

Psychotic disorders in ethnic minority populations in Lambeth & Southwark
An introduction
Lambeth & Southwark Public Health Team
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1. Introduction

This is an introductory briefing on psychotic disorders and the impact on ethnic minority populations with particular reference to populations in Lambeth and Southwark.

Psychotic disorders (sometimes called severe mental illness - SMI) include schizophrenia and extreme disorders of mood (mainly bipolar disorder). The disorders are characterised by severe disturbances in thinking and perception such that perception of reality is distorted. This may result in different types of delusions about the self, others and the environment including hearing voices.

There is substantial research that shows that in the UK rates of mental illness including psychosis in some ethnic minority populations are higher than rates in white British populations although the levels are not consistent and are different for men and women.

The main source of information about the numbers of people in the population with mental ill health nationally is taken from a large household survey conducted in England in 2007, and its predecessors which covered England, Scotland and Wales in 1993 (16-64 year olds) and 2000 (16-74 year olds) by the Office for National Statistics (ONS).

The Adult Psychiatric Morbidity Survey (2007) for England (a household survey)

The proportion of the population assessed as having a psychotic disorder in the past year prior to interview was 0.4% (0.3% of men, 0.5% of women). There was no change in the overall prevalence of probable psychosis between the 2000 and 2007 surveys

In both surveys the highest prevalence was observed among those aged 35 to 44 years (1.0% in 2000, 0.8% in 2007). In both men and women the highest prevalence was observed in those aged 35 to 44 years (0.7% and 1.1% respectively).

The age standardised prevalence of psychotic disorder (schizophrenia and bipolar disorder) was significantly higher among black men (3.1%) than men from other ethnic groups (0.2% of white men, with no cases observed among men in the South Asian or 'other' ethnic group). There was no significant variation by ethnicity among women.

The prevalence of psychotic disorder varied by equivalised household income, increasing from 0.1% of adults in the highest income quintile to 0.9% of adults in the lowest income quintile. This trend was more prominent among men than women.

In addition to these estimates 0.5% of the population were thought to have 'probable psychosis' where symptoms did not reach threshold levels or the interview suggested a history of a psychotic episode but not during the year previously.

There is also an increasing body of research in the UK and internationally. Much of the UK research is of the population in south east London. A rise in the number of people nationally with psychotic disorders would be expected at least until 2026 mainly in older age groups, due to demographic change in the population.

Newton¹ summarises the international picture from the literature

- Rates of new cases of psychotic illness vary from between 8 – 43 per 100,000
- Rates in men are usually significantly higher than in women
- It is common to find higher rates in migrants including second generation migrants, people born in cities and people born in the winter-spring
- There are differences in recovery between developed and developing countries with substantially better recovery in developing countries than in developed nations (although this is contested in more detail where there are negative connotations to mental illness and restrictive practices (such as incarceration and restraint)
- Outcomes are worse where the onset is insidious rather than acute & outcomes at 2 years were the best predictor of outcome at 15 years

2. What does this mean for Lambeth & Southwark?

A very rough estimate of expected numbers in Lambeth and Southwark can be made using the ONS prevalence rate and applying it to the adult population. This is a 'point prevalence' so the estimate is more likely to be a range around this figure but the figure is also likely to *underestimate* actual numbers because the national survey did not include people in hospital, supported accommodation, prison or secure mental health institutions.

Table 1 Expected number of adults with psychosis or probable psychosis by borough

	Population Aged 16+ years	Estimated prevalence	Estimated expected number with psychotic disorder in the past year
Lambeth	255,000	0.4%	1,020
		0.5% (probable psychosis)	1,275
Southwark	242,000	0.4%	968
		0.5% (probable psychosis)	1,120

Source: Greater London Authority Interim Round Population Projections (2012) and Psychiatric Morbidity Survey (2007)

3. Detection of psychotic disorders in Lambeth and Southwark

Apart from applying national or research data to local populations an important method of estimating prevalence is to look at local rates of detection; how many people do we know about with psychotic disorders? This can be done by looking at the numbers of people with a documented severe mental illness (SMI) in GP records.

Although it is not possible to know about severity from this figure it is fairly reliable because it is a requirement that all people known to have SMI are offered a physical health check annually and GPs have to report on this. Against this is the fact that there can be a delay in maintaining up to date records when people move or die or get better so again this should be seen as an estimate. Furthermore, when calculating a rate from this information, the GP registered population is used not the resident population. In both Lambeth and Southwark there are more people registered with GPs in the boroughs than there are in the census estimates. Despite this the detection of SMI in both boroughs is substantially higher than the estimates from the national survey and compared with London and England.

Table 2: Detection of Severe Mental Illness in Primary Care 2013

Area	Period	Number of registered patients aged 16 or over	Number with Severe Mental Illness	Detection rate (%)
Lambeth	2012/13	304,464	4,548	1.5%
Southwark	2011/12	270,004	3,504	1.3%
London	2011/12	7,178,822	89,289	1.2%
England	2011/12	45,284,513	452,608	1.0%

Source: DataNet 2012/13; QOF 2011/12

NB: Lambeth data omits 2 practices

Reasons for the higher rates may include

- The high levels of deprivation and inequality in Lambeth and Southwark
- The age distribution of the population which is relatively young compared to the national population (SMI is more common in people of early middle age)
- Higher than average prevalence in ethnic minority populations
- The proportion of people with SMI in hospital, supported accommodation, prison etc who remain on the GP list but would not have been identified in the national survey
- GPs in Lambeth and Southwark are good at detecting and recording SMI
- Delays in updating or maintaining records in primary care
- Migration of severely mentally ill to inner city conurbations

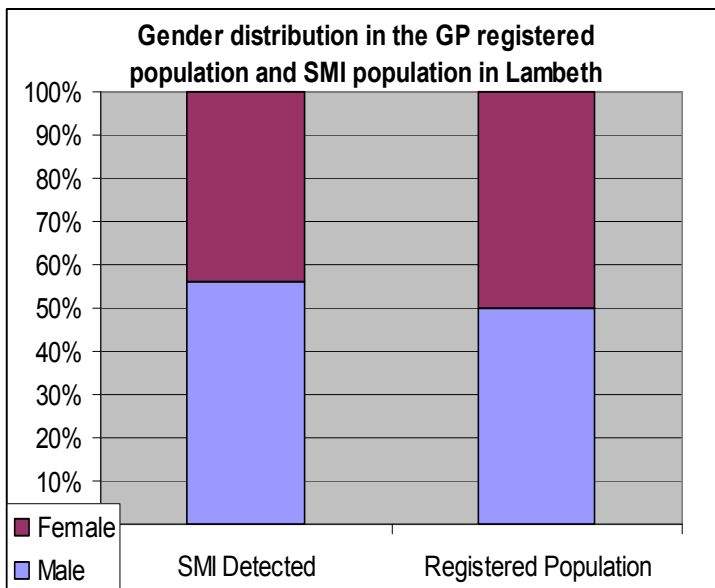
4. Who has SMI in Lambeth and Southwark?

