

# Innovating for Improvement

Personalising care for patient sub-groups in general practice: ‘Segmenting within general practice to improve health and increase efficiency

**Valentine Health Partnership**



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## About the project

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**Project title:** Personalising care for patient sub-groups in general practice:  
'Segmenting *within* general practice to improve health and increase efficiency

**Lead organisation:** Valentine Health Partnership

**Project lead(s):** Dr Rebecca Rosen

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3. Guide to data searches and data extraction to identify the high user population and describe demographic and clinical characteristics
4. Patient allocation pathways for high user patients
5. Poster presentation text and graphics

## Part 1: Abstract

The project identified high users of general practice services and co-designed methods to deliver care to these patients tailored their needs and preferences in order to improve health, address gaps in care and manage the use of practice resources.

The intervention was innovative in blending analysis of practice data with and patient and staff views to develop new approaches to working with high user patients. Contrary to initial plans, a generic intervention was developed for all high user patients rather than tailored interventions for different subgroups.

The project has delivered: methods to identify high user patients through analysis of practice data; administrative systems and clinical pathways to improve continuity of care; training and resources for varied consultation techniques with high user patients; and a guide on identifying high-user patients that can be used in other practices.

We evaluated impact in terms of change in use of clinical consultations; change overall health and wellbeing (EQ5D); qualitative assessment of staff and patient views; and change in use of wider services. All patients had fewer consultations post-intervention than pre-intervention, and the very high user intervention group had the biggest reduction in number of consultations. Patients in the intervention group had a bigger increase in EQ5D score (used as a measure of overall wellbeing) than non-intervention patients. Patients had mixed views on the intervention and staff felt continuity and quality of care had improved for some patients some of the time.

The project has changed the day to day operating process of the practice and the clinical behaviours of some, but not all, GPs and there is ongoing work to embed alternative consultation styles into the work of all clinicians. Further initiatives to do this will include introducing a new electronic template for high user patients.

## Part 2: Progress and outcomes

### Overview

This project took place in a 25,000 patient inner city GP practice with 13 GPs and 6 nurses, most of whom work part time. The patient population is younger and more ethnically diverse than in London as a whole with higher than expected levels of severe mental illness.

Like many GP practices, appointments are in short supply and waits for booked appointments can be long. A daily walk in clinic (WIC) offers rapid access where patients can see their usual GP if they want to, but many choose to see the first available clinician. Thus, patients with complex needs may see many different clinicians, none of which holds overall accountability for quality of care and some attend frequently for the same problem. This can result in duplicated tests, contradicting advice and inconsistent management of symptoms.

This project aimed to use data analysis to identify patients with complex problems who are high users of the practice and to co-design new ways of tailoring care to the needs of two subgroups of high user patients in order to improve health, address health needs and reduce overall utilisation of GP services.

The project involved a three step intervention:

#### **Step 1 analysing GP practice data to identify high user patients and describe their characteristics.**

We first analysed 'pseudonymised data' in partnership with a data analytics team at the Health Foundation to describe the personal and clinical characteristics associated with being a high user of the practice. We used findings from this to guide audits of the practice clinical information system (EMIS) to identify cohorts of high user patients with similar characteristics for whom we could develop interventions tailored to their needs.

The project advisory group cautioned that high user patients at one point in time are likely to recover and need less consultations in subsequent time periods (resulting in statistical regression to the mean). We therefore used data from three consecutive years (2014-2016 inclusive) to identify repeated high users over time.

## Sources of data

The project used two main sources of data:

- 1) Clinical record data extracted from the EMIS system
- 2) Specially collected data from patients and staff
  - Patient data:
    - Qualitative data from 'discovery interviews'
    - EQ5D scores
  - Staff data
    - Design workshop
    - Survey monkey feedback on the high user project

## Data quality

The EMIS data used for this project was timely, complete and accurately coded as the practice has a well trained data team who use a coding formulary. Most GPs in the practice have been trained to enter clinical information about long term conditions via templates which use specific codes. We searched for high level codes for conditions of interest because these would capture any lower level Reed codes that has been entered.

Data on number of clinical contacts was extracted from the EMIS appointment book which is likely to be reliable, since this is the only way that patient contacts with clinicians are booked. Unplanned outbound calls by clinicians to patients are not always recorded in the appointment book (eg to inform a patient of a test result) so there could be a small amount of under-counting of contacts, but this is not likely to be a significant volume.

## Rationale for use of quantitative and qualitative data

Data from the EMIS clinical record system was used in two ways:

- Statistical analysis of pseudonymised data (personally identifiable fields removed) to identify associations between high users and their personal characteristics and their clinical conditions.
- Searches and audits of EMIS clinical records – using patient identifiable data – to identify high user (more than 15 clinical contacts per year) and very high users (more than 26 clinical contacts per year) and to extract data on clinical diagnoses, emergency admissions and use of urgent care services by each named high user / very high user.

The pseudonymised data analysis was undertaken by external team at the Health Foundation, who used multiple logistical regression to identify the socio demographic characteristics of high users and which clinical conditions were most frequently associated with high use of GP services. Their findings are presented in appendix 1

We used qualitative data to explore patient views on how to re-design services (see step 2 below) as we judged this would provide a richer, more nuanced understanding of how current services need to change than would be possible through surveys or group work with multi-lingual patients with variable levels of literacy. Staff views were gathered during two co-design workshops and discussions during staff meetings.

### **Step 2: co-designing an intervention to deliver care adapted to the needs and preferences of high user patients.**

Patient discovery interviews explored recent experiences of using the practice; what motivated them to see a GP or nurse; what would make their contact with the practice work better and what would help them to improve their overall health and wellbeing. Interviews were conducted with 12 contrasting (in age; sex and nature of clinical diagnoses) high users identified in step 1. An EQ5D questionnaire was completed at the same time.

The discovery interviews revealed contrasting views about the experience of using the practice; varied reasons for booking appointments and varied opinions about what would improve well being. However, some common themes emerged:

- Lack of awareness in some patients that they could ask to see the same doctor in order to have continuity of care
- Lack of awareness in some patients about what made them feel better and/ or how to improve their health and wellbeing
- Living with health anxieties. Some patients described wanting to ask the GP to check any worrying symptom while others, who had experienced rapid and severe clinical deterioration, described balancing 'not bothering the doctor' with 'not wanting to become very unwell again'
- Attending the doctor as 'something to do'. Liking to come to the GP or using a GP appointment to reduce social isolation

Comments from the discovery interviews which shaped the methods we developed to improve care were:

- Make it easier to see the same doctor – or a small number of other doctors if the usual doctor is away.
- Tell us about other local services which may help us to stay well

- Don't see our own health problems in isolation. They may be related to family issues and health problems in our children or other relatives.

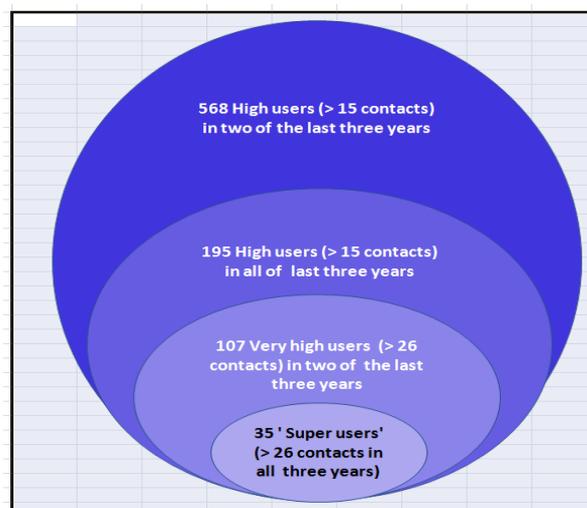
The high users and very high users were a diverse group in terms of age (18-94 yrs), range of reasons for seeing the GP (approx one third each with physical illness, mental health diagnoses and combined physical and mental health problems - see appendix 1). Given this diversity, the rationale of the project changed and rather than designing interventions for two patient subgroups with common characteristics, we understood that the common characteristic was being a high user and we designed a generic approach to working with all such patients.

Drawing on the above learning we developed an intervention which combined:

- New processes for steering patients towards their usual doctor or a member of that doctor's 'buddy group' (micro-team) to improve continuity
- Broadening the 'paradigms of care' used by clinicians to include methods for 'de-medicalising' symptoms where possible – after appropriate investigation of clinical symptoms and management of those for which effective treatment was available.
- Re-allocating family members to a single usual doctor (if they agreed) to support a more holistic understanding of high user patients
- Enhancing data coding and analysis to support buddy group working and enable repeat data audits to refresh the list of high user patients

### Step 3: Implementation of project intervention

Overall there were 568 high user patients. 195 patients were high users across all three years of the data audit and these formed the cohort to which we targeted the intervention (see Fig. 1).

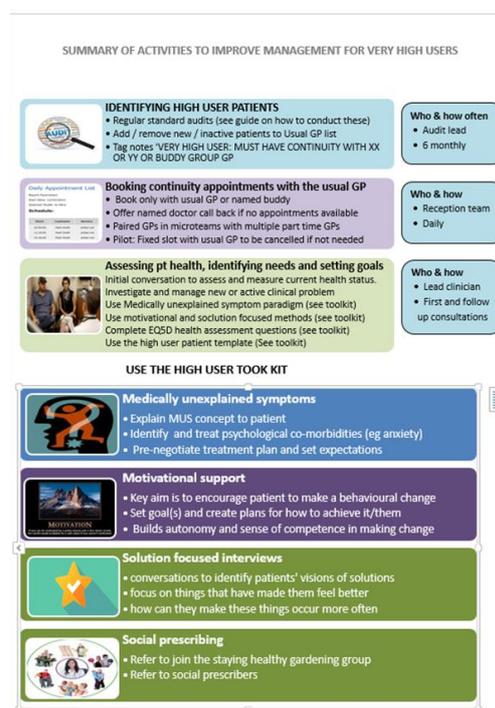


**Figure 1:** numbers of high user and very high user patients

The cohort of 195 repeated high user and very high user patients was sorted according to the usual doctor and each GP was asked to select five patients with whom they would work in line with the high user intervention. A resource pack was provided for each GP (see Appendix 2) and training was organised on motivational support; solution focused conversations and medically unexplained symptoms.

Multiple techniques were used to nudge clinicians to adhere to the intervention's methods for consultation including periodic training sessions; e-mail reminders; messages on the computer home screen; re-issuing resource packs in the coffee area and reminders at practice meetings.

An image of the resource pack front page is presented in figure 2 below;



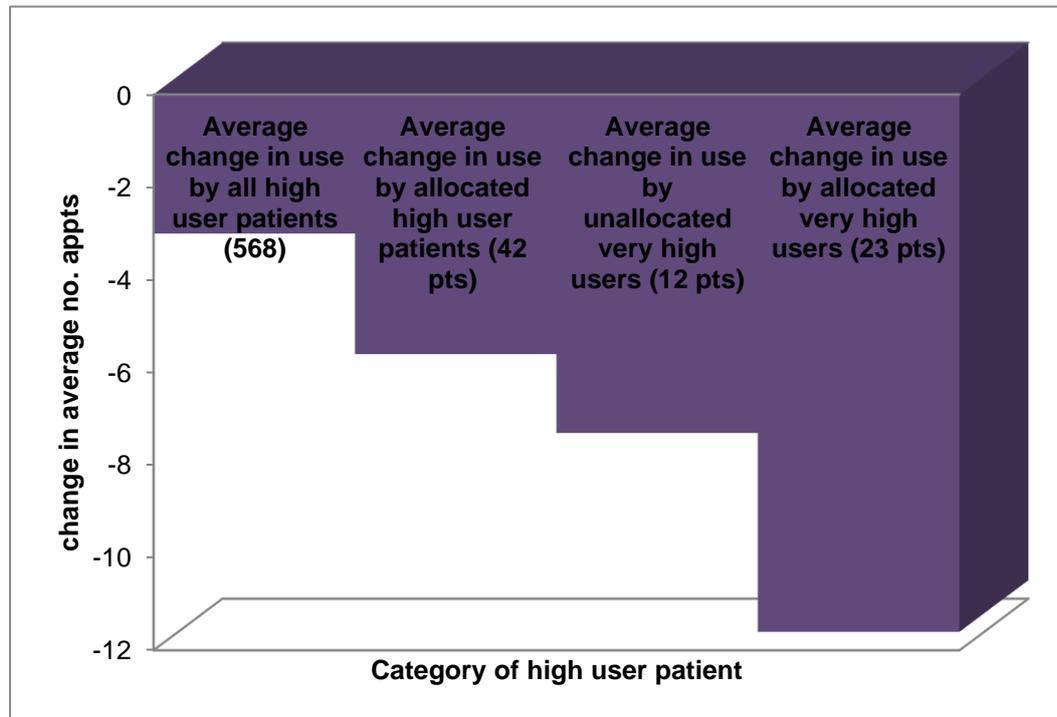
**Figure2:** 'High user patient tool kit'

### Impact of the project

We measured impact in a number of ways:

- Change in the overall number of contacts with the practice
- Change in EQ5 D score
- Patient and staff views on the changes
- Change in use of other services

**Changes in overall number of clinical contacts** with the practice, comparing appointments (face to face, phone calls and home visits) Jan – June 2016 and Jan to June 2017 are presented in figure 3 below.



