

# Initial analysis on the Health Action Calderdale Kirklees and Wakefield Project (HACKW)

**AGE**  
*Concern*

Energy  
Saving  
Trust



Calderdale  
Council

**wakefield**  
City of Wakefield Metropolitan District Council



Calderdale **NHS**  
Primary Care Trust

Eastern Wakefield **NHS**  
Primary Care Trust

North Kirklees **NHS**  
Primary Care Trust

Wakefield West **NHS**  
Primary Care Trust

Huddersfield Central **NHS**  
Primary Care Trust

South Huddersfield **NHS**  
Primary Care Trust



JUNE 2005

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## **Health Action Calderdale Kirklees Wakefield (HACKW).**

### **Introduction.**

This report is a result of a snapshot analysis on the HACKW beneficiaries, which gives an opportunity to examine some of the additional benefits of this type of project. Participants were asked by questionnaire on issues such as health benefits and general well being. The results have been reported including a brief synopsis of other related research projects.

### **Purpose.**

The purpose of this initial study is to obtain rapid feedback of the effectiveness of the scheme and to help direct a possible future study that would be more rigorous.

### **Project Summary.**

This project delivered carbon savings and improved the health and well being of vulnerable private householders with a cold related illness. On referral by a health professional free installation of insulation and heat recovery ventilation measures were installed. This project directly addresses PCT interest in reducing health inequality.

### **Feasibility Study Results.**

The Health Action Calderdale & Kirklees (HACK) project, which ran from October 2001 to March 2003, was treated as a feasibility study for the purposes of this project. It delivered 548 measures to 250 properties in Calderdale and Kirklees giving annual carbon savings of 215 tonnes, with 84% of householders reporting that their homes were warmer and over 50% reporting an improvement in their medical condition.

The HACKW project, which is running from April 2004 to Jan 2006, has delivered 683 measures to 343 properties in Calderdale, Kirklees and Wakefield giving annual carbon savings of 87 tonnes, with 85% of households reporting that their homes are warmer.

## **Target Audience.**

The target audience identified from the feasibility study is private householders in the categories below who suffer from, or are at risk of, a cold related illness. This was confirmed by a health professional in the following categories:

- People not eligible for Warmfront (i.e. people over 60 / with young children but not on an income related benefit / disabled under 60)

The feasibility study identified that those in the target audience are often ineligible for the Warmfront scheme. As such the potential market is large and as the product is free in line with the principles of the health service no price barriers exist. Therefore, an excellent conversion rate of 100% take up of the grant funds occurred. The project is still attracting small amounts of additional funds from various sources in relation to the original funding.

## **Planned Carbon Reduction Measures.**

The main energy efficiency measures were, cavity wall insulation, loft insulation, heat recovery ventilation, hot water tank jacket and draft proofing.

## **Access to the Scheme.**

Obtaining referrals solely from GPs proved problematic and not wholly reliable. In response to this, an innovative approach was taken to obtain endorsed health referrals through leads generated by community groups including Groundwork and Age Concern working along with community based health practitioners and community nursing staff. Using this range of partners to generate referrals was unique. It was more appropriate as these people are more likely to see people in their homes that are GP's.

Complementing ongoing health projects to tackle respiratory illnesses such as smoking cessation, relevant health staff involved in the referral process will be able to advise householders on appropriate lifestyle changes.

An additional innovative feature was to assess the situation in a more holistic way and offer steam cleaning of carpets and soft furnishings in the bedroom of asthma sufferers where a heat recovery ventilation unit has been installed.

## **Delivery.**

The lead partner, Kirklees Energy Services (KES) - the local EEAC had overall responsibility for the project, including management, delivery and monitoring of the project. The three local authorities, KIRKLEES M.C. WAKEFIELD M.D.C. and CALDERDALE match fund the bid, promoted and raised awareness of the project to the appropriate personnel of other partners and disseminated information throughout the community. The six partner PCTs supported and encouraged appropriate health referrals for the scheme. Community partners, including Age Concern and Groundwork used grass roots connections to promote and raise awareness of the scheme.

## **Methodology/sample.**

The health questionnaire was sent out to anyone who had a completed HACKW job before 1st Dec 2004.

