

Statistical bulletin

# Public service productivity, quarterly, UK: January to March 2026

UK total public service productivity, inputs, and output, to provide a timely indicator of annual productivity estimates. These are official statistics in development.

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# 1 . Main points

- Total public service productivity (TPSP) increased by 0.7% in 2024 and 0.9% in 2025; TPSP has been upwardly revised following improvements to how we measure healthcare inputs.
- Annualised TPSP grew 0.9% in 2025, as output growth (1.7%) outpaced inputs growth (0.7%), though TPSP was 2.5% lower than the pre-coronavirus (COVID-19) pandemic 2019 level.
- Healthcare productivity increased by 1.1% in 2024 and 1.0% in 2025; it was 5.8% lower in 2025 than the pre-pandemic 2019 level.
- This release reintroduces quarterly breakdowns of TPSP and healthcare-specific measures, following a review of the sources and methods used to estimate costs associated with parts of healthcare provision and seasonal patterns across healthcare inputs.
- This release also introduces a rolling four-quarter annualised index for the first time, which allows users to see a longer-term view of productivity in-year.
- These estimates are official statistics in development and are subject to continuous improvement and revision as more timely data and new sources become available.

These are official statistics in development and are subject to revision. Use caution when comparing quarterly estimates in 2024 and 2025 (which are official statistics in development) with earlier annual estimates (which are accredited official statistics), as some sources, methods and the structure of inputs and output differ. Read more in [Section 9: Data sources and quality](#).

## 2 . About these estimates

This release reintroduces quarterly total public service productivity (TPSP) and healthcare productivity breakdowns. This follows a review of seasonal patterns across healthcare inputs and the costs associated with publicly funded healthcare delivered by the private sector, such as general practitioners (GPs) and dentists. The purpose of this review was:

- to improve alignment with principles of public service productivity
- to ensure the quarter-to-quarter movements seen across 2024 and 2025 provide a good signal of movements in productivity between consecutive quarters (quarter-on-quarter) and between each quarter and the same quarter a year earlier (quarter-on-year)

The review reduces differences with NHS England's [productivity growth estimates](#); go to [Section 4: Revisions to public service productivity estimates](#) for more detail on revisions.

## Comparing healthcare productivity estimates

Our estimates of healthcare productivity differ from NHS England's productivity growth estimates for valid reasons of coverage, sources and methods.

We cover a wider range of healthcare services across the whole UK, including spend on primary care services commissioned by Integrated Care Boards (ICBs), for example. The NHS England measure looks specifically at spend by NHS Secondary Care Trusts in England only.

We mainly use expenditure data drawn from the central government Online System for Central Accounting and Reporting (OSCAR), which is consistent with the National Accounts. NHS England uses more up-to-date internal data that are available to it.

We adhere to National Accounts methodology (for example, deflation, chain-linking aggregation, and seasonal adjustment processes). NHS England uses other approaches (including inflation adjustments and reconciling to published NHS trust accounts).

We noted some of these differences in our [Comparison between the recently published Office for National Statistics \(ONS\) quarterly public service productivity statistics and NHS England productivity statistics statement](#), published February 2025. Since then, we have introduced improvements to healthcare inputs in our [Public service productivity, quarterly, UK: April to June 2025 bulletin](#), published in November 2025, and in this bulletin. We have also made improvements to our estimates of healthcare output to reconcile the two approaches, as described in [Section 5 of our July 2025 release](#) and [Section 4 of our February 2026 release](#). Nevertheless, we do not recommend direct comparison of ONS and NHS England estimates because these are different measures that are produced for different purposes with different coverage, sources and methods.

## Data source improvements

We continue to work with the Department for Health and Social Care, NHS England and HM Treasury to explore options to improve data granularity in our source data and to further minimise differences in coverage and timeliness between our estimates of healthcare inputs and output, wherever possible. However, the nature of our calculations is likely to mean that our quarterly estimates will continue to be produced using these more aggregate spending data. These data are not as precise as the data used in our annual publication; this is one of the reasons for the large confidence intervals around our quarterly estimates, which should be interpreted with care.

Despite this, we believe that producing timely quarterly data is important as a best first estimate to guide policy conversations and inform the public on these topics. It also provides a platform for methodological debate and improvement. With continuous development, we are confident that these statistics can provide increasing value in the future. Furthermore, while confidence intervals based on historic variance between our quarterly and annual series are large, revisions since the Public Service Productivity Review are small (for more information, go to [Section 5: Confidence intervals](#)).

Our quarterly estimates are [official statistics in development](#). Therefore, annualised estimates for 2024 and 2025 remain provisional until we publish our [annual Public service productivity: total, UK article](#) (which are [accredited official statistics](#)). Methodological differences between the annual and quarterly estimates, and a description of the quarterly data, can be found in Section 13 of our [Sources and methods for public service productivity estimates methodology](#).

We are committed to improving these estimates continuously, and we welcome user feedback via [psp@ons.gov.uk](mailto:psp@ons.gov.uk).

