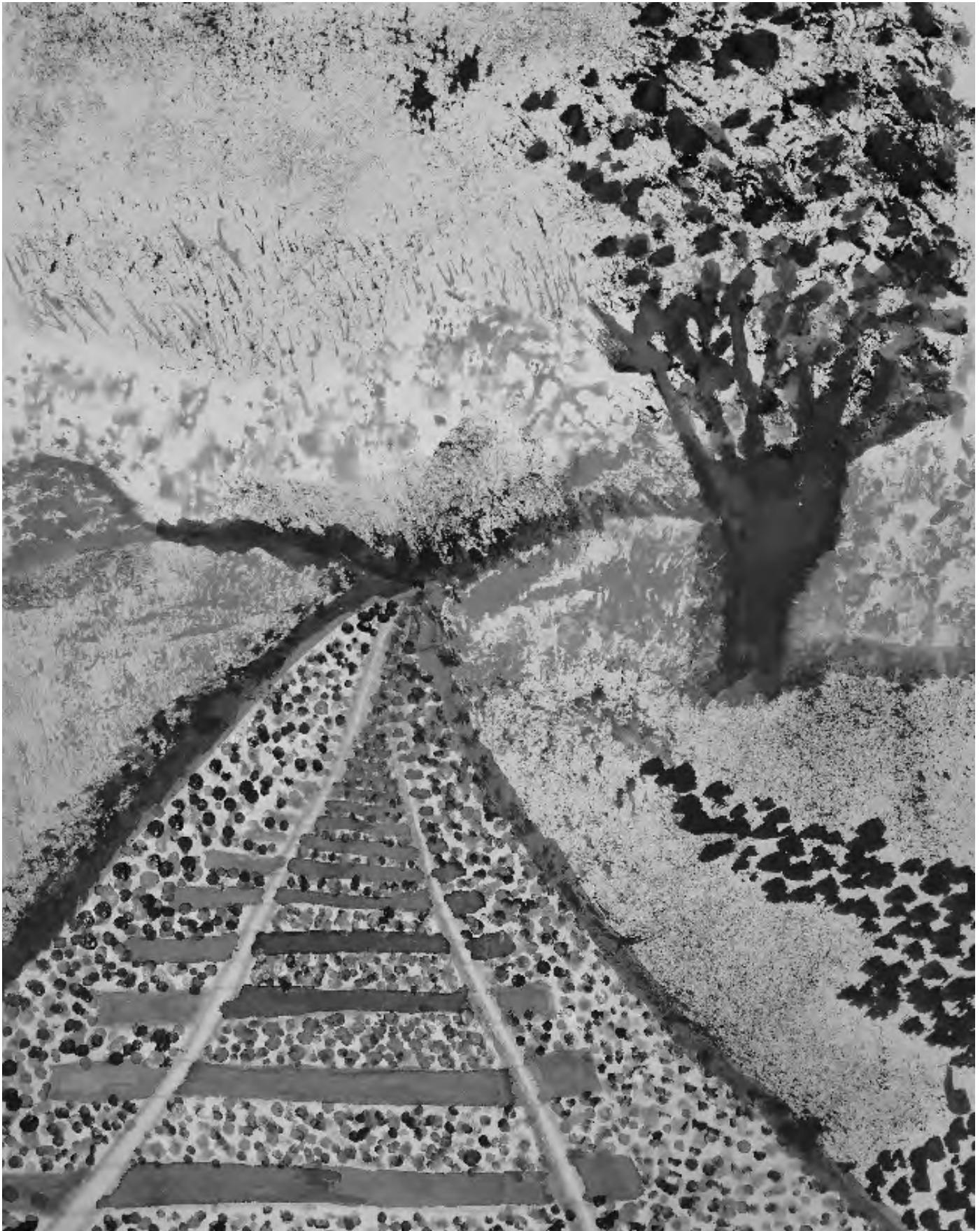


# SSNAP Annual Report 2023

## *Plain Language Version*

*Stroke care received between April 2022 to March 2023*



**SSNAP**  
**Sentinel Stroke National Audit Programme**

Commissioned by



**HQIP**

Healthcare Quality  
Improvement Partnership

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## What is SSNAP?

Organisations in **England, Wales** and **Northern Ireland** that provide stroke care are regularly measured on how well they meet the **standards** in clinical guidelines. These organisations are **hospitals**, trusts, local health boards, and **community services**. This measurement is carried out by the **Sentinel Stroke National Audit Programme (SSNAP)**.

**SSNAP** results tell us **how well** stroke care is being **delivered**. **SSNAP** results are published on [www.strokeaudit.org](http://www.strokeaudit.org). **Results** are published quarterly, 6-monthly and annually.

## SSNAP measures against guidelines

**SSNAP** measures the **quality and organisation** of stroke care against evidence-based quality standards.

These standards are taken from the **latest clinical guidelines**:

1. National Clinical Guideline for Stroke (2023)
2. NICE guidelines (Stroke and TIA, NG128; Stroke rehabilitation, CG162; and Quality standard for stroke),
3. National policy documents including the NHS Long Term plan, the National Stroke Service Model, the National service model for an integrated community stroke service and the Quality statement for stroke.

You can read the **Plain Language Summary** of the 2023 National Clinical Guideline for Stroke for the UK & Ireland at [www.strokeguideline.org/plainlanguagesummary](http://www.strokeguideline.org/plainlanguagesummary).

## How to read this report

This report includes **key messages** from the **SSNAP** annual report but in less detail. The report covers more than **91,000** people with stroke admitted to hospitals between April 2022 and March 2023. The report shows over **90%** of admitted strokes in **England, Wales** and **Northern Ireland**.

2022 marks **10 years** since **SSNAP** started. Many graphs in this report include all 10 years of data to show how care has changed.

The report tells you:

- **What care** should be provided after a stroke.
- **When** this care should be provided.
- **What SSNAP data shows**

There is a **list of terms** explaining more technical words used in this report on page 4. This will help explain words that readers might not see often.