A sample of 140 participants was therefore chosen based on having the installed measures in place before the onset of a cold winter period. The majority were therefore taken from a period 1<sup>st</sup> April 2004 to 1st Dec 2004. (Response rate was 73%)

The participants were sent a questionnaire (see appendix)

## **Limitations.**

The limitations of this type of analysis are apparent when analysing the responses. The questions are mainly based on perceptions and although some of the responses are conclusive there is a lack of empirical data, which can be provided by the health professionals to support the anecdotal evidence provided by the participants.

With many of the participants having life long illnesses, a reduction in visits and use of medication would not be appropriate although the overwhelming majority felt that their well being and cold related illnesses had improved.

The results also show that although nearly 56% had noticed a reduction in bills, many of the participants were on schemes where a fixed amount was paid. E.g. participating in the stay warm scheme. Some participants had not received a bill yet and could not comment. Most participants had experienced an increase in energy prices, which made it harder to come to a conclusion on the fuel cost benefits of the scheme.

Similarly many participants were entitled to free prescriptions and would not notice a reduction in cost of medications. Some participants also had illnesses that are progressive and hence a reduction in visits or prescriptions would not be noticed.

## **Findings.**

Research on 102 out of 140 of the HACKW participants questioned who have experienced a winter after the new measures has shown the following results: -

- 78% felt that their medical condition improved after the measures.
- 94% noticed an improvement in the warmth of their dwelling.
- 56% noticed a decrease in their bills despite fuel price increases.
- 24% use less medication as a result (Many have life illnesses which require continuous use).
- 30% have noticed less need to visit their GP as a result of improved medical condition after the measures. (Many have life illnesses, which require regular visits).

## **Conclusions and Recommendations.**

The HACKW scheme is an Energy Saving Trust (EST) Innovation project. The EST is eager to see that projects funded under this programme are sustained. Consequently we would like to work towards mainstreaming of the scheme.

The findings suggest that further research should be carried out, however KES do not have the expertise or the authority to undertake this task and is seeking the help of the Directors of Public Health in this respect.

Ideally we would like to make use of the expertise within the PCT's to conduct this evaluation. We would be willing to apply for any additional funds to conduct the work.

In addition to contributing towards the case for mainstreaming of the HACKW scheme, the evaluation study could also prove useful in informing policy on cold related illnesses.

## Current related research

### Met Office “Health Forecasting” ([www.metoffice.gov.uk/health](http://www.metoffice.gov.uk/health))

The Met office has conducted some research with 8 Strategic Health Authorities and 8 Met Office service Developers (see appendix 4), on the effects on front line service demand in relation to temperature variation. It has been well documented that for every 1degree drop in temperature which results in an increase of deaths, more medical admissions, increased exacerbations and costs to the NHS (See appendix 5 & 6) It has also been observed that cold snaps lead to increased COPD (Chronic Obstructive Pulmonary Disease) admissions, peaking 1-2 weeks later (See appendix 7 & 8)

- A PCT serving a population of 250,000 will have about 14,200 GP consultations every year for people with COPD.
- 680 patients will be admitted to hospital, accounting for 9800 bed days.
- Admission costs about £1700
- GP Consultation costs £56
- Cold snaps lead to increased COPD admissions, peaking 1-2 weeks later and there is a lag for respiratory deaths peaking at 12 days.
- In COPD patients' cold bedroom temperatures are related to the development of a 'cold' and an exacerbation. This may be related to cooling of nasal passages.
- There is good evidence that cold houses cause increased mortality across all social classes. Indoor temperatures are related to respiratory deaths.

## Evaluation of Alpine Treatment

Alpine Environments

[www.alpine-environments.co.uk](http://www.alpine-environments.co.uk)

The **HACKW** project was further enhanced by offering steam cleaning of carpets and soft furnishings in the bedroom of asthma sufferers where a heat recovery ventilation unit has been installed. The following research was conducted by Alpine one of the providers of this service to the scheme in partnership with **South Leeds PCT** and **Leeds City Council**.

**Alpine Environments** are dedicated to helping families who suffer from asthma, triggered by the indoor environment. Asthma affects a high proportion of people throughout the United Kingdom. In addition to almost daily medication and regular visits to GPs some patients require hospitalisation and regrettably there are a number of fatalities each year.

