Rationale and design

PRiSM Psychosis Study I

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Background This paper sets out the rationale for the PRiSM Psychosis Study, and the research design used. Nine accompanying papers present the main results. The questions addressed by the PRiSM Psychosis Study are: can the gains of experimental studies which have demonstrated benefits arising from treatment by community mental health teams be translated to routine settings? If so, are the benefits diluted in ordinary clinical practice? What are the costs?

Method A prospective non-randomised controlled trial of two types of community mental health service, in two phases: case identification followed by patient interviews. For the case identification the research team conducted the complete ascertainment of all prevalent cases of psychosis in the two study catchment areas in the index year (1991–1992). From all 514 patients with psychotic disorders thus identified, 302 were randomly allocated for interview, along with a key informant clinician and a carer. Interviews were undertaken at two time points, two years apart.

Results This paper presents the socio-demographic, clinical and ethnic characteristics of the patients.

Conclusions The people with psychosis interviewed for the PRiSM Psychosis Study are representative of the whole epidemiologically based patient population identified.

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This paper sets out the rationale for the PRiSM Psychosis Study, and the research design used. The accompanying nine papers in this issue present the results of the study for the main outcome domains. This paper should, therefore, be read in close conjunction with those that follow it.

COMMUNITY MENTAL HEALTH SERVICES FOR PSYCHOSIS

The introduction of treatments for psychiatric disorders in community-orientated settings has been the dominant trend in mental health services in economically developed countries during the past 40 years (Morrissey & Goldman, 1984; Bennett & Watts, 1991; House of Commons Health Select Committee, 1994). This trend has been supported in part by the ideological views that institutions *per se* are malignant, and in part by the research evidence accruing that treatment interventions which take place outside of hospital, and more specifically in people's homes, are on balance preferable on a range of outcome indicators (Stein & Test, 1980; Fenton *et al*, 1982; Hoult, 1986; Muijen *et al*, 1992; Merson *et al*, 1992; Burns *et al*, 1993). There has been the expected counterbalancing view – that some aspects of community treatment may be ineffective (Franklin *et al*, 1987), or may produce such adverse outcomes as increased hospital admissions (Tyrer *et al*, 1995).

It is important to take research in this field to a more detailed level of specificity, and this can be done in three ways. First, it is important to distinguish between interventions at the level of the *individual* (such as cognitive–behavioural therapy for people suffering from psychotic disorders) from those at the level of *local service organisation* (for example, case management). Outcome measures need to be interpreted at

these two separate levels, and research needs to clarify whether or not and how interventions at the individual or at the service level produce effects at each level. Second, we now need to distinguish between efficacy and effectiveness. *Efficacy* means how far a specific intervention achieves its intentions under ideal, experimental conditions, such as those which are required for randomised controlled trials. *Effectiveness*, by comparison, has been defined in the Cochrane database as "the extent to which a specific intervention, when used under ordinary clinical circumstances, does what it is intended to do". It is striking that most research evidence in favour of community mental health service interventions derives from efficacy rather than effectiveness studies (Borga *et al*, 1992; Lewis *et al*, 1992; Harvey *et al*, 1996). Third, where interventions have been shown to be effective, such as assertive community treatment, we know little about what types of training can translate the interventions from research projects into routine clinical settings.

This study is the first to address the second of these issues (the effectiveness rather than the efficacy of community mental health services) for an epidemiologically representative population of people suffering from psychotic disorders. The *aim* of the PRiSM Psychosis Study is to answer three questions: can the gains of experimental studies which have demonstrated benefits arising from treatment by community mental health teams (CMHTs) be translated to routine settings? If so, are the benefits diluted in ordinary clinical practice? What are the costs?

There is an important North American tradition of large-scale evaluations of community mental health services within defined communities. Faris & Dunham (1939) mapped the occurrence of psychotic disorders throughout the commercial and residential zones of inter-war Chicago and drew conclusions about probable associations between social deprivation and psychiatric morbidity at the ecological level. The Midtown Manhattan Study (Srole *et al*, 1962) introduced the method of "socio-psychiatric epidemiology" in an area of central New York City, and was subject to a 20-year follow-up in the Midtown Manhattan Restudy which traced individual people to establish long-term outcomes. The Stirling County Study (Leighton *et al*, 1963) undertook a very detailed examination of mental health

services in a rural area of Canada and the relationships between mental illness and social structures and community disintegration. During the late 1980s the Robert Wood Johnson Study found that integration between local mental health authorities and housing authorities produces improved continuity of care at the service level, but no changes at the level of the individual user (Goldman *et al*, 1994).

