

HOUSING, HEALTH AND WELL BEING IN LLANGEINOR, GARW VALLEY: A HEALTH IMPACT ASSESSMENT

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Llywodraeth Cynulliad Cymru
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Tremble, all ye oppressors of the world... you can not now keep the world in darkness'

(Richard Price, *Observations on the Nature of Civil Liberty*, 1776)

The ideas of the reformers were given philosophical justification... by Richard Price, a native of Llangeinor, Glamorgan... the most original thinker ever born in Wales'

(John Davies, *A History of Wales*)

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1. Introduction

1.1 This report describes a health impact assessment of a proposed housing re-development in Llangeinor, a former coalmining community in the Garw Valley north of Bridgend. Bridgend County Borough Council is committed to the social and economic development of its area and is paying particular attention to the needs of deprived communities, of which Llangeinor is one. The Council is mindful of the importance of health and recognises the range of social and economic factors that affect the health of the population. It is therefore keen that health is taken into account during the planning and implementation of future action in relation to housing.

1.2 The village of Llangeinor has a Council-owned housing estate comprising a mixture of traditional post-war semi-detached and a 1970s infill development of higher density non-traditional housing that is more problematic. The condition of the current housing stock together with its geographically isolated location and limited employment opportunities locally has resulted in a range of problems. The estate has been identified as a priority for action to regenerate the area and the community. One of the options being considered by the Council as part of a regeneration strategy is the potential for redevelopment by a registered social landlord.

1.3 In considering its options, the Council decided to undertake a health impact assessment. The purpose of the assessment was to ensure that people's health and well being is taken into account during its decision making to identify relevant issues to inform future action, and where appropriate, options for implementing change and development.

1.4 A contract to support the pilot project was awarded to the School of Social Sciences and the Regeneration Institute at Cardiff University. The project was steered by a partnership involving representatives of the Council, Welsh Assembly Government officials, the Local Health Group, a housing association, a local councillor, a local community development organisation and community representatives. The project was supported as part of the Assembly Government's programme to develop the use of health impact assessment in Wales.

A profile of Llangeinor

1.5 Once a thriving community, Llangeinor has suffered the consequences of the de-industrialization process that has affected so many former coalmining communities in the Valleys of South Wales (Williams, 2001). Like other communities in the area this decline is not just economic, but social and cultural as well (Bennett et al 2000). A community of approximately 1,500 people, Llangeinor is one of the 'top 100' most deprived of the 865 wards in Wales and one of the four most deprived wards in Bridgend County Borough as measured by the Welsh Index of Multiple Deprivation (NAfW, 2000b). It comes out particularly badly for child poverty (the proportion of children under 16 living in means-tested benefit reliant families) where it ranks 24.

1.6 Using a different measure, the Townsend index for area deprivation, Llangeinor scores just over 4, and is the fourth most deprived ward in Bridgend, and taking all the wards of Bridgend, Neath/Port Talbot and Swansea, it ranks in the top 15 most deprived wards. The official unemployment rate is about 11 per cent but like many communities, not only in Wales but also in other 'post-industrial' areas, the full story is not told by these figures. For example, of the total households with dependent children in Llangeinor, 35 per cent consist of non-earning families, and 25 per cent of the male population of working age are

'economically inactive'. In populations combining significant degrees of under-employment, financial deprivation, lack of access to shops and services, and poor housing there are high levels of 'social exclusion' (Byrne 1999). Although, for obvious reasons, it is difficult to document, in such circumstances people often get by with a mixture of unemployment and health-related benefits, formal work, and the 'black economy'.

1.7 One of the difficulties confronting health impact assessment in a small community is the paucity of statistical information available at small area level. Much of the information requested was only available for the Bridgend area as a whole. In addition until the results of the 2001 census become available, we are reliant on data that are ten years old.

The following table summarises some of the key statistical data available for Llangeinor and, where possible contrasts this with the figures for the Bridgend County Borough area as a whole.

	Llangeinor	Bridgend
Population	1,508	130,080
No. Households	533	49,100
Lone parent households	6.9%	3.49%
Families with children 0-15	74.6%	57.99%
Lone pensioner households	12.4%	14.64%
Household tenure		
● Owner occupied	61.3%	76.16%
● Private rented	3.8%	5.09%
● Local authority	34.2%	16.79%
● Housing association	0.6%	1.61%
Total unemployment	11.5%	3.9%
Economically active males as a % of working age population	75.30%	80.6%
Economically active females as a % of working age population	53.5%	62.6%
Non earning families as a % of total households with dependant children	34.6%	18.6%
Car non-ownership	38%	32%

Crime

	Llangeinor	Bridgend
Most frequent offence	Car theft and theft of vehicles	Damage
Car crime (per 1,000 population)	27.85	23.01
Highest increase	Theft of vehicles	Theft from vehicles
Substance misuse (arrests per 1,000 population)	1.99	2.29

Health

	Llangeinor	Bridgend
European standardised mortality rates – all causes 1997-2000	1013.76	791.56
Percentage of pop. With long-term limiting illness	19.92%	17.03%
Finished consultant episodes for respiratory disease (per 100,000 for 1991/2–94/95 per year)	2124.83	1466.66

1.8 These figures begin to paint a picture of Llangeinor – a community with a relatively large number of children. Many families live in local authority housing that is in poor condition, and some of these live in households reliant to a high degree on means-tested benefits, with one third of children living in ‘non-earning households’. There is relatively high official unemployment, and economic inactivity amongst both men and women is much higher than for Bridgend as a whole. These figures will get worse following the announcement in November 2001 of the closure of the last main employer in Llangeinor, Rexel. We have included some figures on crime because issues such as the theft and subsequent burning of motor vehicles was something of concern to many of the people in the community to whom we spoke. The health of the population is relatively poor, but the paucity of good, up-to-date local data for small areas makes definitive conclusions difficult to draw. However, the very high rate of Finished Consultant Episodes for respiratory disease is very much supported by the testimony of the people living in the community to whom we spoke. It is hoped that the

emphasis in the current reforms of the NHS in Wales on local services for local needs will also mean that resources will be made available for the collection and analysis of meaningful data at the local level.

Health impact assessment

1.9 *Better Health Better Wales* (Welsh Office: 1998) highlighted the need to tackle the wider influences on health as a means of improving the health of the population as a whole and, in particular, reducing the stark inequalities in health that continue to persist regardless of the quality of health services. Health impact assessment was identified as something that could help to accomplish this.

1.10 In its broadest terms, health impact assessment is a means of ensuring that the health effects, or potential effects, of any policies, programmes and projects are considered in the process of decision-making. Although there has been widespread awareness within the social sciences and in public health that a wide range of life-style, social, economic, cultural, and environmental factors affect people's health, the public responsibility for health has largely rested with the health services. Although the development of multi-agency approaches to health care has evolved over recent years, routine assessment of health impacts in non-health settings is a relatively new idea.

1.11 The Welsh Assembly Government is committed to developing the use of health impact assessment, and is encouraging other organisations in Wales to do the same. Health impact assessment is a means by which a judgement can be made on the effects or potential effects – positive or negative – of policies, programmes or other developments on people's health, and the distribution of those effects within the population. It relies on a combination of procedures and methods.

1.12 By encouraging policy and decision-makers to think about, and to take into account, the potential wider effects of their policies, health impact assessment can inform planning and decision-making. More specifically, it can help to:

- Generate a better understanding of the interactions between health and other policy areas.
- Ensure that the potential health consequences of decisions – positive or negative – are not overlooked.
- Identify new opportunities to protect and to improve health and inform discussion and decisions on appropriate action.

1.13 Health impact assessment is an evolving approach. A number of 'toolkits' or 'models' have been developed to guide the process. However, more information is needed on their practical application and, in particular, the involvement of local people, because it is upon people that the health impacts ultimately fall. This report includes reflections on the use and usefulness of health impact assessment in this context.

2. Research Design

2.1 The plans for the pilot project included a number of elements:

- scoping of the project in conjunction with the Council to ensure an appropriate focus;
- production of a project plan to ensure its completion within the agreed timescale;
- identifying relevant issues from the available evidence base;
- identification of stakeholders and stakeholder groups and determining the most appropriate means of involving them within the resources available for the project;
- planning of the approach/process and arranging discussion and consultation involving stakeholders including Bridgend County Borough Council;
- interviews with stakeholders and facilitating a small number of meetings of stakeholders;
- recording details of the process adopted and reporting progress and outcomes.

2.2 The main output of the project was seen as a report to inform and guide the Council on the potential health impacts of developments and to identify opportunities that could be taken to protect and/or improve people's health.

Steering group

2.3 A steering group comprising key stakeholders was formed to facilitate a partnership approach. This ensured that key stakeholders had ownership of the process and that the widest range of expertise and perspectives could be accessed. Members included:

- the Council's Principal Housing Officer;
- representative of the Local Health Group;
- local borough councillor;
- local community councillor;
- local county councillor;
- member of local community development organisation;
- representative of a housing association;
- two representatives from the Welsh Assembly Government (public health strategy and housing);
- two representatives from Cardiff University (the researcher and the project manager);
- two local people.

2.4 Both of the local people were actively involved in community-based activities. A third person attended one steering group meeting but other commitments prevented further involvement. The local community councillor was unable to attend the steering group due to illness.

2.5 The steering group agreed the framework for conducting the health impact assessment and decided its terms of reference. Further meetings were held to feedback on progress and to agree the next steps. In total, four meetings were conducted at approximately six-weekly intervals.

Health impact assessment tool

2.6 The tool used to guide the health impact assessment process was the Merseyside Guidelines. These guidelines have been used widely in the UK and were felt to be appropriate on a project that has very broad implications for the health and well being of the people affected. The guidelines are based on a social model of health and enable potential impacts of a policy to be assessed through a spectrum of factors that affect health.

Data collection

2.7 The overall aim of the research was to gather information to obtain a profile of the community and to provide evidence of the potential impacts on health of particular housing scenarios. Evidence was gathered from:

- Existing data sources on the health, social and economic status of Llangeinor.
- Research evidence that illuminates the links between health and housing and what is known about the potential impacts of particular actions on health.
- Local perspectives on the health and well being of people in Llangeinor and how various scenarios may impact on residents.

