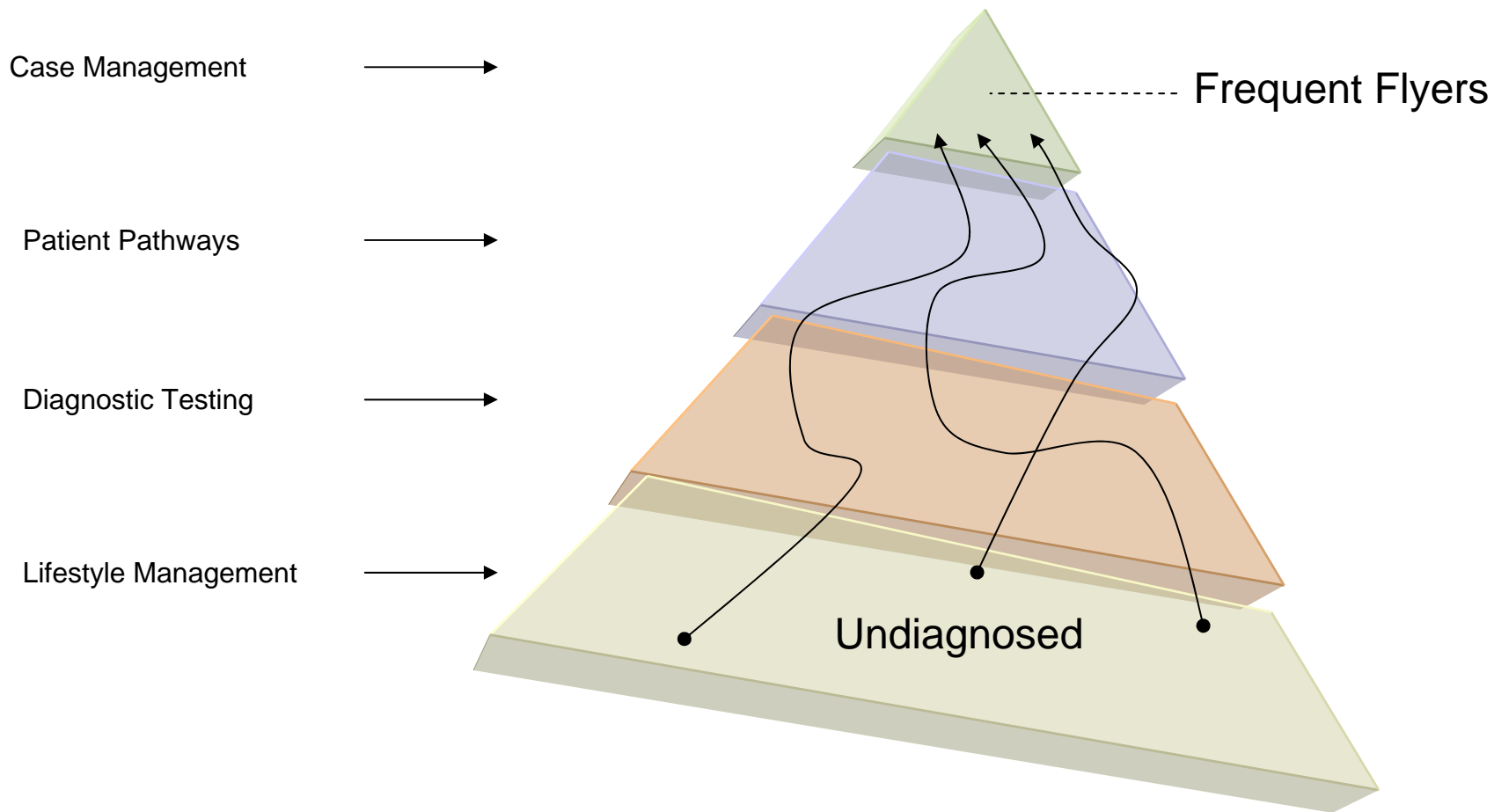


# Classifying people by their lifestyles and health patterns

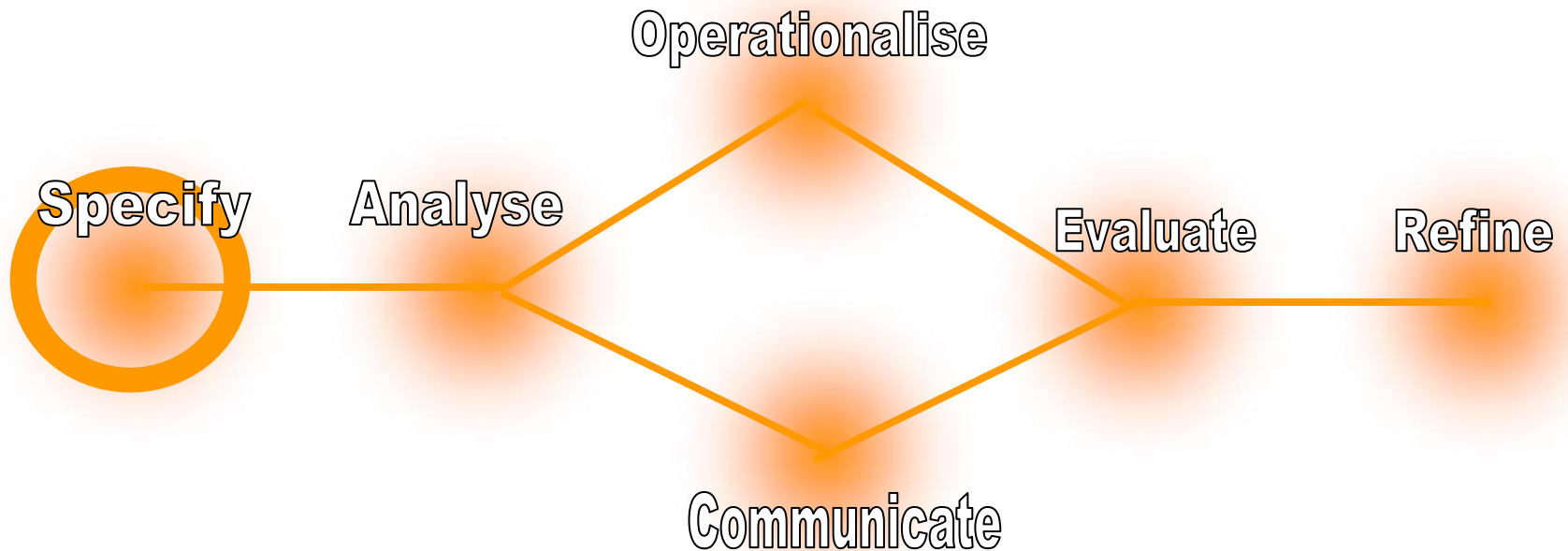
Marc Farr



# Relating Kaiser Permanente to socio-economic analysis



# Health Needs Mapping (HNM)



# Managing Diversity: the Slough pilot

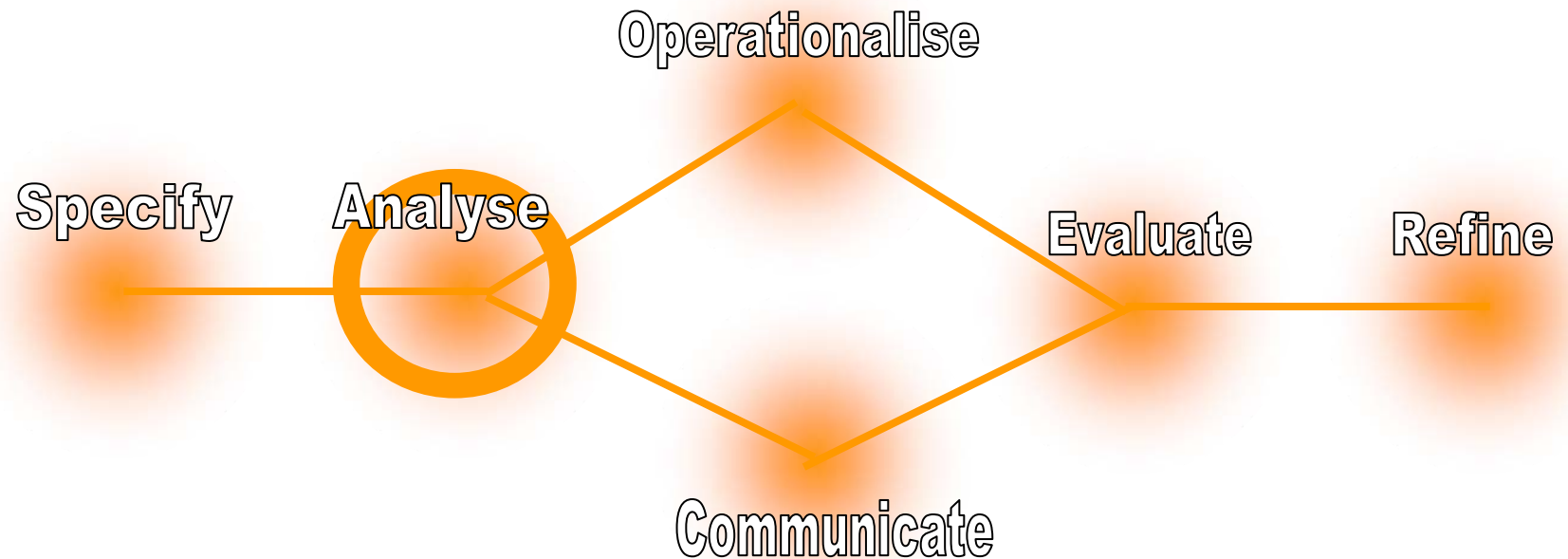
## Aims:

- To reduce the cost (time and £) of managing diabetes through effective use of communications
- To develop an approach to mapping demand to enable effective marketing
- To develop a communications tool-kit
- To be a model of engagement which can be exported across the NHS.