## What do the terms mean?

Term	Definition
Early supported discharge (ESD)	A service that lets people leave the hospital as early as possible, if they are able, by offering rehabilitation at home at the same intensity as the care they received when in the hospital.
Community rehabilitation team (CRT)	A service that offers rehabilitation at home after discharge from hospital or an ESD team at an intensity determined by patient need.
Combined ESD-CRT	A service that provides both ESD and CRT.
Haemorrhagic stroke	A stroke that happens when a blood vessel bursts, leading to bleeding in the brain (also called a 'brain haemorrhage').
Healthcare professional	A professional involved in stroke care, such as a doctor, nurse, therapist, or care staff.
Ischaemic stroke	A stroke that happens when a blood clot blocks an artery that is carrying blood to the brain.
Occupational therapy	Therapy that helps a person do everyday tasks like washing, dressing, or eating.
Physiotherapist	A specialist in using physical methods such as massage, heat treatment, and exercise to help restore movement and function.
Psychologist	A specialist who assesses and treats people with thinking, memory, and emotional difficulties.
Rehabilitation	Rehabilitation is a set of treatments and activities to promote recovery and reduce disability. Rehabilitation treatments are provided by therapists and therapy assistants.
Speech and language therapist	A specialist providing support and care for people who have difficulties with communication, eating, drinking, and swallowing.
Stroke team	A group of skilled nurses, doctors, therapists, and other staff based in the hospital or the community. Their responsibility is to diagnose and treat stroke; to advise on how to prevent further strokes; to provide stroke rehabilitation and support for families.
Stroke unit	A special hospital area where doctors and nurses take care of people who have had a stroke. They provide the right treatment and care to help the patients recover as quickly as possible.
Thrombectomy	Surgery to remove a blood clot from an artery in the brain.
Thrombolysis	Treatment with a medicine that breaks down blood clots.
Vocational rehabilitation	Support that helps a person take part in paid or voluntary work to the best of their ability.



# Comparing 2021/22 and 2022/23 results

## Time spent on stroke unit

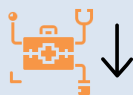


The proportion of patients who spent at least 90% of their hospital stay on a specialist stroke unit has fallen from **77%** (2021/22) to **73%** (2022/23).

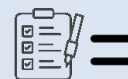


The proportion of patients directly admitted to a stroke unit within 4 hours of arriving at hospital arrival has **fallen** from **44%** (2021/22) to **40%** (2022/23)

## Specialist assessments



The proportion of patients who received assessment from a stroke specialist nurse within 24 hours of admission has fallen from **90%** (2021/22) to **89%** (2022/23).



**72%** of applicable patients who received swallow screening within 4 hours of admission in 2021/22 and 2022/23.

↓ The proportion of patients assessed by a stroke specialist within 24 hours of admission has fallen from **84%** (2021/22) to **83%** (2022/23).

## Treatments to remove a blood clot: thrombolysis and thrombectomy



The median time from arrival at hospital to thrombolysis treatment has increased from **53 minutes** (2021/22) to **54 minutes** (2021/22).



The proportion of all stroke patients who received thrombolysis has increased from **10.4%** (2021/22) to **10.7%** (2022/23).

↑ The proportion of all stroke patients who had a thrombectomy has increased from **2.4%** (2021/22) to **3.1%** (2022/23).




## Brain scan






The proportion of all stroke patients who received a brain scan within 1 hour of arriving at hospital has increased from **55%** (2021/22) to **57%** (2022/23).

## Comparing 2021/22 and 2022/23 results




### Rehabilitation in hospital

	The proportion of patients receiving the equivalent of 45 minutes of <b>physiotherapy</b> 5 days a week has fallen from <b>27%</b> (2021/22) to <b>25%</b> (2022/23).	↓
	The proportion of patients receiving the equivalent of 45 minutes of <b>occupational therapy</b> 5 days a week has fallen from <b>32%</b> (2021/22) to <b>30%</b> (2022/23).	↓
	The proportion of patients receiving the equivalent of 45 minutes of <b>speech and language therapy</b> 5 days a week has fallen from <b>15%</b> (2021/22) to <b>14%</b> (2022/23).	↓

### Rehabilitation after hospital

	The proportion of patients discharged to a stroke/neurology specific community rehabilitation service from <b>60%</b> (2021/22) to <b>61%</b> (2022/23).	↑
	The proportion of community rehabilitation services registered as a combined ESD-CRT services increased from <b>26%</b> (2021/22) to <b>49%</b> (2022/23).	↑
	<b>6%</b> of people were working full-time 6 months after their stroke (in 2021/22 and 2022/23). <b>15%</b> of people were working full-time prior to their stroke in 2022/23 (and 14% were working full-time prior to their stroke in 2021/22).	=

### Longer term outcomes

	The percentage of applicable patients who received a 6 month follow-up review has fallen from <b>41%</b> (2021/22) to <b>37%</b> .	↓
	<b>17%</b> of patients at 6 months reported moderate or severe anxiety or depression in 2022/23, compared to <b>18%</b> of patients in 2021/22.	↓
	<b>3%</b> of patients had another stroke within 6 months in 2022/23, compared to <b>2.8%</b> 2021/22.	↑

## Patient characteristics

Stroke admissions		Ethnicity	
<b>86.8%</b>	Infarction	<b>83.6%</b>	White
<b>12.7%</b>	Haemorrhagic stroke	<b>1.9%</b>	Black
<b>0.4%</b>	Not known	<b>3.8%</b>	Asian
<b>76 years</b>	Median age	<b>0.5%</b>	Mixed
<b>36.0%</b>	Age over 80 years	<b>1.6%</b>	Other
<b>46.7%</b>	Female	<b>8.5%</b>	Not known or Not stated

### Comorbidities before stroke

<b>5.8%</b>	Congestive heart failure
<b>56.3%</b>	Hypertension
<b>24.4%</b>	Diabetes
<b>24.0%</b>	Previous stroke or TIA
<b>18.8%</b>	Atrial fibrillation
<b>7.0%</b>	Dementia