2.8 Existing data were gathered from a variety of sources including the Wales Index of Deprivation, the Bridgend County Borough Crime and Disorder Audit, mortality and morbidity data provided by the Health Authority and the Local Health Group, and data collected by the Communities that Care risk audit. Research data were gathered from relevant electronic search directories, including Medline and BIDS, hand searches of relevant health, housing and planning journals, reports accessed through the grey literature, health evidence bulletins and other evidence based resources, and evidence gathered from other health impact assessments.

2.9 Interviews were conducted with key informants who either worked and/or lived in the village. In total there were 15 interviews with one or two people, and four group interviews. Informants included local children and adults as well as people who worked in the area, and people working within primary care, education, the church, leisure and youth work. Their contributions are anonymised which was a challenge in a small community. Most interviews were taped and transcribed. Where audio-taping was not appropriate, extensive notes were made immediately after the interview. Interviews focused on current experiences of living in Llangeinor and well as perceptions of the effects of different housing options. All the interviews were later coded in terms of the health determinants that may be affected by particular housing options and their positive or negative predicted impacts.

2.10 After the data were collected, a community meeting was held to provide an opportunity for a wider range of local people to confirm or challenge the findings. Approximately 50 people attended the meeting, which was chaired by the Chair of the Council's Housing Committee. After the researcher presented the findings and answered questions, people were split into five smaller groups to consider the following questions in discussion:

1. What aspects of housing in Llangeinor do you think most damage health?
2. What changes to housing do you think could most damage health?
3. What aspects of housing in Llangeinor do you think help to maintain health?
4. What changes to housing in Llangeinor do you think could most improve health?
5. What do you feel is the greatest threat to local health apart from the housing?

2.11 Their responses were fed back and later summarised, as were each group's flip-chart notes. Presenting the provisional findings to a public forum of this kind allowed the research to include a check on whether the findings resonated with a wider local audience, and to prioritise community concerns.

The start of a process

2.12 This report represents the final stage of the funded project. However, the health impact assessment is the start of a longer process that will continue as the findings are used to inform decisions on housing in the area. It is not widely known that Llangeinor is the birthplace of Dr Richard Price who, in the words of the historian John Davies, is 'the most original thinker ever born in Wales'. The celebrated eighteenth century, transatlantic radical and political dissenter preached sermons and published pamphlets in support of both the American and the French Revolutions. He was also a statistician, accountant and insurance expert of considerable international repute. The Richard Price Centre – the location for much of the community activity that takes place in Llangeinor – is one memorial to him. In our view, the most telling memorial to Richard Price is the active involvement of local people in the regeneration of their community; and if he were alive today Richard Price would undoubtedly be a strong supporter of the rights of the people of Llangeinor to have a say in the political decisions that affect them. We hope that this report makes a contribution to that process.

3. The Physical Environment

Housing conditions

3.1 The housing conditions of nineteenth century Manchester and the infectious diseases killing the people who lived in them pushed Friedrich Engels to write *The Conditions of the Working Class in England in 1844*. Since that time a vast literature on the effects of housing conditions on health has been published. In particular, the connections between damp, mould and cold have been particularly well researched. However, it is not easy to separate the effects of sub-standard housing on health from other aspects of poverty, since people who live in poor housing are also more likely to have low incomes, poor diets, and live in an area that is deprived of economic investment and cultural resources. In addition, the research literature has focused on the link between housing conditions and health but there are few robust studies that demonstrate the effectiveness of housing interventions on health (Thomson et al: 2001). Nonetheless, there is a strong association between certain kinds of housing conditions and health, even if the precise causal pathways are complex and uncertain. This section will focus on the links between cold, damp, mould and health.

3.2 It has been estimated that most people spend 90 per cent of their time indoors and that 70 per cent of that time is spent in their own homes (Donaldson & Donaldson: 1993). Children, older people and others who are economically inactive are likely to spend longer periods of time in the home. The quality of the indoor environment is therefore likely to be crucial to health (Barnes: 1999). It can be affected by a range of pollutants including chemical emissions from construction materials and from the ground as well as cigarette smoke. Houses that are damp and poorly ventilated can promote mould growth and there is a particularly strong link between these conditions and childhood illness (Martin et al: 1987, Platt et al: 1989).

3.3 A range of studies have suggested that the development of asthma is more strongly linked to indoor air quality than to outdoor air pollution caused by high levels of road traffic (Austin et al: 1994, Sporik et al: 1995, Papageorgiou and Gaga: 1995). Mould allergy, which develops from early exposure to the spores, is a recognised cause of asthma (Seymour: 1999). Mould can be responsible for the development of asthma in the first place but can trigger asthma attacks in those who already have the condition (Barnes: 2001). Damp and mouldy houses have also been linked to a range of other self-reported respiratory problems in children as well as other complaints such as fever and nausea (Martin et al: 1987).

3.4 The effects on adults are less well established although there are studies which link damp and mould with a range of respiratory as well as other physical and mental health problems, particularly stress and depression (Platt et al: 1989, Dales et al 1991, Garrett et al 1998, Ambrose: 1996, Hyndman). Damp was significantly and independently associated with a score of over 5 on the GHQ scale in a survey of public sector housing just outside Glasgow (Hopton and Hunt: 1996) There is also an indication that the number and severity of symptoms increases with the severity of damp and mould problems (Packer et al: 1994, Williamson et al: 1997). Many of the studies have been criticised for using subjective self reported health status rather than using objective measures of ill health (Strachen: 1998). However, self-reported health has been shown to closely correlate with actual morbidity (Seymour et al: 1999). In addition, five epidemiological studies have shown that self reported health status predicts mortality over a period of years, even when adjusting for actual physical health at baseline and it doesn't seem to be explained away by possible confounding factors (Ferrie et al: 1995).

3.5 While some scientists may question the evidence, the link between damp housing and health appears to be strong enough to support legal cases brought against local councils by tenants for the damage that damp housing has had on their health. For instance, in 1991 the London Borough of Lambeth paid an £8,000 out of court settlement to the family of a four-month old baby who died of lung inflammation caused by their cold and damp council property. His young sister also suffered from repeated bronchitis attacks (Seymour et al: 1999). In terms of savings to the NHS it was estimated in 1997 that savings of up to £800 million a year could be made if damp and cold housing was remedied (National Housing Federation: 1997).

3.6 In Llangeinor 17.1 per cent of houses are considered to be unfit, compared with 8.5 per cent in Wales as a whole, as estimated in the Welsh Housing Condition survey undertaken in 1998 (NAfW: 2001). The main problems identified locally were those associated with damp, mould and cold. Local residents in this study linked damp and mouldy housing conditions directly to their own, their families or their neighbours' ill health:

[The back bedroom] is damp but she's got asthma and it was affecting [my daughter's] chest and we had to swap the bedrooms around...She was in the back bedroom when she developed asthma...Since I've been in the back bedroom I've developed problems with my chest. I've got allergies...a lot of flu and chest infections...This time of year now I will sleep more on the settee, because otherwise I'll wake up coughing and sneezing if I sleep in my own bedroom because it's just not healthy anymore.

Local resident

3.7 General practitioners (GPs) also confirmed that respiratory health problems were common in their surgery and they felt that some of these were caused by housing conditions. However they also felt that they were unlikely to be very different from the rates in nearby Bettws, which they felt had very similar social and economic conditions. Other primary care workers also pointed out the health effects of damp housing but were more concerned to highlight the link with mental health than with respiratory conditions. They felt that damp housing drained the resources of people to look after and take pride in their homes. Low pay meant that there was little that they could do anyway. They also felt that if a family was provided with a house without problems that this had a positive psychological effect:

You can't blame them because when it's damp and they paint it just get mouldy, they're cold, they're not nice, they're a mess. When they've been put into a new house and you go there, the toys are nicely laid out, there are nice new carpets and something gets put down, they put it away and they do make a big effort to keep it nice if they're given a nice house to start with. ...The biggest benefit is their psychological well being. It does have a big knock-on effect.

Primary care worker

3.8 This observation highlights the inter-relationship between poor housing, low income and its overall effects on psychological well-being. Young people also highlighted the effects of damp housing on health, though they were reluctant to describe the effects in clinical terms:

I used to live in a flat and we moved, but we only moved because there was all damp on the walls and it was all black...It smelled and everything. It felt awkward.

Young resident

3.9 Young people were reluctant to talk in a group about the personal affects of housing on health. However one young person privately reported to the researchers that the mould

affected the smell and condition of their clothes and reported bullying at school as a consequence. The report of bullying incidents due to the smell of mould in some of the houses in Llangeinor was one that was mentioned in a number of interviews. Bullying is of course stressful in itself, and has been linked to reported sleeping problems, headaches, stomach aches and bed-wetting amongst primary school children (Williams et al: 1996), and emotional problems such as anxiety and depression in adolescence (Bond et al: 2001). Whilst this suggests the importance of building on anti-bullying strategies it also suggests that the damp housing can be associated with the emergence of an embarrassing, upsetting and stigmatising personal problem.

3.10 Robust intervention studies are rare. The Cornwall Intervention Study looked at the before and after effects of installing central heating systems on the health of school age children with previously diagnosed asthma (Somerville: 2000). The energy efficiencies significantly reduced damp and improved heating in most of the children's bedrooms and all respiratory symptoms were significantly reduced. However, no control group was used and caution was urged in generalising from these results (Thomson et al: 2001). Another study in Glasgow assessed the health effects of a "heating with rent" and actually found a general deterioration in children's health over the year although there were improvements in some symptoms (Hopton & Hunt: 1996). However, the researchers suggested that the improvements in heating systems must be understood in the context of other persisting social and economic disadvantages. Another study of housing regeneration, which included rehousing, housing improvements and well as more general area regeneration, found a reduction of asthmatic and bronchial symptoms, and stress and depression. There was also a reduction in the use of primary and secondary health services and in prescriptions (Ambrose: 2000). This perhaps reinforces the need to link improvements in housing conditions to wider neighbourhood improvements. However, it must be emphasised that the pathways by which the interplay of housing and other social interventions can maintain or improve physical and psychological health are still not clearly understood (Elliott, Landes & Popay: 2001).

3.11 In addition to the generic studies of housing improvement, there is some evidence that particular technological interventions can be effective in reducing specific health problems. The charity, *Health and Housing*, has identified studies that demonstrate the effectiveness of mechanical ventilation with heat recovery systems (MVHR). These are intended to improve ventilation whilst reducing relative humidity (Barnes: 1999). The studies suggest that MVHR systems can improve indoor air quality and have a number of health benefits, including the reduction of the level of house dust mites, which thrive in damp houses and are associated with asthma (Barnes: 1999). One of these studies demonstrated improvements in lung function, reduced sensitivity to allergens and lower levels of medication (Harving et al: 1994).