# Slough PCT

- Undiagnosed diabetics are at risk of complication and health crises. Early diagnosis should reduce emergency admissions and improve healthy lifespan. (Early research on the Slough pilot shows that 8/10 in the most at-risk postcodes simply don't know about local diagnostic services)
- In Slough 4.3% of the population (4,845 from total of 120,000) are known to suffer from Diabetes. The true number is estimated to be around 7%

# Health Needs Mapping (HNM)

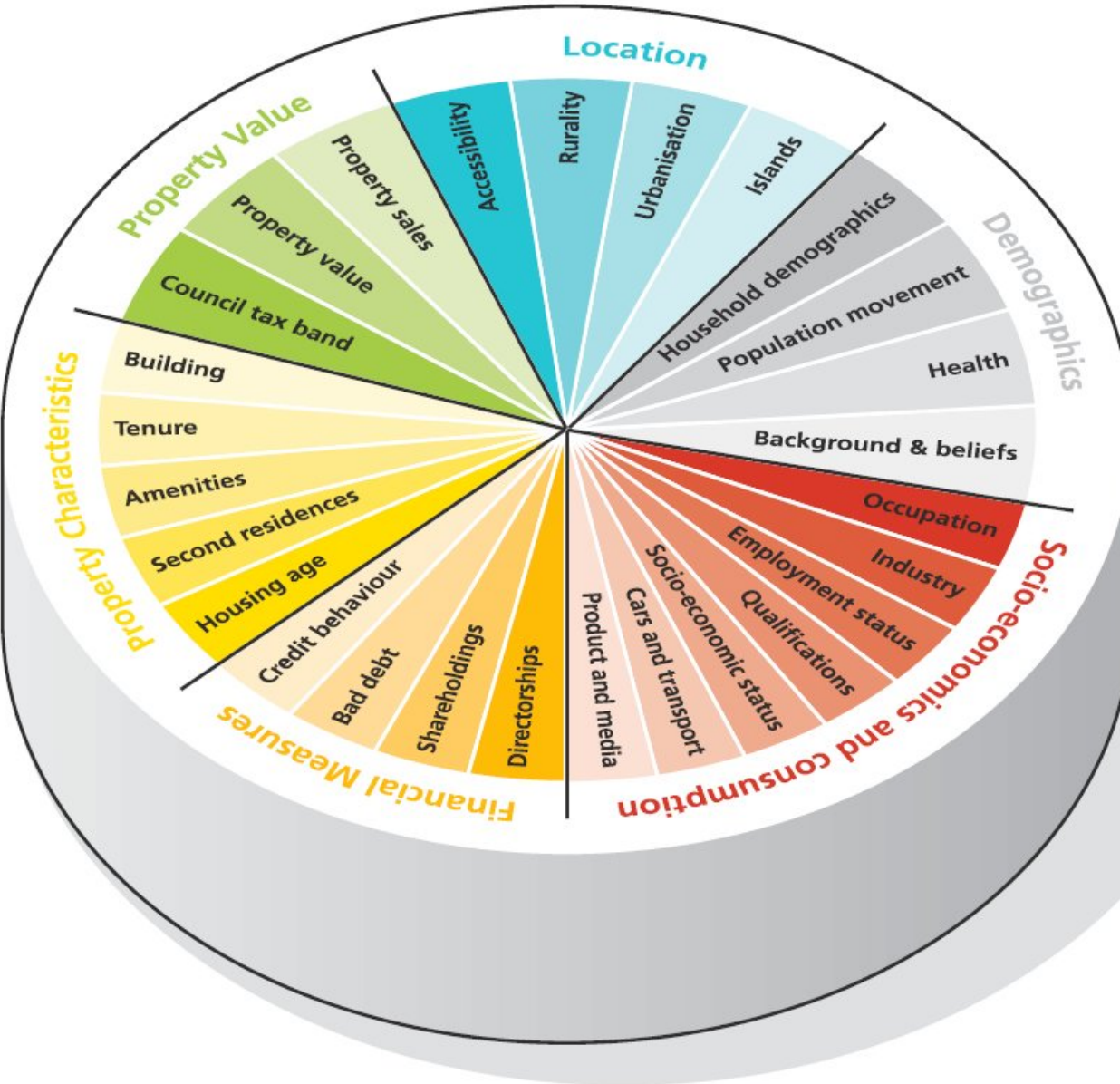


# Central organising concepts

1 : Contemporary Britain is characterised by a limited set of types of residential neighbourhood which occur in many different cities.



# Data Sources



## Demographics

- Household demographics
- Population movement
- Health
- Background & beliefs

## Socio-economics and consumption

- Occupation
- Industry
- Employment status
- Qualifications
- Socio-economic status
- Cars and transport
- Product and media

