

## report

|         |   |                    |
|---------|---|--------------------|
| meeting | <b>NOTTINGHAMSHIRE AND CITY OF NOTTINGHAM<br/>FIRE &amp; RESCUE AUTHORITY</b> |                    |
|         | <b>COMMUNITY SAFETY COMMITTEE</b>   |                    |
| date    | <b>20 July 2007</b>   | agenda item number |

## REPORT OF THE CHIEF FIRE OFFICER

### HOME SAFETY CHECKS

#### 1. PURPOSE OF REPORT

To inform Members of the progress the Service has made in delivering Home Safety Checks and the future developments aimed at improving Home Safety check delivery to high risk groups through intelligence led modelling.

#### 2. BACKGROUND

- 2.1 Home Safety Checks are a major element of the Service's risk reduction work and focus on a holistic approach to safety in the home. The visits on average take 45 minutes to complete with firefighters using a check list to advise householders on various safety issues, if any household is found not to have a working smoke alarm firefighters fit a new alarm on each floor of the dwelling as a minimum.
- 2.2 The check list is completed using a scoring system to assess the level of risk in the home with a range from High, Medium to Low Risk, those assessed as High Risk are programmed to receive more frequent revisit or referrals to other agencies. The Fire & Rescue Authority committed to completing 25,000 Home Safety Checks in its Integrated Risk Management Plan (IRMP).

#### 3. REPORT

##### 3.1 Review of Home Safety Check Delivery

It is pleasing to report that the Service has over the last 3-years carried out 27,645 Home Safety Checks which have resulted in 35,211 smoke alarms being fitted in 20,154 homes.

| Period Covered            | Number of HSC's carried out | Smoke Alarms Installed | Home fitted with Smoke Alarms |
|---------------------------|-----------------------------|------------------------|-------------------------------|
| 1 <sup>st</sup> Q 2004/05 | 1005                        | 1107                   | 626                           |
| 2 <sup>nd</sup> Q 2004/05 | 969                         | 861                    | 556                           |
| 3 <sup>rd</sup> Q 2004/05 | 2,169                       | 2,357                  | 1,443                         |
| 4 <sup>th</sup> Q 2004/05 | 2,263                       | 2,558                  | 1,606                         |
| <b>Total 2004/05</b>      | <b>6,406</b>                | <b>6,883</b>           | <b>4,231</b>                  |
| 1 <sup>st</sup> Q 2005/06 | 2,321                       | 2,863                  | 1,606                         |
| 2 <sup>nd</sup> Q 2005/06 | 2,175                       | 2,644                  | 1,673                         |
| 3 <sup>rd</sup> Q 2005/06 | 2,323                       | 2,782                  | 1,625                         |
| 4 <sup>th</sup> Q 2005/06 | 3,304                       | 4,357                  | 2,503                         |
| <b>Total 2005/06</b>      | <b>10,123</b>               | <b>12,646</b>          | <b>7,332</b>                  |
| 1 <sup>st</sup> Q 2006/07 | 2,842                       | 4,046                  | 2,153                         |
| 2 <sup>nd</sup> Q 2006/07 | 2,886                       | 3,942                  | 2,182                         |
| 3 <sup>rd</sup> Q 2006/07 | 2,590                       | 3,593                  | 2,010                         |

|                           |               |               |               |
|---------------------------|---------------|---------------|---------------|
| 4 <sup>th</sup> Q 2006/07 | 2,798         | 4,101         | 2,246         |
| <b>Total 2006/07</b>      | <b>11,116</b> | <b>15,682</b> | <b>8,591</b>  |
| <b>Total 2004/07</b>      | <b>27,645</b> | <b>35,211</b> | <b>20,154</b> |

3.2 A breakdown of the HSC data shows that firefighters undertook 73% of HSC's with partner organisations carrying out 27% of HSC's. Of the HSC's carried out 43% were of households including a person over 65-years, 20% were of households with a child under 5-years, 10% in single parent households and 5% were the household had suffered a fire previous to the HSC.

3.3 Following HSC's 278 referrals were made to other teams or agencies:

| <b>Number</b> | <b>Team or agency</b>             |
|---------------|-----------------------------------|
| 89            | Firesetters Team                  |
| 68            | Housing Department or Association |
| 45            | Health or Social Services         |
| 26            | Deaf Awareness Team               |

3.4 A breakdown of risk ratings shows that overall 3.7% of HSC's were at households recorded as High Risk, 27.9% Medium Risk and 68.4% Low Risk. Further work has been undertaken using sampling techniques of 4,717 HSC's delivered by two fire stations in the City of Nottingham, 6% were High Risk, 28% Medium Risk and 67% Low Risk. Of the 6% of High Risk homes 53% did not have a working smoke alarm while 67% of Medium Risk homes did not have a working smoke alarm. The reasons for not having a working smoke alarm were; 41% no battery, 23% flat battery and 6% hard wired system but disconnected from mains power system.

3.5 In order to ensure that the Service delivers equality of service across all members of our community the ethnicity of the households is recorded. This work has highlighted certain areas of concern regarding smoke alarm ownership.

| <b>Households not having a working smoke alarm</b> | <b>Ethnicity of Household</b>     |
|--|-----------------------------------|
| 83%  | Chinese                           |
| 68%  | Indian, Pakistani and Bangladeshi |
| 60%  | Other Asian communities           |
| 60%  | African                           |
| 57%  | White                             |
| 56%  | Caribbean                         |

Only 137 dwellings that had previously had a HSC carried out (over 27,000) suffered a fire the main cause of fire was cooking (64%), 22% of these fires were in High Risk, 39% in Medium Risk and 39% in Low Risk.

### 3.6 Intelligence Led Modelling

Significant work has been carried out in the Service to identify those groups at most risk of accidental dwelling fires in Nottinghamshire, this work has utilised fire data and matching it to MOSAIC geo-demographic segmentation system.

3.7 Using Geographical Information System (GIS), it is possible to count the number of accidental dwelling fires that occurred in each Output Area, approximately 125 households, since Jan 2002. Using this information, a determination can be made of which groups are more likely to have accidental dwelling fires. This could help with the targeting of resources and campaigns in order to reduce the occurrence of these fires.