### Index of Multiple Deprivation (IMD) quintile

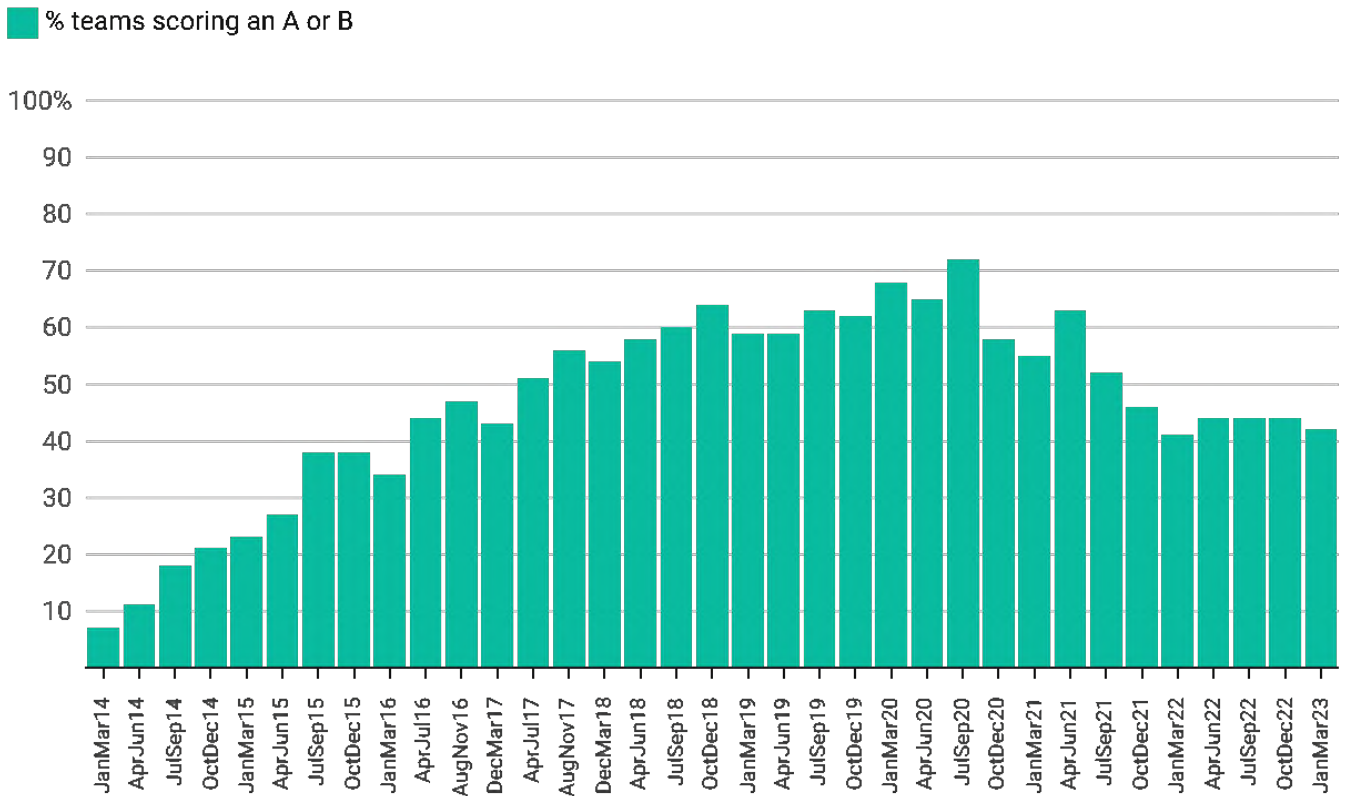
<b>19.5%</b>	1 – most deprived
<b>19.4%</b>	2
<b>20.9%</b>	3
<b>20.9%</b>	4
<b>19.2%</b>	5 – least deprived

*The Index of Multiple Deprivation or IMD is a common way to describe how deprived an area is compared to other areas.*



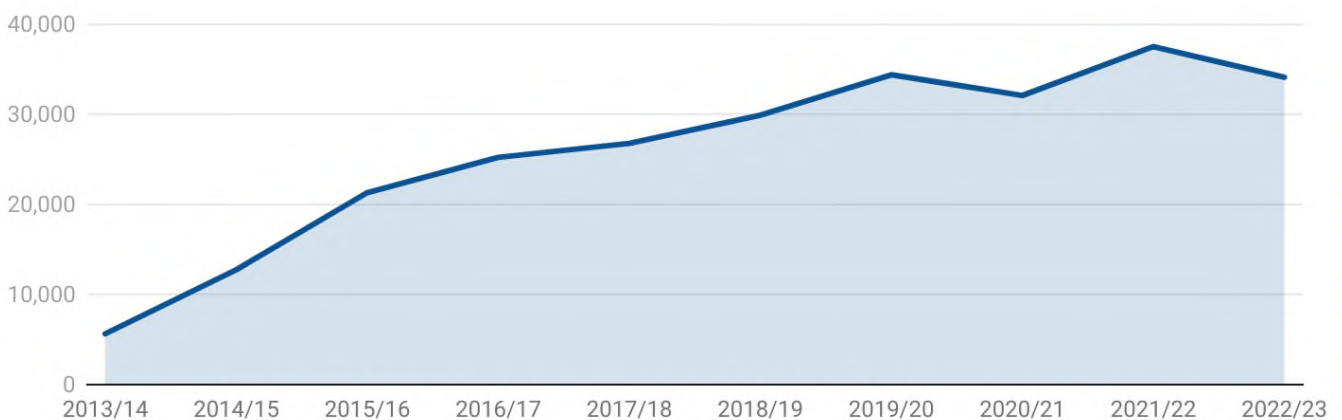
# 10 years of SSNAP

Changes in hospital team **SSNAP** scores over time:



**SSNAP** give hospitals a rating from A-E based on their overall performance. The graph above shows the percentage of teams which **scored an A or a B** for each period.

