



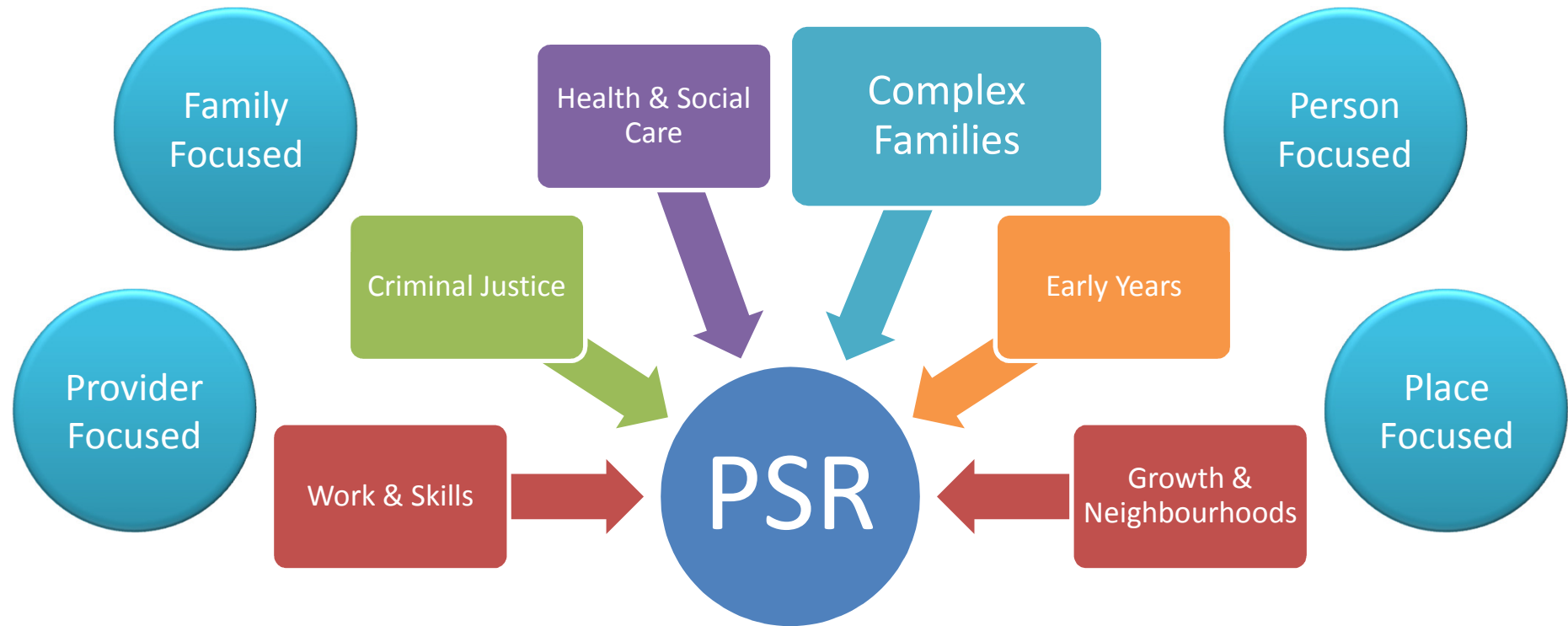
MANCHESTER
CITY COUNCIL

Identifying Families with Complex Needs

Paul Holme – Manchester City Council and GMCA

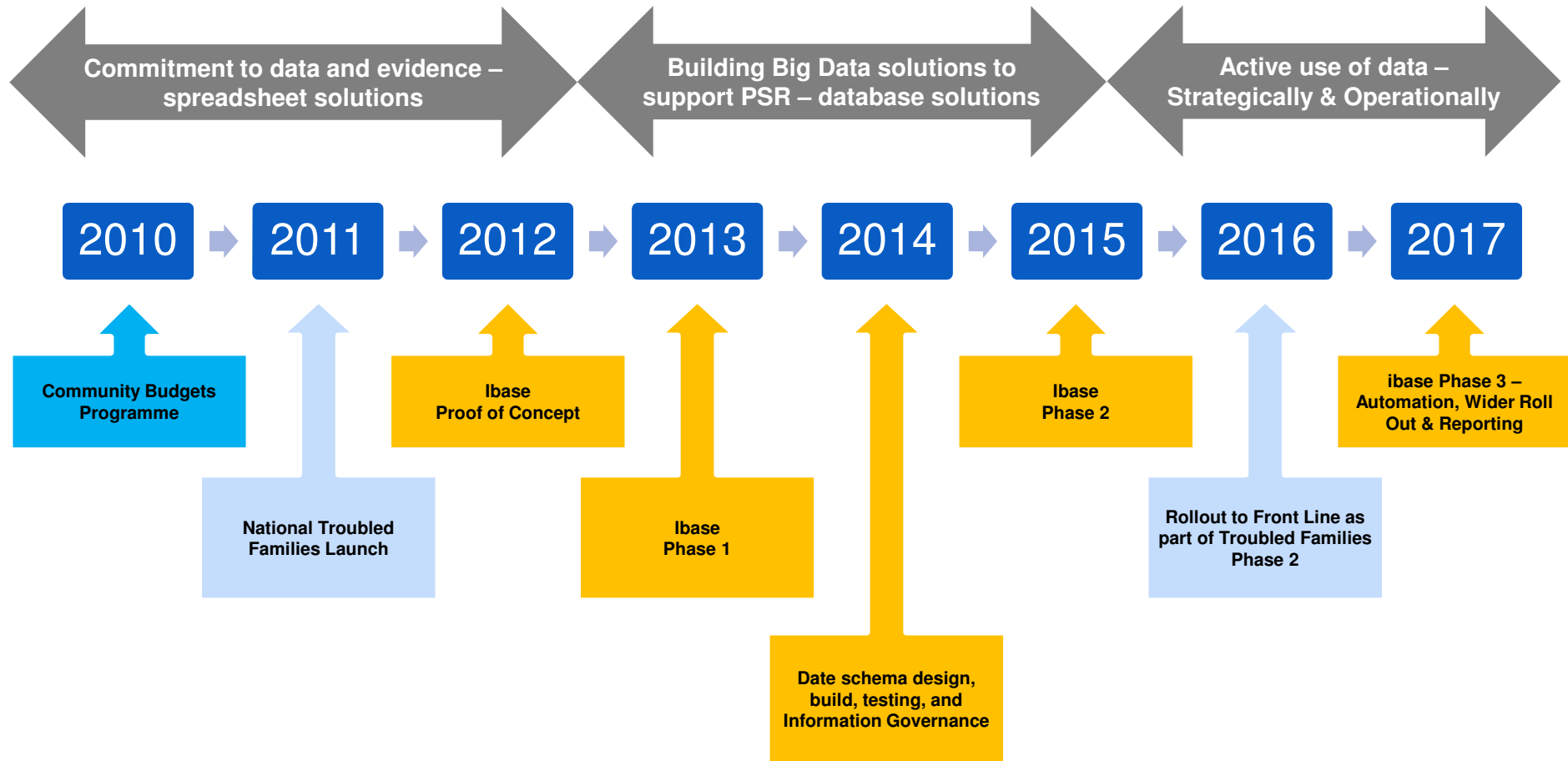
Corporate Research & Intelligence
Chief Executives