3.12 The cold itself was mentioned as a problem. For young people this was compounded by the fact that there was nowhere warm that was suitable for them to meet up in the village. Otherwise it was just mentioned as a general nuisance, especially if warming the house involved collecting the coal. One woman in her 70s said that she would welcome gas central heating as she still has to walk down some outside steps to collect the coal that she needs.

3.13 The research literature on the effects of low indoor temperatures focuses on morbidity and mortality in the elderly. It has been estimated that in Britain there are around 40,000 more deaths between December and March than expected from deaths in other months of the year (Seymour: 1999). Research also points out that the greatest risk is for cardiovascular and respiratory disease and that these rates are largely explained by changes in ambient temperature. These low ambient temperatures are particularly harmful to the elderly (Collins:

1986) and can cause deaths and illnesses due to resultant circulatory problems. In addition cold indoor temperatures increase the discomfort of existing musculo-skeletal pains and the risk of accidents. In addition people are less likely to want to socialise in their own cold homes thereby increasing social isolation (DEFRA: 2001). Older people are also more likely to be placed in residential care if their housing becomes a risk to their health (DEFRA: 2001). As there is no residential care in Llangeinor, older people risk being isolated from their social and family networks, which are strong in the village. In general, cold has been shown to be an independent risk factor for negative psychological well being (Hunt & McKenna: 1992). Warm housing, therefore, could well be a protector factor for physical and mental health as well as enabling more older people to remain in their own homes for as long as possible. However if, due to demolition, some people are moved out of Llangeinor there is no guarantee that they will be placed in housing of a high physical standard.

Summary of potential health impacts

- If no changes are made to existing housing conditions it is likely that a number of physical (particularly respiratory) and mental health problems linked to poor housing will persist.
- If houses are demolished and none replaced then there is no guarantee that people who are displaced will be provided with homes that are of a high standard.
- There is an opportunity to provide warm and dry houses to local residents which could reduce the symptoms of mental and physical health, reduce the uptake of health services and prescriptions and be a factor in ensuring that elderly people can stay in their own homes for as long as possible.
- However, health gains will be minimal unless housing plans are linked to wider social and economic regeneration initiatives.

Housing design

3.14 The design of houses can make an important contribution to health in a number of ways. Design can be seen in terms of its function and will inevitably constrain or enable the performance of everyday activities. Good design can also encompass features that promote the qualities valued in a 'home' such as safety, privacy and protection from noise as well as promoting it as a place of both relaxation and recreation. In addition, design features can be incorporated to ensure that the changing needs of their occupants are met (Carroll & Molyneaux: 1999).

3.15 The council houses built in Llangeinor during the 1970s were felt by both residents and the people who work there to be badly designed in a number of ways. In particular respondents pointed out the disadvantages of dark stairwells, upside-down internal arrangements, bedrooms that abut the public pathways, inadequate gardens, garages built underneath some of the houses and the lack of natural light in some rooms.

3.16 The shared dark stairwells leading up to some of the houses caused some people to feel vulnerable to attack by strangers. The lighting is both inadequate and frequently out of action, since the cabling is susceptible to vandalism. Some people felt nervous if they could not see who was outside the house:

...you come up the dark stairways for a start which, when you go down in the night anyone could be hiding underneath and you wouldn't know. It's like when you're

coming up in the night anyone could be hiding at the top and you wouldn't know until you got there.

Local resident

3.17 The problem of dark stairs has been exacerbated by the fact the many of the 1970s council houses are now empty and open to vandalism. Primary care workers felt that older people were particularly vulnerable and that this led to some people becoming socially isolated.

He wouldn't dare leave his front door. He cannot leave his front door open. It's dark and not lit up round there and there's no one to call if he is in trouble. He's got no one he can call on.

Primary care worker

3.18 A review on housing and health highlights the fears that are caused by a lack of "defensible space" such as shared stairwells, where residents feel powerless in the face of attack or harassment (Seymour: 1999).

3.19 It was felt the abundance of stairs were inconvenient for families with pushchairs or prams and could be a cause of accidents, especially for older people. A stairwell provides the only access to many of the new council flats. The design of the some of the 1970s council houses also meant that people have to climb stairs to reach the front door. This is not only inconvenient but could present a hazard to older people and parents with very young children.

In Llangeinor itself the way those houses have been designed they're really crazy. You knock on the door, they're all the way downstairs. You know, they can't hear you knocking. Just practical things like that. They've got baby...They either keep the baby safe or they run upstairs and let you in.

Primary care worker

3.20 Improving the design of new homes could make a contribution to the reduction of accidents in the home. Over 30 per cent of serious accidents and 40 per cent of fatal accidents occur in the home (HASS: 1995) and most of them happen to children and older people. Many of these involve stairs. Carroll and Molyneaux (2001) cite the Audit Commission's report, which makes the point that many people go into sheltered or residential accommodation after a stay in hospital as a result of injury (Audit Commission:1997). Another report estimated that 25 per cent of people going into residential homes would not need to do so if their homes were adequately designed. Carroll and Molyneaux argue that the concept of 'lifetime homes', developed by a group of experts brought together by the Joseph Rowntree Foundation, would promote the design of new homes that were adaptable to meet the current and future potential needs of its occupants. The development of new housing in Llangeinor would create an opportunity to consider designs that could meet current and future health and social needs. However there may be a number of older people in Llangeinor whose existing homes could be made safer.

3.21 Other design features that affected people's sense of their home as a safe haven and a sanctuary from the outside world was the lack of spatial separation between their home and the outside world. Some people's bedrooms looked straight onto the public pathway. For one older resident this aspect of some of the houses concerned her:

The bedroom windows are right on the grass verge where people are on the same level as them. If you walked by the grass verge you'd be looking into someone's bedroom window. They're not very well designed are they?

3.22 The health impact of noise is addressed separately, but the lack of adequate soundproofing was itself considered to be a significant design fault for some residents.

3.23 Finally some people talked about the lack of natural light in some of the houses. Local primary care workers felt that the dark rooms contributed to the gloomy aspect of the houses. However one resident valued her view over the Garw valley and commented “look at the view – you couldn’t ask for anything more could you”. Given the physical setting of Llangeinor, new housing could be designed which takes full advantage of the beautiful countryside, which is universally appreciated.

Summary of potential impacts

- A decision not to implement any changes to local housing could mean that the design of some houses will still present health risks including injury, particularly to older people and children, and continue to threaten people’s sense of safety and privacy.
- Unsafe house design could mean that older people face the prospect of residential care earlier than they would like.
- Designing new safe homes could enable people to live for a longer period of time in their own homes.
- New housing presents an opportunity to provide ‘lifetime’ housing with design features that could meet a range of present and future health needs.
- If housing regeneration focuses entirely on new housing stock, this would ignore the safety needs of other people in the village – particularly the elderly living in the older local authority owned houses.
- New housing presents an opportunity to design homes that take full advantage of local views.

Neighbourhood layout and design

3.24 Neighbourhood planning can contribute to good health by encouraging sociability and by avoiding the known cues that attract vandalism and generate a fear of crime (Nasar and Fisher: 1992). However it is not a vehicle for social engineering, since a neighbourhood is not simply its physical structure but is the lived history, activities, and future purposes of its inhabitants. Although neighbourhoods have physical boundaries, marked by roads, parks, old and new housing, they also have historically derived social boundaries, signified by kinship networks, ethnicity, age, occupation and so on. In the early 1970s the social scientist Peter Marris argued that it is dangerous to think that social reform can be achieved by physical means alone (Marris: 1974), and that we ignore the perceptions and social meanings that are attached to places at our peril. On the other hand, understanding the problems from the perspective of people who live in places with problems can provide indicators of how physically planned neighbourhoods can be built upon locally perceived needs and aspirations (Elliott, Landes and Popay: 2001).

3.25 The growth of Llangeinor was rapid after the Second World War with the development of social housing. From a tiny hamlet to a thriving industrial village, social housing was built to respond to the employment needs of the local mines that existed in the Garw Valley. Another phase of building saw the development of temporary prefabs, replaced by a high-density building programme of 140 houses and flats in the 1970s. It is this latest council development that is felt to have been problematic although it has also coincided with rapid de-industrialisation and consequent depopulation throughout the valleys of south Wales.

3.26 Empty spaces, created by earlier demolition and generally around the Craiglas/Caebach area have attracted litter, dumping of unwanted household items and abandoned cars (which are sometimes set alight). In addition there was inadequate planning for recreation, particularly for young children (see below). There is also the sense that the areas surrounding the new council development are unsafe with its dark corners and passageways, generating a fear of attack and harassment. Respondents talked about the 'untidy' appearance of Llangeinor and how that generated a sense of embarrassment and stigma.

3.27 It is widely felt that too many new houses were built in Llangeinor. All but one of the empty council properties in the village are in the 1970s council development. This has meant that there are clusters of boarded up properties and empty garages, which themselves become targets for vandalism and further perpetuates the sense and look of decline and neglect. People expressed a general sense of shame with regard to the state of this part of Llangeinor and this affected the village as a whole.

3.28 Other research has shown that the appearance of a local area can have a marked effect on the well being of local people and its poor image can lead to further deterioration of the neighbourhood (Turok et al: 1999). Negative social comparisons, keenly felt by people in Llangeinor, can be a source of chronic anxiety (Wilkinson: 1996). The appearance of neglect can also put investors off as well as people who may otherwise consider buying properties in the area. There could therefore be a knock-on effect on the potential economic prospects of the area and the opportunity to generate local employment.

3.29 People also felt that the bad design of the new council development threatened public safety. Not only are the public spaces unattractive but they are also considered dangerous. The report later highlights the way in which broken glass and other debris constrains the possibilities for play and recreation. In addition, the empty properties invite vandalism, which itself creates risks of injury (see below). In addition, dark walkways make people feel unsafe.

