Housing & Health Uncovered

Shepherds Bush Housing Association Ruth Barnes: August 2003



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Published by

Shepherds Bush Housing Association 1 Essex Place Square London W4 5UJ

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A B C D E

ACKNOWLEDGEMENTS

Thanks are due to the many organisations and individuals who have contributed to this work:

- Paul Doe, Chief Executive, Shepherds Bush Housing Association for instigating the work, chairing the Steering Group and providing support and encouragement throughout.
- Our funders the Housing Corporation, the London Borough of Hammersmith and Fulham, Regenasis and Shepherds Bush Housing Association.
- Members of the Steering Group at various stages of the work for their valuable time and helpful contributions, with particular thanks to those who were involved from the start and have kindly continued their support throughout the life of the study.

•	Melanie Aust	formerly Chief Executive, Hammersmith and Fulham Regeneration Partnership (now Regenasis)
•	Ros Barnes	Head of Strategy and Resources, London
•	Kristine Coan	Borough of Hammersmith and Fulham Health Strategy Development Officer, London Borough of Hammersmith and Fulham
•	Anthea Cooke	formerly Health Strategy Development Officer, London Borough of Hammersmith and Fulham
•	Gordana Djuric	formerly Consultant in Public Health Medicine, Ealing, Hammersmith and Hounslow Health Authority
•	Stuart Holton	formerly Head of Housing, London Borough of Hammersmith and Fulham
•	John Keen	Medical Adviser to London Borough of Hammersmith and Fulham and London Borough of Ealing Housing Departments
•	David Lawrence	Public Health Specialist, Brent and Harrow Health Authority
•	Kim Noel	Regenasis
•	Martin Perrigo	Environmental Housing, London Borough of Hammersmith and Fulham
•	Maggie Rafalowicz	formerly Area Manager, the Housing Corporation (London)
•	Pam Sedgwick	Area Manager, the Housing Corporation
•	Tim Sullivan	Lead Regulator, the Housing Corporation

- Paul Wilkinson, Senior Lecturer, Environmental Epidemiology Unit, London School of Hygiene and Tropical Medicine, for his input to the Steering Group and considerable work on the additional analyses of our data.
- The survey administrators and interviewers employed through Ways Into Work:
 - Brian Benjamin
 - Andrew Frederick
 - Lara Logan
 - Georgios Sidiropoulos
 - Jenny Warne

- Other Shepherds Bush Housing Association staff who have been involved in the interviews and administration of the survey work:
 - Rosemary Adaser
 - Lesley Angus
 - Joseph Brimpong
 - Lola Fatukasi
 - Hazel Flynn
 - John Hyland
 - Scott Kay
 - Carmella Obinyan
 - Judah Okoro
 - Kate Redmond
 - Jackie Rowe
 - Diane Sonuga
 - Nigel Thornton
- William Gattie, SBHA tenant and chair of the Housing Operations sub-committee for kindly attending the interview training sessions and undertaking some of the interviews on a voluntary basis.
- John Hunt, Principal Supported Housing Officer at SBHA, for his help with arranging the supported housing survey and for his contribution to section on supported housing.
- Penny James, PA to the Chief Executive at SBHA for her help and support with practical issues throughout the course of the work.
- Ways Into Work, for helping identify local people for training and employment as interviewers and survey administrators.
- All our tenants who kindly agreed to be interviewed as part of the survey.

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Alternatively, they can be viewed on our website.

SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS

Introduction

- 1. The place where we live is perhaps one of the most important influences on our health and well being and there is a large body of evidence which demonstrates a clear association between housing and physical health status, most notably in relation to respiratory disease and accidents in the home.
- 2. This report presents the findings of a study which seeks to add to this evidence base but which goes beyond a medical model of health by exploring some of the effects of housing on a wide range of social and environmental factors which determine health, well-being and quality of life.
- 3. Shepherds Bush Housing Association (SBHA) is a large housing association operating principally in the boroughs of Hammersmith and Fulham, Ealing and Hounslow in west London. One of its long term aims is to realign all its policies and practices so that they have a positive impact on tenants' health and contribute towards reducing health inequalities amongst disadvantaged groups in west London. This thinking runs parallel with recent developments in public policy nationally where it is now accepted that housing and other social and environmental factors are major determinants of health and that, in order to reduce inequalities and social exclusion, these issues must be addressed.
- 4. The start of a 12 year reinvestment and refurbishment programme in 1997, together with a long-term policy of building new homes, provided an opportunity for SBHA to make an explicit link between housing and health and to start to build an evidence base of health impacts on which policies can be based to ensure the effective targeting of resources.
- 5. The objectives of the study were
 - to investigate the impact of refurbished, new and reallocated housing on health and well-being, how other influences on health interact with housing and whether proven health savings can be produced as a result of providing refurbished, new or reallocated housing;
 - to establish which components of housing most affect health and, as a result, how resources can best be targeted to improve tenants' health;
 - to develop exemplars of good practice for housing associations, in partnership with other agencies, to improve their tenants' health and to assess the effect this will have on housing association, local authority and other budgets; and
 - to examine ways in which best practice can be developed to use improvements in housing and health to improve tenant involvement and the quality of housing management.

Methodology

- 6. A major part of the work comprised a questionnaire survey to collect data on tenants' self-perceived health status and their views on how their housing affects their health, well-being and quality of life. The survey was in two parts. The first was a detailed questionnaire including questions on
 - housing;
 - the local environment;
 - crime and fear of crime;
 - neighbours;
 - other influences on health;
 - health and well-being, including health service uptake;
 - lifestyles; and
 - the future.
- 7. The second part was a separate, shorter questionnaire on self perceived health status.
- 8. Two groups of tenants were surveyed:

those whose homes were being renovated or who were being reallocated to new housing ("reinvestment and reallocation tenants"); and

those whose housing situation was unlikely to change within the period of the study ("baseline tenants").

- 9. In total, 284 tenants were involved and 799 interviews were completed.
- 10. For the first group refurbishment and reallocation tenants the questionnaires were completed after the decision was taken to refurbish their home or to allocate new housing to them, again after the change had taken place and subsequently at intervals, usually of around six months. The second group baseline tenants were also followed up on a regular basis. The baseline tenants were drawn from the list of properties due to come into the refurbishment programme in several years time so that there was little prospect of their homes being improved during the course of the survey.
- 11. The study is thus unique in that it
 - explores the influence of housing and related factors on health before and after housing refurbishments have taken place;
 - follows up the tenants over a period of time;
 - has a "control" group for comparative purposes; and
 - includes relatively large numbers.

- 12. As well as the main survey, two smaller surveys were undertaken opportunistically using the same questionnaire format. These were of
 - tenants who had central heating installed (but no other refurbishments);
 and
 - supported housing tenants in the three developments owned and managed by SBHA for vulnerable older people.
- 13. Two other additional analyses were also made:
 - a review of housing issues specific to black and minority ethnic populations;
 and
 - an exploration of requests for medical transfer.
- 14. The emerging findings of the work were reviewed regularly by the Steering Group established to oversee the work and, once the full findings were available, the Group met to consider their implications for housing policy and planning. At the same time the findings were circulated to relevant staff within SBHA, who also contributed to the recommendations.

Findings

General needs homes

15. The baseline tenants constituted a similar population in socio-economic terms as the reinvestment and reallocation tenants but were slightly different in terms of age and sex. They tended to be older and were split evenly between men and women whilst the reinvestment and reallocation tenants included more women

Health status

- 16. This age differential may go some way to explaining the difference in health status between the two groups at the start of the study, with the "control" group having a lower level of self-perceived health status (53.0% saying that their health was excellent, very good or good compared with 62.5% of the reinvestment and reallocation tenants) and more people in need of aids and adaptations in their homes.
- 17. Following the housing improvements, there was a very clear improvement in self-perceived health status amongst the reinvestment and reallocation tenants, with almost 70% saying that their health was excellent, very good or good. This trend was sustained and continuing in those who had been allocated to new homes.
- 18. In addition, immediately following housing improvement, fewer reinvestment and reallocation tenants reported current health problems and problems with mobility, undertaking their usual activities and pain and discomfort. There was also a decline in levels of anxiety and depression.

19. Possibly linked to these changes, there was a reduction in health service usage after housing improvements but, again, this was not sustained over time.

Disability

- 20. Around 20% of all SBHA tenants are known to have some form of disability although a much higher proportion of those surveyed (32.4%) said at some point that they had or needed special aids or adaptations in their home because of their own health or the health of another family member.
- 21. Almost four out of five (77.8%) of reinvestment and reallocation tenants who said that they were in need of aids and adaptations had their needs met and in most cases this happened between the first interview (prior to housing change) and the first follow up interview immediately afterwards. For baseline tenants, although almost three quarters (70.8%) had their needs met, this often took some time.

Satisfaction with housing

22. There were high levels of satisfaction in both groups but, whilst the proportion of baseline tenants who were satisfied remains steady over time there is, perhaps not surprisingly, a clear shift towards higher levels of satisfaction amongst the reinvestment and reallocation tenants once their homes have been refurbished or they have moved into a new home. At the second and third follow-up interviews, over 80% of tenants were very or fairly satisfied with their improved housing and this trend was sustained over time.

Other influences on health

- 23. In general, the trend seen with housing satisfaction holds true for other factors such as satisfaction with the general area, feelings of safety both inside and outside the home, the perceived friendliness of neighbours and feelings of belonging to the community
- 24. Both groups of tenants also show rising awareness of the influence of wider health determinants on their health throughout the study.
- 25. Amongst the reinvestment and reallocation tenants, there were high levels of optimism for the future before their housing was improved but this levelled off in subsequent follow ups.
- 26. These patterns suggest that improving housing leads to a marked improvement in self-perceived health status, well-being and quality of life and that, for some but not all factors, this improvement continues over time.
- 27. A summary of all the statistically significant findings is shown in the following table.

Statistically significant findings

Aids and adaptations

- A sustained reduction over time in the number of reinvestment and reallocation tenants who need adaptations but do not currently have them (p = 0.029)
- A higher number of baseline tenants (at the first follow up) who have aids and adaptations (p = 0.028)
- A higher number of baseline tenants (at the first follow up) who need adaptations but do not currently have them (p = 0.004)

Satisfaction with housing

- A significantly higher number of reinvestment and reallocation tenants were satisfied than were dissatisfied at every interview (p = 0.000)
- A significant increase in the number of reinvestment and reallocation tenants who were satisfied immediately following improvements to their housing (p = 0.001)
- A sustained and continuing improvement in satisfaction levels amongst reinvestment and reallocation tenants over time (p = 0.000)

Awareness of the local area as a health determinant

• A sustained increase over time the number of reinvestment and reallocation tenants who feel that the area in which they live has an influence of their health (p = 0.008)

Crime and the fear of crime

- A significantly higher number of reinvestment and reallocation tenants felt safe inside their homes than felt unsafe at every interview (p = 0.037)
- A sustained and continuing improvement in feelings of safety inside the home amongst reallocation tenants (p = 0.030)
- A significantly higher number of reinvestment and reallocation tenants felt safe in the area outside their homes than felt unsafe at every interview (p = 0.034)

Awareness of crime as a health determinant

- A significantly higher number of reallocation tenants felt that crime affected their health at every interview (p = 0.025)
- Compared with baseline tenants a significantly higher proportion of reinvestment and reallocation tenants felt that crime was an influence on their health immediately following improvements to their housing (p = 0.014)

Neighbours and the local community

- A significantly higher number of reallocation tenants felt that their neighbours were friendly than did not at every interview (p = 0.021)
- A significantly higher number of reallocation tenants felt that they belonged to the local community than did not at every interview (p = 0.039)

Self perceived health status

Statistically significant findings

- A significantly higher number of reinvestment and reallocation tenants said that their health was better now than a year ago at every interview (p = 0.029)
- A sustained and continuing improvement in health status now compared with a year ago amongst reallocation tenants (p = 0.048)
- Compared with baseline tenants, significantly more reinvestment and reallocations tenants saying that their health was better than a year ago at the fist follow up (p = 0.001)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having current health problems at the fist follow up (p = 0.003)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having problems with mobility at the fist follow up (p = 0.001)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having problems performing their usual activities at the fist follow up (p = 0.007)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having pain and discomfort at the fist follow up (p = 0.005)

Optimism for the future

Statistically significant findings

- A significantly higher number of reinvestment and reallocation tenants were optimistic about the future than were not at every interview (p = 0.000)
- A significant decrease in the number of reinvestment and reallocation tenants who were optimistic immediately following improvements to their housing (p = 0.024)
- A sustained and continuing decrease in levels of optimism amongst reinvestment and reallocation tenants over time (p = 0.014)

Note on interpretation of p values:

Generally speaking, where the probability value (p) is more than 0.05, it is possible that any difference may be due to random variation or chance, whilst where the p value is less than 0.05, it is probable that any difference is a real one and it is unlikely to be due to chance.

Central heating

- 28. The central heating survey showed a marked increase in satisfaction with housing after central heating had been installed and a concomitant rise in the extent to which tenants felt that their housing has an influence on health.
- 29. Satisfaction with the general area also increased after central heating had been installed, as did the belief that the area has an influence on health. Feelings of safety inside the home were also enhanced but the same effect was not observed in terms of how safe tenants felt in the area outside their homes. However, more tenants felt that their neighbours were friendly after the installation of central heating and there was a greater feeling of belonging to the community.
- 30. Self-perceived health status improved in general after the installation of central heating, although for a small number of tenants the opposite was the case and there does not appear to be any overall improvement in health now as compared to one year ago. However, fewer tenants said, at the first follow up interview, that their health interfered with their normal daily activities. Despite this, a larger proportion had visited their GP within the past month than had done so at the time of the first interview.

Supported housing

- 31. The supported housing survey found that there was a high level of satisfaction with the supported housing accommodation and with the general areas in which it is situated.
- 32. Most of the supported housing tenants who were interviewed felt safe inside their homes and some, but not all, felt safe in the area outside. All those who were interviewed felt that their neighbours were friendly and there was a strong sense of community although a small but significant number of people did not feel part of that community.
- 33. There was some awareness of the influence on health of housing, the local environment, crime and the fear of crime and social networks but this was not particularly strong.
- 34. As might be expected in a largely elderly population, health status was generally not good although in the tenants who were interviewed it appeared to be improving over time. However, this may be a function of when the interviews were carried out. By and large, the first round of interviews was done in mid winter, the second in spring and the third in late summer or early autumn.
- 35. Around half of those interviewed had longstanding health problems such as problems with mobility, pain and discomfort which affected their daily lives. Despite this, most tenants were independent and few needed help with their self care. Around a third had aids and adaptations in their homes and a quarter said that they needed aids and adaptations but did not currently have them. Around one in three tenants expressed some level of anxiety or depression.

36. In keeping with the generally poor level of health amongst tenants, the use of health services was high but appeared to be decreasing over time. Again, this might be partly due to the seasonal factor noted above and partly due to the increase in provision of health care services within the supported housing schemes.

Ethnicity

- 37. Compared with the wider population, all ethnic minority groups were over-represented in our survey population (and probably in our tenant population as a whole) but there did not appear to be any great variation in household structure between the groups. The only striking features were the high proportion of Irish people living alone (which is in keeping with what is known about the older age structure of the Irish population in Hammersmith and Fulham) and the absence of single people living alone amongst the Asian tenants.
- 38. These analyses were based on relatively small numbers and the number of our survey tenants falling into each ethnic grouping were too small to allow a detailed analysis of responses to the questionnaire by ethnicity. However, a review of the health-related data from our survey population's tenant details forms proved useful in elucidating some of the issues relating to housing allocation not only for black and other minority ethnic groups but for all our tenants.

Disability

- 39. Disability rates amongst our survey tenants did vary by ethnic group but these findings cannot be interpreted with any degree of certainty, again because of the small numbers involved at this level of analysis. What the figures do illustrate, however, is that SBHA is currently providing housing for people of all ages and ethnic backgrounds who have disabilities.
- 40. The analysis of the survey tenants overall gave some indication of the extent to which the needs of these tenants were being met and the tenant details provided more information. Before any housing improvements took place, almost 70% of tenants with a disability were living in houses or ground floor flats whilst the remainder were in flats on higher storeys without a lift, although these tended to be people with disabilities other than problems of mobility. As the survey progressed, the number of reinvestment and reallocation tenants with disabilities but still needing aids and adaptations reduced dramatically although it is known that there remains a small number of baseline tenants with a need for aids and adaptations which they do not currently have.

Housing allocation

41. Meeting the needs of all tenants, regardless of ethnicity or disability status, in terms of the size of property also emerged as an important issue from the analysis of tenant details. The vast majority of our properties are flats with either one or two bedrooms yet almost half of our tenants (45.9%) are families with one or more children. Over one in twelve families (8.0%) are in homes with

fewer bedrooms than they need whilst almost one in twenty five (4.1%) are occupying properties which are too large for their needs.

Requests for transfer

- 42. At the end of February 2000 there were 497 tenants who had applied for transfer to another property. The majority had applied within the last 3 years but some had been on the list for much longer.
- 43. Most tenants had been allocated points (on which priorities are set) for multiple criteria but by far the most common reason for having applied for a transfer was space, where additional bedrooms were needed (60.8% of all tenants), and this was often accompanied by other reasons, particularly sex separation for children (18.5%). The second most common reason for requesting a transfer was on medical grounds, with over half of those on the list (52.9%) having been allocated points for a medical transfer. In addition, there were 35 tenants (7% of all those on the transfer list) who wanted to move to a smaller property.
- 44. Of the 263 tenants who had applied for transfer partly or wholly on medical grounds, almost half were classified as "moderate" (46.8%), a quarter as "severe" (25.1%) and just over a quarter as "urgent" (28.1%). In around a third of all cases, medical grounds were the sole reason for requesting a transfer but in the majority of cases other reasons were also cited.
- 45. Where there were multiple reasons for the request for transfer, a lack of bedrooms was, again, the most common other reason. An analysis of individual cases over time shows that it is common for a request for transfer to be made initially on the grounds of a lack of space with medical factors coming into play over time. There is also some evidence that, in a small number of cases, there is a reclassification from "moderate" to "severe" or from "severe" to "urgent" medical grounds.

Implications of the findings and recommendations emerging

46. The implications of our findings and the recommendations emerging from them are discussed in detail in the report. The recommendations are also summarised in the table which follows together with an indication of where responsibility for implementing them might lie. Some of the responsibilities are specific to SBHA and local partners but there are other issues which other registered social landlords might wish to consider as well as issues which might have an input to Housing Corporation policy. These have been indicated in the table where appropriate.

Summary of recommendations

No.	Recommendation	Responsibility
1	Wide dissemination of the report and its findings	SBHA
ı	wide disserning the report and its initialitys	Housing Corporation
2	Assignment of priority to central heating, sound insulation	SBHA
_	and security measures in housing refurbishment	Other RSLs
	and occarry modes on modes in great and in the second	Housing Corporation – policy
3	Review of level of flexibility for planning refurbishment on	SBHA
	the basis of levels of need	Other RSLs
		Housing Corporation - policy
4	Provision of clear information for tenants on the criteria used	SBHA
	for prioritisation within the reinvestment programme and management of expectations	Other RSLs
5	Review of local authority referral criteria for reallocation	SBHA
		Local authorities
6	Exploring ways of reducing social isolation for tenants	SBHA
	moving to new areas	Other RSLs
7	Review of data completeness	SBHA
		Other RSLs
		Housing Corporation – policy
8	Development of programmes in the context of the wider	SBHA
	environment	Other RSLs
		Partner organisations
9	Consideration of ways in which early health benefits can be	SBHA
	sustained over time	Other RSLs
10	Assessment of needs for aids and adaptations in	SBHA
	reinvestment and reallocation programmes	Other RSLs
4.4	Decision of control in which we add for side and adoutations are	Housing Corporation – policy
11	Review of ways in which needs for aids and adaptations are identified and met	SBHA Other RSLs
	identified and met	Housing Corporation – policy
12	Review of findings to date and development of action plan	SBHA supported housing team
12	as appropriate	SBITA supported flousing team
13	Consideration of extending the survey in supported housing	SBHA supported housing team
14	Review of needs for aids and adaptations within supported	SBHA supported housing team
17	housing flats	OBTIA supported flousing team
15	Detailed review of requests for medical transfer and	SBHA
	exploration of alternative solutions	Other RSLs
		Housing Corporation – policy
16	Review of arrangements for property exchange where	SBHA
	homes are too big / too small	Other RSLs
		Housing Corporation – policy
17	Ongoing awareness raising of health issues amongst RSL	SBHA
	staff	Other RSLs
		Housing Corporation – policy
18	Arrangement of exchange training / visits with health and	SBHA
	social care services	Other RSLs
		Health and social care
		Housing Corporation – policy
19	Exploration of areas where joint funding could be beneficial	SBHA
		Other RSLs
		Housing Corporation – policy
20	Ongoing awareness raising of health issues by provision of	SBHA
	health related information to tenants through the regular	Other RSLs Housing
	newsletter	Corporation – policy

No.	Recommendation	Responsibility
21	Consideration of development of a directory of services / contacts for tenants bringing together information from all	SBHA Other RSLs
	relevant local organisations	Housing Corporation – policy
22	Use of the questionnaire survey for ongoing monitoring and	LA housing departments
	evaluation of housing programmes	Other RSLs
22	Lies of booth and other survey, work to exact a local training	Housing Corporation – policy SBHA
23	Use of health and other survey work to create local training and employment opportunities	Partner organisations
	ана етпрюутнени оррогичниез 	Other RSLs
		Housing Corporation – policy

INTRODUCTION

Setting the scene: housing as a determinant of health

It is now widely recognised that the health of individuals and communities is determined by a wide range of economic, social and environmental influences as well as by heredity and health care. This is acknowledged at the highest level in the government's goal of reducing inequalities and working towards a more socially cohesive society and its emphasis on the need for partnerships to address these issues¹.

The factors which influence health status and determine health differentials are many and varied, as illustrated in Figure 1. They include

natural, biological factors, such as age, gender and ethnicity;

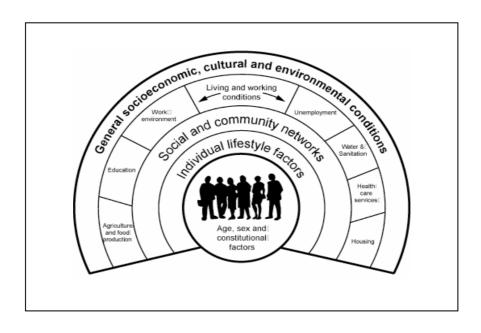
behaviour and lifestyles, such as smoking, alcohol consumption, diet and physical exercise;

the physical environment and social environment, including housing quality, the workplace and the wider urban and rural environment; and

access to health care².

Figure 1

A social model of health³

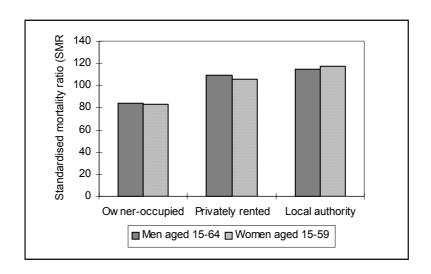


Of these, the place where we live has perhaps one of the most important influences on our health and well-being. We all need not just a roof over our head but a home which is warm and dry, safe and free from infestation. This is one of the prerequisites for health set out by the World Health Organisation⁴. The health manifestations of homelessness, poor quality housing and the wider urban environment were set out in a comprehensive review by the Health of Londoners Project⁵ and some earlier work illustrates this link at its most extreme.