A complex & overlapping landscape



- Need to respond to a rapid shifts in the type & scale of services being offered to users, and need to respect all of the interdependencies
- Crucial to avoid a trial & error approach but rather focus on evidence based solutions and use a combination of evaluation methods to inform both strategic and operational decisions, some of which are evolving.
- Using operational insight alongside data patterns provide a timely addition to evaluation

Manchester's iBase Journey



Impact of iBase



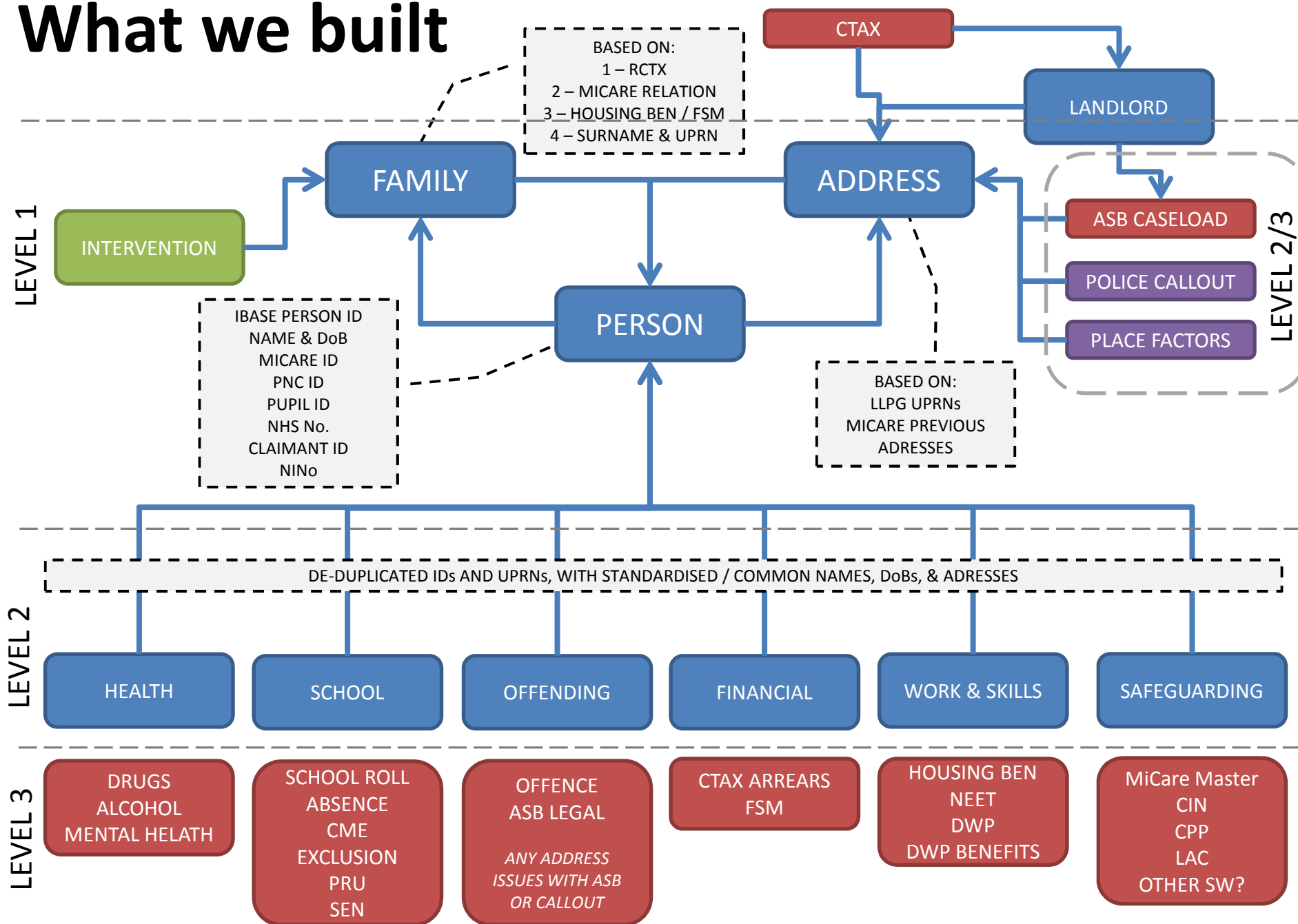
ibase in Manchester

iBase is a 'Big Database', it holds individual episodes and connections, allowing reports to be generated and information to be shown as tables and visuals. Key uses are:

- Information for Analysts to identify demand and scale
- Information for a Case Worker in a Single Place
- Information for a Service Manager to spot opportunities

Currently operational in Manchester, model being tested across Greater Manchester through GM-Connect programme