For nearly 10 years Lambeth GPs in partnership with Public Health and London South Bank University (and now King's College London - KCL) have been developing use of their data for public health purposes particularly to understand some of the health inequalities between different populations and take appropriate action. To do this, in addition to clinical data GPs have also collected demographic information that can be extracted and analysed (anonymously) at borough level using a platform called DataNet. This means that it is relatively straightforward to assess inequalities at population level in the borough. The information provided in the next section is therefore taken from Lambeth data (note: all the data excludes information from two practices with a combined population of approximately 17,000 patients) but as a borough with many similarities to Southwark it can be used to illustrate some of the issues for Southwark patients.

There is a proposal to develop this facility in Southwark in partnership with KCL and the Lambeth & Southwark Public Health Team.

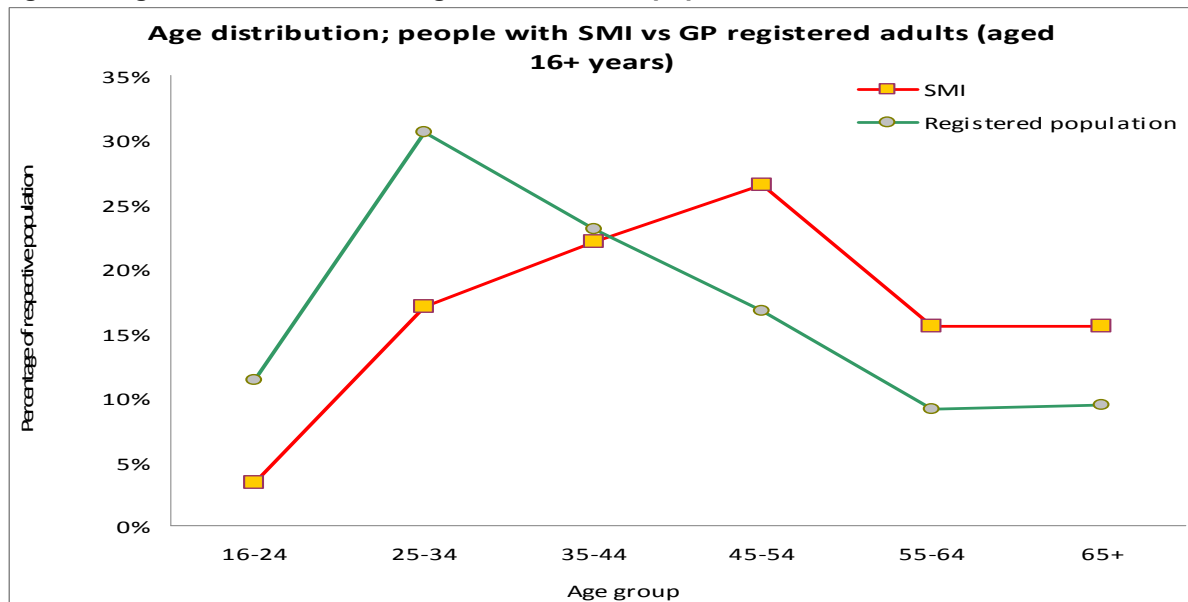
Figure 1 shows that slightly more men than women are diagnosed with SMI than would be expected from the population make up.

Figure 1: Registered and SMI Population by Gender in Lambeth



Source Lambeth DataNet 2013

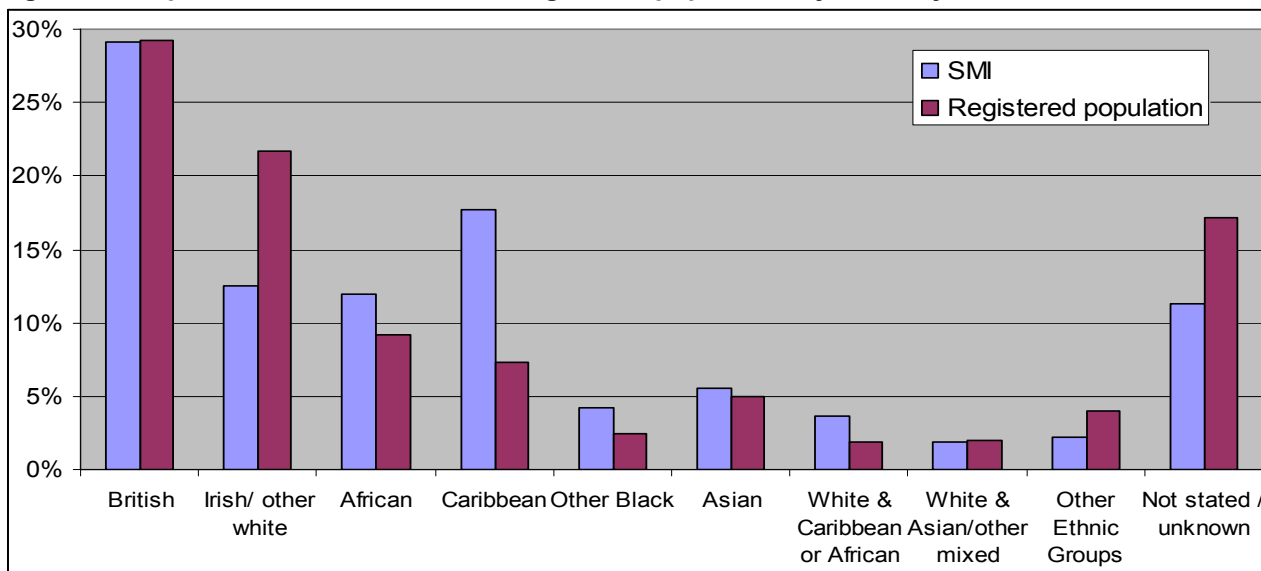
Figure 2: age distribution of the registered and SMI populations of Lambeth



Source: Lambeth DataNet 2013

Figure 2 shows that people with SMI tend to be older than would be expected from the population distribution. This is in keeping with the nature of psychotic disorders which tend to last for many years.