3.8 MOSAIC classification provides not only the 11 different group types, but also what ways each of these groups responds to various advertising.

| <b>Group</b>                     | <b>Group Description</b>  |
|----------------------------------|---|
| <b>A:</b> Symbols of Success     | Career professionals living in sought-after locations                       |
| <b>B:</b> Happy Families         | Younger families living in newer homes                                      |
| <b>C:</b> Suburban Comfort       | Older families living in suburbia   |
| <b>D:</b> Ties of Community      | Close-knit, inner city and manufacturing town communities                   |
| <b>E:</b> Urban Intelligence     | Educated, young, single people living in areas of transient populations     |
| <b>F:</b> Welfare Borderline     | People living in social housing with uncertain employment in deprived areas |
| <b>G:</b> Municipal Dependency   | Low income families living in estate-based social housing                   |
| <b>H:</b> Blue Collar Enterprise | Upwardly mobile families living in homes bought from social landlords       |
| <b>I:</b> Twilight Subsistence   | Older people living in social housing with high care needs                  |
| <b>J:</b> Grey Perspectives      | Independent older people with relatively active lifestyles                  |
| <b>K:</b> Rural Isolation        | People living in rural areas far from urbanisation                          |

3.8.1 Table 1 (below) shows the Number of MOSAIC Groups within Nottinghamshire and Number of Accidental Dwelling Fires within Output Areas Jan 02 to May 07

| <b>Mosaic Group</b>       | <b>No. of each group</b> | <b>10+ Incidents</b> | <b>5-9 Incidents</b> | <b>1-4 Incidents</b> | <b>0 Incidents</b> |
|---------------------------|--------------------------|----------------------|----------------------|----------------------|--------------------|
| A: Symbols of Success     | 209                      | 0                    | 0                    | 82                   | 127                |
| B: Happy Families         | 290                      | 1                    | 1                    | 107                  | 181                |
| C: Suburban Comfort       | 492                      | 0                    | 2                    | 187                  | 304                |
| D: Ties of Community      | 910                      | 0                    | 7                    | 481                  | 422                |
| E: Urban Intelligence     | 194                      | 1                    | 10                   | 125                  | 58                 |
| F: Welfare Borderline     | 177                      | 8                    | 35                   | 119                  | 15                 |
| G: Municipal Dependency   | 497                      | 1                    | 33                   | 350                  | 113                |
| H: Blue Collar Enterprise | 261                      | 1                    | 2                    | 118                  | 140                |
| I: Twilight Subsistence   | 102                      | 2                    | 12                   | 46                   | 42                 |
| J: Grey Perspectives      | 113                      | 0                    | 4                    | 53                   | 56                 |
| K: Rural Isolation        | 148                      | 0                    | 0                    | 46                   | 102                |
| <b>TOTAL</b>              | <b>3393</b>              | <b>14</b>            | <b>106</b>           | <b>1714</b>          | <b>1560</b>        |

3.9 From Table 2 (below) it can be seen that although Group F (Welfare Borderline) only account for 5.2% of the total number of Output Areas, 57.1% of Output Areas with more than 10 incidents occurring are group F.

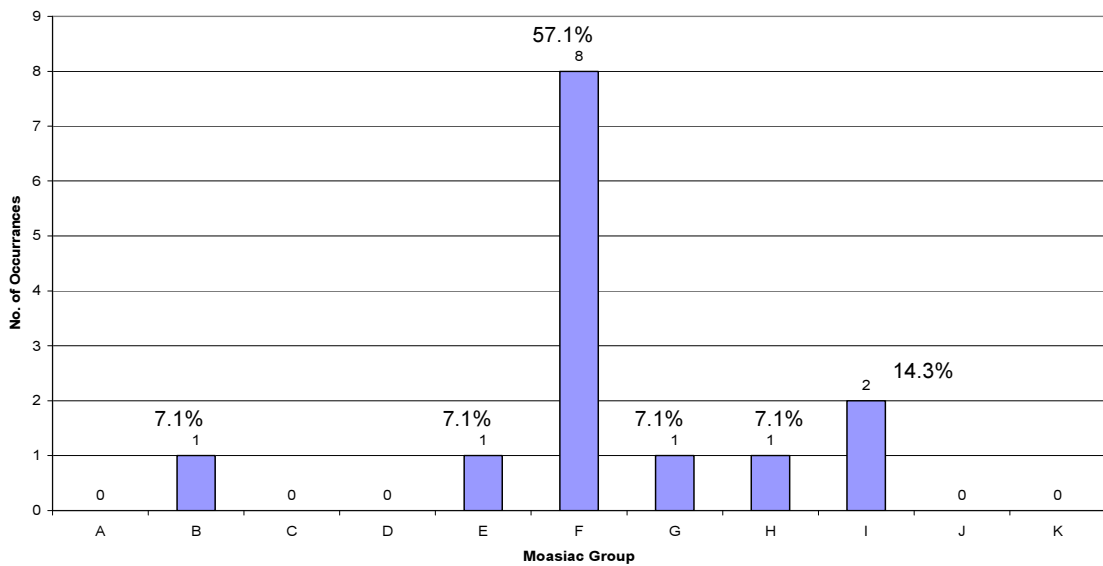
| <b>Mosaic Group</b>   | <b>Total % of each group</b> | <b>10+ Incidents</b> | <b>5-9 Incidents</b> | <b>1-4 Incidents</b> | <b>0 Incidents</b> |
|-----------------------|------------------------------|----------------------|----------------------|----------------------|--------------------|
| A: Symbols of Success | 6.2                          | 0.0                  | 0.0                  | 4.8                  | 8.1                |
| B: Happy Families     | 8.5                          | 7.1                  | 0.9                  | 6.2                  | 11.6               |
| C: Suburban Comfort   | 14.5                         | 0.0                  | 1.9                  | 10.9                 | 19.5               |
| D: Ties of Community  | 26.8                         | 0.0                  | 6.6                  | 28.1                 | 27.1               |
| E: Urban Intelligence | 5.7                          | 7.1                  | 9.4                  | 7.3                  | 3.7                |
| F: Welfare Borderline | 5.2                          | 57.1                 | 33.0                 | 6.9                  | 1.0                |

|                           |            |            |            |            |            |
|---------------------------|------------|------------|------------|------------|------------|
| G: Municipal Dependency   | 14.6       | 7.1        | 31.1       | 20.4       | 7.2        |
| H: Blue Collar Enterprise | 7.7        | 7.1        | 1.9        | 6.9        | 9.0        |
| I: Twilight Subsistence   | 3.0        | 14.3       | 11.3       | 2.7        | 2.7        |
| J: Grey Perspectives      | 3.3        | 0.0        | 3.8        | 3.1        | 3.6        |
| K: Rural Isolation        | 4.4        | 0.0        | 0.0        | 2.7        | 6.5        |
| <b>TOTAL</b>              | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> |

**Table 2.** Percent of MOSAIC Groups within Nottinghamshire and Percentage of Accidental Dwelling Fires within Output Areas Jan 02 to May 07