What we built



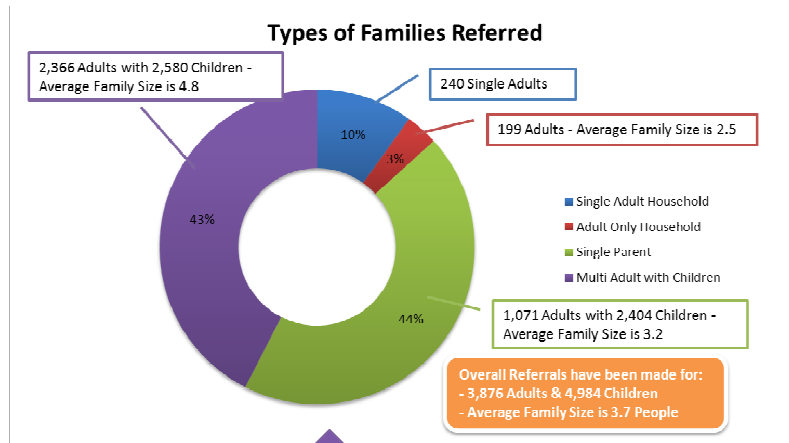
Identifying Demand

Who and What (single issues)?

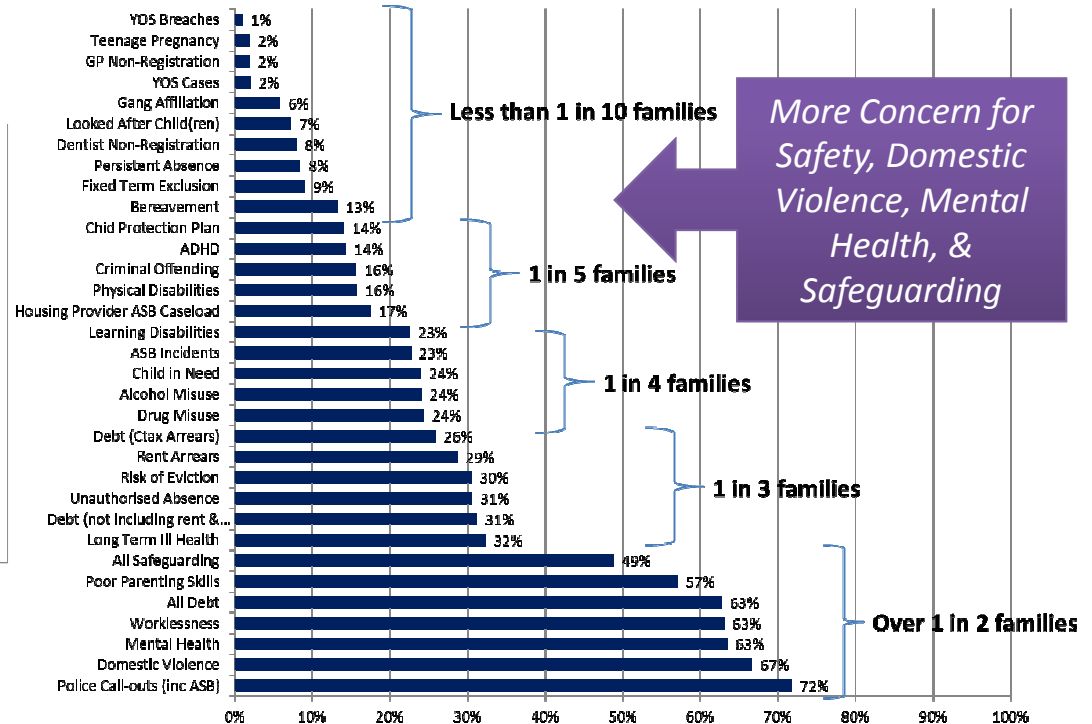
Different Issues

Presenting issues present in referred families

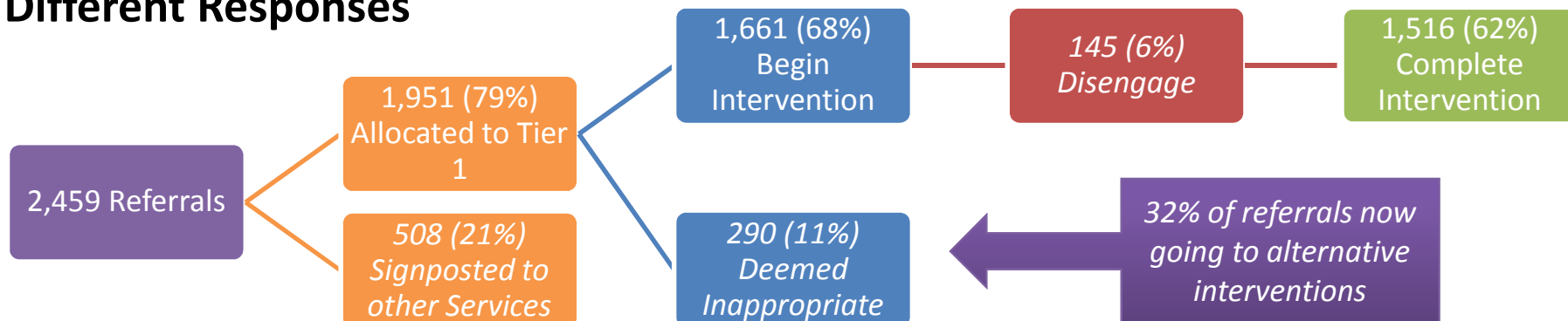
Different People



More Young Families and fewer Single Adults



Different Responses



Needs of Troubled Families are complex and interdependent

Families with these Presenting Needs...	also have these Presenting Needs	Presenting Needs																												
		Presenting Need	Parmanent Exclusion	Gang Affiliation	GP Non Registration	Teenage Pregnancy	Looked After Child (ren)	Long Term Ill Health	Fixed Term Exclusion	ADHD	Dentist Non Registration	Physical Disabilities	Child Protection Plan	Risk of eviction	Criminal Offending	Bereavement / loss seperation	Alcohol Misuse	ASB Incidents	Learning Disabilities	Drug Misuse	Rent arrears	Debt Issues (other than Rent)	Persistent Absence	Domestic Violence	Child in Need	Poor Parenting Skills	Mental Health	Police Call-outs (inc ASB)	All Safeguarding	Worklessness
Parmanent Exclusion		1%	100%	7%	0%	7%	0%	7%	71%	21%	14%	29%	29%	29%	57%	29%	29%	71%	29%	43%	29%	57%	86%	71%	50%	64%	86%	86%	79%	79%
Gang Affiliation		2%	5%	100%	14%	24%	19%	14%	38%	48%	33%	14%	33%	48%	67%	29%	43%	62%	33%	62%	48%	62%	48%	67%	33%	90%	67%	86%	86%	81%
GP Non Registration		6%	0%	5%	100%	15%	15%	12%	8%	5%	86%	17%	32%	29%	29%	37%	31%	44%	31%	32%	44%	37%	29%	71%	41%	73%	58%	78%	88%	78%
Teenage Pregnancy		8%	1%	7%	12%	100%	11%	17%	29%	19%	43%	24%	41%	31%	43%	45%	37%	60%	35%	45%	45%	37%	76%	37%	76%	76%	81%	89%	91%	
Looked After Child (ren)		11%	0%	3%	7%	6%	100%	7%	25%	15%	19%	18%	0%	20%	40%	24%	26%	42%	33%	34%	28%	28%	37%	72%	0%	65%	64%	86%	100%	82%
Long Term Ill Health		12%	1%	2%	6%	11%	7%	100%	19%	24%	27%	53%	30%	20%	29%	33%	35%	45%	62%	26%	31%	38%	38%	65%	37%	75%	80%	81%	75%	89%
Fixed Term Exclusion		15%	5%	4%	3%	11%	16%	12%	100%	29%	17%	17%	27%	24%	47%	24%	30%	52%	35%	40%	36%	41%	71%	71%	43%	69%	72%	90%	86%	87%
ADHD		15%	2%	6%	2%	9%	12%	18%	34%	100%	17%	30%	22%	25%	33%	25%	30%	51%	55%	40%	32%	40%	47%	70%	44%	78%	80%	84%	78%	93%
Dentist Non Registration		18%	1%	4%	29%	18%	14%	19%	18%	15%	100%	25%	37%	34%	32%	33%	37%	49%	32%	40%	41%	46%	33%	73%	34%	71%	71%	85%	85%	88%
Physical Disabilities		18%	2%	2%	5%	10%	12%	35%	18%	26%	23%	100%	28%	23%	28%	35%	36%	44%	51%	31%	35%	44%	43%	64%	37%	76%	76%	77%	77%	89%