## Financial Measures

- Directorships
- Shareholdings
- Bad debt
- Credit behaviour

## Property Characteristics

- Housing age
- Second residencies
- Amenities
- Tenure
- Building

## Property Value

- Council tax band
- Property value
- Property sales

## Location

- Accessibility
- Rurality
- Urbanisation
- Islands



## J54 : Grey Perspectives / Bungalow Retirement



## D24 : Ties of Community / Coronation Street



Coronation Street, Carlin How, Loftus, TS13 4DN

Elliott Street, Preston, PR1 7XN

## F37 : Welfare Borderline / Upper Floor Families



Eastham Green, Speke, Liverpool, L24 2XA



Eastern Road, Portsmouth, PO3 6EH



Neville Close, Sheffield, S3 9QP



Argie Avenue, Leeds, LS4 2TZ

# G41 : Municipal Dependency / Families on Benefits



Fern Road, Tipton, DY1 4DP



Newick Road, Brighton, BN1 9JN



Tamar Street, Plymouth, PL1 4PW

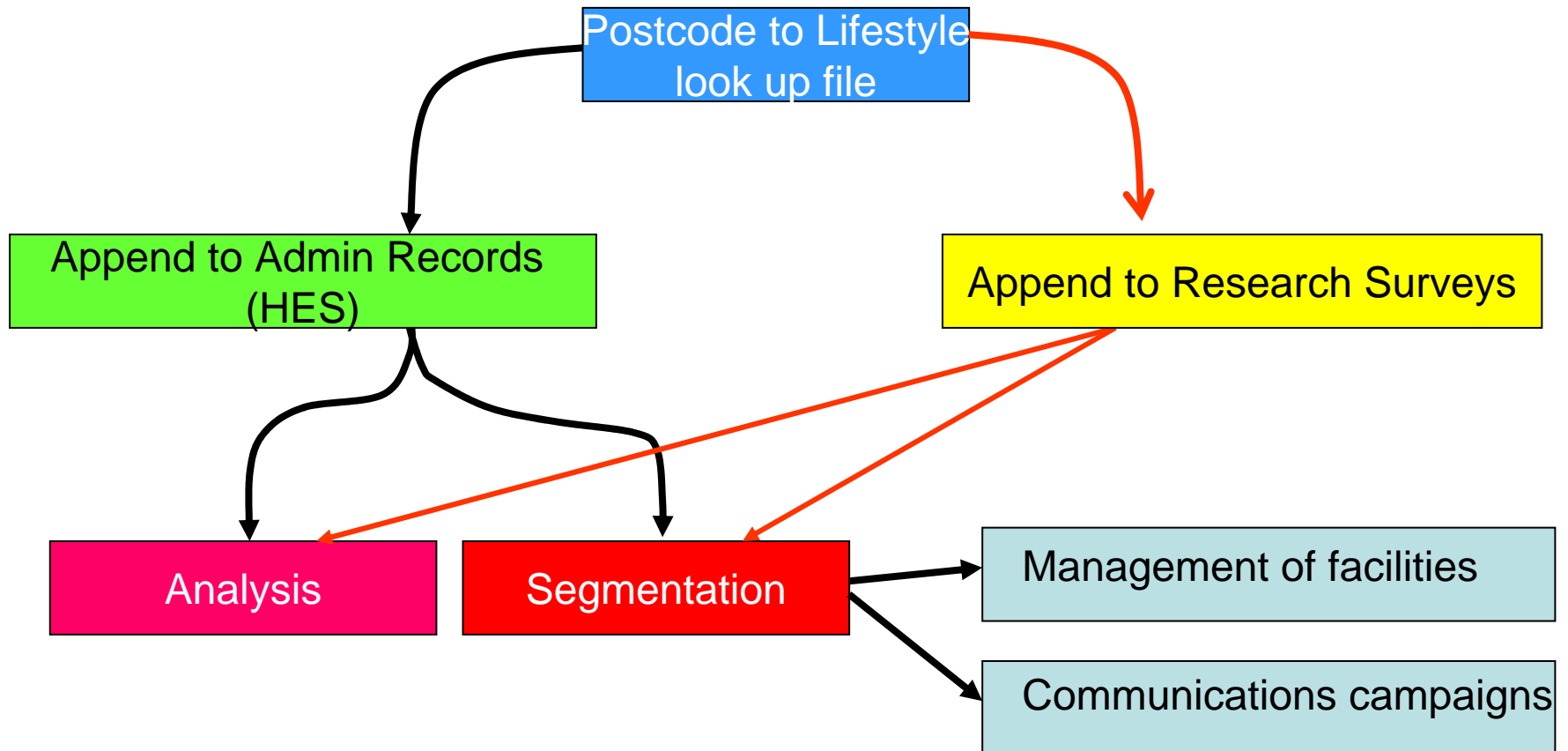


Enholme Close, Sheffield, S3 9QB

## E31 : Urban Intelligence

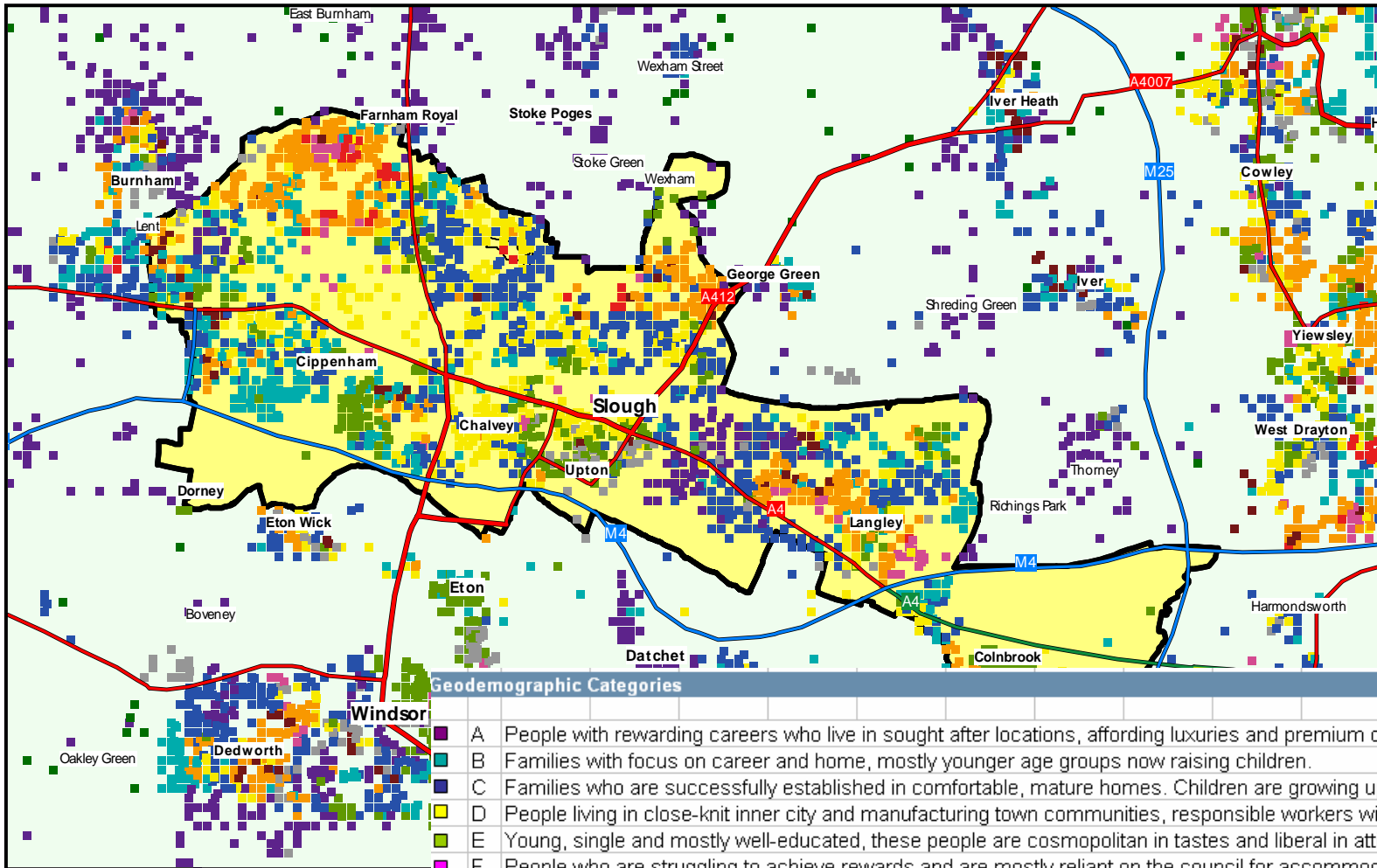


# Benefit of the postcode classification



A	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Table showing standardised Hospital Admission rates per 1000 residents by diagnosis : Source three years of I Cells are expressed in the form of "index values" (England average rate = 100) : There is no control for age.														
	<b>COPD</b>	<b>Schizophrenia</b>	<b>Injuries and poisoning</b>	<b>Emergency</b>	<b>Alcohol and drug abuse</b>	<b>Mental Health</b>	<b>Stroke</b>	<b>Teenage Pregnancies</b>	<b>Heart Disease</b>	<b>Other mental disorders</b>	<b>Lung Cancer</b>	<b>Diabetes</b>	<b>Affective Disorders</b>	<b>Bowel Cancer</b>
D26. South Asian Industry	77	169	52	83	89	115	78	197	107	110	60	186	101	37
D27. Settled Minorities	71	184	53	64	90	115	73	108	72	97	79	89	101	74
E28. Counter Cultural Mix	96	254	73	74	151	159	76	88	69	117	100	81	130	81
E29. City Adventurers	36	144	49	40	81	96	48	49	35	83	53	41	85	52
E30. New Urban Colonists	48	96	61	55	66	78	59	44	49	78	64	52	74	83
E31. Caring Professionals	62	165	73	65	122	134	65	109	62	138	63	75	119	67
E32. Dinky Developments	38	102	37	35	91	96	42	80	42	100	42	53	94	45
E33. Town Gown Transition	64	226	69	61	145	153	62	139	54	136	60	69	122	50
E34. University Challenge	34	102	30	27	69	73	27	130	22	71	27	35	57	18
F35. Bedsit Beneficiaries	90	570	97	77	409	395	94	250	75	367	68	107	285	51
F36. Metro Multiculture	111	270	68	77	155	161	79	145	75	109	108	95	130	74
F37. Upper Floor Families	153	376	82	87	372	312	91	376	101	283	125	136	242	65
F38. Tower Block Living	269	452	148	157	516	402	152	347	155	335	209	174	325	139
F39. Dignified Dependency	423	527	227	249	479	412	215	229	221	329	280	250	339	178
F40. Sharing A Staircase	202	412	80	104	250	282	111	340	139	283	111	165	217	60
G41. Families On Benefits	102	162	41	46	218	178	49	367	73	190	77	95	150	40