Despite this tradition, there have been no UK population-based studies which have investigated how far interventions at the service organisation level affect outcomes at that level and at the level of the individual user. The main strengths of this study, therefore, are six-fold.

(a) It refers to an epidemiological base in that it aims to identify all annual period prevalence cases of psychosis.

(b) It uses no exclusion criteria, compared with most efficacy studies which exclude, for example, the most suicidal or assaultative cases, or those people with concurrent substance misuse.

(c) It applies to a routine clinical service which is designed to endure, and not to one expecially created only for the period of the research project.

(d) It offers two-year follow-up evaluation, longer than the usual one-year period for most efficacy studies, and so more clearly reflects the longer-term outcomes of people with long-term conditions.

(e) It includes a wide range of outcome measures to test whether or not and how community mental health services make and impact upon these domains.

(f) The study attempts to apply a community mental health model in relatively unfavourable inner-city conditions.

Although the Maudsley Hospital is richly endowed in terms of its research resources, the clinical sevice for the local catchment area is similar to that of the remainder of inner London where services are under chronic and severe strain (Johnson *et al*, 1997). Two indicators of the degree of tension in the mental health system are the bed occupancy rate, which is on average worse than 115%, and the fact that the majority of admissions are compulsory, more than twice the national average. This study was therefore conducted under both routine and challenging clinical conditions, and this suggests that if the results show that community mental

Table I Socio-demographic characteristics of the two sectors[1]

	Intensive (Nunhead)	Standard (Norwood)
Population	38 545	41 740
Ethnic group		
White	74.4%	76.6%
Black Caribbean	12.5%	10.4%
Black African	5.0%	4.6%
Asian	3.7%	4.7%
Unemployment	15.9%	15.4%
One parent families	8.6%	10.1%
Over 65	14.4%	13.8%
Under 5	7.1%	7.4%
Moved in past year	10.6%	10.8%
Underprivileged Area (Jarman) Score[2]	30.9	29.4
MINI score[3]	116.2	115.4

1. Office of Population Censuses and Surveys (1991) census data.
2. Jarman (1984).
3. Mental Illness Needs Index; Glover (1996).

health services produce benefits for people with psychosis in these sectors, then they can also reasonably be expected to generalise to other urban services, and to less pressurised clinical settings.

METHOD

Study design

The study is a prospective non-randomised controlled trial of two types of community mental health service. It is prospective in that individual status is measured before and after the introduction of CMHTs. It is controlled as two geographical sectors were selected in the Camberwell area of south London, which were very closely matched for their population characteristics most associated with psychiatric morbidity, details of which are given in Table 1. The study is a trial in that the CMHT interventions were introduced into each of the sectors after the baseline measures were completed, at which time the service in both sectors was largely hospital-based. The trial did not use random allocation because the intervention was at the level of the whole geographical sector, and resources did not allow the inclusion of a large enough number of sectors in other areas to provide sufficient power for a randomised allocation of sectors. The best possible study in the circumstances was the quasi-experimental design selected.

The study has two phases: case identification and patient interviews. For the case identification the research team attempted ascertainment of all prevalent cases of

psychosis in the two study catchment areas in the index year (1991–1992).

Inclusion criteria

The study only includes cases of psychosis for two reasons. First, the entire force of governmental policy in Britain, and the focus of the international research literature on community mental health care, has been targeted towards a category of people usually referred to as the 'severely mentally ill' (Schinnar *et al*, 1990; Department of Health, 1994*a,b*). Usually the majority of people included (using such criteria as disability, duration and diagnosis) under this heading have psychotic disorders, but there is no internationally accepted operational definition of severe mental illness (Goldman, 1981; Slade *et al*, 1997). We therefore decided that it is clearer and most relevant to mental health policy and clinical practice to include only people with any psychotic disorder, while accepting that a proportion, still undefined, of those most disabled by mental disorder in any particular site will suffer from non-psychotic disorders.

Case identification

For the case identification stage of the study, the initial population identified included all individuals with possible psychosis meeting the inclusion and exclusion criteria, whether or not they had ever had contact with primary care (general practitioner) or specialist mental health services for their psychiatric disorder.