Child Protection Plan		19%	1%	3%	7%	11%	0%	14%	19%	13%	24%	19%	100%	23%	36%	27%	34%	47%	30%	35%	34%	37%	40%	76%	0%	73%	67%	89%	100%	90%
Risk of eviction		20%	2%	5%	8%	11%	12%	12%	21%	19%	28%	20%	29%	100%	40%	23%	32%	59%	26%	39%	68%	50%	43%	69%	31%	69%	76%	87%	71%	87%
Criminal Offending		22%	3%	5%	6%	11%	18%	13%	32%	19%	20%	19%	34%	30%	100%	26%	33%	57%	28%	39%	37%	37%	50%	76%	33%	66%	67%	94%	85%	89%
Bereavement / loss seperation		22%	2%	3%	10%	15%	13%	18%	21%	18%	25%	29%	32%	21%	32%	100%	36%	50%	34%	41%	35%	46%	39%	71%	37%	77%	81%	84%	82%	87%
Alcohol Misuse		23%	2%	4%	8%	12%	14%	18%	24%	20%	27%	28%	39%	29%	40%	35%	100%	53%	31%	52%	37%	43%	43%	77%	35%	72%	82%	87%	87%	93%
ASB Incidents		25%	3%	3%	7%	12%	14%	14%	26%	22%	22%	22%	33%	33%	42%	30%	33%	100%	29%	37%	37%	40%	49%	79%	34%	71%	74%	98%	81%	89%
Learning Disabilities		25%	2%	3%	7%	10%	16%	29%	25%	34%	21%	37%	31%	21%	30%	30%	29%	42%	100%	33%	34%	37%	40%	66%	35%	75%	80%	81%	81%	90%
Drug Misuse		26%	2%	5%	7%	13%	16%	12%	29%	25%	27%	22%	36%	32%	42%	36%	47%	54%	33%	100%	38%	44%	47%	79%	36%	73%	83%	89%	88%	90%
Rent arrears		28%	1%	3%	9%	12%	12%	13%	24%	18%	25%	23%	31%	50%	36%	27%	31%	48%	31%	34%	100%	57%	42%	69%	34%	68%	72%	85%	78%	88%
Debt Issues (other than Rent)		30%	3%	4%	7%	11%	11%	15%	25%	21%	26%	27%	32%	34%	33%	34%	33%	49%	31%	37%	53%	100%	44%	70%	35%	72%	78%	86%	77%	89%
Persistent Absence		32%	3%	3%	5%	8%	12%	13%	37%	21%	16%	22%	29%	25%	38%	24%	28%	50%	28%	34%	33%	38%	100%	69%	42%	71%	72%	88%	84%	88%
Domestic Violence		39%	2%	2%	7%	9%	14%	13%	22%	18%	21%	19%	33%	24%	35%	26%	30%	49%	28%	34%	32%	35%	41%	100%	37%	68%	70%	90%	84%	87%
Child in Need		40%	2%	2%	6%	7%	0%	12%	22%	19%	16%	18%	0%	17%	25%	22%	22%	35%	24%	25%	26%	28%	41%	60%	100%	63%	59%	74%	100%	81%
Poor Parenting Skills		60%	1%	3%	7%	9%	13%	14%	21%	20%	20%	22%	31%	23%	29%	28%	27%	43%	31%	30%	31%	35%	41%	66%	38%	100%	70%	82%	81%	84%
Mental Health		61%	2%	2%	5%	9%	13%	16%	22%	21%	20%	23%	29%	26%	30%	29%	31%	45%	33%	35%	33%	39%	42%	69%	35%	70%	100%	85%	77%	87%
Police Call-outs (inc ASB)		62%	2%	2%	6%	8%	14%	13%	22%	17%	19%	18%	31%	24%	34%	24%	26%	48%	27%	30%	31%	34%	42%	71%	36%	67%	68%	100%	80%	87%
All Safeguarding		70%	1%	2%	7%	9%	16%	12%	21%	16%	19%	19%	35%	20%	31%	24%	27%	50%	28%	30%	29%	31%	40%	67%	49%	67%	62%	81%	80%	84%
Worklessness		80%	1%	2%	6%	8%	12%	13%	20%	18%	19%	20%	29%	23%	31%	24%	27%	50%	29%	29%	31%	34%	39%	66%	37%	64%	66%	82%	80%	100%

