Past, Present & Future: Liverpool City Council & Sentinel Partners Improving Lives Through Trusted Data Insights

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UKAuthority AI & Data4Good

Liverpool Supporting Families Programme Overview

The Liverpool Supporting Families Programme was established in 2012 as a local response to the National Troubled Families Programme. This Early Help programme is co-ordinated from Children's Services and Corporate Policy & Intelligence

3rd most deprived of 317 local authority areas; 49% of Liverpool LSOs in the most deprived 10% nationally

Visitor economy worth £4.3bn, welcomed over 62m visitors and supports over 51,500 jobs

£1bn Paddington Village, providing 10k jobs, with a focus on life-science, health and education

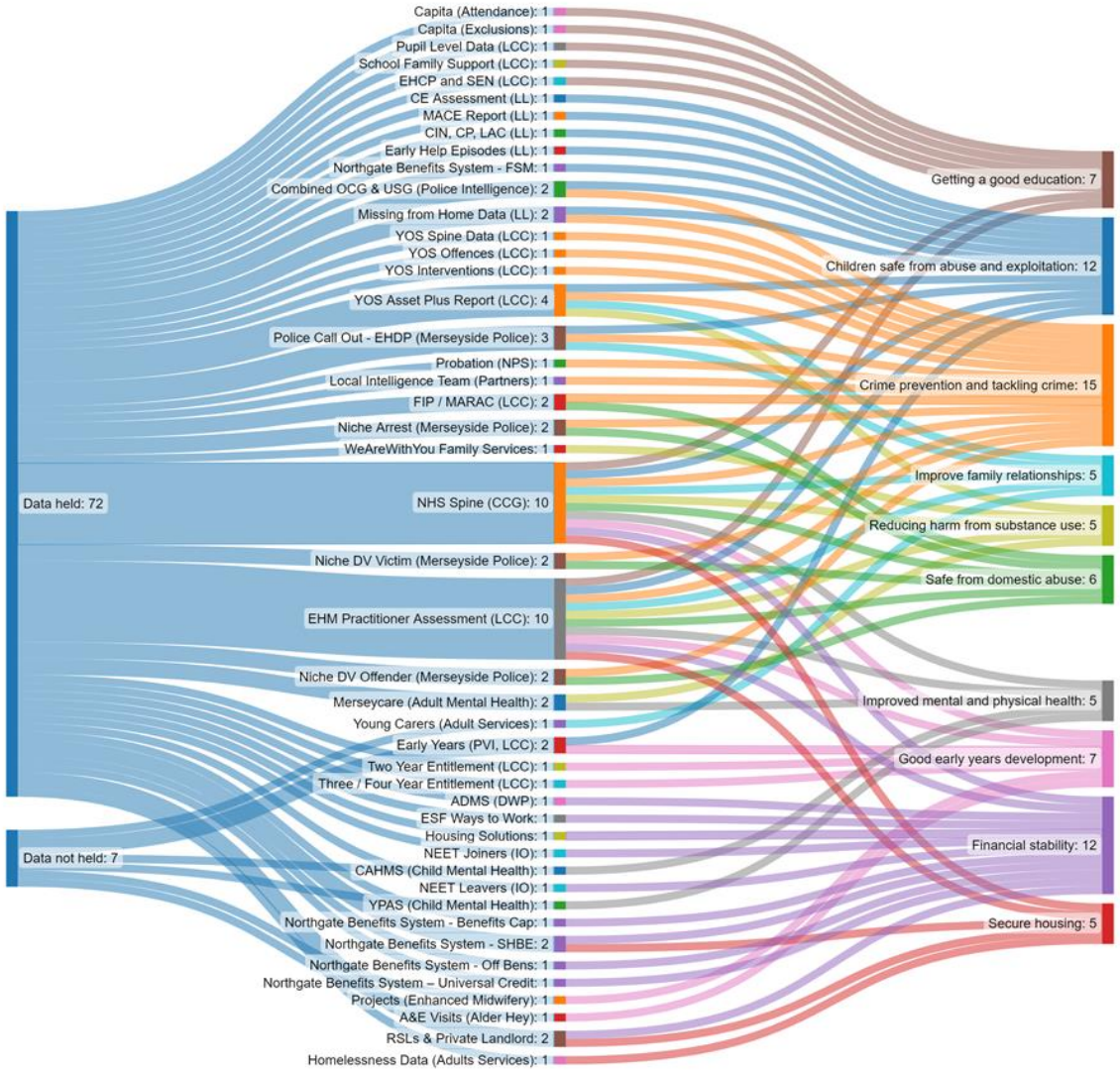
36.6% of children live in poverty, higher than the England average

