



# **REPORT SUMMARISING THE MAIN FINDINGS OF FIRE INCIDENTS WHERE A FATALITY HAS OCCURRED APRIL 2005 - MARCH 2006.**

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**KNOWLEDGE AND INFORMATION MANAGEMENT DEPARTMENT**

## Document Control

### Amendment History

Version / Issue No.	Date	Author	Remarks / Reason for Change
0.1 Draft	Dec 2006	David Robinson	Initial Draft version
0.2	Dec 2006	David Robinson	After comments from JL Curtis

### Sign-Off List

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### Related Documents

Reference No.	Title	Author	Version & Date

REF:- Y:\Common\Information Management\Projects\fatality Report\fatalFireAnalysis200506SummaryFinalDocJLC.doc

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## **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 2005 - March 2006.

## **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 national 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 260,000 free residential Home Fire Safety Checks (HFSC) have been undertaken.
- Introduction of advocates based within the Community and specifically targeting specific 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 schemes.

During 2005/06, Merseyside attended 11 fatalities in accidental dwelling fires. Similar to previous years, alcohol has been highlighted as a key factor when a fatality has occurred.

However where alcohol was not a significant factor, the victim either had a disability, smoked or used prescribed drugs.

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 over six times more likely to die in a house fire than those under 70.

## WHO DIED IN THE FIRES?

During 2005/06, thirteen people died in house fires of which 11 were accidental.

### Age and Sex

Table 1

Age	Female	Male
0-9	0	0
10-19	0	0
20-29	0	0
30-39	0	0
40-49	1	1
50-59	2	1
60-69	1	1
70-79	2	1
80-89	0	1
Total	6	5

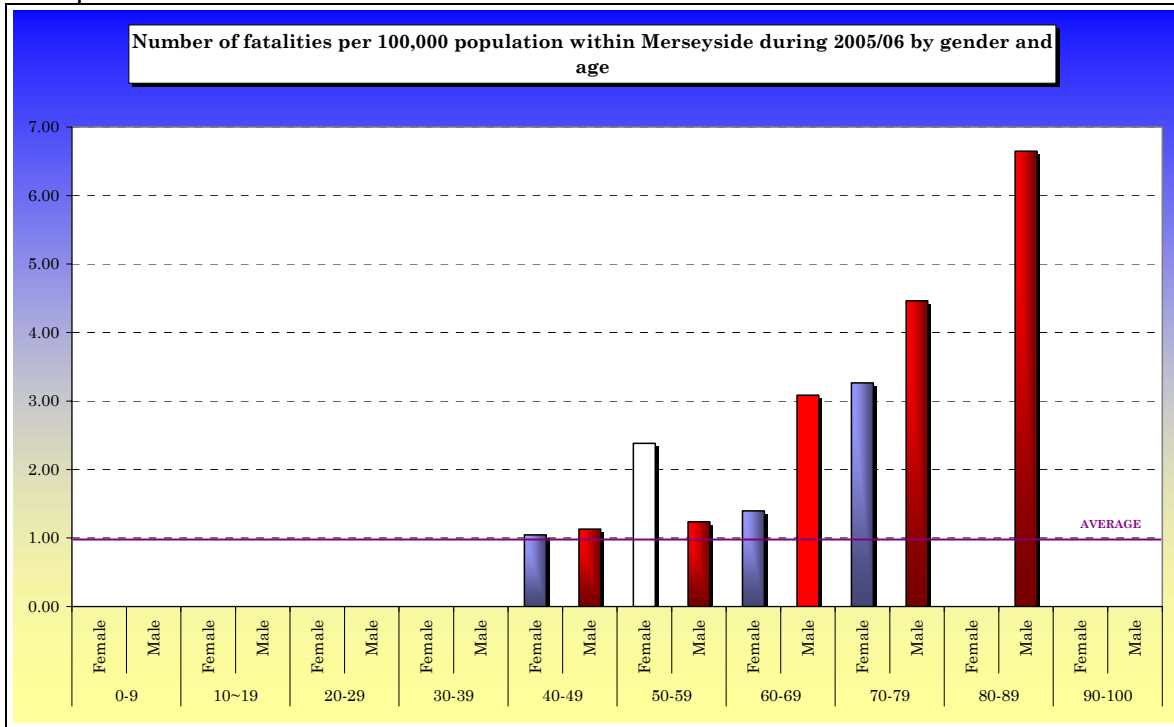
The main trend that can be seen from table 1 is that every fatality was aged 40 or above, with 81% of fatalities being over 50. This profile is consistent with profiles from other Fire and Rescue Services.