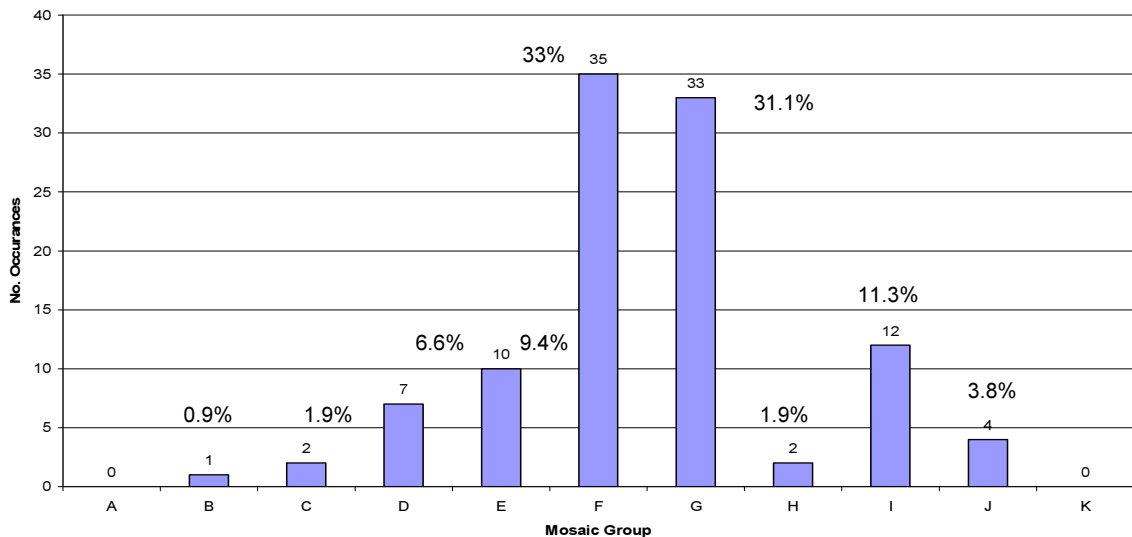
3.9.1 The above is graphically shown below as Fig 1.

**Fig 1. 10+ Incidents of Accidental Dwelling Fires Jan 02 to May 07(by OA)**



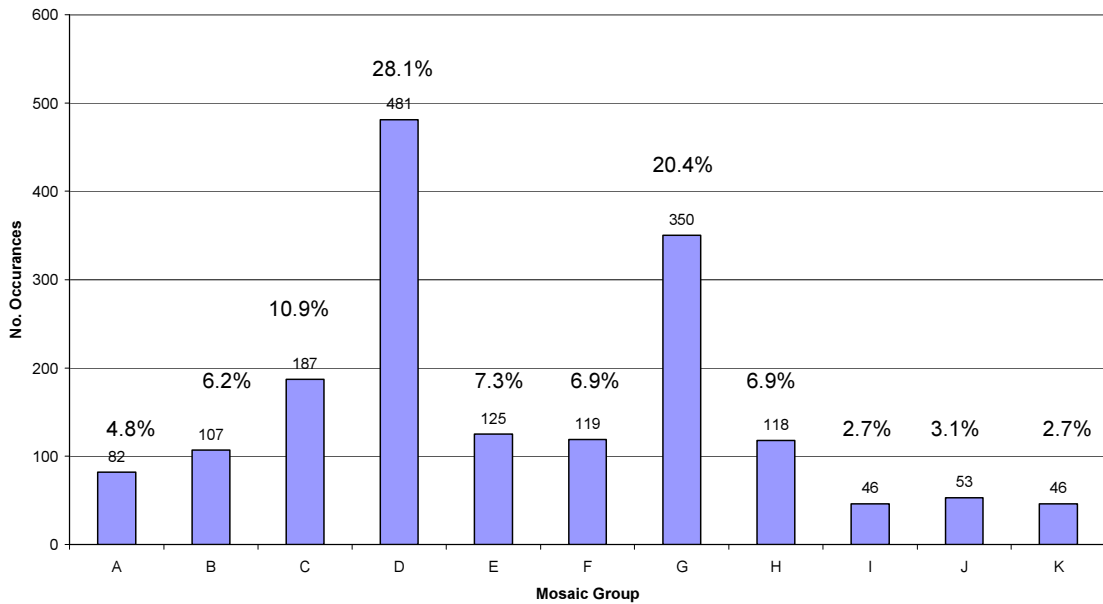
3.9.2 Output Areas which have had between 5 and 9 incidents of Accidental Dwelling Fires from Jan 02 to May 07 are shown in Fig 2. From this it can be seen that groups F and G together make up more than 64% of all accidental dwelling fires.

**Fig 2. 5 - 9 Incidents of Accidental Dwelling Fires Jan 02 to May 07 (by OA)**



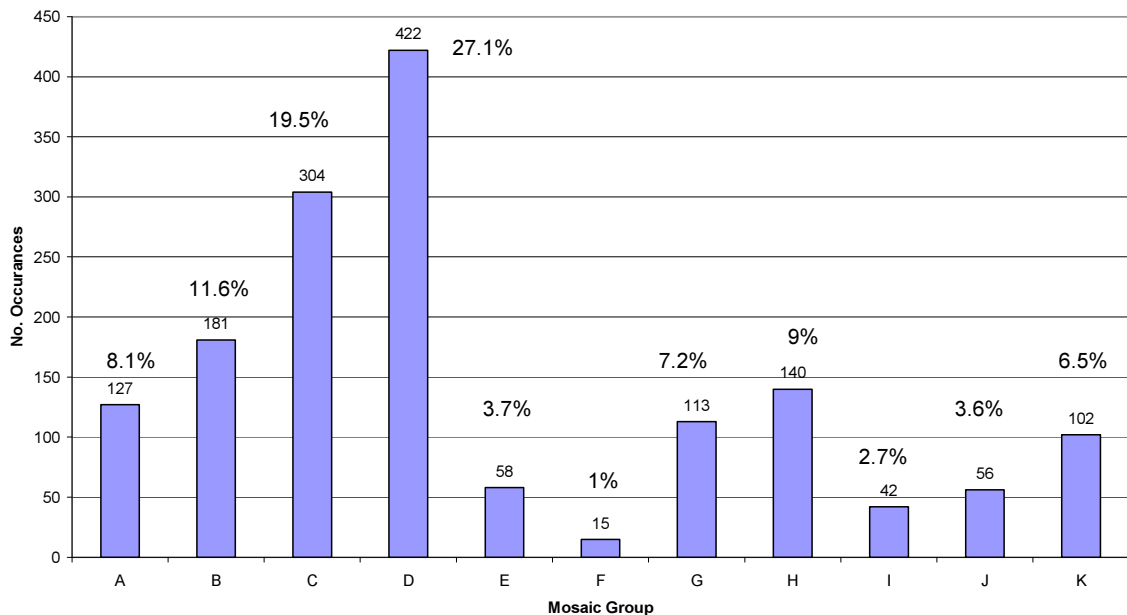
3.9.3 Table 2 shows that Output Areas where between 1 and 4 incidents occurred from Jan 02 to May 07, would most likely be from Group D (28%) or G(20%). This is highlighted in Fig 3.