Asthma is detrimental to a person's health and well being and is likely to have an adverse affect on their attendance at their place of employment or education. This has been observed as part of multiple deprivations relating not only to health but also to other factors such as Fuel Poverty. Room and outdoor temperature has also been seen to cause exacerbations as described in the **Met Office** "*Health Forecasting*" research.

Several causative factors have been identified. House dust mites being one of the most common sources of indoor allergens are a cause of symptoms in allergic asthma. We at Alpine have a clinically proven method of eradicating the house dust mite and denaturing its harmful allergens without the use of drugs or chemicals.

Alpine not only created a low allergen home with their unique method of heat, steam, time and temperature to the patients beds but also by installing heat recovery ventilation systems, drop the humidity level to 55% to ensure the house dust mite cannot re-infest. In essence they created a sanctuary for the patient to enjoy. The heat recovery units also ensured that wasted heat, which would be normally lost, was utilised.

Several homes have been treated in South Leeds. Results to date are very encouraging showing reduced dependant on medication, better school attendance and an improved quality of life. The projects to date demonstrate that the scheme is viable and makes a contribution to health and well being of the clients.

The project supports and sign posts other health and well being initiatives particularly focusing on fuel poverty. Similar schemes are about to commence in Newcastle and Kent. We are hoping to extend all projects with the ultimate aim that the process is recommended as an adjunct to reduced reliance on medication.

For copies of the clinical trial or further information

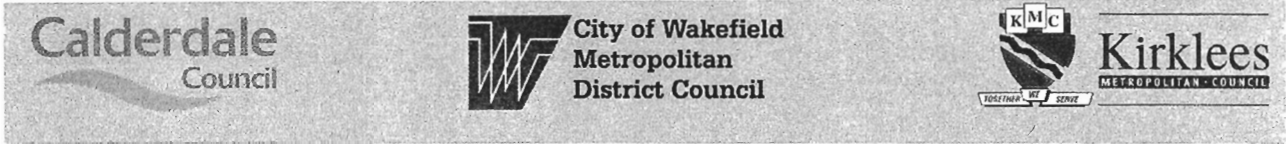
By e-mail [elumley@alpine-environments.co.uk](mailto:elumley@alpine-environments.co.uk)

Tel: Office: 0113 200 8210/ 0113 200 8225 / (Free phone 0800 281 286)



## Appendix 9. Partner Roles

Partner organisation	What was their role or intended role?
Kirklees Energy Services (KES)	Lead Partner responsible for overall project management including delivery and monitoring. KES is the Energy Efficiency Advice Centre for Kirklees, Calderdale & Wakefield.
Calderdale Council	Lead Council responsible for promoting project within Calderdale and passing referrals to KES
Kirklees Metropolitan Council	Responsible for promoting project within Kirklees and passing referrals to KES
Wakefield Metropolitan District Council	Responsible for promoting project within Wakefield and passing referrals to KES
Calderdale PCT	Responsible for endorsing referrals in terms of health benefits – endorsement by a range of health professionals
North Kirklees PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
South & Central Huddersfield PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
Wakefield East PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
Wakefield West PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
Age Concern Calderdale	Additional promotion of the project in the Calderdale area.
Age Concern Kirklees (North)	Additional promotion of the project in the Kirklees area.
Age Concern Kirklees (South)	Additional promotion of the project in the Kirklees area.
Age Concern Wakefield	Additional promotion of the project in the Wakefield area.
Groundwork Wakefield	Additional promotion of the project in the Wakefield area.



## Health Action Calderdale, Kirklees & Wakefield (HACKW) REFERRAL FORM

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_ Tel No: \_\_\_\_\_

I give permission for details of how my health is affected by cold and/or damp conditions to be disclosed on this form

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

**To be completed by a health professional**

Brief description of how cold living conditions/poor ventilation affects the people living in the property

Name (Block Capitals): \_\_\_\_\_

Position \_\_\_\_\_ Place of Work: \_\_\_\_\_

Contact telephone number: \_\_\_\_\_

Signature: \_\_\_\_\_



Please return to: ENERGY EFFICIENCY ADVICE CENTRE  
FREEPOST NEA10014  
HUDDERSFIELD  
HD1 1TG  
Tel: 0800 052 7496



# HACKW

## HEALTH ACTION

FOR CALDERDALE, KIRKLEES & WAKEFIELD

IS YOUR HOME **COLD** AND  
**DRAUGHTY?**

WOULD YOU LIKE **FREE**  
**INSULATION** INSTALLING?

