This report demonstrates a flavour of paediatric anaesthetic opinion from around the country.
It highlights the impact of the pandemic on anaesthetic case numbers, the confidence of anaesthetists and their ability to maintain their paediatric skills

# APAGBI Link-Network Opinion Survey

## A survey of APAGBI Link Representatives.

LAURENCE HULATT – SPRING 2024

APAGBI
Association of Paediatric Anaesthetists of Great Britain & Ireland

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**Spring 2024**

**Lead Author:** **Dr Laurence Hulatt** **APAGBI Home member and Link Network Lead**
Consultant Paediatric Anaesthetist
University Hospitals Plymouth NHS Trust
Plymouth, Devon. PL6 8DH
laurence.hulatt@nhs.net

**Association of Paediatric Anaesthetists of Great Britain and Ireland**
21 Portland Place, London. W18 1PY
apagbiadministration@anaesthetists.org



APAGBI Association of Paediatric Anaesthetists of Great Britain & Ireland

## Summary

This survey of APA Link Representatives helps to demonstrate a flavour of anaesthetic opinion from around the country in 2023. It highlights the impact of the pandemic on anaesthetic case numbers, the confidence of anaesthetists and their ability to maintain their paediatric skills.

## Key findings

- Maintaining capabilities in paediatric anaesthesia is challenging for those in general hospitals: 71% of respondents report skill challenges and 51% report confidence concerns.
- Large numbers of on-call anaesthetists require paediatric capabilities – both for emergency anaesthetic cases and to support paediatric critical care stabilisation.
- The continued effects of the pandemic meant that 45% of hospitals still reported reductions in the number of children anaesthetised in April 2023.
- There was a significant shift of services moving centrally from general to specialist hospitals leading to increased pressure on busy specialist children's hospitals and increased challenges for the families who access these services.
- While paediatric anaesthesia is seen as a challenging specialty for newly qualified consultants, there are mixed views on the extent to which the changes to the RCoA curriculum will address this. This survey revealed more positivity about the skills of newly qualified consultants compared to the 2016 opinion survey.

## Background

In 2016, Dr Karen Bartholomew conducted an opinion survey of APAGBI Link representatives. This survey was focussed on gathering thoughts around perceived confidence and competence of both new and established consultants.

With changes to the Royal College of Anaesthetists curriculum for training in anaesthesia (2021) and the COVID pandemic, the APAGBI Council felt that it was time to repeat the survey. The aim was to repeat the key questions from 2016 – to act as a fairly direct comparison – as well as seeking views on the impact of the pandemic with respect to paediatric anaesthetic services, caseload and the effect on skill maintenance.

## Survey methods

The survey was administered by sending the Link-Network representatives an email link to Microsoft Forms. The survey was open from April to July 2023 with reminder emails sent at intervals. Responses were anonymous. Results were collated by MS Forms and further reviewed using Excel.

# Results with Discussion

## Overall responses

69 responses were received. This represents an approximate response rate of 50%
Institutional breakdown was as follows:

| | |
|---|---|
| Small / medium DGH | 17 |
| Large DGH | 18 |
| University or Teaching Hospital | 20 |
| Specialist Children's Hospital | 14 |

Compared to 2016, this represents a higher proportion of responses from more specialist centres with fewer general hospitals.

