A safer link for children's records

Alternatives to the NHS number as a child single unique identifier (SUI) – an “NHS-managed education linkage number”

Summary

Children's records can be linked across services without giving every child a lifelong number that opens all of them to anyone who holds that number in perpetuity. We propose a linkage service that holds a meaningless key, keeps each sector's own identifier inside that sector, and shows a practitioner only the necessary and relevant facts their role permits, read in place and never copied.

The Department for Education (DfE) plans to make the NHS number the Single Unique Identifier (SUI) for every child in England, under the Children's Wellbeing and Schools Act 2026. The identifier provision is due to commence from autumn 2028.[1] Regulations will name the identifier and the agencies that must use it, with a code of practice.

The obvious alternative, the DfE Unique Pupil Number (UPN), carries the same risk. Any number that is written onto every record, held by every agency and kept for life becomes a national identity number in practice and increases the risk of inappropriate exposure of the longitudinal record.

We ask the Departments to:

1. Publish the SUI pilot results, data protection impact assessments and the end-state architecture well in advance of regulations being laid.
2. Specify in regulations a single unique identifier as a standalone linkage key with no meaning outside the linkage service, in place of either the NHS number or UPN, but that links them. A “NHS-managed education linkage number”.
3. Place the linkage index with an independent body that holds no case data, under a statutory code and published rules.
4. Build "check and show", not "copy": a practitioner sees the minimum relevant facts from another system, which stay where they are held.

What the Department is building

DfE is building a "Get an Identifier" service that writes a child's NHS number into every participating system. Pilots began in Wigan in April 2025.[2,3] In October 2026 DfE sought up to two school management information system (MIS) suppliers, at about £300,000, to connect school MIS to that service in an Alpha phase.[4]

The Department's own data flow for the pilot works like this:[5]

1. A local agency's system supplier sends a child's demographic details to a DfE service.
2. DfE passes them to the NHS Personal Demographics Service (PDS).
3. PDS returns the child's NHS number and the code of their GP practice.
4. DfE returns both to the supplier, which *copies* and writes them into the agency's record.
5. A planned second process, marked "to be confirmed", updates suppliers whenever a child's NHS number changes.

DfE describes its service as a postbox for now. It has set out three user needs in sequence: *get* an identifier onto a local record, *find* who else holds a record on the child, and *fetch* facts about the child held by other organisations. Only the first is being piloted. The roadmap describes a future "source of the truth" of identifiers with automated look-ups across social care, health, police and education.[6]

What the pilots found

Pilot	Population	Result
Pilot 1, Wigan (Dec 2025 to Feb 2026)	Children in the council case system with a known safeguarding concern	97.78% confident match; 0.97% potential; 0.28% low confidence; 0.59% many match; 0.38% no match
Pilot 2, national (analysed Dec 2025)	All children in the April 2025 school census	94% clinical match; 6% unmatched (471,915 records)
No overall accuracy rate was recorded for matches judged successful. No reason was recorded for every failed match.		

Fig.1. Source: Department for Education, FOI response on Single Unique Identifier pilot results, 18 September 2026[7] (WhatDoTheyKnow). https://www.whatdotheyknow.com/request/single_unique_identifier_sui_for

Why neither the NHS number nor the UPN should be the key

A number that sits on every record, in several agencies, for life, is a national identity number whatever it is called. Its risks grows with each system that holds it, and those never expire.

- **The NHS number is a health key.** Ministers say using it as an identifier is separate from health information.[8] In practice the pilot already returns the GP practice code with it. Anyone holding a child's NHS number holds the key to the Single Patient Record, into which children's social care data is now in scope and is outsourced to commercial partner agencies and third parties. A school, a police force or a local authority contractor's system that holds the number holds the means to look a child up in health systems. A copy lost in a breach cannot be withdrawn or reissued.