Educational attainment lags behind England Average, high use of anti-depressants (15.6%)

European Capital of Culture 2008, most Grade two sites outside London

- The current three year programme runs from Apr 2022 to Mar 2025, Liverpool's target is to identify / find outcomes for 4973 complex families
- Funding formula based on deprivation levels
- Programme underpinned by a ten point outcomes framework
- 33 issues identified and 72 outcomes
- Families need to meet at least three of the new outcomes plan criteria to be eligible for the programme
- Programme worth £10.3 million in Liverpool for intensive family support and Early Help services
- Liverpool retained Earned Autonomy status by DLUHC in 2022

Liverpool Families Programme Data Solution Overview



- Liverpool invested heavily in a “data management” solution provided by Sentinel Partners to complement existing systems
- The solution handles large volumes of data to automatically match and score families; providing family outcome performance data returns and reports for the new Early Help data collection
- Sentinel creates a full intelligence picture for local partners
- The system utilised during the COVID-19 pandemic to identify vulnerable residents based on economic, social and medical need – ability to prioritise internal and partnership help
- Later Sentinel was adapted to provide intelligence for the national test and trace pilot.

- Recent and future innovations include;
- Building upon the SAFE Taskforce Intelligence Portal to include vulnerability mapping, new data feeds & wider roll-out
- Early Years Intelligence Portal and Family Hub data management solution which will include new health care datasets
- Working with Social Finance and Sentinel to integrate PowerBI to create management level dashboards and scorecards.

SAFE (Support, Attend, Fulfil, Exceed) Taskforce
Data Intelligence Portal

DfE funded have provided £30 million to fund SAFE Taskforces in 10 areas across England.

Circa. £3 million funding devolved to secondary school consortia in Liverpool, with Local Authority backing to support vulnerable young people in serious violence hotspots. Initiatives have been developed to target support to young people who are most at risk of serious violence or gang exploitation to keep them engaged in education and attending lessons.

Overview of Discussion

- History of serious Youth Violence in Liverpool
- Data Ethics and Data Protection
- Overview of development
- System walkthrough
- Outcomes – Child A

Youth Victims of Serious Youth Violence in Liverpool

2007
Reece Jones, 11 died of a gunshot wound

Offender was 16, parents separated, father previous convictions, part of street gang selling drugs, poor school attendance carried weapons

2013
Sean McHugh, 19 died of a stab wound

Five offenders aged between 13 and 15 were convicted of joint enterprise murder. All convicted were part of North Liverpool street gang

2018
Daniel Gee-Jameson, 16 died of a stab wound

Offender was 17, parents separated (no contact with mother), associated with negative peer group, easily led, anxiety

2021
Ava White, 16 died of a stab wound

Offender was 14, previous convictions for violence, witnessed household domestic abuse, criminally exploited, carried weapons, impulsive behaviour

2022
Olivia Pratt-Korbel, 9 died of a gunshot wound

Offender was 34, previous convictions and troubled background. Murder linked to ongoing gang violence and drug distribution in the local area

Reflection on Data Ethics Framework 2020
"Was there an option to do nothing to reduce Youth Violence using available data"?