3.30 Housing investment is not simply about improving the physical structure of buildings but it is about revitalising social space and providing opportunities for social interaction and integration (Turok et al: 1999). In Llangeinor this must be done by tackling the current sources of both fear and shame. In addition local people can themselves provide expertise on how the local area could be made safe. Regeneration in Holly Street in Hackney is often provided as an example of successful area regeneration where residents now feel that they live in a 'stress' free and safe neighbourhood (Wadams et al: 1996, Wadhams: 1998). The success is partly attributed to the high level of community participation involved. Local involvement itself can contribute to a sense of public ownership and pride in the area, which some workers in Llangeinor feel could itself discourage local vandalism. Local initiatives in Llangeinor that have involved young people have shown some success. Other researchers have stressed the importance of involving children and young people in the planning of their local environments (Speak: 2000).

Summary of potential health impacts

- The current layout of the 1970s council housing has contributed to deterioration in the appearance of the village, and there are some sites that are felt to threaten the health and safety local residents.
- New housing developments provide an opportunity to create a safe and attractive neighbourhood.
- These benefits could be lost if local people are not involved in the planning process.

Neighbourhood redevelopment

3.31 This section focuses on the option of redeveloping the housing area around Craiglas and Caebach. Research evidence suggests that there are potential negative effects on health associated with housing renewal. Uncertainty, delay and protracted disruption can be a source of significant distress and this points to the importance of developing effective communication systems between local councils, developers and residents. In a study of resident in four localities in Liverpool (Green et al: 1998) up to 35 per cent of residents were stressed by the renewal process and 58 per cent said that the process was taking too long and that it was affecting their health. In another small scale qualitative study of housing renewal in Bradford (Allen: 2000) some residents reported that the anticipation of the process made them feel ill and nervous.

3.32 Other studies have shown that temporary relocation during renovations or rebuilding can have a marked impact on psychological well being. A retrospective qualitative study of housing renewal in Glasgow found that many residents found the experience of temporary location very stressful, describing this period as “a nightmare” (Ellaway, Fairley and Macintyre: 1999). Alternative accommodation was often extremely poor, often physically unsafe and in areas that people felt to be threatening and socially hazardous. The “decanting” process can be particularly stressful for elderly residents, for whom the isolation of living in an unfamiliar environment is particularly difficult (see, for instance Green et al: 1998).

3.33 The process of implementing change can have as an important effect on health as the implementation itself. On the basis of his study in Paddington, Peter Ambrose argues that local control over the process of change can have the affect of alleviating the stress associated with change (Ambrose: 1996). In his later Tower Hamlets study he argued that efforts to involve local residents in the Single Regeneration Budget (SRB) programme meant that the sense of belonging and feelings of connectedness actually increased during the period of renewal (Ambrose: 2000). Allen (2000) suggests that the experiences that people had depended on the degree of control that they wished to have, and managed to exert, over the process. It is likely that any change is likely to be stressful and different people will find the process stressful in different ways. However, offering local people the opportunity of having some control over the process of change will enable people to get as involved as they feel that they need to be. In addition, effective communication links will be an important aspect of enabling people to feel that they can plan their lives in the context of neighbourhood change.

3.34 In Llangeinor the concern over proposed changes, reflected in both the interviews and the community meeting, was clearly articulated. In a small community where news and views are exchanged at the school gate, over a game of bingo, on the street or at the local pub, rumours about housing decisions have proliferated. Some people said that they had heard that there were plans to demolish parts of the estate but were unsure who was to be affected and when. Although letters had been sent to householders from the local housing department, the status of information derived through conversations amongst neighbours appeared to be considered more authentic than formal communications. Given the attachment that many people have to the area this was causing some distress as this interview with two local people indicates:

We've been told we're going to move, "Yes, you're moving this month, you're moving next month" And that's people around here. You just want to know where you are.

Local residents

3.35 People wanted to know where they were in the grand sense – they wanted some grasp over processes that threaten to have a major impact on their lives. It also has a practical impact on projects and plans that people have for their own homes. Keeping a damp home looking respectable requires decisions with regard to spending that are hampered by rumours about a possible move from their house. If the wallpaper is peeling off the walls, and the furnishings are rotting, people need to know if it is worth committing scarce resources to improvements.

It depresses me for a start. I mean this living room could do with being decorated but ...what are they going to do? They're not telling us...I don't know if they are going to knock them down, if we're going to move.

Local resident

3.36 Much of the health impact assessment focused on the health impact of various possible housing scenarios. However, it is also clear that any construction process could pose a risk to health both as a result of increased heavy traffic coming into Llangeinor and in relation to on-site risks. Decisions to proceed with demolition with or without plans to rebuild some of the housing need to ensure measures to minimise accidents as well as ensuring that progress on development is communicated to local people in order to alleviate anxiety.

Summary of potential health impacts

- If residents are put into temporary accommodation during housing redevelopment, this could have a negative affect on psychological well being particularly if they are placed outside Llangeinor.
- People need to know what is happening to their homes and neighbourhood. Lack of appropriate communication with local people before and during housing redevelopment could increase levels of stress.
- The health and safety of local people could be at risk if appropriate steps are not taken to protect local people from a resultant increase of heavy traffic and hazards from the construction site.

The problem of noise

3.37 A national noise attitude survey found that one in three people felt that environmental noise disrupted their home lives at some point (Grimwood: 1993). The extent to which noise is problematic is more difficult to ascertain and is dependent on subjective notions about what is appropriate (Seymour: 1999). Some noise, such as the sound of children playing during the day can be considered pleasant. However the same sounds may be disturbing and less well tolerated late at night. Noise can be disturbing or disruptive. The sound of domestic violence can be frightening and therefore have a greater impact than louder, more acceptable sounds. Noise can be a significant source of distress or anxiety (Institute for Environment and Health: 1997) but it can also affect sleep, which in turn can damage performance at both school and work.

3.38 Residents complained about a wide range of disruptive sounds, including late night parties, people congregating late into the night and neighbours having violent arguments. One respondent described how people gathering in front of her previous house, now demolished, constantly disturbed her.

It was terrible, and what they used to do, when they used to go up from school age...they used to sleep through the day, didn't they and as you were going to bed that's when they'd start round the house until about 5 o'clock in the morning.

Local resident

3.39 Another resident described how the sounds of both local gangs and noisy neighbours directly affected the well being of her daughter and herself.

In the end there was so much noise... gangs of boys would be there all hours you couldn't get any quiet. The TV had to be on so loud because you couldn't hear it. As you can see my TV is about four foot from my settee. And it would have to be up full, otherwise you couldn't hear it. [My daughter] couldn't go to sleep in her bedroom because of noise up the front of the house she had to sleep with me all the time which was affecting my health as well because of my bad back and I wasn't getting a good night's sleep.

Local resident

3.40 For some people the noise is a constant source of invasion. However it also works both ways and people can be aware that others can hear them:

*In the evening I can hear *** going into the kitchen and putting the kettle on. I can hear her actually running the tap...In the night she can hear me flush my toilet and I can hear her flush hers...I got home late in the weekend and I hadn't washed all my daughter's school uniform. I thought I can't put it on now because they'd hear it in both flats...I have to show consideration so once it gets to a certain hour, unless it's a real emergency, I don't wash. It's stupid because you should be able to do what you want to do when you want to.*

Local resident

3.41 Housing decisions could have some influence on the source of unwelcome noises. For instance, identifying areas that young people would find acceptable as meeting points that are at a distance from sleeping residents could be explored. In addition, as has been suggested, design elements of new housing could improve the quality of life for occupants by protecting them from noise outside the home. Lack of soundproofing has a bad effect on the quality of people's lives (Ashton: 1998) and although it is expensive to install it can be incorporated into new buildings (Wilkinson: 1999). The Chartered Institute of Environmental Health also suggested other ways of protecting against outside noise, which takes into account the site of buildings as well as the siting of bedrooms and living rooms in relation to neighbouring homes (1999).

Summary of potential impacts

- Noise, particularly from people gathering outside at night, is a persistent source of anxiety for some people in Llangeinor.
- Neighbourhood plans could explore ways of diverting outdoor social noise to more acceptable locations.
- New buildings could incorporate design features which protect occupants from noise outside the home.
- Neighbourhood planning could be a means of diverting unacceptable social noise away from residents.

Shops

3.42 There are two small food shops, one of which is for sale, and one Post Office in Llangeinor. Local food is expensive and residents have to travel by car or bus to access items out of the village. The bus is infrequent and considered to be expensive and 38 per cent live in a household without a car. This puts extra financial pressure on low-income residents who have to pay extra transport and delivery costs.

3.43 It is unlikely that a small village like Llangeinor could sustain a large number of shops, although no attempt has been made to assess this. Housing regeneration should be linked with other regeneration initiatives both in Llangeinor and throughout the Garw Valley. Benefits of having local shops include cutting household costs and increased opportunities for meeting friends and maintaining social contacts within the local area. People also need access to, and to be able to afford, healthy foods as a poor diet contributes to coronary heart disease, several cancers, stroke, diabetes, high blood pressure, high blood cholesterol, overweight and obesity and dental caries. (NAfW, 2000c).

Summary of potential health impacts

- If linked with other community regeneration initiatives, sustainable shops could have economic and social benefits that may have a positive impact on health.

4. Lifestyle and Family Circumstances

Income and employment

4.1 Deindustrialisation in the Garw Valley has resulted in a lack of local skilled jobs and Llangeinor itself has a relatively high rate of unemployment and economic inactivity, themselves linked to ill health. With regard to housing, many residents still rely on coal to heat their homes, which is a more expensive source of home energy. The struggle to keep damp houses warm produces additional financial strains on already income poor households and creates "fuel poverty". A fuel poor household is one that cannot be kept at a reasonable temperature at a reasonable cost. More specifically it has been defined as "one which needs to spend more than 10 per cent of its income to heat its home to an adequate standard of warmth" (DEFRA: 2001). A reasonable standard of warmth is defined as 21°C in the living room and 18°C in other rooms. Fuel poverty disproportionately affects groups of people who stay at home for longer periods of time such as older people, the unemployed and young children. These groups are most likely to need heating for longer periods of time and are least likely to be able to afford it.

4.2 There are strong practical links between the current housing conditions of some homes and household income. Residents living in damp housing conditions found that dealing with the consequences of damp and mould puts undue strain on their personal finances. People talked about having to replace, or not being able to afford to replace, rotten and damp furnishings, decorations, utensils and clothes:

My kitchen cupboards are rotten... Obviously now I'm not at work and I can't afford to replace them myself... Because everything in this house is damp it ruins your furniture. You know, clothes... I've chucked loads of things away. I've chucked loads of books away... I've lost loads of things that I've had to throw because they've gone damp.