## 3 . Annualised calendar year estimates

This section combines our [accredited annual estimates](#) from 1997 to 2023 with our annualised estimates for 2024 and 2025, which are [official statistics in development](#). We focus on the annualised calendar year trend to help users better understand underlying long-term productivity trends that are consistent with national accounting periods. The annualised estimates are based on a quarterly annualised growth rate (QAGR) approach, which produces "nowcasted" estimates for 2024 and 2025. Read more on this method in [Section 9: Data sources and quality](#).

# Annualised total public service productivity

Latest estimates continue to indicate that total public service productivity (TPSP) has grown for the fifth consecutive year in 2025, following the large fall in productivity in 2020 during the coronavirus (COVID-19) pandemic.

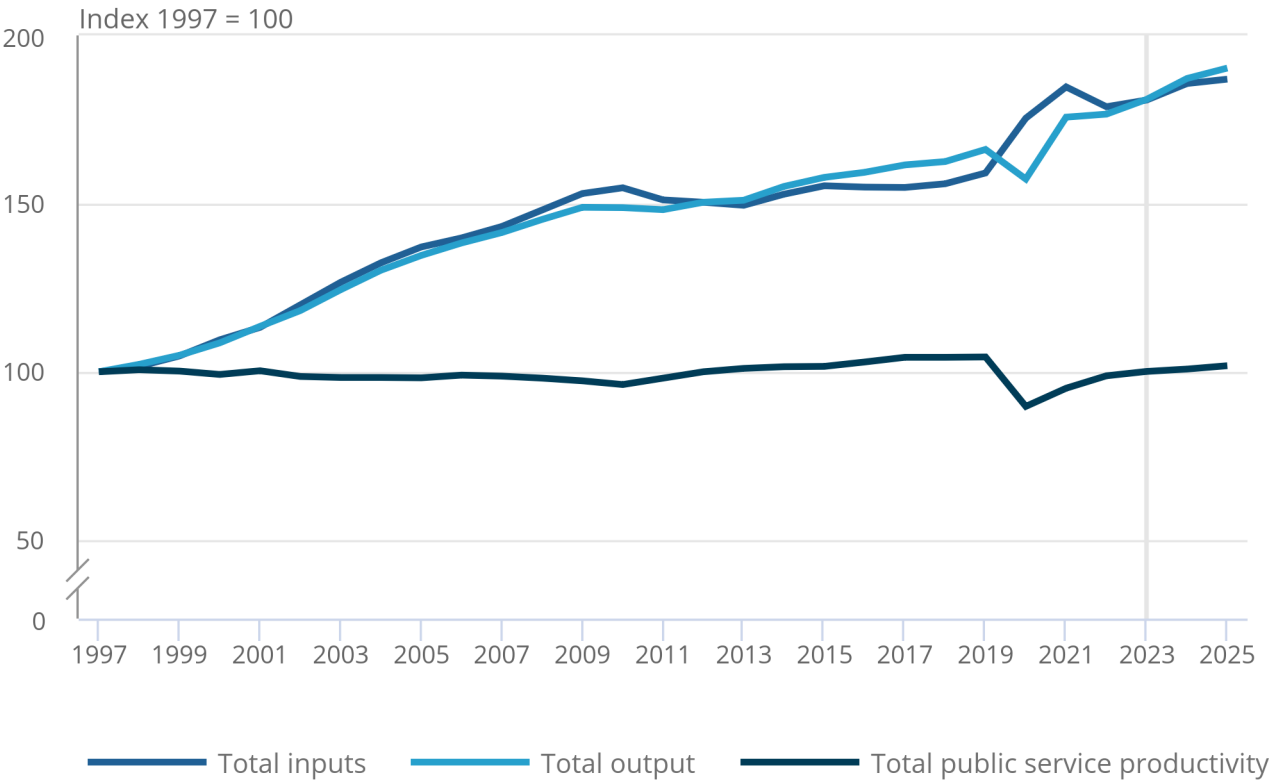
Figure 1: Total public service productivity increased by 0.7% in 2024 and 0.9% in 2025

Total public service productivity, inputs, and output, UK, 1997 to 2025

Figure 1: Total public service productivity increased by 0.7% in 2024 and 0.9% in 2025

Accredited  
official  
statistics

Total public service productivity, inputs, and output, UK, 1997 to 2025



Source: Public service productivity from the Office for National Statistics

Notes:

1. Estimates from 1997 to 2023 are annual accredited official statistics.
2. Estimates for 2024 and 2025 are official statistics in development and are annualised quarterly estimates.

Total public service productivity in 2025 is estimated to be 2.5% below 2019 levels, and growth is similar when compared with pre-2019 trends.

Total public service productivity increased by 0.7% in 2024 and 0.9% in 2025. These growth rates are similar to the average annual growth of 0.7% in the decade to 2019, before the coronavirus pandemic.

Latest estimates suggest slower growth in inputs (0.7%) and output (1.7%) in 2025, compared with 2024. As the largest public service in expenditure terms, healthcare is the main contributor to growth in inputs and output.