61% of families have a Mental Health issue = c.2,400 families



Based on 3,997 families

45% of families with a Mental Health issue are also linked to ASB = c1,000 out of c.2,400 families



77% of families
also have
Safeguarding =
R c1,800 out of
c.2,400



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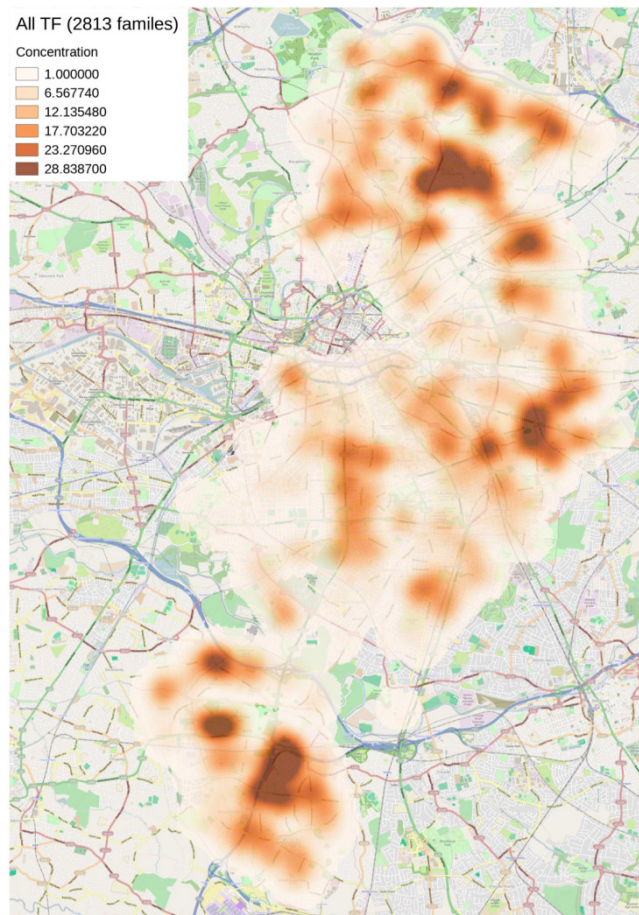
Connecting Places & People

Where and Links?

Location of Troubled Families

These areas are similar with regards of Median Income, Types of problems the TFUs have, Deprivation indices

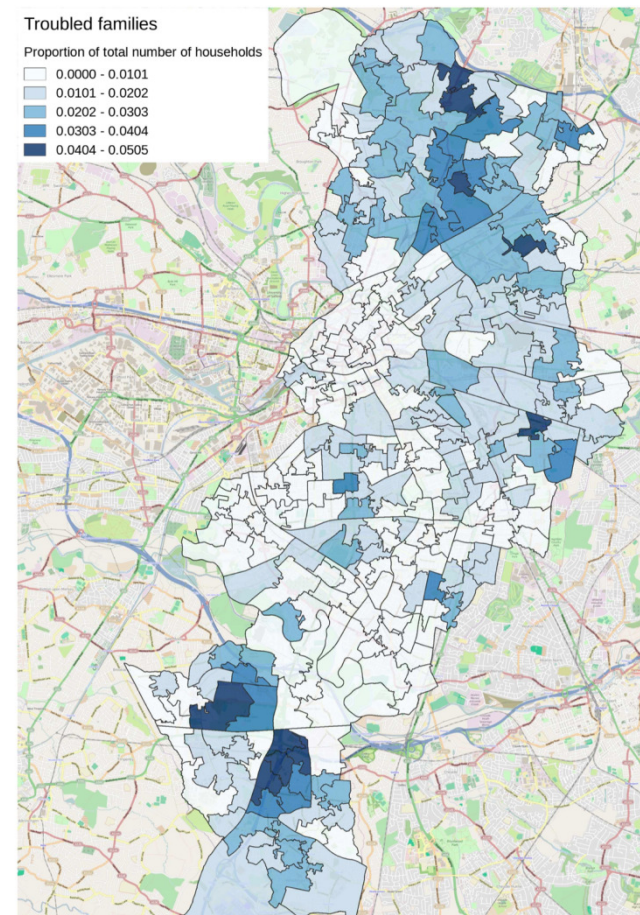
But they differ in: Transience, Predominant tenure



Density of Troubled Families

TF scattered across all the city. Very few areas with no TFUs (Didsbury). Number of TFU never exceeds 5% of all households in any LSOA