As shown in Figure 2, housing tenure can be directly related to mortality and, although the association is obviously not causal, it is clearly indicative of the link between health and housing, combined with a range of other socio-economic variables constituting the determinants of health status.

Figure 2

Mortality by housing tenure, 1971-81⁶



The findings of other more recent work, at a local level, which provide evidence of a tangible effect of housing action on health and health services, may be even more compelling:

- Improvements made to a housing estate in Hackney resulted in residents making 30% fewer visits to GPs and over 20% fewer attendances at hospital out-patient departments⁷.
- Royal Institute of Chartered Surveyors research in 1997 compared the health of residents on three estates - one of which was refurbished - and showed that tenants of unimproved estates were 7 times more likely to become ill, resulting in an increased cost to the NHS of £443 per household per year⁸.

Again, although a causal association cannot be proved, this work clearly demonstrates that housing policy can be directly linked to financial benefits - in this case, a saving to the NHS - which provide a real lever for partnership working and the breaking down of professional, organisational and budgetary barriers between the health and housing sectors. Such findings also provide a spur for further work to inform housing policy by exploring the mechanisms by which housing interacts with health, determining which components of housing improvement have most impact and identifying the most cost effective and beneficial strategies.

It was against this background that Shepherds Bush Housing Association, in late 1998, successfully applied for funding from the Housing Corporation's Innovation and Good Practice Grant to investigate in more detail the links between health and housing.

The study is particularly innovative as it explores the influence of housing and related factors on health *before* and *after* housing refurbishments have taken place and follows up the tenants over a period of time. It also has a "control" group for comparative purposes and, unlike many other studies of health and housing issues, includes relatively large numbers so that the findings can be interpreted and acted upon with some confidence.

Shepherds Bush Housing Association

Shepherds Bush Housing Association (SBHA) is a large housing association operating principally in the boroughs of Hammersmith and Fulham, Ealing and Hounslow in west London. It has c. 2,900 general needs homes, 300 supported housing flats, 400 privately leased homes and a further 600 shared ownership homes managed by Bush Housing Association. In addition, it incorporates "Staying Put Services", a charitable organisation providing a small repairs, maintenance and decorating service and independent advice to residents of Kensington, Chelsea and Westminster.

Each year, SBHA rehouses around 20 tenants for social and medical reasons and reallocates new properties to about 100 people, many of whom are referred by the local authority and include homeless people and refugees. In 1997 SBHA started a 12 year reinvestment and refurbishment programme affecting 1,200 properties and over 3,000 tenants.

One of the long-term aims of SBHA is to realign all its policies and practices so that they have a positive impact on tenants' health and contribute towards reducing health inequalities amongst disadvantaged groups in west London. This thinking runs parallel with recent developments in public policy nationally where, as noted above, it is now accepted that housing and other social and environmental factors are major determinants of health and that, in order to reduce inequalities and social exclusion, these issues must be addressed.

The start of the refurbishment programme provided an opportunity for making the link between housing and health and for starting to build an evidence base of health impacts on which policies can be based to ensure the effective targeting of resources.

Objectives

The objectives of the work were

- to investigate the impact of refurbished, new and reallocated housing on health and well being, how other influences on health interact with housing and whether proven health savings can be produced as a result of providing refurbished, new or reallocated housing;
- to establish which components of housing most affect health and, as a result, how resources can best be targeted to improve tenants' health;
- to develop exemplars of good practice for housing associations, in partnership with other agencies, to improve their tenants' health and to assess the effect this will have on housing association, local authority and other budgets; and
- to examine ways in which best practice can be developed to use improvements in housing and health to improve tenant involvement and the quality of housing management.

METHODOLOGY

First steps

The project began in April 1999. It was managed by a public health specialist seconded from the then NHS Executive and the overall direction and progress of the work was overseen by a steering group. So that it could contribute to the funding bid and design of the study, the Steering Group was established at an early stage and was comprised of representatives from SBHA, Ealing, Hammersmith and Hounslow Health Authority, the London Borough of Hammersmith and Fulham, the Housing Corporation and local general practice.

At the same time, a literature review was compiled of the published evidence about the links between health and housing. Some of the findings from the literature review have been incorporated into the discussion of our findings and their implications and a copy of the full review is also available separately.

Questionnaire design

A major part of the work comprised a questionnaire survey to collect data on tenants' self-perceived health status and their views on how their housing affects their health. The questionnaire used, where possible, questions which had already been tried and tested elsewhere. This meant that piloting could be done relatively quickly and that some of the data emerging from our study could be compared with data from elsewhere. This was thought to be particularly important for the questions on health status, which drew on widely used questions from the SF36 and EQ5D questionnaires ^{9,10}.

The questionnaire was piloted in May 1999 and, as a result, some small changes were made to the questionnaire. The results of the pilot are available separately.

The questionnaire survey was in two parts. The first was a detailed questionnaire including questions on

- housing;
- the local environment;
- crime and fear of crime;
- neighbours;
- other influences on health;
- health and well being, including health service uptake;
- lifestyles; and
- the future.

The second part was a separate, shorter questionnaire (EQ5D¹⁰) on self-perceived health status. Both questionnaires (shown in Appendices A and B), together with the study design, were approved by the three relevant local medical ethics committees at the start of the survey.

Tenant details drawn from SBHA's existing records, were also recorded and these included information on family structure, ethnicity, disability, income, reasons for being allocated housing and property type and size.

Questionnaire administration

As well as testing the questionnaire for its practicality, the wording of the questions and the quality of the data produced, the pilot study had also tested the mode of its administration. This showed that the quality of the data produced was similar, whether the questionnaire had been completed in a face-to-face interview or by post, but that the response rate for face-to-face interviews was significantly higher than that for postal questionnaires. In view of this it was decided that the questionnaires would be completed in interviews wherever possible but that postal questionnaires would also be used if a tenant expressed a preference for a postal questionnaire.

At the start of the study the interviews were undertaken by SBHA staff - allocation and tenant liaison officers dealing with the reallocation and reinvestment programmes. It quickly became apparent, however, that the additional burden of work imposed by completing the questionnaires, particularly as the number of follow-ups increased over time, was not manageable and that additional help was needed. As a result, funding was sought from Regenasis, the organisation which manages the Single Regeneration Budget locally, to train and employ local people drawn from the long-term unemployment register as survey interviewers and administrators. This served a useful dual purpose, adding to our pool of interviewers and providing administrative support to the study as well as contributing to the local economy.

Tenants surveyed

In the main survey, two groups of tenants were surveyed:

those whose homes were being renovated or who were being reallocated to new housing ("reinvestment and reallocation tenants"); and

those whose housing situation was unlikely to change within the period of the study ("baseline tenants").

For the first group - refurbishment and reallocation tenants - the questionnaires were completed after the decision was taken to refurbish their home or to allocate new housing to them, again after the change had taken place and subsequently at intervals, usually of around six months although this period varied according to the availability of the tenants for interview. This collection of "before" and "after" data meant that responses could be compared and changes over time could be tracked.

The second group - baseline tenants - were also followed up on a regular (usually six monthly) basis. The baseline tenants were drawn from the list of properties which due to come into the refurbishment programme in several years time so that there was little prospect of their homes being improved during the course of the study. In some cases, however, the refurbishment programme changed and a small number of tenants in the "control group" became "cases".

Most of the baseline tenants were recruited in the early summer of 1999 but, on the advice of the Steering Group to increase the number of baseline tenants, more were invited to join the survey in 2001. Figure 3 shows the number of tenants who were interviewed for the first time in each quarter during the course of the study.

sturn Joseph Jos

Figure 3

Number of tenants joining the survey by quarter

It should be noted that the baseline tenants are not matched controls but it is known that they are broadly similar in terms of demographic profile and socio-economic status to the reinvestment and reallocation tenants.

As an incentive to be interviewed for the survey, all the reinvestment and reallocation tenants had their names entered into a draw in which they had the opportunity to win supermarket vouchers. For the baseline tenants, it was felt that a stronger incentive was necessary and, for this reason, all these tenants were offered a voucher each time they completed the questionnaire. Admittedly, this may introduce some degree of bias into the analysis (and bias which, if it exists, is difficult to quantify except perhaps through drop-out rates) but the decision to offer differential incentives was taken on a pragmatic basis in order to maximise the chances of obtaining a sufficiently large control group and a credible baseline.

As well as the main survey, two smaller surveys were undertaken opportunistically using the same questionnaire format. The first was of tenants who, under a short-term initiative at the end of 2001, were having central heating installed independently of any other refurbishments and the second was of supported housing tenants in the three developments owned and managed by SBHA for vulnerable older people.

Target numbers

It was originally envisaged that 300 tenants would be involved in the survey and that, over the course of the study, 1,000 questionnaires would be completed. At an early stage it became apparent that it would not be possible to interview all the reinvestment and reallocation tenants, either because they were unwilling to participate or because of the tight timescales - particularly with reallocation tenants - which made it difficult or impossible to interview them prior to their move. As a result, we decided that, realistically, we would probably be able to include 225 tenants and complete 750 interviews in total and, as shown in Table I, this target was exceeded, with 284 tenants having been involved and 799 interviews completed.

TABLE I

Number of tenants included in the survey and number of questionnaires completed

	Cases ^(a)	Controls	TOTAL
Pre-change	199	85	284
Follow up 1	143	69	212
Follow up 2	90	55	145
Follow up 3	45	45	90
Follow up 4	19	31	50
Follow up 5	4	12	16
Follow up 6	1	2	2
TOTAL	501	298	799

(a) Includes tenants in the central heating survey (in homes which were not being fully refurbished but where central heating was being installed) and in the supported housing survey, both groups of which have been analysed separately.

Data analysis

The principal analysis of data was a comparison of responses over time within and between the two groups of tenants in the main survey. This analysis was checked independently by an epidemiologist who also applied a range of statistical significance tests to the data.

This rigorous statistical analysis involved testing a number of hypotheses by asking a series of specific questions:

In relation to all issues covered by the questionnaire

Is there a difference between the intervention group as a whole (the reinvestment and reallocation tenants) and the non-intervention group (the baseline tenants)?

Is there a difference between the reinvestment tenants (those whose homes were refurbished) and the reallocation tenants (those allocated a new home)?

Are any differences or apparent trends over time statistically significant and what are the confidence intervals?

In relation to health status and meeting health-related needs

Does the intervention (housing improvement) result in changes in health status in terms of self-perceived health status, health now compared with one year ago, the effect of health on daily activities, mobility, self-care, usual activities, pain or discomfort and anxiety or depression?

Are any changes sustained over time?

Does the intervention result in tenants' perceived needs for aids and adaptations being met?

In relation to health service usage

- Does the intervention result in changes in health service uptake?
- Are any changes sustained over time?

In relation to well-being and quality of life

Does the intervention result in changes in indicators of well-being such as satisfaction with housing, satisfaction with the area, feeling safe within and outside the home, relationships with neighbours, belonging to the community and feelings about the future?

Are any changes sustained over time?

Does the intervention result in any changes to tenants' personal concerns?

In relation to awareness of health determinants

- Has being involved in the study changed tenants' awareness of health determinants in terms of housing, the components of housing provision, the area in which they live, crime and the fear of crime, neighbours and belonging to the local community or other factors?
- Are there any time trends?

Statistical significance tests

In the text and following the graphs presenting the findings of the survey, statistical probabilities are shown where relevant. These relate to

whether there is a statistically significant difference in the distribution of the reinvestment and reallocation tenants' responses at each visit;

whether there is a statistically significant change between the reinvestment and reallocation tenants' responses in the "pre-change" interview (before housing improvements were made) and the first follow up visit (immediately afterwards);

whether there is a significant change in the reinvestment and reallocation tenants' responses over time; and

whether there is a significant difference between the reinvestment and reallocation tenants' responses and those of the baseline tenants between the "pre-change" interview and the first follow up.

Generally speaking, where the probability value (p) is more than 0.05, it is possible that any difference may be due to random variation or chance, whilst where the p value is less than 0.05, it is probable that any difference is a real one and it is unlikely to be due to chance.

Additional analyses

In the course of these analyses, a number of other questions arose giving scope for further work. The full tables of figures are available separately for this purpose and the database is structured in such a way as to allow specific questions to be addressed on an ad hoc basis in the future.

The smaller surveys of tenants who had central heating installed (but no other refurbishments) and supported housing tenants were analysed separately in a similar way to the main survey and two other additional analyses were made:

- a review of housing issues specific to black and minority ethnic populations; and
- an exploration of requests for medical transfer.

These findings are presented separately within the report.

Interpretation of the findings

The emerging findings of the work were reviewed regularly by the Steering Group and, once the full findings were available, the group met to consider their implications for housing policy and planning. At the same time the findings were circulated to relevant staff within SBHA, who also contributed to the recommendations.

ADDING TO THE EVIDENCE BASE: OUR FINDINGS

General needs homes

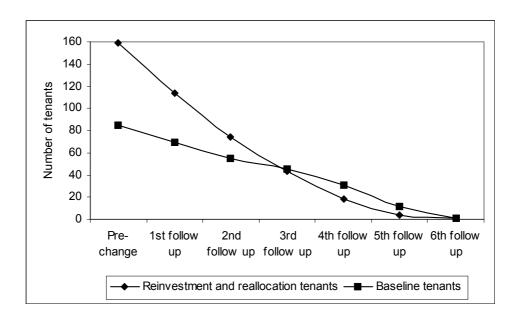
The survey population

Number of tenants

Over the course of the study, 159 tenants in the reinvestment and reallocation programmes were recruited to the survey and, following their first interview, they were followed up between one and six times. In addition, there were 85 tenants in the "control" group. Figure 4 shows the number of questionnaires which were completed by each group.

Figure 4

Number of tenants involved in the main survey



In the analysis which follows, the fourth, fifth and sixth follow ups have been excluded as the numbers involved are relatively small and are therefore more likely to show random variations. However, the full data tables, including the responses at all follow up interviews, are available separately.

There are a number of reasons for the fall off in numbers over time. In the case of reinvestment and reallocation tenants, the timing of the first follow up was dependent on the timing and completion of refurbishment or reallocation so that tenants were joining the survey throughout the period of the study, from early summer 1999 to early autumn 2002. Some did not, therefore, have an opportunity to be followed up more than once and this was also true of many of the second batch of baseline tenants recruited in late 2001.

In addition, three tenants died during the course of the study, a similarly small number moved to other parts of the country and some tenants from both the reinvestment and reallocation and baseline groups declined to take part in the follow up interviews. This became more common as time went on, raising a question about how representative those who continued to be involved were of our tenants as a whole.

Anecdotal evidence from the survey administrator and interviewers suggests that many of the reinvestment and reallocation tenants who were in good health and highly satisfied with their housing were less likely to want to continue with follow up interviews so that, over time, there is a bias towards less positive findings. Conversely, amongst the baseline tenants, they reported that some expressed feelings of dissatisfaction and disillusionment that their involvement in the survey was doing little to improve their lot and so declined to participate in the later stages for this reason.

Age and sex

The ages of the tenants involved in the survey are shown in Figure 5.

The age structure of the reinvestment and reallocation population is younger than that of the baseline tenants, with just over half (51.7%) falling into the 25 to 44 age group and less than a third (28.3%) being aged 45 to 64. For the baseline tenants the proportions are 37.8% and 36.6% respectively.

The two populations are also slightly different in that a third of the reinvestment and reallocation tenants are male (34.5%) and two thirds are female (65.5%) whilst the baseline tenants are more evenly split - around half are male and half are female.

These differences may be important when interpreting the findings, particularly in relation to health status.

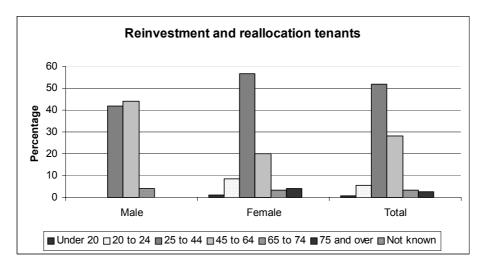
Ethnicity

Figure 6 shows the proportion of survey tenants by self-defined ethnic group, as recorded in SBHA's database of tenants' details.

This pattern closely reflects the overall ethnic make up of all SBHA tenants. Around 55% of tenants define themselves as being white British or European, excluding the Irish, who make up 10% of the population. A further 23% of tenants are black or Asian and, of these, around 35% define themselves as black African, 29% black Caribbean and 18% Asian.

Figure 5

Tenants by age group¹



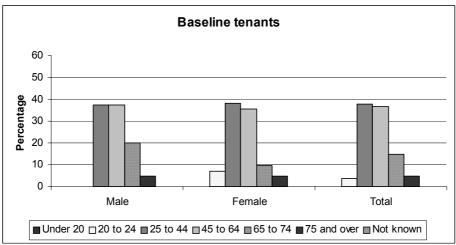
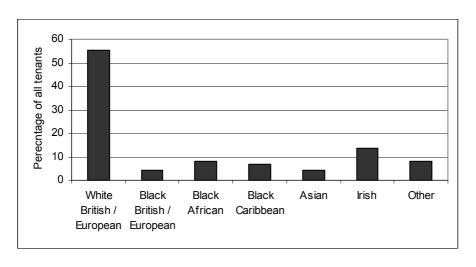


Figure 6

Tenants by ethnic group



¹ 14 reinvestment and reallocation tenants and 3 baseline tenants for whom age and sex were not recorded have been excluded from these figures.

Disability

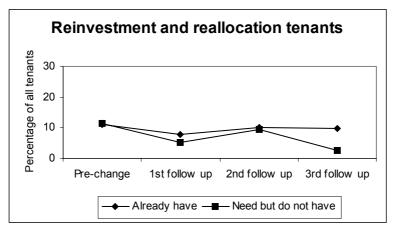
The SBHA database of tenants' details also records information on disability and indicates that around 20%, or one in five tenants, have some form of disability. However, using expressed need for aids and adaptations as an indicator of levels of disability, the findings of our survey suggest that this figure may be much higher. Almost a third of all those involved in the survey (32.4%) said at some point that they had or needed special adaptations in their home because of their own health or because of the health of another family member.

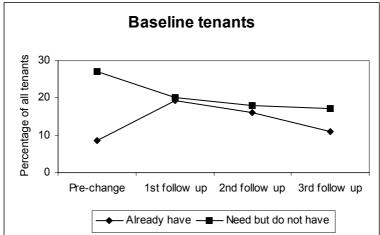
Figure 7 shows the tenants' responses to the questions about whether they have or need any special aids and adaptations in their homes.

Figure 7

Do you have any special adaptations in your home because of your health or because of the health of any other members of your family?²

Are there any special adaptations which you or any other members of your family need but do not currently have?³





² No responses are excluded from these figures.

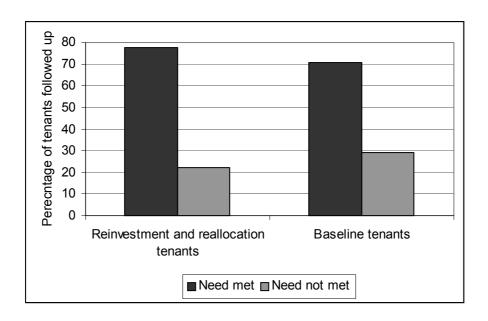
³ No responses are excluded from these figures.

The figures are difficult to interpret because of the relatively small numbers of people involved but two things are apparent. Firstly, in the reinvestment and reallocation group, the number of tenants needing adaptations which they do not currently have has significantly decreased over time (p = 0.029). Secondly, in the baseline tenants there are not only significantly higher numbers of tenants who already have special adaptations (p = 0.028) but also higher numbers of those who need them but do not have them (p = 0.004). This suggests that there may be higher levels of disability amongst the baseline tenants as well as higher levels of unmet need and raises an important question about the extent to which needs are being met overall.

For those stating that they needed special adaptations which they did not currently have, most of those who were followed up had had their needs met although the reinvestment and reallocation tenants tended to fare better than the baseline tenants, as shown in Figure 8.

Figure 8

Tenants with needs for special adaptations where needs were met



Almost four out of five (77.8%) of reinvestment and reallocation tenants who said that they were in need of aids and adaptations had their needs met and in most cases this happened between the first interview (prior to housing change) and the first follow up interview immediately afterwards. For baseline tenants, although almost three quarters (70.8%) had their needs met, this often took some time.

Aids and adaptations

Statistically significant findings

- A sustained reduction over time in the number of reinvestment and reallocation tenants who need adaptations but do not currently have them (p = 0.029)
- A higher number of baseline tenants (at the first follow up) who have aids and adaptations (p = 0.028)
- A higher number of baseline tenants (at the first follow up) who need adaptations but do not currently have them (p = 0.004)

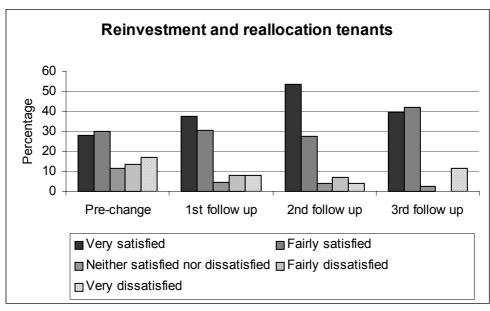
Housing

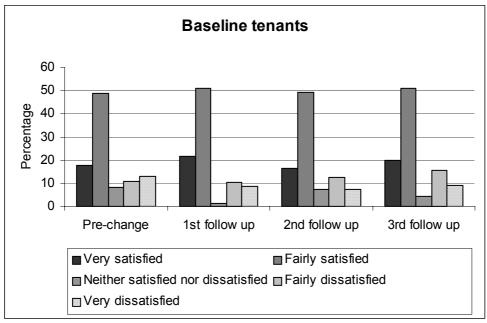
Satisfaction with housing

Figure 9 shows tenants' satisfaction with their housing, before their situation changed and afterwards.

Figure 9

How satisfied are you with this house or flat as a place to live?⁴



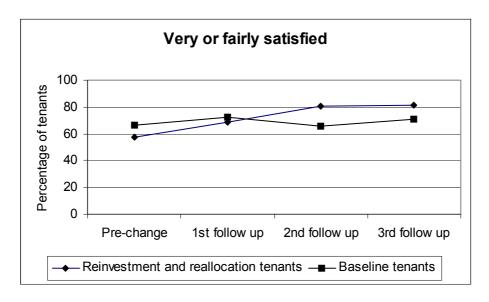


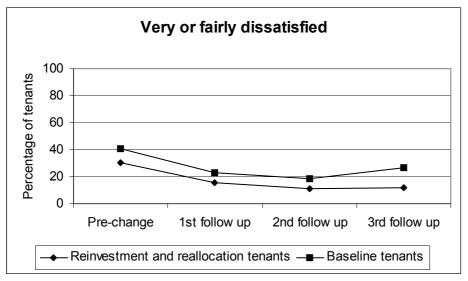
⁴ Tenants responding "Don't know" are excluded.

Separating out the responses helps to clarify the trends. Figure 10 shows the percentage of tenants who were very or fairly satisfied with their housing and those who were very or fairly dissatisfied.