The slowdown in inputs growth between 2024 and 2025 reflects weaker growth in labour inputs across most services and weaker growth in real-terms spend in goods and services across most service areas.

All services saw growth in output in 2025, except for education, which fell slightly. The slowdown in output growth in 2025 was mainly caused by weaker growth in health and education services.

## **Annualised healthcare productivity**

Latest estimates indicate that healthcare productivity has grown for the fifth consecutive year in 2025, following the large fall in productivity in 2020 during the coronavirus pandemic.

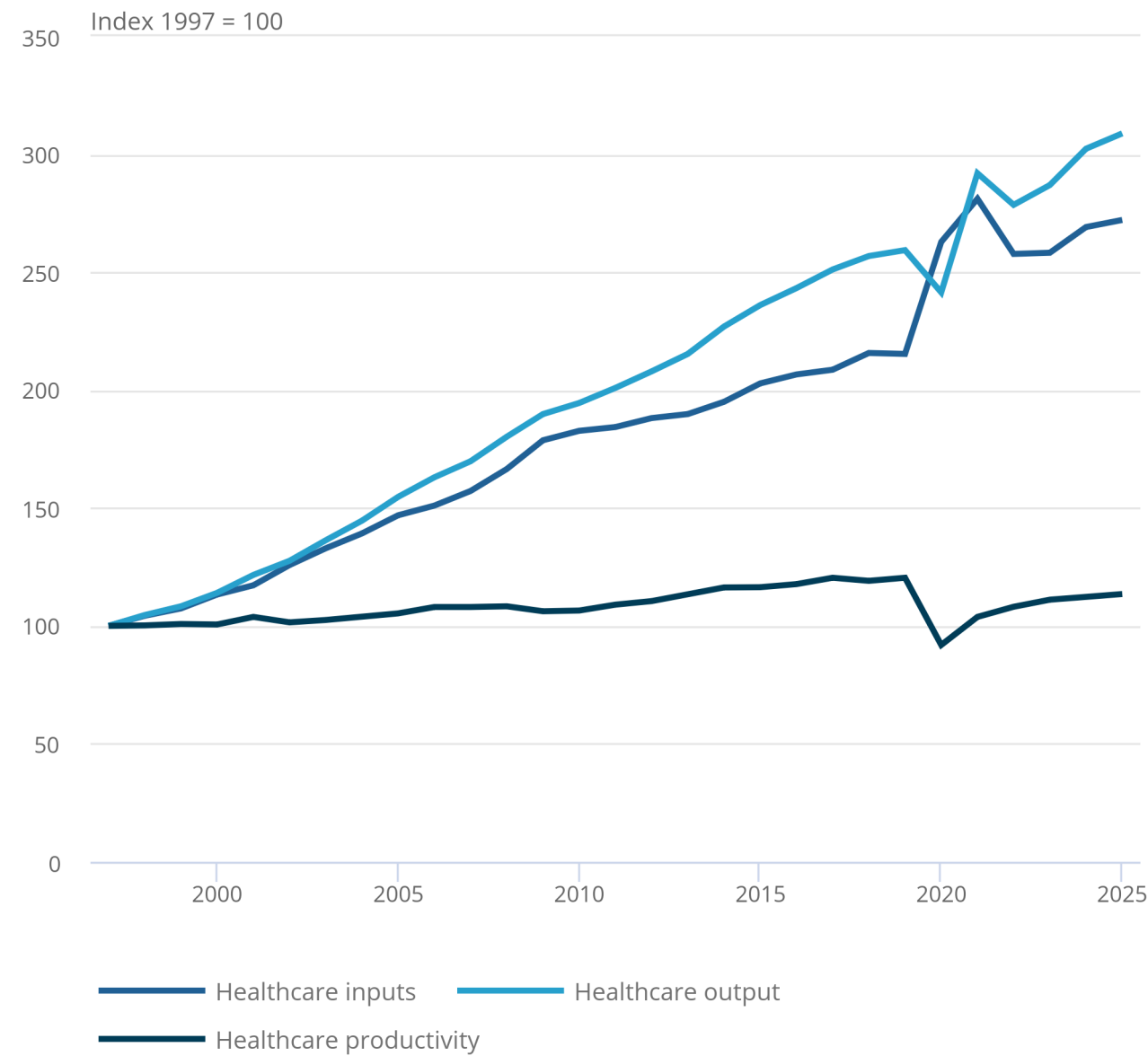
Figure 2: Healthcare productivity increased by 1.1% in 2024 1.0% and in 2025

Healthcare productivity, inputs, and output, UK, 1997 to 2025

Figure 2: Healthcare productivity increased by 1.1% in 2024 1.0% and in 2025

Accredited  
official  
statistics

Healthcare productivity, inputs, and output, UK, 1997 to 2025



Source: Public service productivity from the Office for National Statistics

Notes:

1. Estimates from 1997 to 2023 are annual accredited official statistics.
2. Estimates for 2024 and 2025 are official statistics in development and are annualised quarterly estimates.