Substantial clusters: Harpurhey, Gorton / Belle Vue, Whythenshawe



Using iBase Operationally



Case Conferences



Telephone Calls



Case Reviews

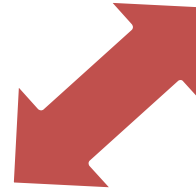


Interviews / Assessments

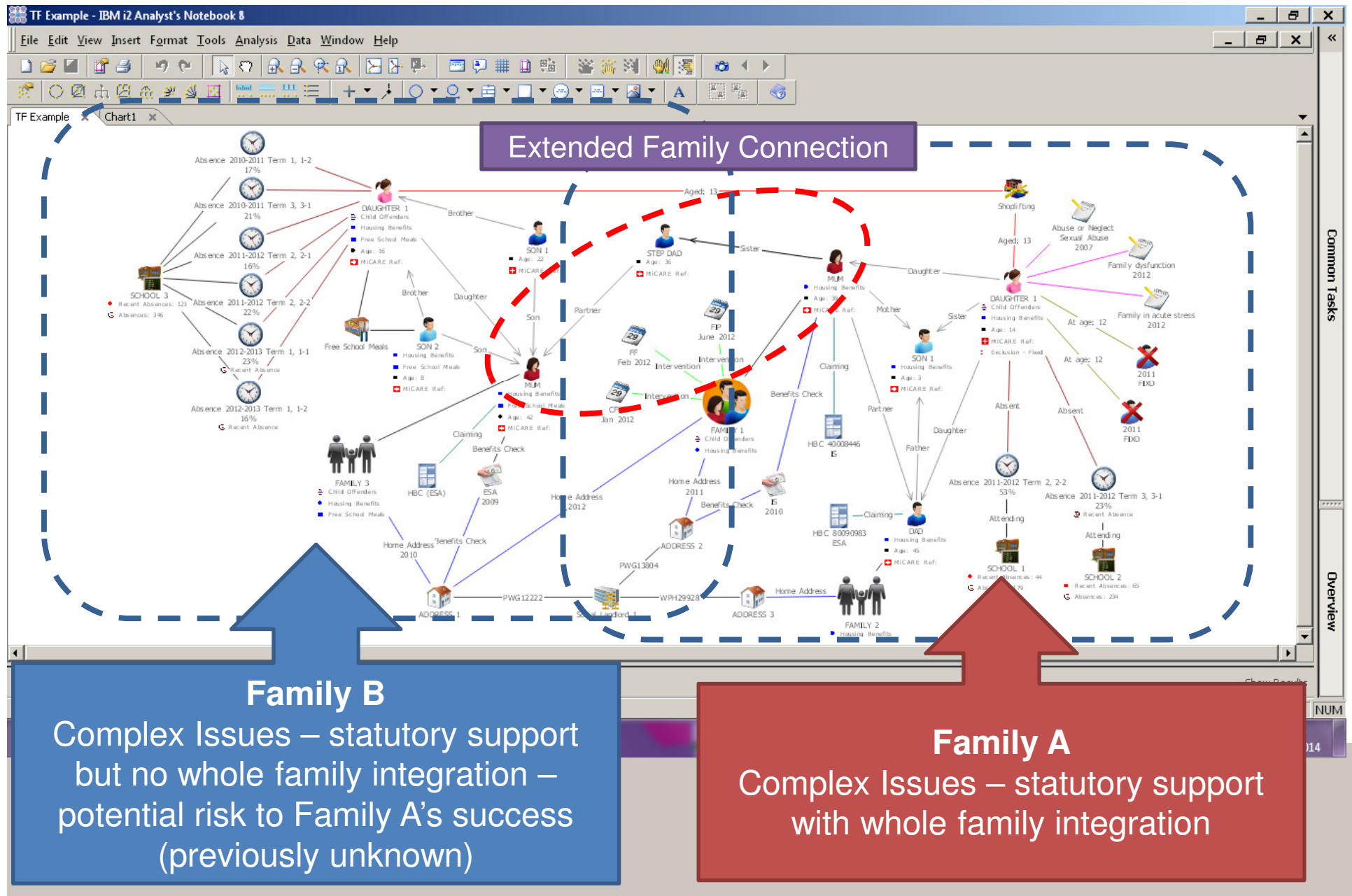
Targeted Approach



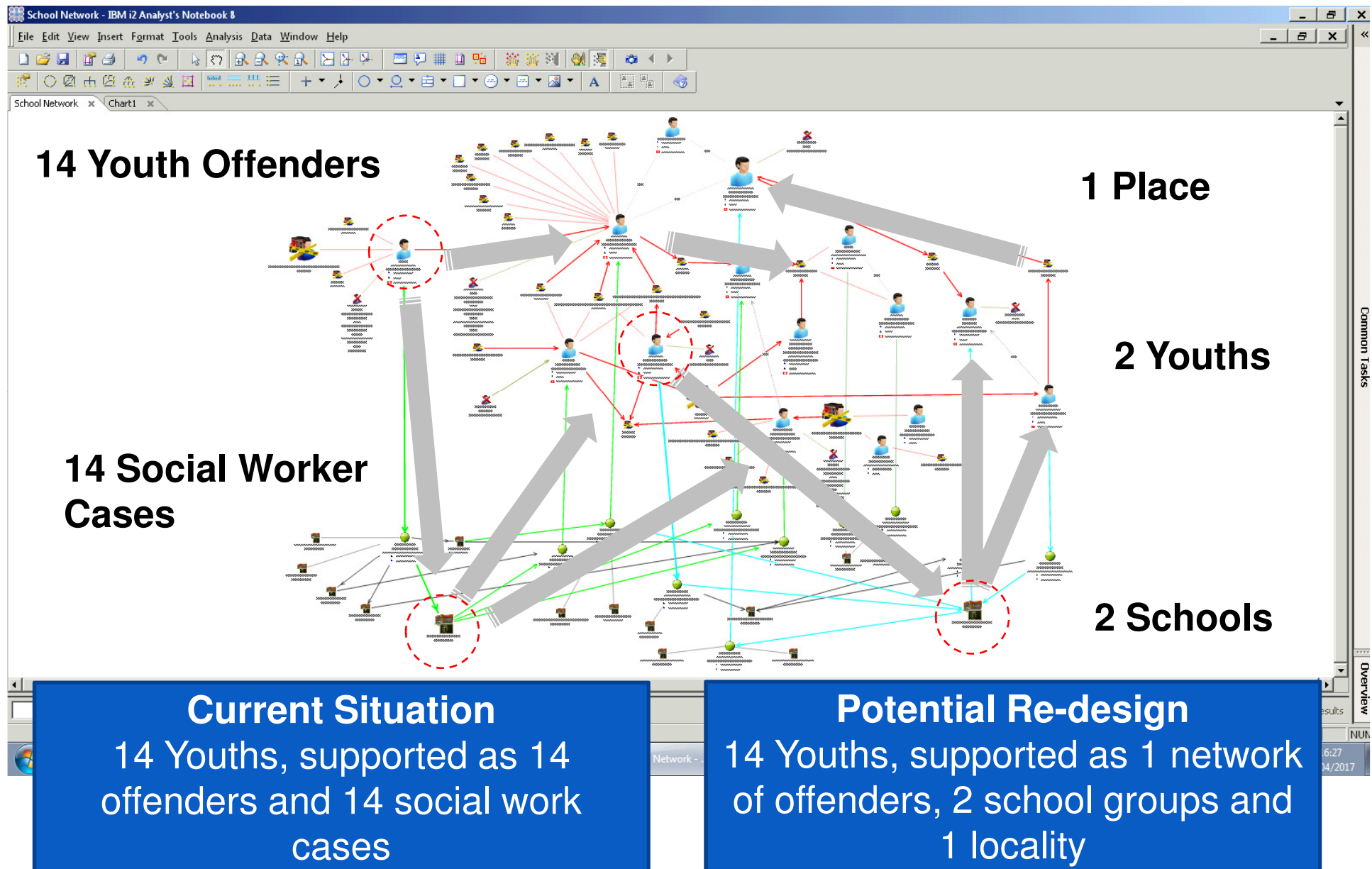
Intelligence Led



Connections to support Case Work



Connections to support Service Planning



What are the Potential Research Questions?

- Understanding the impact on the system (so it can be planned)
- Understanding the causal factors behind the outcomes (so we provide the right service)
- Predictive modelling
- Ultimately leading to decision making tools

Profiling - Sequence Analysis

Who and What (multiple issues)?

Figure 1 – this represents a subset of all family records, a purple colour indicates the presence of an event (e.g. receiving housing benefit, or having school absence events) whereas a turquoise colour indicates the absence of such events. c.80,000 records

