How your data is used in modelling

In order to identify risk and vulnerability relating to social issues for children and families we sometimes use profiling methods with a predictive element in order to be able to help you access support services.

The Insight team currently have 3 risk models in operation, which are detailed below:

Child at Risk of Sexual Exploitation (CSE) Model

Our Child Sexual Exploitation (CSE) report identifies vulnerable children at risk of CSE by combining a score of known risk factors with predictive analytics. Firstly, known risk factors (such as young people going missing) are identified in Police data and aggregated for an individual to produce an initial score. Then a predictive model – based on children who have been identified as sexually exploited by key workers – is used to identify children at risk of CSE using wider vulnerability data from the Think Family Database. The methods are combined to produce a final score for each vulnerable child, which is made available to Safeguarding staff within Bristol City Council and the Police's CSE team. The report is used to support and inform professional judgement: safeguarding decisions are always made by a trained professional.

Child at Risk of Criminal Exploitation (CCE) Model

The Child Criminal Exploitation (CCE) report identifies vulnerable children at risk of CCE by scoring known risk factors in Police data (such as drugs intelligence relating to a young person existing in police systems). These risk factors are aggregated to produce a score for each young person. Predictive analytics is not used because there is not yet a clearly defined group of criminally exploited children on whom to base a predictive model. The final score is made available to Safeguarding staff within Bristol City Council and Avon and Somerset Police to ensure that those most at risk have support in place. The report is used to support and inform professional judgement: safeguarding decisions are always made by a trained professional.

Risk of NEET (Not in Education, Employment or Training) Model

The Risk of Not in Education, Employment or Training (NEET) report uses predictive analytics to identify vulnerable children at risk of NEET. The predictive model uses data from education and the Think Family Database and is based on children who have been NEET for six months or more, starting between the ages of 16-17. This is made available to Safeguarding, Post 16 and Participation staff within Bristol City Council. It is our future aim to make the Risk of NEET score available to schools (at present school Safeguarding, Attendance and Careers staff may receive scores for benchmarking or relating to specific targeted intervention activity). The report is used to support and inform professional judgement: safeguarding decisions are always made by a trained professional.