Healthcare productivity in 2025 is estimated to be 5.8% below 2019 levels, and growth is similar when compared with pre-2019 trends.

Healthcare productivity increased by 1.1% in 2024 and 1.0% in 2025. These growth rates are similar to the average annual growth of 1.3% in the decade to 2019, before the pandemic.

Latest estimates suggest slower growth in inputs (1.1%) and output (2.2%) in 2025, compared with 2024. The slowdown in inputs growth in 2024 and 2025 was caused by weaker growth in healthcare labour inputs, which are now more comparable to trends seen in the decade to 2019, and weaker growth in real-term spend in goods and services, which remain higher than 2010 to 2019 trends but lower than pre-2010 trends.

## 4 . Revisions to public service productivity estimates

In line with our [National Accounts Revisions Policy](#), this release contains data that are consistent with the UK National Accounts unless otherwise stated. As these estimates are official statistics in development, revisions from method improvements are to be expected and are typically greater than those seen in accredited statistics. Table 1 compares our latest annualised total public service productivity estimates with previously published annualised estimates.

| Table 1: Latest and previously published annualised estimates for total inputs, output and productivity growth |        |        |              |                                 |
|----------------------------------------------------------------------------------------------------------------|--------|--------|--------------|---------------------------------|
| Year Estimate                                                                                                  | Inputs | Output | Productivity | Productivity compared with 2019 |
| 2024 Previously published                                                                                      | 3.0%   | 3.5%   | 0.4%         | 3.7% lower                      |
| 2024 Latest                                                                                                    | 2.7%   | 3.5%   | 0.7%         | 3.4% lower                      |
| 2025 Previously published                                                                                      | 1.1%   | 1.7%   | 0.6%         | 3.1% lower                      |
| 2025 Latest                                                                                                    | 0.7%   | 1.7%   | 0.9%         | 2.5% lower                      |

Source: Public service productivity from the Office for National Statistics

### Notes

1. The "Productivity compared with 2019" column compares annualised quarterly estimates for 2024 and 2025 (official statistics in development) with annual estimates for 2019 (accredited official statistics).
2. "Previously published" estimates refer to estimates as of our Public service productivity, quarterly, UK: October to December 2025 release, published on 8 May 2026.

Total public service productivity growth for 2024 and 2025 were revised up by 0.3 percentage points in both years because of downward revisions to inputs growth. Revisions to inputs were caused by updated healthcare inputs, following a review of deflators and seasonal patterns (explained in more detail in the rest of this section).

These upward revisions to productivity growth in 2024 and 2025 mean that productivity in 2025 is estimated to be closer to 2019 levels than previously published.

Table 2 summarises the latest annualised healthcare growth rates for 2024 and 2025. Overall, annualised estimates for healthcare inputs growth in 2024 have been revised down by 0.9 percentage points because of improvements to how we estimate costs associated with parts of healthcare provision and to our adjustment of seasonal patterns in health inputs. These improvements are explained in detail in the rest of this section.

Table 2: Latest and previously published estimates for healthcare inputs, output and productivity growth, percentage

| Year | Estimate             | Inputs | Output | Productivity | Productivity compared with 2019 |
|------|----------------------|--------|--------|--------------|---------------------------------|
| 2024 | Previously published | 5.1%   | 5.5%   | 0.4%         | 7.8% lower                      |
| 2024 | Latest               | 4.2%   | 5.3%   | 1.1%         | 6.7% lower                      |
| 2025 | Latest               | 1.1%   | 2.2%   | 1.0%         | 5.8% lower                      |

Source: Public service productivity from the Office for National Statistics

Notes

1. The "Productivity compared with 2019" column compares annualised quarterly estimates for 2024 and 2025 (official statistics in development) with annual estimates for 2019 (accredited official statistics).
2. "Previously published" estimates refer to estimates as of our Public service productivity, quarterly, UK: July to September 2025 release, published on 6 February 2026.

Quarterly healthcare inputs methods improvements

Figure 3 shows the impact of new data and improvements we have made to quarterly healthcare inputs since we last published them in November 2025. Improvements to our social transfers in kind (STIK) deflator has the largest impact and is the main cause of downward revisions to healthcare inputs in the latest years.

Previously, the healthcare STIK deflator fell by 1.5% in 2024 and 1.2% in 2025, and was constructed according to movements in output, which is consistent with National Accounts methods. However, following engagement with health system experts, we concluded that STIK expenditure, which includes NHS spending on private general practitioner (GP) surgeries, ophthalmologists and dentists, should, in a public service productivity (PSP) context, be deflated using measures that reflect the inputs that provide these services.

The improved healthcare STIK deflator therefore reflects spending in labour, intermediate consumption and capital consumption deflators for healthcare. This replaces the previous approach that was linked to output growth. This divergence from National Accounts methods is justified by PSP principles, as we are interested in the productivity of public services, including those that are not strictly public sector. We are continuing to review how we estimate inputs in this part of healthcare expenditure to ensure they are as robust and consistent with PSP principles as possible.