Fig 3. 1-4 Incidents of Accidental Dwelling Fires Jan 02 to May 07 (by OA)



3.9.4 Table 2 also shows the Output Areas where no incidents occurred. This shows that Group D have the highest number of Output Areas with no incidents. This is shown in Fig 4.

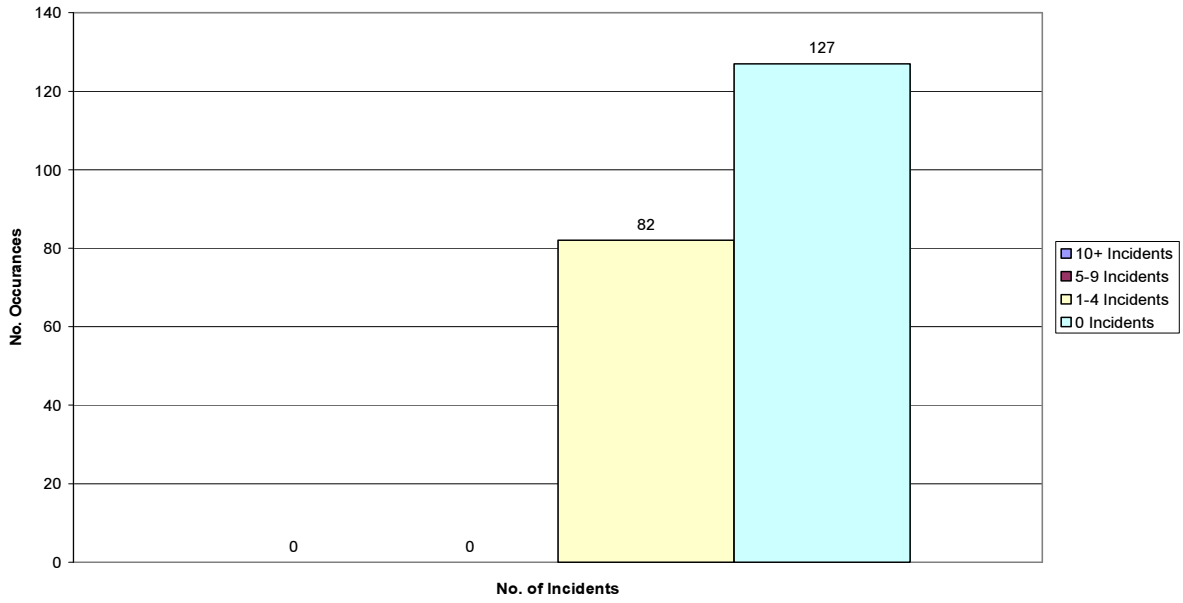
Fig 4. No Incidents of Accidental Dwelling Fires Jan 02 to May 07 (by OA)



3.10 These results give the count and percent of accidental dwelling fires within Nottinghamshire as a whole, but do not take into account how many of each of the different groups there are. For example there are 910 Group D Output Areas and 177 Group F Output Areas. Each Group was therefore examined individually assess the numbers of accidental dwelling fires.

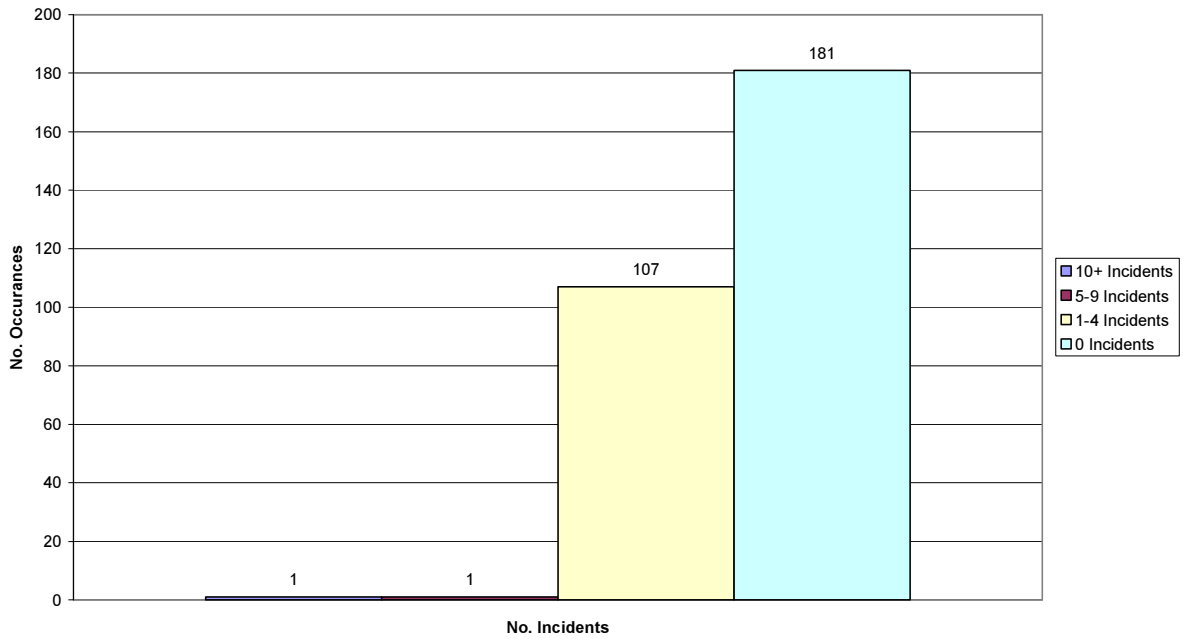
### 3.10.1 Group A

Mosaic Group A Accidental Dwelling Fires Jan 02 to May 07 (by OA)



