



# **REPORT SUMMARISING THE MAIN FINDINGS OF FIRE INCIDENTS WHERE A FATALITY HAS OCCURRED APRIL 2006 - MARCH 2007.**

This is an unpublished work, the Copyright in which vests in Merseyside Fire & Rescue Service. All rights reserved. The information contained herein is the property of Merseyside Fire & Rescue Service, and is supplied without liability for errors or omissions. No part may be reproduced or used except as authorised by Contract or other written permission. The Copyright and the foregoing restriction on reproduction and use extend to all media in which information may be embodied ©

**KNOWLEDGE AND INFORMATION MANAGEMENT DEPARTMENT**

**APPENDIX A  
(CFO/97/07)**

**Document Control**

**Amendment History**

Version / Issue No.	Date	Author	Remarks / Reason for Change
0.1 Draft	April 2007	David Robinson	Initial Draft version

Sign-Off List

Name	Position
John L Curtis	Director of Knowledge and Information Management
John Moorcroft	Director of Community Fire Safety

Distribution List

Name	Position	I / R
CLT		R

Related Documents

Reference No.	Title	Author	Version & Date

REF: Y:\Common\Information Management\Projects\fatality Report\200607\fatalFireAnalysis200607FINAL.doc

<b>1. PURPOSE .....</b>	<b>4</b>
<b>2. EXECUTIVE SUMMARY .....</b>	<b>4</b>
<b>3. WHO DIED IN THE FIRES?.....</b>	<b>6</b>
<b>4. PRIMARY CAUSES OF FIRES .....</b>	<b>8</b>
<b>5. UNDERLYING CAUSES OF FIRE .....</b>	<b>9</b>
<b>6. WHERE DID THE FIRES HAPPEN?.....</b>	<b>11</b>
<b>7. SMOKE DETECTOR ANALYSIS .....</b>	<b>12</b>
<b>8. CONCLUSION .....</b>	<b>13</b>
<b>APPENDIX .....</b>	<b>14</b>

## **1. PURPOSE**

This document outlines the main findings of Fire Incidents received by Merseyside Fire and Rescue Service (MF&RS) where a fatality has occurred within the period of April 2006 - March 2007.

## **2. EXECUTIVE SUMMARY**

MF&RS has seen a significant reduction in fatalities in dwelling fires. The continued development of MF&RS's pioneering community Home Fire Safety Check initiatives and campaigns, through the identification and targeting of high risk groups within the community, has led not only to a reduction in fatalities but also serious injuries.

MF&RS continually develops, measures and monitors its initiatives, through integrated working with other agencies, Local Authority's and the voluntary sector to help make Merseyside a safer, stronger community.

MF&RS has been recognised for its groundbreaking strategies, which nationally have contributed towards Beacon Scheme status for Children at Risk and Services offered to the Elderly. Some key themes that have been introduced include:-

- Approximately 290,000<sup>1</sup> free residential Home Fire Safety Checks (HFSC) have been undertaken. Information Sharing agreements have recently further supported the effective identification of people at risk of fire.
- Introduction of advocates based within the Community and specifically targeting high risk community groups and key themes, such as Arson reduction.
- Youth engagement schemes including embedding fire-fighters into high risk schools to educate young people about the effects of fire and Princes Trust volunteer based

---

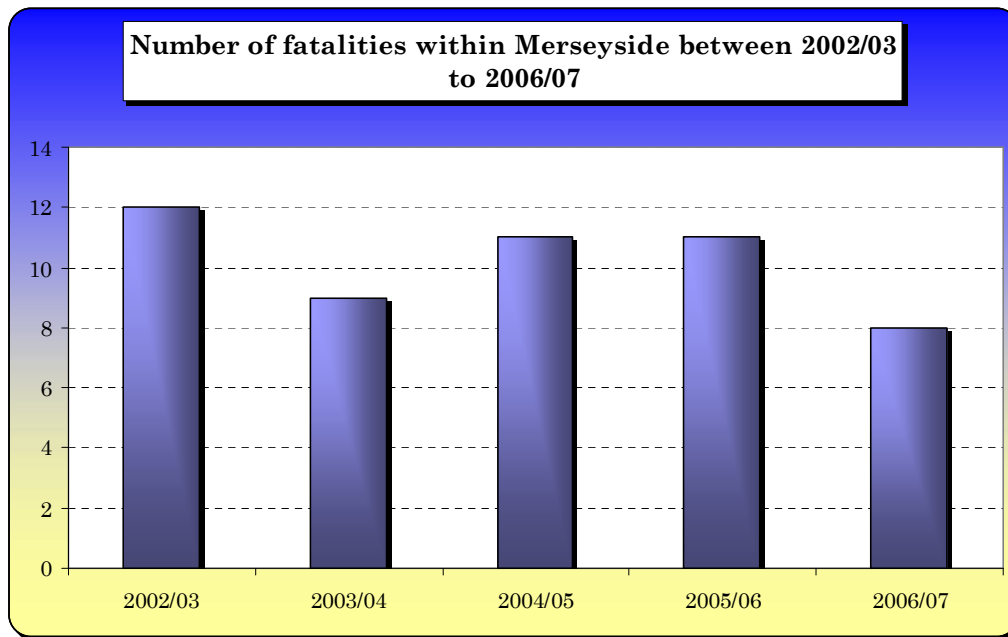
<sup>1</sup> Source FSD Alan Filson, 27<sup>th</sup> April 2007. 290,000 HFSC undertaken, of which 219,00 Premises visited.