## Seasonal adjustment review

We also reviewed seasonal patterns since the pandemic. In recent years since the pandemic (particularly since Quarter 3 (July to Sept) 2022), we have seen growth in health intermediate consumption shift from Quarter 1 (Jan to Mar) to Quarter 4 (Oct to Dec) in our source data. This change in pattern poses a problem for our seasonal adjustment process. There are not enough quarterly data points post-2022 for the current seasonal adjustment process to fully adapt to this change in seasonal pattern. Without intervention, it would continue adding strength to a now stronger Quarter 4, for example, therefore adding volatility to the quarterly series.

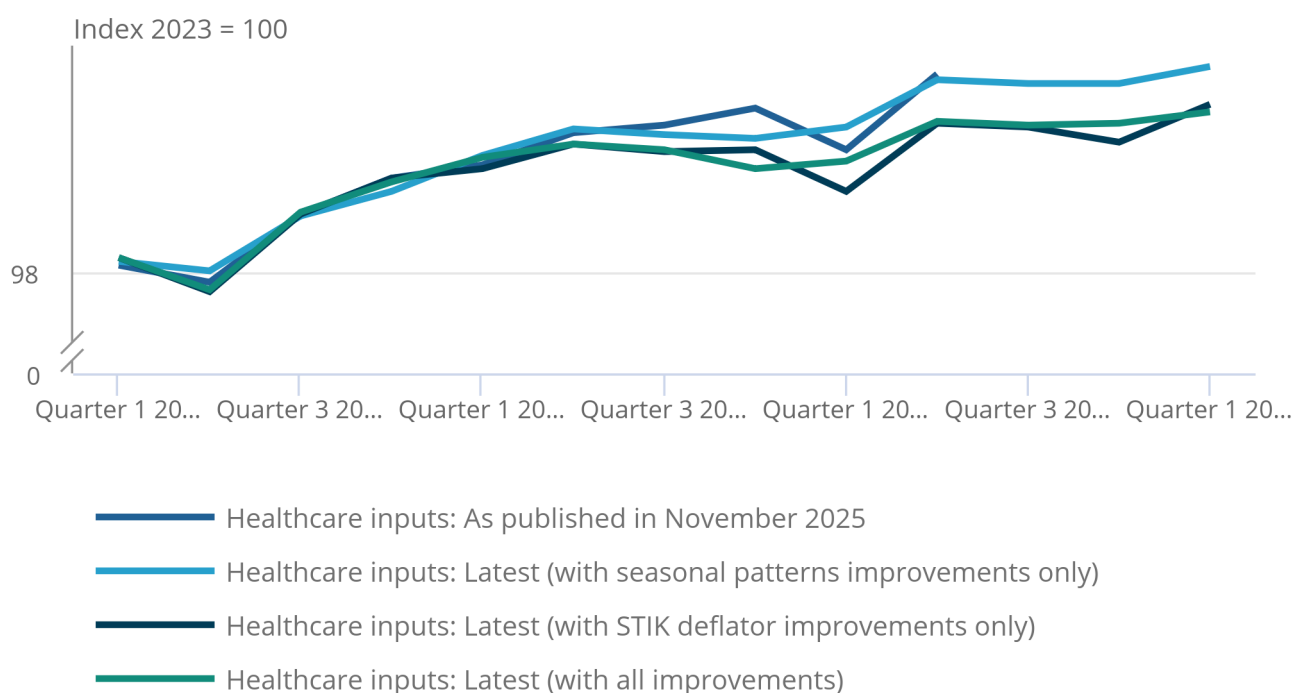
To resolve this inconsistency, we have rebalanced Quarter 4 and Quarter 1 estimates so that they are closer to pre-pandemic (2015 to 2019) patterns. This therefore protects the underlying story of movements between each quarter and between the same quarter a year earlier. This adjustment is provisional while we gather further quarterly data points over time so that a full seasonal adjustment review can take place. This intervention does not affect total expenditure across a financial year.

**Figure 3: Impact of new data and improvements since we last published quarterly healthcare inputs in November 2025**

Healthcare inputs, UK, seasonally adjusted, Quarter 1 (Jan to Mar) 2023 to Quarter 1 2026

Figure 3: Impact of new data and improvements since we last published quarterly healthcare inputs in November 2025

Healthcare inputs, UK, seasonally adjusted, Quarter 1 (Jan to Mar) 2023 to Quarter 1 2026



Source: Public service productivity from the Office for National Statistics

## 5 . Confidence intervals

Confidence intervals surrounding our nowcasted productivity estimates are shown in Table 3. These provide a statistical measure of uncertainty attached to these annualised growth estimates. The interval width is determined by historical differences between the growth rates of annualised quarterly and annual estimates. We ignore 2019 to 2023 in our calculation of confidence intervals, as growth during this period is not reflective of historical and underlying differences between our quarterly and annual estimates.

