

# Mapping integration and outcomes across Scotland: a statistical analysis

August 2023

Summary report

**The Children's Services Reform Research study is a Scotland-based research study being undertaken by CELGIS, the Centre for Excellence for Children's Care and Protection. In 2022, CELGIS was asked by the Scottish Government to carry out this research study with the aim of gathering evidence to inform decision-making about how best to deliver children's services in Scotland in light of the proposed introduction of the National Care Service, and its commitment to Keep the Promise of the Independent Care Review (2020).**

## Report authors

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## Context of the research

In 2021, the Scottish Government published the findings of an Independent Review of Adult Social Care in Scotland (Feeley, 2021) and recommended the creation of a National Care Service for adult social care. Later that year when the Scottish Government launched its consultation on the National Care Service, it included a proposal that children's social work and social care services should be included within it. Whether or not to integrate systems, processes, services, or agencies is a big decision. When the systems in question include the nationwide delivery of support through children's social work and social care services, the implications are even wider.

In this context, it is important that decisions are made with the fullest understanding of the available evidence and information.

## How we did this research

This statistical analysis of the available quantitative data on integration and outcomes is the third strand of work within the Children's Services Reform Research study. To understand if the last major structural reform of health and social care services in Scotland has changed outcomes for children, we posed this research question:

***Is the level of structural integration of children's health and social care services associated with changes in outcomes for children, young people, families, and the workforce?***

**This summary replaces the original summary issued on 19 July 2023 and reflects the small statistical changes in our analysis informed by the reversal in the delegation of some services in one local authority area during the time period we analysed. More information on this can be found in the main report.**

## About the Children's Services Reform Research study

The purpose of the research study is to answer the question: "What is needed to ensure that children, young people and families get the help they need, when they need it?". The study has four separate strands of work, which together aim to provide a comprehensive and holistic approach to answering this question. A final report will be published at the end of the study which will draw together and synthesise all four strands of the findings to address the research question.

An Independent Steering Group chaired by Professor Brigid Daniel, Professor Emerita at Queen Margaret University, Edinburgh, has supported the design, implementation and delivery of the research study.

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To answer this question, we developed a methodology to determine if different approaches to structural integration are associated with changes to a range of outcome indicators. To do this, we categorised local authority areas based on the extent of integration of children’s health and children’s social care services in each area after their Health and Social Care Partnerships (HSCPs) were established in 2015/16 following the Public Bodies (Joint Working) (Scotland) Act 2014 or, in the case of the Highland local authority area, integration arrangements that were established in 2012. We then:

- identified a set of quantitative outcome indicators from available national sources (including Scottish Government, Scottish Children’s Reporter Administration, Public Health Scotland and the Care Inspectorate)
- looked at trends or change over time for each of these indicators (from 2010 to 2021 where data was available)
- used statistical modelling to determine if change was associated with different approaches to the structural integration of children’s services, while accounting for the influence of other contextual factors; and
- looked at the relationship between these contextual factors and each outcome indicator.

### How we categorised the integration approaches in local authority areas

We identified three categories of integration: full structural integration; partial structural integration; and no structural integration.

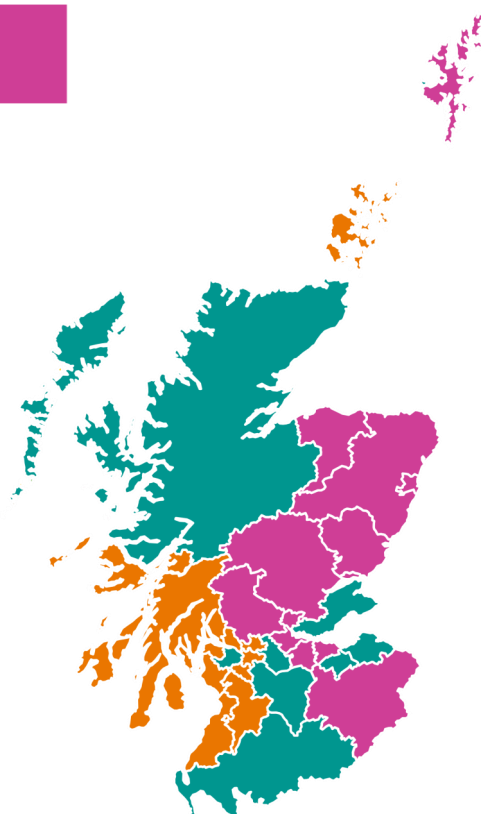
Level of structural integration	Children’s services	Integrated Joint Board (IJB) model		Lead agency model (Highland only)	
		Delegated to IJB	Integrated with adult services	Delegated to lead agency	Integrated with adult services
<b>Full</b>	Children’s health	✓	✓		
	Children’s social care	✓	✓		
<b>Partial</b>	Children’s health	✓	✓	✓	×
	Children’s social care	×	×	✓	×
<b>None</b>	Children’s health	×	×		
	Children’s social care	×	×		

Figure 1: How we categorised the integration approaches in local authority areas

There were 10 local authority areas where there was full structural integration, with the HSCPs having responsibility for both children’s health and social care services, in addition to adult health and social care services.