Figure 10

Satisfaction with housing⁵





There are high levels of satisfaction in both groups but, whilst the proportion of baseline tenants who are very or fairly satisfied remains steady over time there is - as might be expected - a clear shift towards higher levels of satisfaction amongst the reinvestment and reallocation tenants once their homes have been refurbished or they have moved into a new home. This trend, which is highly significant, is sustained over time up to and including the third follow up.

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⁵ Tenants responding "Don't know" are excluded.

This overall increase in levels of satisfaction in the reinvestment and reallocation tenants is mirrored by the dissatisfaction, which show an overall fall, from just under a third (30.6%) at the start of the study to around a tenth (11.6%) by the third follow up.

Interestingly there is also a fall in levels of dissatisfaction amongst the baseline tenants (from 40.5% to 26.7%) and, whilst this is a very welcome observation, it is unclear why it should be the case. Anecdotal evidence from the survey administrator and interviewers suggests that one reason may be related to the issue of which tenants chose to continue to be involved in the survey. As noted earlier, it was suggested that many of the reinvestment and reallocation tenants who were in good health and highly satisfied with their housing were less likely to want to continue with follow up interviews whilst the opposite was true of the baseline tenants, who were more likely to continue to participate if they were positive about their housing and less likely if they felt disillusioned with their prospects for change.

Satisfaction with housing

Statistically significant findings

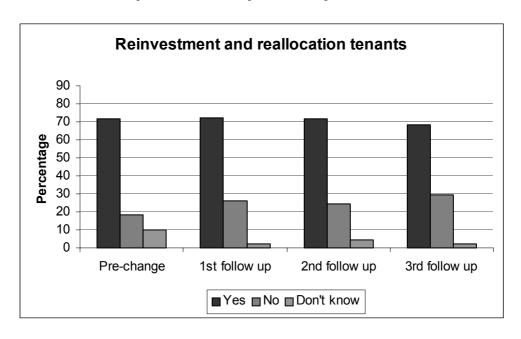
- A significantly higher number of reinvestment and reallocation tenants were satisfied than were dissatisfied at every interview (p = 0.000)
- A significant increase in the number of reinvestment and reallocation tenants who were satisfied immediately following improvements to their housing (p = 0.001)
- A sustained and continuing improvement in satisfaction levels amongst reinvestment and reallocation tenants over time (p = 0.000)

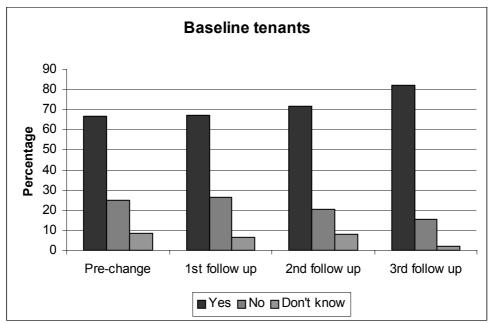
The influence of housing on health

Figure 11 shows the percentage of tenants feeling that their housing has an influence on their health.

The majority of tenants in both groups felt that their housing influenced their health although for reinvestment and reallocation tenants the proportion holding this view appears to fall over time whilst for baseline tenants there appears to be a growing awareness of this issue. This may be because the reinvestment and reallocation tenants, on the whole, saw an improvement in their housing so that they no longer felt that it exerted an negative influence on their health and ceased to associate health with housing whilst the baseline tenants, as a result of their taking part in the survey but seeing no improvement in their housing conditions, were continually reminded of the link.

Do you feel that your house or flat has an influence on your health or your family's health?⁶





Tenants' views on the importance for their health of various aspects of housing are shown in Figure 12. It includes all responses from both groups of tenants throughout the study and gives an indication of tenants' priorities.

Heating, sound insulation, space and security score highest and ventilation and neighbours are also seen as being important for all tenants. It was notable, however, that after refurbishment or reallocation space and sound insulation dropped down the list of priorities and anecdotal evidence suggests that this was because these issues had been addressed for many tenants by the improvements to their housing.

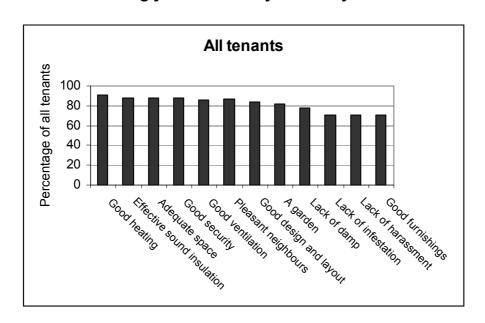
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⁶ No responses are excluded from these figures.

Heating, by contrast, remained a high priority and for both groups during the course of the study, as did good ventilation for reinvestment and reallocation tenants (p = 0.008), and harassment - again, for both groups - was increasingly seen as an important influence on health as time progressed.

Figure 12

How important do you feel the following aspects of your house or flat are in influencing your health or your family's health?

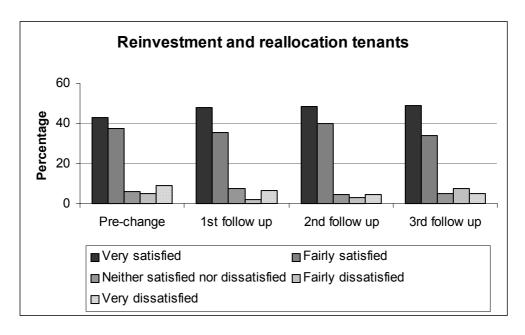


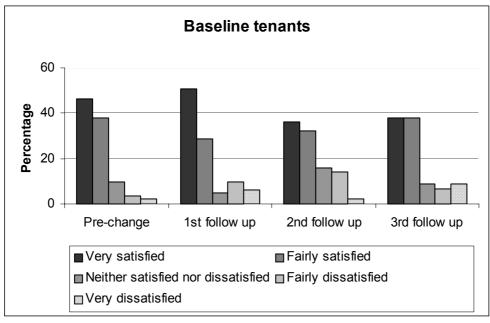
The local environment

Figure 13 shows tenants' satisfaction with the area in which they live.

Figure 13

How satisfied are you with this general area as a place to live for you and your family?⁷





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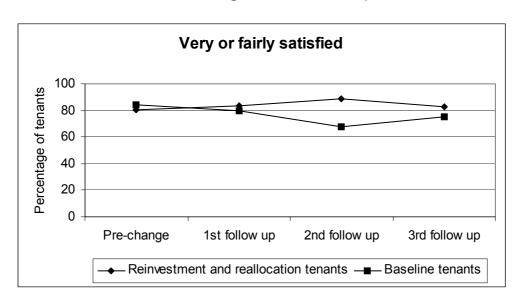
⁷ Tenants responding "Don't know" have been excluded.

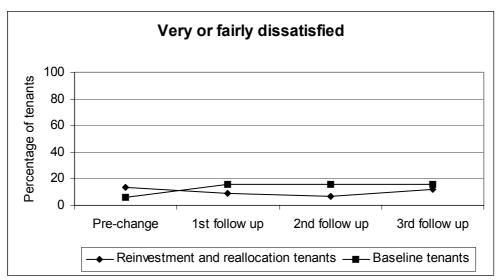
There is generally a very high level of satisfaction in both groups of tenants, and this is consistent with what was already thought to be true and what has subsequently been found in studies undertaken in other areas of north and west London^{11,12}.

As with the housing questions, the responses have been separated out and Figure 14 shows the percentage of tenants who were very or fairly satisfied with the area and those who were very or fairly dissatisfied.

Figure 14

Satisfaction with the general area as a place to live





The responses for both groups appear to be fairly consistent although there is some increase in the proportion of reinvestment and reallocation tenants who were very or fairly satisfied with the area at the first and second follow ups.

This is accounted for largely by reallocation tenants who had moved to a new area and who may have taken some time to adjust to their new surroundings.

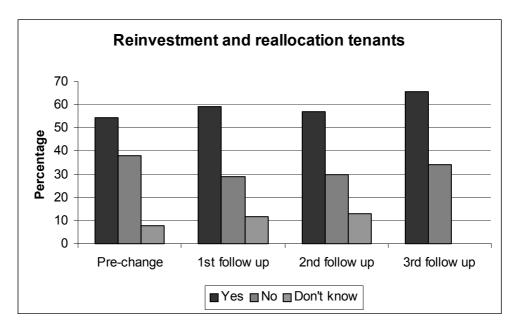
Views on whether the area in which people live has an influence on health also appear to change, as shown in Figure 15. Over the course of the study there is increasing awareness of the influence of the area on health in both groups of tenants, with the most marked shift being in the views of the reinvestment and reallocation tenants when their housing situation first changes. This is a statistically significant finding (p = 0.008).

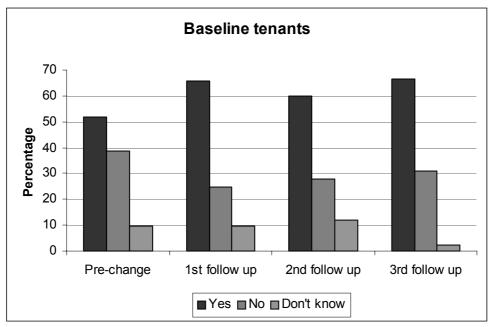
Awareness of the local area as a health determinant

Statistically significant findings

• A sustained and continuing increase over time the number of reinvestment and reallocation tenants who feel that the area in which they live has an influence of their health (p = 0.008)

Figure 15 Do you feel that the area in which you live has an influence on your personal health or on the health of your family?⁸





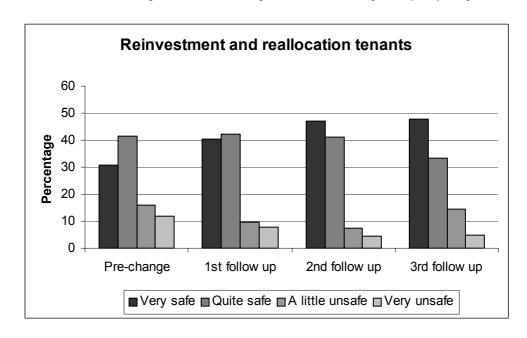
⁸ No responses have been excluded.

Crime and the fear of crime

Tenants' feelings of safety within the home are shown in Figure 16 and 17.

Figure 16

How safe do you feel when you are inside your property?



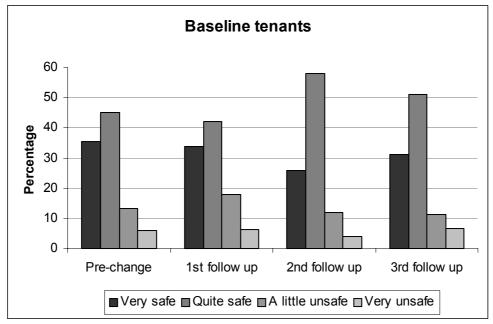
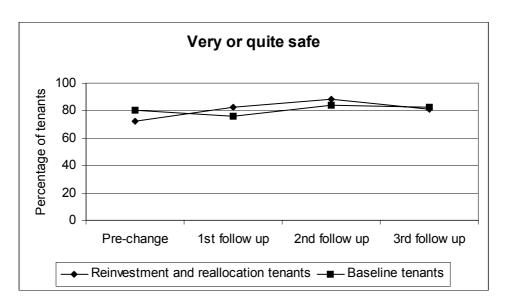
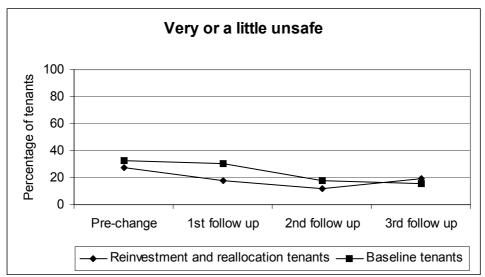


Figure 17
Feelings of safety within the home





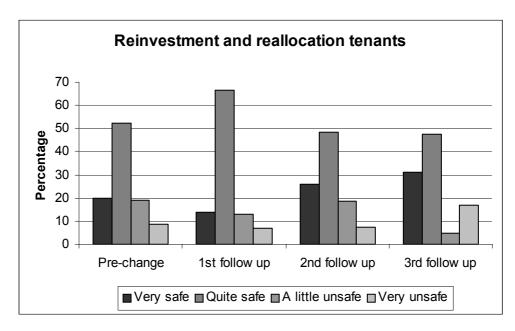
Whilst the proportion of baseline tenants saying that they feel very or quite safe inside their homes remains broadly consistent over time, there is a marked increase in the proportion of refurbishment and reallocation tenants who feel safe within their homes following the housing improvements (p = 0.064). Amongst the reallocation tenants (but not the reinvestment tenants), there is significantly sustained change over time (p = 0.030) and, across the board for both reinvestment and reallocation tenants a significantly higher proportion of these tenants felt safe than did not (p = 0.037).

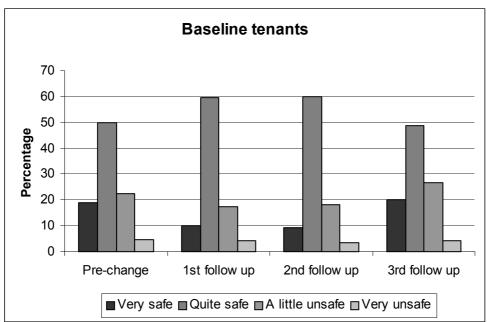
From the responses to the open questions, it is clear that greater feelings of safety and security inside the home are primarily due to the installation of improved security features such as window locks.

Tenants were also asked about how safe they felt in the area outside their property and the responses to this question - which reflect those to the question about safety inside the home - are shown in Figures 18 and 19.

Figure 18

How safe do you feel in the area outside your property?



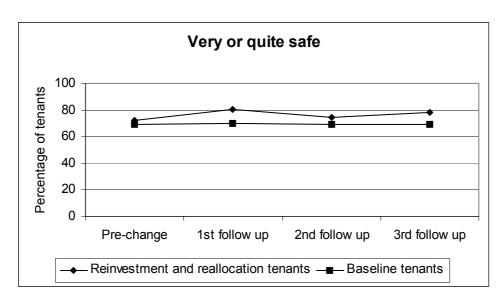


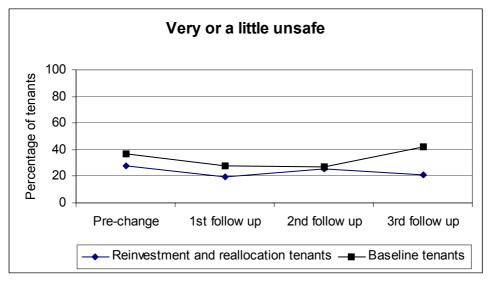
Again, there are significantly more reinvestment and reallocation tenants who feel safe in the areas outside there homes than tenants who feel unsafe (p = 0.034).

The fact that there appears to be an increase in feelings of safety outside the home, at least in the first and second follow up with reinvestment and reallocation tenants, comes as something of a surprise given that many of these tenants are in the refurbishment programme and therefore living in the same properties as previously. This suggests that having improved living conditions may have resulted in a more positive and confident outlook.

Figure 19

Feelings of safety in the area outside the home





Crime and the fear of crime

Statistically significant findings

- A significantly higher number of reinvestment and reallocation tenants felt safe inside their homes than felt unsafe at every interview (p = 0.037)
- A sustained and continuing improvement in feelings of safety inside the home amongst reallocation tenants (p = 0.030)
- A significantly higher number of reinvestment and reallocation tenants felt safe in the area outside their homes than felt unsafe at every interview (p = 0.034)

The responses to the question about the extent to which crime or the fear of crime affects health are shown in Figure 20.

There were fluctuations in tenants' feelings about the extent to which crime affects their health but amongst the reallocation tenants there were consistently higher proportions feeling that it was an influence throughout the study (p = 0.025) and, at the first follow up, those whose homes had been improved were markedly more likely to feel that crime affected their health than the baseline tenants did (p = 0.014).

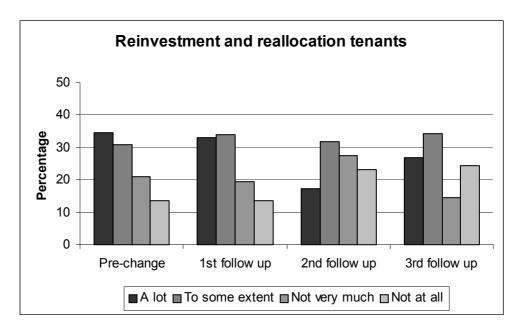
Awareness of crime as a health determinant

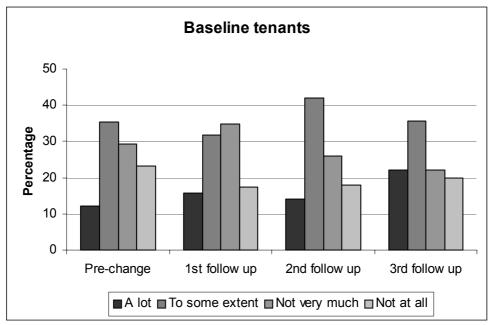
Statistically significant findings

- A significantly higher number of reallocation tenants felt that crime affected their health at every interview (p = 0.025)
- Compared with baseline tenants a significantly higher proportion of reinvestment and reallocation tenants felt that crime was an influence on their health immediately following improvements to their housing (p = 0.014)

Figure 20

To what extent do you feel crime or the fear of crime affects your health or the health of your family?



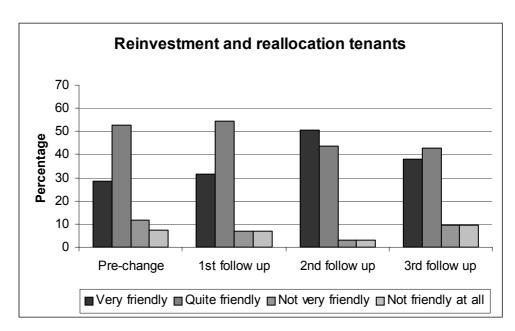


Neighbours and the local community

Figures 21 and 22 show the extent to which tenants felt their neighbours are friendly.

Figure 21

How friendly do you feel your neighbours are?



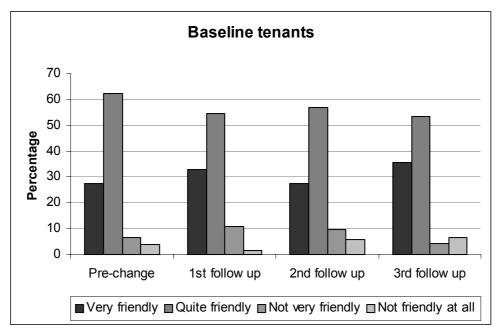
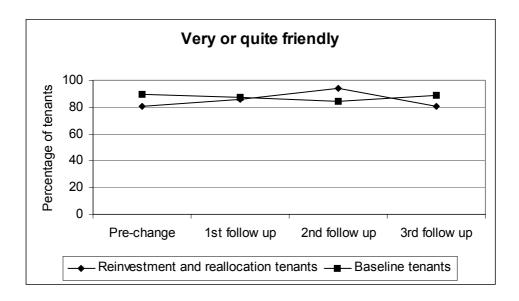
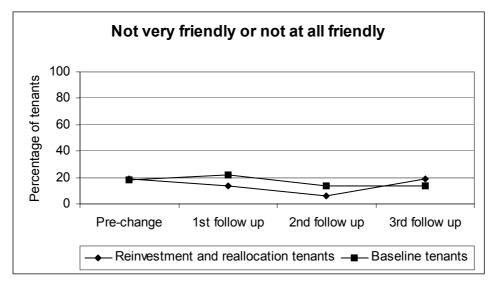


Figure 22





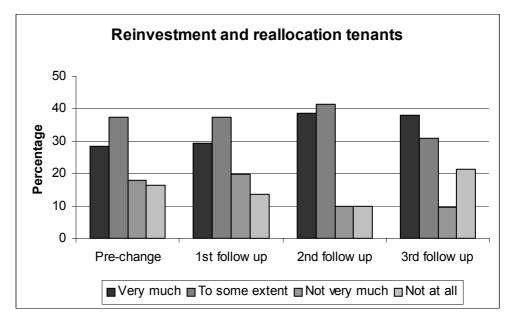
There are similarities in the responses to some of those given to other questions, with a shift amongst the reinvestment and reallocation tenants feeling that their neighbours are friendly following housing improvement. This may be due to chance (p = 0.066) although the reallocation tenants were consistently and significantly more likely to say that they felt their neighbours were friendly (p = 0.021).

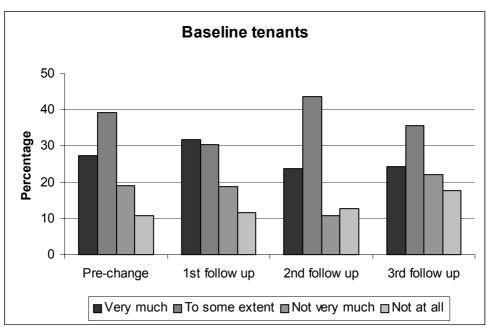
Responses to the open questions suggest that this is partly due to a more positive outlook, partly a result of improved sound insulation and partly due to tenants having got to know their neighbours better during the course of their refurbishment or move to a new property.

A similar pattern holds true for both groups of tenants in terms of the extent to which they feel part of the local community, as shown in Figure 23.

Figure 23

Do you feel that you and your family belong to the community here?





For reallocation tenants, some were moving to new areas of west London and commented on feelings of isolation immediately after the move so it is encouraging that, overall, there were consistently more of them who felt part of the local community than did not (p = 0.039).

Neighbours and the local community

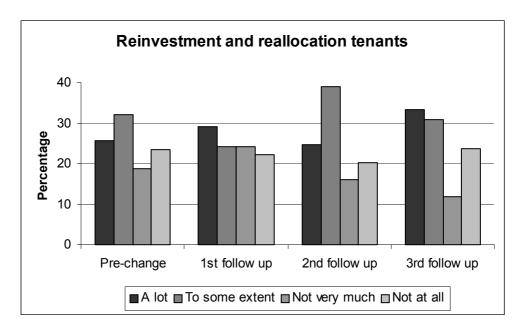
Statistically significant findings

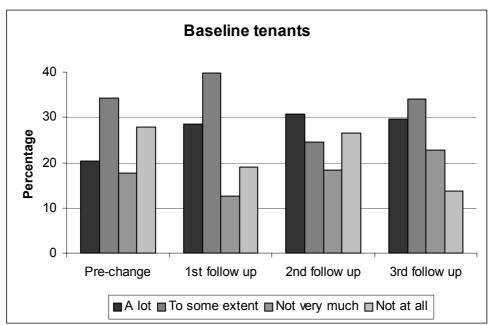
- A significantly higher number of reallocation tenants felt that their neighbours were friendly than did not at every interview (p = 0.021)
- A significantly higher number of reallocation tenants felt that they belonged to the local community than did not at every interview (p = 0.039)

Figure 24 shows the extent to which tenants feel that they feel their neighbours and the local community affects their health and there appears to be increasing awareness of this factor as a health determinant over time. This may be partly as a result of being in the survey, which appears to have raised awareness of a wide range of health issues and the determinants of health and this, in turn, may have raised the respondents' awareness of services and their expectations and encouraged them to think more deeply about their circumstances.