Number of records submitted to **SSNAP** by community teams:



These graphs show that over the past 10 years teams have continued to take part in **SSNAP**, and their involvement has been increasing.

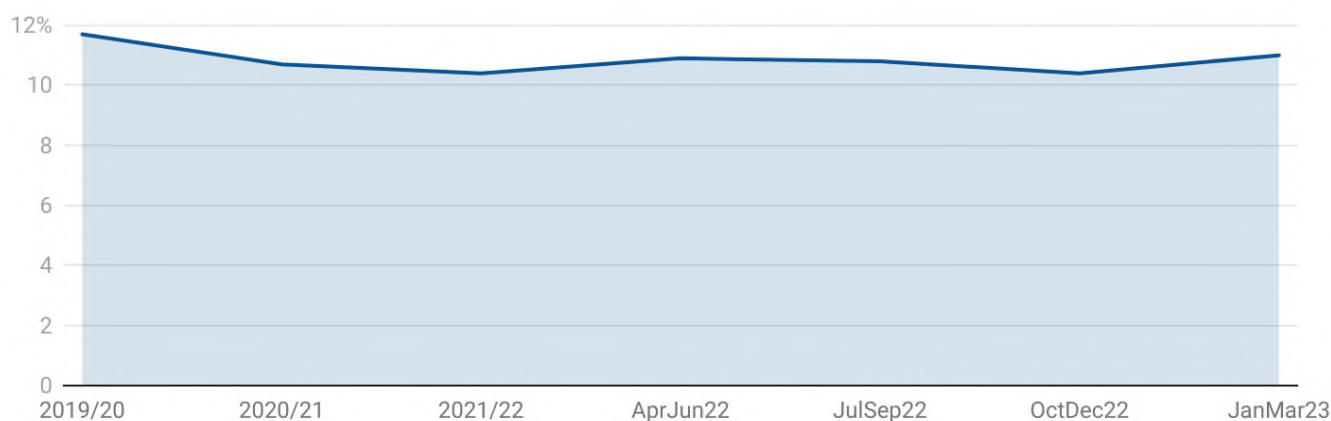
## Treatments to remove a blood clot: thrombolysis and thrombectomy

### What should be done?

- **Thrombolysis** is a **treatment** to **break up** a **blood clot** that is blocking an artery. It is given by injection.
- **Thrombectomy** is an operation to **remove a blood clot** from an artery in the brain.
- Breaking up or removing a clot is usually **only suitable** for people who arrive at hospital **soon after their stroke**.
- Thrombolysis and thrombectomy treatments can **reduce disability**.
- These treatments can also improve a person's chances of **living independently**.

### What does the thrombolysis data show?

Proportion of all patients receiving thrombolysis:

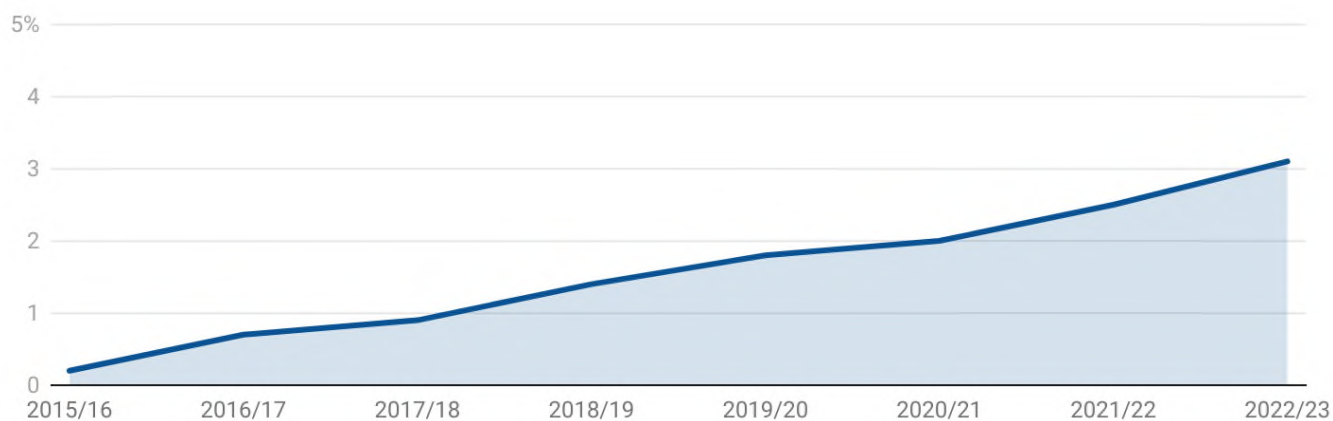


The proportion of patients receiving has **increased** from **10.4%** in 2021/22 to **10.7%** in 2023/23.

This is still **lower** than the proportion of patients receiving thrombolysis **before the pandemic**. The rate was **11.7%** in 2019/20.

## What does the thrombectomy data show?

Proportion of all patients receiving thrombectomy:



The proportion of patients receiving thrombectomy has **increased** from **2.5%** in 2021/22 to **3.1%** in 2022/23.

This is the **highest** proportion recorded for a single year.