You may be eligible for draughtproofing, loft insulation, cavity wall insulation and heat recovery ventilation (for respiratory illnesses), installed by professional installers, under the 'HACKW' scheme completely **FREE OF CHARGE**

Overleaf is a referral form which has to be completed by a health professional - your health visitor, practice nurse, midwife etc. Send it back to us (**FREEPOST**) and we will make the necessary arrangements for you

Its as simple as that



## APPENDIX 1

### KIRKLEES ENERGY SERVICES

12 Byram Buildings, Station Street, Huddersfield HD1 1LS  
Tel: 01484 351552 Fax: 01484 351551 FREEPHONE 0800 0527496  
E-mail: [info@energy-help.org.uk](mailto:info@energy-help.org.uk) [www.energy-help.org.uk](http://www.energy-help.org.uk)

«Names»

«Address»

05 August 2005

Dear «Greeting»,

During 2004 you took part in the Health Action Calderdale, Kirklees & Wakefield (HACKW) scheme and had free energy efficiency measures installed in your property. The measures will have included one or more of the following: loft insulation, cavity wall insulation, draught proofing and heat recovery ventilation (a Baxi unit).

We are writing to you in the hope that you can help us measure the impact of the scheme, as this will help us to attract more funds into this successful scheme, which will enable us to help other individuals and families.

We would be grateful if you would take a few moments to answer the following questions, and return this form to us in the FREEPOST envelope provided (No Stamp Required.)

**As a thank you for your help your response will be entered into a Prize Draw for A New Energy Efficient Electric Kettle. The draw will take place on 15<sup>th</sup> June 2005 and the winner will be notified by post on the same day.**

*All information received will be treated in the strictest confidence and your details will not be passed onto a third party. Please fee free to leave unanswered any questions you do not wish to answer or are unsure about, as it is some time since the measures were installed.*

Yours faithfully,

Simon Tao.



«CustRef» / «Expr1»

**Appendix 2**  
**Customer Health Benefit Survey - HACKW** Job No's: «Expr1»

1. Can you confirm the type of work carried out on your home?

- |   |  |
|---|--|
| <input type="checkbox"/> Cavity Wall Insulation | <input type="checkbox"/> Draught Proofing                      |
| <input type="checkbox"/> Loft Insulation (Full) | <input type="checkbox"/> Loft Insulation (Top Up)              |
| <input type="checkbox"/> Hot Water Tank Jacket  | <input type="checkbox"/> Heat Recovery Ventilation Unit (BAXI) |

2. If you or a member of your household has a medical condition that is affected by the cold, has this improved since the work has been carried out?

- Yes  No

Please give brief details...

.....  
.....

3. Does your home feel warmer since the work has been carried out?

- Yes \_\_\_\_\_  No \_\_\_\_\_

---

4. Have you noticed a reduction in your fuel bills?

- Yes  No

---

5. Have you noticed a reduction in medical bills/use of medication since the work has been carried out?

- Yes  No

Please give brief details...

6. Have you noticed a reduction in the number of visits to your GP/Hospital since the work has been carried out?

- Yes  No

---

7. Have you any further comments to make regarding the HACKW scheme?

---

All information received will be treated in confidence and your details will not be passed on to a third party.  
Thank you for helping with this survey; NOW send this form to EEAC Freepost  
NEA10014, Huddersfield, HD1 1TG. Or use the free – replied paid envelope. (No  
stamp required)