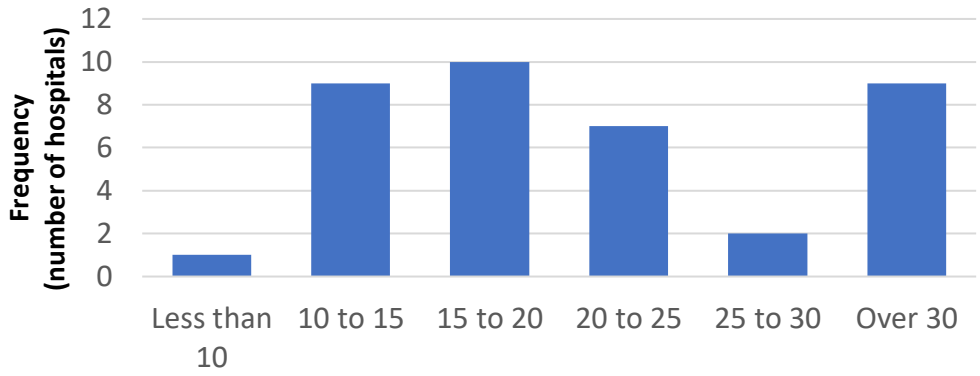
## On-call rotas

### Separate paediatric on-call rota

30 of 69 hospitals (43%) have a separate paediatric on-call rota.
These are all of the children's hospitals and 85% of University / Teaching hospitals. From this survey response no general hospitals had a separate paediatric on-call rota.
The number of individuals on the rota ranged from 8 to 30 individuals.
Of note, one hospital reported a rota that should have eight individuals, but due to retirements, etc. the rota had collapsed and was operating with only 2.5 whole-time-equivalent doctors on the rota. Mitigation was in place (including limitations on services delivered), but this highlights the issue of staffing subspecialist rotas where there may be limited resilience.
In some hospitals there were also a large number of individuals who were not on the specialist paediatric on-call rota who might be called upon to anaesthetise children – with several hospitals reporting 50-80 individuals in this position. This represents a significant number of individuals who may have very limited regular paediatric exposure.

### No separate paediatric on-call rota

All the general hospitals and three of the Teaching hospitals reported not having a separate paediatric anaesthetic on-call rota. The number of anaesthetists on an on-call rotas were reported as shown in the graph below:



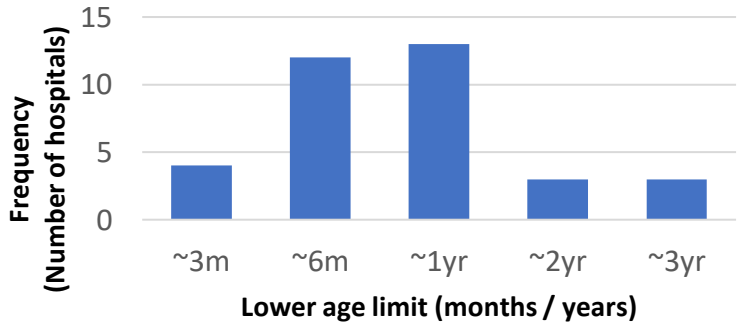

**Key point**
This demonstrates that large numbers of individuals are required to maintain paediatric anaesthetic capabilities for emergency work – but these individuals may well not have any regular paediatric anaesthetic elective practice.

## Age limit for elective procedures

We asked if institutions had a lower age limit for elective paediatric surgery/procedures.
33 responding institutions had no lower age limit:

- 13 Children's hospitals
- 15 (of 21) University / Teaching hospitals
- 5 Large DGHs

36 respondents (30 DGHs and 6 Uni/Teaching hospitals) reported a lower age limit. These mostly clustered either around six months or one year of age:




The vast majority of these reported no changes in this lower age limit compared with pre-pandemic.

**Key point**
These lower age limits are relevant when considering the anaesthetic training curriculum. With the increased paediatric emphasis in the RCoA 2021 curriculum the target is for all new CCT holders to be capable of anaesthetising down to 1 year of age.