Possible cases were defined as those who had a clinical diagnosis at any time in their lives of any psychotic disorder, and they were identified with the screening protocol used in the World Health Organization Determinants of Outcome Study (Sartorius *et al*, 1986). Staff report and case note material from multiple sources were used to identify possible cases. These sources included the local general adult and sub-specialist psychiatric services, primary health care practices, social services, churches, police, housing agencies and local sheltered accommodation, services for the homeless, secure psychiatric hospitals, prisons, and voluntary, private and self-help care providers concerned with people with mental illness.

Within the wider catchment area in south London served by the Maudsley and Bethlem National Health Service Trust, the two geographical sectors selected for the study were Nunhead and Norwood, which had 1991 populations of 38 545 and 41 740, respectively. The case identification exercise was therefore carried out in an attempt to ascertain completely the annual period prevalence of all psychotic disorders for the index year for the study areas.

For all possible cases, information in case notes and other available records was screened, using OPCRIT (Operational Criteria Checklist) version 3.2, a standardised procedure to generate operationalised research diagnoses (McGuffin *et al*, 1991). Any person who had a diagnostic output from the OPCRIT (or subsequent SCAN) of an affective or non-affective or other functional psychotic disorder was included as a definite case. Functional psychosis was defined to include ICD–10 (World Health Organization, 1992) codes of F20.0, F20.1, F20.3 and F22.0. Affective psychosis was defined to include the following codes: F25.0, F25.1, F30.1, F30.2, F31.1, F31.2, F31.7 and F32.3. The 'other psychoses' category includes F92 only. If there was any discrepancy between the codes allocated by OPCRIT and by SCAN, the latter was given preference as it was based upon more detailed psychopathological information.

For definite cases, a range of information was collected on socio-demographic details, past psychiatric diagnosis, contact with the mental health services, treatments, admissions, use of the Mental Health Act 1983 (MHA), physical illnesses, family history of mental illness, and past contact with the police and convictions. Further details of admissions under the MHA were collected from the MHA offices of the two main psychiatric hospitals covering the catchment area of the two sectors. If no record of contact with the mental health services under the MHA was found from any source, it was assumed that there was none. In addition, data were collected on the use of specific MHA sections in the study year.

Data on ethnic groups were collected from a variety of sources. Ethnic group was recorded from the case notes according to the classification system used in the Office of Population Censuses and Surveys (1991) National Census. Information was also collected on place and country of birth. Where this information was not available or was not clear, wherever possible this was checked with staff who knew the person. In the second stage of the study, to be reported later, a random half of all identified cases was interviewed, and for these cases their self-rated ethnic group was used to cross-check the category previously allocated by the research team.

Interview stage

From all 514 people with psychotic disorders known from the case identification stage, 302 people were randomly allocated for interview. We also interviewed, where one existed, a clinician with current knowledge of the patient, and the carer or closest relative if the patient consented to this. The study measures were chosen to use scales of proven psychometric properties wherever possible. For the individual interviews the measures used, and the main outcome variables examined in the 10 papers in this issue, were: PRiSM socio-demographic schedule (available from the author upon request), Brief Psychiatric Rating Scale score (BPRS; Overall & Gorham, 1962), Camberwell Assessment of Need (CAN – user-rating; Phelan *et al*, 1995), the Lancashire Quality of Life Profile (LQOL; Oliver, 1991), Client Service Receipt Inventory (CSRI; Knapp, 1995), Social Network Schedule (SNS; Leff *et al*, 1990), and the Verona Service Satisfaction Scale (VSSS; Ruggeri *et al*, 1993). The staff interviews used were the Global Assessment of Functioning scale (GAF; Endicott *et al*, 1976), the Camberwell Assessment of Need (CAN – staff-rating; Phelan *et al*, 1995), and the Social Behaviour Schedule (SBS; Wykes & Sturt, 1986), and are reported in Wykes *et al* (1998), paper 4 in this series. The carer scales used were General Health Questionnaire 28 (Goldberg & Williams, 1988), and the Experience of Care-Giving Inventory (ECI; Szmukler, 1998). All these measures were used at Time 1 and Time 2. In addition the Schedules for Clinical Assessment in Neuropsychiatry (SCAN; Wing *et al*, 1990) were administered at Time 1 only to supplement the OPCRIT data to establish diagnosis.

Data collection

Data were collected at two time points. At Time 1 (1992–3 for Nunhead and 1993–4 for Norwood) in-patient and out-patient services were largely provided to people at the Maudsley Hospital site. At Time 2, which was two years after Time 1 for each patient included for interview, provision had changed to include a wide range of community-oriented services, detailed by Becker *et al* (1998*a*) in paper 2 of this series. In addition, a repeat case identification exercise was conducted at Time 2 to find cases identifiable at that time which had been prevalent at Time 1 but not identified at the earlier point. To minimise bias due to non-response, a separate and detailed exercise followed-up patients selected for interview but who were not actually interviewed. This procedure is described by Johnson *et al* (1998) in paper 3 of this series.