**Figure 3:** Change in number of contacts Jan-June 2016 compared to Jan-June 2017

The data show that average number of contacts with the practice fell for all high user patient groups - whether or not they were allocated to receive the intervention (which suggests regression to the mean (see above)). Unallocated very high user patients could be seen as a control group for the allocated very high users with those receiving the intervention using, on average 4.3 fewer contacts per year. While we can't conclude that the intervention caused the change in consultations it suggests that the intervention may be associated with this effect.

**Change in EQ5D scores** was assessed after 6 months in the twelve patients involved in the discovery interviews of whom eight were allocated to the intervention group and four were not. For the remaining allocated patients, base line EQ5D score was collected between April and July 2017 so it was too early to repeat the EQ5 questions at the time the project ended.

The EQ5D scores presented in Table 1 show that the average score rose slightly in both groups but the rise was higher in the intervention group (+3.3) than in the control group (+2). Follow up EQ5D scores will be collected for other allocated high user patients after the project end date.

**Table 1:** EQ5D follow up scores in 12 patients with ‘discovery’ and follow up interviews

	Pre Intervention EQ5D	Post intervention EQ5D	Change in EQ5D
<b><i>Unallocated high users</i></b>			
Male 78 yrs	0	6	+6
Female 63	6	8	+2
Female 57	9	9	0
Female 47	7	7	0
<b>Average</b>	<b>5.5</b>	<b>5.5</b>	
<b>Average change in EQ5D</b>			<b>+2</b>
<b><i>Allocated High Users</i></b>			
Female 31	6	6	0
Male 75	6	8	+2
Male 32	1	0	-1
Female 58	0	10	+10
Female 29	6.5	10	+3.5
Female 55	3	10	+7
Male 63	8	10	+2
Female 32	6	9.5	+3.5
<b>Average</b>	<b>4.6</b>	<b>7.9</b>	
<b>Average change in EQ5D</b>			<b>+3.3</b>

**Patient views:**

Two high users who were allocated to a named GP reported experiencing improved continuity while three said they had the same high level of continuity as before and one newly allocated patient said she had not noticed any difference and still struggled to reach her own doctor.

Box 1 below presents comments from one high user on the changes she experienced at different stages in the project. While they are not representative of all interviewees, the comments capture the essence of what the intervention was trying to achieve. Initially she found the increased continuity difficult as she didn't get the treatment she wanted from her allocated GP and asked to change but the GP phoned her to talk through why she had declined the treatment and had, since then, addressed her own health problems along with those of her daughter which had been causing her significant stress.

Two unallocated very high users had not noticed any difference in their care and reported that they struggled to get continuity with a doctor and two said they had always been very happy with their care from the practice and things had not changed during the period of the project.

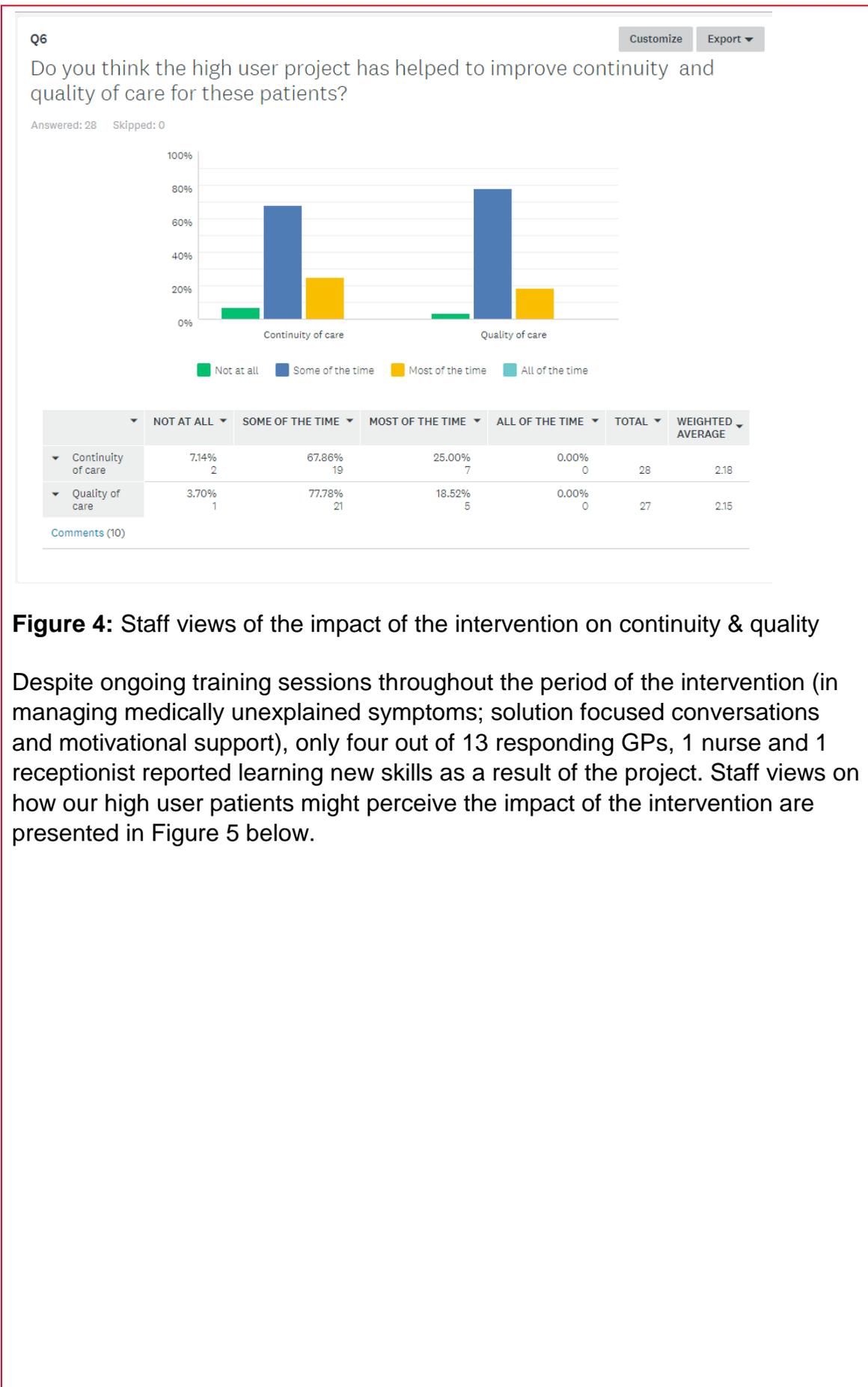
**Box 1:** Follow up interview comment from patient allocated to the intervention

We have been through ups and down but it's been good to air the difficulty. One time I said I didn't want to have [Dr X] as my GP but she called back and we talked through what the problem was and it's ok now.

It's helped to have continuity. [The GP] knows the family and is looking after all of us. [She's] got to know the whole story of the whole family. *Allocated female patient aged 29*

Staff views: were gathered through a staff survey and discussion during team meetings. Overall, survey responses (83% response rate) indicated that staff felt some of the practice's high user patients were benefiting from the intervention some of the time and a small number of patients were benefiting most of the time. Figure 4 below summarises responses relating to quality and continuity of care. However the survey also revealed that not all of the doctors were following the high user pathway so some allocated patients were, in reality, not receiving the intervention.

Four out of 28 respondents (all GPs) said the intervention had made their work easier due to greater continuity while 11 respondents (8 Reception staff and 3 GPs) said it made their work harder. Receptionists also reported that not all doctors were following the agreed pathway and agreeing to contact (face to face or by phone their allocated patients as extras when they requested an appointment).



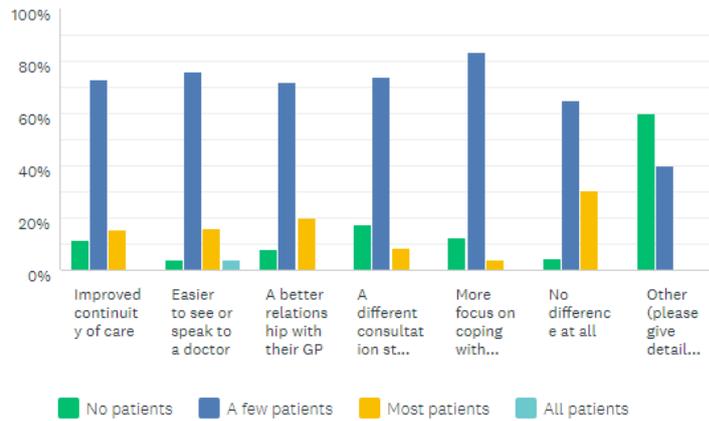
**Figure 4:** Staff views of the impact of the intervention on continuity & quality

Despite ongoing training sessions throughout the period of the intervention (in managing medically unexplained symptoms; solution focused conversations and motivational support), only four out of 13 responding GPs, 1 nurse and 1 receptionist reported learning new skills as a result of the project. Staff views on how our high user patients might perceive the impact of the intervention are presented in Figure 5 below.

**Figure 5: Staff responses on how high user patients might perceive the impact of the intervention**

What do you think our high user patients would have noticed about their care since we introduced the new pathway?

Answered: 27 Skipped: 1



	NO PATIENTS	A FEW PATIENTS	MOST PATIENTS	ALL PATIENTS	TOTAL
Improved continuity of care	11.54% 3	73.08% 19	15.38% 4	0.00% 0	26
Easier to see or speak to a doctor	4.00% 1	76.00% 19	16.00% 4	4.00% 1	25
A better relationship with their GP	8.00% 2	72.00% 18	20.00% 5	0.00% 0	25
A different consultation style in their GP	17.39% 4	73.91% 17	8.70% 2	0.00% 0	23
More focus on coping with illness	12.50% 3	83.33% 20	4.17% 1	0.00% 0	24
No difference at all	4.35% 1	65.22% 15	30.43% 7	0.00% 0	23

## Part 3: Cost impact

### How is the service commissioned and paid for?

The innovations described in this report are internal to the GP practice and is about transforming the day to day work of the whole practice. As such, it does not need to be commissioned, but it has required various resources to develop and implement the project. It will also require ongoing resources to maintain the new way of identifying and working with high user patients

### What economic evaluation was undertaken?

We used 'bottom up costing' to track the amount of administration, data analysis and organisational development time needed to develop, implement and maintain the new systems and processes introduced through the project. The categories of recurrent resource use within the practice were:

- GP leadership time to develop and deliver the project; engage staff across the whole practice in re-thinking the delivery of care to high user patients;
- Administrator time:
- Data analysis time
- Education and training costs

The set up costs included the cost of extracting and analysing pseudonymised data –a one off expense (around £10,000). Further data extraction and analysis was undertaken internally, requiring management and administrative time

There were modest additional costs for training a group of staff in EMIS searches. Although this was a one off cost to get the project going, we aim to maintain a team of staff with skills in EMIS searches to ensure the new processes for identifying and managing high users continues if the lead data analyst is away. This will also allow for staff turnover. Indeed, one member of staff who received the EMIS training has already left the practice. We had budgeted for education costs to train all practice staff in new skills but experts in the areas of interest kindly gave their time for free.

### Savings achieved through the innovation

'Savings' to date have been modest and they have come in the form of reduced appointments used by high user patients. Although these are not large enough to be cash-releasing at present, as the system for managing high user patients becomes more established and clinician skills in managing these patients increase, there may be more significant reductions. These 'savings' are unlikely to be converted to reduced staff costs and will be used as extra capacity for other patients - a valuable outcome given current waits for pre-bookable appointments

Overall, the changes introduced through this project do not require a significant

financial investment, although they do require the dedicated administrative staff time and the time needed to implement a whole practice development plan. There are opportunity costs associated with allocating practice meetings, education and training sessions and leadership time to developing systems for high user patients – in that other development needs of the practice will be ‘foregone’.,

### **Financial impact on other services**

Use of A&E, emergency admissions and out of hours services was slightly higher in intervention patients than in non-intervention patients so there were no observed savings in use of the wider NHS.

## Part 4: Learning from your project

This project achieved slightly different outcomes from those anticipated at the start. The aim of tailoring care to the needs of two discrete high-user patient groups with distinct needs reflected an assumption that subgroups could be identified with shared characteristics such as age, role (eg parents) and/or clinical condition (eg back pain or depression).

The heterogeneity of high user patients was greater than expected, with a common characteristic being help seeking behaviour and expectations that doctors can manage problems which may not have a medical solution. This led us to design an intervention that was generic and 'conceptual' (ie about changing the underpinning philosophy of consultations) rather than introducing a new service

The project has demonstrated the potential for practice level data analysis to identify patients – often with a complex mix of physical and mental health symptoms – who are high users of general practice for different periods of time. Some as sustained high users and others with an 'episode of high use'.

The project has also started to demonstrate the wide range of patients for whom an ongoing relationship with a usual clinician or small cluster of clinicians may help to separate problems for which there is a clinical solution from those which may be medically unexplained and where non-clinical approaches that aim to de-medicalise symptoms and support people to live with them may be more helpful.