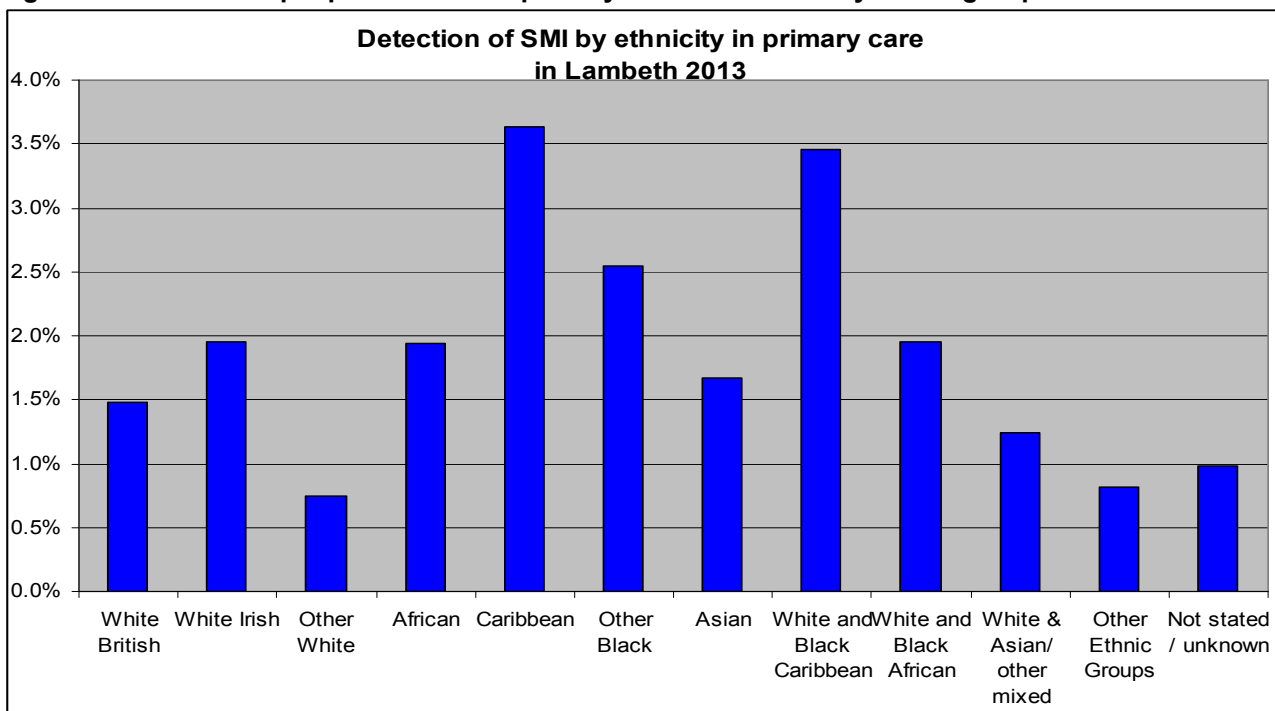
Figure 3: People detected with SMI & GP registered population by ethnicity



Source: Lambeth DataNet 2013.

Figure 3 compares the ethnic make up of the GP registered population and the group who are known to have SMI. It shows that whilst for some groups the proportion of people with SMI is roughly equivalent to the background GP registered population, for people of black and mixed white and black ethnic background there are higher than expected proportions known to have SMI especially for the black Caribbean group. The slightly higher rate in Asian groups is based on relatively small numbers.

Figure 4: Detection of people with SMI in primary care in Lambeth by ethnic group



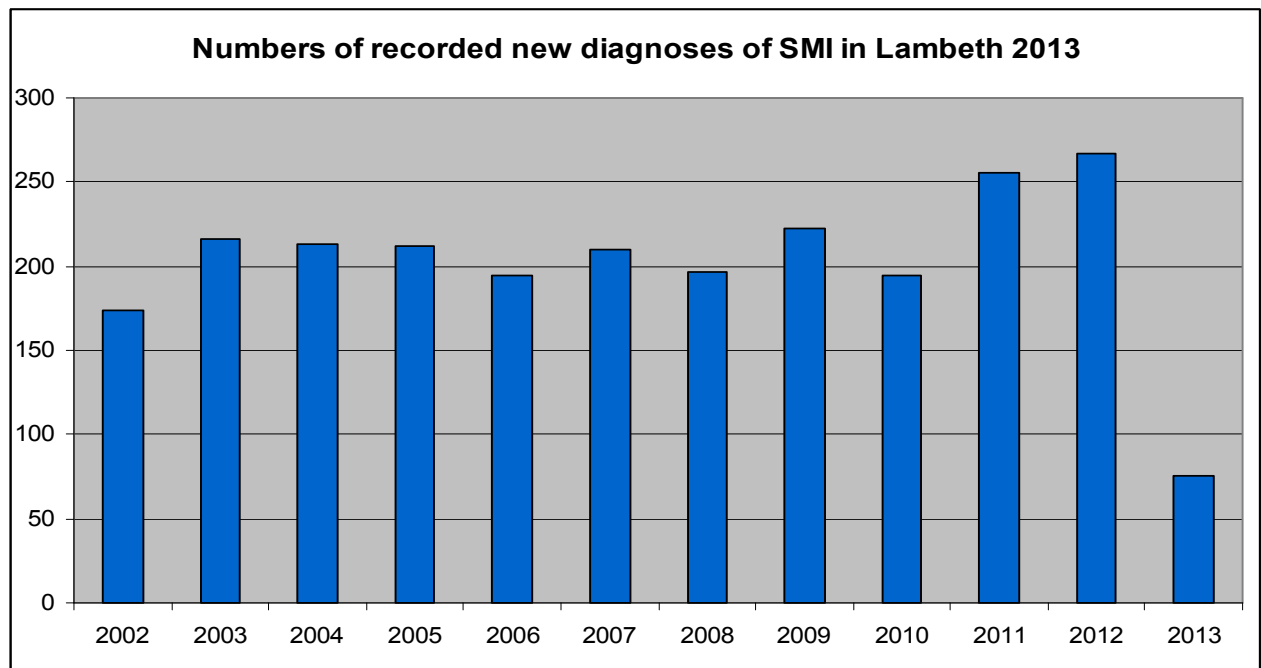
Source: Lambeth DataNet 2013

Figure 4 shows detection rate by ethnic group. The average detection rate in Lambeth is 1.5% so it can be seen that several groups including white Irish, black African, black Caribbean and other black have higher than average detection rates. The groups of white and black mixed ethnic background have similar rates to that of their counterparts who identify as black ie people of mixed white and black Caribbean origin have the same rate as people who identify as black Caribbean.

