

PR19 Customer Challenge Group – Vulnerability Sub-Group

Meeting number: 7

Meeting Date: 5th March 2018

Paper No: 2

Agenda No: 3

Title: Horizon Scanning Update

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Purpose: For information/discussion

This document contains commercially sensitive information, and is confidential to the Customer Challenge Group, and the Consumer Vulnerability Sub Group.

Printing: This document does contain any graphs or pictures and therefore will require you to print in colour.

What is this paper about:	Provide the CCG VSG with an update on the Horizon Scanning Project Workstream and findings to date
Action needed from the CVSG:	For information and discussion.

Customer Challenge Group Vulnerability sub-group

Meeting 7, Agenda item 3

Identification				
ID 1	ID 2	ID 3	ID 4	ID 5
Vulnerability risk factors	Data - Understanding our customers at risk	The Customer Journey - Barriers to receiving 5 out of 5 service	Insight - Engagement Dashboard	PSR and risk factor development / amends
Elderly				
Disabled				
Mental health				
etc..				
Risk factors identified				

Horizon Scanning- Update

5th March 2018

Company Confidential

Data Analysis.... Key parts of the process

- Knowing our customers today – Customer data and PSR
- Understanding our services are and current gaps – link to journey mapping and workshops
- What our customers future needs are

Development of the Risk Factors – the industry progression

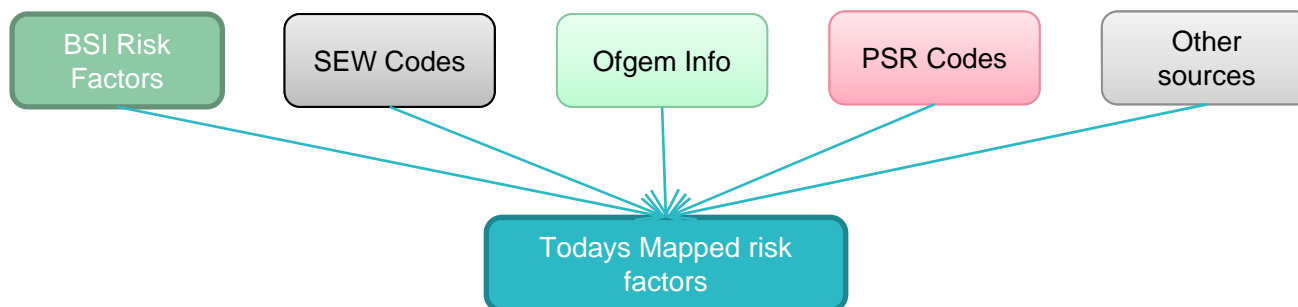
- Current position is one group and 4 workstreams led by industry WaterUK group

Group	Includes
Needs Code Group	Common codes, data sharing, pilots
Explicit Consent Group	PIA, promise leaflets, customer dialogue, withdrawal of consent, training
Data and Systems	Opportunities on common systems
Customer Proposition	Promotion, pilots with stakeholders. Customer engagement

- Common codes will enable robust data share activities cross sector
- Common codes are in final stages of cross sector approval

Mapping the Risk Factors

- External and internal sources used to develop and populate vulnerability risk factor matrix:
 - BSI Risk Factors
 - Review of internal use of codes from staff training
 - OFGEM reports
 - Existing and Proposed PSR Codes (From WaterUK groups)
 - Other external sources



SEW vulnerability risk factors headings and contributory factors

- **Health**
 - Depression, anxiety
 - Physical impairment and morbidity
 - Age
- **Home**
 - Occupancy
 - Security
 - Internet access
 - Access to transport and amenities
 - Housing quality
- **Relationships**
 - Single parent
 - Young Children
 - Career to dependant others
 - Bereavement/marriage breakup
 - Income Dep. Affecting older people, and younger people
- **Life Skills**
 - Adult Education
 - Financial
 - Employment

Note: Risk factor headings are preliminary and will be revised as part of the engagement process. Headings developed through desk based research, internal staff consultation, CCG input and the on-going development of revised PSR codes. Headings also designed to align with BSI risk factors in readiness for adoption of BS standard.

Risk factors ‘quantified’ using external data sources

(Note table shown is indicative)

Data set / Risk factor	Health	Home	Life Skills	Relationship
IMD-Domain/sub-domain/Indicators	√	√		
Experian data	√		√	
ONS Data				√
‘Other data’	√	√		√

For example; The indices of multiple deprivation domains, sub-domains and indicators were reviewed to understand which domain would indicate the likelihood of a risk factor. The data was used to construct a picture of how an area might look with respect to the health risk factor, based on multiple sources of data. The matrix also helped identify further datasets required.