Typically, there is a greater variance between our annual and quarterly estimates on inputs than output, and in later periods (for example, 2025) rather than earlier periods (for example, 2024). Nowcasted estimates are official statistics in development and should be treated with caution until our 2024 and 2025 annual accredited estimates become available.

Table 3: Nowcast estimates for 2024 and 2025 total and healthcare public service productivity, inputs and output growth rates, UK

**95% confidence interval**

|                     | Year | Total public service productivity |         |       | Healthcare |         |       |
|---------------------|------|-----------------------------------|---------|-------|------------|---------|-------|
|                     |      | Lower                             | Central | Upper | Lower      | Central | Upper |
| <b>Productivity</b> | 2024 | -1.0%                             | 0.7%    | 2.5%  | -2.7%      | 1.1%    | 4.8%  |
|                     | 2025 | -1.3%                             | 0.9%    | 3.2%  | -3.6%      | 1.0%    | 5.7%  |
| <b>Inputs</b>       | 2024 | 1.1%                              | 2.7%    | 4.3%  | 1.6%       | 4.2%    | 6.9%  |
|                     | 2025 | -1.4%                             | 0.7%    | 2.9%  | -2.2%      | 1.1%    | 4.5%  |
| <b>Output</b>       | 2024 | 2.7%                              | 3.5%    | 4.3%  | 4.3%       | 5.3%    | 6.3%  |
|                     | 2025 | 0.3%                              | 1.7%    | 3.0%  | 0.5%       | 2.2%    | 3.8%  |

Source: Public service productivity from the Office for National Statistics

Notes

1. We use a quarterly annualised growth rate nowcast. For more details please see our Developing nowcast methodologies for public service productivity UK article.

While confidence intervals are wide using this approach, actual revisions are small since the Public Service Productivity Review concluded in March 2025. For example, the first annualised estimate of healthcare inputs growth was 0.1% for 2023 (published in May 2025), and the later annual estimate was 0.2% for 2023 (published in March 2026).

Revisions were larger for healthcare output but were still within the confidence intervals previously published. The first annualised estimate of healthcare output growth was 0.7% for 2023 (published in May 2025), before we made measurement improvements over the last 12 months, as explained in [Section 2: About these estimates](#). The later annual estimate for non-quality adjusted output was 2.2% for 2023 (published in March 2026).

## 6 . Annualised latest four quarters estimates

For the first time, this release introduces a rolling four-quarter annualised index. This addition helps users better understand underlying long-term productivity trends in-year and minimises the effects of potential short-term volatility in quarter-on-quarter or quarter-on-year comparisons.

On this basis, total public service productivity increased by 0.5% in the period from April 2025 to March 2026, compared with the previous four quarters. This was caused by outputs growth (1.7%) outpacing inputs growth (1.2%).

Healthcare productivity increased by 0.4% in the same period, compared with the previous four quarters. This was caused by outputs growth (2.1%) outpacing inputs growth (1.8%).

NHS England publishes [estimates of productivity](#) on a financial year basis, aligning with this period. Their latest estimates suggest productivity growth of 3.4% for financial year ending 2026, compared with the previous financial year. Their latest estimates for NHS England Secondary Care Trusts suggest productivity growth of 3.4% for financial year ending 2026, compared with the previous financial year. This was caused by output growth of 3.4% and inputs growth of 0.0%.

More detail about the differences in coverage, sources and methods between our estimates of health productivity and NHS England's estimates is available in [Section 2: About these estimates](#). Our estimates should not be directly compared with NHS England's estimates. While differences remain, we are continually working closely with NHS England, the Department for Health and Social Care and HM Treasury to improve data quality and coherence between our estimates. The measurement improvements to health inputs introduced in this bulletin build on improvements to health output estimates over the last 12 months, and improved coherence with national accounts and our annual release.

## 7 . Data on public service productivity

[Public service productivity, quarterly, UK: January to March 2026](#)

Dataset | Released 7 August 2026

UK total public services productivity and healthcare productivity. Includes estimates of inputs, output, productivity, and revisions. These are official statistics in development

## 8 . Glossary

### Deflator

A price index used to remove inflation effects from current price estimates of expenditure to provide a volume estimate.

### Direct output measurement

Output is estimated using an activity-based index (typically weighted by cost). For example, the number of students in state schools, adjusted for attendance and weighted by the cost of different phases of schooling. This differs from an indirect output measurement, where output is assumed equal to inputs.

### Intermediate inputs

Also referred to as "goods and services", or "intermediate consumption" (the National Accounts term). Intermediate inputs include goods and services used up in the provision of a public service, such as utilities, energy, professional services, and medical supplies, among others.

## **Public services**

These are services delivered by or paid for by government (central or local). If paid for by the government, they may be delivered by a private body – for example, the provision of nursery places by the private sector, where these places were funded by the government.

## **Quality adjustment**

A statistical estimate of the change in the quality of a public service, using an appropriate metric, such as safety in prisons as part of the public order and safety adjustment.