It has also encouraged clinicians to consider the inter-related needs of whole families and develop skills in de-medicalising problems and in helping selected patients, whose physical symptoms have been fully investigated and are being treated, to cope with their conditions and symptoms without recourse to further medical investigations and interventions.

### Enablers and barriers

Developing team based responsibility for complex patients – by creating a pathway to steer high user patients to their usual doctor or a member of their buddy group – was helped by a strong commitment among the GP partners to make this system work.

Funding for a session of dedicated lead clinician time was essential to create the 'headroom' needed to plan and design the intervention; to organise training and external speakers and to maintain regular prompts to clinical staff to stick to the high user pathway and consider using alternative consultation paradigms. Despite these activities, not all of the GPs have yet changed their behaviour and it remains an ongoing challenge to implement and embed the intervention across the whole practice. This experience is not unusual in projects which aim to change clinician behaviour, and despite drawing on published evidence about effective methods to

drive change, we still have a way to go.

### **What aspects didn't work out quite as planned or proved tough?**

Extracting data from the clinical system for phase one analysis took longer than expected so the time available to design and implement the intervention was less than initially planned. Given the relatively slow pace of behaviour change in doctors, this meant the initiative had less impact than it might have done if it had gone live earlier in the project and the intervention was embedded earlier

The staff survey found that only 6 staff members reported learning new skills through the project (with five further respondents unsure if they had). This was disappointing given the all-staff workshops that were held during the project and the training sessions delivered by external speakers; resources packs and frequent 'nudges' to remind people about using alternative consultation paradigm.

A third barrier to implementation was an external factor, beyond the control of the practice. With significant workforce shortages and pressures recruiting GPs, our practice has an increasingly part time GP workforce with two long term locums. This made it more difficult to create continuity for patients with a single GP and to engender a sense of professional accountability for high quality, holistic care for patients with complex needs. This required us to develop processes for buddy-group continuity (see pathway in Appendix 3). This issues is faced by many GP practices so our efforts to develop continuity and alternative styles of consultation in a part time, fragmented workforce are widely relevant. We think we have made progress with developing the systems and processes to make this work, but local implementation will depend on a strong commitment to continuity and ongoing professional accountability for the care of complex patients in each individual practice. It is hard to know how widely this will be possible.

### **What surprised us?**

Overall, the clinical aspects of this intervention were not particularly innovative – in that they re-introduced *traditional* skills of medical generalism and general practice for a selected group of patients. The Innovation of this project was the systematic use of practice data and data analysis to identify high user patients who might benefit from a more traditional form of general practice and to embed this into every day practice in a policy context where the requirement to deliver rapid access and a workforce that is increasingly part time, is pushing GPs to become more task based and is making this form of continuity much harder.

### **Sustaining and further developing the intervention**

Although we have reached the project end date, it is ongoing and evolving. Future plans combine ongoing work to embed the high user pathway (particularly regarding consultation styles across more GPs) with ambitions to further develop the data

analytic side of this project.

We are introducing a new electronic template developed by Dr Andy Saunders of Clapham Park Surgery which should improve the consistency of coding across doctors (and will also help to share clinical information across buddy groups). Dr Rosen has had a preliminary conversation with the data analytic team at Cerner about options for further analysis of practice data to spot patients with complex medical needs and we will be looking to establish such a partnership in the future.

Looking back on the project to date, we have learned the importance of clearly articulating and agreeing the range of data that is needed to identify the socio-demographic and clinical characteristics of high users. This would reduce the time taken for data extraction in future.

## Part 5: Sustainability and spread

This project has started to change the day to day work in our practice and while some GPs have adopted new ways of consulting with high user patients, it is clear that some are not yet doing this. Like many initiatives to change clinician behaviour, it will take time and sustained prompting, performance review and feedback before the changes are embedded across the whole organisation.

Methods developed in this project which are helping to embed the initiative into usual practice are:

- Repeatable data analysis to identify new high user patients as they join the practice or become higher users after not previously being so
- Development of data analysis capacity within practice staff
- Developing standard processes for triaging and responding to the needs of high user patient

The positive early findings from the evaluation described above justify continuing with the intervention we have developed. We have re-run the EMIS searches to identify 'new joiners' on the high user list and those patients who have 'dropped off' the list. We will be asking the Health Foundation to use some of the un-spent project funds to pay our data team to repeat the searches at regular intervals; to tag the notes of all current high and very high users – and to remove tags from those who have dropped off the list.

### External interest and recognition

Findings from the pseudonymised data analysis and EMIS audits were presented to a Nuffield Trust seminar on segmentation in general practice to highlight the characteristics of frequent service users. The seminar examined the impact of current policy to segment general practice services and explored options for alternative approaches to meeting the needs of different patient groups.

Data from this project helped to illustrate the diverse needs of high users and to raise questions about whether segmenting general practice services might result in high users receiving more fragmented and duplicative care.

An abstract about the findings of the data analysis and the changes they have driven in the day to day work of the practice has been accepted for presentation at the 2017 International Society for Quality Improvement conference (ISQua) in London.

### Spread beyond the founding organisation

To date, we have demonstrated a modest reduction in use of GP service associated with changes continuity and the clinical paradigm for engaging with high user patients. The results presented here remain preliminary and a longer period of

follow up is needed before we can be confident that observed reductions in attendance and changes in EQ5D score can be attributed to the organisational changes we have introduced.

However, given the promising early results we believe there is enough early evidence to justify sustaining and embedding the systems we have introduced. In the first instance we will be presenting our work and the results to date to local GPs at a quarterly 'Greenwich Wide Forum' meeting to which each practice sends at least one representative.

If the early observed reductions are sustained over a further 6 months (we have the data collection and analysis methods in place to track these figures) then we will submit abstracts on methods and findings to national and regional GP conferences.

We are happy to share the resources we have developed (audit guide, consultation guidance and process maps) with any practice that is interested in using them.

## Resources and appendices

1. Output of analysis by Health Foundation data analytics team of high user patients
2. Information pack to support practice staff to work with this patient group
3. Guide to data searches and data extraction to identify the high user population and describe demographic and clinical characteristics
4. Patient allocation pathways for high user patients
5. Poster presentation text and graphics
6. Financial report
7. Feedback to the Health Foundation

## Appendix 1: Analysis socio demographic and clinical characteristics of high users of GP services provided by Valentine Health Partnership

1: Analysis of patients using over 26 appointments per year.

This table shows the mean (standard deviation) for each variable listed. For categorical variables (denoted by a %) the count (percentage) of patients in that category is shown. The population is stratified into those patients with less than or equal to 26 valid appointments (valid means status not 'DNA', 'Walked out' or 'Not in') in the last year, and those patients with more than 26.

Values below ten have either been rebounded or removed\*\*.

	Patient has over 26 valid appointments?		All Patients (n=25,252)
	No (n=25,142)	Yes (n=110)	
Age	31.26 (19.83)	50.6 (22.17)	31.34 (19.88)
Age band (%)			
0 – 10			20.06
10 – 20	68.59	30.91	11.97
20 – 40			36.40
40 – 60	23.71	36.36	23.77
60 – 80	6.60	22.73	6.67
80+	1.09	10.00	1.13
Gender (%)			
Female	51.21	70.00	51.29
Male	48.79	30.00	48.71
National IMD Quintile 2010 (%)			
1	67.2	69.09	67.21
2			27.69
3+	32.80	30.91	5.10
Number of LTCs	0.48 (0.99)	2.85 (2.14)	0.49 (1.01)
Number of LTCs band (%)			
0	72.33	13.64	72.07
1	16.68	17.27	16.68
2	6.05	20.91	6.12
3+	4.94	48.18	5.13
Long term conditions (%)			
Atrial Fibrillation	**	**	0.68
Asthma	6.86	19.09	6.91
Cancer	**	**	1.37
CHD	1.48	17.27	1.55
CKD	1.04	12.73	1.09
COPD	1.30	10.91	1.34
Dementia	**	**	0.31
Depression	8.97	42.73	9.12
Diabetes	4.57	29.09	4.67
Epilepsy	**	**	1.02
Heart Failure	**	**	0.48
Hypertension	10.27	46.36	10.42
Learning Disability	**	**	0.55

Mental Health Condition	1.71	10.91	1.75
Osteoarthritis	4.87	29.09	4.98
Osteoporosis	**	**	0.70
PAD	**	**	0.52
Palliative Care	**	**	0.11
Rheumatoid Arthritis	**	**	0.32
Stroke TIA	0.92	12.73	0.97
Lifestyle (%)			
Current Smoker	24.90	40.00	24.97
High Alcohol User	**	**	2.98
Received a prescription of this type in the last year (%)			
Analgesia	12.62	70.00	12.87
Cardiovascular	13.99	62.73	14.20
Depression	7.86	53.64	8.06
Gynaecological/UTI	5.70	34.55	5.83
Psychosis	2.43	19.09	2.51
Respiratory	14.97	54.55	15.14
Thyroid Corticosteroids	4.20	27.27	4.30
Number of antibacterial prescriptions received last year	0.39 (1.53)	4.53 (5.02)	0.41 (1.58)
Emergency Department Attendances	0.27 (0.86)	3.36 (6.68)	0.28 (0.98)
Inpatient Admissions	0.15 (0.64)	1.80 (2.31)	0.16 (0.67)
Outpatient Appointments	0.72 (1.75)	5.35 (4.90)	0.74 (1.80)
Number of appointments in the last year	3.45 (4.18)	41.70 (18.77)	3.62 (5.03)
Number of valid appointments in the last year	3.16 (3.86)	39.13 (17.90)	3.32 (4.67)
Number of invalid appointments in the last year	0.29 (0.78)	2.57 (3.13)	0.30 (0.82)
Number of prebooked appointments in the last year	1.60 (2.23)	15.84 (14.72)	1.66 (2.60)
Number of walk in appointments in the last year	0.87 (1.49)	9.44 (8.78)	0.91 (1.69)
Number of telephone appointments in the last year	0.69 (1.50)	13.85 (12.84)	0.75 (1.93)
Number of patients in the household	3.33 (2.09)	2.33 (1.69)	3.32 (2.09)
Number of patients in the household band (%)			
1	23.12	47.27	23.23
2	17.64	19.09	17.65
3	17.95	10.91	17.92
4	16.73	9.09	16.70
5+	24.56	13.64	24.52
Number of valid appointments as a household in the last year	10.02 (10.2)	50.90 (26.86)	10.20 (10.68)

**Table 2: Analysis of patients using over 15 appointments per year**

Descriptives

**General high utilisation**

This table shows the mean (standard deviation) for each variable listed. For categorical variables (denoted by a %) the count (percentage) of patients in that category is shown. The population is stratified into those patients with less than or equal to 26 valid appointments (valid means status not ‘DNA’, ‘Walked out’ or ‘Not in’) in the last year, and those patients with more than 26.

Values below ten have either been rebounded or removed\*\*.

	Patient has over 26 valid appointments?		All Patients (n=25,252)
	No (n=25,142)	Yes (n=110)	
Age	31.26 (19.83)	50.6 (22.17)	31.34 (19.88)
Age band (%)			
0 – 10			20.06
10 – 20	68.59	30.91	11.97
20 – 40			36.40
40 – 60	23.71	36.36	23.77
60 – 80	6.60	22.73	6.67
80+	1.09	10.00	1.13
Gender (%)			
Female	51.21	70.00	51.29
Male	48.79	30.00	48.71
National IMD Quintile 2010 (%)			
1	67.2	69.09	67.21
2			27.69
3+	32.80	30.91	5.10
Number of LTCs	0.48 (0.99)	2.85 (2.14)	0.49 (1.01)
Number of LTCs band (%)			
0	72.33	13.64	72.07
1	16.68	17.27	16.68
2	6.05	20.91	6.12
3+	4.94	48.18	5.13
Long term conditions (%)			
Atrial Fibrillation	**	**	0.68
Asthma	6.86	19.09	6.91
Cancer	**	**	1.37
CHD	1.48	17.27	1.55
CKD	1.04	12.73	1.09
COPD	1.30	10.91	1.34
Dementia	**	**	0.31
Depression	8.97	42.73	9.12
Diabetes	4.57	29.09	4.67
Epilepsy	**	**	1.02
Heart Failure	**	**	0.48
Hypertension	10.27	46.36	10.42
Learning Disability	**	**	0.55
Mental Health Condition	1.71	10.91	1.75

Osteoarthritis	4.87	29.09	4.98
Osteoporosis	**	**	0.70
PAD	**	**	0.52
Palliative Care	**	**	0.11
Rheumatoid Arthritis	**	**	0.32
Stroke TIA	0.92	12.73	0.97
Lifestyle (%)			
Current Smoker	24.90	40.00	24.97
High Alcohol User	**	**	2.98
Received a prescription of this type in the last year (%)			
Analgesia	12.62	70.00	12.87
Cardiovascular	13.99	62.73	14.20
Depression	7.86	53.64	8.06
Gynaecological/UTI	5.70	34.55	5.83
Psychosis	2.43	19.09	2.51
Respiratory	14.97	54.55	15.14
Thyroid Corticosteroids	4.20	27.27	4.30
Number of antibacterial prescriptions received last year	0.39 (1.53)	4.53 (5.02)	0.41 (1.58)
Emergency Department Attendances	0.27 (0.86)	3.36 (6.68)	0.28 (0.98)
Inpatient Admissions	0.15 (0.64)	1.80 (2.31)	0.16 (0.67)
Outpatient Appointments	0.72 (1.75)	5.35 (4.90)	0.74 (1.80)
Number of appointments in the last year	3.45 (4.18)	41.70 (18.77)	3.62 (5.03)
Number of valid appointments in the last year	3.16 (3.86)	39.13 (17.90)	3.32 (4.67)
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## APPENDIX 2: HIGH USER PATIENT TOOL KIT