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 1, 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 1



## HOW AND WHEN DID THE FIRES HAPPEN?

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

Cause	Number
Candle	1
Cooking	1
Cooking/smoking	1
Radiated heat	2
Smoking	5
Spark from fridge/freezer	1
Total	11

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.

This is evidenced in tables 3 and 4, which illustrate that the secondary cause of all smoking related fires was the careless use of the materials and the time of the fire which was in the early hours of the morning or the start of the day, indicating that most victims probably fell asleep whilst smoking.

**Table 3**

Main cause/ Reason for fire	Careless	Careless/asleep	Clothes too near fire	Electric fire knocked over	Escape up of gas	Total
Candle	1					1
Cooking	1					1
Cooking/smoking	1					1
Radiated heat			1	1		2
Smoking	3	2				5
Spark from fridge/freezer					1	1
<b>Total</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>11</b>

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

Graph 2

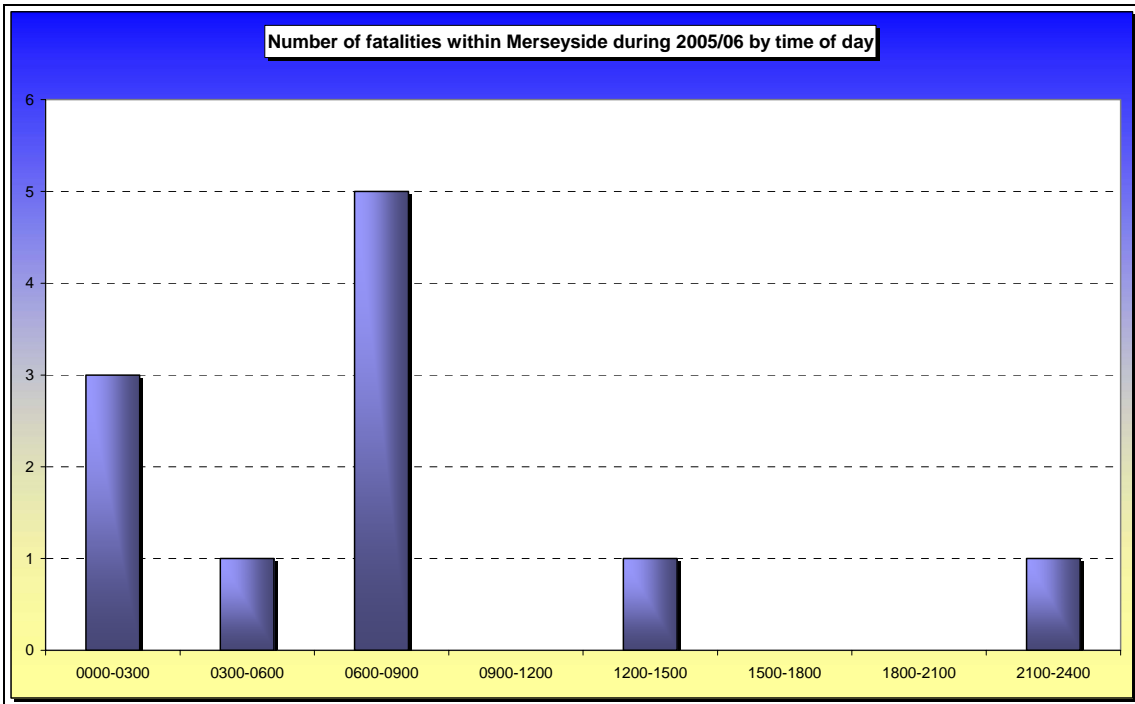


Table 4

Time	Cooking/smoking	Smoking	Total
02:10		1	1
02:47		1	1
04:16		1	1
07:37	1		1
08:23		1	1
22:56		1	1
Total	1	5	6

Almost half of all fatalities occurred on a Thursday, which more than likely is due to the small sample reviewed.

However when the sample period is extended to five years, Thursday and Saturday are the most significant days of the week accounting again for 45% of all fatalities.