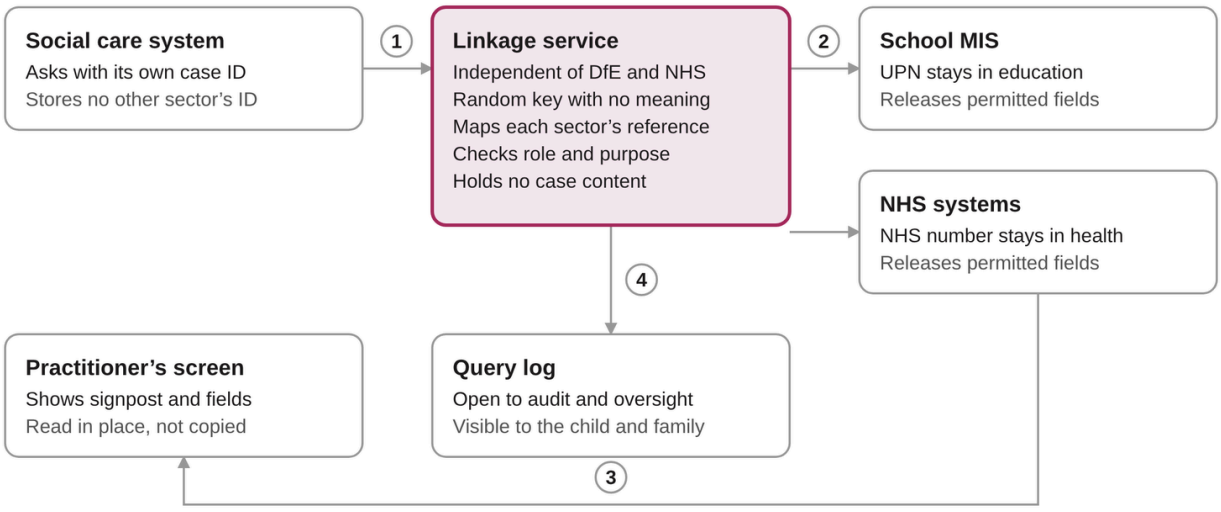
- **The UPN repeats the problem in education.** DfE current guidance says the UPN must lapse when a pupil leaves state schooling. DfE keeps it in its own datasets regardless, and uses it to link datasets across the DfE to form the National Pupil Database (NPD), which holds records on more than 28 million people. The NPD has been used for Home Office immigration enforcement (7,321 matching requests since July 2015), by police (2,384 records transferred from the DfE to police) and by DWP routinely in (adult) fraud investigations since 2019.[9] Promoting the UPN to be a cross-service key would carry those potentially punitive, untrusted uses even further into *and out of* health and social care systems. Over time this will create a database identifying 93% of adults in England, those who attended state school, with potential to broaden its access and reuse together with an ever-growing scope of administrative records from public services (eg. to link back from DWP via the DfE to health records for institutional bureaucratic reuses, not for care or use in the best interests of the child).

- **Both turn every agency into a gateway.** Once each system stores the same key, a single compromised or misused system opens a route to all of the others. Purpose limitation then rests on policy and good behaviour, and the existing architecture does nothing to enforce those expectations.

- **Breaches are routine.** This week more than 320,000 files stolen from Bristol City Council's Trading with Schools platform were published online.[10] In 2020, a firm with access to DfE's Learner Records Service used it to supply age-verification checks on 28 million learners to gambling companies. A shared lifelong permanent and direct identifier used as a key to access a wide range of records, makes every such breach worse.

The alternative: a linkage key with no other meaning

An independent linkage service (recommended managed under the NHS but could be otherwise) matches each child once and issues a random key that means nothing anywhere else. Each sector keeps its own identifier. No agency stores another sector's number. Each sector keeps its own identifier; only the linkage service connects them. An NHS-managed education linkage number links the two on demand. This is how administrative data research happens today and the principles of that architecture may be reused allowing for purposes that permit identifying data to be viewed and retained where appropriate.



(1) A practitioner's system sends its own case reference and a stated purpose.
(2) The linkage service checks the role and purpose against published rules, resolves the key and asks each holding system for the fields that role may see.
(3) The holder releases those fields for display only.
(4) Every query is logged and auditable.

Fig.2. An alternative to a single unique identifier from either health or education transferred between services.

How it differs from the Department's design

- **Permanent identifiers stay ‘in sector’.** The NHS number never leaves health systems and the UPN never leaves education systems (and is not retained past the age of compulsory education in line with current DfE guidelines). The pilot step that permanently writes the NHS number and GP practice code into local education records in the planned model, would be removed.
- **Each sector gets its own reference.** The linkage service gives each sector a different pseudonymous reference for the same child, derived from the key, the “NHS-managed education linkage number”. A reference copied from one sector is useless in another.
- **Find shows a signpost first.** A practitioner sees which services know the child and whom to contact, without needing to see content.
- **Fetch shows only what the role permits.** Health detail stays in health unless a clinician releases it. Nothing is written into the requesting system.
- **The key can be reissued.** If the linkage index is compromised, keys and sector references are regenerated. A lifelong public identification number cannot be.

This follows the separation principle used when linking admin data for research in the UK: those who match identifiers never see content, and those who see content never hold other sector IDs.