5. Incidence: new diagnoses

People are concerned that the numbers of new diagnoses of psychosis are increasing. Figure 5 shows the picture in Lambeth over the last ten years. The graph shows numbers not a rate but given that the GP registered population over this period has increased substantially the levels of new diagnoses per year is remarkably stable.

Figure 5: Numbers of newly recorded diagnoses of SMI in Lambeth 2002-2013

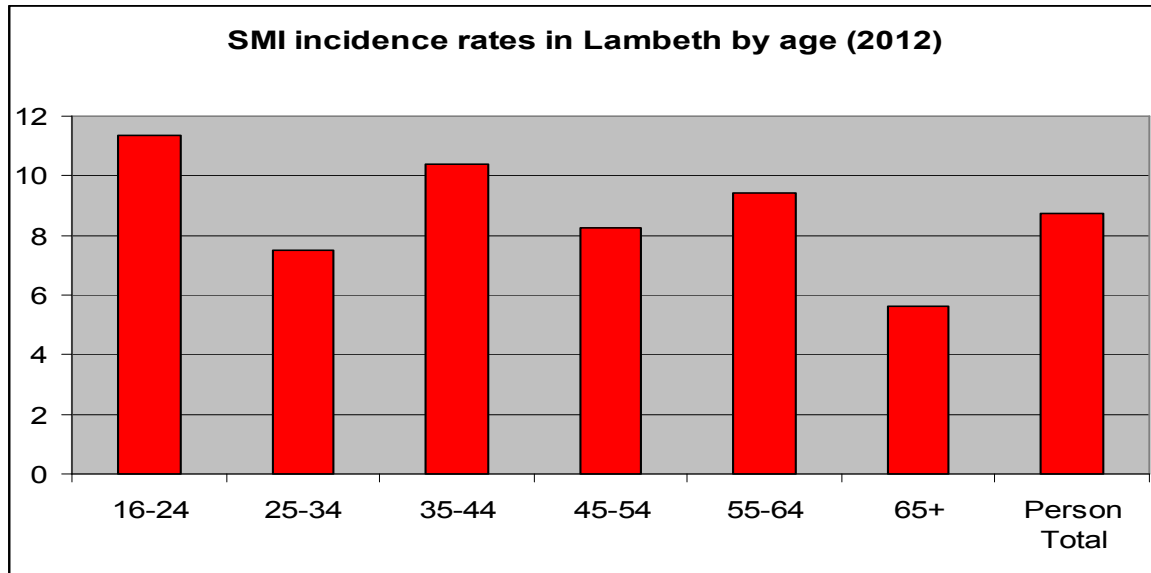


Sources: Lambeth DataNet, 2013

The years 2011 and 2012 may indicate a change but it is not easy to tell at this stage. Note that 2013 is an incomplete year.

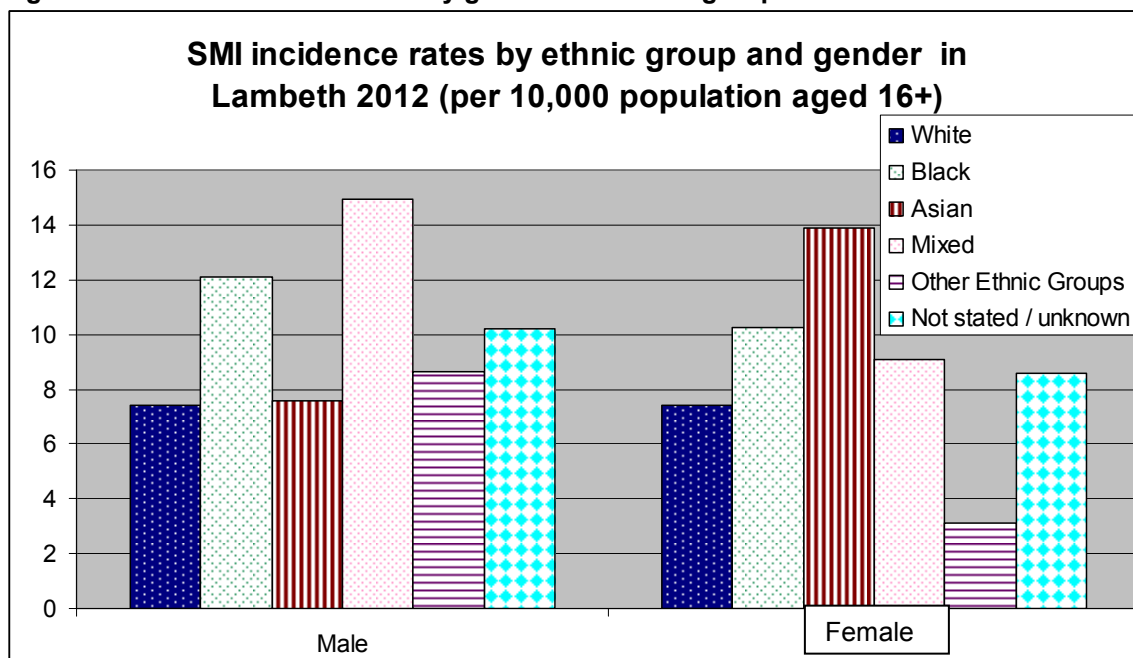
Small numbers make it difficult to assess trends in Figure 6 but suggest that, although as expected the highest rate of new cases is in the 16-24 year group and lowest in older people, new cases arise across the age range.