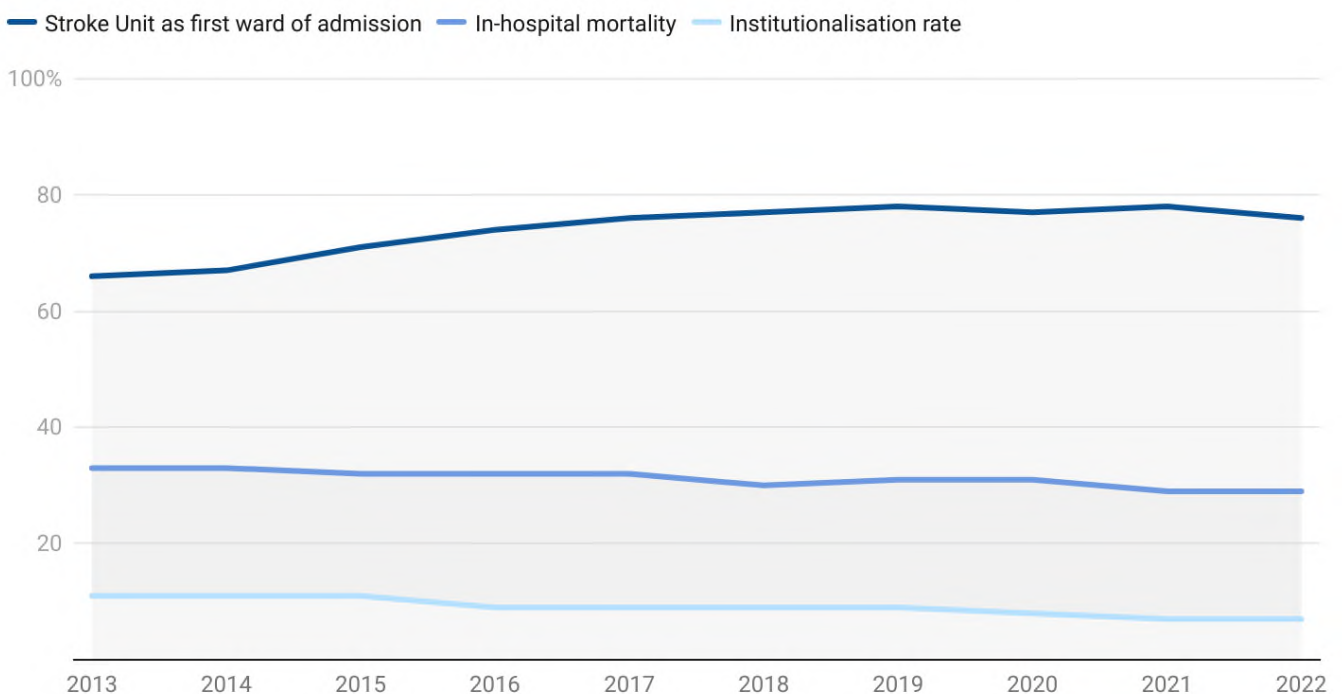
# Haemorrhagic stroke

## What should be done?

- Haemorrhagic stroke (or intracerebral haemorrhage) is a stroke caused by **bleeding in the brain**.
- Around **15%** of strokes in the UK are caused by bleeding in or around the brain.
- If you have a haemorrhagic stroke, you will have emergency treatment to **reduce bleeding** and limit the amount of damage in the brain.
- It is important that people with a haemorrhagic stroke have their **blood pressure, blood clotting, temperature** and **blood glucose** levels controlled.

## What does the data show?

Outcomes for haemorrhagic stroke patients:



**12%** of stroke admissions are people with **haemorrhagic stroke**.

Outcomes for haemorrhagic stroke are improving:

1. The proportion of people who died in hospital from a haemorrhagic stroke has **fallen** from **33%** in 2013 to **22%** in 2022.

2. The proportion of people with a haemorrhagic stroke who were directly admitted to a stroke unit has **increased** from **66%** in 2013 to **76%** in 2022.

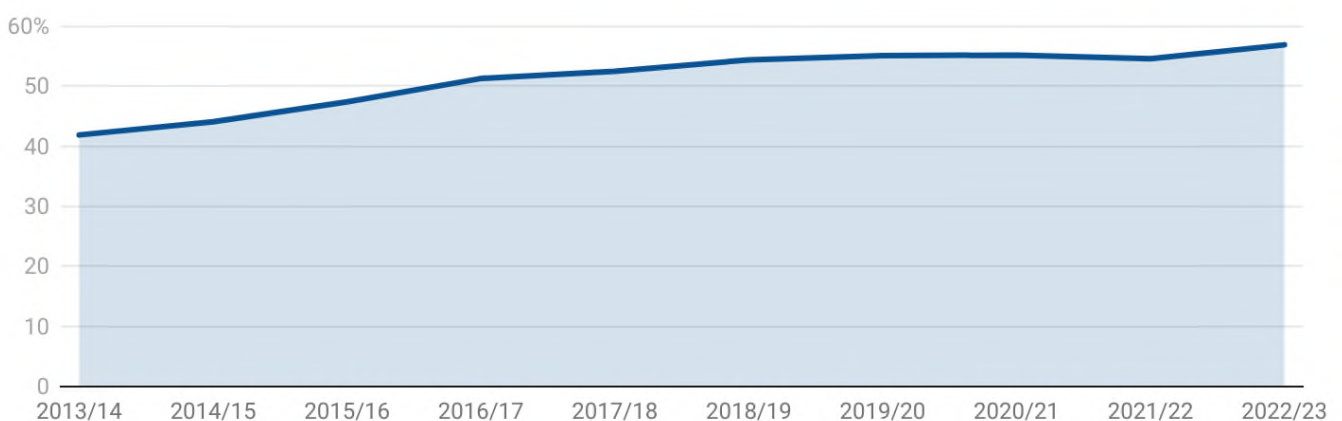
## Diagnosis and admission

### What should be done?

- Everyone with stroke symptoms should have a brain scan.
- People with **suspected stroke** should be admitted to a **specialist stroke unit** and assessed **without delay**.
- **Stroke units** should include a **team** of skilled nurses, doctors, therapists and others. This team's responsibility is to:
  - Diagnose and treat stroke
  - Advise on how to prevent further strokes
  - Provide stroke rehabilitation and support for families.
- Everyone should have a brain scan within 1 hour of arriving at the hospital.
- Everyone should go to a stroke unit within 4 hours of arriving at the hospital.
- Fast treatment:
  - Can **reduce** the **damage** caused by stroke
  - Means more people will **survive** their stroke
  - Means people will have **less disability** caused by their stroke.