# Slough Population Profile

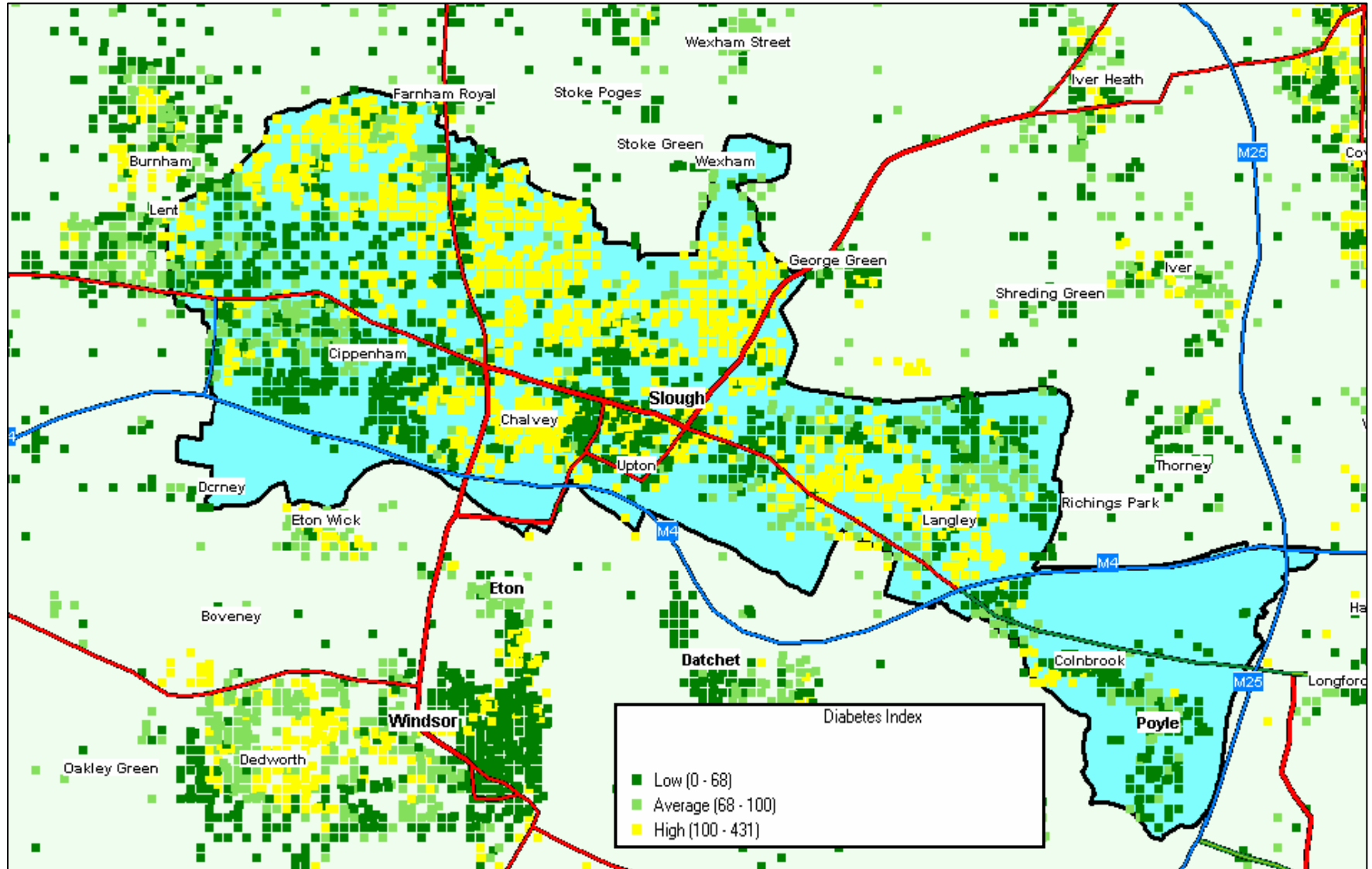


## Geodemographic Categories

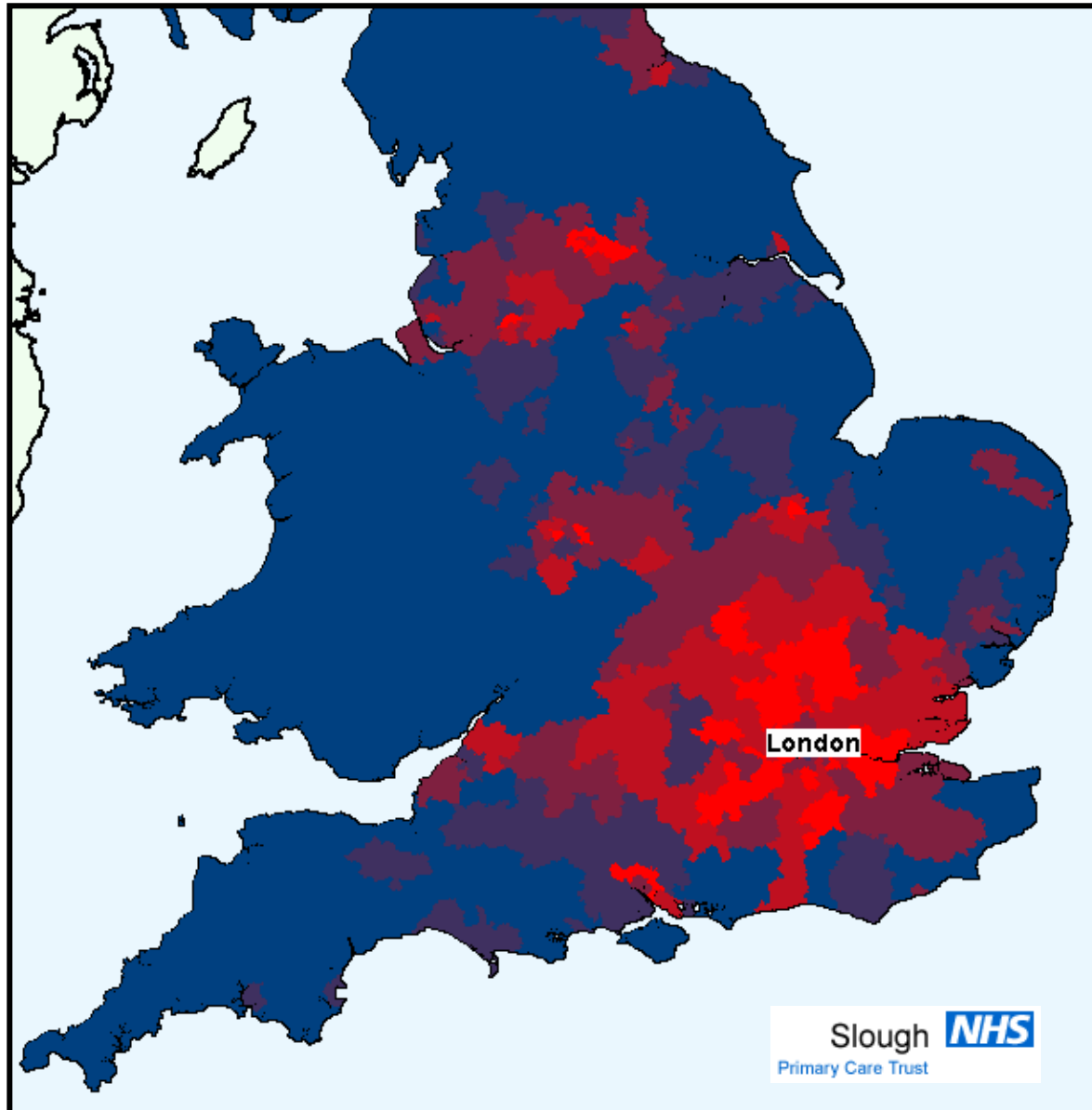
- A People with rewarding careers who live in sought after locations, affording luxuries and premium quality products.
- B Families with focus on career and home, mostly younger age groups now raising children.
- C Families who are successfully established in comfortable, mature homes. Children are growing up and finances are easier.
- D People living in close-knit inner city and manufacturing town communities, responsible workers with unsophisticated tastes.
- E Young, single and mostly well-educated, these people are cosmopolitan in tastes and liberal in attitudes.
- F People who are struggling to achieve rewards and are mostly reliant on the council for accommodation and benefits.
- G Families on lower incomes who often live in large council estates where there is little owner-occupation.
- H People who though not well-educated are practical and enterprising and may well have exercised their right to buy.
- I Elderly people subsisting on meagre incomes in council accommodation.
- J Independent pensioners living in their own homes who are relatively active in their lifestyles.
- K People living in rural areas where country life has not been influenced by urban consumption patterns.