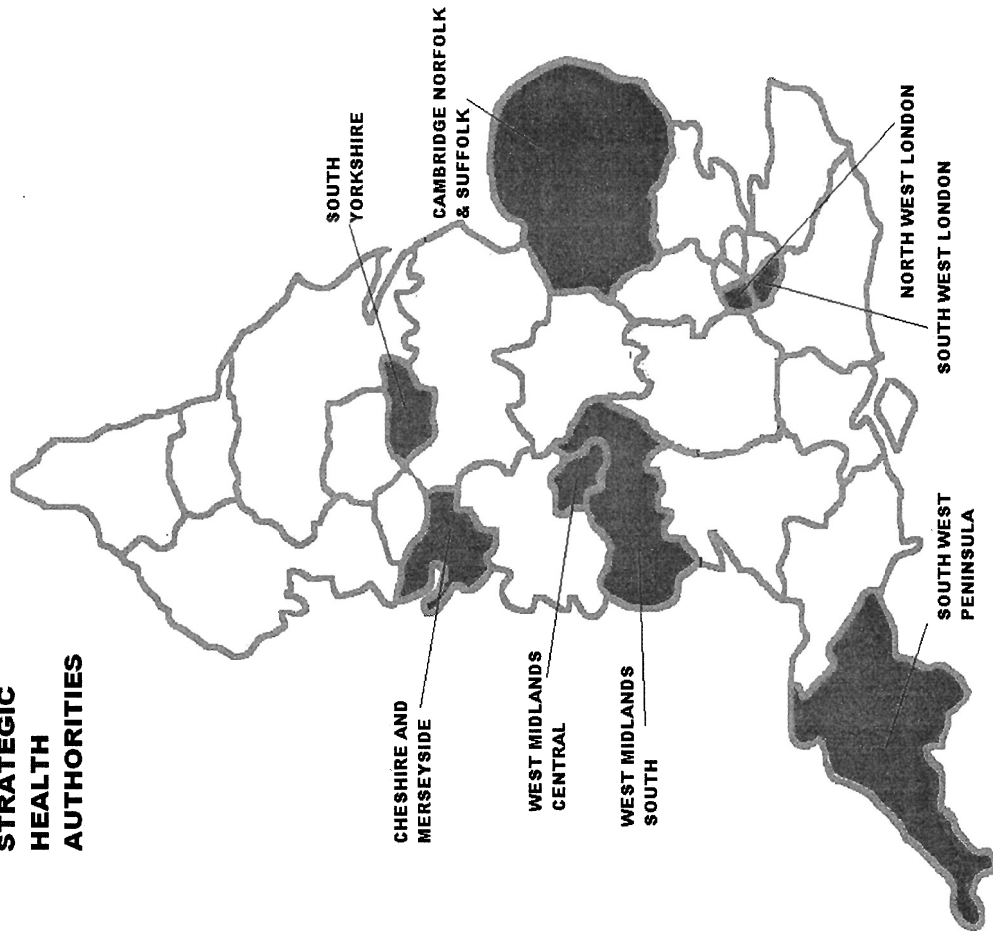
# Appendix 4

## COPD project



**STRATEGIC  
HEALTH  
AUTHORITIES**

SHA pilot project agreed.  
8 Met Office service  
Developers  
Admissions & COPD  
Prevention.  
DoH funded evaluation

