



**Atal Tân Cymru**  
**Firebrake Wales**

Elusen Diogelwch Tân Cymru  
The Welsh Fire Safety Charity

# **Firebrake Wales** **Fire Safety Report 2009**

## **Executive Summary**



## About Atal Tân Cymru / Firebrake Wales

Atal Tân Cymru / Firebrake Wales, the Welsh Fire Safety Charity, receives funding from the 3 Welsh Fire and Rescue Services (FRSs) and the Welsh Assembly Government to support its mission of reducing the incidence of deaths and injuries in fires. With a key focus on evidence based practice to support its activities, the charity has sought to bring together relevant research from a wide range of sources in Wales, the UK and beyond, to better inform policy and practice in the area of home fire safety.

The Firebrake Wales Fire Safety Report 2009 presents a range of key findings from this research, and adds to it the findings from Firebrake's unique *Wales Fire Safety Attitude Survey*, which it conducted amongst a representative sample of the Welsh population in 2009. We hope that this report will be of interest to practitioners in the Fire and Rescue Services, in current and potential partner organisations and to all those with an interest in making communities in Wales safer from fire.

### Accidental Fires in the Home

An analysis of fire incident data (source: FDR1 Fire Data Reports, as submitted by Fire and Rescue Services) in Wales shows that:

- The number of recorded accidental dwelling fires in Wales has been reducing at an average rate of **3.9%** per annum, from 1999 to 2007 (UK = 3.6% p.a.);
- The number of casualties (fatal and non-fatal) from such fires in Wales has also been reducing, with an average annual rate of decline of **4.9%** over the same period;
- Whilst most age groups follow this overall downward trend, the number of casualties (fatal & non-fatal) amongst the **over 60 year old** group has remained relatively consistent. This age group are significantly over-represented, compared to their representation within the overall population;
- '**Cooking Appliances**' remain the most likely source of ignition for accidental dwelling fires in Wales, accounting for **53%** of such fires in 2007;
- In 2007, '**Smokers Materials**' accounted for only **8% of accidental dwelling fires** but **12% of casualties** and **44% of fatalities** in such fires.

### Smoke Alarms and Home Fire Safety Checks

The installation and correct maintenance of smoke alarms, along with other direct interventions in the home, such as the Home Fire Safety Check (HFSC) have a vital role to play in fire safety & prevention.

- Firebrake's survey of a representative sample of the Welsh population in 2009, reports that **94%** of private homes claim to have **at least one working smoke alarm**.
- However, among those with alarms fitted, **20% do not** have one on every floor within their home, **only 13%** check their alarms every week, and **10% had never tested** them after installation.
- Also, the prevalence of smoke alarms is much lower when looking at FRS data of **fires attended**. In 2007, smoke alarms were present in **64%** of dwellings, and only operated in **47%** of cases - suggesting that either reported smoke alarm ownership is overstated or, perhaps more likely, that those without smoke alarms were more likely to experience a fire.
- Two thirds (**67%**) of the population claimed to have heard of a HFSC – with the vast majority (**86%**) stating that they had 'no problem' with someone from the FRS coming into their home to undertake a HFSC. The remaining minority, who reported that they would feel 'uncomfortable' with this, may pose a challenge to the FRSs – particularly if these people are also those at higher risk of suffering a fire in the home.

### Prevention, 'Risk' and Targeting

The clear emphasis on fire **prevention** and on creating safer communities is reflected in the respective Welsh Fire and Rescue Authority's 'Risk Reduction Plans' and also in the numerous community fire safety initiatives being delivered within each FRS.

FRSs throughout the UK have sought to identify '**at risk**' or '**high risk**' groups, in order to better target fire safety activities. The relevant research and literature throughout the developed world has consistently identified certain 'universal' risk factors, which include smoking and related behaviours; alcohol, drug and substance abuse, unattended cooking and careless heating activities and age related risks (the young and the elderly). As Brennan<sup>1</sup> pointed out "certain key demographic and behavioural characteristics of occupants have been shown to have universal relevance to residential fire fatalities and injuries".

A number of 'tools' are currently available to assist the FRSs in the targeting of Home Fire Safety Checks and other community fire safety initiatives (e.g. MOSAIC, Acorn, national statistics, FDR1 incident data etc.). However, there is perhaps a role for additional tools to refine targeting **within** identified 'risk groups' and to enhance targeting by **behaviours** (e.g. drug/alcohol dependency and smoking).

Research amongst the FRSs in England<sup>2</sup> concluded that the benefits of **partnership working** were "visible and shared". Indeed, such partnerships may be critical for reaching and influencing those who are vulnerable to fire in the home for reasons other than where they live (e.g. mobility limitations, health conditions, substance misuse, attitudes to risk or lifestyle choices).

### Attitudes towards Fire Risk

Firebrake's survey of a representative sample of the Welsh population asked a number of questions about attitudes to fire safety around the home. The resulting responses have allowed Firebrake to 'segment' the Welsh population, in terms of their attitudes towards fire risk. The cluster analysis technique used determined **8 clusters** in total, with the **5 most important** (in respect of the need to address fire safety attitudes) described as follows:

Segment	Characterised by:	% of Popn.
<b>Risk Takers in Denial</b>	Riskier attitudes than average on numerous issues of fire safety but are less likely to think that fire will occur in their home.	<b>10%</b>
<b>High Risk Takers</b>	Riskier attitudes than average on some of the more high risk factors and are less favourable towards smoke alarms.	<b>6%</b>
<b>Lower Risk Takers</b>	Riskier attitudes than average on some of the lower risk factors.	<b>16%</b>
<b>Take no Responsibility</b>	Not thinking it's their responsibility to reduce their fire risk and a more fatalistic attitude to the occurrence of fire.	<b>6%</b>
<b>Don't think about it</b>	Fire safety not something they think about and displaying riskier attitudes than average on some of the lower risk factors.	<b>9%</b>

- The analysis suggested different 'key messages' for each segment and a better understanding of the different attitude types is important for understanding the gap between

<sup>1</sup> *Victims and Survivors in Fatal Residential Building Fires* (in *Human Behaviour in Fire: Proceedings of the 1<sup>st</sup> International Symposium, Belfast*), Brennan, P. (1998)

<sup>2</sup> *Final Evaluation of the Home Fire Risk Check Grant and Fire Prevention Grant Programme*, CLG March 2009.

awareness of the need to adopt fire safety measures and actually taking action to reduce those risks.