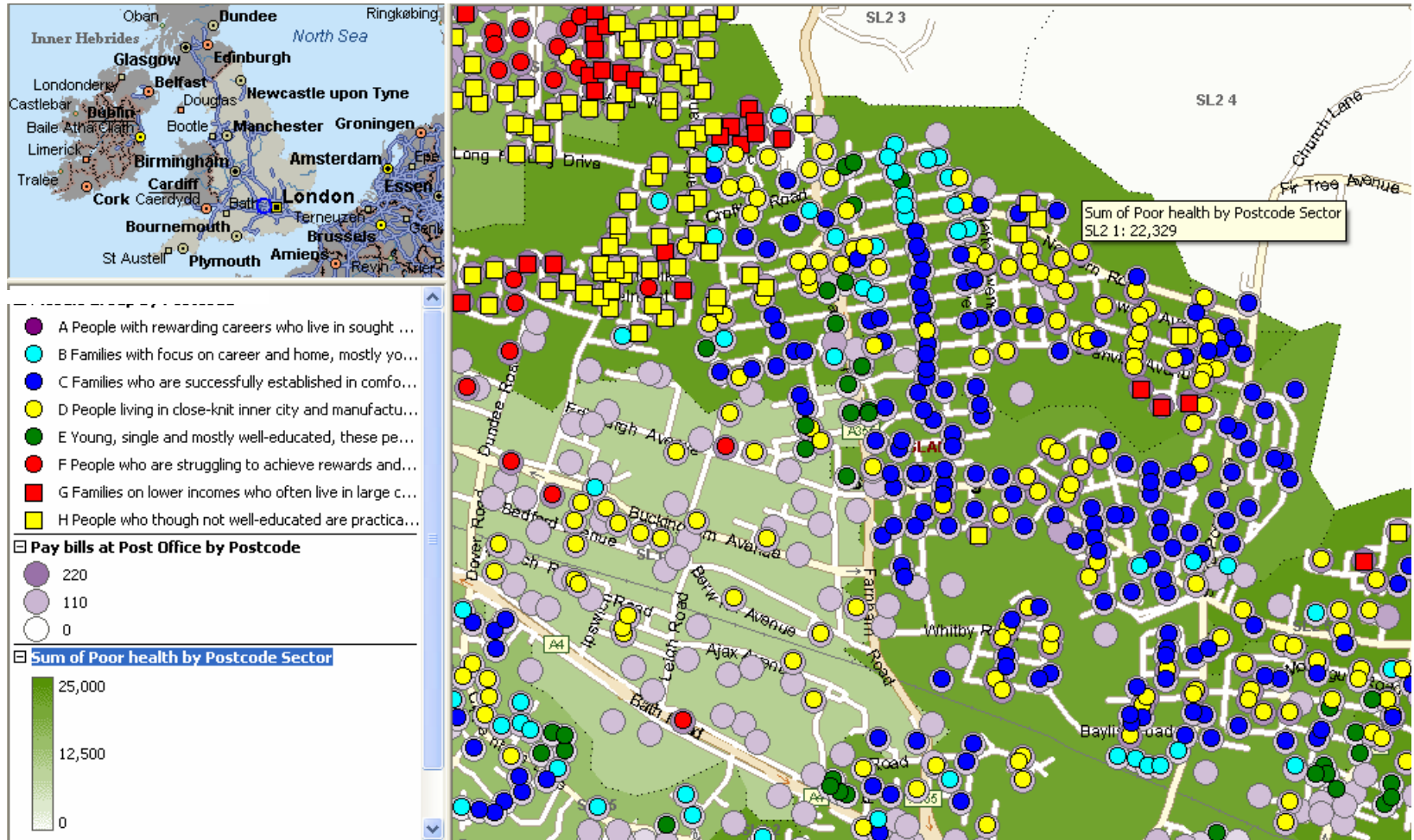
# Inferring Incidence of Diabetes



# Finding similar PCTs to Slough by population profile



# Linking Health and Lifestyle Data



# Linking Health and Lifestyle Data

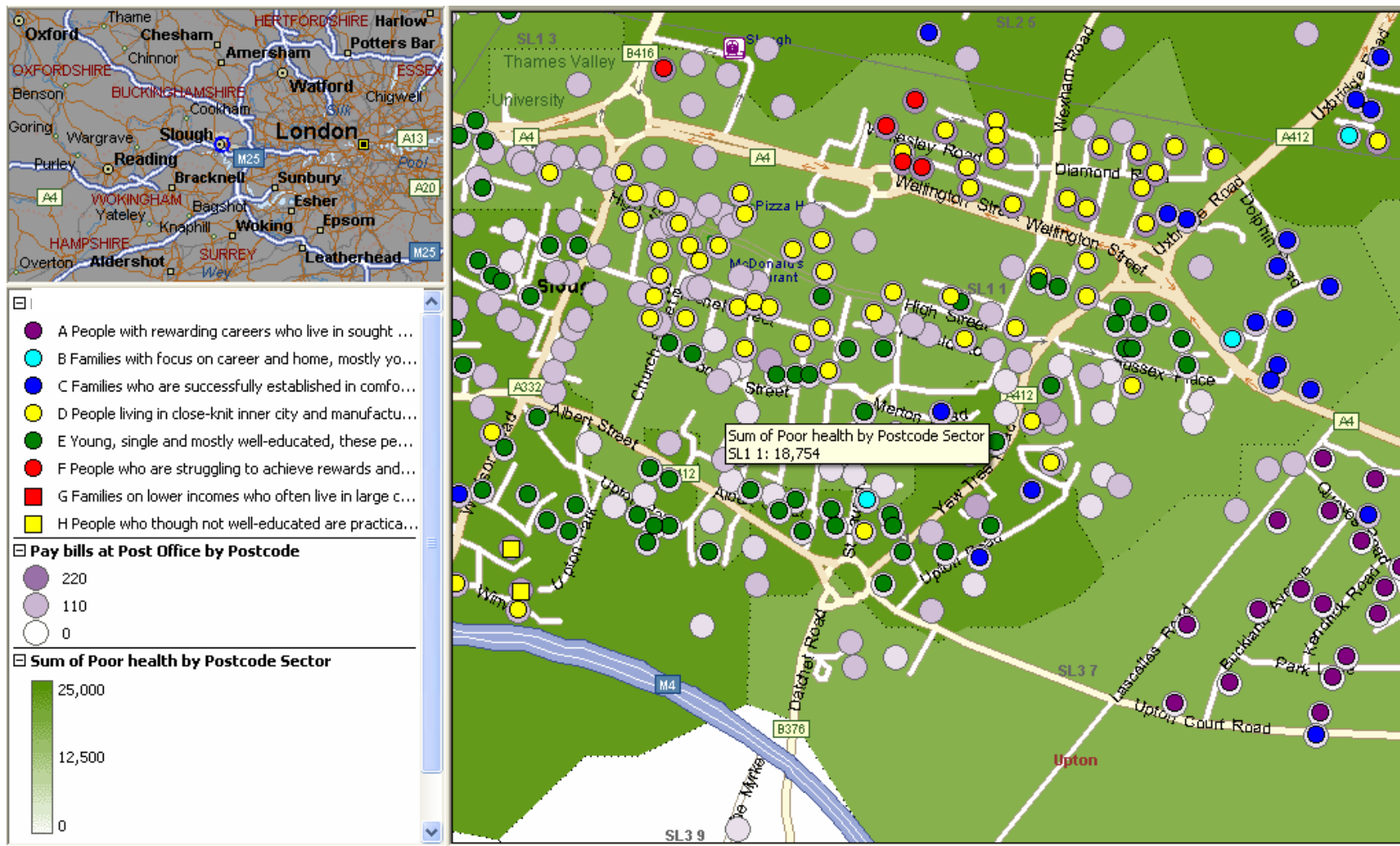
## Executive Summary for Slough PCT



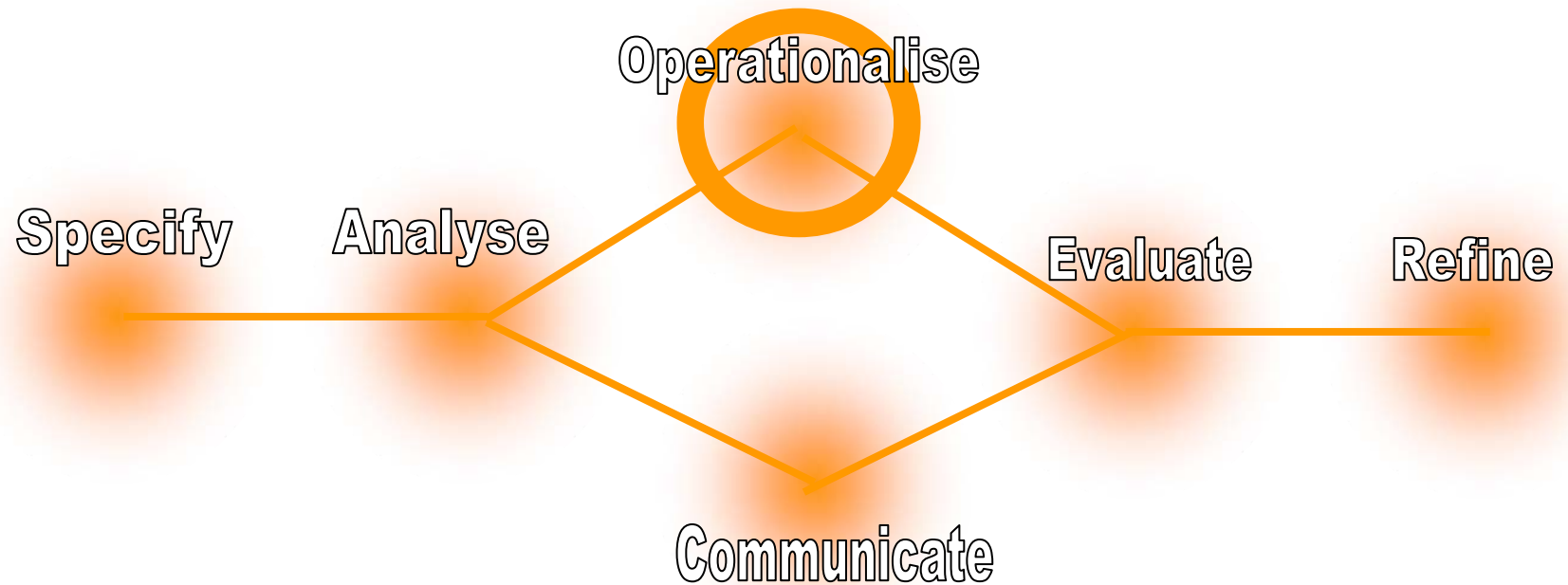
heavy users of instant snack meals							
		%	Slough	%	Pen. %	Index	
SL 1 1	529	4.92	3526	3.65	15.00	135	
SL 1 2	1145	10.64	9186	9.52	12.46	112	
SL 1 3	1575	14.64	10620	11.00	14.83	133	
SL 1 4	62	0.58	502	0.52	12.35	111	
SL 1 5	732	6.80	9330	9.66	7.85	70	
SL 1 6	437	4.06	5548	5.75	7.88	71	
SL 1 9	210	1.95	2281	2.36	9.21	83	
SL 2 1	1402	13.03	10528	10.91	13.32	119	
SL 2 2	677	6.29	6644	6.88	10.19	91	
SL 2 5	1694	15.75	12306	12.75	13.77	124	
SL 3 0	303	2.82	3064	3.17	9.89	89	
SL 3 7	817	7.59	10034	10.39	8.14	73	
SL 3 8	1175	10.92	12967	13.43	9.06	81	
<b>Total</b>	<b>96,536</b>	<b>100</b>	<b>10,758</b>	<b>100</b>	<b>11</b>	<b>100</b>	

Heavy user of take-away food							
		%	Slough	%	Pen. %	Index	
SL 1 1	707	3.64	3526	3.65	20.05	100	
SL 1 2	1905	9.80	9186	9.52	20.74	103	
SL 1 3	2365	12.17	10620	11.00	22.27	111	
SL 1 4	114	0.59	502	0.52	22.71	113	
SL 1 5	1866	9.60	9330	9.66	20.00	99	
SL 1 6	985	5.07	5548	5.75	17.75	88	
SL 1 9	579	2.98	2281	2.36	25.38	126	
SL 2 1	2205	11.34	10528	10.91	20.94	104	
SL 2 2	1233	6.34	6644	6.88	18.56	92	
SL 2 5	2555	13.15	12306	12.75	20.76	103	
SL 3 0	646	3.32	3064	3.17	21.08	105	
SL 3 7	1751	9.01	10034	10.39	17.45	87	
SL 3 8	2526	13.00	12967	13.43	19.48	97	