## **Service area**

The way we refer to the breakdown of public services into seven areas, closely following Standard Industrial Classification (SIC) codes.

## **Standard Industrial Classification**

The industrial classification applied to the collection and publication of a wide range of economic statistics.

# **9 . Data sources and quality**

## **Official statistics in development**

These statistics are labelled as "official statistics in development". We are continuously developing how we collect the data and produce the statistics to improve their quality. Once we have completed the developments, we will review the statistics with the Statistics Head of Profession.

If the statistics meet trustworthiness, quality and value standards based on user feedback, we will remove the "official statistics in development" label to publish under the "official statistics" label.

If they do not meet trustworthiness, quality and value standards, we will further develop them or might stop producing them.

We will inform users of the outcome of our, and any OSR, review and any changes.

## **Data sources**

We use different sources and methods to produce our quarterly official statistics in development and our annual accredited official statistics.

This bulletin uses expenditure data from quarterly UK National Accounts, split into seven categories:

- healthcare
- education
- social protection
- justice and fire
- military defence
- central government services
- local government services

Data sources and methods differ from our annual publication, depending on data availability and appropriateness on a quarterly or annual basis. For example, some inputs measures that are available on an annual basis as direct measures are not available on a quarterly basis. These missing quarterly direct input measures may only be obtainable using indirect measures (deflated expenditure).

Our accredited [annual total public service productivity statistics](#) also use different deflators to estimate volumes of inputs other than those used in this release. As such, estimates are not directly comparable between our quarterly and annual publications. Estimates of productivity, inputs and output up to 2023 are reported on an annual basis and use data from our [Public service productivity, total, UK, 2023 article](#). Further information about our annual accredited official statistics can be found in our [Public service productivity: total, UK quality and methodology information \(QMI\)](#).

## Seasonal adjustment

Our quarterly estimates of public service productivity contain systematic calendar-related variation. Therefore, we apply [seasonal adjustment](#) for comparability. For our quarterly estimates, we use the X11 algorithm in the X-13 ARIMA-SEATS software to perform seasonal adjustment.

Since our November 2025 publication, we treat Quarter 2 (Apr to June) 2020 to Quarter 2 2022 as outliers in our seasonal adjustment process. This reflects advice from time series experts. We also apply indirect seasonal adjustment, consistent with other areas of National Accounts. This step uses the chain-linking aggregation approach to aggregate the seasonally adjusted service areas and ensures additivity across our service area estimates and the total.

Additional steps are taken to ensure a robust seasonal adjustment process for healthcare inputs. Since Quarter 3 (July to Sept) 2022, the non-seasonally adjusted data on healthcare inputs show a different seasonal pattern than earlier data. For example, growth in Quarter 4 (Oct to Dec) estimates are stronger, compared with pre-pandemic trends; while Quarter 1 (Jan to Mar) estimates are now weaker, Quarter 2 estimates are now relatively stronger. This could be because of policies and measures adopted by government departments following the coronavirus (COVID-19) pandemic.

This new seasonality is not properly captured by the seasonal adjustment model for inputs, which produces estimates that do not appear to fully reflect the current economic scenario since 2022. To fully revise the seasonal adjustment requires more quarterly data post-Quarter 3 2022 to enable a re-estimation of the trend of the new seasonality. These estimates will be subject to continued assessment as new data become available and as we work to further align ourselves with National Accounts best practice.

## Measuring public service productivity

These statistics do not account for changes to the quality of public services in periods beyond the latest statistics published for 2023 in our [annual total public service productivity article](#), which are [accredited official statistics](#). We incorporate data that are consistent with the [UK National Accounts](#), unless otherwise specified (such as in cases where we have more timely data available to inform our estimates).

These estimates are not a measure of the productivity of an individual worker within the public sector. Instead, they reflect the volume of services delivered to end users, relative to the volume of total inputs required to deliver these services. Productivity will increase when more output is being produced for each unit of inputs used. Estimates of inputs, output, and productivity are given both as growth rates between consecutive periods and as indices, showing the cumulative trend over time.

For total UK public services, estimates of inputs are made up of aggregated series for individual public services, weighted together by their relative share of total expenditure on public services in current price (expenditure weight). Inputs include labour, goods and services, social transfers in kind (STIK), and consumption of fixed capital. Expenditure data, used to estimate most inputs growth, are taken from our Gross domestic product (GDP) quarterly national accounts bulletin.

Output in our productivity estimates reflects total general government final consumption expenditure (GGFCE). The quarterly national accounts produce estimates of government output, based on direct measures where they are available, and indirect measures, where they are not.

Our quarterly data do not currently account for staff absenteeism in our labour estimates. However, our annual accredited official statistics estimates do account for this. More information on the differences in method and sources used in our quarterly and annual estimates of public service productivity can be found in our [Public service productivity: total. UK quality and methodology information \(QMI\)](#).