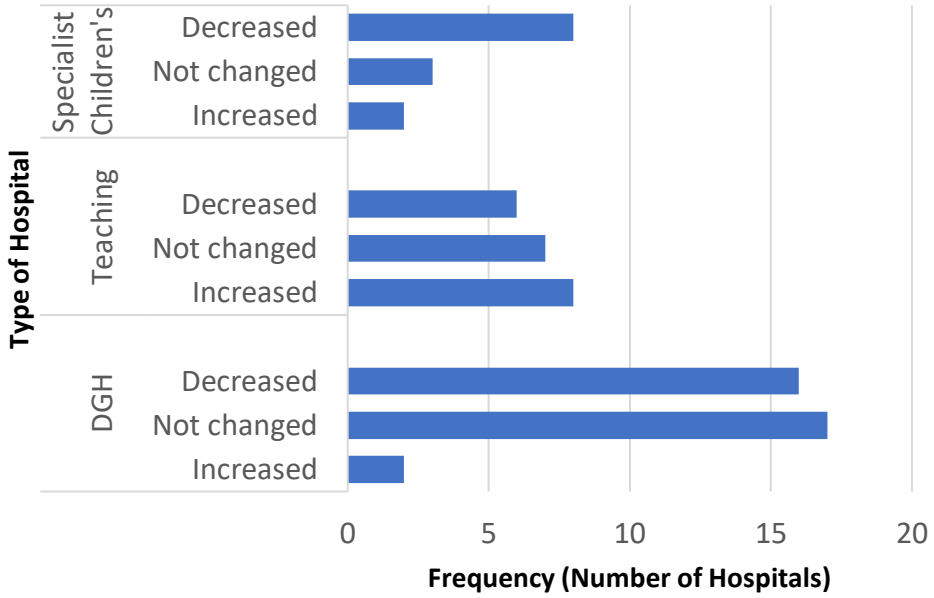
## Effects of the Pandemic

We wished to understand more about the residual and ongoing effects of the COVID pandemic.

## Number of Children anaesthetised

(In April 2023 - compared to pre-pandemic levels)


The pie chart shows that 43% of institutions were reporting reduced case numbers with a minority of institutions having increased numbers. There were some differences between hospital types:

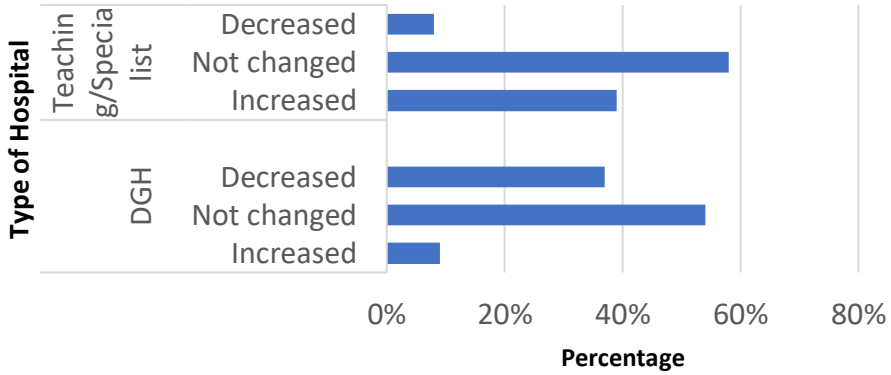



Specialist children's hospitals were affected to a surprising extent. Influencing factors included: bed and staffing issues; increased complexity of patients; sicker patients and reduced turnaround between cases. In contrast, General hospitals attributed the reduction in numbers to factors such as: reprioritisation towards adult work from paediatrics; centralisation of services; or services not having restarted post-pandemic. Where respondents estimated the magnitude of reduction in case numbers the figures were in the range of 50-75% reductions. Though clearly this data is subject to response bias and estimation.

## Extent of Services

A further question asked about the range or extent of services provided and whether that had changed since the pandemic.

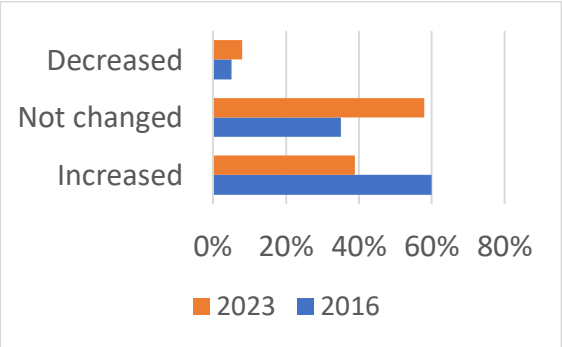

Approximately half of hospitals reported no change, with an equal number reporting increases as decreases. However, there are differences between different types of hospitals – Specialist hospitals demonstrating increases and General hospitals reporting decreases:



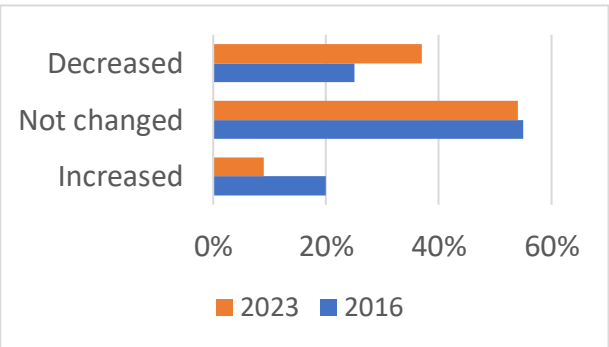

The few increases in services at DGHs were mostly as a result of visiting surgeons from tertiary centres – a model which has merit in exploring more widely as regional services are considered.