### What does the data show?

Proportion of patients receiving a brain scan within 1 hour of arrival at hospital:

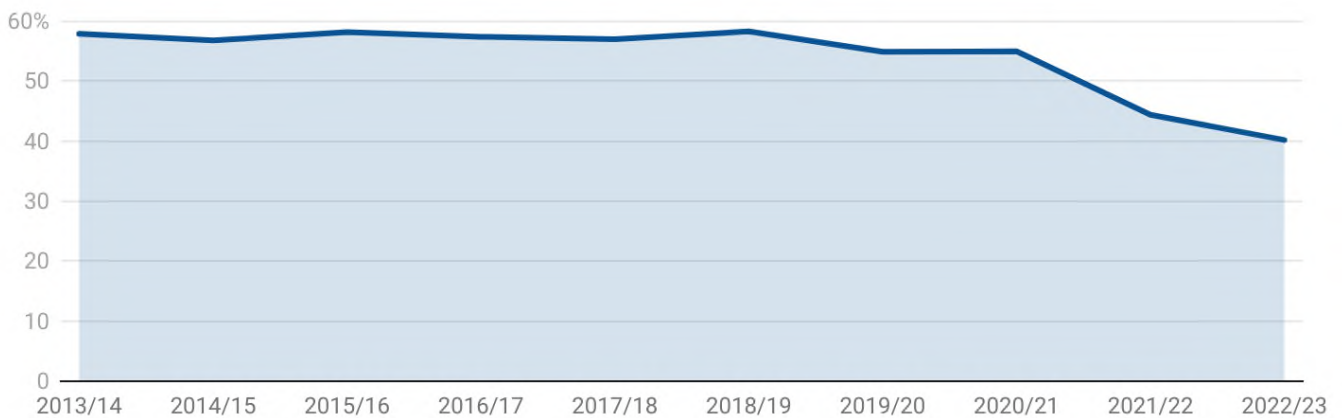


The proportion of patients receiving a brain scan within 1 hour has **increased** from **54.6%** in 2021/22 to **56.9%** in 2023/23.

This is the **highest** proportion recorded for a single year.

### What does the data show?

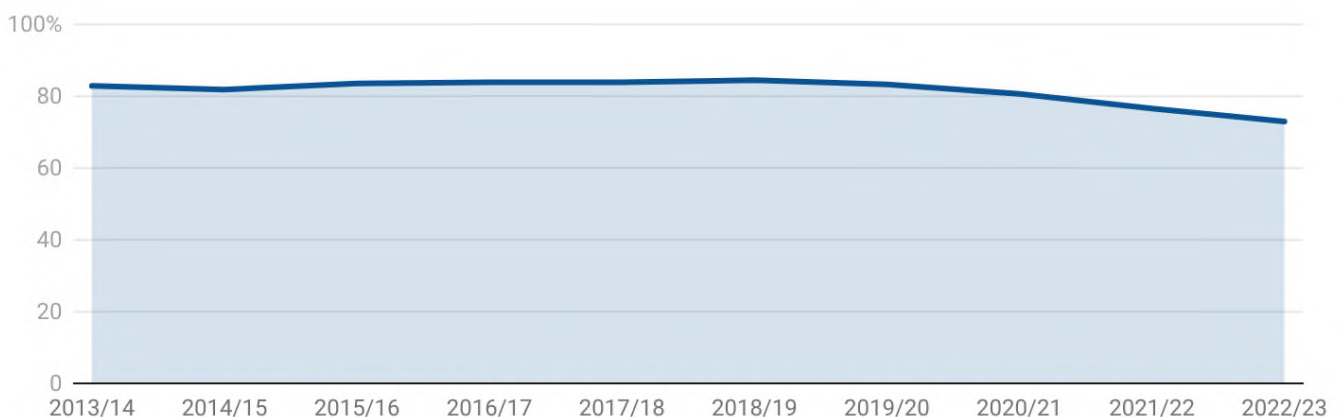
Proportion of patients directly admitted to a specialist stroke unit within 4 hours of arriving at hospital:



The proportion of patients directly admitted to a stroke unit within 4 hours of admission has **decreased** from **44.4%** in 2021/22 to **40.2%** in 2022/23.

This is now well **below** the level before the **pandemic** 54.9% in 2019/20.

Proportion of patients spending at least 90% of their time in hospital on a specialist stroke unit:



The proportion of patients spending at least 90% of their stay in hospital on a stroke unit has **decreased** from **76.5%** in 2021/22 to **72.9%** in 2022/23.





