Accessing Emergency Rest Centres – Lessons to be Learnt.

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Abstract

Emergency rest centres (ERC) are premises that are used for the temporary accommodation of evacuees during an emergency situation. They form an important part of emergency response, by providing a focal point for receiving people and providing food, shelter, information and support.   The Disability Discrimination Act 2005 creates a legislative right for 'reasonable' access to goods and services for disabled people. This legislation does not differentiate between emergency and non emergency situations which means that those with a responsibility for emergency planning need to consider the accessibility of ERCs.

This article examines ERC provision and reviews access for disabled people. It focuses on a study of three ERCs that were established in different local authority areas within the Yorkshire and Humber region in the UK during a flooding event on 25th June 2007. While uncovering many instances of good practise, the results from the research also identified a number of lessons to be learnt, in particular it was noted that the main barriers to access were encountered with:

- Facilities and elements that did not comprise part of the buildings normal operation, such as the provision of bedding, medical assistance and effective communication; and
- Facilities that would not normally be expected to be used to the extent, or duration, whilst the emergency rest centre was in operation, such as the provision of adequate welfare facilities.

The research also noted that Civil Protection Legislation within the UK contains limited instruction or guidance to those with responsibility for Emergency Rest Centre provision. This provides little impetus for Emergency Planners to consider the needs of disabled people.

This research has broad implications for local authorities and national government representatives. It identifies a need for those with responsibility for emergency planning and response to strengthen their knowledge of disabled people, and to adopt a more holistic approach to the provision of emergency planning and response.

Keywords

Accessibility, Disability Discrimination, Emergency Planning, Emergency Rest Centre, Inclusive Design.

Introduction

Emergency Rest Centres (ERC) are premises used as temporary accommodation for evacuees during an emergency.   Within the UK, the Local Authority has responsibility for co-ordinating this accommodation (HM Government 2006a).   ERCs are activated when a large scale evacuation is required and are usually established in public buildings such as universities, schools, residential colleges, nightclubs and sports facilities/arenas (HM Government 2006).

While providing temporary shelter (Quarantelli 1995) during an emergency is a vital service, in reality ERCs provide a more comprehensive range of facilities. Predominantly they act as the first point of contact for evacuees requiring emergency care and support including, food, shelter and information. They may be used for a very short duration, or for a considerable time. In the Welsh Towyn floods 10 ERCs were set up to cater for 5000 people of which 1000 were still unable to return to their homes one month later (Riley and Meadows 1995). Given that emergencies can have a wide range of economic, social, health and environmental impacts (HM Government 2005) it is essential that the ERC and the services it provides can be accessed by everyone who is affected by the emergency, this includes disabled people. If access to an ERC is impeded then this can restrict access to basic survival needs including food, and shelter, which could affect physical well-being. If access to information and counselling is restricted, this could

impact on psychological well-being. This means that the distress of an emergency can be further compounded for disabled people by limiting access to basic needs and psychological support.

According to the Department of Education and Employment (DfEE) there are over 6.5 million people with long-term disabilities or health problems residing within Great Britain, accounting for nearly a fifth of working-age population (McColgan 2005). The National Council for Disability (NCD 2005) extends this demographic even further, noting that traditional narrow definitions of disability are not always appropriate in disaster management activities. It's important to think of disability in a broader context and include people with heart disease, arthritis, asthma, respiratory conditions and minor cognitive or sensory impairments. Additionally as people age they inevitably find that their mobility, sensory and cognitive capacities decrease. With the increasing shift in demographics towards an ageing population there will be a significant number of older people who have acquired age-related impairments and, although they may be in denial, they will be considered to be disabled people in an emergency. Viewing disability in this context requires emergency managers to address the diverse needs of a range of people with a wide spectrum of disability and activity limitation issues.