The 2016 survey asked about changes in the extent of services over the previous five years. That data showed similar trends to responses from 2023:

**University/Teaching Hospitals**



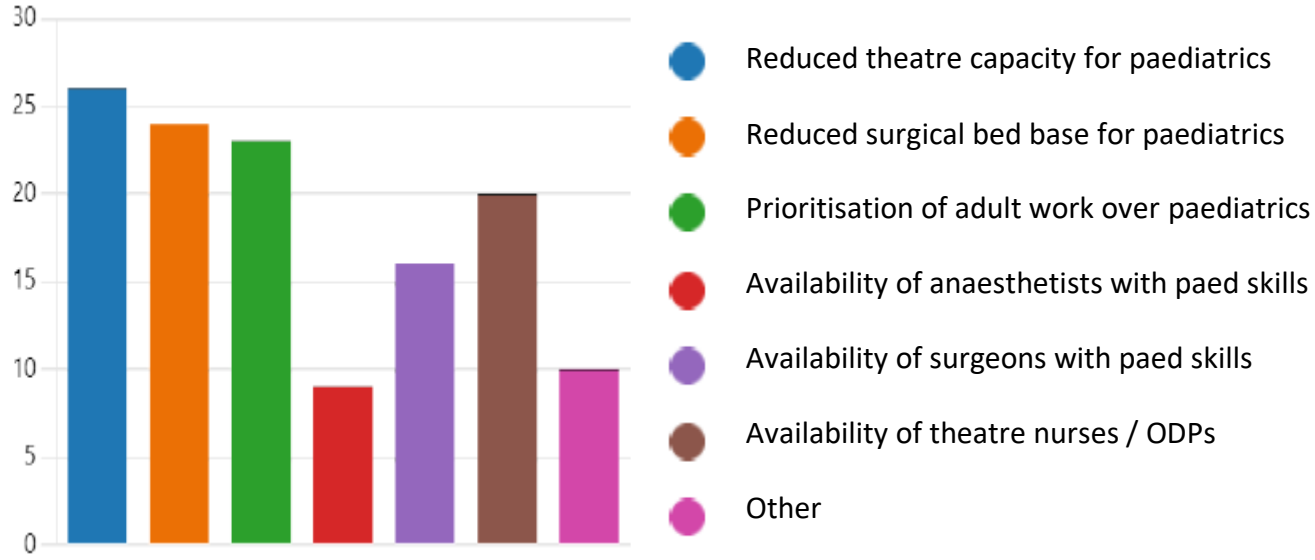

**District General Hospitals**




This demonstrates that the pandemic furthered the trend from 2016 of services increasing in specialist hospitals while decreasing in general hospitals.

## Limiting Factors

We asked about specific factors that were limiting the provision of children's surgical services:




Approximately **45%** of non-Children's hospitals reported having less theatre capacity allocated to paediatrics; with **40%** reporting prioritisation of adult work over paediatrics as a limiting factor.

## Positive impacts of the pandemic

We asked respondents if there were any positive impacts of the pandemic that they wished to share.
55% of respondents were not able to offer any positive aspects.
This highlights just how difficult this period has been and the continuing negative effects that stop anaesthetists being able to work effectively to provide services in an optimal manner.

Of the 45% who did report positive impacts, the themes were:

- Preoperative assessment – with many centres starting new preop services
- ODNs/Regional pathways – including examples of more care being delivered closer to home
- Technology – virtual working and teaching, improved IT solutions (eg theatre photography)
- Physical infrastructure – eg new day case units (but inadequate staffing was limiting use)
- Flexibility and teamworking
- Changes in clinical practice – such as use of TIVA and regional anaesthesia/analgesia

**Key point**

Even three years after the first COVID lockdowns, there is still an ongoing impact of the pandemic on provision of paediatric surgery and anaesthesia. The GIRFT report "Closing the Gap"[1] demonstrates a sustained 6-10% lag of recovery of paediatric services compared with adult services. This survey suggests that re-prioritisation of adult work and staffing issues are continuing to have significant effects.
This survey data also suggests that the pandemic effects have contributed to a trend of further movement of services from general to specialist hospitals.