# Linking Health and Lifestyle Data



# Health Needs Mapping (HNM)



# Service Re-engineering

Operationalise

Patient Contact

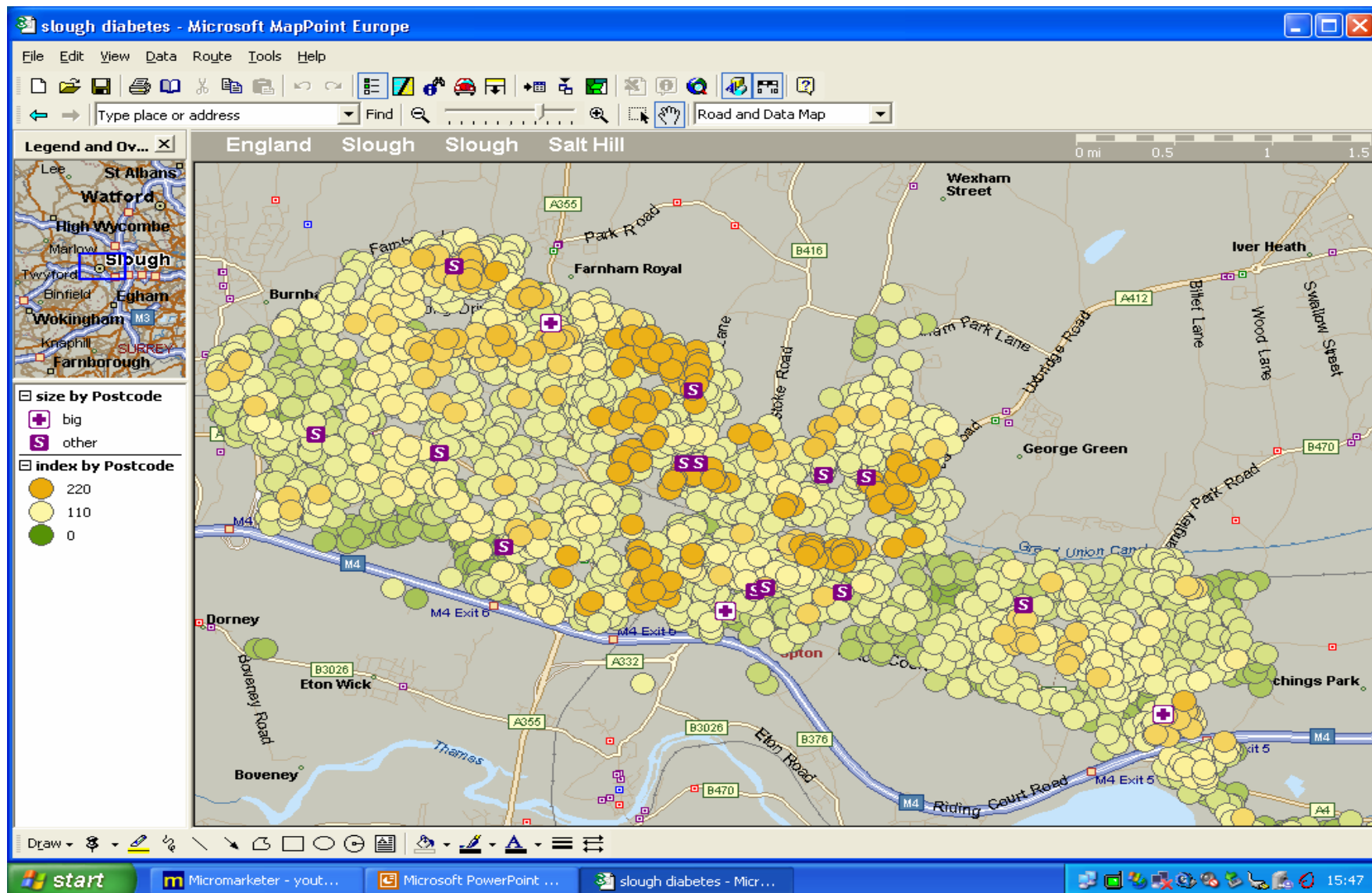
Facility Siting

Marketing for Elective Ops

Capacity Forecasting

3: The target postcodes in Slough – brown high risk; green low risk.

4: Overlaid with GP practice location (“S”) to identify those which should be prioritised

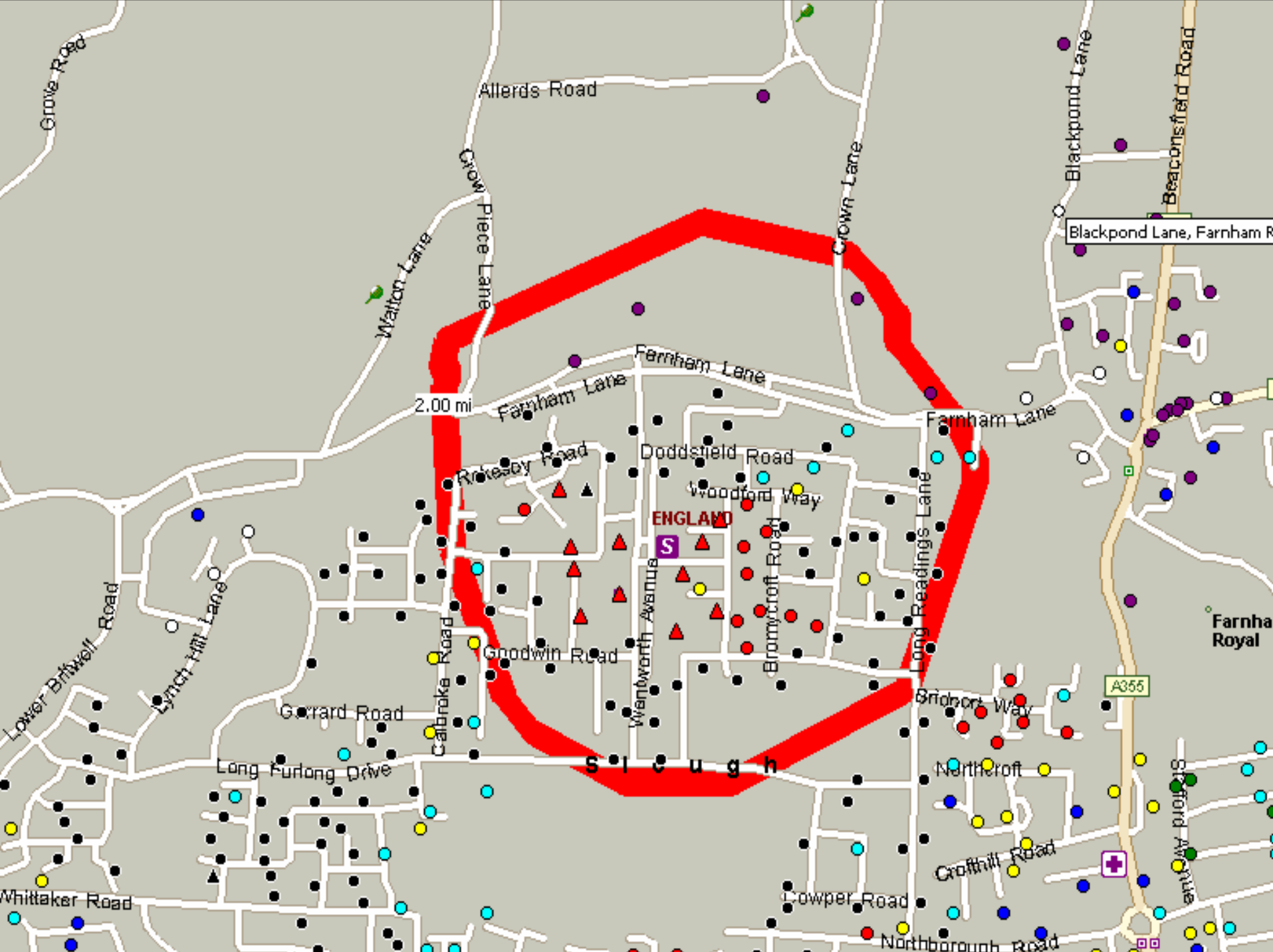




One target practice – in more detail

# The Avenue Medical Centre





# The Avenue

	Postcodes	%
<b>H46 Young owners in good quality ex-council properties</b>	<b>49</b>	<b>60.5</b>
<b>G41 Disadvantaged families on low incomes</b>	<b>10</b>	<b>12.3</b>
<b>F37 Families in hard-to-let council properties</b>	<b>7</b>	<b>8.6</b>
<b>F36 Inner-city minority communities in council properties</b>	<b>3</b>	<b>3.7</b>
<b>B13 Young modest income couples</b>	<b>2</b>	<b>2.5</b>

## **5: We know who the target groups are and where they live – but how to communicate with them?**

- As an example, we have selected four of the key Diabetes at-risk population clusters - South Asian Industry, Families on Benefits, Low Horizons and Ex Industrial Legacy - and looked at their behaviour.
- The table gives the incidence of factors for these four populations in aggregate against the national average such that 100 represents the national average, a score of 150 half as high again as the national average
- Behaviours which are exceptionally concentrated in these four types of neighbourhood have been marked in red
- Information has been sourced from the 2001 census and from lifestyle surveys

**There are a number of important conclusions....**

They have a very high level of interest in the newspapers in red...