### IDENTIFYING HIGH USER PATIENTS

- Regular standard audits (see guide on how to conduct these)
- Add / remove new / inactive patients to Usual GP list
- Tag notes 'VERY HIGH USER: MUST HAVE CONTINUITY WITH XX OR YY OR BUDDY GROUP GP'

#### Who & how often

- Audit lead
- 6 monthly

### Daily Appointment List

Report Parameters  
Start Date: 12/03/2010  
Selected Stylist: Jo Kline

#### Schedule:

Start	Customer	Service
10:00:00	Mark Smith	letService
11:10:00	Mark Smith	letService
13:10:00	Mark Smith	letService

### Booking continuity appointments with the usual GP

- Book only with usual GP or named buddy
- Offer named doctor call back if no appointments available
- Paired GPs in microteams with multiple part time GPs
- Pilot: Fixed slot with usual GP to be cancelled if not needed

#### Who & how

- Reception team
- Daily



### Assessing pt health, identifying needs and setting goals

- Initial conversation to assess and measure current health status.
- Investigate and manage new or active clinical problem
- Use Medically unexplained symptom paradigm (see toolkit)
- Use motivational and solution focused methods (see toolkit)
- Complete EQ5D health assessment questions (see toolkit)
- Use the high user patient template (See toolkit)

#### Who & how

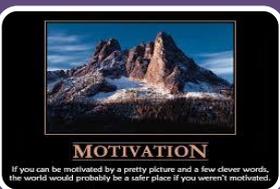
- Lead clinician
- First and follow up consultations

## USE THE HIGH USER TOOL KIT



### Medically unexplained symptoms

- Explain MUS concept to patient
- Identify and treat psychological co-morbidities (eg anxiety)
- Pre-negotiate treatment plan and set expectations



### Motivational support

- Key aim is to encourage patient to make a behavioural change
- Set goal(s) and create plans for how to achieve it/them
- Builds autonomy and sense of competence in making change



### Solution focused interviews

- conversations to identify patients' visions of solutions
- focus on things that have made them feel better
- how can they make these things occur more often



### Social prescribing

- Refer to join the staying healthy gardening group
- Refer to social prescribers

## Clinicians' toolkit for consultations with high user patients

### MUST DO's

- 1) **Tag notes: VERY HIGH USER PATIENT: MUST HAVE CONTINUITY WITH XX OR BUDDY**  
  
Add major alert to load notes and book appointment. Delete old/pointless major alerts
- 2) **Use these codes in your medical record entry:**
  - Medication changed
  - Agreement of care plan
  - Goal identification
- 3) **Complete EQ5D**
- 4) **Explain options for contacting you (book, walk-in or phone) and buddy alternative**
- 5) **Discuss frequent use** If appropriate and explore what makes them come to see you, does it make them feel better – if yes, why? Are there any alternative options
- 6) **Ideally, check/tidy problem list and address QOF gaps and review medications**

### OPTIONS TO HELP WITH MANAGING HIGH RISK PATIENTS

**Discovery interviews revealed various reasons for consulting. The table suggests options for how you can respond**

Issue identified in discovery interview	Options for responding	Justification
Social isolation / Loneliness	Refer to social prescriber (starting April 1 <sup>st</sup> )	Local findings of integrated care pioneer – patients and GPs both valued social referrals
Failure to engage with doctors and nurses regarding ongoing health problems (eg Diabetes)	Use motivational approach to set goals about changing health behaviours  See article on motivational support  And slides on self-management	Evidence base exists to support: * Enhance self-efficacy/ confidence to self-manage  * Enhance motivation to self-manage  * Address inaccurate health beliefs/ illness perceptions
Negative outlook/learned helplessness	Solution focused interviews (see article). Joint consultation with psychol	Focuses patient thinking on solutions rather than problems. Evidence of effectiveness exists

Issue to be addressed	Action	Evidence	Comment	Resources/access
Multiple complex physical and or MH problems	Continuity	BMJ paper Baker and others Feb 2017	Better outcomes and lower use of other services in patients with more continuity	
Repeat visits for long term conditions	Self management support	Evidence reviews for individual conditions suggest more impact than generic training  Better outcomes with higher patient activation (PAM) score	In selected conditions – particularly asthma and COPD, support to build self –efficacy / patient activation can improve outcomes  Group interventions can be effective	See slide set in tool kit by Kate Hamilton West <a href="https://www.kent.ac.uk/chss/docs/KAPCU-Seminar-25-March-2015.pdf">https://www.kent.ac.uk/chss/docs/KAPCU-Seminar-25-March-2015.pdf</a>  National Voices evidence review <a href="http://www.nationalvoices.org.uk/sites/default/files/public/publications/supporting_self-management.pdf">http://www.nationalvoices.org.uk/sites/default/files/public/publications/supporting_self-management.pdf</a>
Medically unexplained symptoms	Recognise MUS, explain and jointly plan	Papers written about MUS but no specific ‘MUS interevention’	Main challenge is to explain the concept of MUS and allay fears then set expectations of what can be done	See article in tool kit
Risk factor reduction and encouraging behavioral change	Motivational interviewing /motivational support	Sytematic reviews show that in research settings MI outperforms traditional consultations in a broad range of areas <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1463134/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1463134/</a>	Need to develop skills in this way of working. YoC training for DM used MI GP trainers have experience of MI	BMJ learning study unit on Motivational interviewing <a href="http://learning.bmj.com/learning/module-intro/.html?moduleId=10051582">http://learning.bmj.com/learning/module-intro/.html?moduleId=10051582</a>
Negative view of ability to influence health	Solution focused conversations	Brief reveiw of outcomes: Provide some weak evidence of effecitveness <a href="https://www.ncbi.nlm.nih.gov/pubmed/11143600">https://www.ncbi.nlm.nih.gov/pubmed/11143600</a>	This approach encourages patients to focus on things in their life that make them feel better and to do more of these things	See: <a href="http://www.solutionfocused.net/what-is-solution-focused-therapy/Magda">http://www.solutionfocused.net/what-is-solution-focused-therapy/Magda</a> has promised to develop a short training video to explain this approach
Social isolation and loneliness	Social prescribing		Due to start having health trainers/social prescribers in FV from April 1st	

## CODING AND TEMPLATE FOR PATIENT SUMMARY FOR BUDDY GROUP

Remember to include the following codes (in bold below) in your medical records entry so that care plans for your high user patients can be easily accessed by your buddy doctors through the high user template.

- **Medication changed** – to include an very short explanation of *why* a medicine was changed
- **Goal identification** – to describe goals agreed re health and wellbeing and lifestyle changes
- **Agreement of a care plan** –to briefly summarise your overall care plan so your buddy doctors can follow it if you are out of the practice

SCREEN SHOT OF PART OF THE HIGH USER EMIS TEMPLATE BEING INTRODUCED IN JULY 2017

The screenshot shows the EMIS 'Overview at a Glance' template for patient Minnie Duck. The patient's details are: Born 12-Feb-1929 (88y), Gender Male, NHS No. 000 000 0000, Usual GP CHELLAPPAH, Mydhill.

**Diary Entry Please put 12m in date box before ticking**

Item	Date	Notes
<input type="checkbox"/> Chronic disease annual review	27-Jun-2017	16-Nov-2017
<input type="checkbox"/> Chronic disease management annual review completed	Text:	16-Nov-2016
<input type="checkbox"/> Summary of Main Symptoms	Text:	No previous entry
<input type="checkbox"/> Medication changed	27-Jun-2017	31-Jan-2017
<input type="checkbox"/> Agreement of care plan and repeat prescription monitoring	Text:	16-Nov-2016
<input type="checkbox"/> Goal identification	Text:	08-Feb-2017
<input type="checkbox"/> Housebound	Text:	14-Jul-2015
<input type="checkbox"/> Social/personal history NOS	Text:	14-Jul-2015
<input type="checkbox"/> Mobility - assessment	Text:	08-Feb-2017
<input type="checkbox"/> Occupations	Text:	14-Jul-2015
<input type="checkbox"/> Patient's next of kin	Text:	05-Oct-2016
Has carer/s carer	Text:	05-Oct-2016 <b>Is a carer</b>

[Link to all Lambeth CCG local guidelines](#)

**Reviews**

Flu Vaccination	13-Jun-2017	
Influenza Vaccination	22-Sep-2004	
Pneumococcal Vaccination	13-Jun-2017	<b>Pneumococca...</b>
Ethnicity	20-May-2011	<b>African - eth...</b>
Main spoken language	20-Oct-2009	<b>Main spoken L...</b>

**Body Parameters**

Blood Pressure	/	mmHg	10-Feb-2017	<b>120/80 mmHg</b>
O/E - pulse rate		beats/min	22-Mar-2017	<b>160 beats/min</b>
Pulse Character			01-Feb-2017	<b>O/E - pulse r...</b>
O/E - height		cm	06-Aug-2014	<b>60 cm</b>

**Template developed by Dr Andy Sauders of Clapham Park Group Practice and kindly offered to Valentine Health Partnership for use in this project.**

## EQ5D questionnaire PAGE 1:

Under each heading, please tick the ONE box that best describes your health TODAY.

### MOBILITY

- I have no problems in walking about
- I have slight problems in walking about
- I have moderate problems in walking about
- I have severe problems in walking about
- I am unable to walk about

### SELF-CARE

- I have no problems washing or dressing myself
- I have slight problems washing or dressing myself
- I have moderate problems washing or dressing myself
- I have severe problems washing or dressing myself
- I am unable to wash or dress myself

### USUAL ACTIVITIES *(e.g. work, study, housework, family or leisure activities)*

- I have no problems doing my usual activities
- I have slight problems doing my usual activities
- I have moderate problems doing my usual activities
- I have severe problems doing my usual activities
- I am unable to do my usual activities

### PAIN / DISCOMFORT

- I have no pain or discomfort
- I have slight pain or discomfort
- I have moderate pain or discomfort
- I have severe pain or discomfort
- I have extreme pain or discomfort

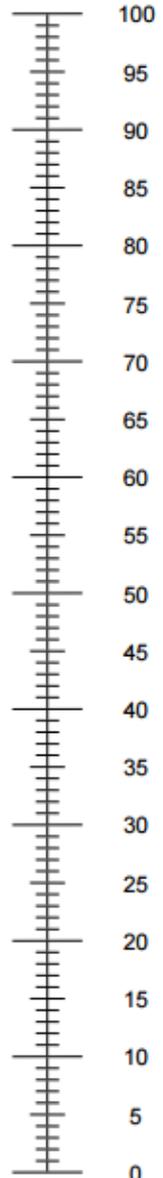
### ANXIETY / DEPRESSION

- I am not anxious or depressed
- I am slightly anxious or depressed
- I am moderately anxious or depressed
- I am severely anxious or depressed
- I am extremely anxious or depressed

- We would like to know how good or bad your health is TODAY.
- This scale is numbered from 0 to 100.
- 100 means the best health you can imagine.  
0 means the worst health you can imagine.
- Mark an X on the scale to indicate how your health is TODAY.
- Now, please write the number you marked on the scale in the box below.