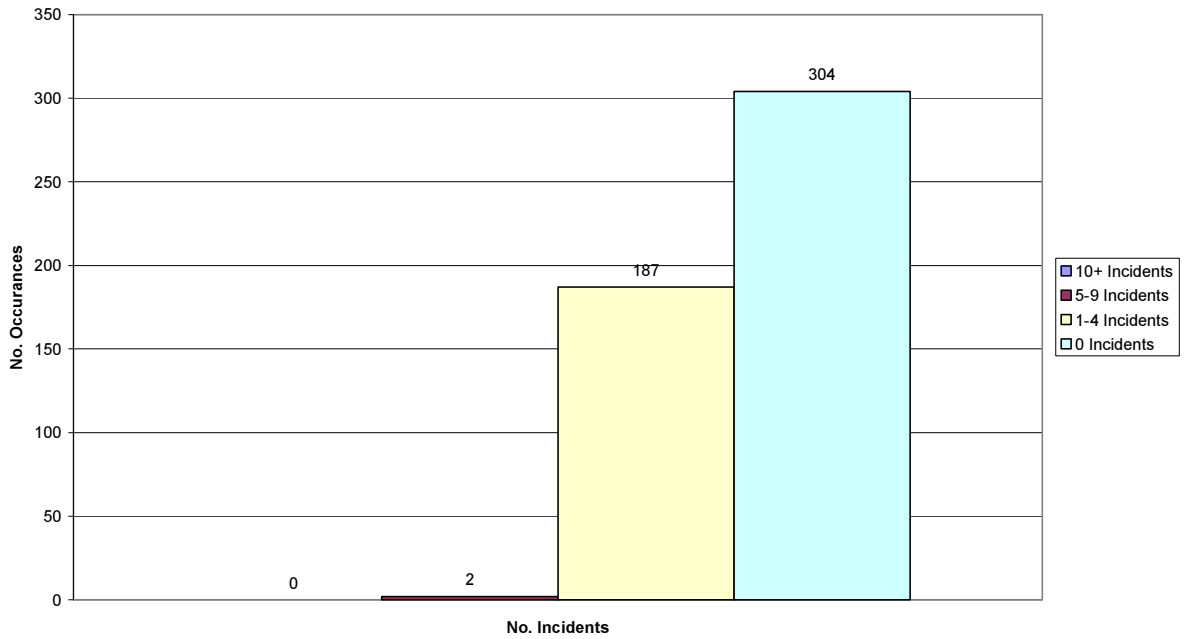
### 3.10.2 Group B

Mosaic Group B Accidental Dwelling Fires Jan 02 to May 07 (by OA)



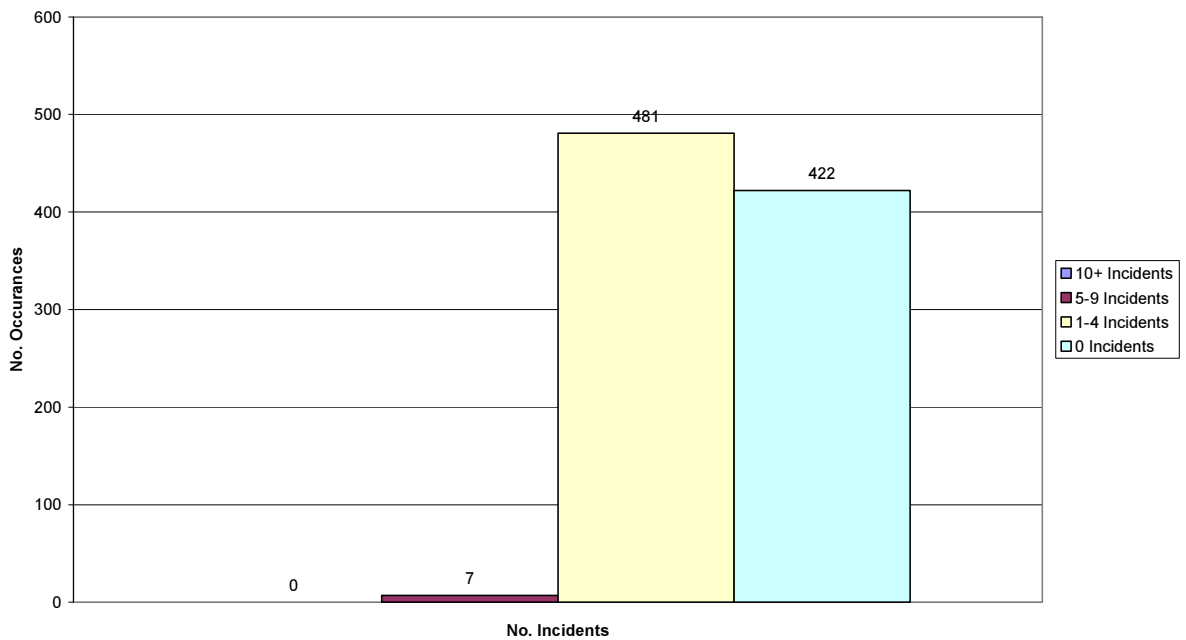
### 3.10.3 Group C

Mosaic Group C Accidental Dwelling Fires Jan 02 to May 07 (by OA)



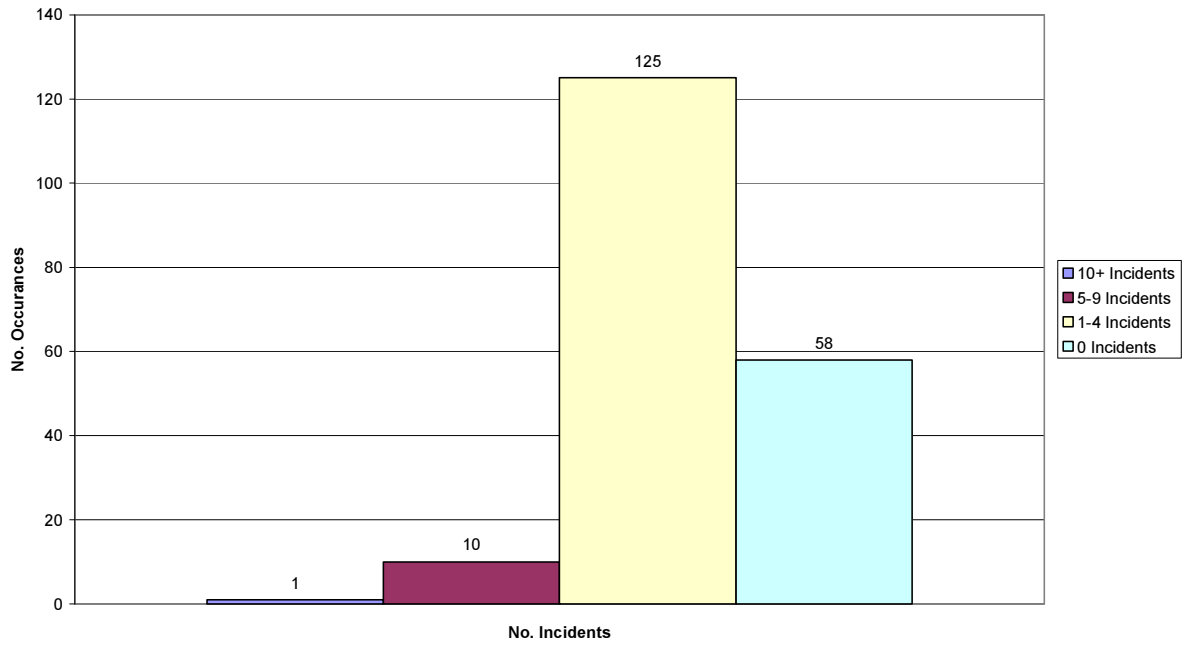
### 3.10.4 Group D

Mosaic Group D Accidental Dwelling Fires Jan 02 to May 07 (by OA)