Healthcare inputs are calculated as follows. Labour growth is based on our public sector employment data (direct implied expenditure) and deflated bank staff implied expenditure. The volume growth of healthcare labour inputs are then weighted according to its current price expenditure share, relative to other health inputs components. Our estimates of intermediate consumption and capital are based on national accounts sources and adopt the same aggregation approach.

In this release we have updated the STIK deflator to reflect labour, intermediate consumption and capital consumption deflators for healthcare, replacing the previous approach that was linked to output growth. The sum of these components leads to the healthcare inputs volume growth in each period.

Our public service quarterly output volume measure for healthcare is estimated based on the growth in the following types of activities in England, which have timely data collections:

- elective and non-elective treatments
- hospital outpatient first and follow-up appointments
- emergency care
- critical care services
- ambulance attendances
- community health services
- mental health treatments
- community prescribed drugs
- general practitioner (GP) consultations
- dental services
- ophthalmic services
- NHS phone and website services
- COVID-19 vaccinations

More information can be found in our [Improvements to healthcare volume output in the quarterly national accounts methodology](#).

Quarterly healthcare output growth is based on available data for a subset of services in England. Because of limited data, these indicators are assumed to reflect overall healthcare trends. Longer-term estimates are adjusted when more complete annual data become available.

Public service productivity estimates relate to all public services produced or purchased by government, including services where employees are central or local government and services commissioned to independent sector providers. This differs from the public sector, which includes public corporations but excludes services produced by independent sector providers, to avoid double-counting with other institutional sectors.

Public service productivity is [measured differently](#) than labour productivity and multi-factor productivity and is not directly comparable. It reflects the volume of services delivered to end users, relative to the volume of total inputs (which include labour, intermediate consumption and capital). The measure is dominated by healthcare and education services because of their relative size.

These estimates should be considered a first estimate of public service productivity. The Office for National Statistics, together with [HM Treasury and other government departments](#), will continue to develop and improve its methods, which may lead to revisions of these preliminary estimates.

## Annualised estimates

Annualised inputs and output estimates are derived by averaging the non-seasonally adjusted index values across four quarters of a year. These estimates are used to calculate productivity growth rates for 2024 and 2025, which are then applied to our 2023 accredited official statistics. This method is used in our [Developing nowcast methodologies for public service productivity. UK article](#).

We also make pre-pandemic annual comparisons, recognising the impact the coronavirus pandemic had on public services. Inputs rose in 2020, reflecting the extra resources provided to public services to deal with the pandemic. Conversely, output fell in 2020, as many services were delivered in a different way than in 2019, with additional costs and mandatory restrictions present for certain services.

## Recommendations from National Statistician's Independent Review of the Measurement of Public Services Productivity

We continue to make incremental improvements to this release and accompanying datasets, in line with recommendations set out in the [National Statistician's Independent Review of the Measurement of Public Services Productivity](#).

We have made progress on:

- replacing the current "contribution to growth" compilation method with "chain volume measures", and implementing reconciliation of the quarterly estimates with the annual estimates each year to align with UK National Accounts protocols and improve coherence and understanding for users (see Recommendation 18)
- applying the Quarterly cumulative Average Growth Rates (QAGR) method to provide timelier nowcast estimates for annual estimates, as further research is undertaken to evaluate the efficacy of alternative methods in the light of the coronavirus pandemic (see Recommendation 19)

We will continue to work on remaining recommendations to:

- account for available quality adjustment data and, where this is not possible, keep nowcasting models under annual review to provide the most accurate and timely data possible (see Recommendation 16)
- proceed with best practice improvements to align quarterly and annual production statistics (see Recommendation 20)

In addition to this, we will continually review our data sources and methods to provide the best timely indicator of UK public service productivity.

## 10 . Related links

### [Public service productivity: total, UK, 2023](#)

Article | Released 30 March 2026

Updated measures of output, inputs and productivity for UK public services between 1997 and 2023, including service area breakdown, quality adjustment, and latest revisions.

### [Impact of improved methods on total public service productivity 1997 to 2022](#)

Article | Last revised 16 March 2026

This article presents the improvements to public service productivity measures introduced in the Public Services Productivity Review implemented in March 2026.

### [National Statistician's Independent Review of the Measurement of Public Services Productivity](#)

External webpage | Released 13 March 2025

Review of the measurement of UK Public Services Productivity.

### [GDP quarterly national accounts, UK](#)

Statistical bulletin | Released 30 June 2026

Revised quarterly estimate of gross domestic product (GDP) for the UK. Uses additional data to provide a more precise indication of economic growth than the first estimate.

### [Productivity flash estimate and overview, UK](#)

Article | Released 19 May 2026

Productivity flash estimates for Quarter 4 (Oct to Dec) 2025, based on the GDP first quarterly estimate and labour market statistics, and productivity overview for Quarter 3 (July to Sept) 2025.

### [Developing nowcast methodologies for public service productivity, UK](#)

Article | Released 11 December 2024

An overview of the latest experimental methods to produce timelier estimates of annual UK public service productivity. These are official statistics in development.

## 11 . Cite this statistical bulletin

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