## Newspapers read

		Average of neighbourhoods high on diabetes II
<b>Newspapers</b>	<b>Daily Star</b>	<b>225</b>
<b>Newspapers</b>	<b>Sunday Sport</b>	<b>216</b>
<b>Newspapers</b>	<b>Mirror</b>	<b>172</b>
<b>Newspapers</b>	<b>News of the World</b>	<b>169</b>
<b>Newspapers</b>	<b>Sun</b>	<b>165</b>
<b>Newspapers</b>	<b>The People</b>	<b>165</b>
<b>Newspapers</b>	<b>Sunday Mirror</b>	<b>161</b>
<b>Newspapers</b>	<b>Popular or midmarket daily newspaper</b>	<b>121</b>
<b>Newspapers</b>	<b>Sunday Post</b>	<b>109</b>
<b>Newspapers</b>	<b>Daily Record</b>	<b>89</b>
<b>Newspapers</b>	<b>Newspapers delivered</b>	<b>85</b>
<b>Newspapers</b>	<b>Express</b>	<b>75</b>
<b>Newspapers</b>	<b>Daily Mail</b>	<b>61</b>
<b>Newspapers</b>	<b>Sunday Express</b>	<b>58</b>
<b>Newspapers</b>	<b>Independent</b>	<b>56</b>
<b>Newspapers</b>	<b>Observer</b>	<b>55</b>
<b>Newspapers</b>	<b>Guardian</b>	<b>55</b>
<b>Newspapers</b>	<b>Independent on Sunday</b>	<b>55</b>
<b>Newspapers</b>	<b>Mail on Sunday</b>	<b>55</b>
<b>Newspapers</b>	<b>Broadsheet daily newspaper</b>	<b>53</b>
<b>Newspapers</b>	<b>Financial Times</b>	<b>52</b>
<b>Newspapers</b>	<b>Daily Telegraph</b>	<b>44</b>
<b>Newspapers</b>	<b>Times</b>	<b>42</b>
<b>Newspapers</b>	<b>Sunday Times</b>	<b>35</b>
<b>Newspapers</b>	<b>Scotland on Sunday</b>	<b>26</b>
<b>Newspapers</b>	<b>Sunday Telegraph</b>	<b>26</b>
<b>Newspapers</b>	<b>Scotsman</b>	<b>25</b>

They shop in Netto not Asda...

## Shops visited

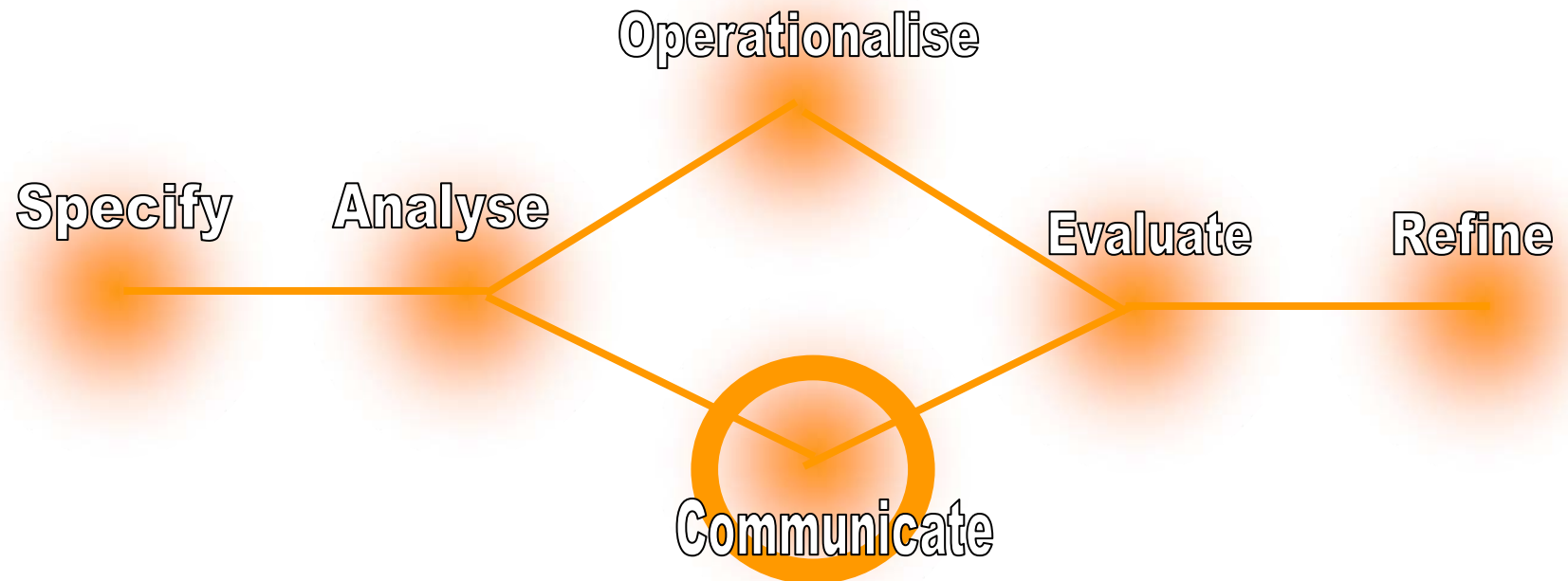
		Average of neighbourhoods high on diabetes II
<b>Shops Visited</b>	<b>Netto</b>	<b>279</b>
<b>Shops Visited</b>	<b>Kwiksave</b>	<b>206</b>
<b>Shops Visited</b>	<b>Farmfoods</b>	<b>205</b>
<b>Shops Visited</b>	<b>Aldi</b>	<b>184</b>
<b>Shops Visited</b>	<b>Morrisons</b>	<b>178</b>
<b>Shops Visited</b>	<b>Asda</b>	<b>135</b>
<b>Shops Visited</b>	<b>Costcutters</b>	<b>130</b>
<b>Shops Visited</b>	<b>Iceland</b>	<b>129</b>
<b>Shops Visited</b>	<b>VG and Londis</b>	<b>112</b>
<b>Shops Visited</b>	<b>Other shops</b>	<b>103</b>
<b>Shops Visited</b>	<b>Cooperative</b>	<b>99</b>
<b>Shops Visited</b>	<b>Alldays and Circle K</b>	<b>79</b>
<b>Shops Visited</b>	<b>Tesco</b>	<b>75</b>
<b>Shops Visited</b>	<b>Safeway</b>	<b>69</b>
<b>Shops Visited</b>	<b>Somerfield</b>	<b>67</b>
<b>Shops Visited</b>	<b>Sainsburys</b>	<b>63</b>
<b>Shops Visited</b>	<b>Marks &amp; Spencer</b>	<b>52</b>
<b>Shops Visited</b>	<b>Budgens</b>	<b>26</b>
<b>Shops Visited</b>	<b>Waitrose</b>	<b>13</b>

They like TV shopping – not telephone help lines...

## How people learn about new products

		<b>Average of neighbourhoods high on diabetes II</b>
<b>Learn about Products</b>	<b>TV shopping channels</b>	<b>130</b>
<b>Learn about Products</b>	<b>Telemarketing calls</b>	<b>125</b>
<b>Learn about Products</b>	<b>Posters</b>	<b>108</b>
<b>Learn about Products</b>	<b>Direct mail</b>	<b>101</b>
<b>Learn about Products</b>	<b>TV adverts</b>	<b>101</b>
<b>Learn about Products</b>	<b>Radio adverts</b>	<b>95</b>
<b>Learn about Products</b>	<b>Leaflets</b>	<b>94</b>
<b>Learn about Products</b>	<b>Free samples</b>	<b>88</b>
<b>Learn about Products</b>	<b>Newspapers and magazines</b>	<b>84</b>
<b>Learn about Products</b>	<b>Visiting shops</b>	<b>81</b>
<b>Learn about Products</b>	<b>Catalogues</b>	<b>80</b>
<b>Learn about Products</b>	<b>Family and friends</b>	<b>80</b>
<b>Learn about Products</b>	<b>Internet</b>	<b>68</b>
<b>Learn about Products</b>	<b>Telephone advice lines</b>	<b>66</b>

# Health Needs Mapping (HNM)





# Action Diabetes - Slough

**Engaging and intervention**

***“Just giving information will not  
change people’s habits”***

**Health Activist at lunch and learn session in  
Slough**

# Engaging (June –August 04)

- **Focus groups** (members of the Slough community sharing their stories, fears and concerns about diabetes)

*“When you get diabetes you get poor”*

**“I feel awkward and uncomfortable. Embarrassed even.”**

*“You hear horror stories. It can be very depressing”*



***“All the time I am frightened”***

# Engaging (June –August 04)

- **Lunch and learn** (sessions for gathering feedback from the community and health professionals, including workshops and debates)

*“Surely all it takes in one family is for one person to understand diabetes to ensure everyone understands?”*

*“Our Asian community need to be told what to do”*

*“Employers need support to implement new menus and to encourage employees”*

*“We need celebrities and doctors to be vocal about the dangers”*



*“it needs to be handed back to the local people*

# Engaging (June –August 04)

- **Community engagement** (*briefing community leaders about the plans, gaining feedback and encouraging participation*)
- **Health professional briefings - GPs, Health Activists, pharmacists** (*briefing professionals about the plans, gaining feedback and encouraging participation for the campaign*)
- **Case studies** (*encouraging diabetes sufferers to share their stories for action diabetes film and to participate in other ways to promote the importance of the campaign*)

*“I can’t believe how my life has changed since I was screened and I have been on medications. I didn’t realise how bad my condition has got and now I see that by facing it my whole life has changed. I look and feel so much better”*

# Campaign Planning (Aug –Oct 2004)

- **Recruiting Health Counsellors**
  - *Recruitment drive at Slough MELA*
  - *Slough PCT Diabetes nurse involving patients*
  - *Leaflets distributed in target area supermarkets and surgeries*
- **Training Health Counsellors**
  - *3 sessions :*
    - 1) *Briefing about the pilot*
    - 2) *Techniques for being a volunteer and providing information*
    - 3) *Evaluations packs, bus schedule and materials*