schemes.

During the financial period 2006/07, Merseyside attended 8 fatalities in accidental dwelling fires. Similar to previous years, smoking has been highlighted as a key factor when a fatality has occurred. Consistently over the last 5 years over half of all fatalities in the home involve smokers materials. The other key factor is that when there is a working smoke alarm there is usually a secondary factor which stops them reacting to the early warning. In most cases this is either age related or the victim had a disability, used prescribed drugs or there was evidence of alcohol.

This figure of 8 fire deaths is the lowest recorded number of fatalities – a total that has halved over the last 5 years. This is reflective of the overall downward trend over the past 5 years and once again demonstrates that the Authority's commitment to driving down fire deaths and injuries through its preventative community safety programme.

The other noticeable trend, over the last 5 years, is that once the age of 70 is reached, the risk of fire increases significantly. People over 70 are almost eight times more likely to die in a house fire than those under 70. This is broadly a similar relationship to the previous year. The following chart demonstrates the current 5-year trend in accidental dwelling fire deaths. Graph 1: Number of fatalities within Merseyside from 2002/3 to 2006/7



### 3. WHO DIED IN THE FIRES?

During 2006/07, Merseyside Fire and Rescue Service attended incidents, involving a total of 14 deaths during the reported period, of which 8 were accidental dwelling fire deaths in the twelve month period.

The judgement as to the circumstances and cause of death is made by the Her Majesty's Coroner for each district and is always accepted by Merseyside Fire and Rescue Service.

#### Age and Sex

Table 1: illustrating Age and Sex for the period under review.

Age	Female	Male
0-9	0	0
10~19	0	0
20-29	0	0
30-39	0	0
40-49	1	0
50-59	0	2
60-69	1	0
70-79	1	1
80-89	1	1