Data analysis

Results were analysed using SPSS (Statistical Package for the Social Sciences) for Windows Version 6 and also using Stata (StataCorp, 1992) and BMDP. For the interview outcomes, two different approaches were taken: (a) separate within-sector comparisons of the Time 2 values with the Time 1 values; and (b) analysis of covariance, with Time 2 values regressed on Time 1. The within-sector comparisons were aimed at presenting summary data, rather than testing hypotheses. Change score comparisons can be made from such summaries, but Plewis (1991) has argued that the conditional approach underlying analysis of covariance is more appropriate for comparative longitudinal studies of this quasi-experimental type. Such an analysis attempts to answer the question: had the groups been similar at Time 1, what would their difference have been at Time 2? In principle this is achieved by estimating means of the outcome variables for the two sectors at Time 2, conditional on fixed values for those variables at Time 1.

The results of such an approach will be realistic only to the extent that baseline differences can be incorporated in the model. Generally speaking, the correlation between any given Time 2 outcome value and the corresponding value at Time 1 was high. The latter was thus more influential on the outcome than were initial differences in socio-demographic characteristics or other variables such as length of illness. It is thus reasonable to assume that the most important baseline differences have been included in the analysis. Nevertheless, problems of interpretation remain. First, some people had interviews at only one time point, or were not interviewed at all, and have been omitted from most of the analyses presented. Second, the presence of errors in Time 1 measurements was ignored. Given the lack of realistic estimates of error, the large number of variables, and the possiblity of inter-correlations between their respective errors, corrections allowing for the Time 1 error were not attempted. Structural models, which might have allowed for such error, were considered impractical given the desirability of a simple and transparent approach for this series, but are being undertaken for more detailed analysis of the relationships between the different outcomes.

Two types of outcome were analysed in slightly different ways. Data on adverse events such as suicide were gathered over the whole two-year follow-up period (rather than at two distinct time points, as for the interview data). For these data, logistic regression was used to model the factors associated with the occurrence of the event, including sector, and comparisons of rates were made with the general population. Analysis of the cost data has concentrated on separate comparisons at Time 1 and at Time 2, and within-sector comparisons of the Time 1 and Time 2 data, using non-parametric tests. Further modelling of the cost data is being undertaken but is not presented in this series.

Some other factors are relevant to interpreting the results: the initial differences in the services and the changes in the standard service over the study period, as described by Becker et al (1998a, paper 2 in this series), and changes in the service status of individuals due to changes of residence. It has been assumed that the effects on individuals of any pre-existing difference has been incorporated in the Time 1 data. Changes in the standard type and

Table 2 Socio-demographic characteristics of people included in the study

Social characteristics	Sector		Total
	Nunhead	Norwood	
Gender, n (%)			
Male	142 (51)	111 (47)	253 (49)
Female	136 (49)	125 (53)	261 (51)
Age (n=514)			
Mean	41.5	42.7	42.0
(95% CI)	(39.6–43.3)	(40.6–44.9)	(40.6–43.4)
Age at first contact (n=491)			
Mean	25.4	27.9	26.5
(95% CI)	(24.0–26.9)	(26.1–29.7)	(25.4–27.7)
Marital status, n (%)			
Married	65 (23)	58 (25)	123 (24)
Single/widowed/divorced	200 (72)	172 (73)	372 (72)
Not known	13 (5)	6 (2)	19 (4)
Ethnic group, n (%)			
White	172 (62)	144 (61)	316 (62)
Black Caribbean	73 (26)	62 (26)	135 (26)
Black African	18 (7)	12 (5)	30 (6)
Other	11 (4)	13 (5)	24 (5)
Not known	4 (1)	5 (2)	9 (2)
Accommodation, n (%)			
Unsupported accommodation	169 (61)	205 (87)	374 (73)
Supported accommodation	47 (17)	26 (11)	73 (14)
Not known	62 (22)	5 (2)	67 (13)
Living with others, n (%)			
Lives alone	79 (28)	106 (45)	185 (36)
Lives with others	163 (59)	115 (49)	278 (54)
Not known	36 (13)	15 (6)	51 (10)
Employment, n (%)			
In paid employment	34 (12)	48 (20)	82 (16)
Not in paid employment	170 (61)	164 (70)	334 (65)
Not known	74 (27)	24 (10)	88 (19)

individuals moving from one sector to another (or to another sector altogether) during the study period will have the effect of diluting the apparent effects of the service differences.