Local resident

4.3 Research resources were not available to collect local data to assess income in relation to energy efficiency and fuel costs. However, given that cold, damp housing was perceived to be a problem, in the context of general deprivation it is likely that the *New Home Energy Efficiency Scheme* could benefit many residents, and may include people in the older traditional houses built by the local council. Energy efficiency would release money to be spent on other goods. Although it is difficult to ascertain how this money would be spent, a proportion of this is likely to be spent on having a warmer home (Seymour et al: 1999). The health impact assessment of the *New Home Energy Efficiency Scheme* (Kemmm et al: 2000) calculates that after spending on energy to obtain a warmer house, recipients of the basic scheme would save about £2 per week whilst recipient of the enhanced version could save about £4 per week. New energy efficient housing would accrue even greater saving. A recent survey of housing in nearby Lewistown calculated the heating costs of a mid-link terrace, similar to some of those in Llangeinor, and compared them to the heating costs of recently built houses. Whereas the annual heating bill of an old house was calculated at £494.34 the cost of heating a new, energy efficient home was £245.79. This indicates a weekly saving of £4.78.

4.4 The *New Home Energy Efficiency Scheme* in Wales is currently being evaluated but there was little evidence that local people or local health workers were aware of this scheme. It will be important to ensure that all Llangeinor residents are informed of any entitlements to energy efficiency grants whatever decisions are made with regard to the future of existing housing

stock. Information should be made through a variety of outlets including primary care workers who will also be aware of the direct effects of damp and cold housing on the health of their patients (Olsen: 2001).

4.5 It is possible that remedial measures will be ineffective with regard to the worst housing in Llangeinor. In this case removing inadequate housing and building new houses that are warm, dry and properly ventilated could ensure that a larger proportion of income is made available for other goods and basic necessities and that low income will not be an obstacle to having a warm house. However, there is some evidence that new housing could bring unexpected financial demands. A study of housing regeneration near Glasgow found some evidence that residents of new housing came under social pressures (Ellaway and McIntyre 2000) to furnish their new homes to a style and standard beyond their means. Another study of housing regeneration in London found that new housing incurred higher council taxes (Ambrose: 2000). Decisions with regard to housing stock should take into consideration the financial gains and losses likely to impact on the household income of residents.

4.6 Inadequate housing may also have an impact on employment. Studies show that unemployment affects health but that poor health also reduces the ability to obtain employment (Bartley and Owen: 1996). Given that, as this report indicates, housing conditions can be a contributory factor to ill health, then inadequate housing could be an obstacle to obtaining employment. Redevelopment of land could provide an opportunity to consider either the development of community-based enterprises or the attraction of inward investment to Llangeinor. Priority should go to employment strategies that provide sustainable local employment and, as the National Strategy for Neighbourhood Renewal urges, provide ways of keeping money within the locality (Social Exclusion Unit: 2000, key idea 5). Poorly paid, insecure jobs have been shown to have as damaging an effect on health as unemployment (Ferrie et: 2001, Winefield et al: 1993). However local strategies to regenerate Llangeinor should not obscure the importance of affordable transport policies that would enable residents to access the wider employment market (Turok et al: 1999).

4.7 Redevelopment could in itself provide training and employment opportunities. Local agreements with developers could ensure that local labour is utilised and training opportunities provided. Local labour agreements have been recommended as a way of increasing local employment and improving the skills of the local workforce (MacFarlane: 2000).

Summary of potential health impacts

- An opportunity exists to provide new homes that are energy efficient, enabling people to obtain affordable warmth in their homes and increase household income to spend on other goods.
- If new, energy efficient houses are built for some residents this may create resentment amongst some residents in other fuel poor households. These residents may continue to live with the health effects of living in fuel poor homes.
- Unexpected costs to residents, such as higher council taxes and social pressures to overspend on furnishing and decorating, could result from new housing.
- Housing redevelopment provides an opportunity to work in partnership with other social and economic initiatives to consider employment and training opportunities that may arise when planning future neighbourhood scenarios.
- The process of neighbourhood redevelopment itself could provide employment and training opportunities for local people.

Risk-taking activities

4.8 What is considered to be a risky activity is subjective. Local people and local workers identified a number of activities that were perceived to create a danger to the individuals involved and local people as a whole. Although there is a link between risk-taking behaviour of young people, including drug and alcohol use, and unemployment (Hammastrom and Janlert: 1994), the link with housing is much less clear and direct. However, local people felt that there were many aspects of the housing environment, particularly on empty spaces around Craighlas, and around empty properties, that invited dangerous activities. Other research has highlighted the environmental cues that invite criminal and other problematic behaviour (Nasar and Fisher: 1992).

4.9 Empty land has sometimes been used to ride motorbikes and people talked about cars being stolen, burnt out and left (although most cars appear to be left outside the main residential area). In addition empty properties are felt to invite vandalism and empty garages have been set alight in the past. Local people felt that the people who did this were clearly endangering themselves as well as being a public nuisance.

4.10 There are limits to the ways in which housing decisions can limit risk-taking behaviour and it could be argued that for young people risk is an integral part of life. However, housing decisions could impact on the nature of the risks to which young people, in particular, expose themselves.

Summary of potential health impacts

- If empty properties are eliminated in the main residential area, this could reduce the number of people endangering themselves in the process of breaking and entering buildings.
- Demolition of properties with no positive plans for using the empty land may simply encourage unsafe activities that are already practised by some young people.
- New housing development could incorporate design features aimed at reducing the environmental cues that encourage risk-taking behaviour.
- If local people, particularly young people, are involved in the design phase then this may help to ensure a sense of public ownership. Whilst risk-taking behaviour may not be eradicated, good planning could reduce behaviours that are particularly unacceptable to local people.
- Creating areas for alternative recreation could encourage people to exchange a risky activity for a healthy one.

Recreation, exercise and leisure

4.11 Recreation provides people with opportunities for improving fitness, relaxation and for maintaining and building relationships. Physical exercise has well documented health benefits including reduced risk of cardio-vascular disease and osteoporosis and has a positive impact on psychological well being. (Glenister: 1996; Byrne and Byrne: 1993). In addition recreation provides social opportunities that are beneficial to health. It provides an important diversion from everyday stresses and strains, and expands social networks beyond that of the immediate family. It is through recreational activity that many people come to experience the wider community and derive benefit from the companionship that it provides.

4.12 Llangeinor's natural landscape provides an opportunity for many people to walk and cycle. The Richard Price Centre is increasingly being used as a base for recreation and leisure and there is a football club, which is also used as a meeting place. However most residents have to cross a main road to access these facilities. The local swimming pool has recently closed due to structural problems. The main residential area has one swing park, but it is not central and some consider it to be too small and unsafe. In addition, children have to contend with broken glass and other hazards in the residential area. Local people talked about the way in which these hazards prevented or constrained play.

(I don't like) the swing park and all the vandalism and all the glass, because my brother fell one day and cut all his knees.

Young resident

4.13 In addition there is a general perception that the social environment is not safe. This also means that some children are prevented from playing in the local area.

My brother isn't allowed out because of the glass and all the drugs that are going round. Not so long ago there was drugs in the boarded-up shelters – needles.

Young resident

4.14 In general it was felt that there was little for young people or children to do. As well as better play facilities there was a range of suggestions suggesting a more sociable and recreational focus for young people in the main residential area of Llangeinor. Local primary health care workers echoed the need for recreational and social facilities.

From the people I see there's more social things they want than health things...there's no after school clubs or anything...there's nothing for the kids to do. I've driven home at night and they're just hanging around the bus stop."

Primary health care worker

4.15 In addition, primary care workers pointed out that the bad design, the difficult topography of the local landscape and fear of crime meant that some older, more infirm residents were unable to get out and about unless they had assistance from local friends or relatives.

4.16 New housing could incorporate plans to ensure the provision of adequate, appropriate and safe play facilities for young children. These would have the added psychological benefits of reduced stress for parents who would know that their children had safe places to play (Halpern: 1995). In addition, new planning creates an opportunity to construct an environment that encourages people to walk and cycle, in a way that enhances the enjoyment of Llangeinor's naturally beautiful landscape. There is some evidence that health promotion strategies aimed at improving exercise are more likely to reach a higher proportion of the inactive population if adjustments are made to the local environment, than if there is an increase in exercise facilities (Hillsdon et al: 1996).

Summary of potential health impacts

- New developments could incorporate plans that encourage walking and cycling and explore ways of eliminating physical and social hazards.
- New housing could also incorporate plans to provide appropriate, accessible and safe play parks.
- New houses could be designed to ensure maximum independence in daily living (see 2.2).

Diet

4.17 There was no evidence to suggest that people in Llangeinor consume an especially unhealthy diet although collecting such information was outside the scope of this study. Poor diet is associated with economic deprivation, both because people on low incomes cannot afford the range of food necessary for a healthy diet and because they are more likely to live in 'food deserts' where there is poor access to healthy food (James et al: 1997). There has been much public attention drawn to the health benefits of fresh fruit and vegetables that help to reduce the risk of coronary heart disease and stroke (Ness: 1997).

4.18 In Llangeinor local people complain that the food is expensive and that fresh food is limited. Housing regeneration provides an opportunity, in partnership with other social and economic initiatives, to find ways of ensuring that local people have access to healthy and affordable food. However, these initiatives may not require the use of buildings or land in the potential redevelopment area.

Summary of potential health impacts

- Housing regeneration provides an opportunity, in partnership with other social and economic initiatives, to find ways of ensuring that local people have access to healthy and affordable food.

The role and structure of families

4.19 Attachment to both the immediate and the extended family is strong in Llangeinor. Like many villages in the South Wales Valleys, it is a community that is defined by both its industrial past and its resultant extended family networks. While the pits have long gone, the extended family continues to thrive, providing essential care and informal social support. It is largely because of the attachment to family that many people, even those who live in very poor housing conditions, are reluctant to move out of Llangeinor. People spoke of the valued and frequent social contacts that they had with members of their family as well as the more practical support that they depended on, particularly childcare.

I don't want to move from this village, especially now because I've got involved now in the community. My family live in this village, my family have always lived in this village. But not only that if I had to be somewhere or had to go somewhere, I mean they're care providers for my child. And I've only ever used one baby-sitter in her entire life. You know, it's family first.