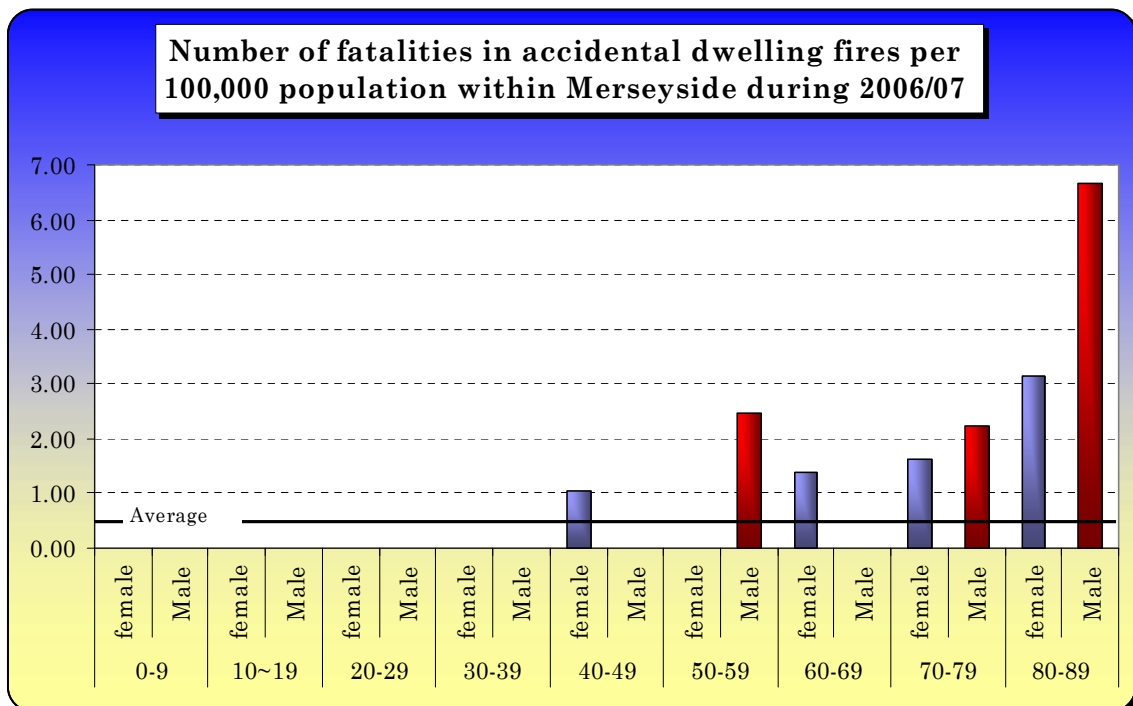
Grand Total	4	4
-------------	---	---

The main trend that can be seen from table 1 is that every fatality was aged 40 or above, with 87.5% of fatalities being over 50. This is consistent with last year when the figure was 81%. This profile is similar to profiles from other Fire and Rescue Services.

Reviewing table 1 in isolation gives an impression that once someone reaches the age 40-50, there is then a similar probability, of dying in an accidental dwelling fire, for each further age group.

This perspective changes when reviewing graph 2, in which population indices have been added to the data. Once the population structure has been overlaid, it can be seen that the probability of dying in an accidental dwelling fires significantly increases as you get older, especially if you are male.

Graph 2: Number of fatalities per 100,000 population by gender and age



#### **4. PRIMARY CAUSES OF FIRES**

The following tables review the root causes of the fire from different perspectives and aims to add some depth to the overall profile.

As in previous years, smoking is the most significant cause of fatalities in accidental dwelling fires (Table 2).

**Table 2** Illustrating cause of fire

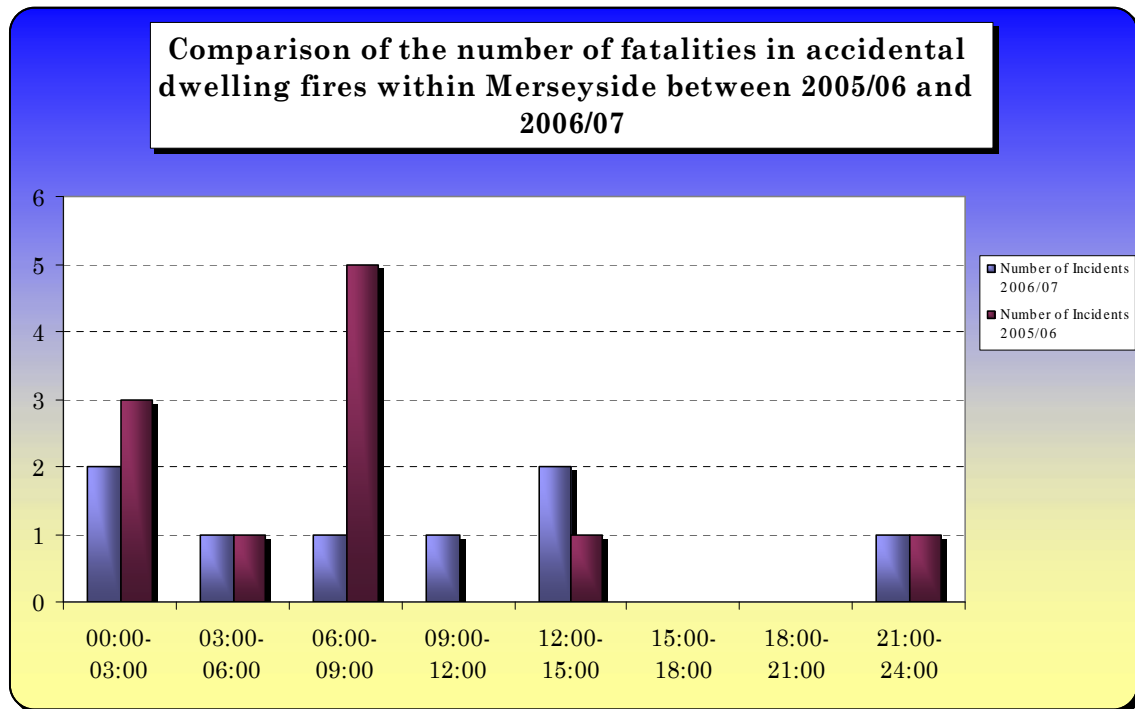
<b>Main cause</b>	<b>Total</b>
cooking	1
electrical	1
smoking	
materials	6
<b>Grand Total</b>	<b>8</b>

## 5. UNDERLYING CAUSES OF FIRE

Each incident involving careless use of smoking materials, also had a secondary contributory factor. These secondary factors included alcohol, prescribed drugs or the victim having a disability.