Safeguards built into the design

The Five Safes framework, developed by the Office for National Statistics and used by UK trusted research environments, already governs safe access to linked data for research.[11] It adapts to operational safeguarding with one change: each query, and not only each project, needs a lawful purpose.

Five Safes	Research setting model of today	Linked children's records of the future
Safe people	Accredited researchers	Practitioners in a named safeguarding role, authenticated per query
Safe projects	Approved public-good projects	A recorded purpose and lawful basis for each query, checked against published rules
Safe settings	Secure lab, no download	View in the practitioner's own system, no copy written to it
Safe data	De-identified extracts	Minimum fields set by role and purpose; health detail stays in health
Safe outputs	Checked, non-disclosive results	Every query logged; controls on data (especially bulk data) export; the log open to audit

- **Separation of duties.** The linkage body sees identifiers and matching data only. It never sees case content. Agencies see their own content and the facts released to them. No / few parties holds both.
- **Families' rights.** Each child, and their parents where appropriate, can see which agencies have looked up their record and why, unless that would put a child at risk. Errors in matching can be challenged and corrected at one point where the person already has a relationship with the service it connects them to.

- **Statutory footing.** Purposes, roles, fields and retention go in the Code of Practice the Act requires, laid by affirmative procedure. Any new purpose, including immigration, welfare fraud or policing outside safeguarding, needs fresh primary legislation. Oversight sits with an independent guardian for children's data, on the model of the National Data Guardian for health and social care.

The three options compared

Only the linkage key keeps each sector's records behind its own identifier while still letting a practitioner find what they need.

	NHS number	UPN	Linkage key
Meaning outside linkage	Opens health records	Opens education records and the NPD	None
Held by	Participating agency and its suppliers	Participating agency and its suppliers	The linkage body only
Coverage	Nearly all children	Children in state education (about 93%)	All children matched by the linkage body
A copy leaked or misused	Lookup route into health systems; cannot be reissued	Lookup route into the NPD; cannot be reissued	Useless outside the service; can be revoked and reissued
Purpose limitation	Policy only	Policy only	Enforced by the architecture, query by query
Becomes a national ID	Yes, from birth	Yes, for most of the population	No
Matching quality	Same demographic matching in every option	Same	Same
Build needed	Get an Identifier service (in pilot)	New cross-sector service	Linkage index plus a query and display service

Matching quality is identical across the options, because each depends on the same demographic matching against PDS or another index. The choice is about what happens after the match.

Recommendations

For the Department for Education

1. Pause the Alpha integration of the NHS number into school MIS until the end-state architecture is published and consulted on.
2. Specify a linkage key, an “NHS-managed education linkage number” with no external meaning as the consistent identifier in regulations under the Act.
3. Commission a linkage body independent of DfE and NHS England, holding identifiers and

matching data only.
4. Design "find" and "fetch" as check-and-show services: signposting first, then the minimum relevant fields, read in place.
5. Publish the Wigan and census pilot reports, the data protection impact assessments and the child rights impact assessment.
6. Report to Parliament each year on query volumes by purpose and agency, refusals, errors and breaches.

For Parliament

1. Require the identifier regulations and code of practice to be made by affirmative procedure.
2. Put purpose limitation on the face of the regulations, with no use for immigration enforcement, welfare fraud or policing outside safeguarding.
3. Ask the Information Commissioner to review the architecture before commencement in 2028.

Questions and answers

- **Will this slow down an urgent safeguarding decision?** No. A lookup through the linkage service is an automated call, as the DfE design already is. The practitioner sees the result in their own system at the same time, in real time.
- **Doesn't the linkage body become the single point of failure?** It holds no case content, so a breach exposes identifiers and matching data only, and its keys can be reissued. Under the NHS number model, every agency and supplier holds a key that cannot be withdrawn.
- **Isn't this what DfE's postbox already does?** The postbox writes (copies) the NHS number into each local education and other agencies' child record. Under our model nothing new is written into local records except a unique reference the local system cannot use elsewhere.
- **Will children who cannot be matched be missed?** The 6% of census records that did not match PDS face the same problem in every option. Reconciliation of unmatched records belongs in the linkage body, where it can be done once.
- **Is this proven anywhere?** Yes. UK trusted research environments link health, education and other records under the separation principle, where those who match identifiers never see content. Austria gives each person a different identifier in each sector, derived from a protected base number, so sectors cannot link records without the registry.
- **Does it need new primary legislation?** No. The Act lets the Secretary of State specify the identifier by regulations. A linkage key can be specified the same way.

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