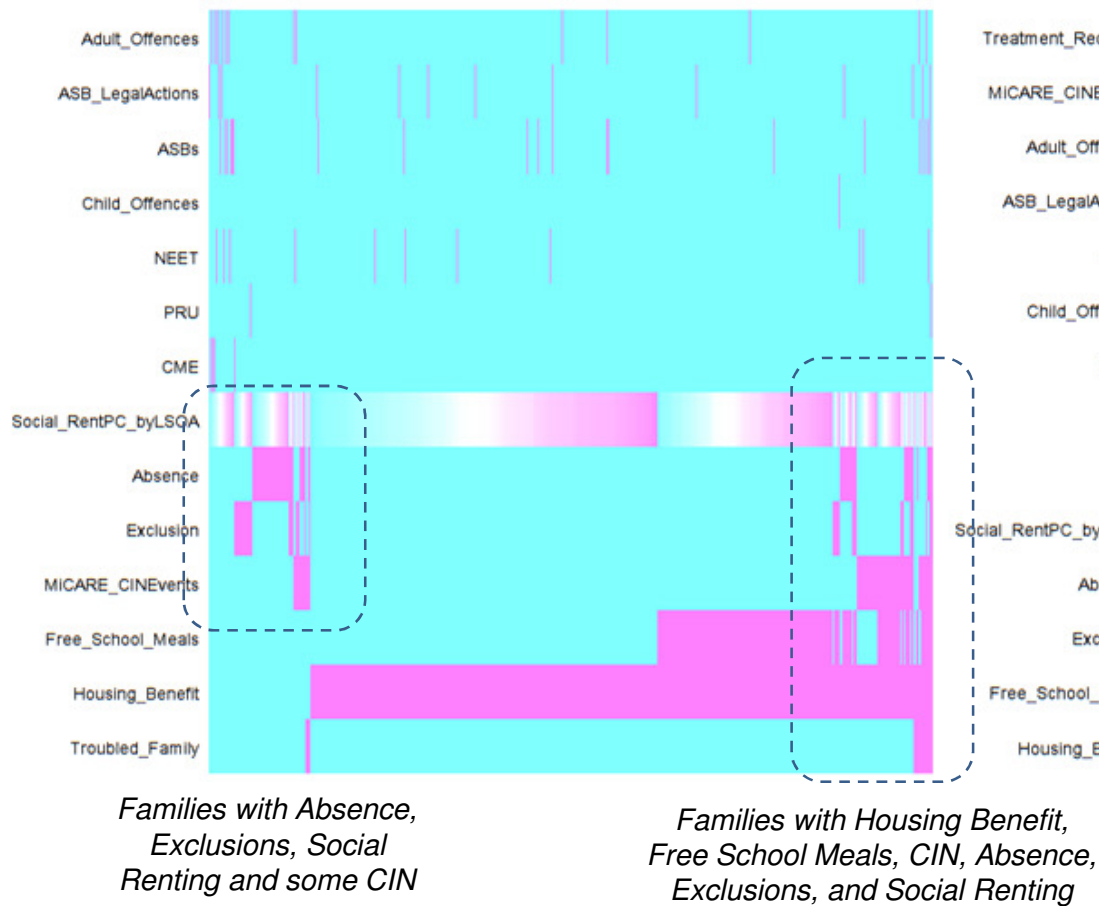
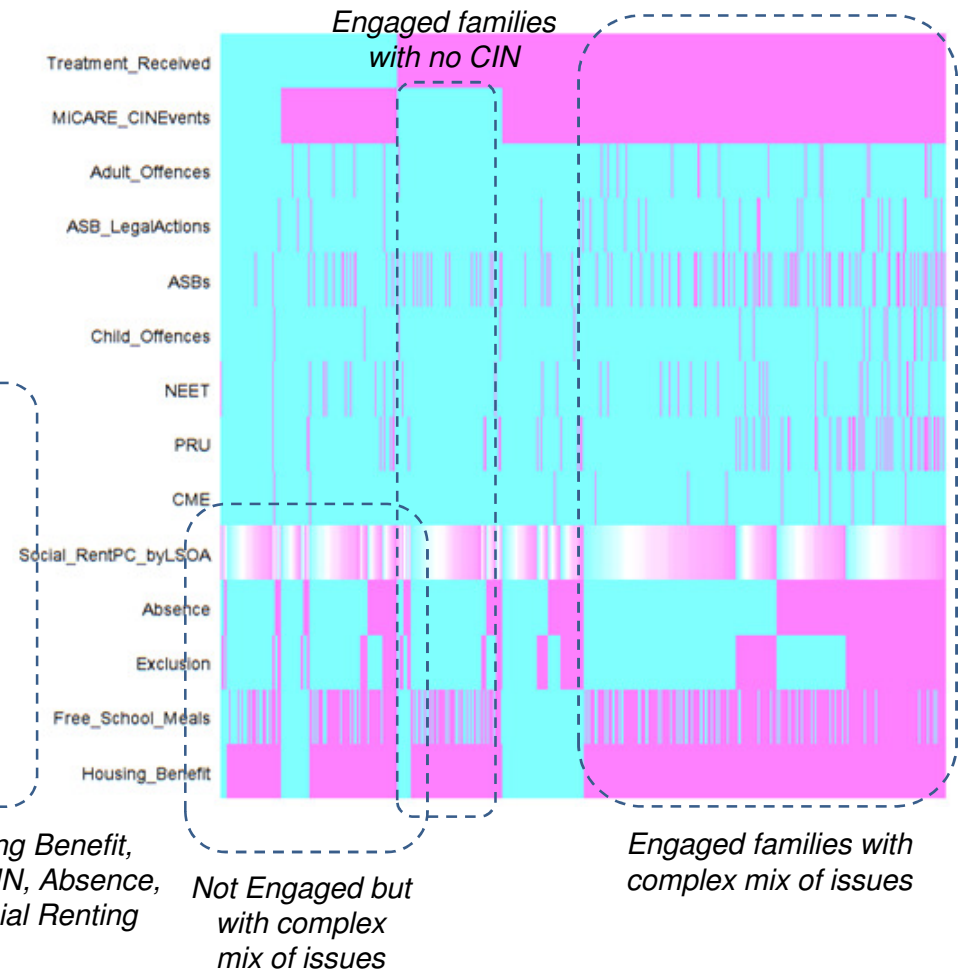
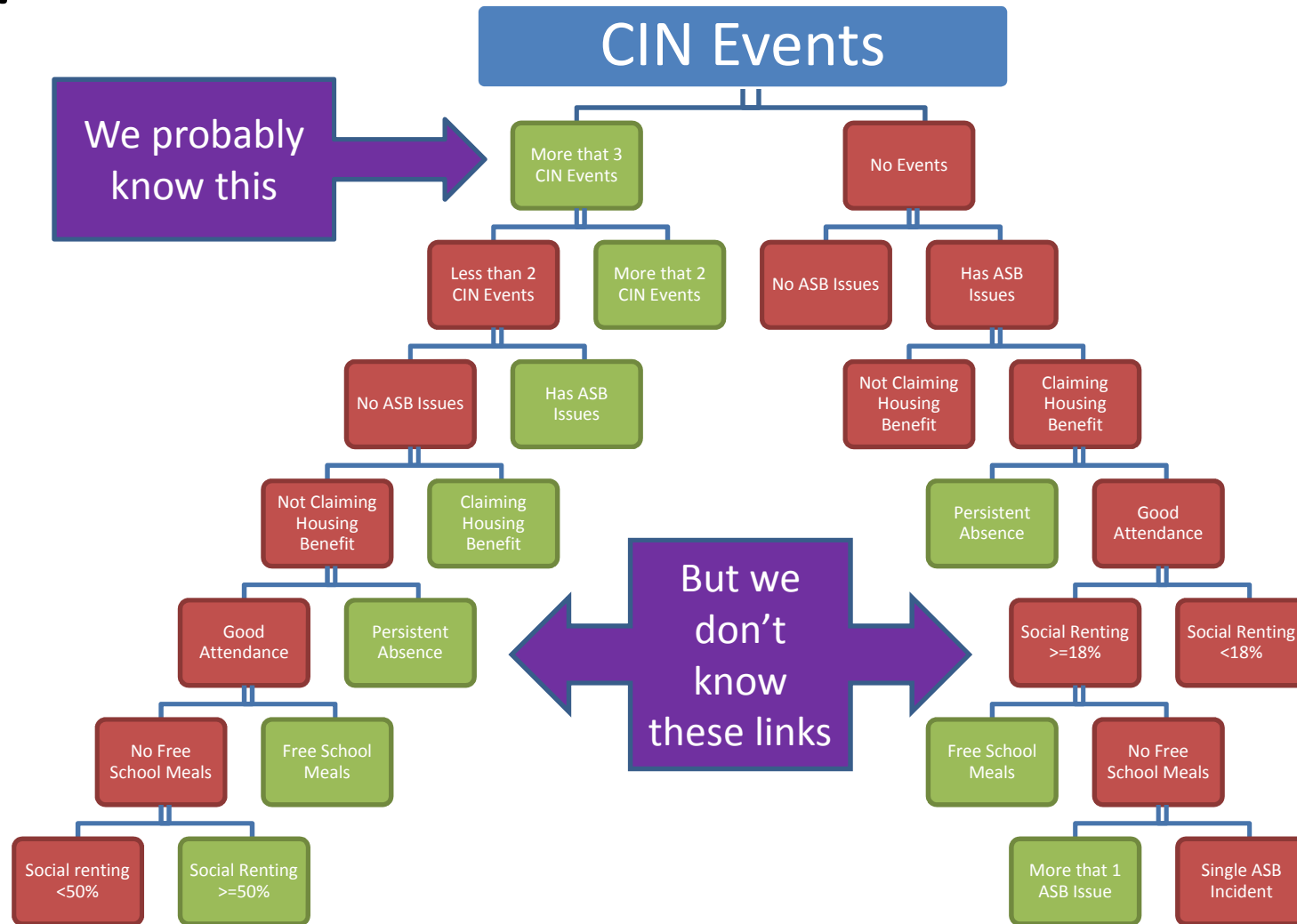


Figure 2 represents just the TF data (with the extra attribute of whether they have received any intervention treatment), this shows far more events occur for these families. c.3,000 records



Causality & Links – Decision Trees

Why?



Reviewing recent history and using the common decisions to predict a likely future decision

Predictive Modelling

Changing the systems

- Using data mining to identify your clusters / cohorts
- Testing cluster / cohorts characteristics to identify the significant factors
- Apply the significant factors to the whole population to identify scale
- Use decision trees and sequence analysis type tools to test likely impact of decision for this broader cohort
- Use this to inform the business planning



**“Integration underpins reform –
our data analytics and systems
need to do the same”**

Any questions or comments please contact:

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