Local resident

4.20 Respondents were wary of any housing decisions that would take people away from their extended families, since that would affect the character of Llangeinor as community and could deprive people of the care and support that members provide for each other.

There's still a lot of extended families in the village and I think that's very important, especially for young mothers who are single parents to have their family around. And I think that it's important that people are kept in their community. I don't think it's going to benefit the community if people are moved out or particularly benefit the families themselves. The children say "Oh I'm so and so's cousin and I'm so and so's cousin" and there's quite a lot of family and I think a lot of them get a lot of support from that.

Local worker

4.21 These family networks function in the same way as other social networks in the sense that they help to protect and promote health, as a number of epidemiological studies have demonstrated (Berkman and Syme: 1979, Stewart-Brown: 1988). The benefits are as much psychological as physical, and the practical support may have indirect benefits to health. For instance, family based childcare could enable many women, particularly single parents, to find employment or to participate in other social or civic activities.

4.22 Given the extended family structure of Llangeinor, housing decisions could have a major impact on how these families function and, by implication, the health benefits that the extended family provides for its members. If problematic housing stock was demolished with no replacement building then some families could be fractured. However, the sustainability of the extended family in Llangeinor is also threatened if there is a decision not to carry out improvements in Llangeinor. Younger people, particularly those with marketable skills, could decide to move out of Llangeinor. Housing decisions will not be the only driver in this case as the lack of local employment opportunities could also have a diminishing effect on the population. In addition, older people could face residential care, which is not available within Llangeinor, if their housing is not considered adequate for their needs.

Summary of potential health impacts

- Demolition of properties could break up extended family networks if some members are forced to move out of the area.
- The extended family may not be sustainable if there is no housing regeneration in Llangeinor, since younger people with marketable skills may move out of the area and older residents living in inadequate housing may eventually be placed in residential care.
- New housing could be a factor in keeping people in Llangeinor and sustaining the existing extended family networks.

5. The Social Environment

5.1 This section focuses on Llangeinor as a place that has social meaning for the people who live there. 'Social capital' is often identified as the degree to which people feel that they live in, and belong to, a socially cohesive local environment, and the range of activities and resources that emerge as consequence of those ties. Broadly speaking, social capital can be defined as "people's connections with the life of their communities" (Putnam 1995), and as the "resources that emerge from one's social ties" (Portes and Landolt 1996). There continues to be debate on what social capital consists of and how one can measure it. However, it is also something that is only meaningful if it is understood in terms of the historical context in which places, and the people who live there, emerge (Morrow: 1999).

5.2 Llangeinor was felt to be a community that was under threat from both the forces of social and economic change as well as public sector decisions, including housing. A local community risk audit made low income and housing a priority risk to the health of children and young people and it is likely that both economic and housing factors will influence the extent to which Llangeinor has a sustainable future as a community. This section has been divided into three areas, which could be seen as components of social capital

Sense of community

5.3 Llangeinor has a very keen sense of its own identity. This is partly because of its geographical isolation and partly because of its historical connection to the local mines and its extended family networks. The sense of community is what sustains any feeling of pride in the area and is a key factor in ensuring that people do not move, however bad the housing.

5.4 However, the concept of community implies boundaries. This can make it difficult for newcomers to easily be accepted. Problems have emerged in Llangeinor as a consequence of social and economic decline, on the one hand, and a perception of unfair housing allocation policies on the other. The large number of empty council properties means that they are available to people who may be in need of social housing. In Llangeinor, as in other areas, it has led to a perception that Llangeinor has become "a dumping ground" for people with problems. Although only 14 households have been moved into Llangeinor over the last five years, many of the social problems that have arisen have been blamed on these new tenants. It is perceived that this policy, as local primary care workers noted, has created problems for both settled residents, who feel that they are being invaded, and incomers, who may feel they are being excluded and unsupported on top of being allocated the poorest quality housing:

There have been some families that have been moved into Llangeinor because they needed a home, and it would be only cheap council houses available, and those are the people who often don't stay long but they don't settle and problems arise then. It isn't the nicest place in the world to live if you don't know anybody. If you've always lived there and you've got family, it's not so bad.

Primary care workers

5.5 Social landlords have an obligation to provide homes for people who need a home and cannot be excluded on the basis that they have problems. However, ignoring the fears of local people may only increase hostilities and widen divisions. New housing allocation strategies resulting from regeneration were found to create new divisions in a housing estate in

Middlesborough where the housing association was perceived as letting properties to people considered 'undesirable' (Silburn et al: 1999). In addition, new tenants faced harassment from people living in other parts of the area. The decline of this 'regeneration' area was felt by local people to have been partly because the houses were relatively small and expensive to rent and partly because of the new housing allocation policies. Healing and preventing social divisions in Llangeinor will need a number of multi-agency approaches involving other social and economic initiatives, and building up appropriate primary and social care responses to local need. There is also a need for better communication between the local council and its tenants with regard to housing allocation policies in Llangeinor.

5.6 Other divisions were perceived in Llangeinor with people living in wealthier areas of the village feeling themselves to be separate from the more economically deprived areas. Some people felt that people living in what has become known as "millionaire's row" looked down upon the rest of the community and one respondent felt that people living in the private residences could access a wider range of private services, not just because they could afford it but because their house was not in an undesirable area. The example was given of the window cleaner going to the 'posh' houses but not visiting the area of council owned properties.

5.7 It was not possible within the scope of this project to assess the extent of community fracture, and there was evidence that some people in the privately built and owned houses participated in community wide activity. However, apart from the doctor's surgery, the area of mainly council built properties currently has no facilities that would encourage the wider community into the area. Building development provides an opportunity to consider options that would encourage people into the area. These options would need to be discussed fully with the existing residents so that developments avoid risking further division rather than healing of divisions. Mixed tenure housing is also a way of dispelling the perception of social and economic differences and there is some evidence that having a mixture of tenure within an area can improve the health by reducing the stigma attached to living in a deprived area (Atkinson and Kintrea: 2000). There was a strong feeling that the benefits of any housing developments should prioritise existing residents and there is some nervousness, reinforced at the community meeting, regarding the potential impact of any decisions that will involve more people moving into the area. Such decisions need to be closely negotiated with existing residents to promote a socially inclusive community in Llangeinor in the future.

5.8 The sense of community in Llangeinor could be affected in other ways by housing decisions. Demolishing more houses could result in a population loss that could destroy the sense of community as family and friends moved away. The loss of population could also threaten the viability of the school, which is a central meeting place for children, parents and grandparents. It was also felt that if the housing was left as it is, then younger people could move out to find better homes and jobs. Other people felt that the community could be threatened by the process of redevelopment. The main fear was that temporary relocation outside Llangeinor, during rebuilding could become permanent.

When you knock places down and move people out, even if you move them back subsequently, they've lost their ties. The people who tend to move back are the ones with no ties already.

Primary care worker

5.9 Finally, there were a number of people who highlighted the need for improvements to the older council houses that are not being considered for demolition. Although most of these have been bought up by residents through the right to buy, a local housing regeneration strategy that focuses entirely on improvements for those people currently living in the 1970s council houses could create strong feelings of resentment. There is already a strong sense that Llangeinor has been left out of regeneration initiatives being conducted in the neighbouring village of Bettws. Other research has indicated that regeneration initiatives could have negative health effects on those living on the margins of redevelopment areas (Elliott, Landes & Popay: 2001). Anecdotal evidence from interviews with stakeholders in the Limehouse Fields and Ocean Estates before and after study, which looked at the health effects of neighbourhood regeneration, found that levels of stress and anxiety were exacerbated by the feelings of being left out (Ambrose: 2000). In Llangeinor the feeling of being left out could impact on the sense of community in Llangeinor as a whole. For this reason housing developments should firstly, involve the village as a whole in the consultation and decision-making process and, secondly, identify initiatives, particularly the new Home Energy Efficiency Scheme, that could benefit a wider range of households in Llangeinor.

Summary of potential health impacts

- Housing allocation policies are a source of distress and division in Llangeinor. They will continue to be a source of discontent if housing redevelopment takes place.
- Both demolition without the replacement of houses, and a decision to leave the housing as it is, are likely to lead to a population loss that could have a negative effect on the sense of community.
- It was felt that if people were relocated outside Llangeinor during the rebuilding process, it would have an impact on the community.
- If building regeneration focuses entirely on the rebuilding of problem houses this could cause resentment and division in the community.

Community involvement

5.10 Those who participate in local community activities are less likely to report poor health (Joshi et al: 2000). The reverse is also likely to be true: that ill health erodes the possibility of social capital being developed. Therefore it is likely that alleviating ill-health due to the physical aspects of housing could be one contribution to the development of social capital in Llangeinor, which in turn could improve the employment prospects for local people. Involvement in community organisations provides skills, builds confidence, and provides experience of new tasks and responsibilities that contribute to a person's employability. Community activity also has direct social and economic benefits to the local community. It has a key role in preventing and overcoming social divisions and it provides the basis for community enterprise and the transition from informal to formal economic activity (Grieg et al: 2001). Social capital is important for both facilitating and maintaining a sense of community and a foundation for economic improvement.

5.11 Social capital can refer to the horizontal associations between people in a locality and those activities that help to sustain relationships and networks of social support between local people. Over the last year a local community regeneration organisation has worked with some local residents to improve the social and economic prospects of the local area. Whilst the focus has been on improving facilities and opportunities for young people, the

formation of Llangeinor Involved for Everyone (LIFE) has a broader aim to improve the local community for everyone in the village. Recently they have been involved in applying for funds for local activities and facilities, and have explored the possibility of developing community-based businesses. They were successful in obtaining funds for running a summer scheme which, anecdotally, resulted in fewer youth-related problems in the community than usual. The members of LIFE have also been elected to key positions on the Richard Price Community Centre Committee and helped to organise a variety of activities from there. In addition the school reports good involvement of parents with school-based activities.

5.12 Plans to demolish problem houses could take key community activists out of the village. This would undermine existing community-based efforts to regenerate the area. However, redevelopment provides an opportunity to use the existing active networks as a means of communicating and involving local people in the more detailed plans and decisions that would affect local people as a whole. It would provide the basis for developing social capital in what are referred to as the 'vertical associations' between local people and those organisations and processes that affect and regulate people's lives (Muntaner et al: 2000). This broader understanding of social capital highlights issues of accountability, democracy and governance in the relationships between citizens and the institutions of the State (Greig et al: 2000). As highlighted elsewhere, local people have little trust in the local council, so a process which strengthens civic activity in local decision-making would be an important means of building positive relationships. This could have benefits for both local people, particularly in reducing anxiety that accompanies uncertainty about future decisions, and the local council, in that a spirit of co-operation is more likely to develop.