Two distinctive time periods stand out highlighting that most fire deaths occur between late evening and the early hours of the morning and between lunchtime and mid afternoon.

**Graph 3:** Number of fatalities within Merseyside during 2006/07 by time of day.



**Table 3:** Cause and time.

Time of day	cooking	electrical	smoking materials	Grand Total
00:00-03:00			1	2
03:00-06:00			1	1
06:00-09:00			1	1
09:00-12:00			1	1
12:00-15:00		1	1	2
15:00-18:00				
18:00-21:00				
21:00-24:00			1	1

**APPENDIX A  
(CFO/97/07)**

Last year almost half of all fatalities occurred on a Thursday, which more than likely was due to the small sample reviewed. This is evidenced by the fact that there were no fatalities this year on that day. However, Friday and Saturday historically do re-occur.

The influence of the weekend is easily explained as it is the day that people are likely to be under the influence of substances that might affect behaviour in the home.

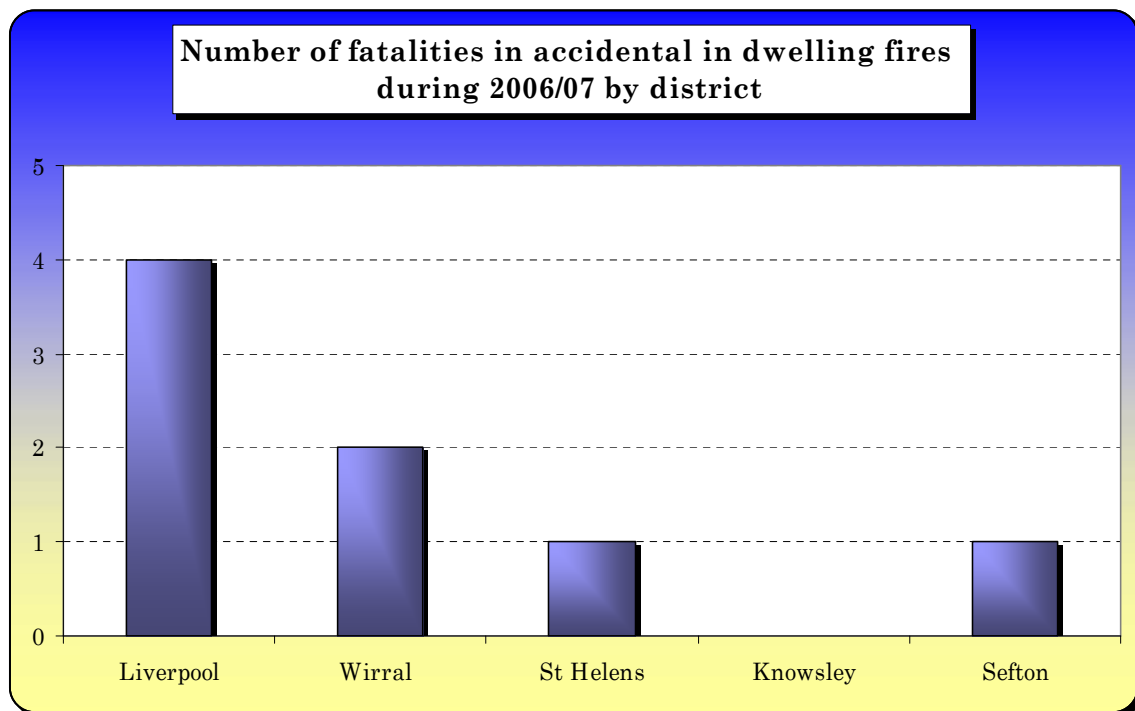
**Table 4:** Day of the week and cause of the fire.

Day of week	cooking	electrical	smoking materials	Grand Total
Monday		1		1
Tuesday			1	1
Wednesday				0
Thursday				0
Friday			1	1
Saturday			2	2
Sunday			2	2
Grand Total		1	1	6

## 6. WHERE DID THE FIRES HAPPEN?

The two districts that have the highest number of fatalities are Liverpool and Wirral. However both these areas also have a higher concentration of population.

Graph 4: Number of fatalities on Merseyside by district



As seen in the table below, last year, around half of all fatalities in accidental fires in the home, occurred in terraced property. This has consistently occurred over the previous 5 years as well.

Taking into account the concentration of different housing types, there is still a higher probability of a victim of fire living in terraced housing.