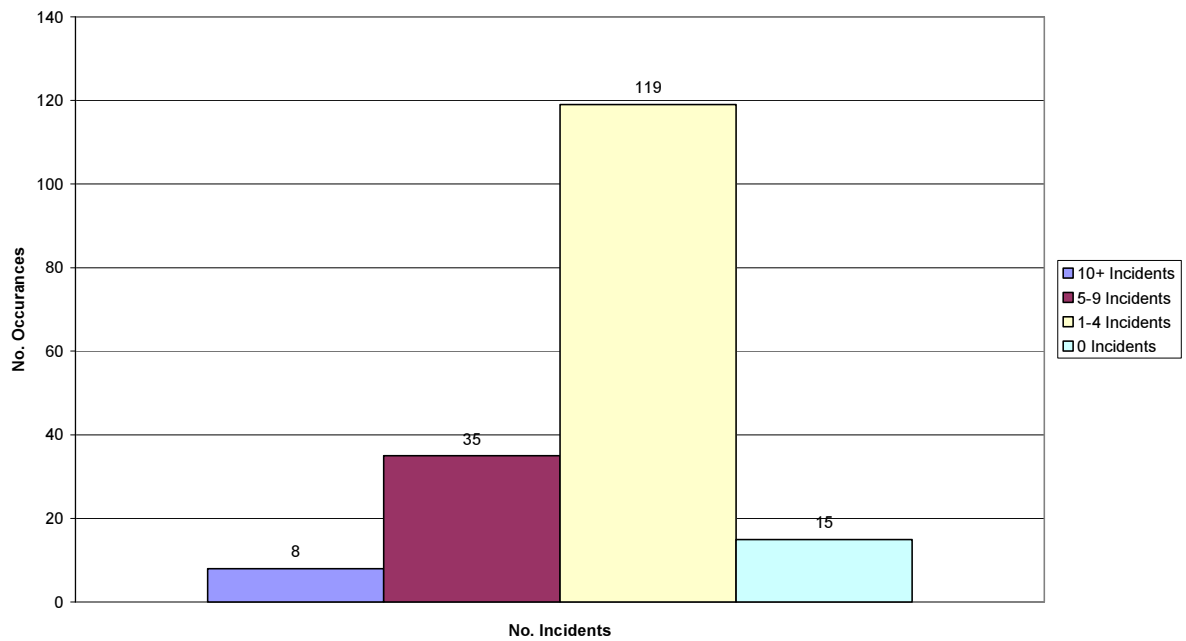
### 3.10.5 Group E

Mosaic Group E Accidental Dwelling Fires Jan 02 to May 07 (by OA)



### 3.10.6 Group F

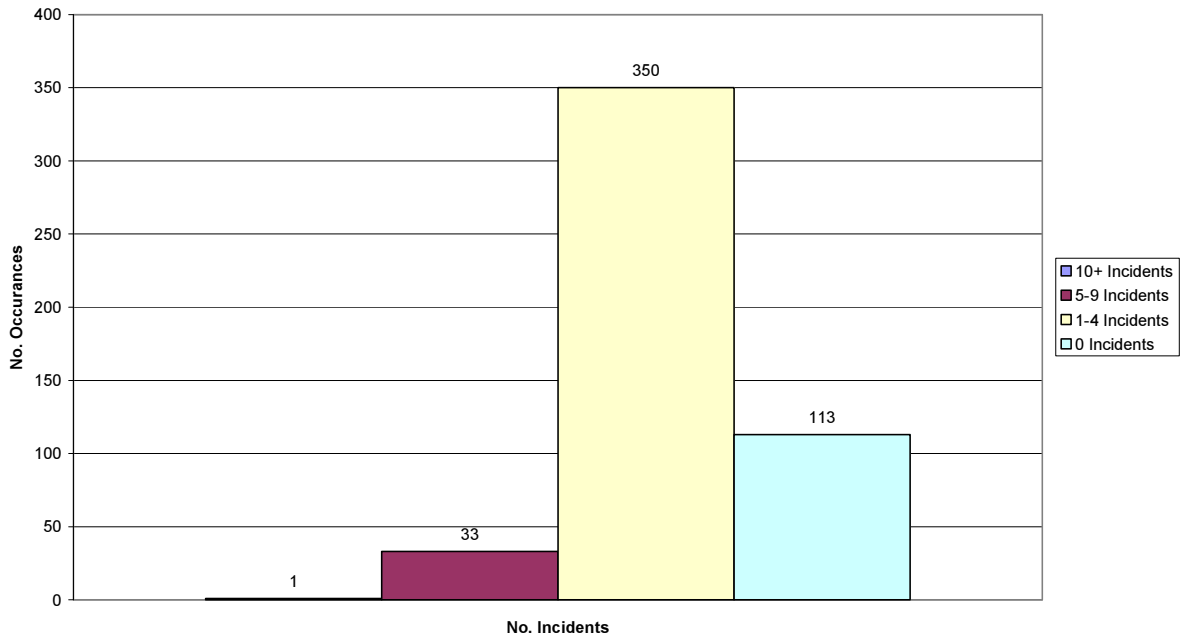
Mosaic Group F Accidental Dwelling Fires Jan 02 to May 07 (by OA)