YOUR HEALTH TODAY =

The best health  
you can imagine



The worst health  
you can imagine

### APPENDIX 3: FLOW CHART FOR BOOKING HIGH USER PATIENTS WITH USUAL DOCTOR

PATIENT REQUESTING APPOINTMENT	URGENT	UD IS IN : Ask If they will call the patient.	YES: Add to WIC/123 Duty as urgent with comment under; "High User UD will call" NO	Add to WIC/123 Duty as urgent with comment under; "High User UD can't take call"
		UD NOT IN		
	NON URGENT Reception script: 'I'd like to book you with your UD and they have an apt on xx day. Is that ok?	YES	NO ( don't want to wait that long) Reception Script: We are trying to make sure that people with complicated health problems see the same GP. This will give you a better care as the GP is aware of your health history.	OK – APT BOOKED
			NO. PT WANTS TO SEE DR SOONER Reception script: 'I'd like to book you with UD buddy group DR as they work closely together. They have an apt on xx day Would that be ok?	NO – duty Dr call back?
PATIENT REQUESTING CALL BACK	URGENT	UD IS IN: Ask If they will call the patient.	YES: Add to WIC/123 Duty as urgent with comment under; "High User UD will call" NO	Add to WIC/123 Duty as urgent with comment under; "High User UD can't take call"
		UD NOT IN		
	NON URGENT: UD/PAIRED HAS CLINIC SAME DAY?	YES: ADD TO SAME DAY UD CLINIC NO: PUT ON DUTY WITH COMMENT UNDER: "HIGH USER UD NOT IN"		
PATIENT REQUESTING WALK IN	UD IS IN	YES: ADD TO WI and add comment underneath High User XX Dr to see		
		NO Reception Script: "Your UD is not here today, They are next on XX day, can you come back then?"	YES NO Would you not rather wait for a GP that already knows you as it's often a better consultation as they know your background history?	YES – BOOKOR RETURN XX DAY NO – ADD TO WI

**HIGH SERVICE USERS  
POPULATION REPORTING  
INSTRUCTION MANUAL  
2017  
EMIS WEB BASED**

## Table of Contents

1- Identifying High Service Users (HU).....	35
2- Building a Report .....	38
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4- Wider Services by High Users.....	42
5- Extracting Information .....	43

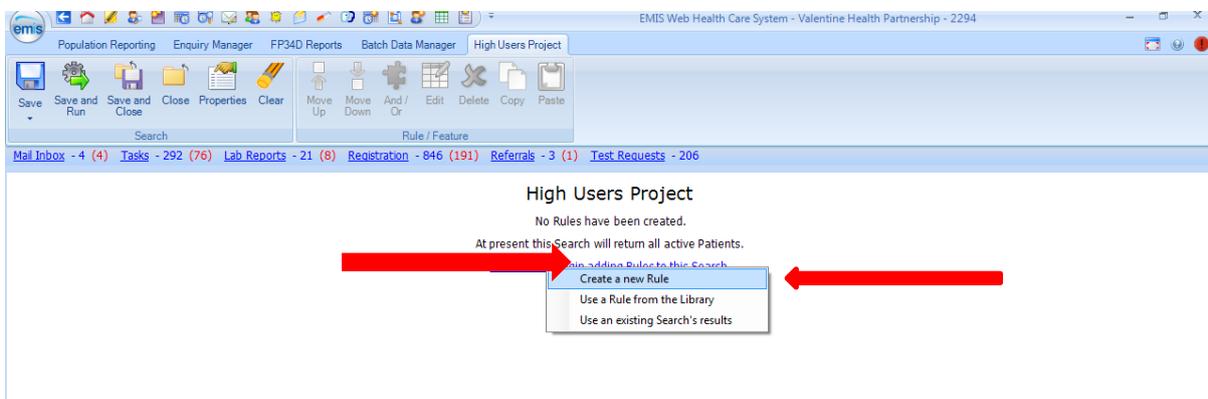
# 1- Identifying High Service Users (HU)

The process of identifying the service high users begins by building a search on Population Reporting which will filter patients with specific characteristics and allow for a report to be built from those results.

Click the EMIS icon > Reporting > Population Reporting> Add> Search >

(Name the search > tick currently registered patients > OK)

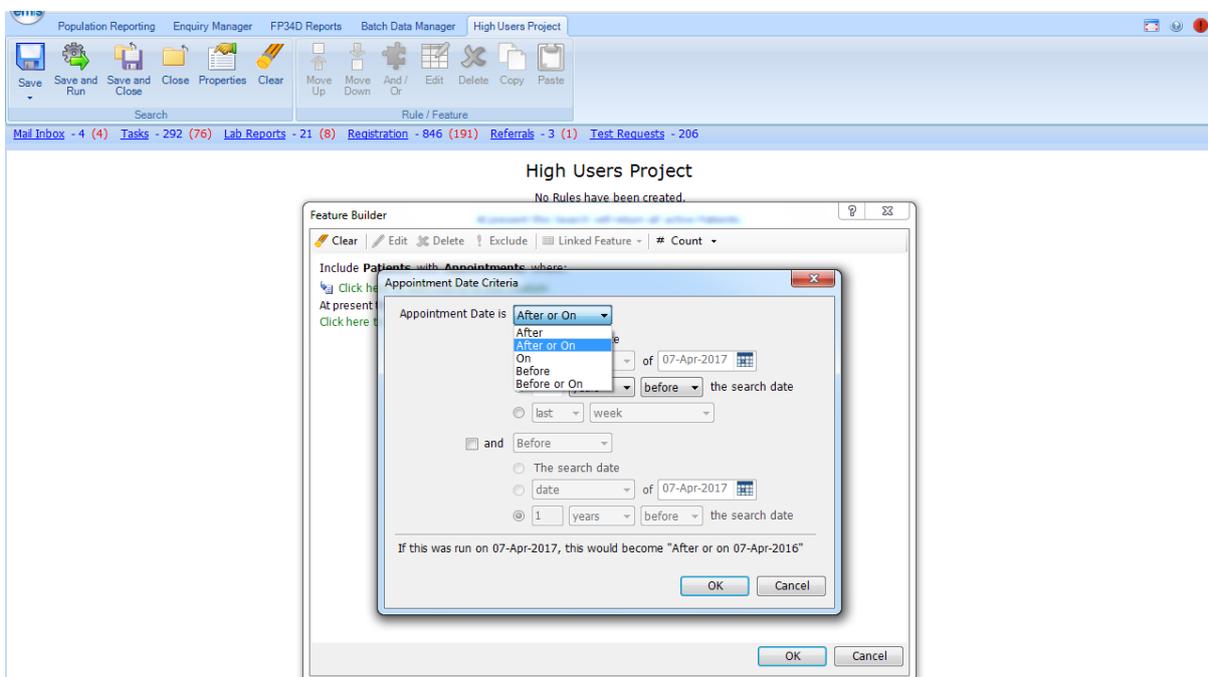
Click Create New Rule > Click blue Link to choose **features** > select Appointments > click OK



Click blue Link to add **Criteria** > select Appointment Date > select Set date > Input preferred date > OK

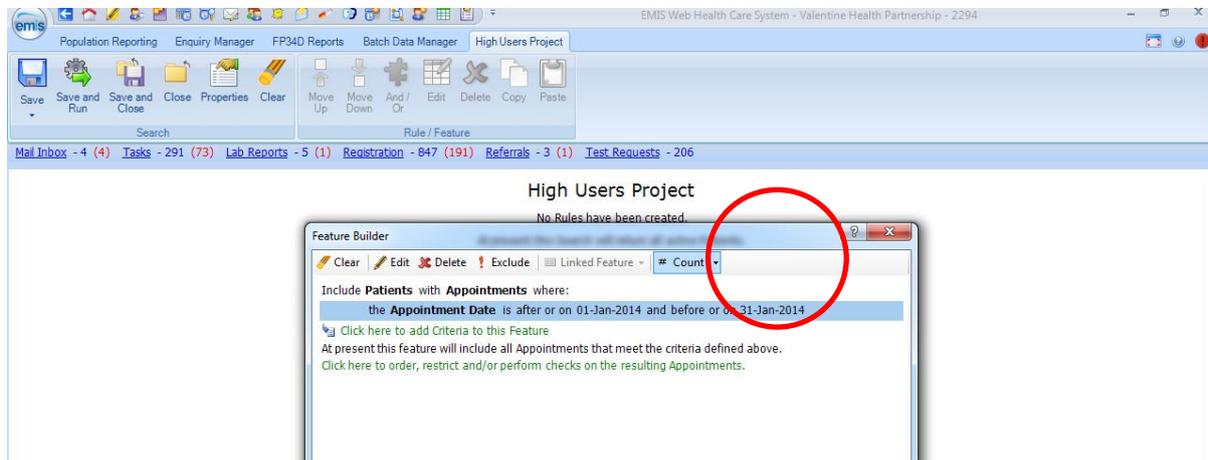
For the purpose of the original report it was selected after or on the 1st January 2014 and before or on the 31<sup>st</sup> December 2015

Setting the dates correctly: Selecting *After or On/ Before or On* will make the start/end day inclusive on the search



Click **#Count** > Select **More Than or Equal to** > Input the selected minimum number of appointments > OK

For the purpose of the original report it was selected 15.

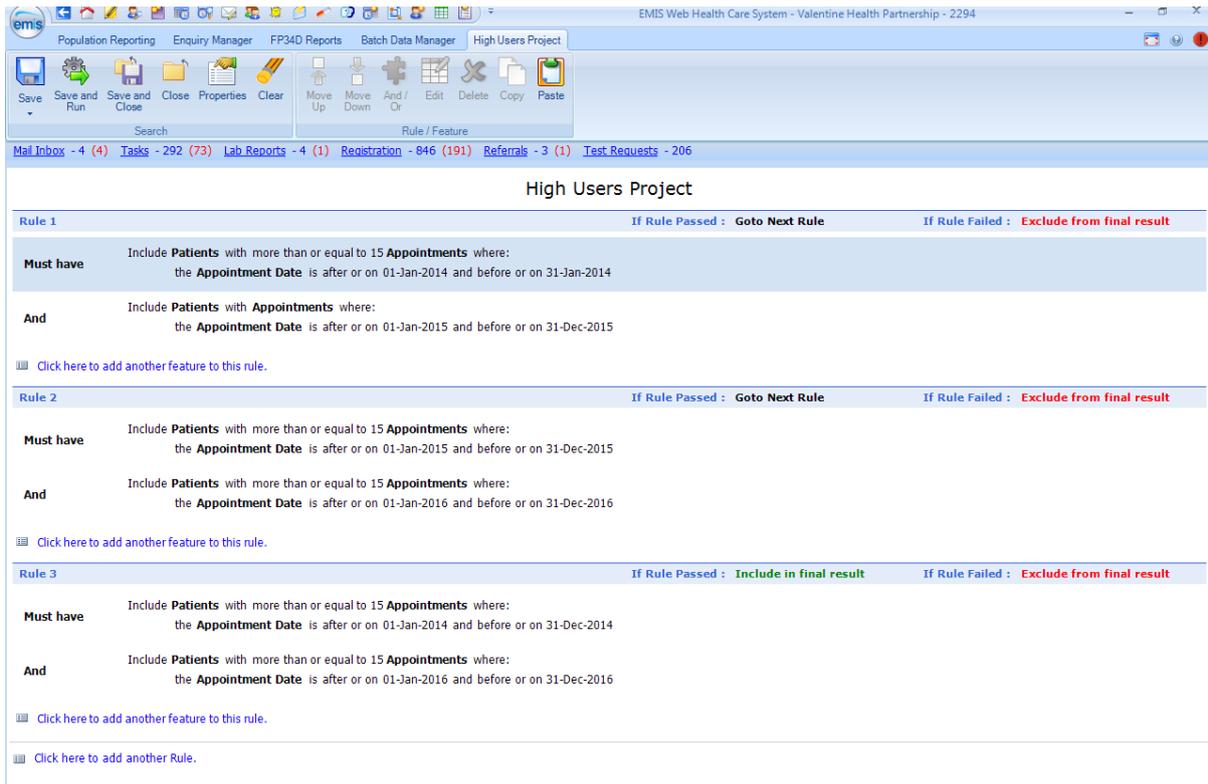


In order for the search to pick up patients with a minimum number of contact on specific date ranges these will also need to be added

Repeat the above process by adding the 3x date range in total by selecting the blue link > Click here to add another feature.

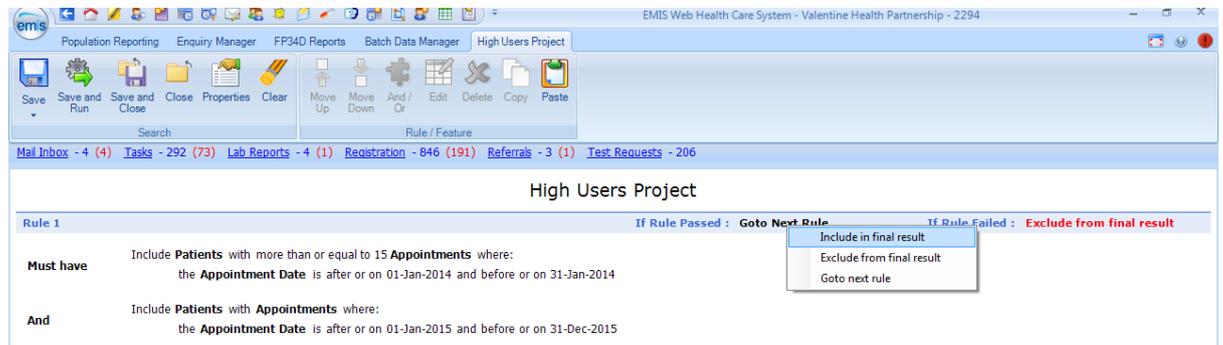
For the purpose of the original report it was selected:

- After or on the 1st January 2014 and before or on the 31<sup>st</sup> December 2015
- After or on the 1st January 2015 and before or on the 31<sup>st</sup> December 2016
- After or on the 1st January 2014 and before or on the 31<sup>st</sup> December 2016