There were eight local authority areas where there was partial structural integration, with HSCPs having responsibility for children’s health services but not children’s social care services. In addition, the Highland HSCP followed an alternative model where children’s health and social care services were integrated together but these were not integrated with adult health and social care services.

In 13 local authority areas there was no structural integration and the HSCPs there were not responsible for either children’s health or for children’s social care services.



### Indicators included in our analysis

The 25 indicators were taken from information about seven different dimensions of public services, support and outcomes associated with the welfare and wellbeing of children and young people in Scotland. These are matters of child protection, youth justice, care experience, education and employment, health, housing and the workforce available to support children and families.

The sizes of the segments in Figure 2 reflect the number of indicators that were assessed within each dimension.



Figure 2: Indicators included in our analysis

## What we found

### There is no consistent evidence of an association between structural integration and outcomes

Our analysis found no statistically significant association between the level of structural integration of children’s services in local authority areas and changes after HSCP formation for twenty-two of the twenty-five indicators assessed.

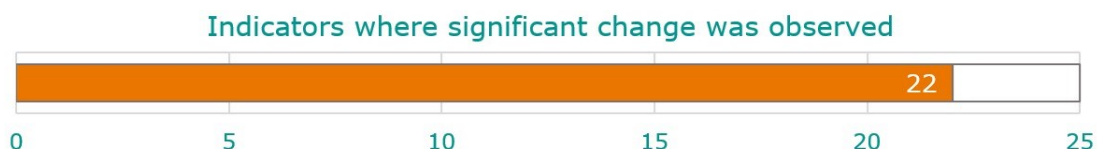
We did find a statistically significant association between the level of structural integration after HSCP formation and changes observed for three indicators, details of which are provided in Table 1 below. However, no clear picture emerged about the relationship between these small changes and increased levels of structural integration. The lack of a distinct relationship between change and integration supports a conclusion that there is no consistent evidence of a change in children’s outcomes as a result of the structural integration of children’s services into HSCPs.

'Average' percentage change for significant results			
	No structural integration	Partial structural integration	Full structural integration
Conversion rate of case conferences to child protection registrations	+3.3%	+5.8%	+1.9%
'Looked after' children experiencing 3 or more placements within the year	-1.0%	-0.4%	+0.2%
Primary 1 children who are overweight or obese	-0.2%	+0.7%	-0.6%

Table 1: 'Average' percentage change for significant results. 'Averages' displayed are means calculated through the statistical model, known as estimated marginal means. For further detail, please see the main report.

### While not connected to the structural integration of services, outcomes are changing for children, young people and families

Our analysis of trends over time showed that changes are taking places in the outcomes of children, young people and families.

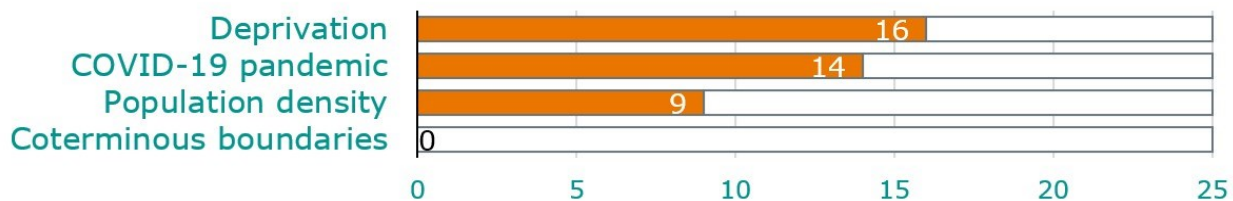


For 20 indicators we had data before integration and after integration took place, and for 5 indicators, information only after integration took place. We could see from this that there were statistically significant changes for 22 of these 25 indicators over the time period we studied.

However, many factors may be influencing the change we observed, and we found no consistent evidence that the level of structural integration was associated with these changes.

**Context matters: deprivation, population density and the COVID-19 pandemic have all had an impact on the lives and health and social care needs of children and families**

Number of indicators where change was associated with:



We looked specifically at other factors that we believed would or could be having an impact on children's outcomes. These were deprivation, population density, the effects of the COVID-19 pandemic and the associated public health restrictions, and whether the local authority had a coterminous health board (that is, whether the local authority and health board had the same boundary).

We found that changes within 16 of the 25 indicators were significantly associated with the level of deprivation within a local authority area, and changes within 9 of the indicators were associated with the population density of the authority area. The impact of the COVID-19 pandemic was also present: statistically significant changes were associated with the pandemic in 14 of the 25 indicators involved. We didn't find any relationship between children's outcomes and whether local authorities and health boards shared the same boundary for any of the indicators we looked at.

**The quality of children's data in Scotland needs to improve**

The breadth and quality of children's data available within Scotland impacted on the analysis we were able to undertake in this research. We were able to identify a range of 25 outcome indicators across a variety of domains that were deemed relevant and to be of a sufficient quality for inclusion in our analysis. However, we also identified areas where there continue to be gaps in what is collected and therefore what is known about children's outcomes, the experiences of children and their families, and the wellbeing of the children's services workforce too.