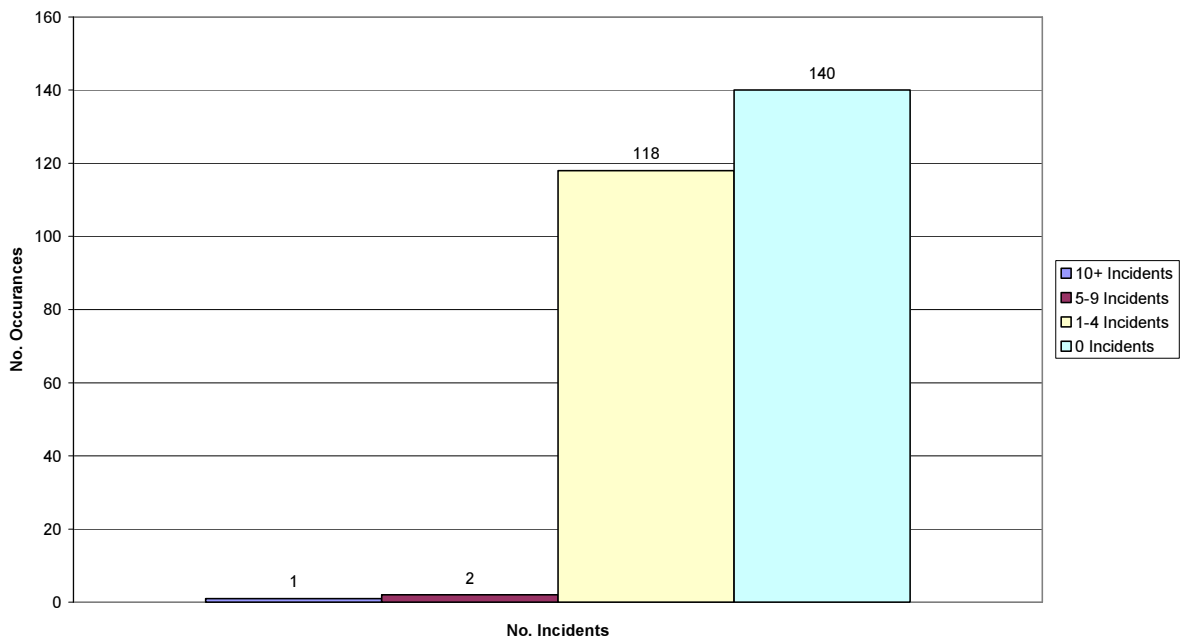
### 3.10.7 Group G

Mosaic Group G Accidental Dwelling Fires Jan 02 to May 07



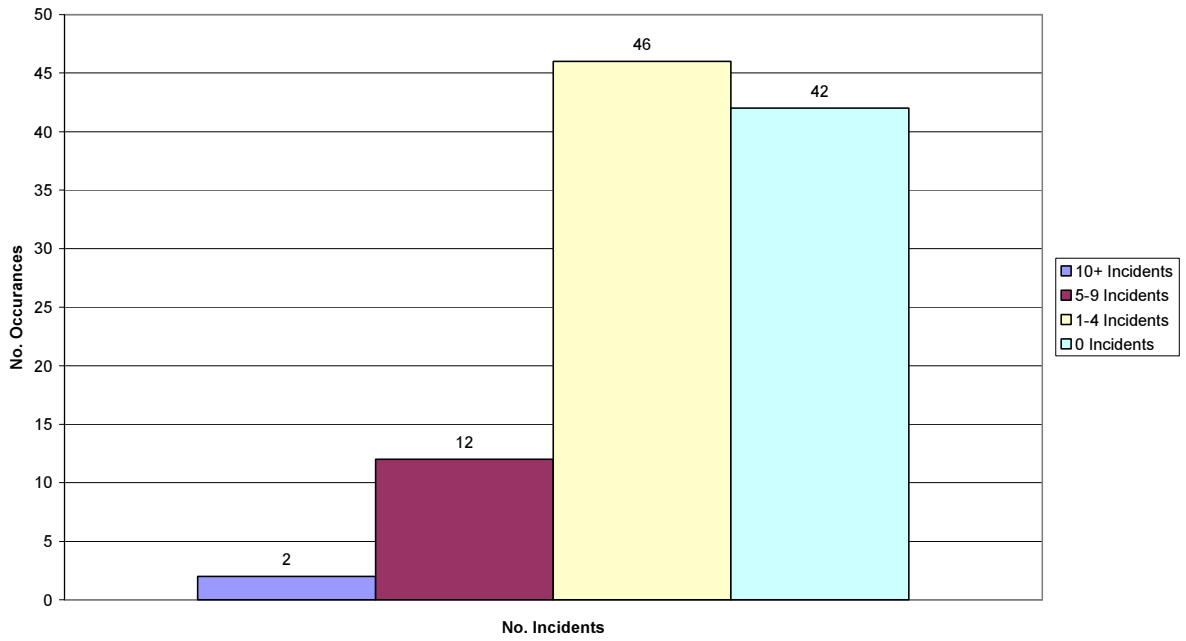
### 3.10.8 Group H

Mosaic Group H Accidental Dwelling Fires Jan 02 to May 07 (by OA)