## Competence, Confidence and Skill maintenance

This section of the survey was designed to closely mirror the questions asked in the 2016 Opinion Survey to allow a direct comparison and highlight any shifts in opinion over the intervening seven years (again, recognising that pandemic effects may have had a significant impact).

### Skill maintenance

We asked: "Are there any difficulties in maintaining your paediatric skills or those of your established consultant colleagues?"

| | |
|---|---|
| Yes | 34 |
| No | 30 |
| Uncertain | 5 |

Overall half of respondents agreed. However, this data is best viewed by hospital type:

- Children's / Teaching Hospitals: 26% agree (25% in 2016)
- District General Hospitals: **71% agree** (80-85% in 2016)

### Confidence / Competence

We asked a specific follow up question to elucidate the effects of the pandemic period: "Do you feel that the pandemic period has had an impact on confidence or competence"

| | |
|---|---|
| Yes | 26 |
| No | 32 |
| Uncertain | 11 |

While only 40% of respondents overall agreed with the statement, there was again a split between hospital types:

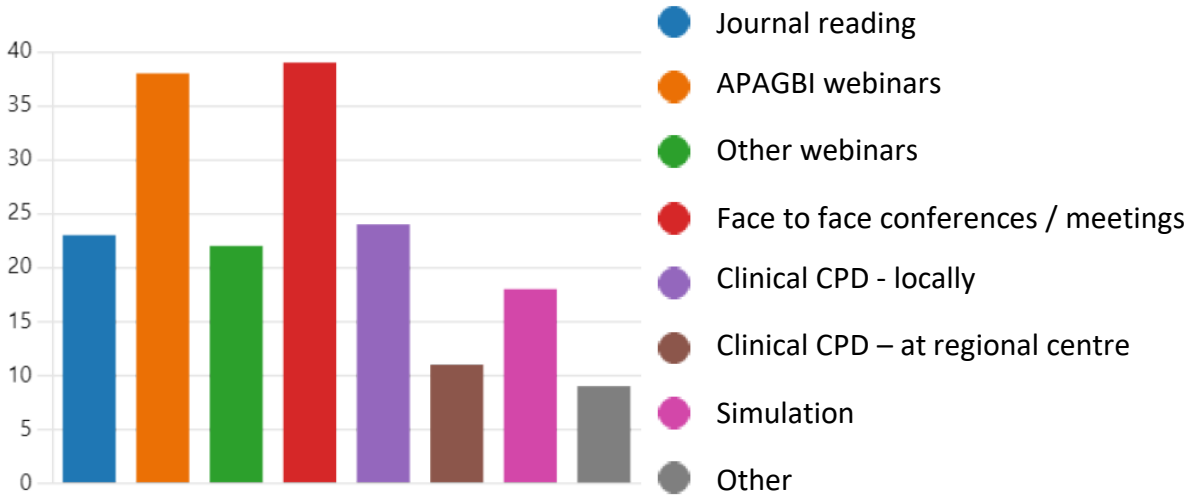
- Children's / Teaching Hospitals: 24% agree
- District General Hospitals: **51% agree**

Thus, a majority of general hospital respondents reported concerns with both skill maintenance and confidence/competence with respect to paediatric anaesthesia.