Table 5: Type of Property

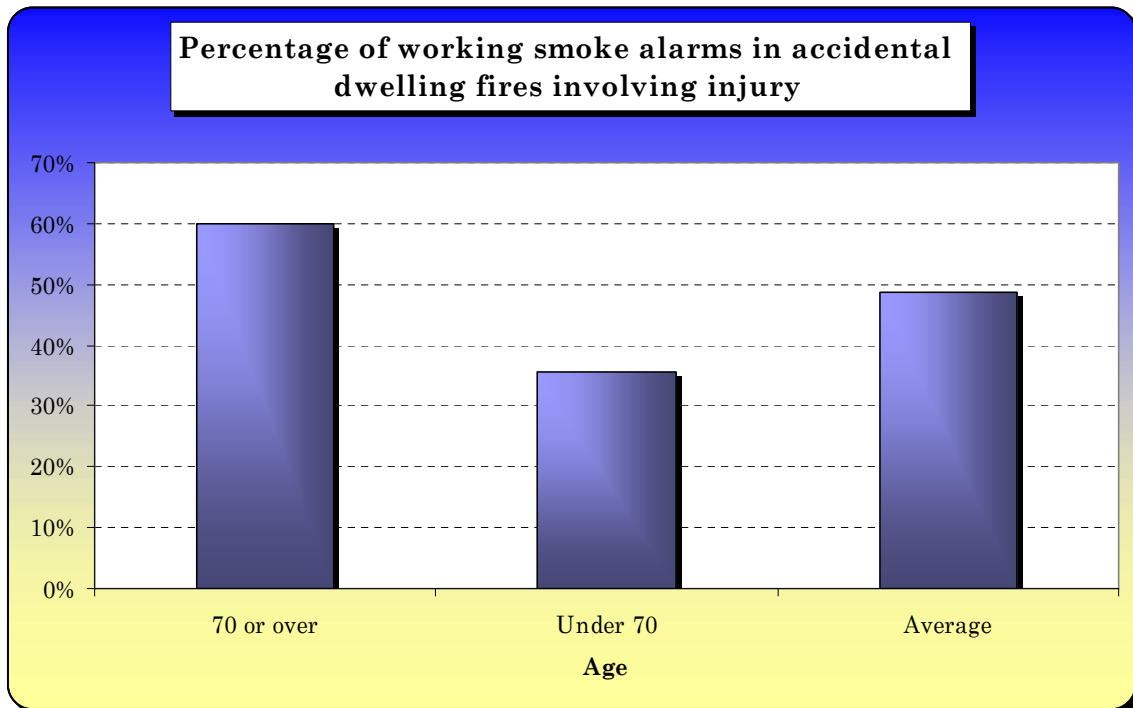
Property	Total	Percentage
Flat	1	12.50%
Semi detached	3	37.50%
terraced	4	50.00%

Grand Total	8	100.00%
-------------	---	---------

## 7. SMOKE DETECTOR ANALYSIS

Over 62% of dwelling fires involving fatalities had a working smoke alarm. However of those fatalities within the highest risk group (70 or over) only one of the four fires had a working smoke alarm, two had no smoke alarm and one had a smoke alarm that did not operate. However this perspective changes when you consider serious injuries in accidental dwelling fires. As can be seen in graph 5, people over 70 who are injured in a dwelling fire are significantly more likely to have a working smoke alarm. This indicates that if you are in a high risk group, having a working smoke alarm is effective as an early warning system. It is the mobility of the individual and their ability to easily and quickly leave their home which regrettably results in death.

Graph 5: Smoke alarm analysis comparing serious injuries and fatalities on Merseyside



## **8. CONCLUSION**

Our vision is to make Merseyside safer, stronger. To achieve this, Merseyside Fire and Rescue set a demanding target in 1999 to reduce fire deaths by 40%<sup>2</sup> and over the last 4 years we have exceeded this target.

MF&RS is continually developing its strategies and initiatives, whilst looking at new and innovative ways of reducing fire deaths within the community.

In 1999, Merseyside was the first Fire and Rescue Authority to introduce an integrated HFSC programme, which included the fitting of a free smoke alarm and fire safety advice. Since then we have developed strong links with other agencies such as Health Authority's and Primary Care Trusts to develop strategies relating to health and fire such as smoking.

Further developments have included the introduction, in 2003, of an advocates programme with the aim of trying to reach members of society that the Fire and Rescue Service have found hard to influence. Through work with local community groups, the latest addition to this programme are Drug and Alcohol Development Community Safety Advocates.

The further development of this combined with improvements in our business intelligence and targeting methods, should ensure that reductions in fatalities over the coming years.

---

<sup>2</sup> 40% reduction equals a target of 12 fatalities

Appendix

Map one. Showing location of fatalities.