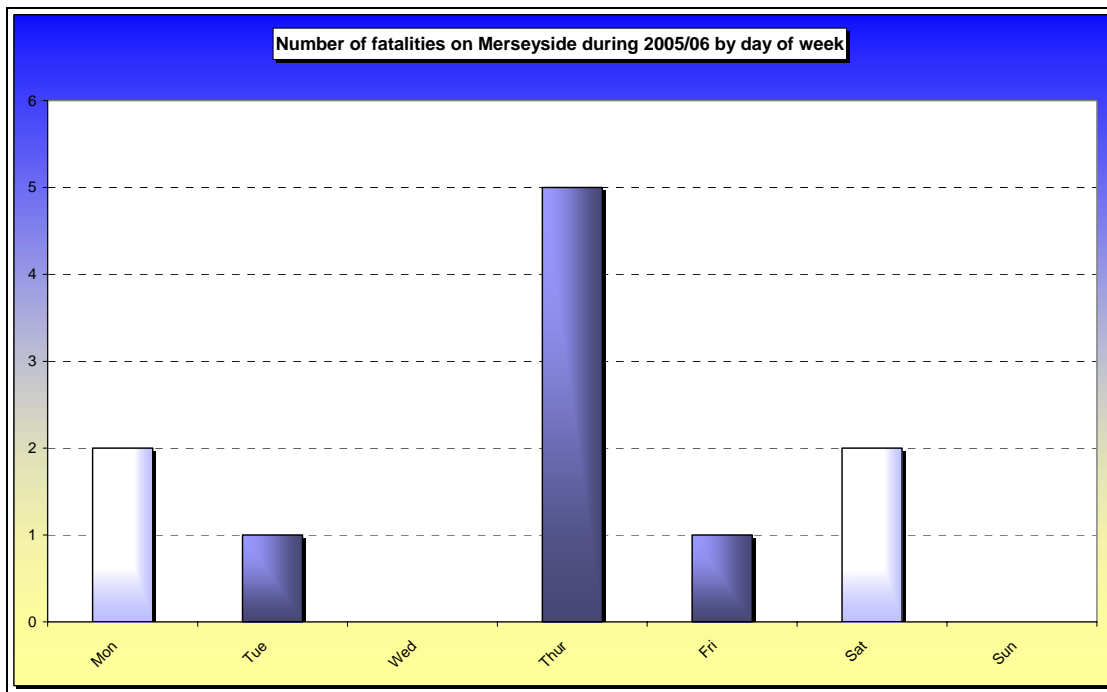
The influence of Saturday is easily explained as it is the day that people are likely to be under the influence of substances that might affect behaviour in the home. However the consistent appearance of Thursday is harder to explain. To ascertain

whether there are specific reasons for this or whether it is a statistical blip, further investigation of the data locally and nationally would need to be undertaken.

**Table 5**

Day	Candle	Cooking	Cooking/smoking	Radiated heat	Smoking	Spark from fridge/freezer	Total
Monday				1	1		2
Tuesday			1				1
Thursday	1				3	1	5
Friday				1			1
Saturday		1			1		2
<b>Total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>11</b>