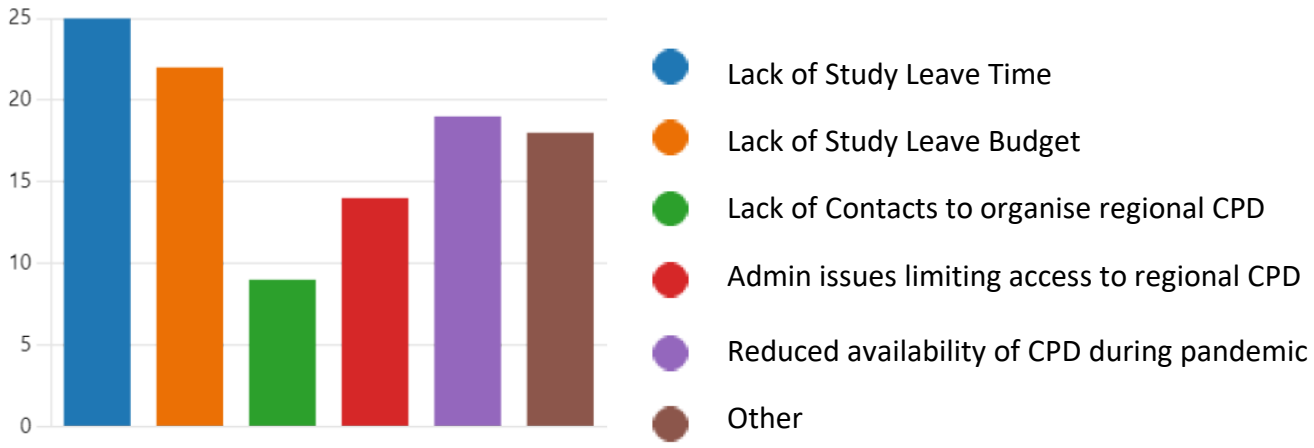
There were a range of views expressed in the free-text comments, but the most consistent theme was of exposure to a reduced volume of elective paediatric work, but with continued emergency work and therefore reduced confidence in that area: “there is certainly less confidence within the consultant body as regards being faced with a sick infant out of hours.”

## Actions to maintain skills

We wished to explore the avenues that consultants took to maintain their skills:




We also asked about any barriers:




The administration issues and lack of contacts limiting access to clinical CPD in theatre at a regional centre were reported by up to 40% of respondents from general hospitals. The administrative burden of seeking an honorary contract was further emphasised in the free text comments. Fewer than 15% of respondents reported having been able to access a hospital ‘passport’ to allow them to work / gain experience in other centres – while over 60% of respondents from general hospitals felt that this would be useful.

**Key point**

For general hospitals, **71%** of respondents report skill maintenance challenges and **51%** report confidence concerns.

When planning services, it is important to recognise the interplay between elective paediatric anaesthesia and the demands of on-call work, which encompasses both emergency anaesthesia and also in many cases support for paediatric critical care.

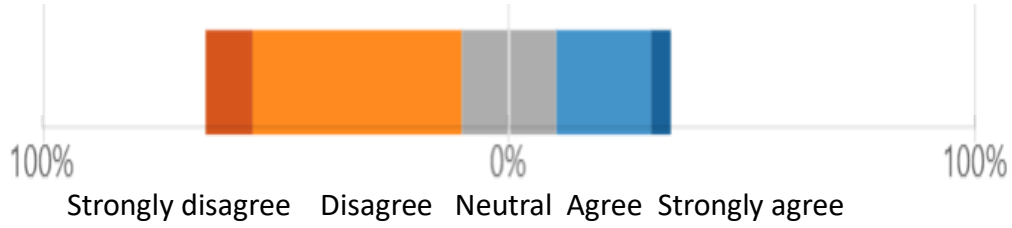
The NAP7 report[2] highlights that 88% of paediatric resuscitations require the presence of an anaesthetist – again highlighting the importance of skill maintenance.

There are many routes to maintaining paediatric CPD, but some barriers still discourage gaining direct clinical experience through visiting a specialist centre.

## Training and new consultants

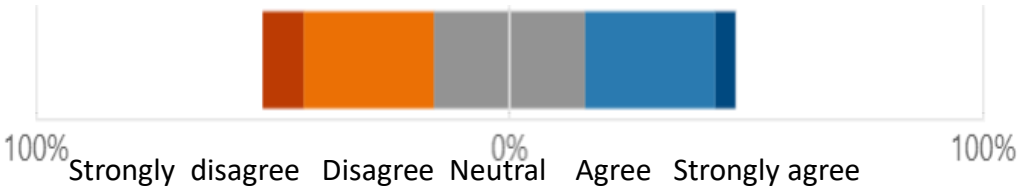
We repeated three questions from the 2016 survey relating to new consultants and perceptions of the degree to which the training curriculum prepares anaesthetists for consultant practice.

1) More recently qualified consultant colleagues in my hospital do **not** feel confident in anaesthetising children.