**There are geographical patterns in the approach to structural integration in Scotland**

The level of structural integration of children's services does not appear to be randomly distributed geographically across Scotland. There is somewhat of an east/west divide in terms of the local authority areas that have not structurally integrated children's services and those that have. All but one of the local authority areas within our full structural integration category were formerly part of the Strathclyde Regional Council area, which was restructured in 1996.

**Greater clarity is needed on the delegation arrangements for children's health and children's social care services**

Determining delegation arrangements in HSCP areas, particularly in relation to health services for children, was not straightforward. The binary description of children's health services as

delegated or not delegated oversimplifies complexity and substantial variation in the range of children's health services that are delegated across Scotland. A process for collating and maintaining information about delegation arrangements across Scotland would help improve understanding of how structural reform to increase integration is being approached in practice in local areas. Furthermore, the public should be able to have a clear understanding of how services are being designed to function and who is accountable.

## Limitations of this research

Our findings relate to our exploration of whether there is an association between outcomes for children and families and the structural integration of services, and cannot be extended to the concept of integration more generally. Integration is a complex concept and there are a multitude of components (such as shared culture and goals, aligned policies and co-location) that can influence how effective or otherwise the integration process is (Porter et al., 2023; McTier et al., 2023). Multi-agency and multi-disciplinary working may already be well-established in areas which are not structurally integrated and, conversely, areas in our full structural integration category may vary substantially in terms of how services are operating and therefore how children, young people and families in need of support from services are experiencing these services.

Our analysis found that there is no consistent evidence to suggest that the level of structural integration of children's services within Health and Social Care Partnerships is associated with changes to outcomes for children, young people and their families in the period studied. We cannot, however, categorically determine that structural integration has had no effect on outcomes for children, young people and their families. Scotland's 32 local authority areas were taken to be the units of interest for our study. For statistical purposes, this is a relatively small sample size, which means that statistical models will have less capability to detect changes that are taking place than in studies where the sample size is larger. Additionally, integration is an ongoing complex process rather than an immediate event. As only around five years of post-integration data was available for us to analyse, it is possible that there may be effects of integration that have yet to be seen.

We included a wide range of indicators about the outcomes for children, young people, families and the workforce in our analysis, but our choice was limited due to unavailability of data or lack of data of sufficient quality to look at. Key gaps include data that could tell us more about the needs of children, young people and families, their experience of the services they receive, and outcomes that result from getting support and using services, particularly in relation to wellbeing. Better workforce-related data would improve understanding of recruitment, retention and caseload pressures, as well as workforce wellbeing.

## Areas for future research

Our work for this strand of the research study has highlighted several areas that would benefit from future research:

- A more nuanced categorisation of local authority areas by other important components of integration such as services sharing a workspace or information systems, having shared values and goals, or having joint finances, would be of interest, though this could prove difficult to assess against outcomes due to the relatively small number of local authority areas within Scotland.
- Having identified a lack of clarity about the definitions and recording of how and which children's health services are delegated and the variation of this across different local authority areas, gathering more detailed information on this to build a better understanding and picture of the arrangements would be of value. This could allow for further categorisation of local authority areas in any future research and modelling, which could in turn offer more insight.

- We found that contextual factors such as deprivation and the COVID-19 pandemic were related to changes for children and families needing support, but there may be additional factors influencing specific outcomes that have yet to be identified. A more detailed exploration of the prevailing trends across each individual outcome indicator could therefore provide greater insight into the policies and societal changes that are having an influence on the experiences and outcomes of children, young people and families within Scotland.

Given what is known about integration being an ongoing process as opposed to an immediate event (Porter et al., 2023; McTier et al., 2023), we would make a strong case for this research to be revisited in future years when a lengthier period of follow-up data is available.

## Conclusion and next steps

This statistical analysis of the available data on integration and outcomes is the third strand in a series of four, collectively known as the Children's Services Reform Research study. This research and findings from the previous two strands of our research study (Porter et al., 2023; McTier et al., 2023) together build a picture which suggests that improving outcomes for children, young people and their families requires more than a change in organisational structures. The evidence presented across the first three strands of the Children's Services Reform Research study contributes to an understanding that integration is a complex and nuanced process, with many factors that can facilitate or impede achievement of the aims behind integration.

An additional contribution of this research is the statistical approach we have developed. This approach is suited to the evaluation of data collected from different geographical regions over time to assess the impact of a policy development or another significant event. We are sharing our approach in a way that makes it replicable.

The findings presented in this report will contribute to Scotland's developing understanding of health and social care integration and the impact of this on outcomes for children and families. This analysis will be considered alongside the findings from the other three strands of the study and all will be brought together for the final research report, due to be published later in 2023.

## References

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## About CELCIS

CELCIS, the Centre for Excellence for Children's Care and Protection, is a leading improvement and innovation centre in Scotland. We improve children's lives by supporting people and organisations to drive long-lasting change in the services they need, and the practices used by people responsible for their care.

## For more information

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