Summary of potential health impacts

- Demolition of properties with no replacement building could mean that key people who are involved in local social and economic regeneration move out of the village.
- A decision to temporarily relocate residents out of the village could risk the current momentum for change that has recently been developing within Llangeinor.
- Housing regeneration can build on existing community activity to develop and improve relationships between local people and the council.

Social support

5.13 If people feel that they belong to a local community it is likely that they have strong feelings of attachment, not only to the locality as a whole, but to a wide range of individuals living there. They are more likely to define as neighbours, a broader range of individuals than the people who live next door. Those relationships foster feelings of mutual responsibility and care, which translate into actions that provide social support. In terms of health, social support has been identified as being a possible means by which other people play a role in protecting and promoting health, preventing illness, and acts as a buffer in times of stress (Berkman and Syme: 1979). Berkman and Syme also suggest that the psychological benefits of social support can have a physiological effect in strengthening the immune system against the risk of infection. As well as directly supporting people in times of stress or providing care during periods of ill health, many forms of practical help can contribute to health by helping to reduce the stresses and strains of everyday life as well as maintaining social relationships and reducing isolation. Finally, social support can confirm to people that they are both valued as individual and that they are members of a wider social network or community.

5.14 Respondents in Llangeinor talked about the support that they derived from members of the community. One group at the community meeting identified community spirit and the fact that neighbours looked out for each other as a feature of local life that is beneficial to health. Housing decisions, together with social and economic regeneration, could have a positive effect on the conditions that are necessary for social support to thrive. Social support is sustained by social networks that may be threatened by population loss due to demolition or a decision to leave the housing as it is.

Summary of potential health impacts

- Population loss due to demolition or a decision not to redevelop the area associated with the worst housing could threaten the sustainability of existing social networks that currently provide valued social support.
- Temporary relocation out of Llangeinor could also threaten social networks.
- Housing redevelopment provides an opportunity to sustain existing social networks.
- Housing redevelopment linked to other social and economic initiatives could improve the health of local people and therefore the human resources within social networks that are necessary to provide social support.

6. Public Services

Primary school

6.1 Local schools benefit local health in a number of ways. If schools are close they provide an opportunity for children to walk rather than use the car or public transport and they provide maximum non-school time for leisure, recreation or extra study. Children are also more likely to derive the maximum benefit from education in school as they are less likely to be tired if there is a short distance to travel. Educational attainment has been linked to better long-term health prospects in a range of studies (Whitty et al: 1999). Local schools also provide an important opportunity for parents to meet and therefore maintain and extend their own social contacts.

6.2 In addition to its statutory role as a provider of primary school education Tynyrheol Primary School, located in Llangeinor, sets out to provide a range of activities that benefit local residents as a whole. It provides family numeracy and literacy courses for parents and grandparents as well as providing additional opportunities for parents to improve their basic skills, in conjunction with Bridgend College. It has also recently opened an ICT unit providing a computer resource that could also be used by secondary school children living in Llangeinor to help with their homework. Other activities have included a project with a community regeneration organisation to improve the playground, which involved parents and siblings of pupils. It was felt that they had good support from parents many of whom contributed to the life of the school. The school also has provision to provide nursery placements for children as young as three with the option of having a school lunch. The school's educational attainments have improved over the last few years and for two consecutive years have been well above the national average.

6.3 The primary school in Llangeinor currently has 78 pupils and the numbers have noticeably declined over the past few years. A respondent representing the school felt that any decline in the population of Llangeinor could affect the viability of the school, a concern echoed by other respondents. The school representative felt that options that could attract people into Llangeinor would help to sustain to viability of the school.

6.4 The loss of the school would have an impact on local children and well as the community as a whole. Children would lose the health benefits of having a local school as mentioned above. Parents, grandparents and older siblings would be deprived of the skills improvement opportunities that help to improve self-esteem as well as employment prospects. Children could also be deprived of the improved skills and self esteem that their parents may have derived from the school. The community would lose both an important meeting place and facilitator of community activity. Finally the loss of the school could encourage more people to leave Llangeinor and deter families who may otherwise chose to live in Llangeinor.

Summary of potential health impacts

- Housing decisions that lead to population loss may affect the viability of the school with the loss of a variety of social and educational benefits to children, parents and the community as a whole.

Childcare

6.5 Although there is conflicting evidence regarding the benefits of formal childcare as a substitute for parental care for very young children, there are potential benefits for families in terms of improving the employment prospects of parents and increasing the income generated into the household. Parent and toddler groups also provide an opportunity for social contact, access to information and support with regard to parenting issues, and potential access to other sources of health and social support or advice.

6.6 Young children in Llangeinor are largely cared for by relatives. However, the primary school now offers free nursery provision with the option of school lunch. A parent and toddler group has recently been set up at the Richard Price Centre and is run by local volunteers. Building options likely to lead to population loss will threaten the viability of the primary school and therefore the nursery provision that is currently being provided. Parent and toddler provision could be affected if key volunteers are relocated as a result of decisions.

Summary of key potential impacts

- Building options likely to lead to population loss will threaten the viability of the primary school and therefore the nursery provision that is currently being provided.
- Parent and toddler provision could be affected if key volunteers are relocated as a result of housing decisions.

Non-statutory agencies and services

6.7 Non-statutory agencies can play a key role in improving the well being of local people. In Llangeinor a community development organisation has resulted in a number of activities being developed. This has increased the opportunity for local people to socialise and to ensure that their children have access to structured activity. It has also helped to develop new skills for the people involved.

6.8 Housing regeneration should build on the activity that has already taken place. The local community development organisation has knowledge of Llangeinor and its residents as well as having the skills to work alongside different sections of the population. It will be important to build on the knowledge and skills of this organisation. In particular they may have the ability to involve local people in the planning of their local environment.

Summary of potential health impacts

- Housing regeneration creates an opportunity to build on social and economic regeneration that has already been facilitated by a local community development organisation. Importantly, it facilitates the inclusion of health

Primary care

6.9 Housing regeneration could have a marked impact on health, both in the long and short term. It is possible that local primary care services will notice an effect on their case-loads for problems relating to respiratory and mild to moderate mental health problems. It has been

estimated that the cost of treating asthma alone cost the NHS in England (not Wales) £438 million and 7% of all NHS prescriptions. It has been suggested that the costs to the NHS due to bad housing are considerable but have been largely unquantified (Ambrose: 1996). A study that assessed the impact of poor housing on take-up of health services found that their sample used 50% more health care services than expected (Carr-Hill et al: 1993). Economic regeneration may also reduce primary care caseloads should employment rates and levels of household income improve. Some studies have demonstrated higher GP consultation rates amongst people who are unemployed (Mathers and Schofield: 1998, Kraut et al: 2000). However, as highlighted earlier, the causal pathways through which these changes impact on health is uncertain.

6.10 Housing can impact on health but primary care services can also play a role in buffering the affects of bad housing on health. In Llangeinor this is happening to some degree. The local Care and Repair Agency receives funding from the Local Health Group, in addition to Social Services and Housing. The agency provides a rapid response minor repairs and adaptations service which the Local Health Group feels to be invaluable from the prevention aspect but also in terms of ensuring patients are discharged from hospital to a safe home environment, thereby maintaining their independence. From the hospital perspective, Ogwr Care and Repair works very closely with hospital occupational therapists.

6.11 There are other ways in which the primary care team could extend their role. For instance health visitors and district nurses can have an important role in tackling the triggers for asthma attacks by providing knowledge on household management techniques such as vacuuming, replacing mattresses, the use of barrier bedding and so on (Barnes: 2001). In Swindon, environmental health officers worked with primary care health workers to equip them with the knowledge that they needed to give advice on avoiding the effects of allergens in the home (Ashmore 1998, quoted in Barnes: 1999). Health visitors are also in a key position to witness the health risks that people face in their own homes. The lack of an appropriately positioned hand-rail could make a significant impact on the safety and independence of people whose mobility is affected by bad housing design. One obvious public health role that primary care workers can play in relation to housing is in ensuring that their patients are aware of the *New Home Energy Efficiency Scheme* described earlier (Kemmm et al: 2000).

6.12 Local provision of GP services is provided in Llangeinor but is centrally co-ordinated from the health centre based about three miles away in Pontycymmer. As well as being a service provider the surgery is part of the local environment. One resident identified the surgery and it was pointed out that the building does not have any sign to say what it is and when it is open. It also has bars on the windows. Primary care workers could therefore contribute to neighbourhood plans to improve the appearance of the area, and plan ways in which the surgery could improve its appearance.

Summary of potential health impacts

- Building regeneration could reduce local demand on primary care services.
- Primary care workers could develop their public health role in relation to effects of housing on health whatever options are taken.
- The local primary care centre should be included in plans to improve the appearance of Llangeinor.

The local council

6.13 The need to develop social capital that links communities to the public institutions that regulate their lives has been highlighted. Public policy in the UK as a whole stresses the importance of public involvement in decision-making, and the NHS plan for Wales (NAfW: 2001) places the citizen at the heart of the proposed structural changes. Local Authorities play a key role in the regulation of people's educational, care and residential environments but they also need to develop appropriate mechanisms to enhance local involvement.

6.14 Both key informant interviews and the community meeting highlighted a mistrust of the local council. Concern about litter and the council's housing allocation policies are mentioned elsewhere. However there was also a great deal of uncertainty about housing decisions and this was creating a certain amount of anxiety. Good communication throughout the planning and development stage of housing regeneration will be essential as a means of minimising stress associated with housing renewal projects. However there needs to be some initial discussion with local people to agree on an appropriate communication strategy. In the past, letters from the local council have failed to resolve contradictory messages circulating in the community. Health gains could be maximised by involving local people, including children and young people, in the planning of their environment. This will help to ensure that plans are appropriate to the needs and aspirations of the people who live there. A better on-going partnership between local people and the local council could help to sustain the benefits of housing regeneration.