Data Analysis

- What have we done so far;
 - Used IMD domain data to understand indicators of vulnerability at LSOA/LA level
 - Developed method to understand SEW region considering all domains
 - Mapped IMD domain data onto SEW vulnerability risk factor
 - Undertaken analysis of 3 LA's (Eastbourne, Maidstone and Basingstoke) to show proof of concept for SEW risk factors and to identify gaps in datasets-see next slides
 - Improved our clarity on data opportunities and limitations

Constructing the overall picture of vulnerability: IMD domain data used to understand specific issues at domain level, such as income

Local Authority District Name	Total number of LSOA's	Income Decile			Population	% of Local authority in deciles 1-3
		1st	2nd	3rd		
Ashford	78	3	5	5	19500	17%
Basingstoke and Deane	109	0	1	10	16500	10%
Bracknell Forest	75	0	0	1	1500	1%
Brighton and Hove	165	14	11	19	66000	27%
Canterbury	90	2	7	8	25500	19%
Crawley	66	1	1	8	15000	15%
Eastbourne	61	3	10	3	24000	26%
Gravesham	64	4	6	8	27000	28%
Guildford	84	0	2	1	4500	4%

Data analysis undertaken at LSOA level using domain data, such as income, to understand regions more likely to have a sub-set population receiving income support. Population numbers are based on number of LSOA' as in decile 1-3 and multiplied by 1,500 people. In this example, data shows that Gravesham is more likely than Guildford, for example, to have a greater sub-set population on low income. Data on all IMD domains was then summarised to provide overall picture-next slide

Data Analysis: IMD high level overview.

This process provided an overall picture of SEW customers based on IMD data, and provided a greater understanding of the uses and limitations of IMD data and helped identify data gaps.

Column ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Local Authority	Sum of domains (ordered by most to least deprived)	Income Deprivation Affecting Older People	Income Deprivation Affecting Children Index	Outdoors Sub-domain	Indoors Sub-domain	Living Environment	Wider Barriers Sub-domain	Geographical Barriers Sub-domain	Adult Skills Sub-domain	Children and Young People Sub-domain	Education, Skills and Training	Crime	Health Deprivation and Disability	Employment	Barriers to Housing and Services	Income
Brighton and Hove	37	2	1	2	2	2	3	25	1	1	1	1	2	1	14	1
Medway	20	1	2	1	1	1	1	13	4	2	2	4	1	2	1	2
Swale	63	5	5	8	11	9	6	19	8	7	9	6	3	6	6	6
Maidstone	43	5	3	6	6	4	10	9	2	3	2	3	4	3	11	3
Canterbury	48	10	10	7	6	3	4	8	13	14	15	7	7	8	4	8
Shepway	64	3	4	16												
Gravesham	80	11	9	10												
Ashford	60	7	5	3												
Eastbourne	93	16	19	10												
Tunbridge Wells	95	8	7	10												
Lewes	96	13	14	20												
Crawley	109	16	14	4												
Rother	95	18	19	20												
Wealden	65	8	8	9												
Rushmoor	119	12	10	20												
Guildford	78	13	10	16												
Windsor and Maidenhead	113	20	24	20												
Basingstoke and Deane	81	4	17	10												
Horsham	95	18	18	5												
Sevenoaks	112	20	16	16												
Tonbridge and Malling	120	20	21	16												
Mid Sussex	110	24	13	10												
Bracknell Forest	118	13	21	20												
Tandridge	141	20	21	20												
Wokingham	122	24	24	10												
Hart	149	24	26	20												

Summary table produced to show comparative ranking of all LSOA's, expressed as LA's, that fall into decile 1-3 of IMD. Table produced to present overall picture of region using IMD data.

For example:
 Swale; Has the 5th highest population of customers that fall within deciles 1-3 of income deprivation affecting children for all LSOA's in SEW region.
 Maidstone: Has the 3rd greatest population of all SEW regions that are within deciles 1-3 of health deprivation and disability.

Caveat's: Not all regions are served by SEW. Data is to be re-run using sector level data
 Populations are estimated based on number of LSOA's in each LA
 Some domains rank higher/lower due to urban versus rural location, such as access to shops

Knowing our customers

SEW Risk Factors (IMD data only)	Health		Home		Life Skills		Relationships	
	LSOA's (No.) in IMD decile 1-3	LSOA's (%) in LA in IMD decile 1-3	LSOA's (No.) in IMD decile 1-3	LSOA's (%) in LA in IMD decile 1-3	LSOA's (No.) in IMD decile 1-3	LSOA's (%) in LA in IMD decile 1-3	LSOA's (No.) in IMD decile 1-3	LSOA's (%) in LA in IMD decile 1-3
Eastbourne	18	32	33	59	28	50	18	32
Basingstoke	8	7	85	79	17	16	20	19
Maidstone	9	10	68	74	25	27	19	21

Table shows one method of viewing all IMD data at Local Authority/LSOA level.

It can be seen that this traffic-light approach can be applied to all areas to provide a direction of travel for further data analysis. This approach can be applied to all SEW regions. The same method can be used for additional datasets.

Knowing our customers

Radar Diagram: Comparison of 3 LA's w.r.t SEW Risk Factor headings expressed as % of LSOA's in LA in decile 1-3.