Sensitivity analyses and diagnostic checks were performed on the analyses of the main outcomes. Unbalanced repeated measures analyses on all the available data were used to expand on the results of paired t-tests based on complete pairs. Analysis of covariance was refitted with an alternative method for dealing with missing data (using correlations based on whatever pairs of variables were available rather than omitting cases without complete data for all variables). The assumption of parallel lines was checked by testing the sector × Time 1

value interaction for statistical significance. Where data appeared to be non-normal, residual plots were viewed and, where appropriate, transformed data were analysed. In general, the results of the analysis of parallel-lines analysis of covariance based on untransformed data are presented, unless these further analyses suggested any conflicting conclusions.

RESULTS

The 10 papers in this series present the main findings for effects of the community mental health services (described in paper 2 by Becker et al, 1998a) on each of the outcome domains measured. Paper 3

Table 3 Clinical characteristics of people in the sample

Social characteristics	Sector		Total (n=514)
	Nunhead (n=278)	Norwood (n=236)	
Total number of admissions (n=449)			
Mean	4.55	4.52	4.54
(95% CI)	(4.30–5.08)	(3.65–5.38)	(4.05–5.03)
Admissions per year (n=438)			
Mean	0.43	0.50	0.46
(95% CI)	(0.38–0.48)	(0.42–0.59)	(0.42–0.51)
Mean length of service contact in years			
Mean	16.2	14.4	15.4
(95% CI)	(14.6–17.7)	(12.7–16.0)	(14.3–16.5)
Mental Health Act, n (%)			
Ever sectioned	148 (53)	119 (50)	267 (52)
Never sectioned	84 (30)	74 (31)	425 (83)
Not known	46 (17)	43 (18)	89 (17)
Criminal charges, n (%)			
Ever convicted	75 (27)	48 (20)	123 (24)
Never convicted	181 (65)	176 (75)	357 (70)
Not known	22 (8)	12 (5)	34 (7)
Imprisonment, n (%)			
Ever imprisoned	51 (18)	31 (14)	83 (16)
Never imprisoned	205 (73)	196 (83)	407 (78)
Not known	22 (8)	8 (3)	30 (6)
ICD–10 diagnosis, n (%)			
Non-affective functional psychosis	223 (80)	181 (77)	404 (79)
Affective functional psychosis	43 (15)	40 (17)	83 (16)
Other psychotic disorder	12 (4)	15 (6)	27 (5)
Global Assessment of Functioning Scale			
Mean	56.0	60.0	57.8
(95% CI)	(53.7–58.4)	(58.0–62.0)	(56.3–59.4)
Total (% of whole sample)	278 (54)	236 (46)	514 (100)
Population of sector (15–85)	32 172	34 479	66 651
Annual period prevalence rate			
Per 1000	8.6	6.8	7.7
(95% CI)	(7.6–9.7)	(6.0–7.7)	(7.1–8.4)

1991 census, adjusted for non-response (Office of Population Censuses and Surveys, 1991).

(Johnson et al, 1998) details the main types of adverse outcome as we decided that it is important explicitly to address the less as well as the more favourable possible outcomes of community care. Paper 4 (Wykes et al, 1998) reports the effects of the service interventions for individual disability levels. Paper 5 (McCrone et al, 1998) details the costs of the two sector services at the two time points. Paper 6 (Szmukler et al, 1998) shows the effects of these service changes for the carers involved. Paper 7 (Becker et al, 1998b) describes service effects upon people's social networks. Paper 8 (Leese et al, 1998) summarises changes in people's satisfaction and in met and unmet needs over time. Paper 9 (Taylor et al, 1998) shows how the interventions affected people's quality of life. Paper 10 (Thornicroft et al, 1998) interprets the findings of the study as a whole, and includes a summary table of the main outcomes.

Study sample

Table 2 shows the socio-demographic characteristics of the 514 people included in the study by sector. For the whole group there is an equal split between men and women, few are married, about one-third is Black Caribbean or Black African, and three-quarters live in unsupported accommodation; paid employment is unusual.