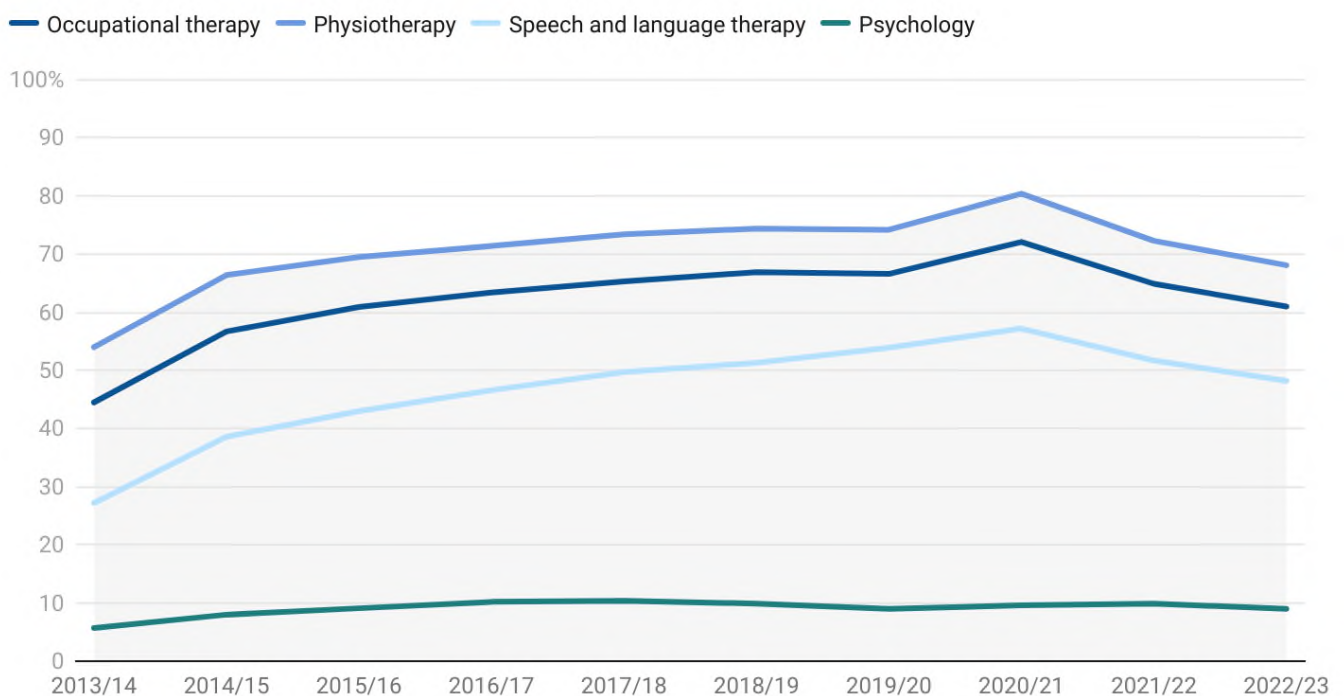
## In hospital rehabilitation

### What should be done?

- **Rehabilitation** is a set of treatments and activities to **promote recovery** and **reduce disability**.
- Rehabilitation treatments are **provided by therapists** and therapy assistants.
- People with physical disabilities after a stroke should receive at least **3 hours of therapy a day**.
- Rehabilitation should **begin in hospital** and **continue** for as long as it is needed after leaving hospital.
- Rehabilitation helps people **increase** their **independence** after a stroke and **cope** with any **long term difficulties**.

### What does the data show?

Percentage of days on which therapy is received:



The percentage of a patient's days in hospital that they required therapy on which they **received therapy** has **fallen** in 2022/23. This can be seen for occupational therapy, physiotherapy, and speech and language therapy.

Mood and cognitive symptoms are common after stroke, however, **psychology** care provision **remains low**.

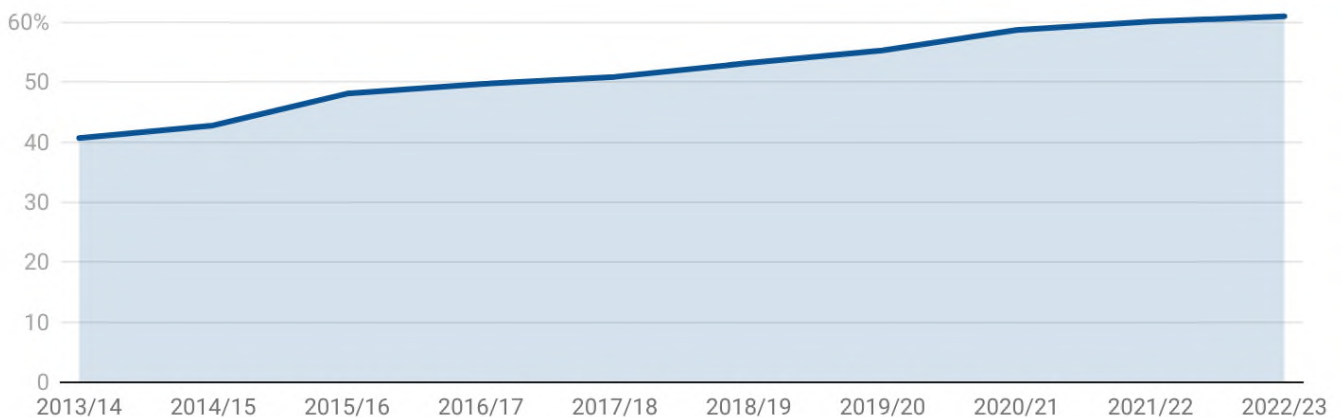
## Community rehabilitation

### What should be done?

- **E**arly **S**upported **D**ischarge (**ESD**) teams are services that let people leave hospital as early as possible, if they are able, by offering rehabilitation at home at the same intensity as the care they received when in the hospital.
- **C**ommunity **R**ehabilitation **T**eams (**CRT**) are services that provide rehabilitation for patients at home after they have left hospital.
- A growing proportion of stroke patients leave hospital with **complex needs**. These patients will need **longer-term rehabilitation support**.
- **ESD** and **CRT** can be provided separately but NHS England recognises that **services offering both ESD and CRT** will **better support** longer-term rehabilitation.

### What does the data show?

Proportion of patients discharged to a stroke/neurology **ESD** or **CRT**:



The proportion of patients discharged from hospital to a stroke or neurology-specific **ESD** and/or **CRT** has **increased** from **60.1%** in 2021/22 to **61%** in 2022/23.

In April 2023, **49%** of community services were identified as a **combined ESD-CRT service**.

# Vocational rehabilitation

## What should be done?

- A stroke can make it **difficult to work**. It may take a long time to return to work. **Specialist support can help**.
- People with stroke should be **asked** if they want to return to work before they leave hospital.
- If they want to return to work, the stroke team should **check** their ability to do so.
- The stroke team should give support and information about **vocational rehabilitation programmes**. These are programmes that help people to return to paid or voluntary work.

## What does the data show?

Employment status before and at 6 months after stroke:

■ Working full-time ■ Working part-time ■ Retired ■ Studying or Training ■ Unemployed ■ Other

### Before stroke



### Six months after stroke



In 2022/23, **39.6%** of people with stroke had a 6 month review. Of these:

- **18.8%** were working before their stroke.
- **10.6%** have been supported to **continue working** either full-time or part-time at 6 months **after stroke**.