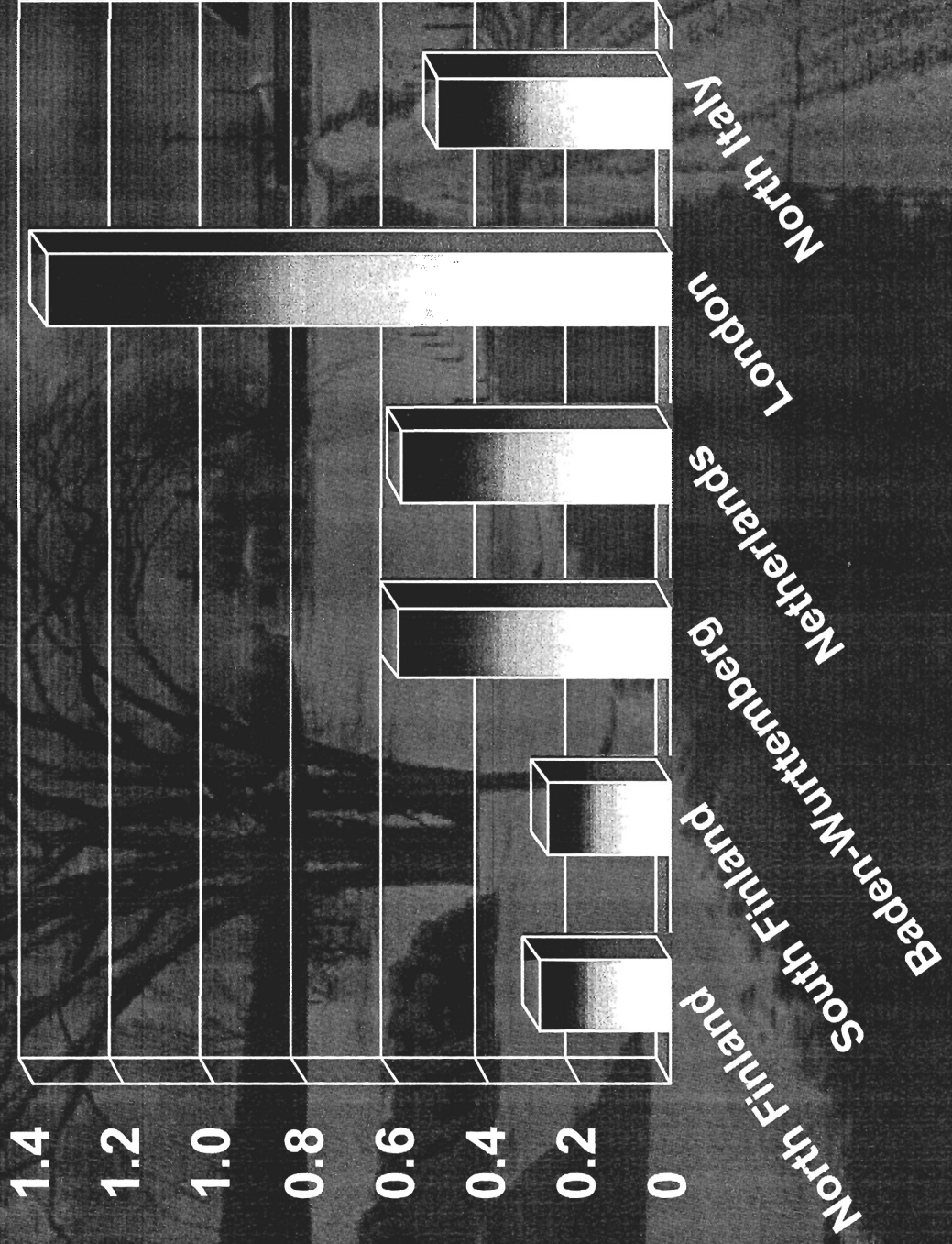




# Appendix 5

## Public

Extra winter mortality  
% increase in mortality for each 1°C fall from 18°C  
Keatinge et al, 1997