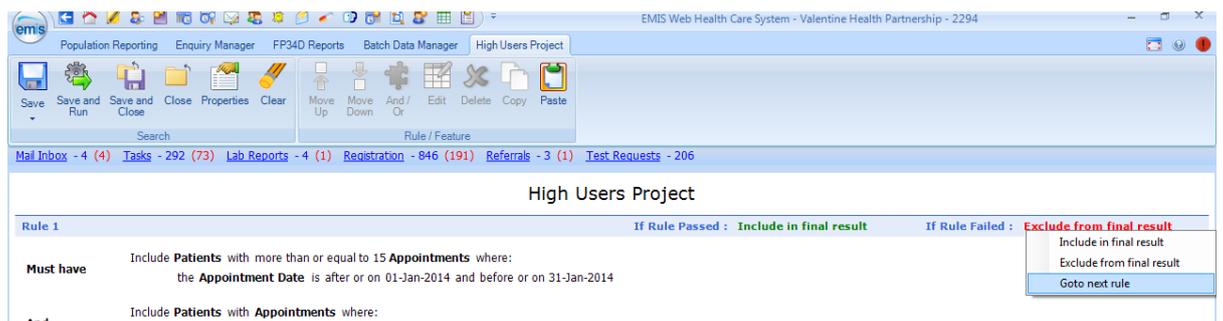


Rules features should be selected as follow:

Click black link *Go to Next Rule* > Select *Include in final report*

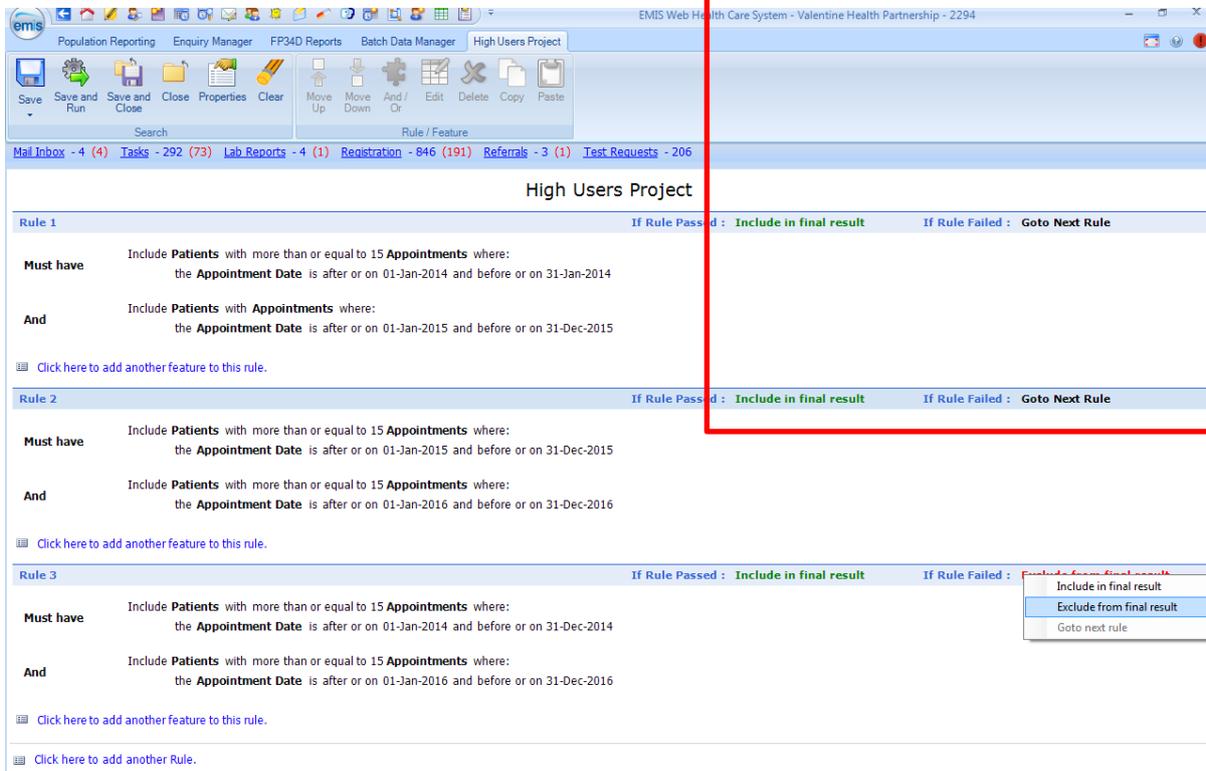


Click red link *Exclude from final result* and select *Go to Next rule*.



Repeat process for the next 3 rules.

On the last rule **keep** last feature as: *Exclude from final result*



Select Save and Close

## 2- Building a Report

Building a Report will allow information to be extracted and relevant for the only for the selected population.

Right-Click on the Search > Select Run Report > select Patient List > OK > Run Report > Yes

This option will only run a basic report on the search population. The report will then have to be edited and given specific features

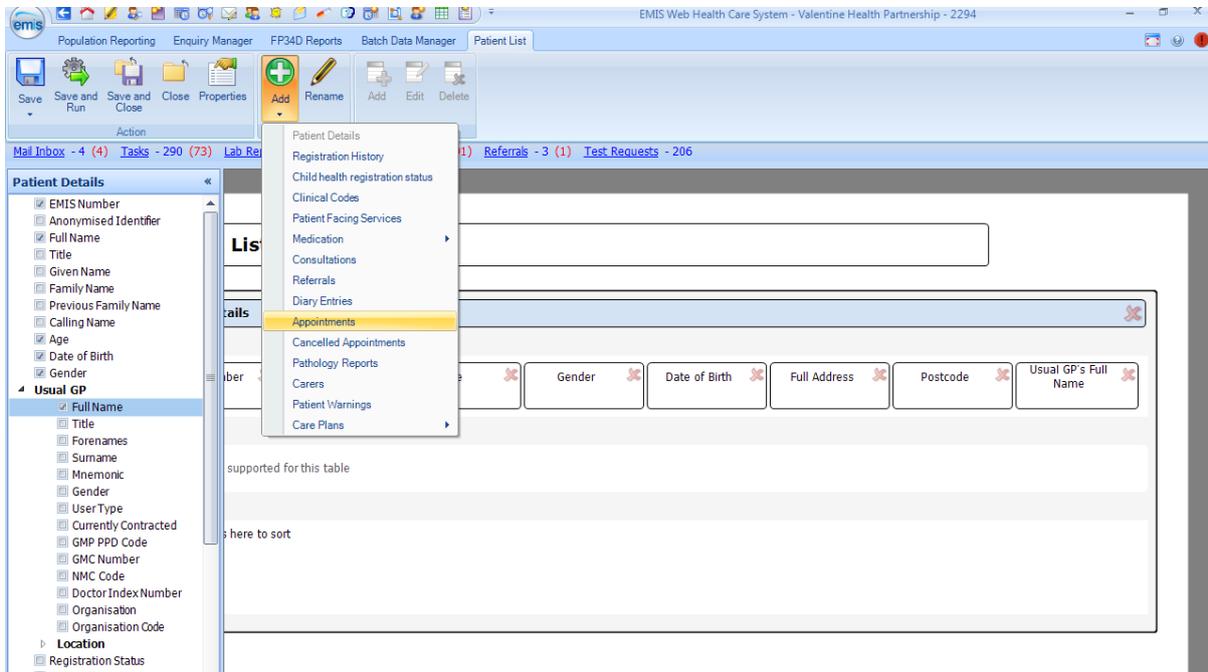
Right click on the Report and select Edit

Patient Details Column: Standard options include- Full Name, Age, Gender, Date of Birth, Emis No., Full address, postcode, Usual GP Full name.

More columns can be added by clicking:

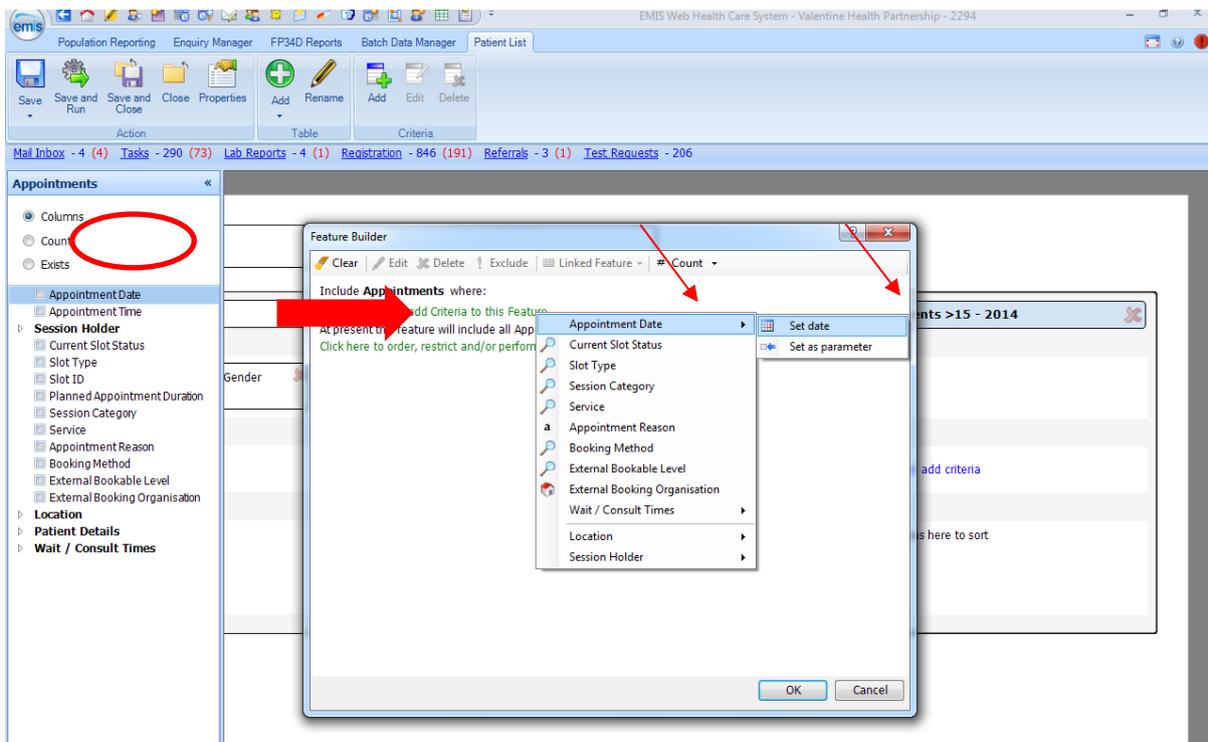
Add >

Select *Appointments*

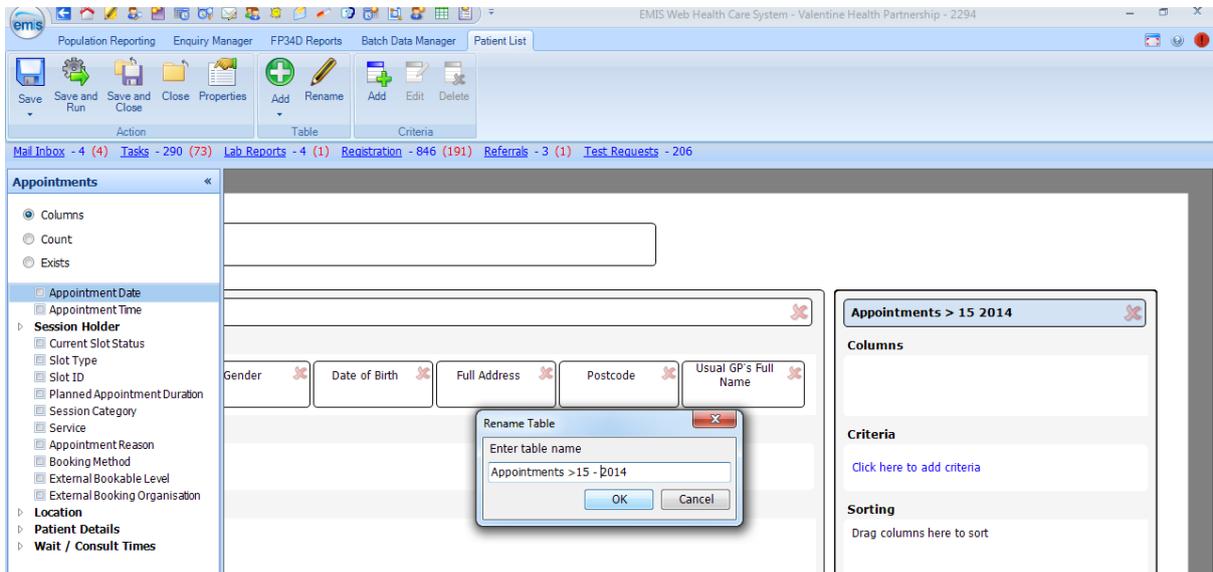


Click blue Link to add **criteria** > Appointment date> Set date (Add same date ranges as added in the original search)

OK > Select the Count option on the left side column



## Rename the Tables as appropriate



Repeat the above process by adding the 3x date range in total as per original search