1. Define and understand public benefit and user need

- Benefit: Reduce the risk of youth violence for public benefit – improved outcomes for young people, stronger families and safer communities
- Risk: Young people who are vulnerable to becoming youth offenders not identified and supported thus potential increased violence, threat of risk and harm

3. Comply with the law

- Processing data under Public Task 6(e) of the DPA 2018 'in the exercise of official authority' and 'public interest' – clear lawful reason. DPIA and Privacy notices to support, utilise DEA 2017

4. Review the quality and limitations of the data

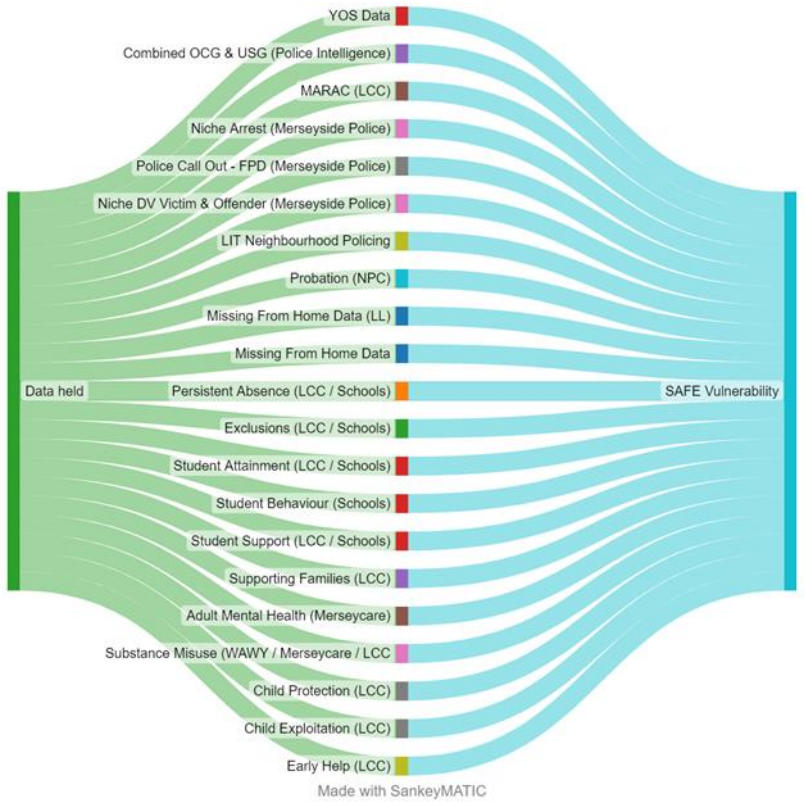
- Requirements: Data accuracy from contributing bodies, solid data architecture, using proportionate information, used as a tool and will not replace professional judgement

5. Evaluate and consider wider policy implications

- Requirements: Evaluate the project, make sure it is still benefitting the public, maintain human oversight of the project, SAFE Taskforce governance structure

Liverpool Supporting Families Programme – Working with the SAFE (Support, Attend, Fulfil, Exceed) Taskforce

- Intervention 2 – Data and Intelligence Portal (Supporting Families Data Team Led), number of workshops held to develop the product
- Designed on an Ethical Framework balancing safeguarding risk with data intelligence
- Built on existing Supporting Families data architecture – quick development, cost effective, partnership data already in one place and allows access based on a “need to know” basis
- To be used by Head Teachers and safeguarding leads as a resource for allocating SAFE Taskforce interventions with links to early help
- The Data and Intelligence Portal brings together information from school settings (attendance, exclusions, SEN, disadvantage and school base history), Youth Offending, Police Arrests, Police Intelligence, Health Information, Historic Education data (Census), Early Help Status, Social Care and risk of exploitation Risk
- Ongoing discussions to adapt the portal for MASH and front line Liverpool City Council Social Work and Early Help teams