Figure 24

To what extent do you feel your neighbours and the local community influences your health or the health of your family?



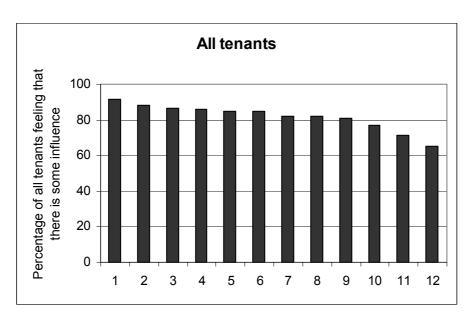


Other influences on health

Figure 25 shows the extent to which tenants feel that a range of other factors influence their health, taking all the questionnaires together throughout the course of the study.

Figure 25

How much influence – either positive or negative - do you feel the following have on your personal health?

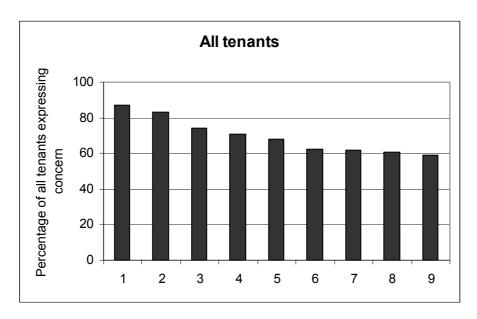


Your living accommodation (your house or flat) Key: 2 The general area in which you live 3 Relationships with neighbours 4 Access to health services 5 Personal relationships with your family & friends 6 Access to local public transport 7 Fears about personal safety The amount of money you have 8 9 Your diet 10 Your relationship with your landlord Employment or unemployment 11 Access to local leisure and sports facilities 12

Perhaps not surprisingly, given that this was a health and housing survey, housing was the most commonly cited factor as an influence on health, with wider social and environmental factors also scoring highly along with access to health services.

Concerns about other issues are illustrated in Figure 26.

Figure 26 How concerned are you personally about the following?



- Key: Your health 1
 - 2 Personal safety
 - 3 Personal relationships with friends and family
 - 4 Unemployment
 - 5 Drugs / alcohol
 - Access to education / training
 - 7 Mixing with other people
 - 8 Discrimination
 - Access to sports and leisure facilities

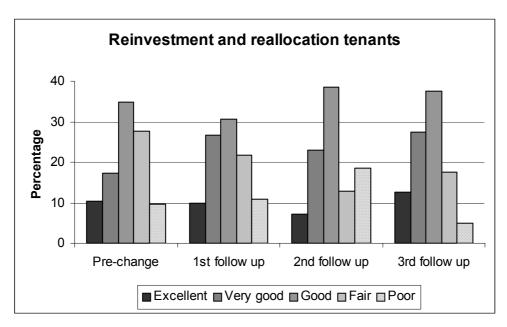
The most common concerns - health, personal safety and relationships with family and friends - reflect some of the other findings of the study (and also the questions asked, so that they may have been uppermost in interviewees' minds as a result of being involved in the survey).

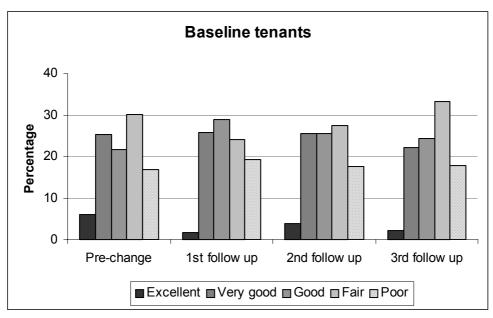
Health and well being

Self perceived health status and current health problems

As shown in Figure 27, the self perceived health status of the reinvestment and reallocation tenants overall was better than that of the baseline tenants at the start of the study (with 62.5% saying that their health was excellent, very good or good compared with 53.0% amongst baseline tenants).

Figure 27
In general, would you say that your health is

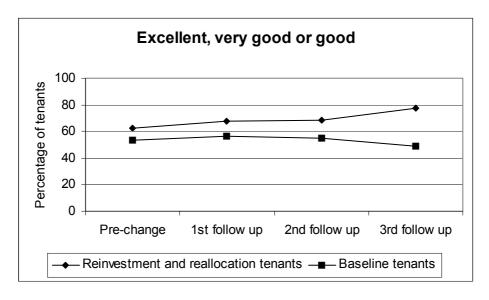


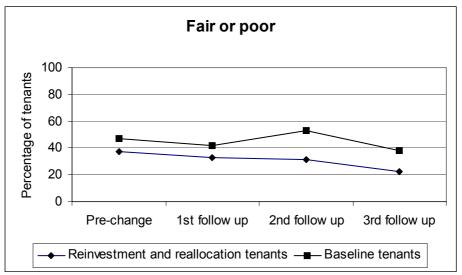


However, as illustrated in Figure 28, these differentials between the two groups widen after the improvement of their homes, and health status amongst the baseline group appears to deteriorate.

Figure 28

Self reported health status

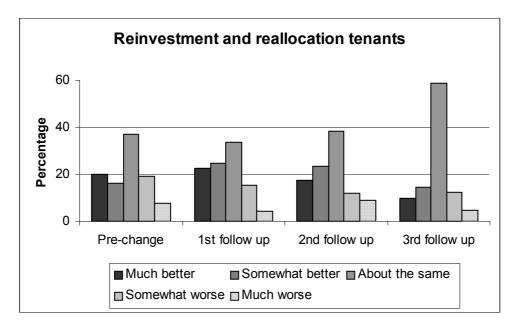




Although these trends are not statistically significant, the improvements shown by the responses to the question about health now compared to one year ago, as shown in Figures 29 and 30, are. There are significantly higher numbers of reinvestment and reallocation tenants saying that their health is better now than a year ago at every interview (p = 0.029) and the improvement is sustained over time, particularly amongst the reallocation tenants (p = 0.048). There is also a significant difference between the reinvestment and reallocation tenants and the baseline tenants at the first follow up (immediately after housing improvements (p = 0.001).

Figure 29

Compared to one year ago, how would you rate your health in general now?



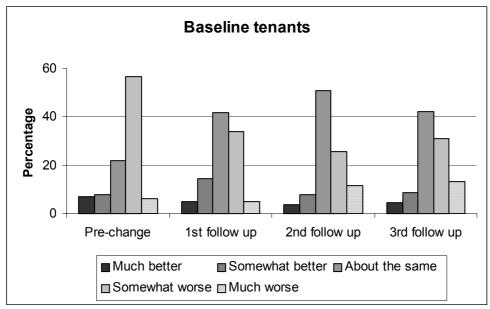
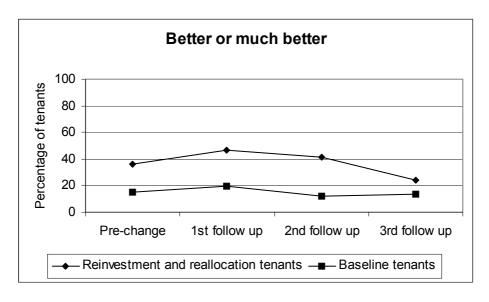
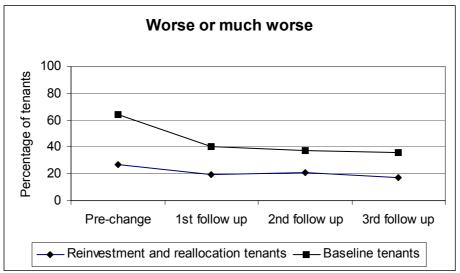


Figure 30

Health now compared to one year ago

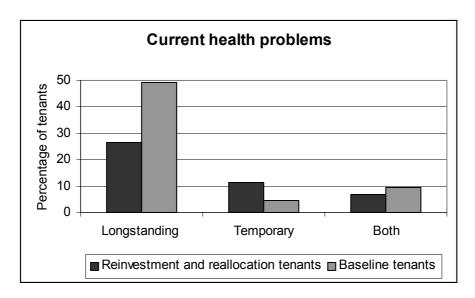




The difference in health status between the reinvestment and reallocation tenants and the baseline tenants at the start of the study is amplified by Figure 31, which shows the proportion of tenants in each group saying that they had long standing or temporary health problems at the time of their first interview.

These figures also show a marked shift, with fewer reinvestment and reallocation tenants saying that they had current health problems after improvements were made to their housing and the gap widening between them and the baseline tenants (p = 0.003).

Figure 31



When asked about whether their health problems had interfered with their daily activities over the past four weeks, the two groups had a similar starting point but diverged in the subsequent three follow ups, with the reinvestment and reallocation tenants faring considerably better than the baseline group in the first thee follow up interviews after housing improvements were made, as shown in Figures 32 and 33.

Figure 32

The extent to which health problems have affected daily activities

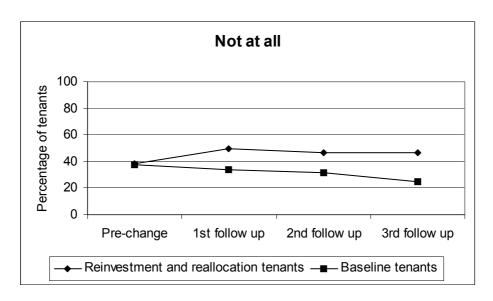
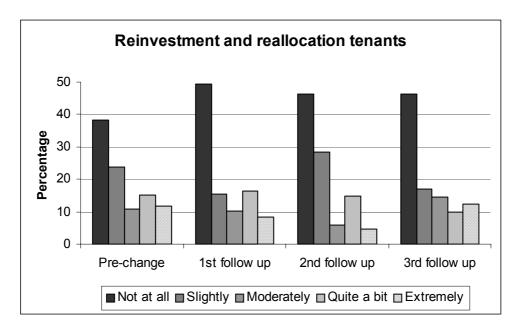
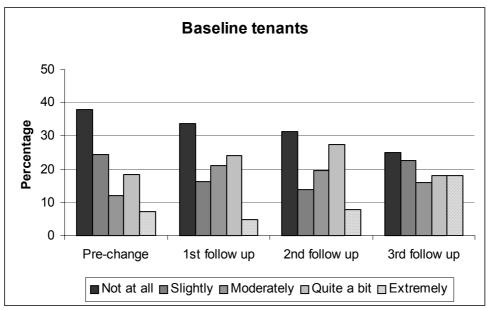


Figure 33

During the past four weeks, to what extent has your physical health or emotional problems interfered with your normal daily activities or your social activities with family, friends, neighbours or groups?





Tenants' responses to the questions about specific aspects of their health - mobility, self care, usual activities, pain and discomfort and anxiety and depression - are shown in Figures 34 to 38. For these questions comparative figures from a large survey of the general population undertaken in 1996 are available and these are shown in brackets under each graph¹³.

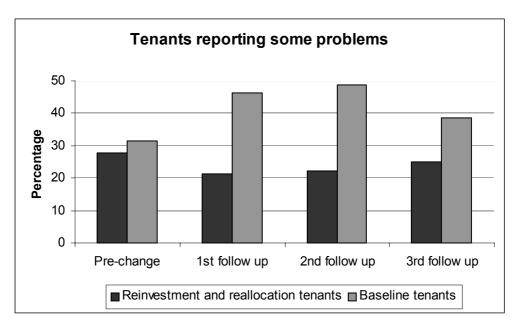
In all cases, the findings illustrate the different starting points for reinvestment and reallocation tenants and baseline tenants, more of the latter having problems, and the changing differential between the two groups over time.

It is also noticeable that, compared with the survey findings from the general population, our tenants reported more problems of all types. This is not unexpected, given the different socio-economic make-up of housing association tenants in comparison to the population as a whole, but it is encouraging to note that, amongst the reinvestment and reallocation tenants, there is some evidence of movement towards the "norm" following housing improvements.

Mobility

Tenants reporting problems with mobility said either that they had some problems walking about or were confined to bed. As shown in Figure 34, there is an initial improvement in the reinvestment and reallocation tenants following improvements to their housing and this can be linked to the provision of aids and adaptations. At the third follow up, however, there appears to be a deterioration in this group although this is associated with the smaller numbers of those continuing to be involved in the survey and those who did continue to be interviewed tending towards being those people who had previously indicated that they had mobility problems.



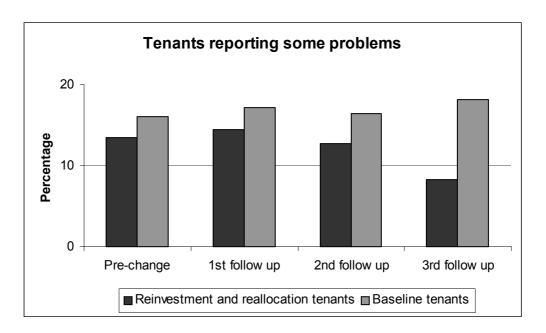


(Comparative data from a general population¹³: 18.12%)

Self care

Tenants reporting problems with self-care said that they had some problems with washing or dressing themselves or were unable to do so. As shown in Figure 35, there appears to be a rise in the proportion of reinvestment and reallocation tenants reporting problems immediately following their housing improvements, possibly due to the upheaval involved in the refurbishment or reallocation and the time needed to adapt to their new homes. This is consistent with the improvement seen in the second and third follow up interviews.

Figure 35
Self care



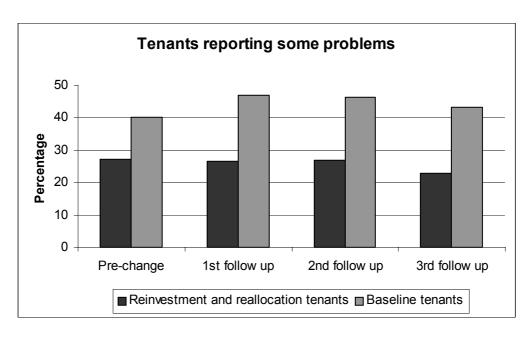
(Comparative data from a general population¹³: 5.85%)

Usual activities

Tenants reporting problems with their usual activities said that they had some problems with performing or were unable to perform usual activities such as work, study, housework or family and leisure activities. As shown in Figure 36, the patterns for reinvestment and reallocation tenants in relation to usual activities are similar to those for self-care, for many of the same reasons.

Figure 36

Usual activities



(Comparative data from a general population¹³: 18.97%)

Pain and discomfort

Problems with pain or discomfort were classified as moderate or extreme. Taking these together, as shown in Figure 37, despite the apparent increase in pain and discomfort for some reinvestment and reallocation tenants after their housing change - and a subsequent improvement - there does not appear to be any significant pattern emerging and it is unclear why some of the patterns seen elsewhere, particularly given the apparent improvements in self-perceived health status overall, are absent in relation to pain and discomfort.

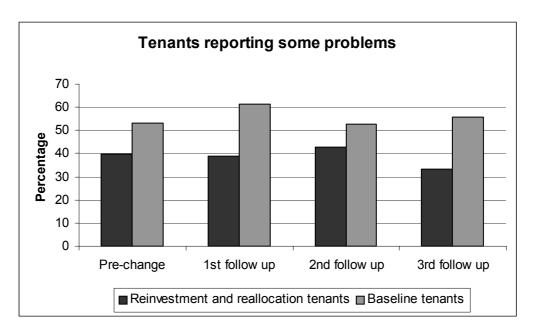
Anxiety and depression

Tenants reporting problems with anxiety or depression said that they were moderately or extremely anxious or depressed. Levels of anxiety and depression, as shown in Figure 38, show perhaps the most marked change in the reinvestment and reallocation tenants, with the proportion of tenants suffering some problems reducing from 33.3% before the housing change to 26.3% immediately afterwards and, from then, remaining at a lower level than before throughout the course of the study.

There is also a much more marked differential between the levels of anxiety and depression in the two groups of tenants at the first follow up, immediately following housing improvements, although this may be due to chance (p = 0.054).

Figure 37

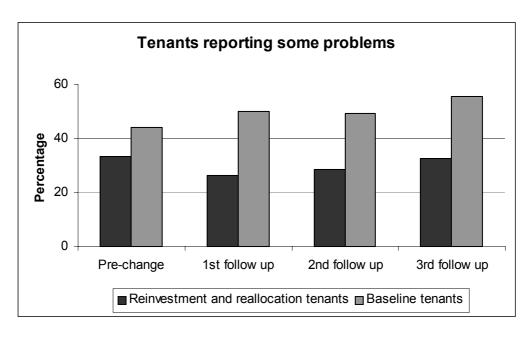
Pain and discomfort



(Comparative data from a general population 13: 36.21%)

Figure 38

Anxiety and depression



(Comparative data from a general population 13: 23.68%)

Self perceived health status

Statistically significant findings

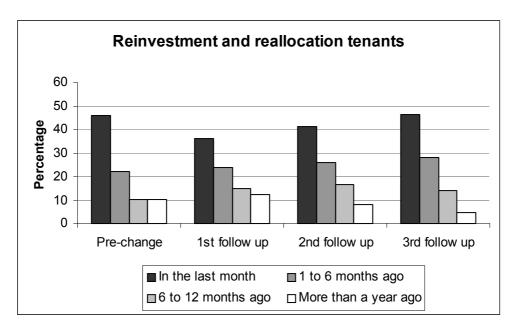
- A significantly higher number of reinvestment and reallocation tenants said that their health was better now than a year ago at every interview (p = 0.029)
- A sustained and continuing improvement in health status now compared with a year ago amongst reallocation tenants (p = 0.048)
- Compared with baseline tenants, significantly more reinvestment and reallocations tenants saying that their health was better than a year ago at the fist follow up (p = 0.001)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having current health problems at the fist follow up (p = 0.003)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having problems with mobility at the first follow up (p = 0.001)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having problems performing their usual activities at the fist follow up (p = 0.007)
- Compared with baseline tenants, significantly fewer reinvestment and reallocations tenants having pain and discomfort at the fist follow up (p = 0.005)

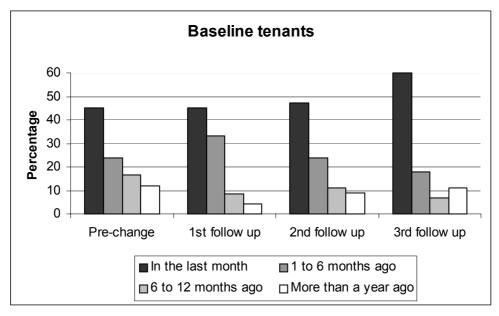
Use of health services

Tenants were also asked about their use of health services and the findings from this question are summarised in Figure 39.

Figure 39

When did you last visit your GP or your local hospital because of ill health?





Using the time of the last visit to a GP or hospital as an indicator of frequency of visits, there was a fall in the number of visits made by reinvestment and reallocation tenants immediately after the improvements were made to their housing but the rate had risen again to its previous level by the third visit.

This is illustrated most clearly in Figure 40 which shows the percentage of tenants who had visited their GP in the last month.

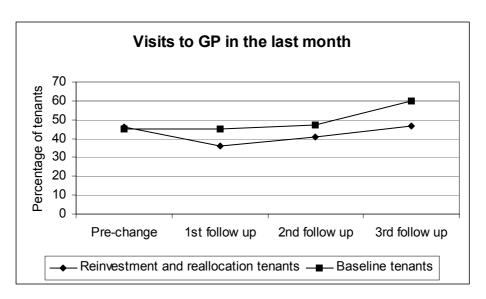


Figure 40

If these findings are a true reflection of the situation - a change from an average of 4.4 GP visits per person per year to 3.4 visits - there may be some considerable savings in health service expenditure which can be associated with housing improvements at least in the short term, assuming that the lower frequency of visits is associated with better health and less need for medical treatment.

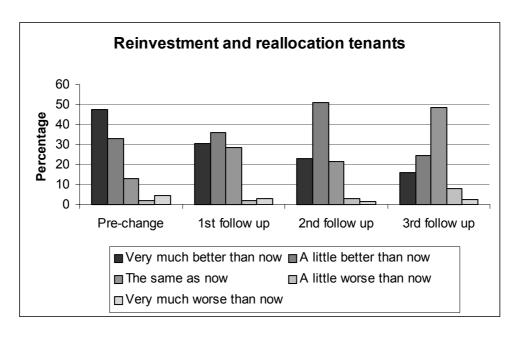
For example, it has been estimated that in 1998/99 a GP consultation cost, on average, £13¹⁴. Taking the time of the last visit as an indicator of frequency of visits and extrapolating from this, a conservative estimate of the cost of our reinvestment and reallocation tenants' GP consultations in one year, prior to housing improvement, can be estimated at £11,388 and, in the year afterwards, at £6,396 - a saving of almost £5,000. Calculated as costs per 1,000 population, the savings would be much larger at around £13,000 or £13 per person. In general, this finding of possible (but not, as yet, unequivocally proven) health service savings being associated with housing improvement is in keeping with findings from other work in London 15,16.

The future

Figures 41 and 42 show the responses to a question about the future and demonstrates, perhaps not surprisingly, that there is a good deal of optimism about the future amongst the reinvestment and reallocation tenants prior to their housing change. However, although there are always significantly higher numbers of tenants feeling optimistic than pessimistic, immediately after the housing improvements have been made levels of optimism fall and, by the third follow up, are similar to those seen amongst the baseline tenants.

Figure 41

What do you think life will be like for you and you family in a year's time?



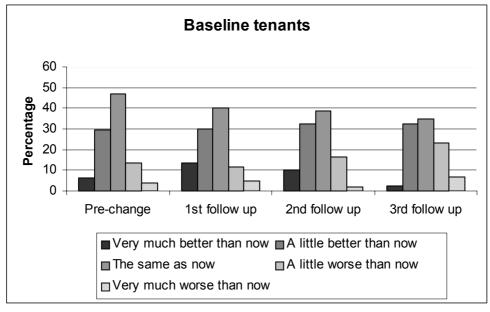
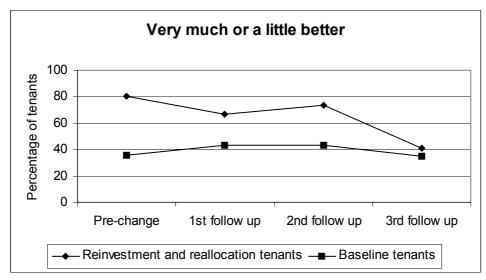
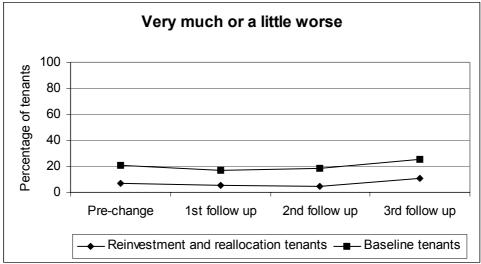


Figure 42

Optimism for the future





Optimism for the future

Statistically significant findings

- A significantly higher number of reinvestment and reallocation tenants were optimistic about the future than were not at every interview (p = 0.000)
- A significant decrease in the number of reinvestment and reallocation tenants who were optimistic immediately following improvements to their housing (p = 0.024)
- A sustained and continuing decrease in levels of optimism amongst reinvestment and reallocation tenants over time (p = 0.014)

Central heating

The national context

It has been estimated that most people living in this country spend 90% of their time indoors and 70% of that time in their own homes¹⁷. The indoor living environment is therefore crucial to health.