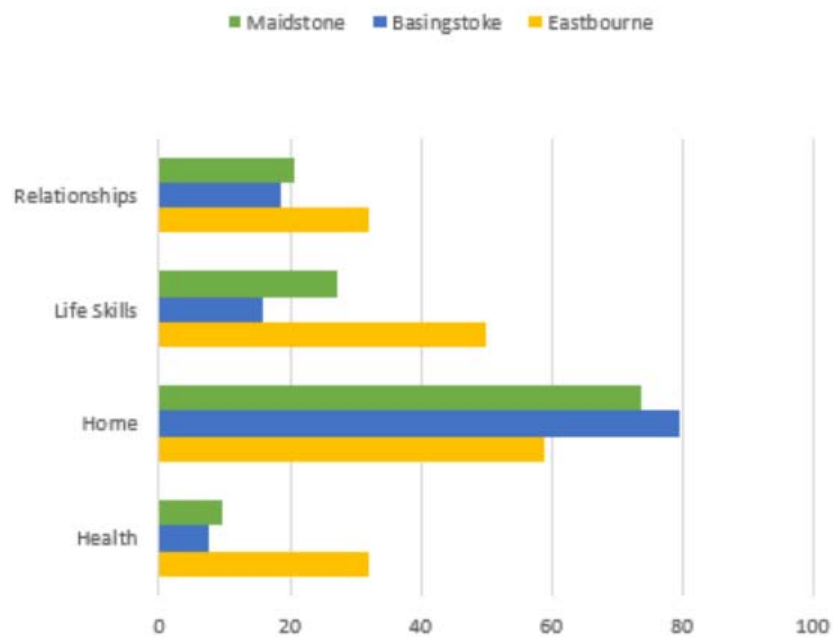
For example:

Basingstoke is likely to have more instances of deprivation, within home risk factor, compared to other 2 areas.

Data suggests that Eastbourne is more 'health' deprived than other 2 areas

Knowing our customer

Bar Chart Diagram: Comparison of 3 LA's w.r.t SEW Risk Factor headings expressed as % of LSOA's in LA in decile 1-3



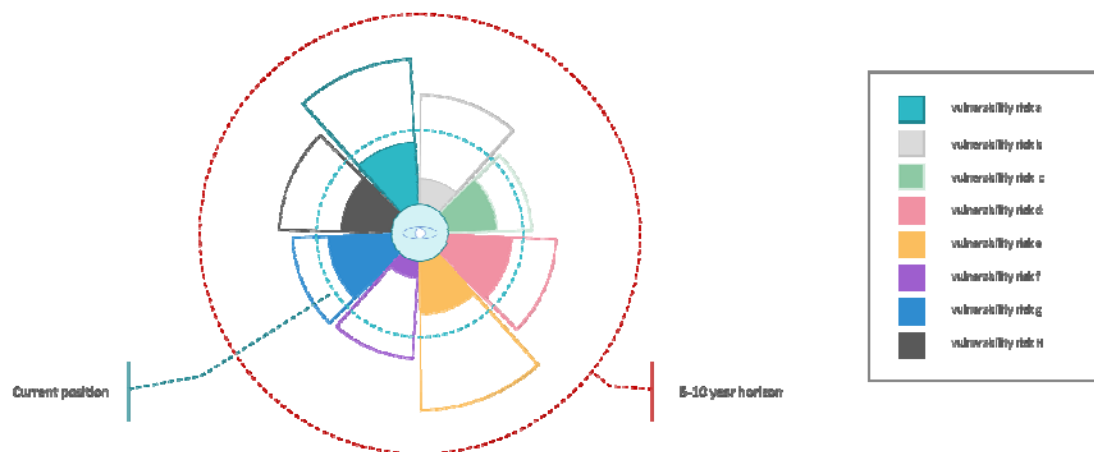
Same data, different graphic.

IMD data limitations:

- Data shown only contains indicators available from IMD
- Additional datasets need to be added to expand the picture
- However, applying different datasets will vary the granularity and ability to compare
- Existing data requires amendments to consider all SEW serviced postcodes

Data Analysis.... So what's next around the immediate model?

- We need to keep working to ratify the SEW Vulnerability risk factors
- Expand the suite of datasets to help us with our understanding
- If model working as expected then re-run data for all LSOA's
- Working on the creation of our position and measure using a model like below – including the development of a weighting mechanism



- Develop the scope of work for 'Understanding the Future'

Data Analysis.... So what's next from a wider perspective?

- Short Term
 - Integration of our customer data
 - Development of immediate Data improvement
 - Customer Care Team focus on campaigns
 - Data-share pilots
 - Establish how this data can be better used in company processes
 - Comparison with other tools available (CofSE – SSEN Mapping work)
 - Feed into customer journey mapping activity
 - Focus on better stakeholder engagement with caring agencies
 - Feed into ID4 – customer engagement and insight work
- Medium / Long Term
 - Feed into company investment planning processes