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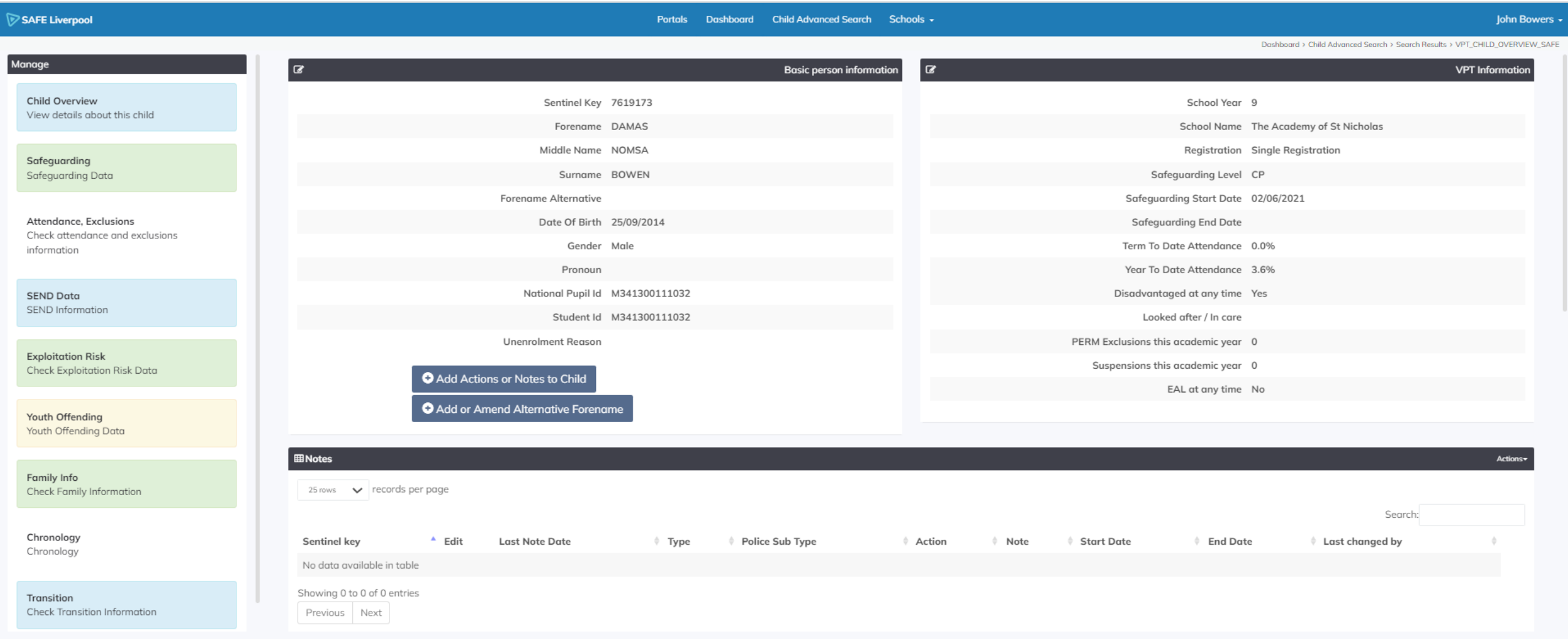