Where houses are damp and have inadequate ventilation and mould growth, asthma and other respiratory conditions are common, particularly among children and there is some evidence that improving heating can improve respiratory health. For example, in 1994 Cornwall and the Isles of Scilly Health Authority allocated £300,000 for improvements to 114 damp local authority houses where children with asthma lived and, following the improvements, the energy rating of the homes increased, marked improvements were found in respiratory symptoms and there was a significant reduction in the number of days lost from school because of asthma²⁰.

A lack of adequate heating is also responsible for an increased incidence of hypothermia, heart disease and stroke, particularly in older people^{21,22}. It is estimated that there are 8,000 additional deaths for each degree Celsius that the temperature falls below average and yet a survey in 1988 indicated that 25% of older people do not use their heating as much as they would like to on account of the cost^{23,24,25}.

Shepherd Bush Housing Association's central heating scheme

Towards the end of 2001, a number of SBHA properties which were not included in the immediate reinvestment programme and therefore not scheduled for refurbishment for some years were selected for the installation of central heating using local authority ring-fenced funding.

The central heating survey

In our main health and housing survey good heating was emerging as a high priority for tenants. It came top of the list of housing features which they felt affected their health, with over 90% believing that it had an influence on their health or the health of their family. Given this finding and the existing evidence base in relation to the importance of good heating and ventilation, it was decided to apply the health and housing questionnaire and survey methodology to those properties which were having central heating installed independently of any other refurbishment so that the potential benefits of heating as a health determinant could be separated out from those of more extensive refurbishment, which also usually includes central heating installation.

Eleven tenants agreed to take part in the survey and the numbers of people completing questionnaires in the two follow ups are shown in Table II.

TABLE II

Central heating interviewees

Round of interviews	Number of questionnaires completed
Pre-change	11
First follow up	8
Second follow up	4
TOTAL	23

These numbers are small and, as with the main survey, the numbers of questionnaires completed decreases with the second and third round of interviews so this must be borne in mind when interpreting the findings.

Findings

The findings of the central heating survey are illustrated by the figures in Appendix C, grouped in the same way as the findings from the main survey, and the main points emerging are summarised below.

- There is a marked increase in satisfaction with housing after central heating has been installed and a concomitant rise in the extent to which tenants feel that their housing has an influence on health.
- Satisfaction with the general area also increased after central heating had been installed, as did the belief that the area has an influence on health.
- Feelings of safety inside the home were enhanced after central heating had been installed but the same effect was not observed in terms of how safe tenants felt in the area outside their homes.
- Similarly, more tenants felt that their neighbours were friendly after the installation of central heating and there was a greater feeling of belonging to the community.
- Self-perceived health status improved in general after the installation of central
 heating, although for a small number of tenants the opposite was the case and
 there does not appear to be any overall improvement in health now as
 compared to one year ago. However, fewer tenants said, at the first follow up
 interview, that their health had interfered with their normal daily activities.
 Despite this, a larger proportion had visited their GP within the past month than
 had done so at the time of the first interview.

Supported housing

The national context

The demographic structure of this country's population is changing, particularly with regard to elderly people. In 1901 4.7% of total UK population was aged 65 and over and 1.3% were aged 75 and over. By the beginning of the 1990s the proportions were 15.7% and 7% respectively, with these figures set to rise¹⁷. As in other west European countries the population of Britain is getting older. In 1990 the age dependency ratio (the population aged 65 and over as a percentage of those of working age) was 23.0. By 2030 it will be 31.1²⁶.

As the number of elderly people increases so does the number of elderly people living alone, often without support. With old age comes a deterioration in health and, in many cases, quality of life. 58% of men and 51% of women aged 65-74 report some pain and discomfort and an even greater proportion of those over 75 have difficulty in getting about²⁷. Frailty, hypothermia, falls, incontinence, poor nutrition and poor mental health are all more common in elderly people and fear of crime, particularly in inner city areas, may also be an issue. If informal social support networks are not in place they become increasingly dependent on social and health care services. Those on low incomes are affected disproportionately and poverty may be a continuing, worsening or newly emerging threat for those already in low income groups before retirement age.

Ensuring that elderly people have appropriate housing, with social and other support, can therefore be crucial to their health, well-being and quality of life. The "Supporting People" initiative, introduced in April 2003²⁸ goes some way to meeting these needs, giving a flexible approach to the provision of support by ensuring that local authorities take a more strategic role in determining service provision and offering greater scope for older people to get involved. Linked in with the National Service Framework for Older People, there is an emphasis on the preventative role of sheltered housing which complements other available care services and supports independent living. Examples of such activities in SBHA's supported housing schemes include coordinating visits to tenants for over seventy five health checks, food health promotion, ulcer clinics, transport to day centres and the promotion of gentle exercise.

Nationally, Supporting People impacts on 450,000 sheltered tenants for whom it separates out the cost of providing support from the rent. Tenants are able to apply for means tested benefits to rebate the support charge and there is regular monitoring through service reviews by local authority funders with the aim of levering up the quality of support provided.

Shepherd Bush Housing Association's supported housing provision²⁹

SBHA's Supported Housing Department currently manages 73 flats in three blocks of traditional sheltered accommodation on three different sites within Hammersmith and Fulham. They are

Elizabeth Barnes Court (40 flats);

- Ely Court (19 flats); and
- Asbridge Court (14 flats).

All the schemes aim to provide permanent accommodation or a "home for life" for older tenants in self-contained one bedroom flats for single people or couples. Each flat has a bedroom, bathroom and living room with connected kitchen. All the schemes have a communal room with a small kitchen area for the use of all tenants and all the schemes also have communal gardens.

A sheltered scheme officer services all the flats, aiming to be on site as much as possible during office hours. Their job is to ensure the welfare of the tenants and to keep in touch with relatives and next of kin. They also work closely with local health and other services to ensure that tenants' needs are met. A handyman service is also offered by our partner organisation, Staying Put Services, to tenants moving in.

The purpose of the service provided by SBHA is to assist tenants to live independently and to promote their independent living in an environment where they can participate in the community if they so choose.

More specifically, the service aims

- to provide support plans detailing what support is required, liasing with social services and other agencies to arrange support where required;
- to provide regular checks to ensure tenants' general health and well being;
- to respond to office hour emergencies and provide an alarm service for out of hours;
- · to carry out communal area health and safety checks;
- to promote a range of social events and outings;
- to ensure repairs, communal cleaning and gardening are carried out to a satisfactory standard;
- to maintain updated GP and next of kin details;
- to ensure security;
- to hold spare keys; and
- to help tenants settle in and give advice on facilities and local sources of support or help.

The supported housing is suitable for people over the age of 60 who have support needs although home owners are not eligible and a discretionary policy operates for those under the specified ages if they are physically disabled or require support and would positively benefit from the services offered.

Half of all nominations are reserved for the London Borough of Hammersmith and Fulham. Nominations come from their Special Needs Department, which maintains a

list of sheltered housing applicants across the Borough. The remaining 50% of nominations applications are received from the transfer list or direct applicants.

Priority is given to tenants who are over-occupying accommodation, as well as tenants whose homes are in SBHA's reinvestment programme.

The supported housing survey

The supported housing team at SBHA had expressed a keen interest in the health and housing work since it began and, towards the end of 2001, it was decided to extend the health and housing survey to include supported housing tenants. The purpose of this was twofold:

- to build up a picture of health status and health related concerns amongst the supported housing tenants which might inform the work of the supported housing team and the wardens of the schemes; and
- to start to monitor changes in health status for people moving into SBHA's supported housing units;

Since the start of this part of the survey only four people have moved into the supported housing flats and, although they were all interviewed before and after they moved, the numbers are too small at present to analyse in any meaningful way. However, a precedent has been set for this type of monitoring and we are currently exploring ways of continuing this area of work.

In terms of building up a picture of health status and health related concerns amongst supported housing tenants, more progress has been made and the findings are presented here. They have subsequently been presented to the tenants of the supported housing flats and at a supported housing open day and they have been reviewed by the supported housing team with a view to acting on some of the recommendations arising from them.

Questionnaire and interview methods

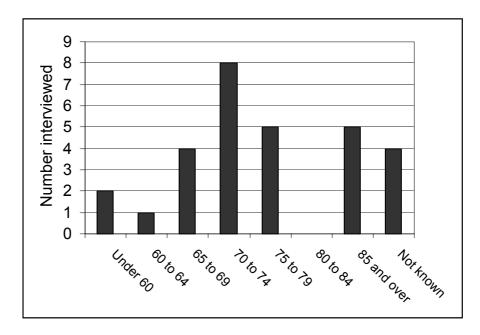
The same questionnaire as that used in the main health and housing survey was used for supported housing tenants, with an enlarged typeface version available for those with visual impairments.

The first round of questionnaires was administered at coffee mornings held at each of the supported housing schemes at the end of 2001 and the beginning of 2002. This allowed us to give tenants a brief introduction about SBHA's health and housing work and also provided an opportunity for social interaction. The tenants were encouraged to complete the questionnaires on their own, with guidance from the supported housing officer and health and housing staff where necessary. Subsequently, for the six monthly follow ups, the questionnaires were administered by individual interviews or by self completion, depending on the tenants' wishes.

The survey population

In the first round, 29 supported housing tenants completed questionnaires. The average age amongst those interviewed was 74 years and the numbers in each age group are shown in Figure 43.

Figure 43
Supported housing interviewees by age group



The numbers of people completing questionnaires in the two follow ups which have been undertaken are shown in Table III.

TABLE III

Supported housing interviewees

Round of interviews	Number of questionnaires completed
First	29
Second	21
Third	12
TOTAL	62

As with the main survey, the number of questionnaires completed decreases with the second and third round of interviews and this should be borne in mind when interpreting the findings. It is also important to note that, probably because of the method of questionnaire administration, there are some missing data, particularly in the first round.

Findings

The findings of the supported housing survey are illustrated by the figures in Appendix D, grouped in the same way as the findings from the main survey and the main points are summarised below.

- There is a high level of satisfaction with the supported housing accommodation and with the general areas in which it is situated.
- Most of the supported housing tenants who were interviewed feel safe inside their homes and some, but not all, feel safe in the area outside.
- All supported housing tenants who were interviewed feel that their neighbours
 are friendly and there is a strong sense of community although there is a small
 but significant number of people who do not feel part of that community.
- There is some awareness of the influence on health of housing, the local environment, crime and the fear of crime and social networks but this is not particularly strong.
- As might be expected in a largely elderly population, health status is generally not good although in the tenants who were interviewed it appears to be improving over time. However, this may be a function of when the interviews were carried out. By and large, the first round of interviews was done in mid winter, the second in spring and the third in late summer or early autumn.
- Around half of those interviewed had longstanding health problems such as problems with mobility, pain and discomfort which affected their daily lives.
- Despite this, most tenants are independent and few have need of help with their self care.
- Around a third have aids and adaptations in their homes and a quarter said that they needed aids and adaptations but did not currently have them.
- Around one in three tenants expressed some level of anxiety or depression.
 This rate is high, but not as high as the levels generally seen amongst tenants in general purpose homes which have not been renovated.
- In keeping with the generally poor level of health amongst tenants, the use of health services is high but appears to be decreasing over time. This may be partly due to the seasonal factor noted above and partly due to the provision of health care services within the supported housing schemes.
- There are mixed views about the future.

The implications for supported housing provision

The findings of the survey are very encouraging in terms of the level supported housing tenants' satisfaction with their accommodation and the communities in which they live. However, there are some issues which it may be helpful to explore in more detail.

A representative sample?

It is not known how representative our sample of interviewees was and so the findings cannot be taken at face value. For example, it is possible that only those who feel safe and have a sense of belonging came to the coffee mornings at which the interviewees were recruited to the survey and there may be other tenants who feel socially isolated or who have fears about their personal safety whom we did not reach. In order to elucidate these issues and to test the current findings it would be necessary to extend the survey to all supported housing tenants. As this is not within the remit of the current study, the supported housing team may wish to explore ways of doing this, perhaps over time by building up the database of new tenants coming into the schemes.

Crime and the fear of crime

Although most supported housing tenants feel safe in the area outside their homes there is a small but significant number of people who do not. A review of the responses to "open" questions about safety suggests that there may be some issues which can be addressed such as liaison with the local police, for example through arranging talks about the real risk of crime and ways to enhance personal safety outside the home, and with the local authority to review street lighting and pavement maintenance.

Health status and health service usage

The supported housing team already arrange for transport to health clinics and for some health care professionals to visit the schemes, often combining these occasions with social events. The findings of the survey give some pointers as to how these activities can be targeted in future to ensure that appropriate treatment and care is easily accessible. This process could be started by presenting the findings of the survey to the tenants, wardens and health care professionals already associated with the schemes and inviting their views on how services might be developed in the future, for example to address the high levels of pain and discomfort suffered by some of those interviewed.

Another area which stands out is the issue of mobility and, whilst treatment might help in some cases, the amelioration of the problem may lie within the remit of the supported housing team and a starting point might be to review the need for aids and adaptations within the supported housing flats.

Ethnicity and housing allocation

The national and local context

Around 5% of the population of Britain belong to black and other minority ethnic groups (excluding some white ethnic groups such as those of Irish descent who account for a further 5%)³⁰.

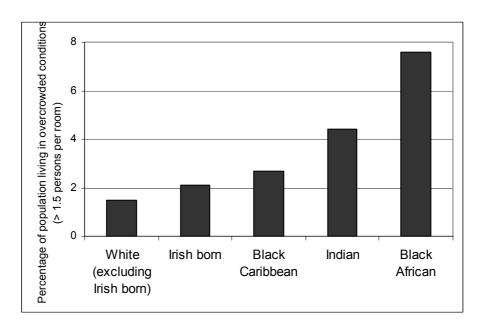
The demographic profile of these populations tends to be younger than that of the population as a whole yet there are marked inequalities in their health status. For example, people from the Indian subcontinent are at higher risk of coronary heart disease and diabetes, Afro-Caribbeans have higher rates of stroke and young black men have particularly high rates of referral for mental illness. The incidence of blood disorders is also considerably higher in some groups - for example, thalassaemia in those of Mediterranean and middle eastern origin and sickle cell in black Africans³¹.

It is also unfortunately the case, for a complexity of reasons, that many people from black and minority ethnic groups also experience socio-economic disadvantage. Partly because of this and partly because of the younger age structure, housing conditions for some black and minority ethnic populations may be poor. For example, in the mid 1980s households headed by someone from the New Commonwealth or Pakistan were seven times more likely to be overcrowded and fourteen times more likely to be extremely overcrowded (with more than 1.5 people per room) than households whose head was born in the United Kingdom³².

More locally, an analysis of housing statistics for the London Borough of Hammersmith and Fulham³³ also shows that overcrowding is more common in households headed by someone from a black or other minority ethnic group, as illustrated in Figure 44.

Figure 44

Overcrowding



The same analysis also showed that the Irish born population - which has an older demographic structure than both white non-Irish and non-white groups in Hammersmith and Fulham - have lower than average rates of owner occupation and high rates of sharing facilities such as bathrooms and toilets³³.

SBHA and black and minority ethnic health issues

SBHA has a strong track record of working with black and minority ethnic organisations locally and is proud of the ethnic and cultural diversity of its staff and tenants. In recent years it has developed a diversity and black and minority ethnic strategy which has included diversity and cultural awareness training for all staff members³⁴.

In keeping with SBHA's aim of contributing towards reducing health inequalities and in recognition of the richly diverse make up of the local population, at an early stage in the health and housing study it was decided that we should try to explore, where possible, the ways in which housing provision might impact differentially on people from different ethnic backgrounds.

The numbers of our survey tenants falling into each ethnic grouping are too small to allow a detailed analysis of responses to the questionnaire by ethnicity but the analyses that have been made suggest that there are few if any differences between the groups. However, a review of some of the health related data from our survey population's tenant details forms has proved useful in elucidating some of the issues relating to housing allocation not only for black and other minority ethnic groups but for our tenants as a whole.

The survey population

Figure 45 shows the proportions of people in our survey population by ethnic group and, for comparison, the ethnic make up of the London Borough of Hammersmith and Fulham which serves as a proxy for the wider area in which SBHA operates.

Compared with the wider population, all ethnic minority groups are over-represented in our survey population (and probably in our tenant population as a whole) and this is likely to be related to some of the socio-economic differences between ethnic groups which have been alluded to earlier.

Given that, nationally, black and some other minority ethnic populations tend to have a younger age structure than the white population, it is perhaps surprising that there does not appear to be any great variation in household structure by ethnic group within our survey population. As shown in Figure 46, the proportion of households with children living with either one or two adults do not vary greatly between ethnic groups and the only striking features are the high proportion of Irish people living alone (which is in keeping with what is known about the older age structure of the Irish population in Hammersmith and Fulham) and the absence of single people living alone amongst the Asian tenants.

It is important to remember, however, that these analyses are based on relatively small numbers of people in each category - particularly the Asian group - and for this reason all the "black" groups have been added together, possibly masking differences between them.

Figure 45

Population by ethnic group

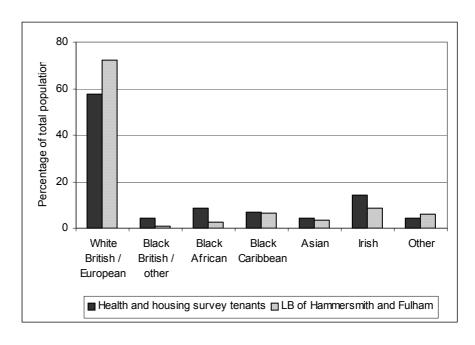
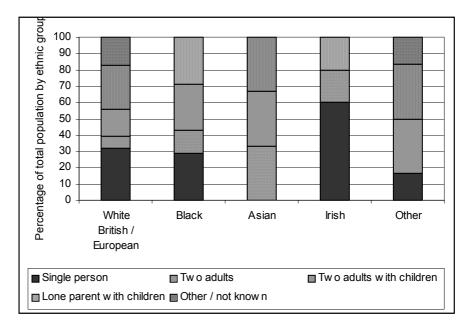


Figure 46

Household structures by ethnic group



Meeting the needs of disabled people

As illustrated in Figure 47, disability rates amongst our survey tenants appear to vary by ethnic group but these findings cannot be interpreted with any degree of certainty because of the small numbers involved this level of analysis. As before, all the "black" groups have been added together and the finding in relation to the Asian group in particular must be viewed with extreme caution.

What the figures do illustrate, however, is that SBHA is currently providing housing for people of all ages and ethnic backgrounds who have disabilities.

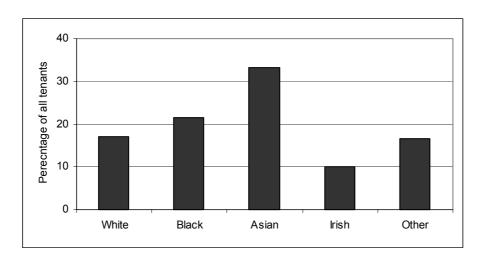
The analysis of the survey tenants overall has given some indication of the extent to which the needs of these tenants are being met and the tenant details provide more information. Before any housing improvements took place, almost 70% of tenants with a disability were living in houses or ground floor flats whilst the remainder were in flats on higher storeys without a lift, although these tended to be people with disabilities other than problems of mobility. As the survey has progressed, the number of reinvestment and reallocation tenants with disabilities but still needing aids and adaptations has reduced dramatically (and there are indications that almost all the needs of this group have been met over a period of time) although it is known that there remains a small number of baseline tenants with a need for aids and adaptations which they do not currently have.

Housing allocation

Meeting the needs of all tenants, regardless of ethnicity or disability status, in terms of the size of property, has also emerged as an important issue from the analysis of tenant details. The vast majority of our properties are flats with either one or two bedrooms yet almost half of our tenants (45.9%) are families with one or more children and over one in twelve families (8.0%) are in homes with fewer bedrooms than they need whilst almost one in twenty five (4.1%) are occupying properties which are too large for their needs.

Figure 47

Registered disabled people by ethnic group



Requests for medical transfer

Requests for transfer - the context

At any one time around 500 of our tenants are on a waiting list, having applied for a transfer to another home which more closely meets their housing needs, yet very few of these each year have a realistic chance of being offered another SBHA property. This is despite our extensive home building programmes and part of a wider regional situation whereby demand for housing far outstrips its availability.

To ensure that the transfers which can be made are as fair as possible, SBHA - like other housing associations - use a points system to prioritise requests for transfer, with points being allocated according to a number of factors such as

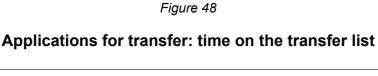
- the need for more bedrooms, for example where children are sharing a bedroom
 or where there is a need to have separate bedrooms for people of the opposite
 sex;
- the lack of a living room as, for example, in bed sits;
- household separation, for example following a divorce;
- social reasons, for example to be closer to family members who can help with childcare;
- travel reasons, for example where a child needs to attend a specialist school;
- the need for decantation during refurbishment works;
- under-occupancy; and
- medical conditions or health needs, with requests for a transfer on medical grounds being examined on a case by case basis by an independent medical assessor and classified as "urgent", "severe" or "moderate".

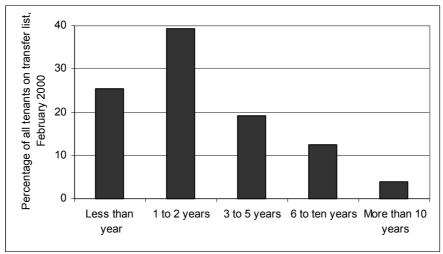
Additional points are allocated according to the length of time a tenant has been on the waiting list and there is also scope for discretionary "management transfer" points where there is an urgent need for a tenant to move, for example because of discrimination or harassment.

In order better to understand requests for transfer on medical grounds and to explore possible alternative solutions where these requests cannot be met, an analysis was made of the transfer list at one point in time during the course of the health and housing study.

All applications for transfer

At the end of February 2000 there were 497 tenants on the transfer list. The majority of these had applied for transfer to another property within the last 3 years but, as shown in Figure 48, some had been on the list for much longer.





Most tenants had been allocated points for multiple criteria but by far the most common reason for having applied for a transfer was space, where additional bedrooms were needed (60.8% of all tenants), and this was often accompanied by other reasons, particularly sex separation for children (18.5%). This finding is in keeping with anecdotal evidence from SBHA staff, who report that transfer requests are most often received where a single person or couple has moved into a one-bedroom property and subsequently "outgrown" it as they have had children.

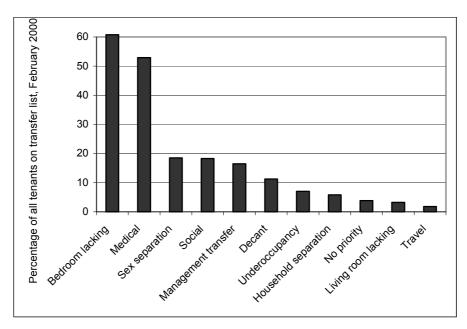
The second most common reason for requesting a transfer was on medical grounds, with over half of those on the list (52.9%) having been allocated points for a medical transfer.

In addition, there were 35 tenants (7% of all those on the transfer list) who wanted to move to a smaller property.

Figure 49 shows the reasons cited for requesting a transfer for all tenants on the list at the end of February 2000.