Summary of potential health impacts

- There is a general perception that appearance of Llangeinor has deteriorated and that this is due, in part, to lack of attention by the local council.
- Ineffective communication links between local people and the housing department have created anxiety concerning the future of houses in Llangeinor.
- Housing regeneration provides an opportunity for better communication links to develop with local people as it provides an opportunity to develop a practical means of involving local people in planning their environment.
- The involvement of local people in this assessment and the dialogue it created has already started to address the issue of communications and partnership and it provides a foundation for more development in the future.

7. Conclusions

7.1 This report demonstrates that relationship between housing and health is complex. Although, on the whole, the evidence that poor housing has a negative impact on health is well received, especially in relation to respiratory problems in children, the link is not well understood. Poor housing is associated with poverty and ill health is likely to be a consequence of a range of factors associated with social and economic deprivation. In addition, while 'a house' may refer to a physical structure within which people live, housing refers to a much wider notion of a social and physical environment within which people live. Indeed, when people in Llangeinor talked about 'the housing' in their area they talked as much about problem neighbours, untidy streets, noisy youths, stranger danger, car crime and the lack of proper local amenities, as they did about damp and mouldy rooms. Ill health was central to both the house and the housing.

7.2 The lack of evidence of 'what works' to indicate what should be done is also disconcerting. Previous experience of housing renewal, a more acceptable term than the previous 'slum clearance', has not always brought either social and economic success or health gains to the people whose areas were targeted. Interventions specifically aimed to improve the physical structure or the energy efficiency of buildings have had mixed results. More promising results appear to stem from interventions that aim to improve the social and economic circumstances of, and resources to, local people in conjunction with housing improvements. There is, however, much to learn about what constitutes effective 'regeneration' and what the pathways are that lead to improvements in health and well being in the short and long term. A clear lesson from the past, however, is that social engineering cannot be achieved by physical means alone. The fact that Llangeinor has been targeted as a *Communities First* area provides an opportunity, through an appropriate partnership arrangement, to ensure that housing regeneration connects with other social and economic initiatives as well as the views, needs, and expertise of local people themselves.

7.3 Local involvement not only helps to ensure that homes and neighbourhoods are developed in ways that are appropriate to local needs but it brings its own benefits. It can help to ensure that people have a knowledge of what is likely to happen to them in the future and, if they wish, to have some say and a degree of control over that process. Local participation can also help to generate a sense of ownership and pride, and helps to foster a sense of community and common purpose. However, as the Joseph Rowntree Foundation (Forest and Kearns: 1999) have found in recent review of four regeneration areas, finding a practical means of working with local communities that is considered inclusive is fraught with difficulty. The process of conducting the health impact assessment in Llangeinor has gone some way to develop an on-going partnership that is acceptable to all stakeholders.

8. Reflections on the health impact assessment

8.1 The time involved in the assessment is estimated at 67 days. This figure comprises:

- 49 days of researcher time (contract).
- 18 days total for members (2 days average x 9 members of steering group not including the assessors) – for meetings and for the public meeting, and for tasks associated with the assessment from its inception to its report.
- 5 days management time (outside contract).

8.2 The above figure does not include the time of stakeholders and key informants from the local community that participated in interviews and in the public meeting.

8.3 Health impact assessment is an evolving approach and this project was designed with two purposes in mind. First and foremost was the opportunity to inform the Council of the health-related aspects to its plans in order to inform its decisions on housing regeneration in Llangeinor. Secondly, the project provided a further opportunity to test out the health impact assessment approach by applying it at an early stage in the planning and decision making process. In this case it also provided an opportunity to explore how the public can be involved in health impact assessments.

8.4 Given the embryonic nature of health impact assessment, reflecting on specific projects is important as a means of increasing expertise. The project encountered some difficulties but also generated a number of benefits and unexpected spin-offs. It must be stressed, however, that at the time of writing this report no decisions regarding housing regeneration had been taken by the Council so it is not possible to consider how the process and the report itself may have had an influence.

8.5 At the start of the project there was uncertainty amongst the partners about the health impact assessment, what responsibilities it would involve and what it would deliver. In relation to Bridgend County Borough Council, some of these uncertainties may have been due to a change in personnel since the idea of the health impact assessment was first discussed. However, by the final steering group meeting all stakeholders were positive about the process.

The health impact assessment tool

8.6 The Merseyside Guidelines were used both as a procedure and as a method for undertaking the health impact assessment itself.

8.7 As a method, the guidelines were particularly helpful as a means of identifying and assessing the health determinants that may be affected by decisions on housing. They are based on a social rather than medical model of health, which was appropriate for an intervention that would clearly have wide ranging impacts. A more disease-focused model such as the Bielefeld model would not have identified the broader potential impacts on the well being of local residents. A model requiring more precise measures would have been more difficult to achieve for three main reasons:

- There is a lack of quantifiable evidence of the effectiveness of housing interventions and their impact on health.
- The effectiveness of housing interventions depends on a wide range of other social and economic factors.
- These factors are not only compositional but also context-dependent – an approach that draws on wider sources of ‘evidence’, from sociology and anthropology as well as epidemiology allows contextual issues to illuminate the potential risks and benefits to health.

8.8 Although the Merseyside Guidelines proved to be a helpful guide, it was not easy to capture process issues, such as the unsettling effects of relocation. However, these issues strongly asserted themselves through interviews, which allowed them to be reported.

8.9 The Merseyside Guidelines stress the need to evaluate the importance, scale and likelihood of predicted impacts. Calculating the potential risks and benefits is limited by the complex relationship between housing and health and the fact that the evidence is contested in some areas. Time was also a limiting factor in doing this in any systematic way with the steering group.

8.10 However, these problems relate more to a wider debate on the assessment of risk as opposed to the guidelines themselves. On the whole the benefits of the Merseyside Guidelines outweighed the problems. It is perhaps best to see them as a set of guidelines, as they are called, rather than a model that assumes that it is a fixed approach.

Partnership

8.11 The steering group encouraged and enabled governance of the process to be achieved through partnership. Although this view may be the bias of the researcher comments, at the final steering group meeting strongly suggested that members felt positive about their involvement.

8.12 The steering group provided crucial input to the process in two other ways. First, access to different forms of expertise including information on the local and the national policy context, local health data and community views and experiences. Secondly, access to other key informants, particularly within the primary health care services and to local people. This ensured a wide spread of key informants for the interview stage of the project.

8.13 The steering group also enabled cross agency and local/professional relationships to become established. This, and the information provided by this assessment, provides a good foundation for future local initiatives, such as *Communities First*, and the development of housing regeneration itself, where multi-agency partnerships are likely to be required.

8.14 The establishment of multi-agency relationships for the project had at least one tangible spin-off during the health impact assessment. It soon became clear that there was little local knowledge of the *New Home Energy Efficiency Scheme*. In particular there was no local primary care based promotion of the scheme. Representation from the Assembly, the Local Health Group and the community development organisation, meant that arrangements could be made for leaflets to be sent to the relevant practice as well as to community organisations and representatives.

8.15 The steering group could possibly have remained in existence for a longer period of time, during the drafting of the report and after, so that members could remain in touch with the decision making process. Feedback on the usefulness of the report and the health impact assessment more generally will be sought from Bridgend County Borough Council in due course.

Local participation

8.16 A particular strength of this health impact assessment has been its involvement of the local community. All steering group meetings and the community meeting were held locally. The local representatives were vocal at the steering group meetings and did not appear to be intimidated by the largely 'professional' representation.

8.17 The local representatives provided access to other people within the community both for interviews and in promoting the community meeting to local residents. About 50 local people attended the local meeting which was held in order to provide feedback on, and opportunity for discussion of, the findings from the research. This number was considered to be good for this type of meeting and the short notice they received.

8.18 There are a number of factors that may have facilitated the degree of local involvement:

- The researcher/assessor was seen to be neutral and not a representative of the local council. Some people suggested that she may not have been welcome or trusted if she had worked for the council. This may raise issues about how local councils themselves conduct health impact assessments where community input is seen to be important.
- Initial approach to local people was through the local community development group, which had been working in the local area and with local residents for about a year. This provided a good starting point, since the organisation appeared to be well received locally, and helped to establish that the researcher/assessor could be trusted.
- The fact that there was already some community activity that was easy to identify, helped to find people who were interested in becoming involved in health impact assessment.
- The approach may have been different, and more difficult, in a larger area with a wider range of socially meaningful areas and communities of interest.
- All meetings were held locally which may have contributed to the confidence with which local representatives spoke at meetings.
- The fact that the local representatives had recently become involved in local regeneration initiatives may also have contributed to their confidence in meetings.
- All members of the local steering group appeared to respect the contribution of local people and the use of professional and policy jargon was kept to a minimum.

Community impact

8.19 One immediate spin-off from the community meeting is that it inspired the development of a tenants' association, the first meeting of which was held shortly afterwards. The Council stressed its support of such associations and the way in which local Council representatives responded to local people's concerns was well received.

8.20 Another impact has been some local interest in obtaining information about their own community for lobbying purposes.

8.21 In the medium to long term, the involvement of local people in this health impact assessment has meant that there is a good foundation from which relationships between the council and local people can develop. The development of vertical social capital, that is the relationships between local people and the organisations that make important decisions on behalf of them, is also an important step in revitalising the citizen's relationship with the state and its local institutions.

Local data

8.22 Obtaining small area data is notoriously difficult. Information was obtained from a variety of sources and local profiles but that information was sometimes inconsistent. Comparative data was sought for Bridgend County Borough as a whole but similar information was expressed in different ways, for instance as a number rather than as a rate. In addition the Census data was out of date. Inaccuracies can be great in small areas if there have been local changes. The local Rexel factory has recently been reducing staff, which is quite likely to have affected the employment and economic activity figures. The very recent announcement of the factory's closure making 125 workers redundancy will have a marked affect on Llangeinor's employment rates that will not be reflected in the next Census figures.

8.23 There is a clear role for local authorities, local health groups (or local health boards and their partnerships) and the Welsh Assembly Government to develop ways of combining local health, social and economic data in ways that are easy to access. Ways of updating this information should also be sought, and good practice models need to be explored. For example, the Public Health Department at Gwent Health Authority have been developing ways of linking health authority data to the data held by local authorities in their area.

Research/policy relationship

8.24 Contracting with the University to assess the potential health impacts and to facilitate the health impact assessment had clear advantages in terms of obtaining independent expertise, and providing a dedicated resource that could be allocated to this task. However, problems can arise in the interface between the research component and its dissemination into the decision-making arena and a lack of familiarity with local authority mechanisms for decision-making and development made this difficult.

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