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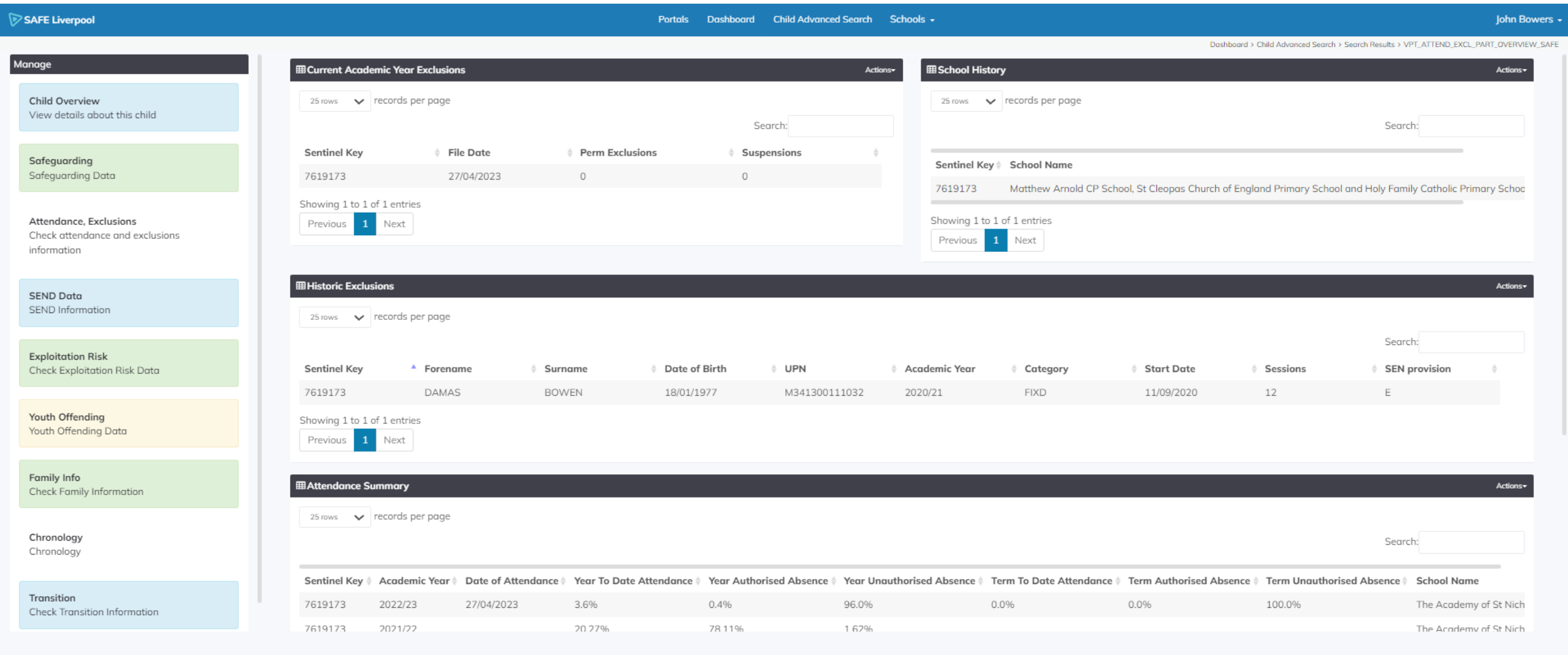

Liverpool Supporting Families Programme – Working with the SAFE (Support, Attend, Fulfil, Exceed) Taskforce

SAFE Liverpool | Portals | Dashboard | Child Advanced Search | Schools | John Bowers

Dashboard › Child Advanced Search › Search Results › VPT_EXPLOITATION_OVERVIEW_SAFE

Manage

- **Child Overview** — View details about this child
- **Safeguarding** — Safeguarding Data
- **Attendance, Exclusions** — Check attendance and exclusions information
- **SEND Data** — SEND Information
- **Exploitation Risk** — Check Exploitation Risk Data
- **Youth Offending** — Youth Offending Data
- **Family Info** — Check Family Information
- **Chronology** — Chronology
- **Transition** — Check Transition Information

Exploitation Risk Actions

25 rows records per page

Search:

System Code	Sentinel Key	Start Date	Completed Date	Data Downloaded	Referral Reason	Exploitation
LCC_MACE	7619173	01/12/2021	27/04/2022	01/12/2021		Child may be being exploited (Signs the child is exploited but no clear evidence) / Criminally
CE_ASSES	7619173	04/01/2022	25/04/2022	01/05/2022	Criminally	CE: Storing Weapons / Drugs for Others CE: Committing Offences Under Coercion
LCC_MACE	7619173	01/12/2021	27/04/2022	01/01/2022		Child may be being exploited (Signs the child is exploited but no clear evidence) / Criminally
CE_ASSES	7619173	06/10/2022	06/12/2022	01/01/2023	Criminally	CE: In Borough Drug Dealing CE: Storing Weapons / Drugs for Others CE: Family Linked to Organised Crime CE: Warning Signs CE: Committing Offences Under
LCC_MACE	7619173	01/12/2021	27/04/2022	01/02/2022		Child may be being exploited (Signs the child is exploited but no clear evidence) / Criminally
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LCC_MACE	7619173	01/11/2022	17/11/2022	01/11/2022		CE Assessment in Progress / Criminally
LCC_MACE	7619173	17/11/2022		01/12/2022		Child is being exploited and presents a risk of exploitation towards children (Evidence of exploitation or multi-agency professi / Criminally
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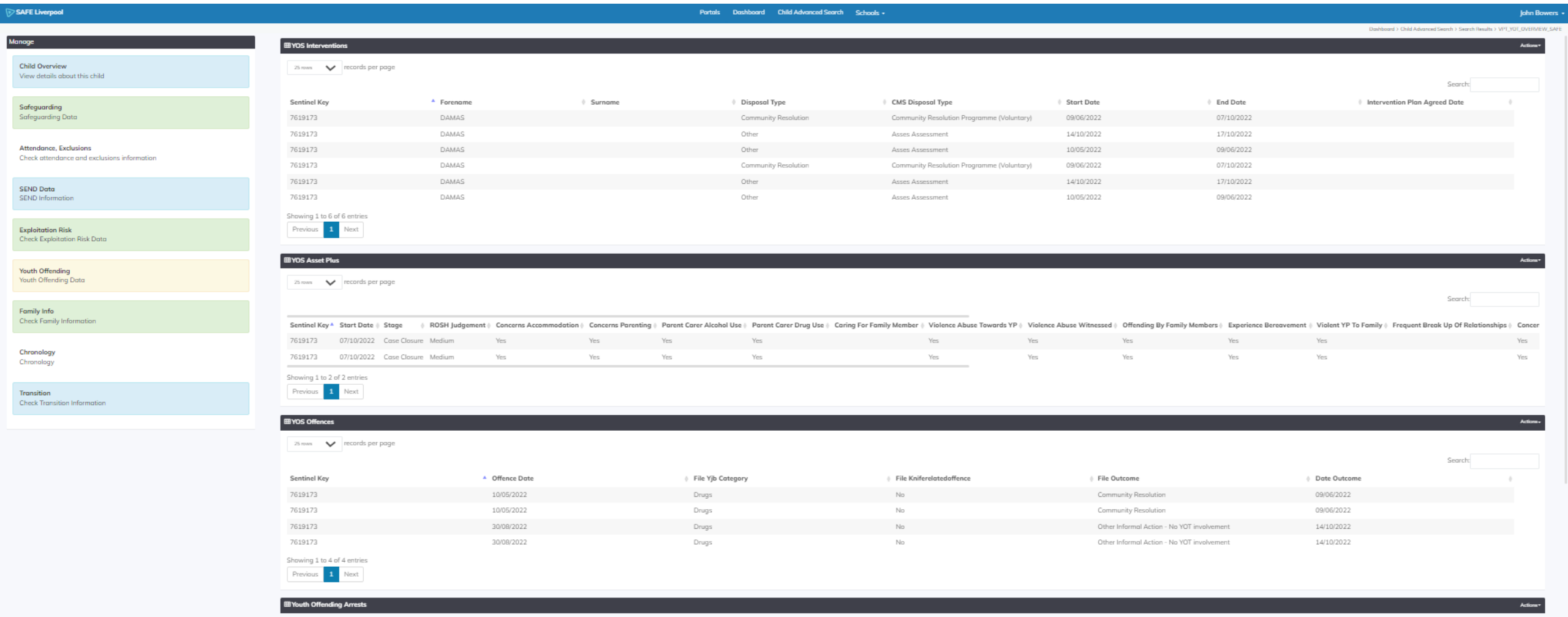