Figure 6: Rates of new diagnoses of SMI per 10,000 population per year in Lambeth by age group



Source: Lambeth DataNet 2013

Figure 7: rates of new detections by gender and ethnic group in Lambeth



Source Lambeth DataNet 2013

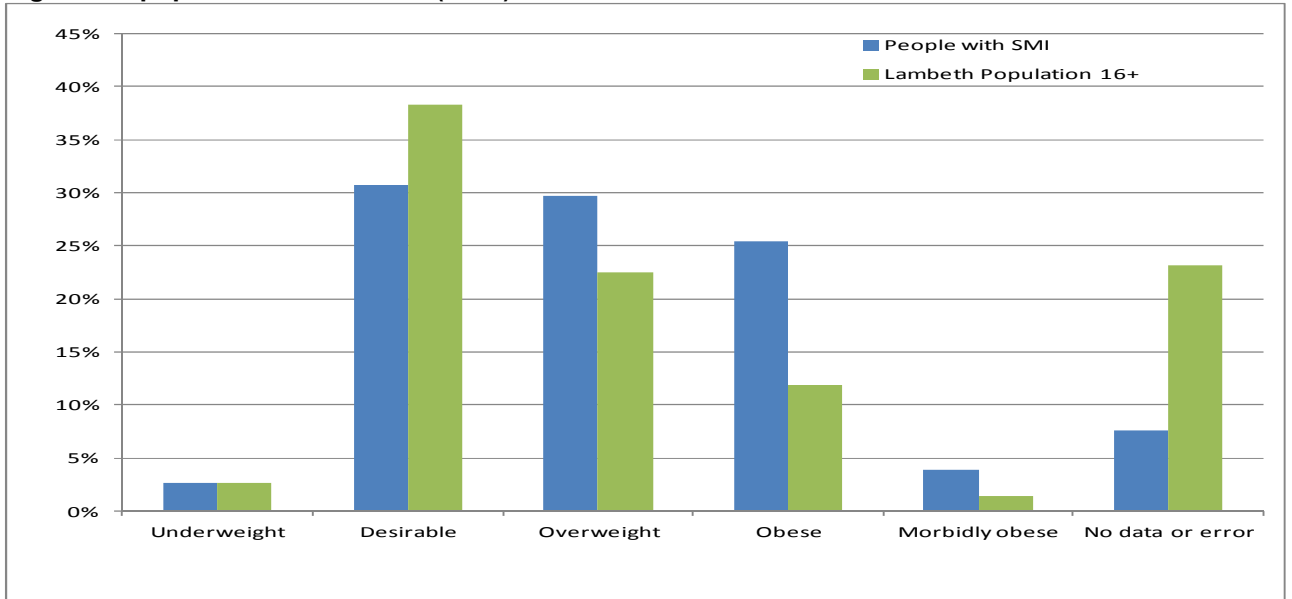
Figure 7 also uses small numbers so rates should be viewed with caution but the findings are in line with other information to suggest that the incidence is higher in Black populations and people of mixed heritage especially in men. In women the incidence appears higher in Asian groups.

6. Health of people with SMI

It is widely known that people with psychotic illness experience poorer health than average and are at increased risk of premature death (death before the age of 75 years).

The differences in health can be shown from GP records.

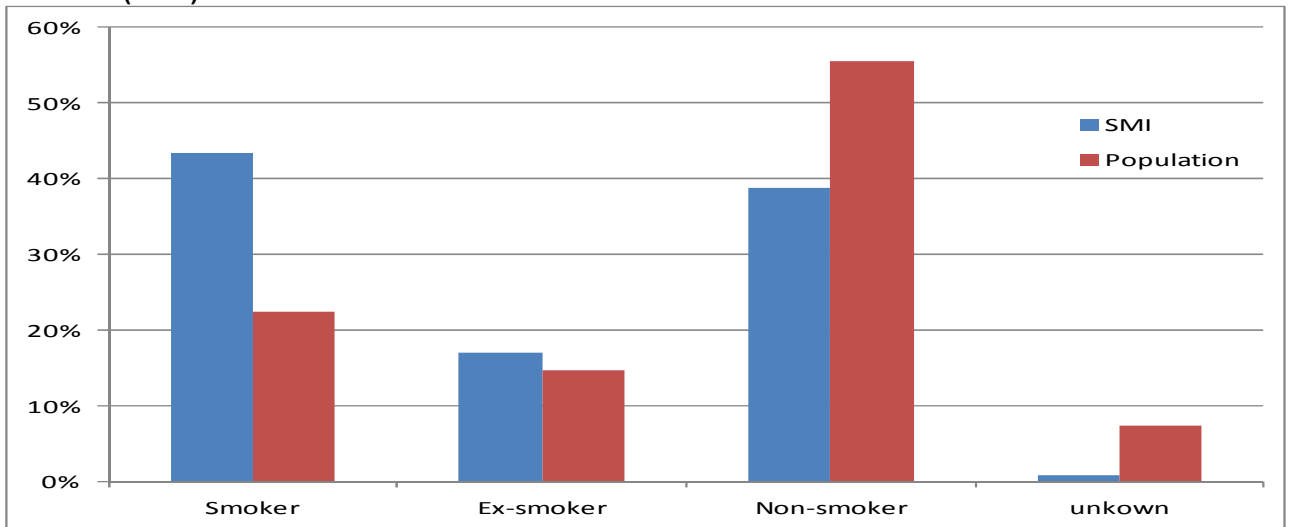
Figure 8: the distribution of overweight and obesity in people with SMI and the Adult GP registered population of Lambeth (2012)



Source: Lambeth DataNet 2012

Figure 8 shows that over 30% of GP registered adults are overweight or obese (although there is no record in over 20%) but for people with SMI this figure is nearly 60%.

Figure 9: the distribution of smoking in the adult GP registered and SMI populations in Lambeth (2012)



Source: Lambeth DataNet 2012

Figure 9 shows that whilst about 22% of the adult GP registered population smokes, over 40% of people with SMI smoke.

7. Access to services

People with psychotic illness are severely ill and need treatment. Nationally the APMS survey (ONS, 2007) found that about 65% of people with psychosis and 85% of people with probable psychosis living in private households were on treatment. The difference may be because some of the people with probable psychosis have a history of psychotic symptoms but had not experienced them in the previous year whereas some of the people with psychosis were new and had not yet accessed services.

One third of people with psychoses had contact with their GP in the past 2 weeks, and two thirds had had contact in the past year.

