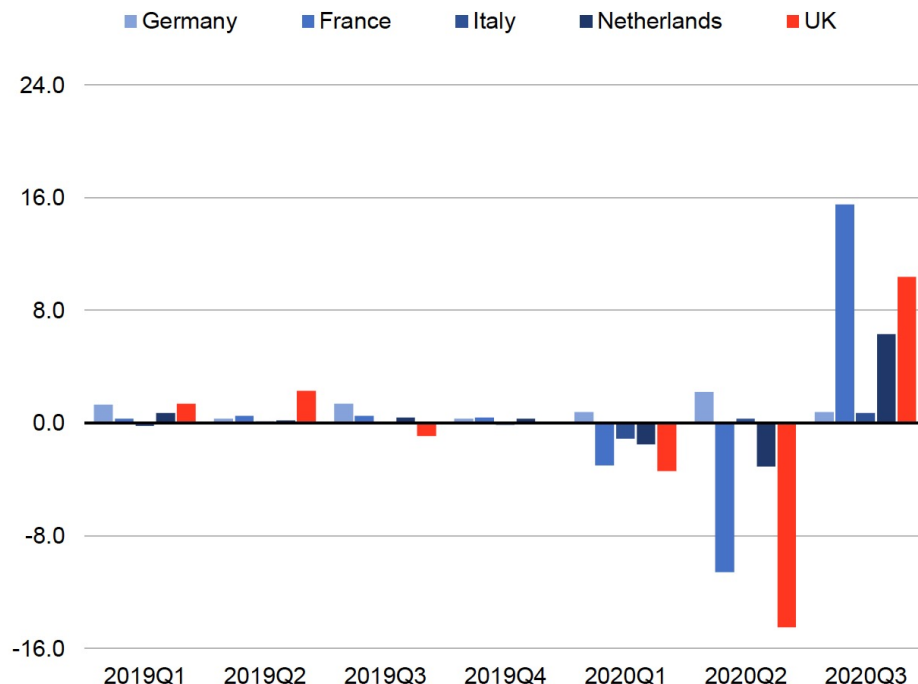


Productivity in UK healthcare during & after the pandemic

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Why was UK different in 2020?

Figure 1: Quarterly % change in GGFCE, volume terms, SA



UK: health services make up 37.5% of public spending, 10% of GDP

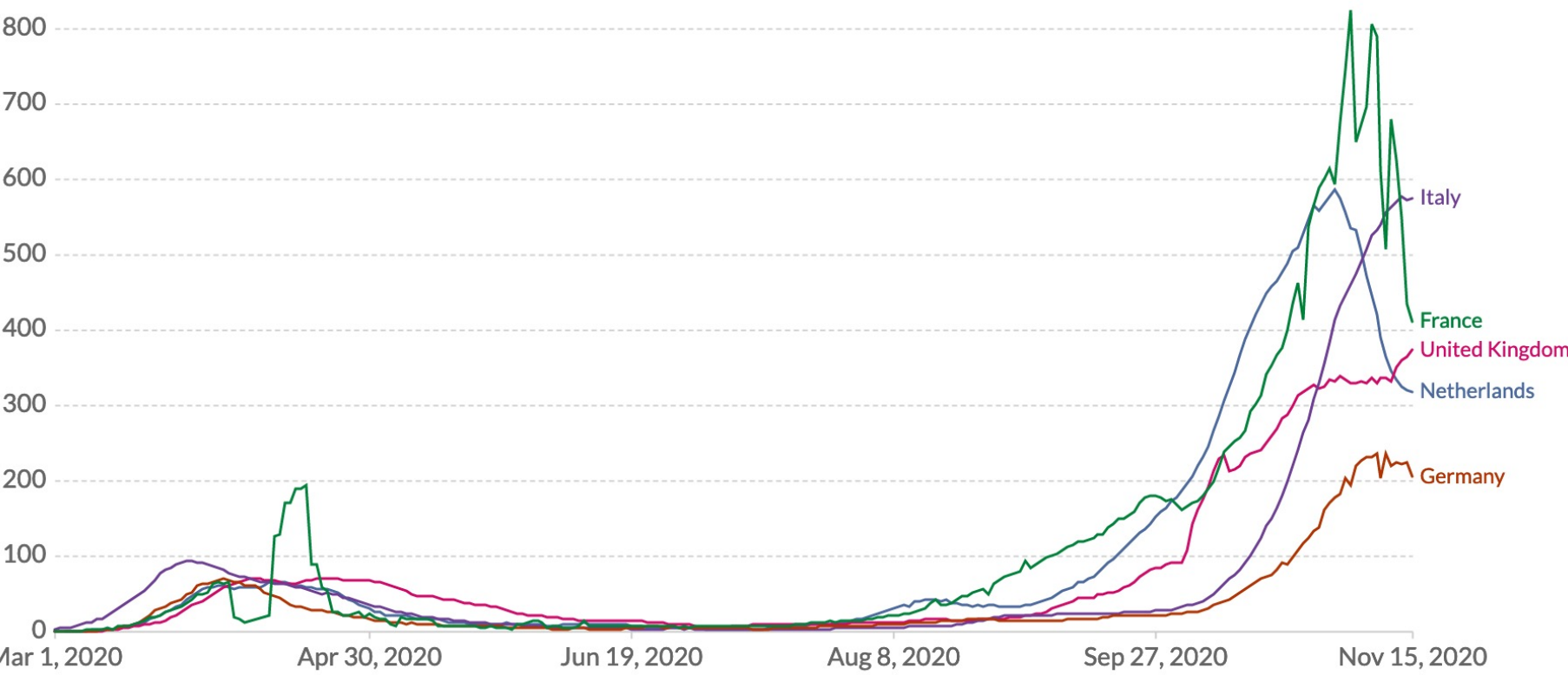
Source: <https://ec.europa.eu/eurostat/databrowser/view/teina031/default/table?lang=en>; ONS 22/12/20 Economic Accounts release for UK figures (KH2J);