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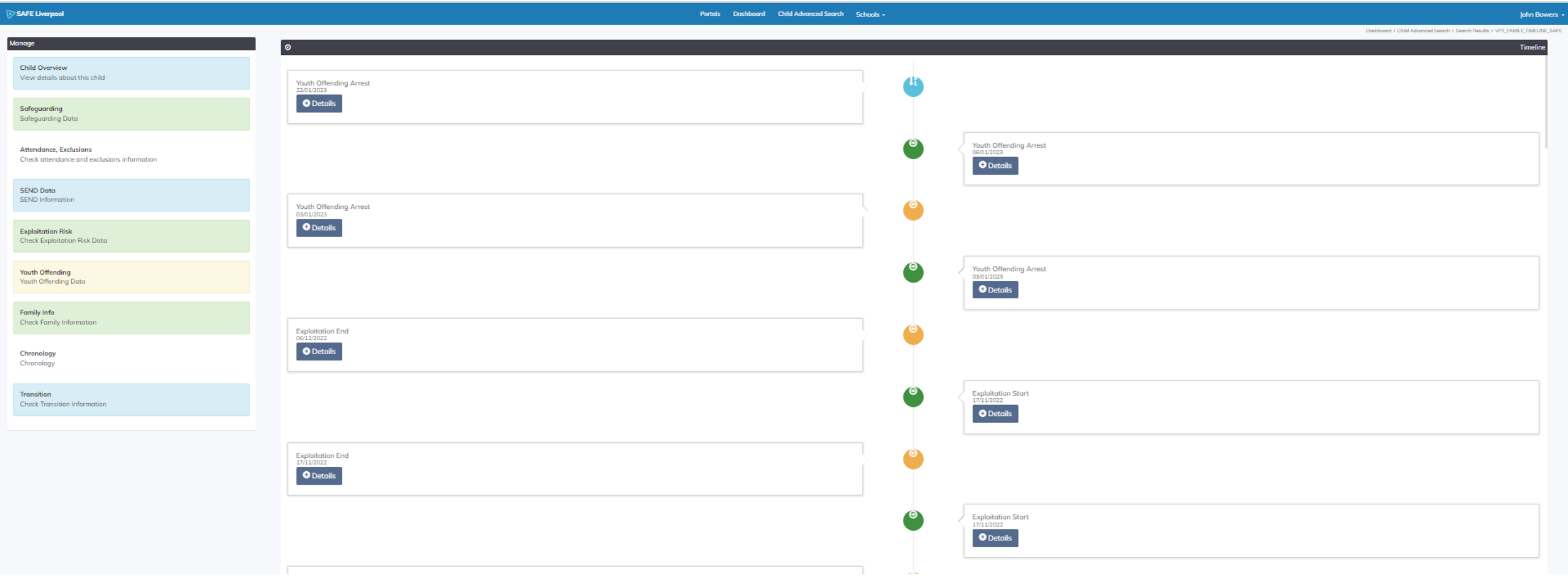

SAFE Intervention Case Study – Child A

Overview

- Child A was identified via safeguarding concerns and need through an examination of linked data held in the Sentinel portal
- The child was assessed as needing extra support by the SAFE Taskforce Youth Offending Service in November 2023
- No other services were currently involved – family previously open to Early Help in 2020
- Family identified as part of the Supporting Families Programme meeting three category areas

Identified Risk

- Risk of being exploited due to lack of personal boundaries
- Limited social skills resulting in outbursts
- Undiagnosed learning difficulties

Action Taken

- Intervention took place between November 2023 and January and May 2024 covering 28 sessions (highly intensive)
- Group sessions to address understanding of criminal exploitation, 1:1 sessions to explore consequences of behaviour, help with understanding social interactions and referral to additional specialist support services

Outcomes for Child A

- No more anti-social behaviour reported since October 2023
- Attendance at school increased from 84% (2023/24) to 100% (current academic year)
- No suspensions or exclusions
- Family and school have noticed improved behaviour
- ADHD now being supported by improved medication protocols

Domestic Abuse Pilot Research Data Science Results

Data Pilot – Sentinel Partners and Liverpool City Council Data Science Results

- We utilised a linked dataset of 541 individuals, 324 were non-DV offenders and 217 were known domestic abuse offenders
- We concentrated on individuals aged 18 to 25 as we were able to utilise historical data for building patterns in the model
- The model was designed to predict whether an individual's information fits DV offenders' profile or not, with a probability score for each
- A decision tree approach for simple interpretation of data was utilised
- The test dataset was *completely unseen and unknown to the model*
- On the test dataset of 82 subjects; the model correctly predicted the probability of a domestic abuse offender **almost 70% of the time**
- Future: examine the use of AI modelling and how this can assist with decision making

Contributing risk factors

- Witness family/parent DV
- Family drug/alcohol misuse
- Worklessness / NEET
- Divorce / separation
- Known to Children's Services
- SEN and caring responsibilities
- Parent mental health issues
- Victim of violence
- Violent behaviour in school
- Persistent absence
- Arrests (other than DV)