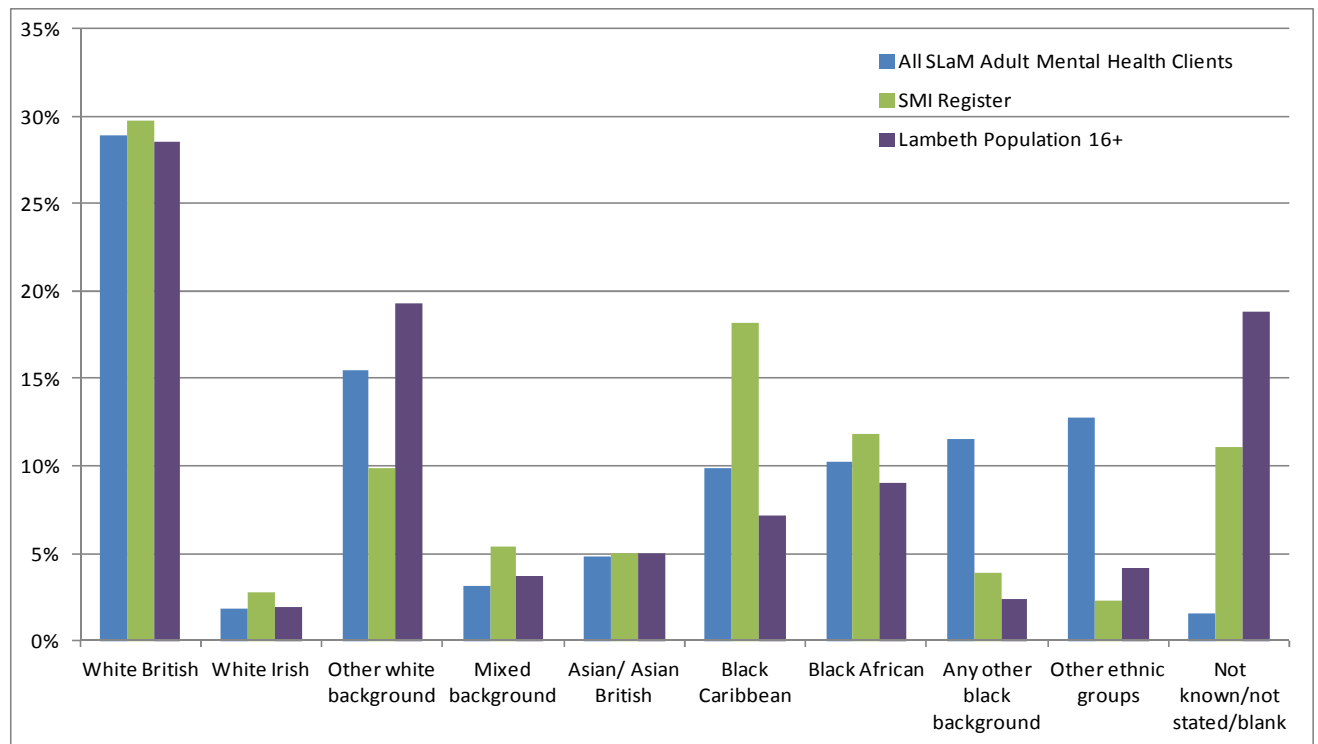
Table 3: Estimated numbers of *resident* population with SMI (Adults 16-74 years) who have used health services

	Expected number with psychotic disorder in the past year	Not receiving treatment (35%)	In patient sty in last 3 months (6%)	Out patient visit in last 3 months (30%)	Spoken with GP in last 2 weeks (25%)	Ever admitted to a hospital specialising in mental health (65%)
Lambeth	1,020	357	61	306	255	663
Southwark	968	339	58	290	242	629

Source: PMS 2007 and LGA (2012)

The national survey does not look at access to services by ethnicity but Figure 9 shows there are some differences in the ethnic make-up of the 3 populations; patients of mental health services, people with SMI known to the GP and the GP registered population. The differences in proportion between the GP registered population and the people known to have SMI have already been discussed in relation to Figure 3. This suggests that ethnic minorities have relatively good access to primary care for their SMI although this information does not tell us anything about quality or experience. There are some marked differences between the proportion of the population with SMI and the ethnicity of SLaM patients. This could represent a difference in access but without further investigation it is not possible to draw firm conclusions.

Figure 9: Ethnicity of SLaM (Lambeth) Adult Mental Health Clients, the GP SMI Register, & the Lambeth GP Registered Population (16+years)



Source: SLaM monitoring data, Lambeth DataNet (2012)

Nationally there is evidence of differential access to services for ethnic minority populations although some of this information is relatively historic eg;

- Admission rates to psychiatric hospitals for African-Caribbean populations are higher than for the general population (Coker 1994, Cochrane & Bal 1989) – *local data suggests this could be related to need*
- Diagnoses of schizophrenia among persons admitted to psychiatric hospitals are 3 to 6 times higher among African-Caribbean groups than among the white population (Coker 1994, Cochrane & Bal 1989) – *again this could be in line with what is expected in the population*
- Diagnoses of depression and anxiety are less likely among African-Caribbean groups than among the general population (Lloyd 1993) – *this could be related to differences in how diagnoses are made and the help seeking behaviour of different groups*
- African-Caribbean groups are more likely to be subjected to harsh and invasive types of treatment including intramuscular injections and electro-convulsive therapy, more likely to be placed in secure units, to be described as aggressive and to be hospitalised compulsorily under the Mental Health Act (Dunn and Fahy 1990, Davies 1996, Bhat 1996). *This appears to still be the case*
- Diagnoses of schizophrenia among persons admitted to psychiatric hospitals are 3 times higher among Asian males than among the white population (Coker 1994, Bhat 1996). *This requires work to look at locally*
- Suicide rates among women from the Indian sub-continent and men and women from East Africa are higher than those for the general population. Suicide rates among Asian women 15-24 years are more than twice the national rate and 60%

higher in Asian women aged 25-34 years (Soni Raleigh 1992, 1990) – *this is very difficult to look at locally as suicide numbers are low and suicides in women are very low. Ethnicity is not recorded on the death certificate*

- Psychiatric patients from BME groups make less use of psychiatric services (Donovan 1992, Kareem 1989). *These papers are old and local information suggests this is may not be the case overall although service use may differ eg less use is made of talking therapies and more of psychiatric inpatients*
- The ethnicity of a patient influences the clinical predictions and attitudes of practising psychiatrists (Lewis 1990).