# Campaign Planning (Aug –Oct 2004)

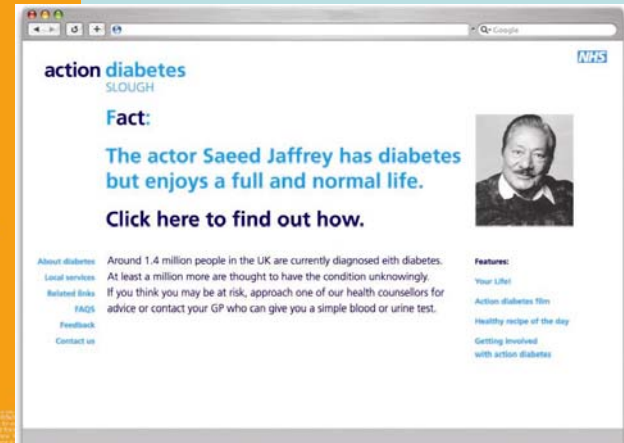
- **film**

- *Celebrities*
- *Case studies*
- *Experts*



- **materials**

- *Posters*
- *Leaflets*
- *Website*
- *Translations*



# Campaign Planning (Aug –Oct 2004)

- Finding sponsors and making connections with local employers



- Slough diabetes special Your Life!
  - *Distribution plan to target at-risk postcodes*



# Campaign implementation

## The launch: 18 Oct 2004

- **Ministerial launch**

- **Rt. Hon John Hutton MP, Minister of State for Health opens the campaign at Upton Hospital**

*“It is really important that we do this work with local communities...some of the mapping techniques and technology we are using to try and get a better idea of the scale of the problem here in Slough is very very important”*  
*John Hutton MP*





# Action Diabetes on the Road

- Action Diabetes bus located around target areas for 3 weeks
- Parked at schools, university, shopping centres, supermarkets, businesses, places of worship, leisure and community centres



- Average 500 people were tested per week on the bus (figures not finalised)
- Average of 7 were definite and 20 more had impaired glucose levels & were referred for further testing (figures not finalised)

# Action Diabetes Celebrity Visit

- Saeed Jaffery meets and greet health counsellors and the public

*“It is vital that the communities in Slough, in particular the Asian communities know that there is nothing to be frightened of. Get tested!” Saeed Jaffery*



# Action Diabetes

**“ This project gets out to local communities in a way we haven’t been able to do before” Geoff Cutting, Chair Slough PCT**



Slough Observer - Friday 22nd October 2004

## Town's unknown diabetes victims

By Andy Crick

HALF the diabetics in Slough do not know they have the illness. This is the message of a pioneering project launched by Slough Primary Care Trust (PCT) at Upton Hospital.

On Monday, Minister of State for Health, John Hutton, gave his backing to the Action Diabetes campaign.

The scheme aims to improve the lives of an estimated 5,000 people in Slough who are already suffering from diabetes by about seven per cent of the population.

The project will also focus on raising awareness about the illness, as health experts predict half the town's sufferers are not aware they

NEWS

## WHERE YOU LIVE AFFECTS YOUR HEALTH

### Postcodes help to identify people at risk of diabetes

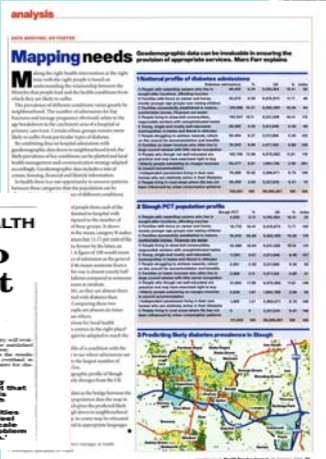
By Alan Matthews

IT'S REALLY important that we get the word out about diabetes, especially for the scale of the problem in Slough.

Diabetes is a chronic condition that affects the way the body uses insulin, a hormone that allows the body to use sugar for energy. It is a leading cause of heart disease, kidney failure, blindness and amputation.

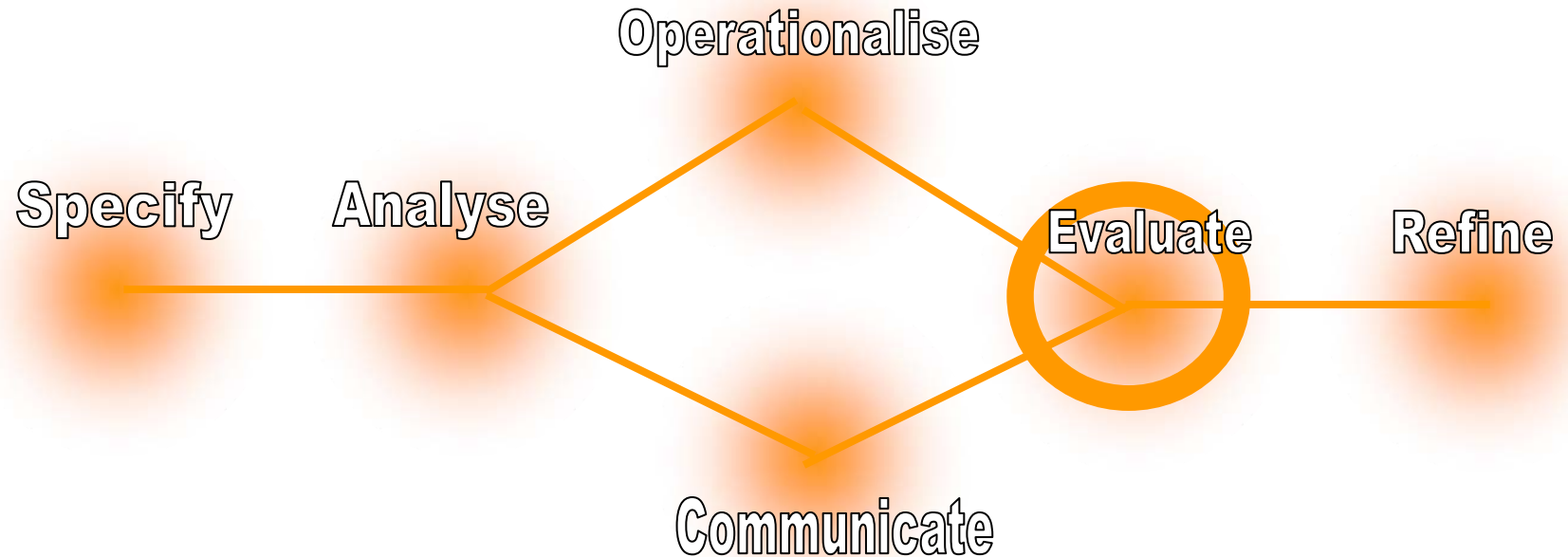
Slough PCT is leading a campaign to identify people at risk of diabetes in different parts of the town. The project will use postcode data to identify areas with a high concentration of people at risk.

The project will focus on raising awareness about the illness, as health experts predict half the town's sufferers are not aware they

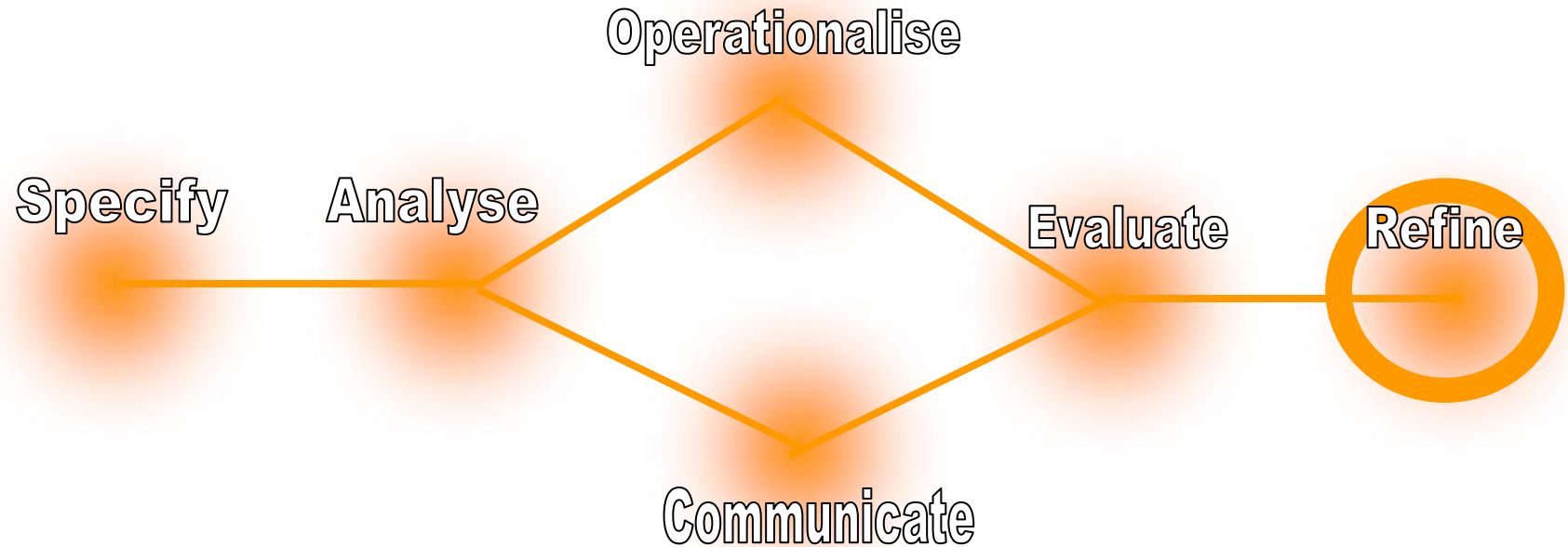


**“..the value of the partnership with Dr Foster is that they’ve helped us really map who the communities are that have diabetes and what media outlets they use...this really helps us tailor the information about diabetes in a more appropriate way. We wont be working in a ‘one size fits all’ way anymore” Mike Attwood, CEO Slough PCT**

# Health Needs Mapping (HNM)



# Health Needs Mapping (HNM)



# Classifying people by where they live

Applications for Health Promotion

Dr Marc Farr