Figure 49

Reason for application for transfer

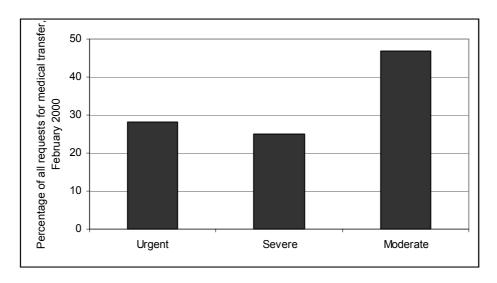


Applications for transfer on medical grounds

Of the 263 tenants who had applied for transfer partly or wholly on medical grounds, almost half were classified as "moderate" (46.8%), a quarter as "severe" (25.1%) and just over a quarter as "urgent" (28.1%), as shown in Figure 50.

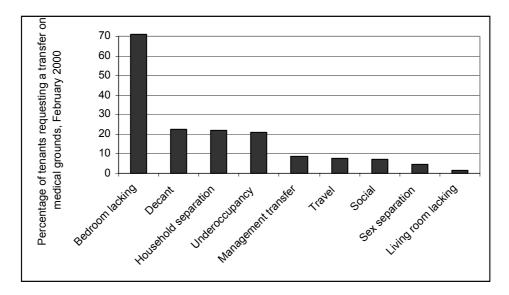
Figure 50

Classification of requests for medical transfer



In around a third of all cases, medical grounds were the sole reason for requesting a transfer but in the majority of cases other reasons were also cited, as shown in Figure 51.

Figure 51



Where there were multiple reasons for the request for transfer, a lack of bedrooms was, again, the most common other reason. An analysis of individual cases over time shows that it is common for a request for transfer to be made initially on the grounds of a lack of space with medical factors coming into play over time. There is also some evidence that, in a small number of cases, there is a reclassification from "moderate" to "severe" or from "severe" to "urgent" medical grounds.

THE IMPLICATIONS FOR HOUSING POLICY AND PLANNING

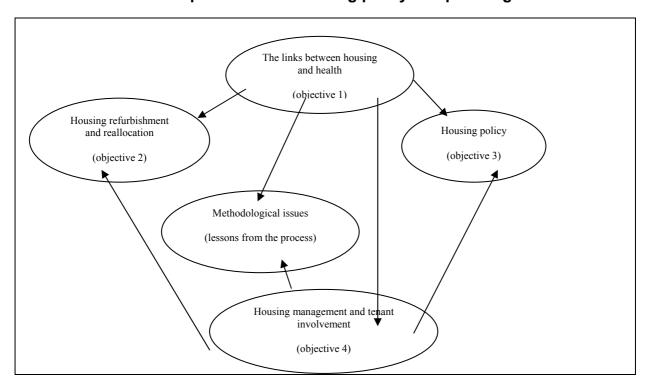
The original objectives of this study can be summarised as four broad questions:

- How does housing improvement affect health, well-being and quality of life?
- Which aspects of housing should be a priority if health is to be improved?
- How can housing associations, together with partner organisations, contribute to health improvement?
- How can tenants be encouraged to become more involved in housing management?

In order to try to answer these questions, the implications of the findings of our study have been structured under a series of headings, as illustrated in Figure 52. In addition, some lessons have been drawn from the process in relation to methodological issues.

Figure 52

The implications for housing policy and planning



The links between housing and health

Nationally it is estimated that there are now 1.5 million homes (7.5% of the total) which are considered unfit for human habitation, a state of affairs which has not changed since 1991³⁵. In addition there are many more homes which are poorly designed or equipped, putting their occupants at risk of accidental falls, fires and carbon monoxide poisoning.

As noted in the section on central heating, respiratory infections are associated with damp conditions and a lack of adequate heating is responsible for increased incidence of hypothermia, heart disease and stroke, particularly in older people^{21,22}. It is estimated that there are 8,000 additional deaths for each degree Celsius that the temperature falls below average and yet a survey in 1988 indicated that 25% of older people do not use their heating as much as they would like to on account of the cost^{23,24,25}.

Amongst families on low incomes, overcrowded housing compounds the problems they already experience and makes them more vulnerable to respiratory infections, stress and accidental injury.

These associations between housing and ill-health (or, more correctly, diagnosable medical conditions) are well established in the literature but our study is one of the first undertaken on a relatively large scale which starts to make the links between housing and health in terms of well-being and quality of life, based on a social model of health and the wider determinants of health, well-being and quality of life.

We have demonstrated that housing improvements (either through refurbishment or reallocation) can lead to significant and sustained improvements in levels of satisfaction with housing and that there are concomitant improvements in self-perceived health status, at least in the short term, with these changes being sustained over a longer period in some groups. Tenants whose housing conditions were improved were also more likely to suffer fewer problems with mobility, the activities of daily living and pain and discomfort and these benefits can, in some cases, be linked to the meeting of their health-related needs by the provision of more appropriate housing with aids and adaptations where necessary.

At the same time, we have shown that housing improvements can be associated with improvements in a range of other indictors of well-being and quality of life such as satisfaction with the general area, feelings of safety both inside and outside the home, relationships with neighbours and feelings of belonging to the wider community.

It is perhaps pertinent to note at this point the strength of the evidence which our survey has produced and that of other evidence available in the literature. In some cases, there are well-established causal pathways between health determinants and measures of health status (or ill-health) whilst in others there is a clear association although an explicit causal link may not have been established, as illustrated in Table IV.

TABLE IV

Making the links between health determinants and health outcomes³⁶

Consequences

e.g. differential mortality rates

•

(causal link established)

•

Outcomes

e.g. coronary heart disease

•

(causal link established in some cases)

•

Causes

e.g. smoking, poor diet

•

(association can be demonstrated but causality usually can't)

•

Causes of the causes

e.g. housing, low income, poverty

Our survey has shown clear links between housing improvement, changes in self-perceived health status and shifts in the distribution of health determinants but these links are associations rather than causal pathways. The lack of direct causal (or clinical) evidence, however, should not be a barrier to action. Enough is known for policy to be developed on the basis of the links and associations we have demonstrated and, as healthy housing policies are implemented and developed further, the findings from monitoring and evaluation procedures can be incorporated into the existing evidence base.

Housing refurbishment and reallocation

Housing quality

Having established that there is a clear association between housing and health, well-being and quality of life, it is important to know which elements of housing are

most likely to make a difference in order to be able to prioritise between the resources available for refurbishment or reallocation.

For our tenants, heating, sound insulation, space and security are high priorities and allocating resources to these is likely to result in the most striking health improvements, at least in the short term. Security measures and sound insulation are particularly important as they are associated with changes following refurbishment or reallocation which were sustained over the longer term.

The installation of central heating without other refurbishments being made at the same time showed some benefits, particularly in terms of tenants' satisfaction with their housing, although it did not lead to such marked improvements in self-perceived health status or strong associations with other health determinants as the fuller refurbishment programmes. However, evidence from elsewhere suggests that the installation of central heating alone may have very tangible benefits on aspects of physical ill-health which we did not measure in our study.

For example, in 1994 Cornwall and the Isles of Scilly Health Authority allocated £300,000 for improvements to 114 damp local authority houses where children with asthma lived. 71 children were involved. Before the improvements, 68 children were sleeping in unheated bedrooms and 43 in bedrooms which were damp or mouldy. Following the improvements, the energy ratings of the homes increased and numbers fell to 3 and 15 respectively. Marked improvements were found in respiratory systems and there was a significant reduction in the number of days lost from school because of asthma²⁰.

The wider physical and social environment

The wider social environment has been shown in other work to be an important health determinant in terms of crime and community safety, leisure and recreational facilities, transport and access to shops and health services and access to social networks. Social support has a powerful protective effect on health³⁷ and it is becoming apparent that social cohesion is crucial to quality of life and may be even more important than the direct health effects of absolute material living standards³⁸.

The tenants involved in our survey appear to have a growing awareness of the wider influences on their health. We have demonstrated that many of these factors are just as important to some of our tenants as their housing and it is notable that improving the quality of housing has a knock on effect on some of these other issues. There were, for example, strong associations between satisfaction with housing and satisfaction with the general area as well as the extent to which tenants felt safe within and outside their homes, their relationships with neighbours and their feelings of belonging to the local community.

In some cases, these findings were surprising. For example, after housing improvements had been made tenants were more likely to say that their neighbours were friendly or that they were satisfied with the general area in which they lived, even if they had the same neighbours as previously and lived in the same area. This suggests that housing improvements may have affected their psychological health and well-being - in other words, it had improved their outlook on life.

Having said that, the question about the future showed that the prospect of housing improvement gave many tenants a very positive feeling that their life was about to change for the better but this was not sustained over time. This suggests that, in order to maintain some of the benefits offered by housing improvement, it is necessary to view the reinvestment and refurbishment programmes in a wider context and also possibly consider other ways in which tenants can be given a regular "uplift".

The supported housing survey gave some very practical indicators about how this might be done in relation to crime and the fear of crime. Although most supported housing tenants felt safe in the area outside their homes there was a small but significant number of people who did not. A review of the responses to "open" questions about safety suggests that there may be some issues which can be addressed such as liaison with the local police, for example through arranging talks about the real risk of crime and ways to enhance personal safety outside the home, and with the local authority to review street lighting and pavement maintenance.

Housing policy

Three broad prerequisites for housing policy arise from our findings:

- the provision of high quality housing as a key to good health and well being;
- the provision of housing which is set within a wider physical and social environment which is attractive and safe, with good services and the potential for fostering healthy community development; and
- the appropriate planning and provision of housing for people with special needs to ameliorate the some of adverse health effects caused by factors such as age and disability.

To ensure that these prerequisites are met, further consideration needs to be given to some more detailed aspects of policy and, in particular, issues relating to equity and inequalities, meeting tenants' needs and partnerships with other agencies.

Equity and inequalities

The improvements in health seen in the intervention group (the reinvestment and reallocation tenants) are to be welcomed, particularly as it reduces inequalities between them and the wider population. For example, across London in 2001, 64% of people assessed their health to be good, 26% fairly good and 11% not good³⁹. Whilst the data are not directly comparable to ours, there does appear to be some convergence in the self-perceived health status of our tenants and that of Londoners as a whole. However, it would appear that being involved our study has raised awareness of health issues, most notably in the baseline tenants and, alongside this, there may now be even starker differences between those tenants whose housing has been improved and those whose has not.

At the start of the study the baseline group, which was slightly different in age and sex than the intervention group, had significantly lower levels of health and higher rates of current health problems (for example with mobility, performing their usual activities, pain and discomfort and anxiety and depression) than the reinvestment and reallocation tenants. In line with this they had higher levels of need for aids and adaptations. In the follow up interviews, not surprisingly, some of these differentials between the two groups were exaggerated and, in some cases, there was a deterioration in the baseline group, for example where their need for aids and adaptations remained unmet.

This raises questions about the criteria for selection of properties for early inclusion in the reinvestment programme. Although all properties will eventually be improved this is, necessarily, a rolling programme which is done on the basis of the state of the property rather than on the needs of the tenants. There is some flexibility for changing the order of improvements in order to meet tenants' needs but if the reinvestment programme were to take an entirely needs based approach it would be necessary, if it were to be truly equitable, to make an individual health assessment of every tenant.

This is not feasible so instead there must be consideration of how the programme can be made as fair and transparent as possible within its current constraints, for example by ensuring that tenants have a clear idea of the basis on which properties are selected for refurbishment and when they can expect their property to come into the reinvestment programme.

Similar clarity is also required for reallocation tenants who, in the main, are new tenants referred by the local authority. Many of these, prior to referral, are homeless or in temporary accommodation and therefore at increased risk of a range of health problems including mental illness and respiratory disease. Other studies have shown that 45% of people living in bed and breakfast accommodation experience psychological distress compared with 20% of the population as a whole. For young homeless women the threat of violence is often all too real and their children are more likely to suffer from low birthweight, infant mortality, a range of childhood infectious diseases and developmental difficulties⁴⁰. There is therefore scope for working with the local authority to ensure that their referrals are based on need wherever possible and within the constraints of the available housing stock.

Meeting tenants' needs

During the course of our study there have been marked improvements in the speed with which tenants' needs for aids and adaptations have been met. This has been as a direct result of two factors. Firstly, the early survey findings indicated that assessments were not always being undertaken in time for the aids and adaptations needed to be installed at the time of the refurbishment and this has now been remedied. Secondly, the incorporation of Staying Put Services into SBHA has given us a greater capacity for making assessments and providing a more rapid and responsive service.

However, amongst those tenants whose properties are not immediately due for refurbishment, identifying and meeting their needs for aids and adaptations is still, to some extent, opportunistic. For example, the central heating survey shows that during the course of installing central heating systems, a number of needs for aids and adaptations were identified and subsequently met. Additionally, being involved in the health and housing survey gave some baseline tenants the information and impetus for requesting aids and adaptations which they felt were needed to improve their quality of life.

There is therefore some scope for further work on identifying these needs perhaps by providing more information to tenants about how they can be assessed. This would almost certainly be of benefit to a large proportion of the tenants on the medical transfer list. For example, where a tenant has mobility problems and has requested a transfer to another property solely on that basis, the problems might more easily be solved by the provision of aids such as stairlifts or specially adapted bathrooms.

Additionally, where tenants have asked for a transfer to another property because their current home is either too large or too small for them there is scope for matching up tenants for exchange. Given the shortage of larger properties, consideration might also be given to increasing the level of incentives offered to tenants living in larger properties with more bedrooms than they need.

Partnerships with other agencies

Whilst the housing sector can do much to improve health, well-being and quality of life, much more can be done by working in partnership with other agencies. For example, improving the wider environment requires close co-operation between the wider community, urban planners, the transport sector, the police and others, whilst housing for special needs must be planned jointly with health care and social services.

In relation to people with disabilities and their needs for aids and adaptations there could, for example, be closer working with health and social services to ensure that the full range of needs are identified along with ways of meeting them appropriately.

In some ways, the supported housing team has already started to lead the way in this respect. They already arrange for transport to health clinics and for some health care professionals to visit the schemes, often combining these occasions with social events.

The findings of the survey give some pointers as to how these activities can be targeted in future to ensure that appropriate treatment and care is easily accessible,

for example by presenting the findings of the survey to the tenants, wardens and health care professionals already associated with the schemes and inviting their views on how services might be developed in the future, for example to address the high levels of pain and discomfort suffered by some of those interviewed.

Whilst this might not be feasible for general needs homes, our tenants are usually in close communication with SBHA and so we could, conceivably, be a conduit for information about access to and appropriate use of health and social care services. Many of our staff have a high level of awareness of health issues, partly because of their involvement in the health and housing study, and it would be a natural next step to start developing more formal training and links with other agencies, for example through exchange visits or joint seminars and awareness raising between the housing and health care sectors.

The health service has a vital role to play in ameliorating the effects of ill-health by treating its symptoms and ensuring a smooth transition between health care and social services where appropriate, but it is not the only, or even the most important, factor determining health, well-being and quality of life¹. The findings of our study not only give some interesting information about the possible effect of housing improvement on health service usage but also provide a powerful starting point for opening up discussions with, for example, the local Primary Care Trusts about how closer working can be achieved and how resources can be most effectively shared and targeted. Some of these links are already being made, linking in to existing health services agendas such as the Programme for Action on Health Inequalities⁴¹.

Housing management and tenant involvement

The main issue emerging from our findings relates to information and communication with tenants and, as noted above, there is scope for exploring ways in which this can be improved, for example in relation to the identification of needs for aids and adaptations and the communication of policy decisions about housing refurbishment programmes.

The findings also provide a basis on which a dialogue could be opened up with tenants about their priorities and how we can adapt housing policy in line with their views. For example, the survey has shown that some factors are more likely than others to make a difference to health and these tend to be the more expensive components such as sound installation and central heating. As a result, it may be necessary in the future to make a value judgment about whether it is better to install these components for a small number of people or whether to install cheaper components for a larger number of people. This would require clear communication with tenants about the options available, the resource constraints and their involvement in the decision making process.

Methodological issues

During the course of this work a great deal has been learnt about the design and administration of a large scale survey and it is envisaged that a qualitative evaluation of this process will be made and published separately. Some of the questions which this evaluation will seek to answer are outlined in Appendix E.

There are, however, two immediate points which can be made and which have shaped some of the recommendations in the following chapter.

Firstly, we have developed a viable tool for assessing the impact of housing on health and producing evidence to fill some of the gaps in current knowledge. This tool - in the form of the questionnaire - has been adapted for a range of other work, notably for health needs assessments in two New Deal for Communities areas in north and west London^{11,12} and in a range of health impact assessments⁴². It is therefore a good starting point for other agencies wishing to develop similar, if smaller scale, evaluations of the impact of their work on the health of other populations.

Secondly, we have used the process of the study to create training and employment opportunities in survey administration and social survey research. Over the course of the work, in addition to the involvement of our existing staff, we have trained and employed five people drawn from the long-term unemployment register (in addition to almost twenty others involved in related work) and this too is a model which can be applied elsewhere. More details of the way in which this was done are given in our second annual report⁴³.

Requests for medical transfer

Requests for transfer - the context

At any one time around 500 of our tenants are on a waiting list, having applied for a transfer to another home which more closely meets their housing needs, yet very few of these each year have a realistic chance of being offered another SBHA property. This is despite our extensive home building programmes and part of a wider regional situation whereby demand for housing far outstrips its availability.

To ensure that the transfers which can be made are as fair as possible, SBHA - like other housing associations - use a points system to prioritise requests for transfer, with points being allocated according to a number of factors such as

- the need for more bedrooms, for example where children are sharing a bedroom
 or where there is a need to have separate bedrooms for people of the opposite
 sex;
- the lack of a living room as, for example, in bed sits;
- household separation, for example following a divorce;
- social reasons, for example to be closer to family members who can help with childcare;
- travel reasons, for example where a child needs to attend a specialist school;
- the need for decantation during refurbishment works;
- under-occupancy; and
- medical conditions or health needs, with requests for a transfer on medical grounds being examined on a case by case basis by an independent medical assessor and classified as "urgent", "severe" or "moderate".

Additional points are allocated according to the length of time a tenant has been on the waiting list and there is also scope for discretionary "management transfer" points where there is an urgent need for a tenant to move, for example because of discrimination or harassment.

In order better to understand requests for transfer on medical grounds and to explore possible alternative solutions where these requests cannot be met, an analysis was made of the transfer list at one point in time during the course of the health and housing study.

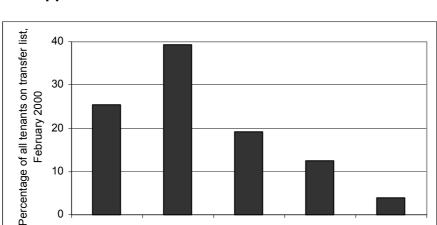
All applications for transfer

0

Less than

year

At the end of February 2000 there were 497 tenants on the transfer list. The majority of these had applied for transfer to another property within the last 3 years but, as shown in Figure 48, some had been on the list for much longer.



3 to 5 years 6 to ten years More than 10

years

Figure 48 Applications for transfer: time on the transfer list

Most tenants had been allocated points for multiple criteria but by far the most common reason for having applied for a transfer was space, where additional bedrooms were needed (60.8% of all tenants), and this was often accompanied by other reasons, particularly sex separation for children (18.5%). This finding is in keeping with anecdotal evidence from SBHA staff, who report that transfer requests are most often received where a single person or couple has moved into a onebedroom property and subsequently "outgrown" it as they have had children.

1 to 2 years

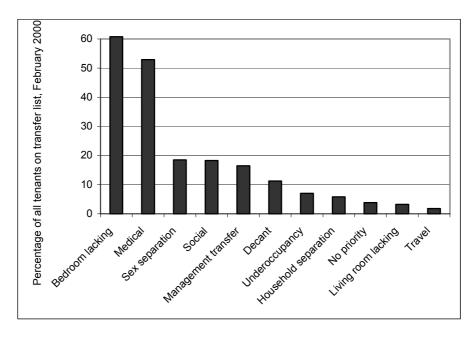
The second most common reason for requesting a transfer was on medical grounds, with over half of those on the list (52.9%) having been allocated points for a medical transfer.

In addition, there were 35 tenants (7% of all those on the transfer list) who wanted to move to a smaller property.

Figure 49 shows the reasons cited for requesting a transfer for all tenants on the list at the end of February 2000.

Figure 49

Reason for application for transfer

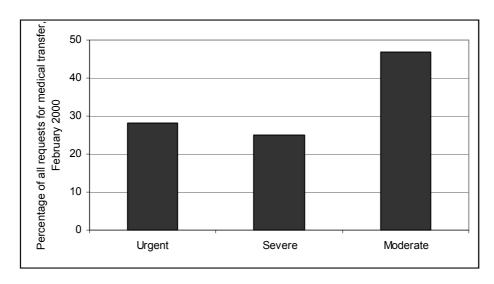


Applications for transfer on medical grounds

Of the 263 tenants who had applied for transfer partly or wholly on medical grounds, almost half were classified as "moderate" (46.8%), a quarter as "severe" (25.1%) and just over a quarter as "urgent" (28.1%), as shown in Figure 50.

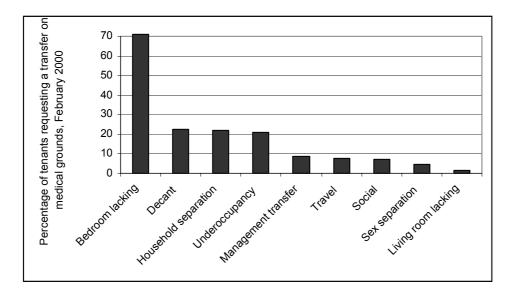
Figure 50

Classification of requests for medical transfer



In around a third of all cases, medical grounds were the sole reason for requesting a transfer but in the majority of cases other reasons were also cited, as shown in Figure 51.

Figure 51



Where there were multiple reasons for the request for transfer, a lack of bedrooms was, again, the most common other reason. An analysis of individual cases over time shows that it is common for a request for transfer to be made initially on the grounds of a lack of space with medical factors coming into play over time. There is also some evidence that, in a small number of cases, there is a reclassification from "moderate" to "severe" or from "severe" to "urgent" medical grounds.

RECOMMENDATIONS

The main recommendations emerging from the report are outlined in the following pages, and Table V summarises the recommendations and indicates which organisation might be responsible for implementing them.

Making the links between housing and health

It is recommended that

- the report is disseminated widely to a range of organisations; and
- ways of building on the findings are explored further to provide more detailed information about tenants' needs and to identify ways of meeting them, possibly in partnership with other organisations such as the Primary Care Trusts (PCTs) and local authority;

Those identified as having a potential interest in the report include

- Shepherds Bush Housing Association (the senior management team, including those responsible for the reinvestment and reallocation programmes, all staff and all tenants;
- the Housing Corporation;
- other housing associations;
- health and social care services, such as the local PCTs and the Strategic Health Authority;
- local authorities;
- the London Public Health Observatory;
- the Government Office for London; and
- relevant central government departments such as the Office of the deputy Prime Minister, the Neighbourhood Renewal Unit and the Department of Health, to advocate for strengthening the links between housing and health in national policy making.

The dissemination process has already begun in that the Steering Group involves members of many of these organisations and some SBHA staff have been involved in the development of the recommendations. In addition, the findings have been presented to representatives of some local PCTs, local authority housing departments and other registered social landlords (RSLs) and they will be presented in workshops at the SBHA staff conference in December this year.