Source: Lee, B., Syed, Q., Bellis, M. (2001). Improving the Health of Black and Ethnic Minority Communities: A North West England Perspective. North West Public Health Observatory.

8. The causes of mental ill health and why is incidence different in different ethnic groups?

Biological, psychological, and environmental (social, family, economic etc) factors all contribute to the development and progression of mental wellbeing and mental disorders. Opinions have swung to and fro between the relative contribution of biomedical (such as genes and brain chemistry) and environmental factors (such as parenting, school, work and life events) and between different interpretations and understanding of the brain and the mind. More recently there has been increasing recognition of the impact of nurturing on brain development in infancy and early childhood and specifically on the impact of negative infant and childhood experiences on future mental illness². Studies now suggest that early childhood neglect and certainly more overt emotional or physical abuse can affect brain development adversely and increase risk of various issues including mental illness especially if other circumstances occur^{3,4}. There is also recognition that some forms of mental illness seem to run in families especially bipolar disorder although in nearly two thirds of people with schizophrenia there is no other family member with the disorder¹.

Psychological factors that may contribute to mental illness include:

- Severe psychological trauma suffered as a child, such as emotional, physical, or sexual abuse
- An important early loss, such as the loss of a parent
- Neglect (emotional and, or physical)
- Poor ability to relate to others

Environmental factors or stressors that may trigger mental illness (although not specifically psychosis) in a person who is susceptible (especially having been exposed to some of the factors above) include:

- A dysfunctional family life including domestic violence
- Death or divorce
- Unemployment
- Bullying or harassment (in the workplace, school etc)
- Substance misuse by the person or the person's parents

These situations can be compounded where a person has pre-existing feelings of inadequacy, low self-esteem, anxiety, anger, or loneliness and, or where there are

specific social or cultural expectations of someone (eg a society that associates beauty with thinness can be a factor in the development of eating disorders.)

A systematic review of the evidence⁵ suggests that the following groups of people are at risk of poor mental health. This is mainly because of their exposure to traumatic life events, neglect and or the stress of social exclusion and social isolation.

Table 4.

Adults	Children
Unemployed Severe life events (eg; separation, bereavement) Long terms carers of highly dependent people Women with a history of depression in pregnancy	Living in poverty In a family experiencing parental separation or divorce, or bereavement With behavioural difficulties

A more comprehensive summary of potential risk factors is in the Appendix.

There is also a relationship between mental health problems and substance and, or alcohol misuse. This includes common mental illness, severe mental illness, problems with self harm and suicidal behaviour. Misuse of drugs and, or alcohol is also associated with increased risk of suicide. The Department of Health reports that about 30% of people seeking help for a mental health problem are likely to be misusing drugs⁶. What maybe less well explored is some of the motivations underlying substance and alcohol misuse for instance how people may use alcohol and drugs to offset or self medicate their mental and psychic pain. Both alcohol and drugs may also potentiate mental illness for instance alcohol is a depressant. The evidence around the influence of cannabis is controversial but may have a role in psychosis in genetically susceptible people (less than 20% of those developing a psychotic illness) when used in early teenage years. Cannabis can also exacerbate symptoms and sign in established psychotic illness eg paranoia and hallucinations¹.

Exposure to risk factors is variable across the population including within and between different ethnic groups and it is important not to make assumptions in this regard. However it is possible to summarise that not only do many people live in deprivation in Lambeth and Southwark, in itself a reason for high prevalence of mental health problems, but also for many ethnic minority groups, a higher proportion than (the national) average are poor and live in highly stressful circumstances (eg. more likely to be unemployed and unemployed for longer periods, living in poor housing in deprived areas, exposed to crime and violence both in the neighbourhood and personally, and subject to discrimination, bullying and victimisation at school, in the street and at work). This situation also impacts negatively on family life and can make it much more difficult for parents to provide for and nurture their children especially if they were also neglected as children.

This perspective should be seen as a general rather than a specific point. Clearly many people are extremely resilient in the most adverse circumstances and maintain strong and supportive family ties successfully bringing up similarly resilient children and young people. But the situation in Lambeth and Southwark is very unequal and for the most

part ethnic minority populations are more likely to be disadvantaged and therefore at more risk.

In addition we know that in Lambeth substance and alcohol misuse is a substantial problem across most population groups.

All these factors contribute to the high prevalence of mental health problems in Lambeth and Southwark. The evidence also suggests that for some ethnic minority groups, poor socio-economic circumstances, low education, unemployment, and the chronic strain of stigma and discrimination and social exclusion is highly relevant.

9. Possibilities for action

To be most effective and useful intervention should focus on the risk factors that can be altered. Whatever the contribution of genetics little can be done to influence this. In contrast there is a great deal that the public sector and communities can do to prevent detrimental family settings and mitigate the impact of some of the traumatic trigger life events.

Newton (2013)¹ suggests that because of its contribution to mental illness including psychosis, childhood neglect/ abuse is the area that is maybe most amenable to intervention and would give the biggest impact. This could be achieved by eg

- Continued action to prevent teenage pregnancy that offers alternatives and promotes aspiration and educational success ie a holistic and integrated approach to adolescent development of boys and girls
- Continued and broadened parenting support especially to teenage parents, mothers with mental illness and others who are in particular difficulty including socio economic deprivation
- Offering therapeutic foster care in specific circumstances especially where foster care has broken down
- Offering expert support and supervision to parents with children under 8 years with special needs

Table 5 shows a generic list of 'best buys' in mental health. They are a mix of preventive and early intervention actions. In Lambeth and Southwark there are good examples of where these are being implemented but sometimes provision may be short term and not comprehensive so many people at most risk do not have access to what is on offer.

Table 5. Best buys to for mental health

Intervention	Saving (per £1 invested)
Social and emotional learning programmes in schools	£84
Suicide prevention through GP training	£44
Early intervention for psychosis	£18
Pre-school educational programmes for 3-4 year olds in low income families	£17
School based interventions to reduce bullying	£14
Screening and brief interventions in primary care for alcohol misuse	£12
Work based mental health promotion	£10

(after 1 year)	
Early interventions for parents of children with conduct disorder	£8
Early diagnosis and treatment of depression at work	£5
Debt advice services	£4
Cognitive behavioural therapy for people with medically unexplained symptoms	£1.75

In discussing the types of intervention that might be effective Newton notes that because much of the trauma experienced is that of deep humiliation and shame the type and method of intervention has to avoid compounding these feelings and doing more harm (eg by offering support that stigmatises and shows what a failure you have been in your parenting etc). This is a highly relevant point when planning how best to offer support to ethnic minority groups who may already feel stigmatised and excluded at societal level.