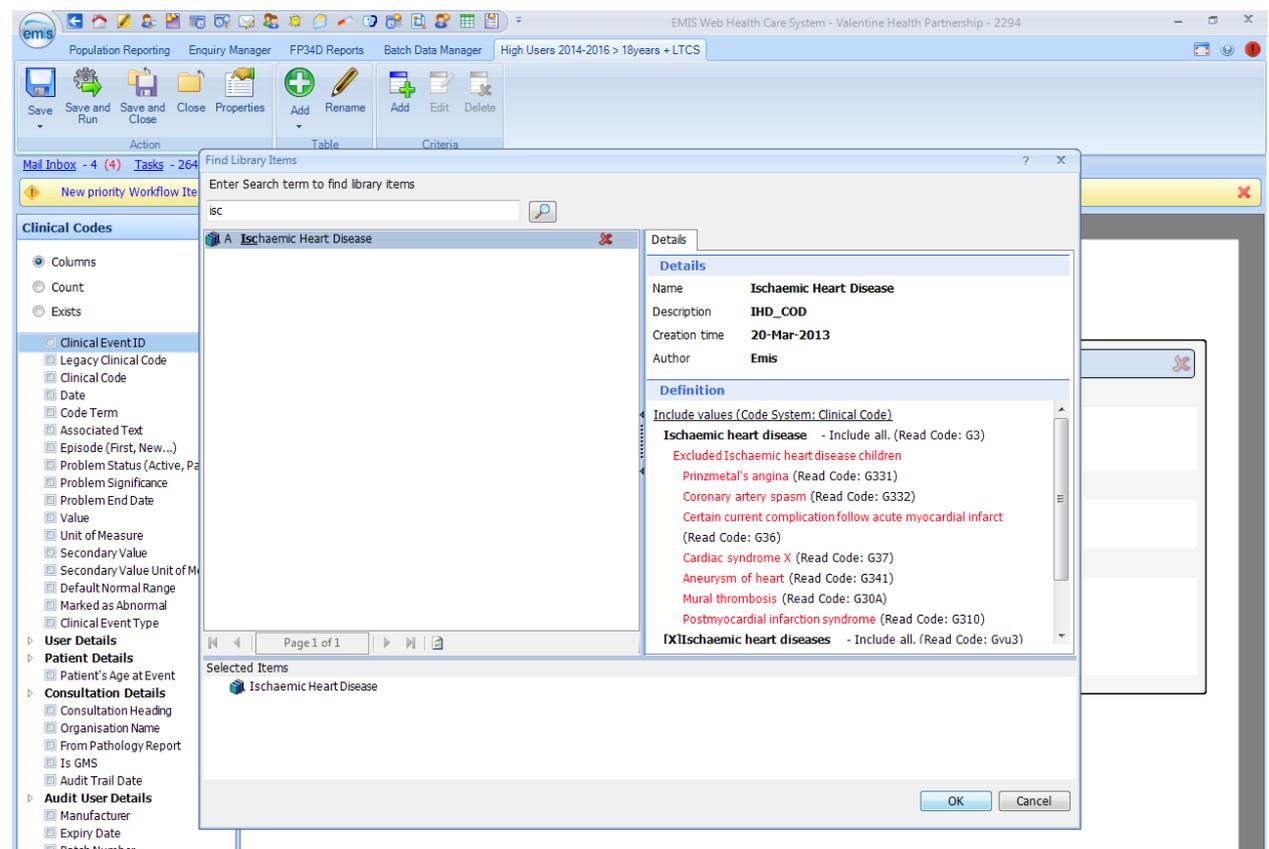


### 3- Clinical conditions of High Users

Specific conditions can be added to the report in order to extract if these conditions apply to the resulted patients.

Click Add >

Select Clinical Codes > click blue link *Click here to add criteria to this feature* > Click Clinical Code > Library Code List > type condition > double click> OK > Rename Table to match the condition



For this report the following long-term conditions were added:

- IHD
- Asthma
- CKD
- COPD
- Diabetes
- Hypertension
- Mental Health
- Depression
- Alcohol & drug abuse
- Personality disorder

- AUA

## 4- Wider Services by High Users

The report will also allow to extract information regarding access to other emergency services

Click Add >

Select Clinical Codes > click blue link *Click here to add criteria to this feature* > Click Clinical Code > Emis Code List > type selected service > Select date range

Wider services include:

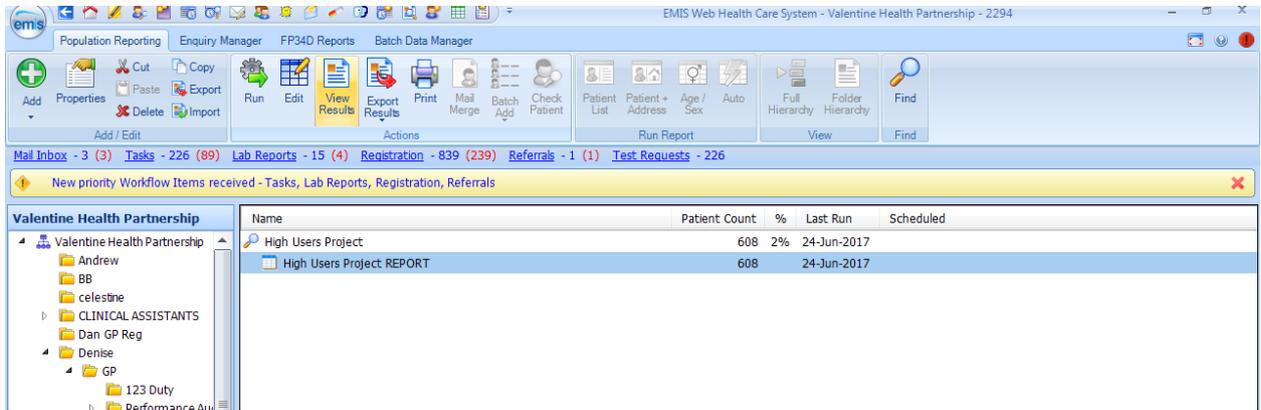
- Accident Emergency attendance
- Urgent care attendance
- Emergency Admission

>Create a table for each specific service

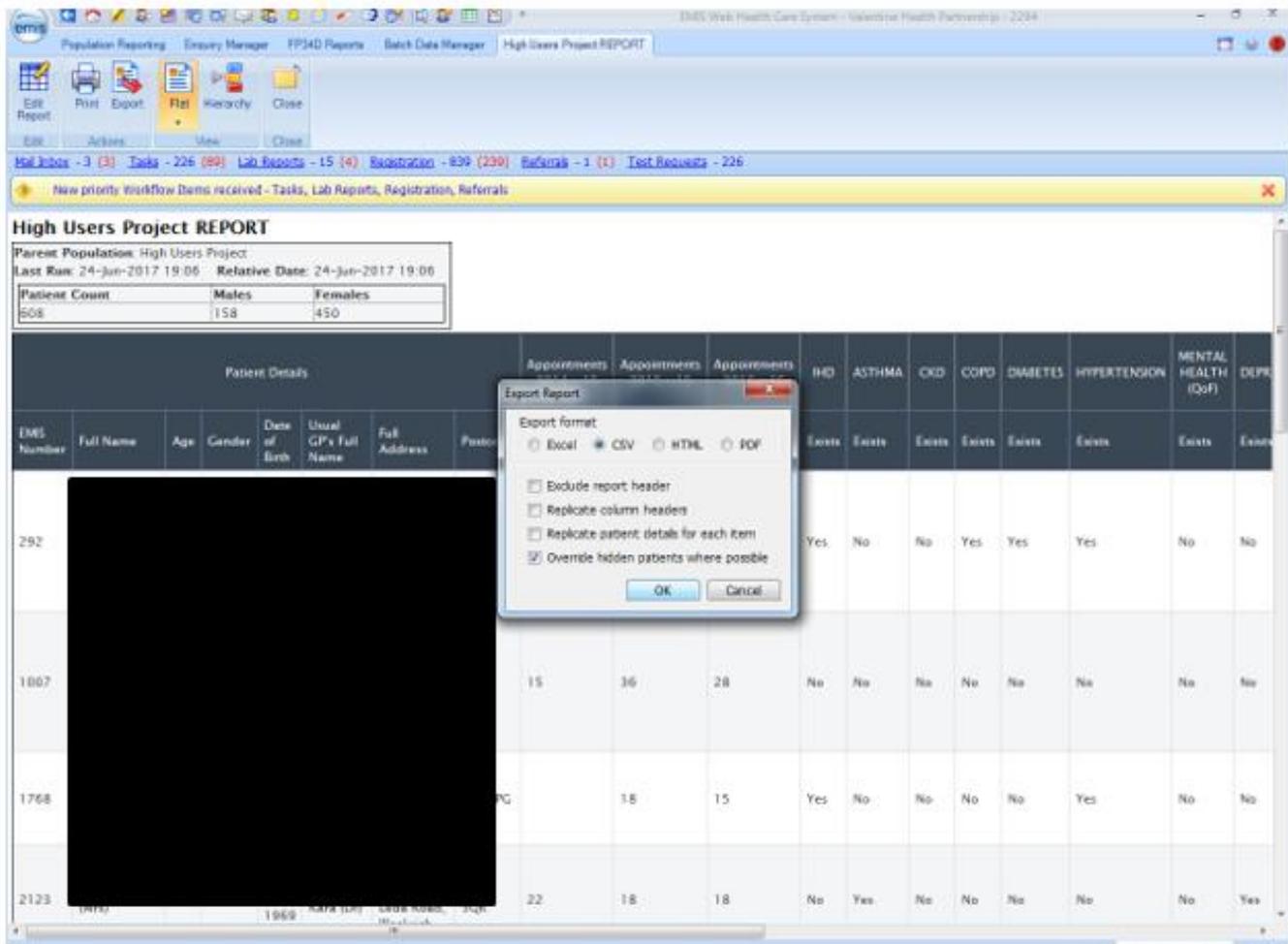
>Rename Tables to match the service name and year of reporting

## 5- Extracting Information

Right click on the report result and select Run



When the patient count is concluded select *View Results*



Click Export >

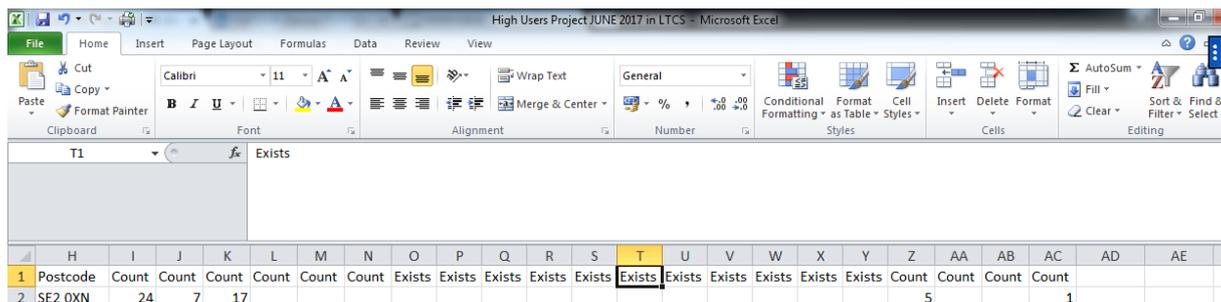
- Select *Overwrite hidden patients when possible* option >
- Select the CSV format
- Export to a safe drive

Note: Hidden patient message can occasionally pop up. Failure to accept this message can result on an empty report. To correct this export the report again and accept message box.

## EXCEL

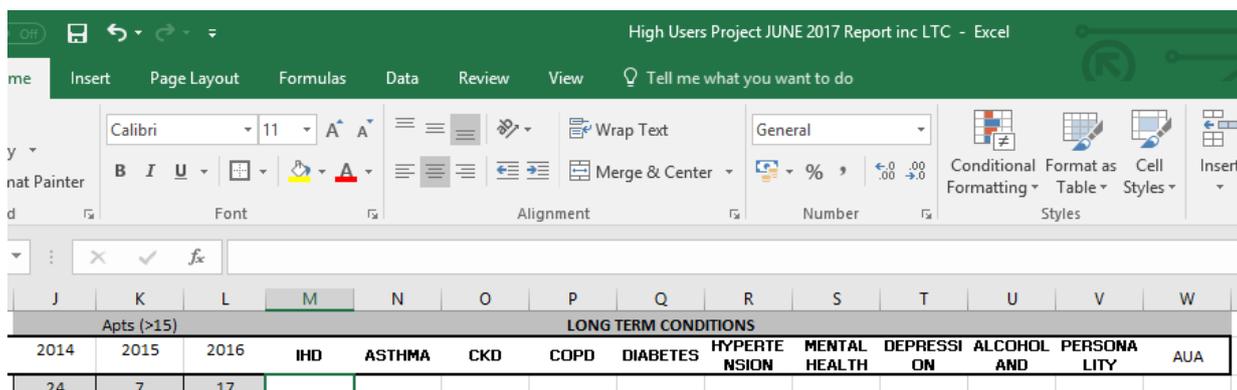
- Open spreadsheet and save document as Excel a document
- Copy paste Report information to a different tab in order to be able to manipulate the information easy

**Type and match all Long-term condition titles and A+E/UCC info to the same line**



The screenshot shows a Microsoft Excel spreadsheet with the following data:

	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
1	Postcode	Count	Count	Count	Count	Count	Count	Exists	Count	Count	Count													
2	SE2 0XN	24	7	17															5			1		