## 6 month follow up

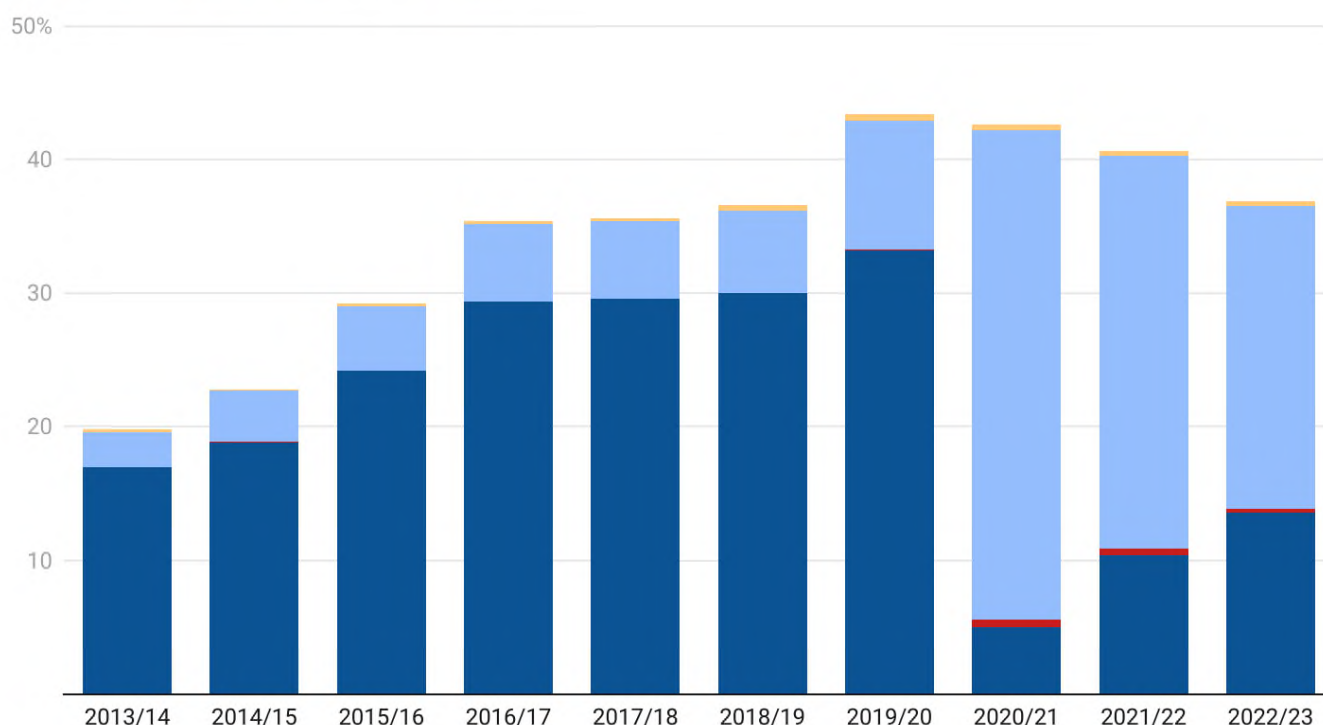
### What should be done?

- Stroke affects many aspects of life. For some people these **effects can be lifelong**. Many people benefit from rehabilitation and **support at different stages** of their recovery journey.
- People with stroke should have a **review of their health and social care** to assess their long term needs.
- The review should happen **six months and one year after stroke**, and then every year after that.

### What does the data show?

Proportion of patients receiving a 6 month assessment:

■ In person ■ Online ■ By telephone ■ By post



The proportion of patients receiving a 6 month stroke review has **decreased** from **40.7%** in 2021/22 to **36.9%** in 2022/23.

The proportion of 6 month reviews performed **face to face** increased from **25.6%** in 2021/22 to **36.8%** in 2022/23.

## Conclusion

The way we provide stroke care in hospitals and communities is important for fast recovery after a stroke. We can make improvements using new and creative methods, like using videos to diagnose stroke before people reach the hospital or providing more intense rehabilitation to people with stroke in their own home.

The main principles of organising stroke care are still crucial. When someone has a stroke, they should go to specialised stroke units in the hospital as fast as possible. Transferring them between hospitals and community care should be well planned.

Although we are making some progress in providing thrombolysis and thrombectomy, it is important more improvements are made to help more people, especially by ensuring everyone has access to these treatments, no matter where they live.

Having a skilled, flexible, and proactive stroke team is essential for delivering high-quality stroke rehabilitation inside and outside hospitals. This will also help meet the long-term needs of patients beyond 6 months after their stroke.

**SSNAP** is a vital tool to monitor performance and improve stroke care. Further developments to the national stroke audit in the next year will help us understand how and where we can make even better improvements and outcomes for stroke patients.



## Cover artist

The artwork on the front cover art of this report was provided by Sandra Aina.



My stroke happened in May 2015. I didn't know. In fact, if I had died, I wouldn't have known. I spent one month in Plymouth hospital, one month in Basildon Hospital and six weeks at Brentwood recovery service. I came out initially using a wheelchair but then a dear friend who also had had a stroke, gave me hers, and it changed my life. I had good care, especially from Brentwood but I could not get over the devastation of losing my physical and mental being. I cried every day for 18 months and then one evening my in-law called from Nigeria. My hubby gave me the phone, and through my tears I explained to her how I felt. I don't really remember what she said to me, but I just felt better afterwards. I'm more or less back to my old self now. The painting you're

looking at is my representation of the scream. That is how I felt. This represents just how I felt in those early days. I hope you like my copy.

## Thank you

We want to thank the following people and organizations for their help in making this report:

1. The **SSNAP** Clinical and Associate Directors: Dr Ajay Bhalla, Ms Louise Clark, Dr Rebecca Fisher, and Professor Martin James.
2. Sandra Aina, a stroke survivor and artist, who provided the artwork for this report.
3. **SSNAP** steering group patient representatives: Marney Williams and Danny Lloyd, along with our Patient and Public Voice Representation group. They play a crucial role in making sure people with stroke are heard in our work.
4. The hospitals and community teams that continue to take part in **SSNAP**. Their commitment to the audit provides important and reliable data to improve stroke services.

## **The report was prepared by the SSNAP team:**

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## **Healthcare Quality Improvement Partnership**

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[www.hqip.org.uk/national-programmes](http://www.hqip.org.uk/national-programmes)

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