As well as sending copies of the report to our existing mailing list, the public health network and the health and housing network, dissemination will take a number of forms, including the publication of journal articles, a press release and presentation at conferences as appropriate.

Housing refurbishment and reallocation

It is recommended that

- priority is assigned to those components of housing refurbishment central heating, sound insulation and security measures - that give the best returns in terms of health gain;
- a review is made of the level of flexibility for planning the refurbishment programme on the basis of tenants' needs;
- clear information is provided to tenants on the criteria used for prioritisation within
 the reinvestment programme together with management of their expectations
 about when they can expect their properties to come into the programme, for
 example by using a more personalised approach;
- a review is made, with the local authority, of their criteria for referral to the reallocation programme;
- the issue of the isolation which new tenants may feel when they are allocated to a property in a new area is addressed, for example, through the production of "neighbourhood starter packs" or the provision of social and community support;
- the issue of data completeness, for example for ethnicity data, is reviewed and the data linkages explored to ensure that adequate data is available for monitoring allocation procedures and policy development.

Housing policy - meeting tenants' needs

It is recommended that

- programmes for housing provision are developed in the context of the wider environment, for example through advocacy with the local authority about street cleaning and working with the police to provide tenants with information about crime rates and advice on crime prevention; and
- consideration is given to the ways in which the early health benefits of reinvestment and reallocation can be sustained over time, for example, by finding ways of giving tenants a "boost" every few years.

Aids and adaptations

It is recommended that

- the work which has already started to make timely assessments of the need for aids and adaptations in the reinvestment and reallocation programmes is continued and that the situation is monitored on an ongoing basis; and
- a review is made of the ways in which the need for aids and adaptations are identified and met, for example by undertaking a joint piece of work with health and social care services to review the way in which information is presented and disseminated.

Supported housing

It is recommended that

- a review is made of the findings to date in order to develop an action plan as appropriate including, for example, ways of building on the work which has already started to meet health care needs, address the fear of crime and improve street lighting and pavement maintenance;
- consideration is given to extending the survey to build up a stronger baseline, with "before" and "after" responses for new tenants being collated over time; and
- a review is made of the need for aids and adaptations within supported housing flats, linking to the provision of aids and adaptations in general needs homes and building on the work which is already being done by SBHA and other registered social landlords on "homes for life".

Medical transfers

It is recommended that

- a detailed review is made of requests for transfer made solely on the basis of medical reasons in order to identify where alternative solutions can be found, for example where aids and adaptations may render the current accommodation more appropriate; and
- a review is made of requests for transfer where under occupation is an issue, for example by giving maximum transfer points to tenants requesting a transfer to a smaller property and exploring the possibilities for providing more attractive incentives for exchange and for having conditions attached to the provision of larger properties.

Housing policy - partnerships with other agencies

It is recommended that

- an ongoing programme is developed to maintain and raise awareness of health issues amongst registered social landlord staff;
- training events and exchange visits are organised for housing and health and social care staff to raise awareness of the links between housing and health and to explore the possibilities of further joint working; and
- the possibilities of joint funding are explored using the findings of the work as a starting point for discussion.

Housing management - communication with tenants

It is recommended that

- a programme is developed to ensure that there is ongoing awareness raising about health issues, for example by providing tenants with health and health care related information through the regular newsletter which they already receive; and
- consideration is given to the development of a directory of services and contacts for tenants, bringing together information from all the relevant organisations.

Methodological issues

It is recommended that

- other registered social landlords consider using the assessment tool which has been developed (either in its entirety or in part and possibly including measures of more specific health status measures such as respiratory symptoms) for the ongoing monitoring and evaluation of the impact of their programmes on health, well-being and quality of life; and
- the principle of using health and other survey work to create local training and employment opportunities is applied on an ongoing basis.

Table V summarises all the recommendations and indicates where responsibility for implementing them might lie. Some of the responsibilities are specific to SBHA and local partners but there are other areas which other registered social landlords might wish to consider and areas which might have an input to Housing Corporation policy. These have been indicated in the table where appropriate.

It should be noted that the area and type of property will affect what interventions work. For example, where housing associations or local authorities have large numbers of "estate" properties rather street properties, our findings - which are based largely on street properties - may not be directly relevant.

TABLE V

Summary of recommendations

No.	Recommendation	Responsibility	
	Making the links between housing and health		
1	Wide dissemination of the report and its findings	SBHA Housing Corporation	
	Housing refurbishment and reallocate	tion	
2	Assignment of priority to central heating, sound insulation and security measures in housing refurbishment	SBHA Other RSLs Housing Corporation – policy	
3	Review of level of flexibility for planning refurbishment on the basis of levels of need	SBHA Other RSLs Housing Corporation - policy	
4	Provision of clear information for tenants on the criteria used for prioritisation within the reinvestment programme and management of expectations	SBHA Other RSLs	
5	Review of local authority referral criteria for reallocation	SBHA Local authorities	
6	Exploring ways of reducing social isolation for tenants moving to new areas	SBHA Other RSLs	
7	Review of data completeness	SBHA Other RSLs Housing Corporation – policy	
	Housing policy -	- meeting tenants' needs	
8	Development of programmes in the context of the wider environment	SBHA Other RSLs Partner organisations	
9	Consideration of ways in which early health benefits can be sustained over time	SBHA Other RSLs	
Aids a	and adaptations		
10	Assessment of needs for aids and adaptations in reinvestment and reallocation programmes	SBHA Other RSLs Housing Corporation – policy	
11	Review of ways in which needs for aids and adaptations are identified and met	SBHA Other RSLs Housing Corporation – policy	
Suppo	orted housing		
12	Review of findings to date and development of action plan as appropriate	SBHA supported housing team	
13	Consideration of extending the survey in supported housing	SBHA supported housing team	
14	Review of needs for aids and adaptations within supported housing flats	SBHA supported housing team	

Medical transfers			
15	Detailed review of requests for medical transfer and exploration of alternative solutions	SBHA Other RSLs Housing Corporation – policy	
16	Review of arrangements for property exchange where homes are too big / too small	SBHA Other RSLs Housing Corporation – policy	
Hous	ing policy – partnerships with other agencies		
17	Ongoing awareness raising of health issues amongst RSL staff	SBHA Other RSLs Housing Corporation – policy	
18	Arrangement of exchange training / visits with health and social care services	SBHA Other RSLs Health and social care Housing Corporation – policy	
19	Exploration of areas where joint funding could be beneficial	SBHA Other RSLs Housing Corporation – policy	
	Housing manag tenants	gement – communication with	
20	Ongoing awareness raising of health issues by provision of health related information to tenants through the regular newsletter	SBHA Other RSLs Housing Corporation – policy	
21	Consideration of development of a directory of services / contacts for tenants bringing together information from all relevant local organisations	SBHA Other RSLs Housing Corporation – policy	
Methodological issues			
22	Use of the questionnaire survey for ongoing monitoring and evaluation of housing programmes	LA housing departments Other RSLs Housing Corporation – policy	
23	Use of health and other survey work to create local training and employment opportunities	SBHA Partner organisations Other RSLs Housing Corporation – policy	

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APPENDICES

APPENDIX A

Main survey questionnaire

ref.	no.	

QUESTIONNAIRE

Shepherds Bush Housing Association

Health and Housing Project

NAME			
ADDRESS			
POSTCODE			
Date			
Intoniouer			
interviewei			
Starting time			
Finishing time		-	
Tenant's comm	ents		

Interviewer's comments

ref.	no.	

YOUR HOUSING

How satisfied are you with this house / flat as a place to live?

	(please circle one)
Very satisfied	1
Fairly satisfied	2
Neither satisfied or dissatisfied	3
Fairly dissatisfied	4
Very dissatisfied	5

Why is that?

Do you feel that your house or flat has an influence on your health or your family's health?

(please circle one)

Yes No

Don't know

How important do you feel the following aspects of your house or flat are in influencing your health or your family's health?

(please circle one on each line) Please indicate whether you have Some A little None experience A lot of this issue 2 Good heating 1 3 4 Lack of damp 1 2 3 4 Good ventilation 1 2 3 4 Adequate space inside the house / flat 1 2 3 4 Good design and layout of the house / flat 1 2 3 4 Good furnishings 2 1 3 4 Lack of infestation 2 3 4 Yes / No 1 Having or not having a garden 2 4 1 3 Effective sound insulation 2 3 Yes / No Good security (doors, entrances, common areas, lighting) 2 3 4 Pleasant neighbours 2 3 4 1 Lack of harassment 2 3 4 Yes / No 1 Other (please specify) 1 2 3 4

In what way do they influence your health or your family's health?

ref. no.	

Do you have any special adaptations in your home because of your health or because of the health of any other members of your family? (Special adaptations might be, for example, grab rails or wheelchair access).

(please circle one)

Yes No

If yes, what are they and who are they for?

Are there any special adaptations which you or any other members of your family need but do not currently have?

(please circle one)

Yes No

If yes, what are they, who needs them and why are they needed?

YOUR LOCAL ENVIRONMENT

How satisfied are you with this general area as a place to live for you and your family?

(please circle one)

Very satisfied	1
Fairly satisfied	2
Neither satisfied or dissatisfied	3
Fairly dissatisfied	4
Very dissatisfied	5

Why is that?

Do you feel that the area in which you live has an influence on your personal health or on the health of your family?

(please circle one)

Yes No

Don't know

ref. no.		

If yes, what aspects of this area do you think have most influence on your health or on the health of your family?

CRIME AND YOUR FEAR OF CRIME

How safe do you feel when you are inside your property?

	(please circle one)
Very safe Quite safe A little unsafe Very unsafe	1 2 3 4

Why is that?

How safe do you feel in the area outside your property?

	(please circle one)
Very safe	1
Quite safe	2
A little unsafe	3
Very unsafe	4

Why is that?

To what extent do you feel crime or the fear of crime affects your health or the health of your family?

	(please circle one)
A lot	1
To some extent	2
Not very much	3
Not at all	4

Why is that?

ref. no.	

YOU AND YOUR NEIGHBOURS

How friendly do you feel your neighbours are?

	(please circle one)
Very friendly	1
Quite friendly	2
Not very friendly	3
Not friendly at all	4

Do you feel that you and your family belong to the community here?

	(please circle one)
Very much	1
To some extent	2
Not very much	3
Not at all	4

Why is that?

To what extent do you feel your neighbours and the local community influences your health or the health of your family?

	(please circle one)
A lot	1
To some extent	2
Not very much	3
Not at all	4

Why is that?

ref. n	0.	

OTHER INFLUENCES ON YOUR HEALTH AND THE HEALTH OF YOUR FAMILY

How much influence – either positive or negative - do you feel the following have on your personal health?

(please circle one on each line)

	A lot	Some	A little	None
Your living accommodation (your house or flat)	1	2	3	4
Your relationship with your landlord	1	2	3	4
The general area in which you live	1	2	3	4
Access to local leisure and sports facilities	1	2	3	4
Access to local public transport	1	2	3	4
Fears about personal safety	1	2	3	4
Personal relationships with your family & friends	1	2	3	4
Relationships with neighbours	1	2	3	4
Employment or unemployment	1	2	3	4
The amount of money you have	1	2	3	4
Your diet	1	2	3	4
Access to health services	1	2	3	4
Other (please specify)	1	2	3	4

Comments:

How concerned are you personally about the following?

(please circle one on each line)

	Very	Quite	A little	Not at all
Mixing with other people	1	2	3	4
Personal relationships with friends and family	1	2	3	4
Discrimination	1	2	3	4
Personal safety	1	2	3	4
Access to education / training	1	2	3	4
Access to sports and leisure facilities	1	2	3	4
Drugs / alcohol	1	2	3	4
Unemployment	1	2	3	4
Your health	1	2	3	4

Comments:

YOUR HEALTH AND WELL BEING

In general, would you say that your health is

	(please circle one)
Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

ref.	no.	

Compared to one year ago, how would you rate your health in general now?

(please	circle	one)
---------	--------	------

Much better now than one year ago	1	
Somewhat better now than one year ago		2
About the same now as one year ago	3	
Somewhat worse now than one year ago		4
Much worse now than one year ago	5	

During the <u>past four weeks</u>, to what extent has your physical health or emotional problems interfered with your normal daily activities or your social activities with family, friends, neighbours or groups?

(please	-:	
INIPAGE	CHUCH	O(110)

Not at all	1
Slightly	2
Moderately	3
Quite a bit	4
Extremely	5

Why is that?

Do you have any health problems at the moment?

(please circle one)

Yes No

If yes, what are your health problems?

Are they longstanding or temporary?

(please circle one)

Longstanding	1
Temporary	2
Both	3

ref. no.

When did you last visit your GP or your local hospital because of ill health?

When did you last visit your GP or your local ho	spital because of ill health?
	(please circle one)
In the last week Two to four weeks ago More than a month ago but in the last six month More than six months but less than a year ago Over a year ago	1 2 ns 3 4 5
YOUR LIFESTYLE	
Have you ever smoked?	
	(please circle one)
	Yes No
Do you ever smoke nowadays?	
	(please circle one)
	Yes No
If "Yes", please go to question 38. If "No", please go to question 37.	
How many years is it since you stopped smokin	g?
	(please circle one)
0 to 4 years 5 to 9 years 10 to 19 years 20 years or more	1 2 3 4
Please go to question 40.	
What do you smoke?	(please circle all that apply)
Manufactured cigarettes Hand rolled cigarettes Cigars Pipe tobacco	1 2 3 4

ref. no.

If you smoke cigarettes, how many do you smoke, on average, each day?

	(please circle one)
0 to 9	1
10 to 19	2
20 or more	3

Do you ever drink alcohol nowadays?

(please circle one)

Yes No

How many units do you drink, on average, in a week?

(A unit is one pint of shandy, half a pint of beer, lager or cider, a single measure of spirits, a glass of wine or a small glass of port, sherry or fortified wine)

<u>Women</u>	(please circle one)
1 to 7	1
8 to 14	2
15 to 25	3
26 to 35	4
36 or more	5
	1 to 7 8 to 14 15 to 25 26 to 35

GENERAL QUESTIONS ABOUT YOUR FUTURE

What do you think life will be like for you and you family in a year's time?

	(please circle one)
Very much better than now	1
A little better than now	2
The same as now	3
A little worse than now	4
Very much worse than now	5

Why do you feel this way?

MANY THANKS FOR YOUR HELP.

APPENDIX B

Self-perceived health status questions derived from the EQ5D questionnaire

By placing a tick in one box in each group below, please indicate which statement best describes your own health state today.

Do not tick more than one box in each group.

(a)	Mobility	
	I have no problems in walking about I have some problems in walking about I am confined to bed	
(b)	Self care	
	I have no problems with self care I have some problems washing or dressing myself I am unable to wash or dress myself	
(c)	Usual activities (e.g. work, study, housework, family or leisure activities)	
	I have no problems with performing my usual activities I have some problems with performing my usual activities I am unable to perform my usual activities	
(d)	Pain / discomfort	
	I have no pain or discomfort I have moderate pain or discomfort I have extreme pain or discomfort	
(e)	Anxiety / depression	
	☐ I am not anxious or depressed☐ I am moderately anxious or depressed☐ I am extremely anxious or depressed	

In addition to these questions, tenants were asked about their health state today, using a scale of 0 to 100, and about age, sex and socio-economic factors such as levels of educational attainment and economic (employment) status.

APPENDIX C

The central heating survey: findings

Figure C1 How satisfied are you with this house or flat as a place to live?

Housing

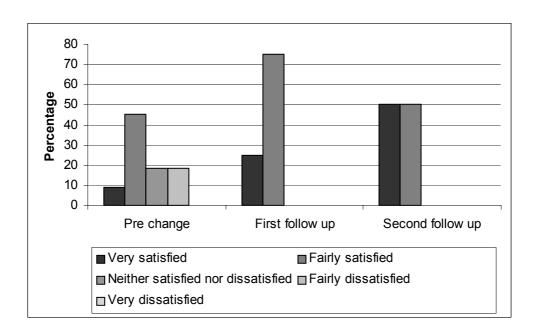


Figure C2

Do you feel that your house or flat has an influence on your health or your family's health?

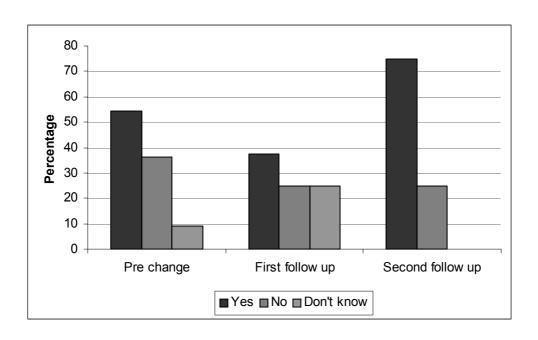


Figure C3

Do you have any special adaptations in your home because of your health or because of the health of any other members of your family?

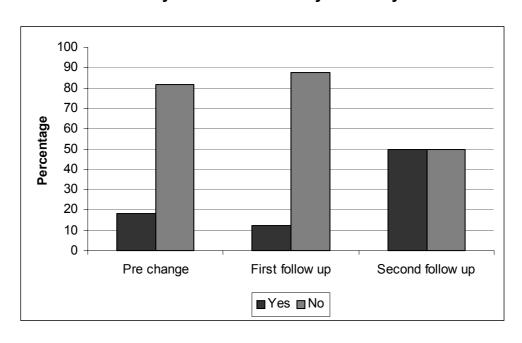
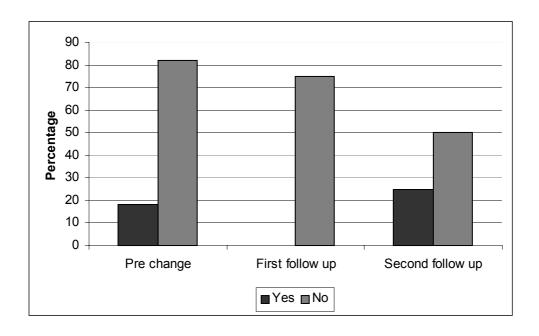


Figure C4

Are there any special adaptations which you or any other members of your family need but do not currently have?



The local environment

Figure C5

How satisfied are you with this general area as a place to live for you and your family?

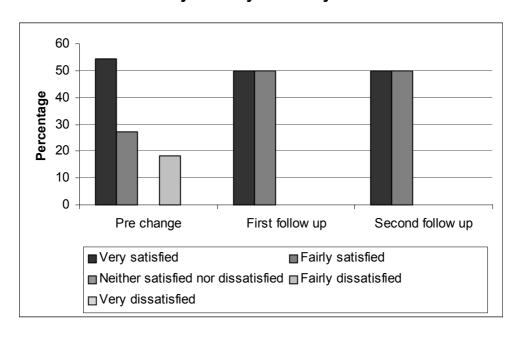
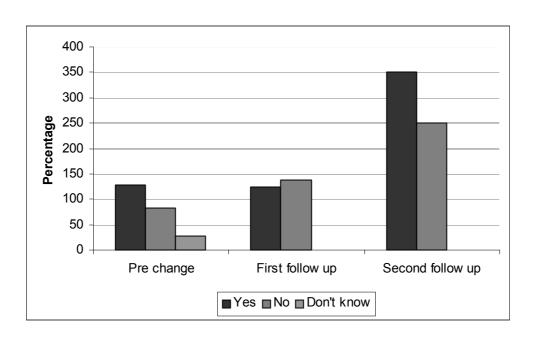


Figure C6

Do you feel that the area in which you live has an influence on your personal health or on the health of your family?



Crime and the fear of crime

Figure C7

How safe do you feel when you are inside your property?

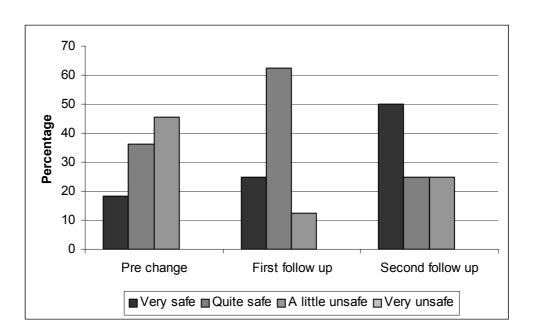


Figure C8

How safe do you feel in the area outside your property?

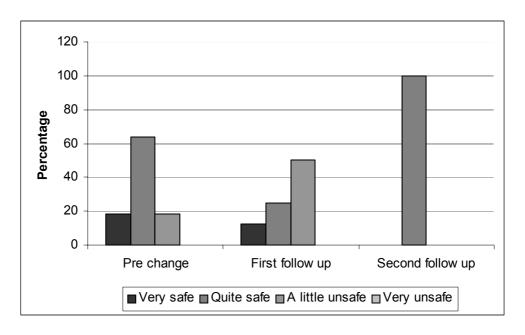
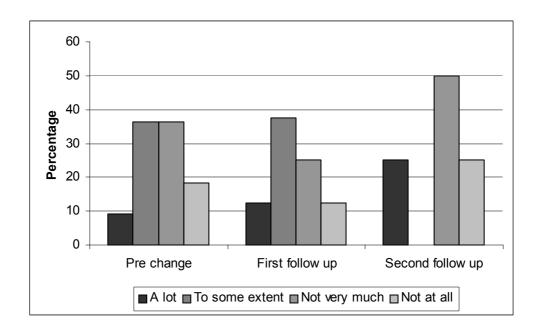


Figure C9

To what extent do you feel crime or the fear of crime affects your health or the health of your family?



Neighbours and the local community

Figure C10

How friendly do you feel your neighbours are?

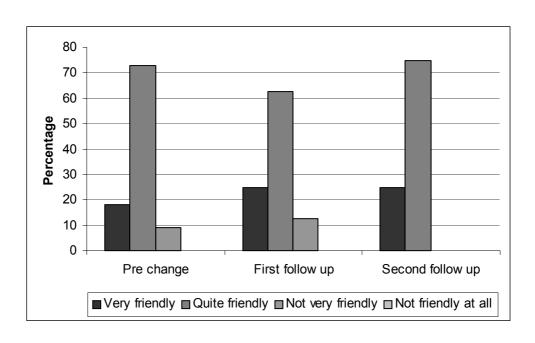


Figure C11

Do you feel that you and your family belong to the community here?

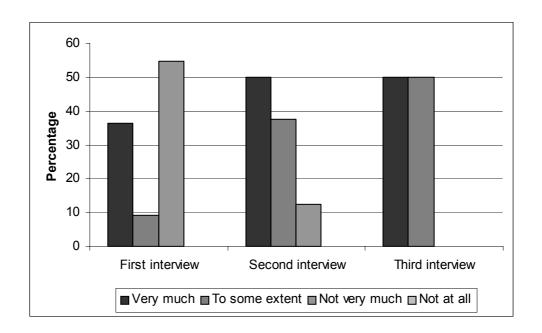
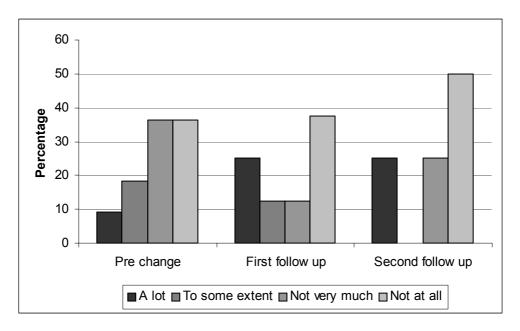


Figure C12

To what extent do you feel your neighbours and the local community influences your health or the health of your family?