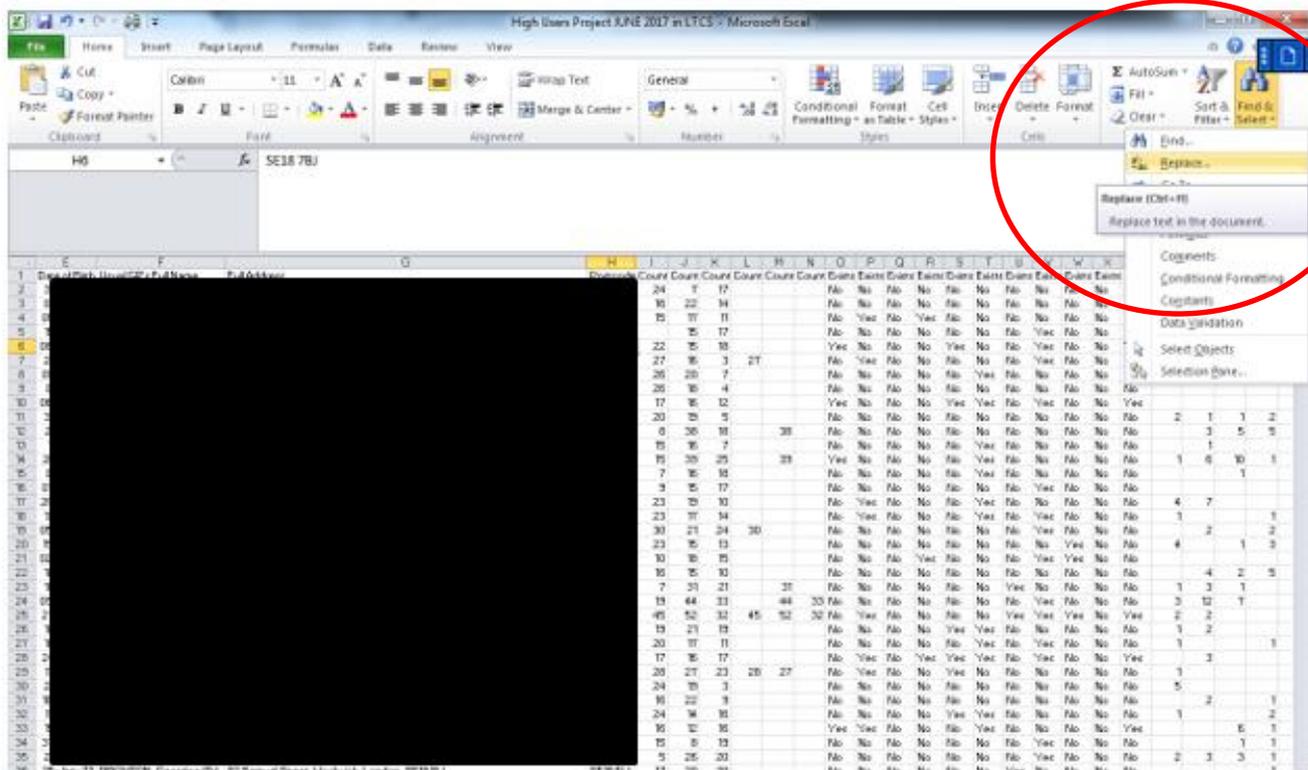


The screenshot shows a Microsoft Excel spreadsheet with the following data:

	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
Apts (>15)				LONG TERM CONDITIONS										
2014	2015	2016	IHD	ASTHMA	CKD	COPD	DIABETES	HYPERTENSION	MENTAL HEALTH	DEPRESSION	ALCOHOL AND	PERSONALITY	AUA	
24	7	17												

In order to calculate LTC totals:

- Replace all **Yes** with **1**
- Replace all **No** with **(blank space)**



Highlight each condition from the first patient cell results to the last patient giving one extra cell in the bottom for the Total. \*see below

High Users Project JUNE 2017 Report inc LTC - Excel

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Font Alignment Number Styles

Apts (>15)			LONG TERM CONDITIONS										
2014	2015	2016	IHD	ASTHMA	CKD	COPD	DIABETES	HYPERTENSION	MENTAL HEALTH	DEPRESSION	ALCOHOL AND	PERSONALITY	AUA
24	7	17											
16	22	14											
15	17	11		1		1							
	15	17								1			
22	15	18	1				1			1			1
27	16	3		1						1			
26	20	7						1					
26	18	4											
17	16	12	1				1	1		1			1
20	19	5											
8	38	18											
15	16	7						1					
15	39	25	1					1					
7	16	18						1					
9	15	17								1			
23	19	10		1				1					
23	17	14		1				1		1			
30	21	24								1			
23	15	13									1		
10	18	15				1				1	1		
16	15	10											
7	31	21							1				

High Users Project JUNE 2017 Report inc LTC - Excel

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Font Alignment Number Styles

	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
	2	16	15								1			
E	33	28	5		1							1		
/	11	45	19			1			1					
F	4	21	35						1					
F	21	8	18	1		1			1		1			1
	16	30	19		1				1		1			1
	4	24	17					1	1					
V	22	29	28								1			
F		39	17											
	22	17	16					1	1					
	5	22	20		1			1						1
	16	13	16								1	1		
E	12	17	30											1
K	4	123	46		1									
P	21	15	9	1				1	1		1			1
Q	20	16	12						1		1			
	13	17	22											
J	18	18	29					1	1					

- Select the Auto Sum function to calculate the total
- Select the cell where the value was calculated
- Hover the mouse on the bottom right corner of the cell – a black cross will show up
- Click and drag to the right to calculate the totals for the rest of the LTC's

#### ADDING FILTERS:

Select the LINE where all the titles are located and click **Sort and Filter > Filter**

By adding filters, information will be able to extract for specific groups i.e.:

- Separating adults from children – Filter the age column and untick all patients under or equal to 16 years old
- Super-users (over 26 contacts in one year) – filter the Appointment column and untick any results under 26
- Continuous High users/Super users – filter the Appointment column and untick any blank spaces (this will hide any patients that were not High Users/Super users on a particular year, leaving only patients that were High Users/Super users on all years)

This information can be Copy/Paste to a different sheet and further manipulated

***Report completed by Denise Gaspar***

## Appendix 5: Poster text and graphics

### Personalising care for patient sub-groups in general practice: 'Segmenting within general practice to improve health and increase efficiency'

Author: Dr Rebecca Rosen. GP partner, Valentine Health Partnership, London.

**Overview:** The project identified high users of general practice services and co-designed methods to deliver care to these patients tailored their needs and preferences in order to improve health, address gaps in care and manage the use of practice resources.

**The problem:** GP appointments are in short supply and patients often choose to see the first available clinician rather than one who knows them well. Patients with complex needs may see many different clinicians, none of which holds overall accountability for their care and some attend frequently for the same problem. This can result in duplicated tests, contradicting advice and inconsistent management.

This project aimed to use data analysis to identify patients who are high users of the practice and to co-design ways of tailoring care to their needs in order to improve health, addresses gaps in care and reduce overall utilisation of GP services.

**Intervention:** We undertook data analysis to identify repeated high user patients over two or three consecutive years along with their clinical and personal characteristics. Our intervention included:

- Operational processes to improve continuity of care
- Training sessions and resources to support techniques to de-medicalise chronic problems for which no underlying cause was found. These were: motivational support; solution focused conversations and consultations for medically unexplained symptoms. The resource pack to support these approaches is shown in Figure 1.
- Use of micro-teams to improve continuity with a mainly part time workforce
- Skills and capacity development in practice staff to ensure the sustainability of the initiative

**Results:** Figure 2 describes the different groups of high user patients. We focused on the 195 high users over three consecutive, allocating at least five patients to each GP. Figure 3 shows the fall in use of practice appointments in two comparable six month periods, with the intervention group of very high users having the greatest fall in use of appointments. Table 1 shows that overall wellbeing – as measured by EQ5D score – increased slightly more in the intervention patients than in high users who were not allocated to a named GP.

Staff and patient views about the intervention were mixed. Reception staff reported that not all doctors adhered to the high user pathway so not all patients experienced the intervention. Interviews with patients confirmed this was true for some patients while others reported improved continuity and better relationship. The quote presented below is not 'representative' of typical patient views, but it captures the underlying aim of the interventions.

**Lessons learned:** The power of data analysis to identify high user patients was key to this project and we are still working to understand this better. The heterogeneity of high users was unexpected and led us to re-think the type of intervention we could design. We were also reminded about the time and effort it takes to change clinician behaviour.

**Next steps:** These include ongoing data audits to identify new high users; ongoing work to prompt clinicians to use alternative consultations styles for medically unexplained symptoms; and introducing an electronic high user template designed by Dr Andy Saunders to improve continuity of information between clinicians in a micro-team

## GRAPHICS AND IMAGES FOR POSTERS

### 1) Resource pack for practice staff about working with high user patients.

SUMMARY OF ACTIVITIES TO IMPROVE MANAGEMENT FOR VERY HIGH USERS

**IDENTIFYING HIGH USER PATIENTS**

- Regular standard audits (see guide on how to conduct these)
- Add / remove new / inactive patients to Usual GP list
- Tag notes "VERY HIGH USER: MUST HAVE CONTINUITY WITH XX OR YY OR BUDDY GROUP GP"

**Who & how often**

- Audit lead
- 6 monthly

**Booking continuity appointments with the usual GP**

- Book only with usual GP or named buddy
- Offer named doctor call back if no appointments available
- Paired GPs in microteams with multiple part time GPs
- Pilot: Fixed slot with usual GP to be cancelled if not needed

**Who & how**

- Reception team
- Daily

**Assessing pt health, identifying needs and setting goals**

- Initial conversation to assess and measure current health status. Investigate and manage new or active clinical problem
- Use Medically unexplained symptom paradigm (see toolkit)
- Use motivational and solution focused methods (see toolkit)
- Complete EQSD health assessment questions (see toolkit)
- Use the high user patient template (See toolkit)

**Who & how**

- Lead clinician
- First and follow up consultations

**USE THE HIGH USER TOOLKIT**

**Medically unexplained symptoms**

- Explain MUS concept to patient
- Identify and treat psychological co-morbidities (eg anxiety)
- Pre-negotiate treatment plan and set expectations

**Motivational support**

- Key aim is to encourage patient to make a behavioural change
- Set goal(s) and create plans for how to achieve it/them
- Builds autonomy and sense of competence in making change

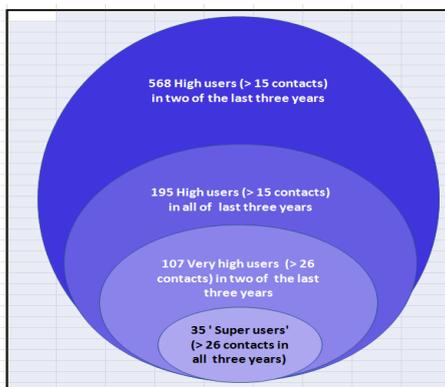
**Solution focused interviews**

- conversations to identify patients' visions of solutions
- focus on things that have made them feel better
- how can they make these things occur more often

**Social prescribing**

- Refer to join the staying healthy gardening group
- Refer to social prescribers

### 2) Visual image of high users in the practice population



### 3) Change in use of practice appointments

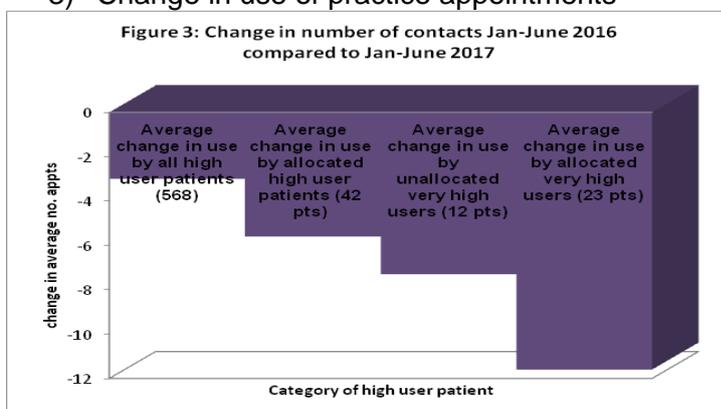


Table 1: EQ5D follow up scores in 12 patients with 'discovery' and follow up interviews

	Pre Intervention EQ5D	Post intervention EQ5D	Change in EQ5D
<i>Unallocated high users</i>			
Male 78 yrs	0	6	+6
Female 63	6	8	+2
Female 57	9	9	0
Female 47	7	7	0
<b>Average</b>	<b>5.5</b>	<b>5.5</b>	
<b>Average change in EQ5D</b>			<b>+2</b>
<i>Allocated High Users</i>			
Female 31	6	6	0
Male 75	6	8	+2
Male 32	1	0	-1
Female 58	0	10	+10
Female 29	6.5	10	+3.5
Female 55	3	10	+7
Male 63	8	10	+2
Female 32	6	9.5	+3.5
<b>Average</b>	<b>4.6</b>	<b>7.9</b>	
<b>Average change in EQ5D</b>			<b>+3.3</b>

4) Patient quote about the experience of receiving the intervention

We have been through ups and down but it's been good to air the difficulty. One time I said I didn't want to have [Dr X] as my GP but she called back and we talked through what the problem was and it's ok now.

It's helped to have continuity. [The GP] knows the family and is looking after all of us. [She's] got to know the whole story of the whole family. *Allocated female patient aged 29*

5) Staff views on the impact of the project: 'Has the project improve quality and continuity of care for high user patients?'