<https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/datasets/unitedkingdomeconomicaccountsmainaggregates>

Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

LINEAR LOG



Source: Johns Hopkins University CSSE COVID-19 Data

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Jan 29, 2020 May 2, 2021

Evolution of health productivity measurement

- Outputs = Inputs
- 1993 SNA recommended direct output measures
- This led to paradoxical declines in measured productivity in UK in late 1990s
- Atkinson Review 2005: what difference did an activity make to health? Use direct output measures, carefully chosen & quality adjusted when possible
- 2008 SNA adopted Atkinson approach for public service productivity measures - but not for national accounts measures (as ESA 2010 did not follow SNA 2008)

Health care output measurement in UK today

- About 10% still measured using outputs=inputs convention
- Rest measured as 'quantity output': current period change in output is sum of change in level of separate activities weighted by their unit costs
- Potential issue 1: when unit cost decrease is due to technological change delivering better outcome
- Potential issue 2: when activity mix changes in-year

Weights in constructing health output

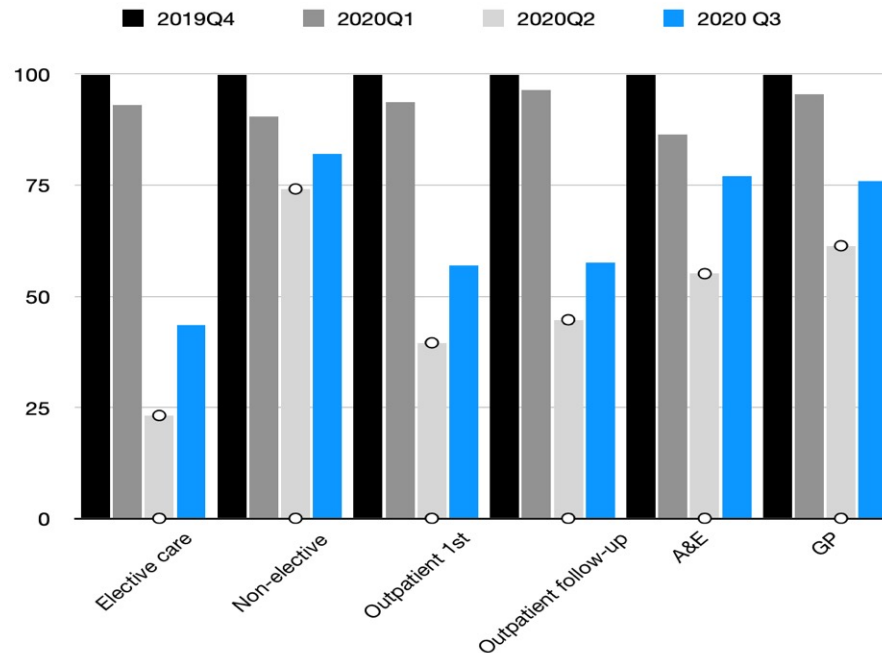
Table 1: Weights in health output

High level activity	Weight (%)
GP visits	21
Elective inpatient care	19
Non-elective inpatient care	18
Outpatients 1 st attendance	5
Outpatients follow-up attendance	8
Drugs	15
A&E	6
Critical care	3
Dental	5
Optical	1
NHS Direct	0.3
NHS Online	0.01

Source: ONS

Steep declines in some activities

Figure 2. Selected non-Covid-19 NHS activities, 2019Q4-2020Q3

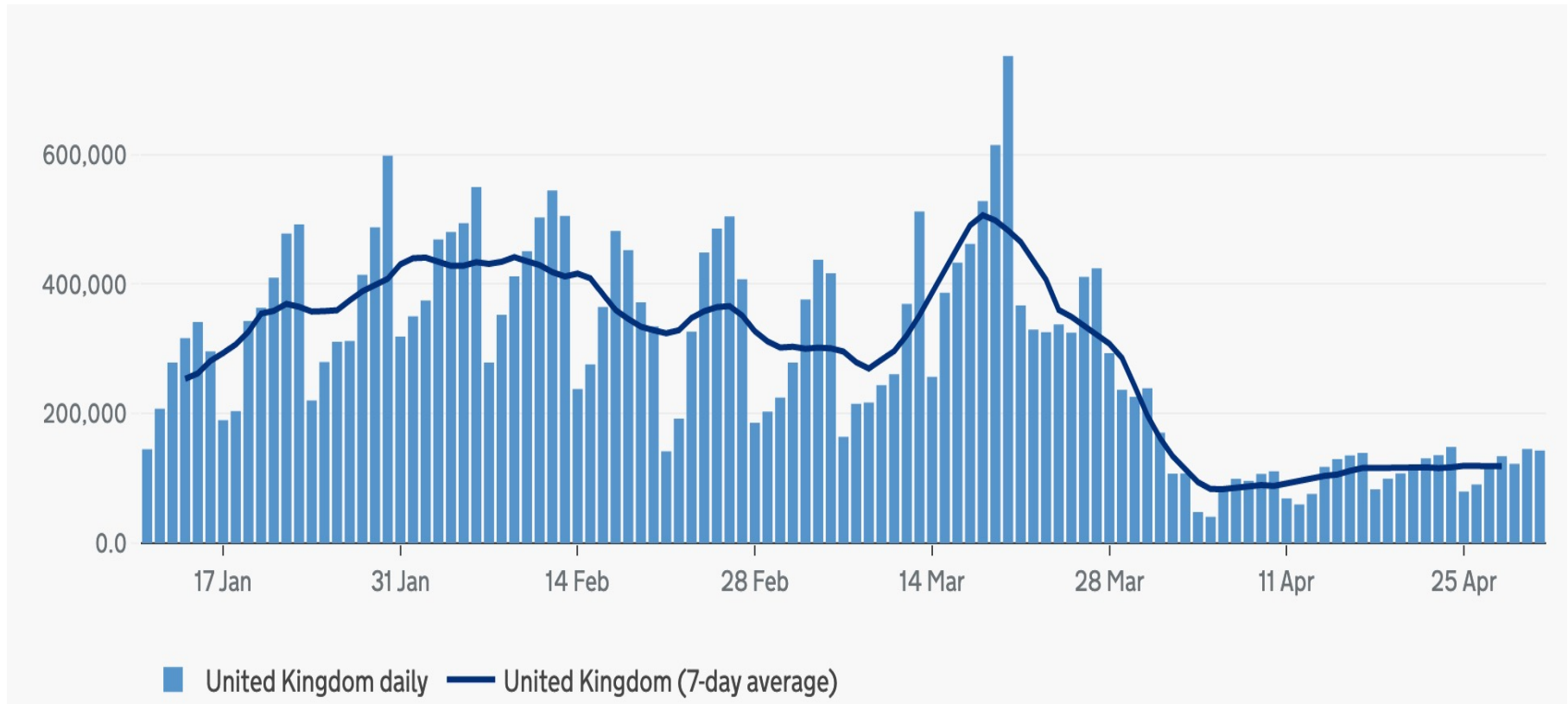


Source:

<https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/internationalcomparisonsofgdpduringthecoronavirusCovid-19pandemic/2021-02-01>

Plus new activities

1st vaccinations, daily, UK



Hospital pressures March-November

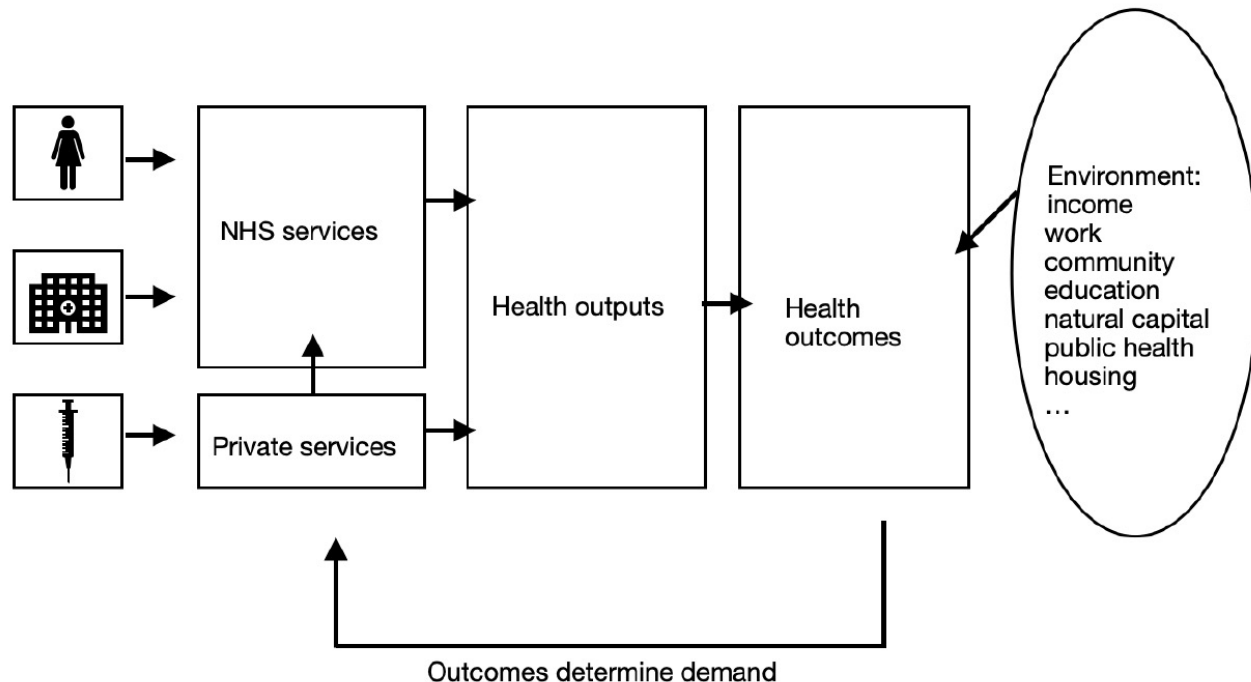
Aspect	Frequency
Operational changes	17
Leadership & governance	15
Demand changes & patient backlog	12
Staff (morale/availability)	11
Technology	8
Buildings & real estate	7
Novelty of disease	6
Lack of resources	6
Constant change	6
Other	12

Lasting impacts

- Staff
- Building use – infection control
- Technology
- Organisation
- Health system as infrastructure – peak loading, resilience
- Demand & patient backlog – health outcomes?

What measure matters: output or welfare?

Figure 5 Health Inputs, outputs and outcomes



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