Health and well being

Figure C13
In general, would you say that your health is

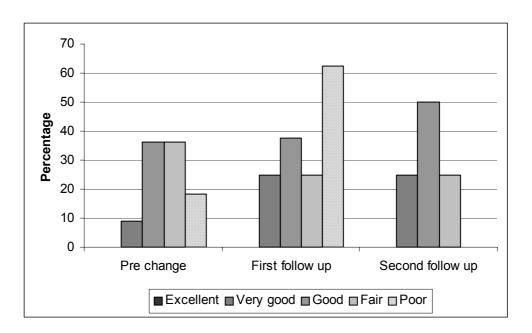


Figure C14

Compared to one year ago, how would you rate your health in general now?

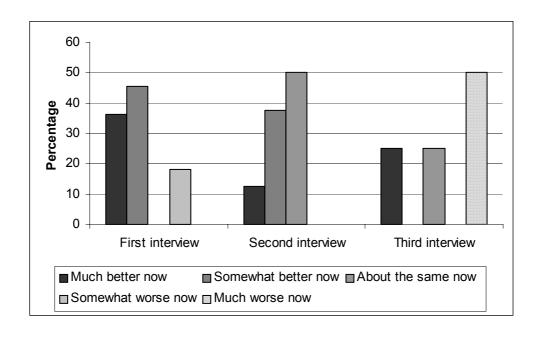


Figure C15

During the past four weeks, to what extent has your physical health or emotional problems interfered with your normal daily activities or your social activities with family, friends, neighbours or groups?

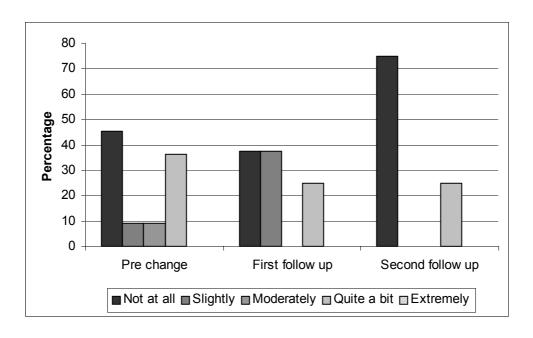


Figure C16

Mobility

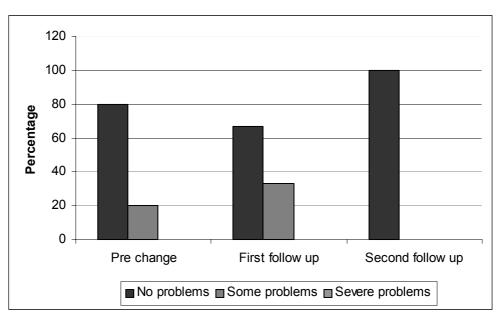


Figure C17

Self care

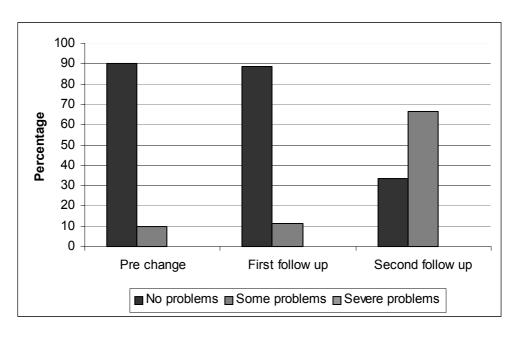


Figure C18

Usual activities

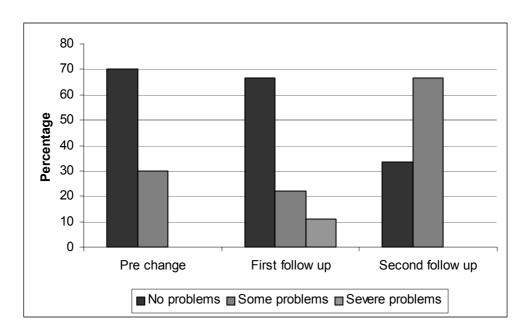


Figure C19

Pain and discomfort

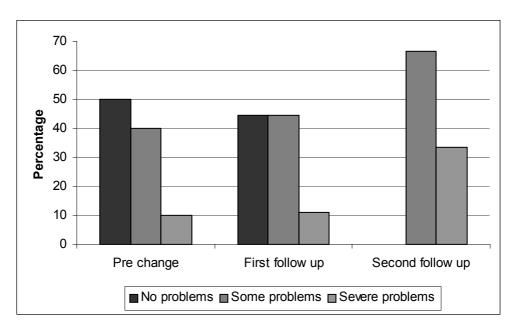
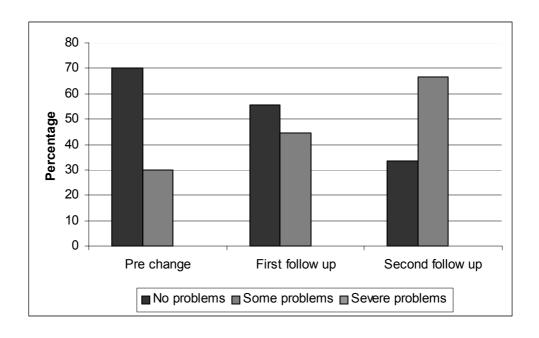


Figure C20

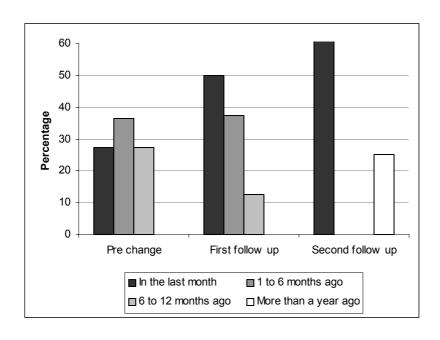
Anxiety and depression



Use of health services

Figure C21

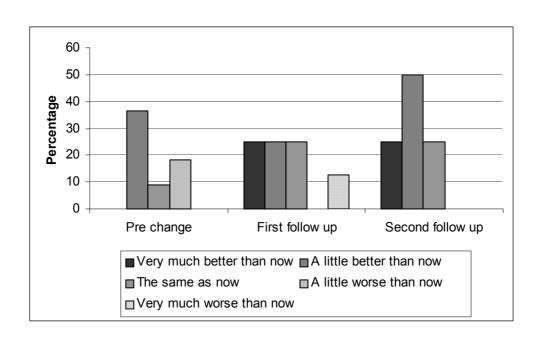
When did you last visit your GP or your local hospital because of ill health?



The future

Figure C22

What do you think life will be like for you and you family in a year's time?



APPENDIX D

The supported housing survey: findings

Figure D1 How satisfied are you with this house or flat as a place to live?

Housing

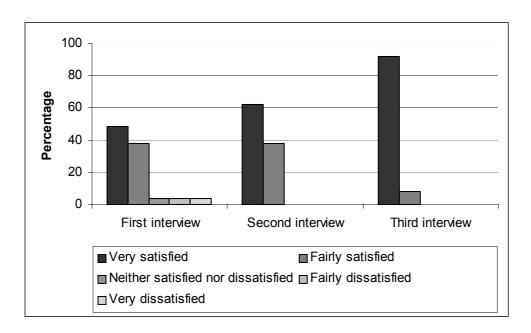


Figure D2

Do you feel that your house or flat has an influence on your health or your family's health?

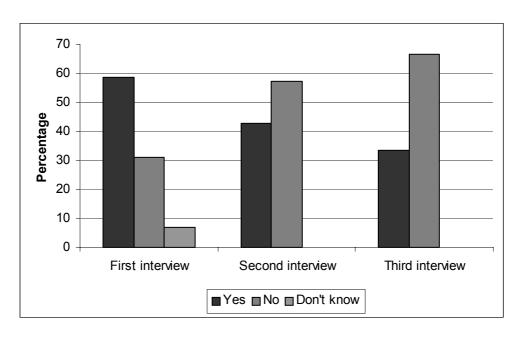


Figure D3

Do you have any special adaptations in your home because of your health or because of the health of any other members of your family?

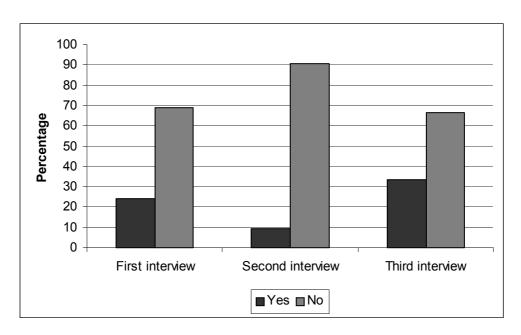
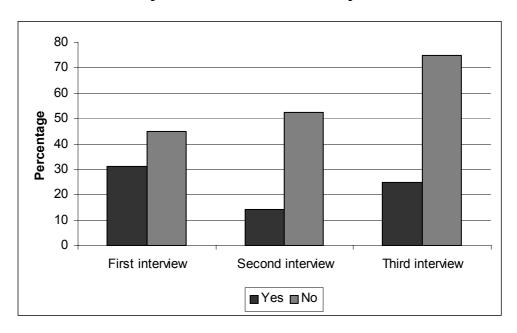


Figure D4

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The local environment

Figure D5

How satisfied are you with this general area as a place to live for you and your family?

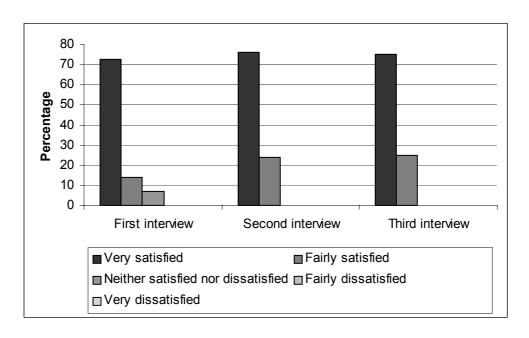
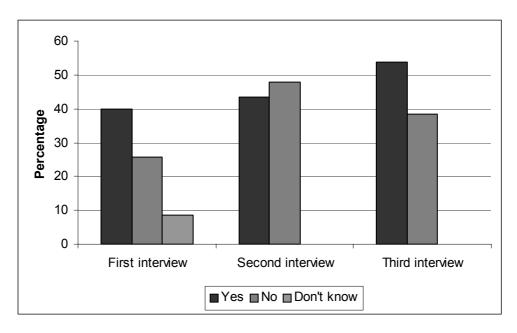


Figure D6

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Crime and the fear of crime

Figure D7

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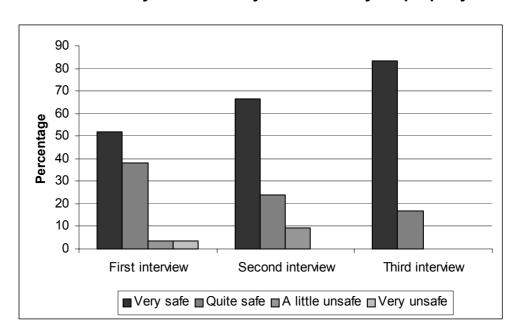


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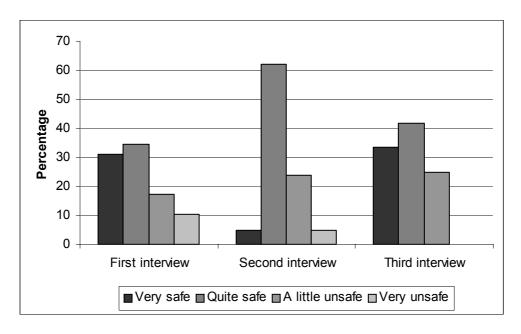
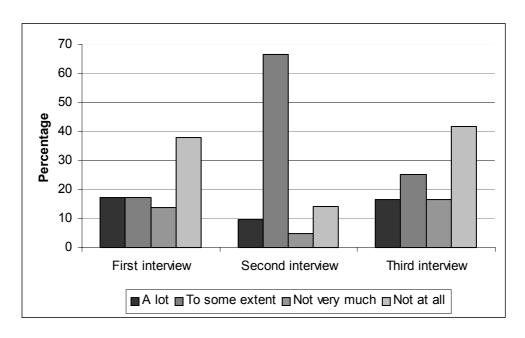


Figure D9

To what extent do you feel crime or the fear of crime affects your health or the health of your family?



Neighbours and the local community

Figure D10

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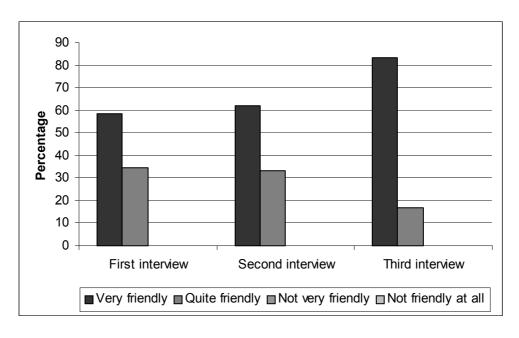


Figure D11

Do you feel that you and your family belong to the community here?

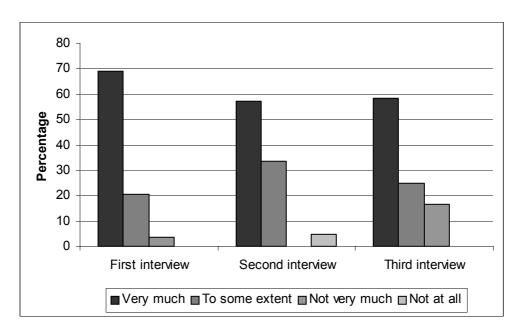
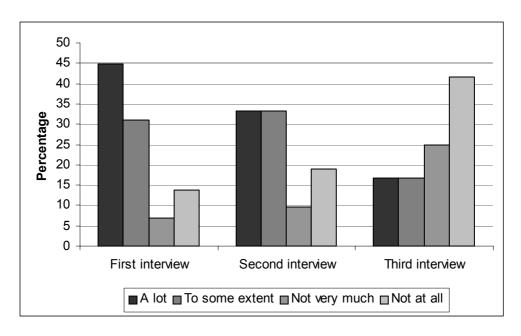


Figure D12

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Health and well being

Figure D13

In general, would you say that your health is

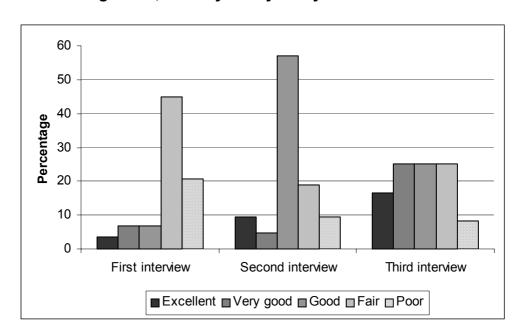


Figure D14

Compared to one year ago, how would you rate your health in general now?

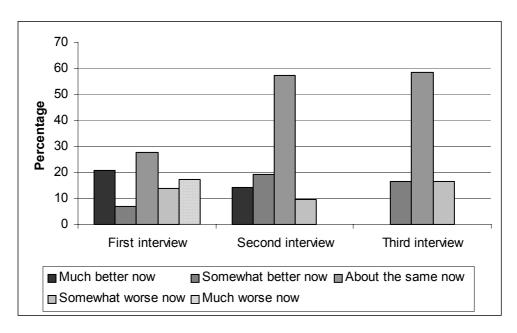


Figure D15

During the past four weeks, to what extent has your physical health or emotional problems interfered with your normal daily activities or your social activities with family, friends, neighbours or groups?

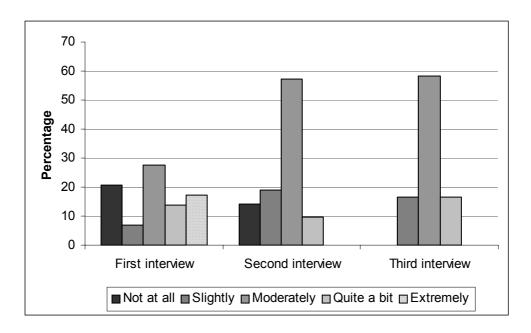


Figure D16

Do you have any health problems at the moment?

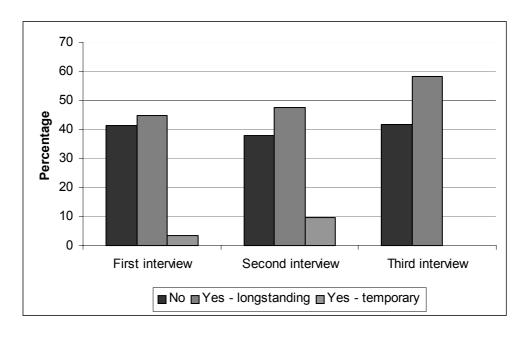


Figure D17

Mobility

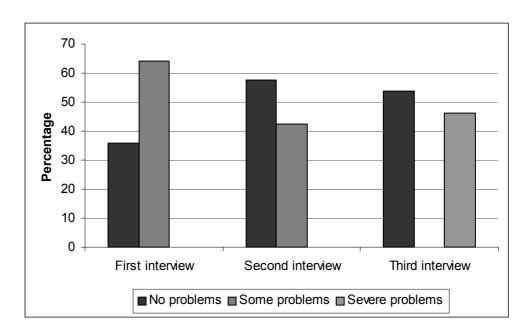


Figure D18

Self care

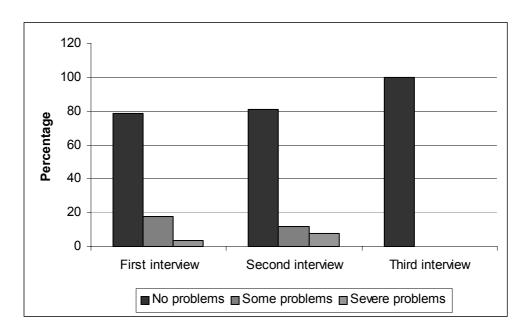


Figure D19
Usual activities

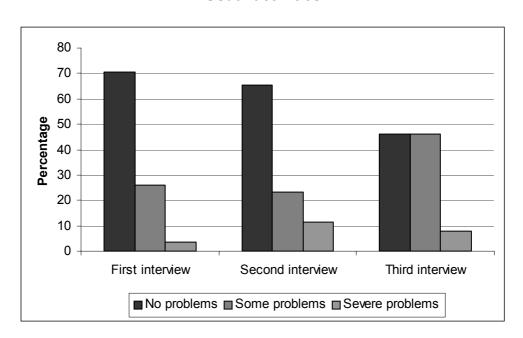


Figure D20

Pain and discomfort

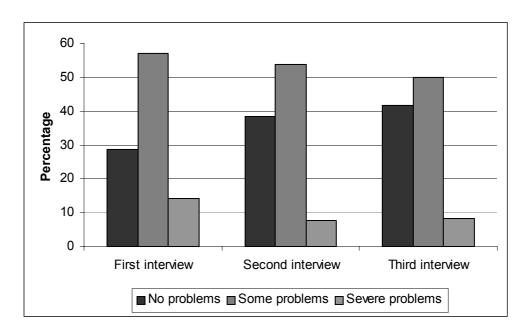


Figure D21

Anxiety and depression

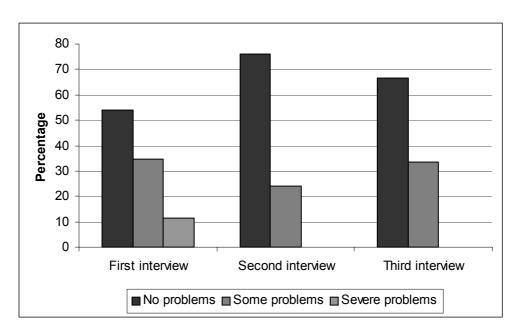
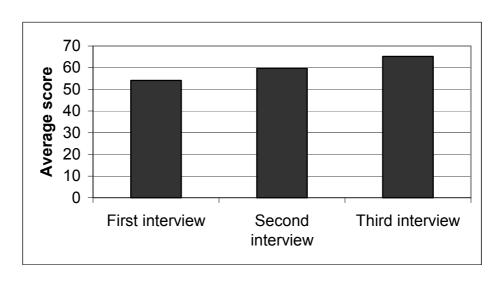


Figure D22

The health status "thermometer"

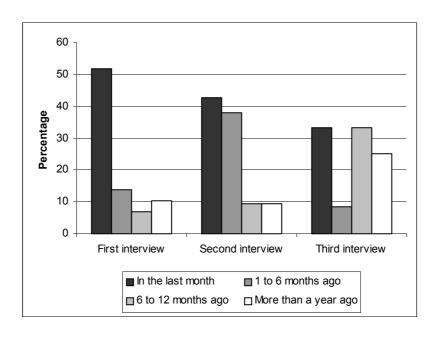


100 = best possible health state 0 = worst possible health state

Use of health services

Figure D23

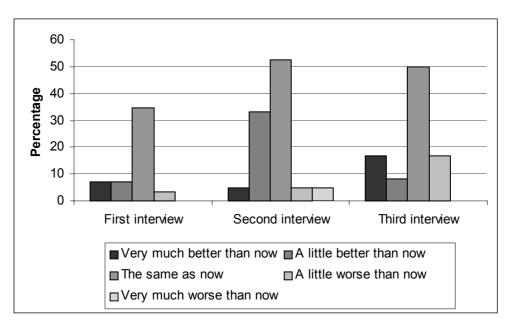
When did you last visit your GP or your local hospital because of ill health?



The future

Figure D24

What do you think life will be like for you and you family in a year's time?



APPENDIX E

Evaluation checklist

EVALUATION CHECKLIST

Process evaluation

- 1. What went well?
- 2. What went badly (or less well where were the pitfalls)?
- 3. How would we do things differently if we were starting the process now, with the benefit of hindsight?

Output evaluation

- 4. The objectives listed below are those originally agreed at the start of the work although they have subsequently shifted to some extent. To what extent has the work met its original objectives?
 - (a) to investigate the impact of refurbished, new and reallocated housing on health and well being, how other influences on health interact with housing and whether proven health savings can be produced as a result of providing refurbished, new or reallocated housing;
 - (b) to establish which components of housing most affect health and, as a result, how resources can best be targeted to improve tenants' health;
 - (c) to develop exemplars of good practice for housing associations, in partnership with other agencies, to improve their tenants' health and to assess the effect this will have on housing association, local authority and other budgets; and
 - (d) to examine ways in which best practice can be developed to use improvements in housing and health to improve tenant involvement and the quality of housing management.
- 5. Have there been any other added benefits?
- 6. Have there been any unexpected adverse effects?

Outcome evaluation

- 7. Has anything changed (in the short term) as a result of this work?
- 8. What would we expect to see change in the longer term?
- 9. How can we ensure that this happens?
- 10. How can we monitor and evaluate it?

Using the methodology and findings

- 11. How can we apply our findings in Shepherds Bush Housing Association?
- 12. Are any of our findings applicable to other housing associations / registered social landlords or to other agencies?
- 13. If so, how can we make best use of them?
- 15. Do we to make any other recommendations?

Notes