Disabled people can also be disproportionately affected by disasters (Hemingway & Priestly 2006). They are at greater risk of injury, mortality, disease, destitution and displacement when compared with the general population. In support of this the American Association of Retired Persons (AARP) notes that 73 percent of Hurricane Katrina-related deaths in New Orleans were among persons age 60 and over, although they comprised only 15 percent of the population (NCD 2006). The majority of these individuals had medical conditions and functional or sensory disabilities that made them more vulnerable (NCD 2006).

Within the UK the Disability Discrimination Act 2005 creates a legislative right for 'reasonable' access to goods and services for disabled people. This

legislation does not differentiate between emergency and non emergency situations.   This puts pressure on those responsible for emergency planning and the provision of ERC accommodation, to adopt strategies that are inclusive to the needs of disabled people. Given this legislative requirement and the number of people with disabilities in the UK, it's disappointing to note that the Civil Contingencies Act 2004 and its two guidance documents: Emergency Preparedness and Emergency Response and Recovery; the key documents which legislate and support emergency planning activities in the UK, make minimal reference to disabled people. Even the Evacuation and Shelter Guide, a non-statutory document developed by the government to provide guidance to emergency planners on evacuation and shelter (HM Government 2006) has a limited focus on disability. There is no specific guidance available that deals primarily with the needs of disabled people in an emergency situation.

Christensen et al (2007) highlight the weakness of the reliance in the United States (US) on compliance to the Americans with Disabilities Act (ADA) in the context of emergency evacuation. The ADA guidance emphasises a reliance on planned systems to overcome barriers created, rather than the aspiration of the ADA for the removal of the barriers through changes to the structure of the built environment. Instead Christensen et al (2007). propose a framework based on the timing and duration of the evacuation, and 3 overlying factors that affect the situation. The framework has 4 types of evacuation – protective; preventive, rescue; and reconstructive with the overlying factors of behaviour of the individual; planned systems active in the event; and the environment in which the event occurs. In the UK the DDA can be similarly criticised for promoting a social model of disability approach (Barnes and Mercer 2003), but then relying on a medical model framework for its legal application. This reliance has meant little improvement in the existing built environment leading to barriers in access to potential ERC sites.

Rather than consider the specific access requirements for disabled people to an ERC given that they are a diverse group and needs will therefore differ

widley, this article instead focus on the good practise that has been identified by recent research, particularly from the U.S. This creates a better understanding of how the question of accessibility could be approached in the UK. The National Organisation on Disability (NOD 2006), through its Special Needs Assessment for Katrina (SNAKE), completed after Hurricane Katrina and additional research completed by the National Council of Disability (NCD 2005) identified the following good practise:

- The shelter must be accessible with good access to welfare facilities, entrances and sleeping arrangements. Disabled people should not be segregated from the rest of the population.
- Shelters based on the medical model of disability approach often resorted in transfering disabled people to special medical facilities, separating them from families and support networks. This should be discouraged.
- Successful shelters had good access to mental health and social services facilities. Shelters can be noisy and chaotic which can impact people with mental health issues.
- People with sensory impairments benefit from access to a diverse range of information and communication facilities. Good way finding was also essential.
- Disabled people should be evacuated with mobility aids as the loss of these can impede access. Care should also be taken to ensure people are evacuated with, or have access to their medication so that medical conditions are not exacerbated.
- Shelters should make reasonable modifications to existing policies i.e. to allow access to service animals, flexible mealtimes etc

Despite the number of disabled people in the UK, the adoption of anti discrimination legislation and the relatively recent implementation of civil protection legislation there appears to be a lack of research or guidance in the UK about the diverse needs of disabled people during an emergency, particularly access to ERC accommodation. This contrasts with the United States where the after effects of 9/11 and Hurricane Katrina prompted a

review of legislation, Leading to the introduction of the Executive Order 'Individuals with Disabilities in Emergency Preparedness' that deals specifically with the needs of disabled people during an emergency (The White House 2004). This has been a catalyst for extensive research that focuses on the needs of disabled people during emergencies, including those who are evacuated to ERCs. This body of knowledge does not appear to have been replicated or taken up within the UK context. In response to this perceived gap in research, an investigation was conducted in collaboration with the University of Salford, Surface Inclusive Design Research Team, to review the access to three ERCs that were activated within the Yorkshire and Humber region in response to a flooding event in 2007.