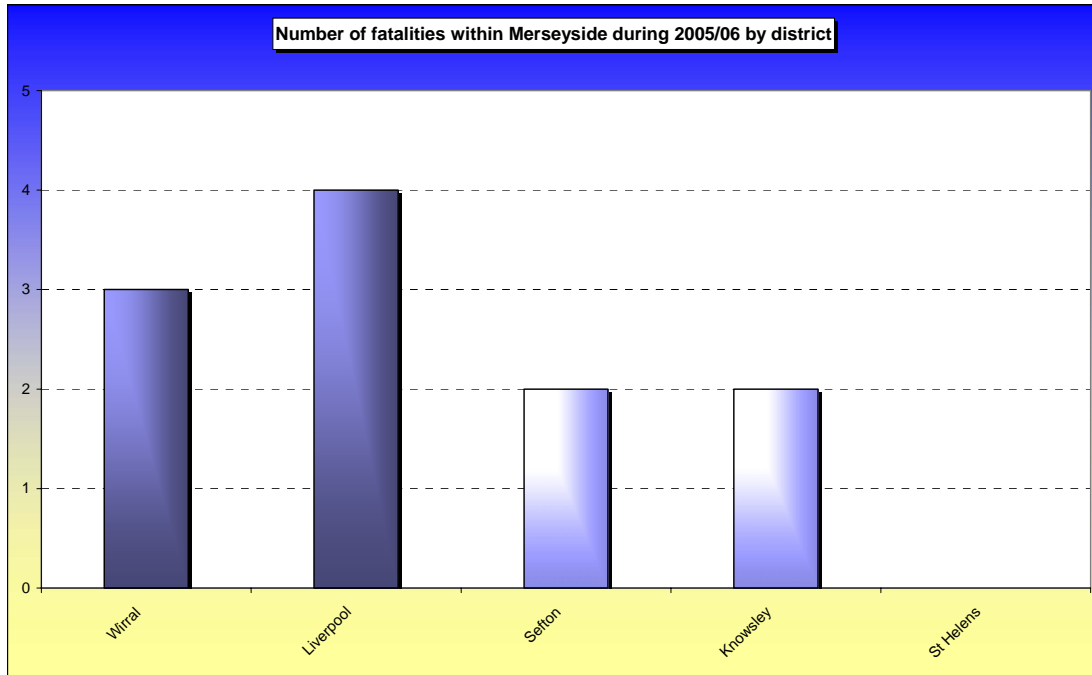
**Graph 3**



## 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



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 differing housing types, there is still a higher probability of a victim of fire living in terraced housing.

Table 6

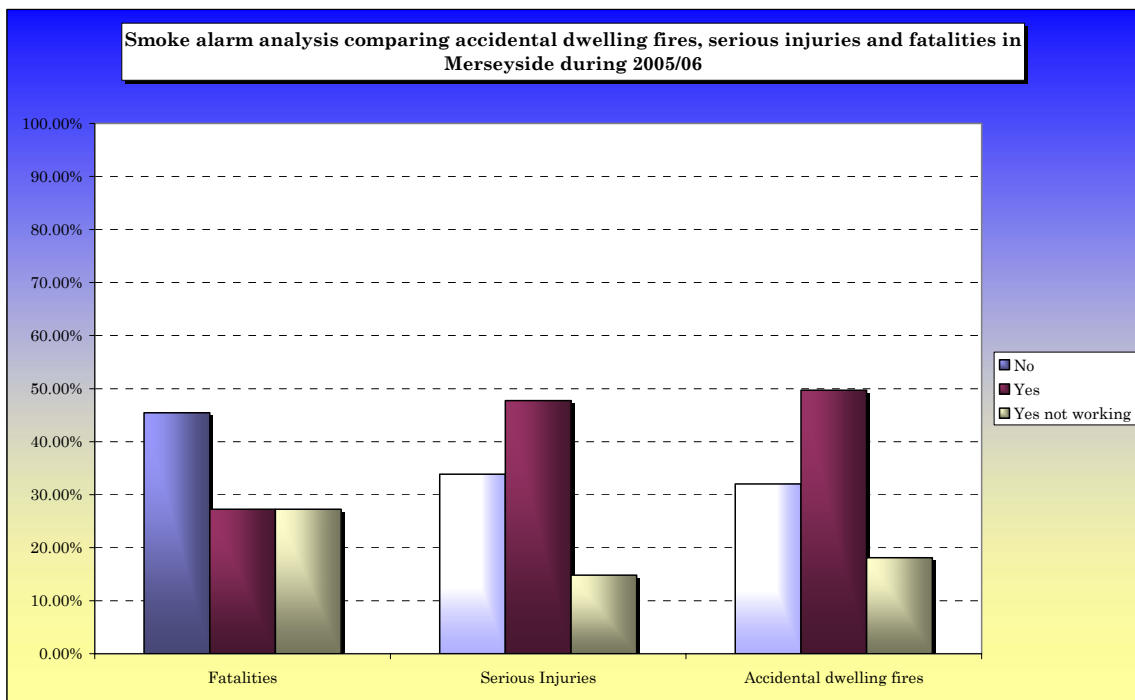
Property Type	Number
Detached House	0
Semi-Detached	3
Terraced	6
Flat HMO	1
Flat Low Rise Block	1
Total	11

## SMOKE DETECTOR ANALYSIS

Fortunately, as a proportion of all dwelling fires the number of fatalities are very small. However there are linkages between the number the number of dwelling fires and the risk of subsequent injuries or fatalities and this information adds to understanding the benefits of owning a working smoke alarm.

During the last year about half of all accidental dwelling fires had a working smoke alarm. This percentage reduces slightly when an injury has occurred. However there is a significant reduction to 27% of homes with a working smoke alarm when there has been a fatal fire.

Graph 5



## CONCLUSION

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