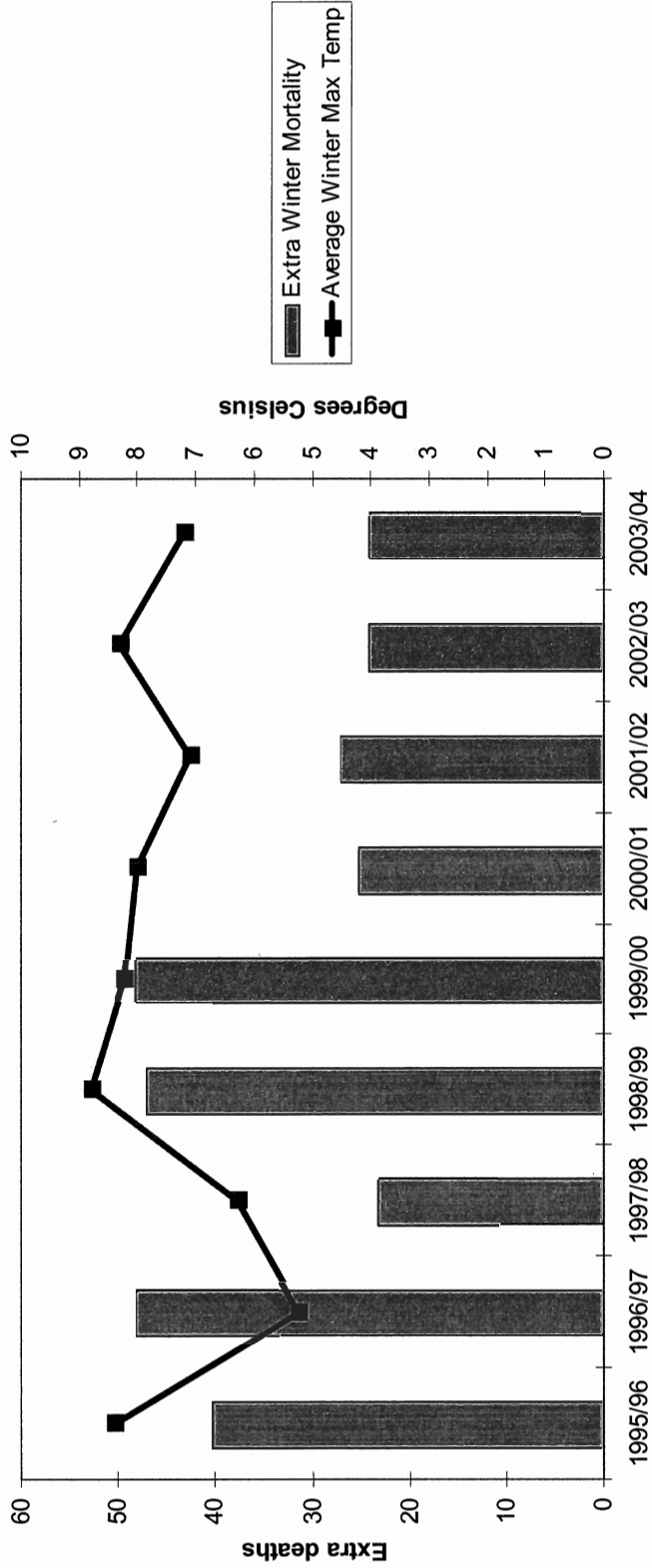




# Appendix 6 Temperature and EWM



Extra Winter Mortality and Max temp.