Table 3 describes the clinical characteristics of the sample. People had on average over four lifetime admissions at a rate of half an admission per year, and over half had been admitted compulsorily at some time (King et al, 1994; Davies et al, 1996). The overall annual period prevalence rate in both sectors for all psychotic disorders is 0.77%, consistent with previous findings, including those of the Office of Population Censuses and Surveys National Psychiatric Morbidity Survey (Wilkinson et al, 1985; Meltzer et al, 1995) that such rates in England vary between 0.2% and 0.9%, and with comparable North American studies (Blazer et al, 1985; Von Korf et al, 1985; Torrey, 1987; Regier et al, 1988; Robins et al, 1991).

Completion and follow-up rate

Of the 514 people included in the study, 302 met the inclusion criteria for interview. As some people completed some but not all assessments at each time point, largely because of premature termination of the interview, three measures were chosen a priori which together constitute the 'core interview', namely CSRI, VSSS and LQOLP. The numbers (and percentages) completing the measures at Time 1, Time 2 and at both time points, respectively, for each of the core measures are: CSRI: 203 (67%), 169 (56%) and 146 (45%); VSSS: 194 (64%), 154 (51%) and 131 (43%); QOL: 197 (65%), 158 (52%) and 138 (46%). Of the people for whom baseline assessments were complete but follow-up incomplete, 12 were known to have moved house away from Nunhead, and 10 away from Norwood. A far greater number were untraceable, after up to six attempts to contact them directly. We therefore designed a brief telephone and postal questionnaire for people otherwise 'lost to follow-up' which we used for enquiries to general practitioners or services at remote sites if the people could be traced but refused interview, to clarify the overall status of each person in terms of whereabouts and mental condition.

Deaths of individuals were established by contact with the National Health Service Central Register which provided date and cause of death for any fatalities of people

Table 4 Characteristics of responders and non-responders

Characteristic	Selected for interview (n=302)		
	Reponders (n=152)	Non-responders (n=150)	P (responders v. non-responders)
Age, mean	41.1	44.9	0.05
(95% CI)	(38.7–43.6)	(42.0–47.8)	
Number of years contact, mean	16.1	15.6	0.76
(95%, CI) (n=288)	(14.0–18.1)	(13.4–17.8)	
Lifetime no. of admissions, mean	5.1	4.2	0.27
(95% CI) (n=255)	(3.7–6.4)	(3.5–5.0)	
Sector, n (%)			
Nunhead	73 (53)	64 (47)	0.35
Norwood	79 (48)	86 (52)	
Gender, n (%)			
Men	77 (54)	66 (46)	0.25
Women	75 (47)	84 (53)	
Marital status, n (%) (n=296)			
Single	121 (52)	110 (48)	0.50
Married or cohabiting	31 (48)	34 (52)	
Ethnic group, n (%) (n=288)			
White	96 (50)	97 (50)	0.66
Black Caribbean	42 (57)	32 (43)	
Black African	8 (47)	9 (53)	
Other	6 (43)	8 (57)	
Accommodation, n (%) (n=275)			
Supported	123 (54)	106 (46)	0.65
Unsupported	23 (50)	23 (50)	

Total sample size is given where less than maximum.

Table 5 Ethnic group of the sample and of the whole catchment area

	Patients	Catchment area (unadjusted)	Catchment area (adjusted)
Population size	514	80 280	85 218
White	60.7%	75.6%	75.4%
Black Caribbean	23.4%	11.4%	11.4%
Black African	5.6%	4.3%	4.4%

Adjustment inflation factors derived from Office of Population Censuses and Surveys (1991): White=1.06, Black Caribbean=1.06, Black African=1.08.

included within the study. Table 4 shows comparisons among those selected for interview between responders and non-responders. The overal picture is that the two groups are very similar, with the only significant difference being that non-responders were slightly older, contrary to what we have expected. People whose ethnic group was Black Caribbean or Black African were over-represented compared with the proportion in these groups in the whole popluation (see Table 5), as has been described previously by Harrison *et al* (1988). Population data are shown before and after the application of standard adjustment factors produced by the Office of Population Censuses and Surveys (now the Office of National Statistics) for estimated census under-enumeration.

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CLINICAL IMPLICATIONS

■ Population-based prevalence estimates provide a basis for service planning.

■ Controlled trials of effectiveness in routine settings are necessary following experimental studies of efficacy.

■ The sample studied is reasonably representative.

LIMITATIONS

■ The study implications should not be generalised beyond urban areas.

■ High social mobility limits long-term follow-up.

■ Relatively high rates of people with psychosis were not registered with a general practitioner.

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