- These attitude profiles can also help to inform the most effective ways of engaging with those most at risk.
- There are many experienced voluntary, private and public sector organisations working within Welsh communities that may be able to recognise the different attitude types amongst their service users. They also have a vast amount of experience of working with their clients to enable changes in conditions and behaviour in other aspects of their life.

### Partnerships

As far back as 1998, Rhodes and Reinholdt<sup>3</sup> highlighted the need for an ‘holistic approach’ when dealing with the risk of death or injury in fire amongst those most vulnerable. Specifically, they recommended that fire services should place greater emphasis on **developing networks** and learning how to work with a **range of community organisations**.

Collaboration and partnership working are also key themes in both the Welsh Assembly Government’s ‘Making the Connections’ programme and their *Fire and Rescue National Framework for Wales 2008-2011*. There is considerable evidence of partnership working being adopted by FRSS in England and in Wales to **identify, reach** and **engage** with hard to reach and vulnerable sections of the community.

Whilst such partnerships can take on a variety of forms, from informal local arrangements to complex formal structures, there are certain key principles and lessons from public and voluntary sector partnership working generally that can serve to inform, support and sustain more effective partnerships to reduce the incidence of fires.

It is important to recognise however that there can be significant challenges to working collaboratively. Some key practices, as identified within HM Treasury guidance<sup>4</sup>, can, if not addressed, serve to place partnerships in jeopardy. These include:

- Assuming partnership working is easy and that anyone can do it without experience
- Attempting to pressure or rush through ideas without consultation
- Taking effective communication for granted
- Brushing off or burying concerns or being tokenistic in listening to the concerns of others
- Undermining the authority of partners by not respecting the duty of accountability to their stakeholders
- Having a one size fits all approach
- Assuming partnership working is a cost-free exercise (time and money)

### Firebrake’s Recommendations

#### 1. Accidental fires in the home

Firebrake would like to work more closely with the 3 Welsh Fire and Rescue Services (FRSS) and Welsh Assembly Government (WAG) in collecting and analysing all available data on accidental dwelling fires to inform future strategies for fire prevention.

In addition, Firebrake is currently exploring other sources of data (e.g. health conditions, social welfare, housing, etc.) relevant to fire risk through liaison with academic institutions. The charity will integrate these findings with fire incidence data to further enhance fire safety strategies in Wales.

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<sup>3</sup> *Beyond Technology; a holistic approach to reducing fire fatalities*. Rhodes, A. & Reinholdt, S. (Australian Journal of Emergency Management, 1998)

<sup>4</sup> *Effective Local Partnerships; A Checklist for Local Practitioners in the Public and Voluntary Sectors*. HM Treasury

## **2. Smoke alarms and Home Fire Safety Checks**

Firebrake would like to work with the FRSs in the ongoing development of the Home Fire Safety Check (HFSC) initiative across Wales. In particular, Firebrake can contribute towards “joined-up” approaches to service delivery, recording, monitoring and the evaluation of outcomes.

Firebrake is well-placed, and has the ability and capacity to engage with FRSs across Wales. The charity will continue to collect and share good practice from FRSs throughout the country and from fire safety activities elsewhere in the UK.

## **3. Prevention, risk and targeting**

Firebrake can enhance existing FRS strategies used for targeting fire prevention activities. Firebrake will continue to collect and analyse research on fire safety and can carry out further research in this area. This evidence should be used both to reach and engage with those most at risk.

Firebrake provides a valuable resource for fire safety and will continue to align its research agenda with the current and future requirements and priorities of the Welsh FRSs and WAG.

## **4. Attitudes towards fire safety**

Firebrake will use the attitude profiles as part of identifying those hardest to reach and hardest to influence through conventional fire safety promotion. This information can then be linked to the development of fire safety partnership activities with relevant organisations in the community and the use of good practice models for encouraging safer behaviours.

Evidence from the attitudes study may also prove useful to the FRSs in informing their strategies for general public promotion of fire safety.

## **5. Partnerships**

Firebrake welcomes the opportunity to work closely with the FRSs and others to develop and implement overarching strategies for partnership working in Wales. This will build on good practice examples in Wales and elsewhere in the UK. Where appropriate, the charity will incorporate learning from effective partnerships outside the fire safety field.

Firebrake holds insight into the cultures, structures, priorities and practices of both the FRSs and organisations working within the community. Therefore, it is well-placed to support all those involved in bridging gaps and avoiding the potential pitfalls of partnership working.

Firebrake will continue to undertake consultation and research with organisations working for and with people who are most at risk of fire, hardest to reach and/or hardest to influence. Findings will be beneficial for informing the development of partnerships that are appropriate for need and take account of specific opportunities afforded by working with the chosen organisations.

Firebrake can offer “technical support” to the FRSs and other organisations to facilitate the establishment and ongoing development of collaborative initiatives. This can include introductions, meetings, training, model policies and procedures (e.g. service-level agreements, partnership agreements, referral forms, monitoring and evaluation systems), and will support all partners in seeking resolutions if difficulties arise.