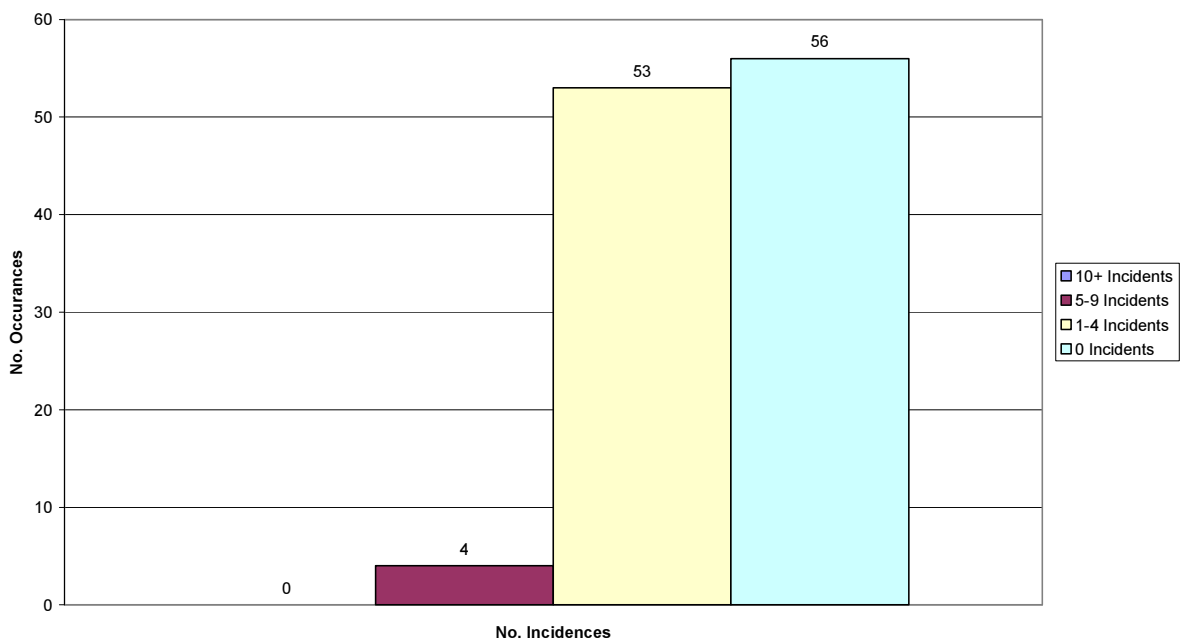
### 3.10.9 Group I

Mosaic Group I Accidental Dwelling Fires Jan 02 to May 07



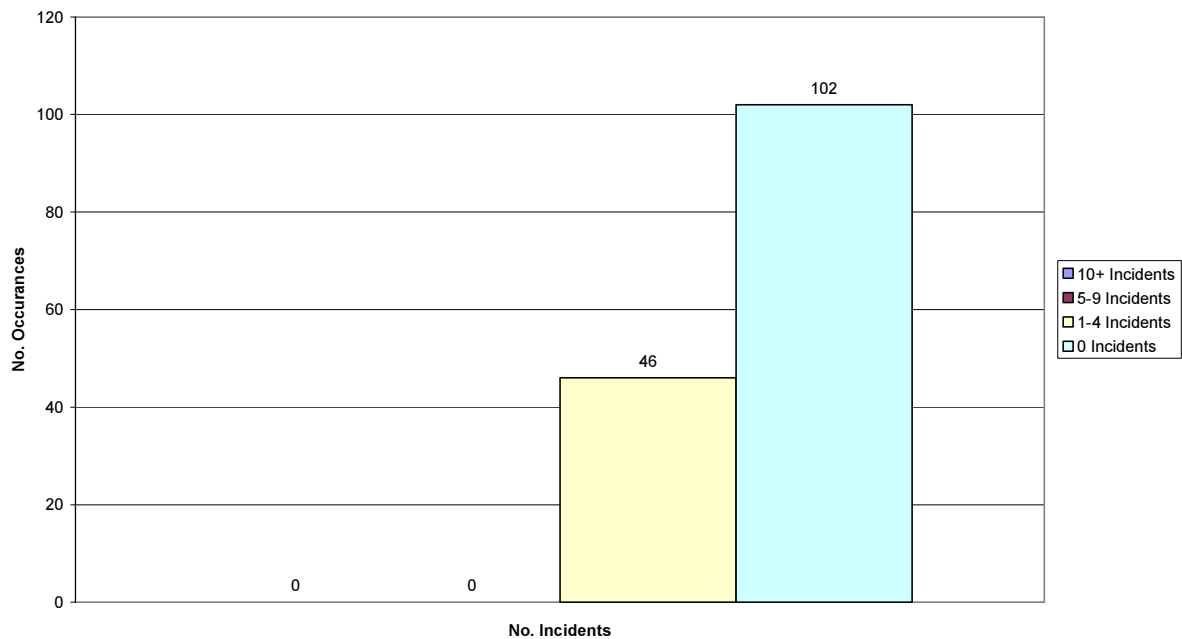
### 3.10.10 Group J

Mosaic Group J Accidental Dwelling Fires Jan 02 to May 07



### 3.10.11 Group K

Mosaic Group K Accidental Dwelling Fires Jan 02 to May 07 (by OA)



### 3.11 Findings

The previous 11 charts have shown that there are significant differences between the groups in terms of likelihood to have accidental dwelling fires. Groups A,B,C and K are least likely to have accidental dwelling fires. These groups are all more than 60+% likely to have no incidents of accidental dwelling fires. Groups D, H, I and J are more likely to have accidental dwelling fires, with a range of 40 – 53% likelihood of no incidents. Groups E, F, and G are the most likely to have accidental dwelling fires, with only 30% or less likelihood to have no incidents of accidental dwelling fires.

3.11.1 Within this high risk group it is worth singling out group F which stands out as being far greater risk than any other group. Only 8.5% of all Group F Output Areas have no incidents. From Fig 1 and Fig 2 it can also be seen that even though Group F make up a small percent of the number of actual Output Areas(5.2%),they account for 8/14 (57.1%) of Output Areas where more than 10 incidents occurred, and 35/106 (33%) of Output Areas where more than 5 to 9 incidents occurred.

### 3.12 The Way Forward

In order to implement this intelligence led modelling that has identified high risk groups especially the Welfare Borderline group a more targeted approach to delivering Home Safety Checks will be needed. With the Service having achieved its target of delivering 25,000 HSC's there is now a need to move away from this quantitative approach to a qualitative approach, this will necessarily mean a move to new targets for crews in delivering HSC's.

3.12.1 These targets will cover such areas as number of HSC's carried out in groups identified as high risk such as households with children, older people over 60-years, households identified as have lower smoke alarm installation (Chinese, Indian, Pakistani and Bangladeshi), households categorised as Urban Intelligence (E), Welfare Borderline (F) and Municipal Dependency (G). Given that this approach will improve fire safety in households across the whole County area the Service should see a corresponding reduction in Best Value Performance Indicator 143.

#### **4. FINANCIAL IMPLICATIONS**

The Service receives a Home Fire Risk Assessment Grant from Communities and Local Government for the provision of smoke alarms, however this grant will cease at the end of the current financial year. A sum of money in the region of £45k, has been earmarked from other Community Safety grant funding to purchase smoke alarms in 2008/09. This is considerably less than the annual funding which has been available until now and this issue will need to be addressed during this year's budget round, in the context of the Service's overall objectives and priorities and the outcome of the Comprehensive Spending Review 2007, which is due to be published in the Autumn.

#### **5. PERSONNEL IMPLICATIONS**

There are no personnel implications related to this report.

#### **6. EQUALITY IMPACT ASSESSMENT**

Using intelligence based modelling and a qualitative approach that better targets those at risk the Service will be better able to reduce the risk faced by certain groups within our communities.

#### **7. RISK MANAGEMENT IMPLICATIONS**

All of the above ensures that the Authority meets its aspirations as laid out in the Community Safety Plan. Failure to undertake these initiatives and reduce deaths from accidental dwelling fires in line with Government targets could lead to potential intervention.

#### **8. RECOMMENDATIONS**

8.1 That Members note the content of the report and especially the fact that the Service has delivered over 27,000 HSC's.

8.2 That Members support the new approach to the delivery of HSC's and the move to qualitative targets.

#### **9. BACKGROUND PAPERS FOR INSPECTION**

None.

Frank Swann  
**CHIEF FIRE OFFICER**

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