One way of achieving this is to ensure universal approaches ie where the provision is for all and within this setting there is access to additional support to avoid the benefits being 'captured' by those with more motivation and ability to make use of provision but who may have less need. As Lambeth and Southwark are highly diverse extra attention needs to be paid to the differing understandings and experiences of different groups. This requires excellent staff training and development beyond what is usually seen as adequate from a clinical or technical perspective.

The concept of a 'fresh start' has also been shown to be less stigmatising and relatively effective; offering input at community level that is not related specifically to failings or illness but that seeks to enable people to achieve their goals in life. The Cares of Life Project in Southwark was one such cost effective intervention.

Where psychotic illness has been diagnosed along with appropriate treatment, it is essential to have societal and staff attitudes that instil hope of recovery and the potential for a rewarding life. Anti stigma and mental health awareness programmes amongst communities and staff are helpful in achieving this.

Beyond the medical concepts of recovery (a reduction in signs and symptoms) a conceptual model for recovery that is not illness focused is suggested by Leamy et al (2011)⁷; that of

- Connections
- Hope
- Identity
- Meaning & purpose
- Empowerment

Or 'CHIME'. They found that in studies amongst ethnic minorities spirituality and stigma played a more important role and also identified two additional themes: culturally specific facilitating factors and collectivist notions of recovery; ie factors that were specific to the community in question and the extent to which the community sees a person as recovered.

10. Conclusion

This paper has outlined some preliminary information to show the disproportionate impact that psychosis has on some ethnic minority groups in Lambeth and Southwark. Although the data are mainly from Lambeth it is likely that they reflect the picture in Southwark and it will be helpful to undertake a similar exercise when technology allows as well as in relation to people's access to services including in primary care to inform priorities and practice.

The data show that black groups, people of mixed white and black heritage, white Irish and Asian groups have a higher prevalence of severe mental illness than other groups. It suggests that despite the rising population new diagnoses of SMI are remaining relatively stable but the incidence rate in men of black or mixed heritage is higher than the average. The incidence rate in Asian women may also be higher than the average although this is based on small numbers

Analysis of quantitative data only takes knowledge so far. Qualitative information drawn from a good cross section of people with direct experience of psychosis and services is also essential to inform commissioning and service provision.

This paper has not covered the interesting findings in research relating to the distribution of schizophrenia and what is called 'ethnic density' (where ethnic minority groups are less likely to develop psychosis where they are living in close proximity with a community from their own ethnic background), much of which was undertaken locally. However given the known importance of social relationships in promoting and protecting mental health and wellbeing this is an area for further exploration as researchers ask whether 'ethnic density' is an indicator of some form of buffering that mitigates other risk factors mentioned.

Public health is working with both the Lambeth and Southwark Councils and CCGs to improve access to information and build the case for appropriate interventions to prevent mental illness and promote mental wellbeing. Interventions that are effective and appropriate for a highly diverse population is an integral aspect of this work.

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July 2013

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Appendix 1

Risk factors potentially influencing the development of mental problems and mental disorders in individuals, particularly children⁸

Individual factors	Family/social factors	School context	Life events and situations	Community and cultural factors
Prenatal brain damage	Having a teenage mother	Bullying	Physical, sexual and emotional abuse	Socioeconomic disadvantage
Prematurity	Having a single parent	Peer rejection	School transitions	Social or cultural discrimination
Birth injury	Absence of father in childhood	Poor school attachment	Divorce and family breakup	Isolation
Low birthweight	Large family size	Inadequate behaviour management	Death of family member	Neighbourhood violence and crime
Birth complications	Antisocial role models (in childhood)	Deviant peer group	Physical illness/impairment	Population density and housing conditions
Physical and intellectual disability	Family violence and disharmony	School failure	Unemployment, homelessness	Lack of support service including transport, recreational facilities etc.
Poor health in infancy	Marital discord in parents		Incarceration	
Insecure attachment in infant/child	Poor supervision and monitoring of child		Poverty/economic insecurity	
Low intelligence	Low parental involvement in child's activities		Job insecurity	
Difficult temperament	Neglect in childhood		Unsatisfactory workplace relationships	
Chronic illness	Long-term parental unemployment		Workplace accident/injury	
Poor social skills	Criminality in parent		Caring for someone with an illness/ disability	
Low self esteem	Parental substance misuse		Living in nursing home or aged care hostel	
Alienation	Parental mental disorder		War or natural disasters	
Impulsivity	Harsh or inconsistent discipline style			
	Social isolation			
	Experiencing rejection			
	Lack of warmth and affection			

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³ Varese F, Smeets, F, Drukker M, Lieverse R, Lataster T, Viechtbauer W, Read J, van Os J, Bentall RP. Childhood Adversities Increase the Risk of Psychosis: A Meta-analysis of Patient-Control, Prospective- and Cross-sectional Cohort Studies *Schizophr Bull* (2012) 38 (4): 661-671. doi: 10.1093/schbul/sbs050 <http://schizophreniabulletin.oxfordjournals.org/content/38/4/661.abstract>

⁴ Shaw M, De Jongaff M. Child abuse and neglect: a major public health issue and the role of child and adolescent mental health service. *The Psychiatrist* (2012) 36: 321-325 doi: 10.1192/pb.bp.111.037135

⁵ Centre for Reviews and Dissemination. Mental health promotion in high risk groups. *Effective Health Care Bulletin*. 1997; 3 (3).

⁶ Department of Health. Expert seminar on dual diagnosis and the management of complex needs. DH 1998

⁷ Leamy M, Bird V, Le Boutillier C, Williams J, Slade M. Conceptual framework for personal recovery in mental health: systematic review and narrative synthesis. *Br J Psychiatry* 2011 Dec;199(6):445-52. doi: 10.1192/bjp.bp.110.083733. <http://www.ncbi.nlm.nih.gov/pubmed/22130746>

⁸ Pidd F, Newbigging K. *Public Health Information Report: Mental Health*. North West Public Health Observatory (Lancashire and Cumbria zone). November 2002