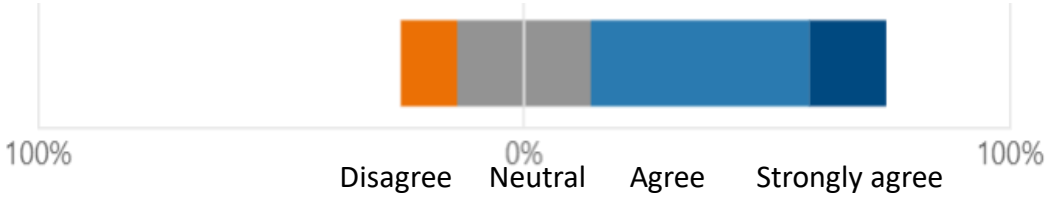

The majority do not agree with this statement with 55% disagreeing. Only 25% agreed. This compares favourably with the 2016 survey where 54% agreed with the statement.

2) We asked whether the increased emphasis on paediatric anaesthesia in the 2021 curriculum will improve confidence in anaesthetising children for new consultants. There was a mixed response:

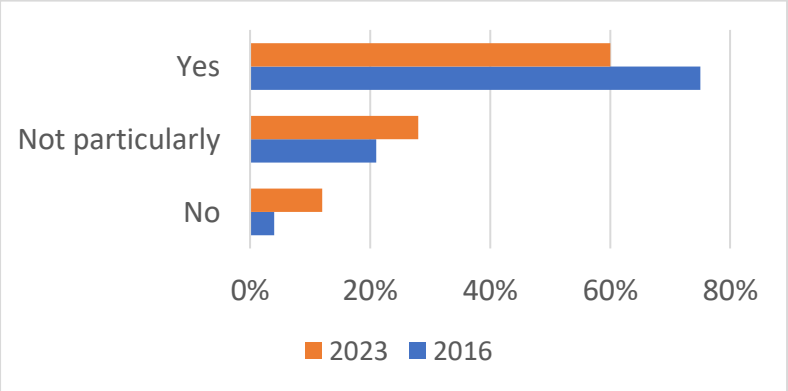



This response was significantly different to the 2016 questionnaire when 80% of respondents had agreed that previous changes to the curriculum had been responsible for the low confidence/competence of newly qualified consultants.

3) Finally, we asked respondents whether they agreed with the statement: "Paediatric Anaesthesia is considered a challenging specialty for newly qualified consultants"




The comparison with the data from 2016 can be seen below:




So, while concerns have reduced slightly, there is still a clear signal that responding anaesthetists believe that paediatric anaesthesia remains a challenging specialty.

**Key point**
Paediatric anaesthesia presents unique challenges for newly qualified consultants.
However, when compared with 2016, respondents were much more positive about the perceived confidence of newly qualified consultants to anaesthetise children.
It may be too early to determine whether the increased emphasis on paediatrics in the 2021 curriculum will further improve this position.

## Further discussion

It is important to recognise the limitations of this type of survey work, which can only seek opinions and carries inherent risks of response bias. However, the results are a useful means to 'take the temperature' of paediatric anaesthesia in 2023 and identify themes.

The results provide further evidence that there is reduced paediatric exposure for anaesthetists in non-specialist centres. This is as a result of pre-existing trends of centralisation (which continue) and pandemic effects. Reduced exposure leads to both skill and confidence concerns for generalist

anaesthetists. Meanwhile the on-call need for skilled generalist anaesthetists with paediatric competence continues.

Addressing this issue will require action from individual anaesthetists to seek CPD opportunities to maintain their skills, as well as departmental responses (such as doubling-up consultants on paediatric lists to maximise experience).

At a regional and national level service design must recognise the link between elective and emergency care (including critical care provision) and the training curriculum must continue to develop to maximise CCT holder's paediatric experience.

## References

1 Closing the gap: Actions to reduce waiting times for children and young people. Sept 2023 GIRFT – NHS England. Closing-the-gap-Actions-to-reduce-waiting-times-for-children-and-young-people-FINAL-V2-September-2023.pdf (gettingitrightfirsttime.co.uk)

2 At the heart of the matter. Report and findings of the 7th National Audit Project of the Royal College of Anaesthetists examining Perioperative Cardiac Arrest. NAP7: Perioperative Cardiac Arrest | The Royal College of Anaesthetists (rcoa.ac.uk)

## Acknowledgements

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