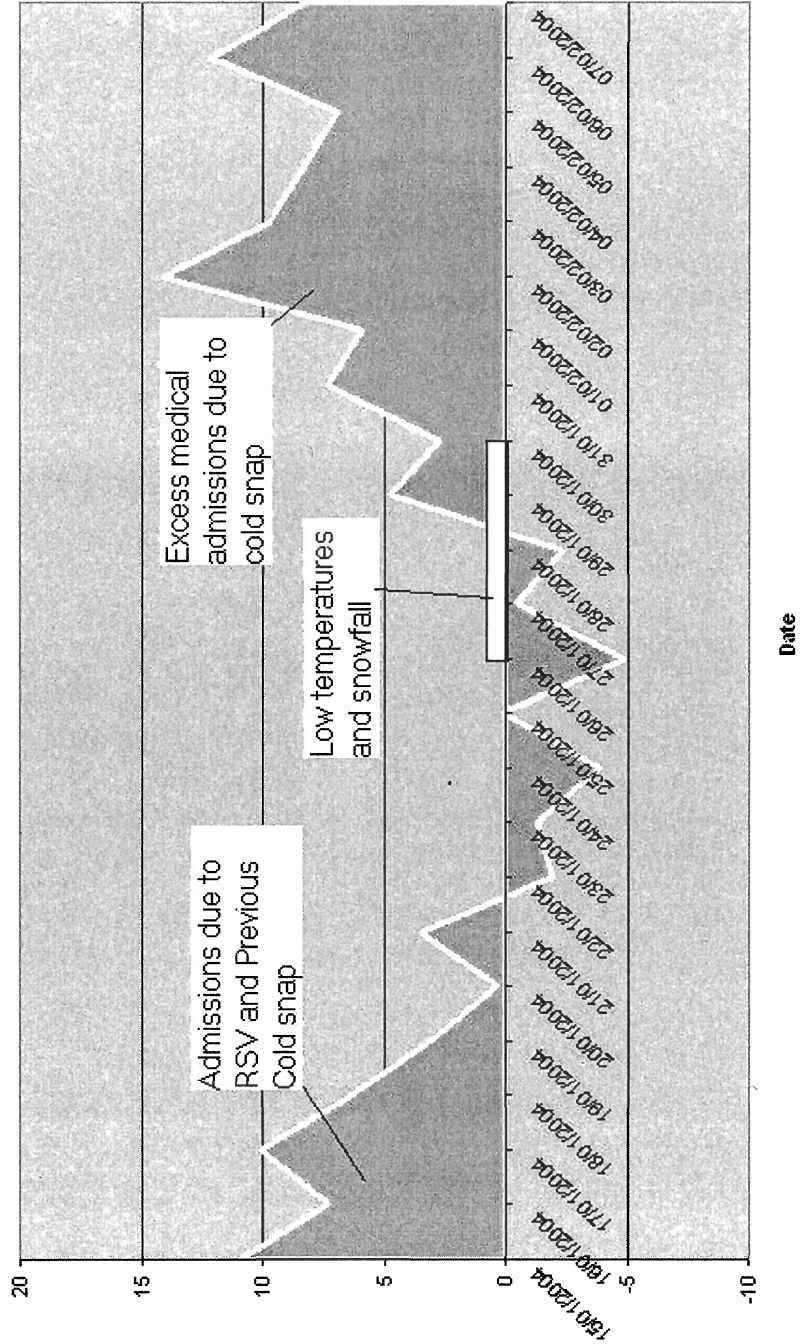


# APPENDIX 7

## The Effect of Cold on Hospital Admissions



SE London Emergency Medical Admissions  
Variance from 4 week mean. Using Week 4 as reference week

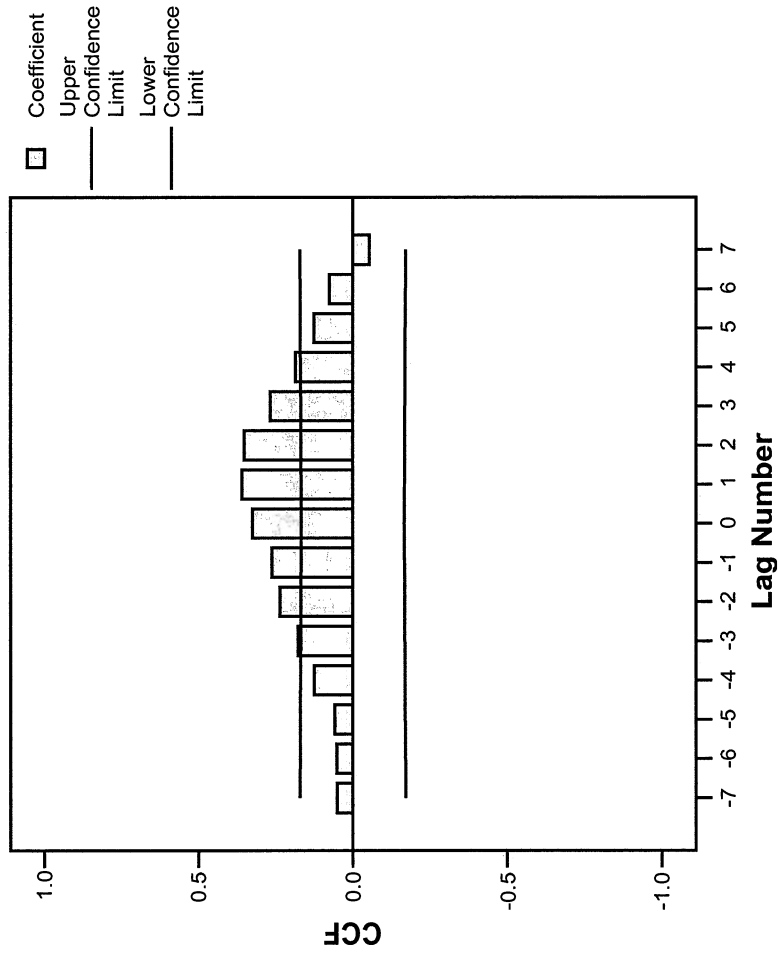


# Appendix 8

## Cross-correlations / lags of COPD with weather



Weekly "Coldness" measure vs COPD admissions



Positive correlation:

Cold snaps lead to increased COPD admissions, peaking 1-2 weeks later

N.B. "Coldness" is the weekly sum of a threshold temperature minus daily max temperature