Case Studies

The flooding event that informed the research by the authors occurred in the North of England on 25 June 2007. The flooding crossed local authority boundaries and resulted in the activation of a large number of ERCs. Field work was conducted from 2 November to 6 December 2007 and comprised three case studies of ERCs in three local authority areas within the Yorkshire and Humber region.

Case Study 1 – focussed on an ERC activated within the Kingston upon Hull City Boundary, where 10,000 homes were evacuated due to flooding (BBC News 2007). The ERC was established in a three storey listed building in the city centre which usually operated as an entertainment venue. The ERC was in operation for 1 week and accommodated 400 evacuees at peak occupancy. Upon activation the ERC was managed by its normal operational staff who retained their day-to-day management structure. Later, management was undertaken by other local authority staff. Volunteers from the Women's Royal Voluntary Service (WRVS) also attended the site. Interviews were conducted with the Rest Centre Manager and two representatives from the WRVS. Members of the Emergency Planning Team were not available for interview.

Case Study 2 – focussed on an ERC activated in a market town in the East Riding of Yorkshire, where 5800 buildings were evacuated (Menteth 2007). A rest centre was activated in a local Leisure Centre that was refurbished in 2005. The ERC was operational for three days and accommodated 100 evacuees at peak occupancy. Disabled people were evacuated to this ERC, including older people from a retirement home. The management of the ERC was undertaken by its normal staff who retained their day-to-day management structure. Interviews were conducted with two Emergency Planning Officers, the Rest Centre Manager and the Assistant Rest Centre Manager.

Case Study 3 – focussed on an ERC activated in Doncaster. This area was severely impacted by the floods when the River Don and its tributaries overflowed. The flood water was unable to drain away and 5171 buildings were flooded (Menteth 2007). Many people were evacuated for an extended period of time. An ERC was activated in a Salvation Army Community Centre built in 2005. The ERC was operational for 3 weeks and at peak occupancy accommodated 100 evacuees. The ERC was managed by an experienced local authority manager, but was co-ordinated in partnership with the Salvation Army. . Interviews were conducted with an Emergency Planning Officer, the Rest Centre Manager (who also worked for the Adult Disability Services) and an Emergency Response Volunteer. This participant did not volunteer at the rest centre during the flooding, but had taken part in an earlier exercise. The volunteer had been disabled for 18 years so provided insight into any potential access issues at the ERC.

Each case study provided a snap shot of events during the operation of the ERC. Whilst it would have been ideal to have followed the emergency as it happened, the speed of the incident did not allow the time to invoke a full research study, and this could also have had a negative impact on the operation of the ERCs. Instead the case studies were conducted within a reasonable time frame after the event. The case studies involved an appraisal of access at each of the venues. This was a review of the building and its facilities rather than a full access audit and focussed on:

- access into the building

- registration facilities
- welfare facilities
- horizontal and vertical circulation
- furniture
- communication
- wayfinding
- aids/adaptions
- staff training

In addition interviews were undertaken with Emergency Planning Officers, Emergency Response Workers and Volunteers. Regrettably no records were kept at the ERCs of the disabled people using them, so it was not possible to follow up with interviews with disabled users. This differs from US guidance where records are kept of all users of emergency shelters for evaluation purposes.

The results produced qualitative rather than quantitative data, allowing intense contact within a real life setting. They offered a valuable insight into the dynamics of ERC provision and facilitated an understanding of how people operate within a real world environment. This detail along with a review of literature from the US was used to identify key elements for good practise for ERC provision.

Findings

Case Study Analysis – What were the barriers to access?

The ERC in case study 1 was a listed building located in the heart of the city centre. Its location meant there was a lack of onsite parking facilities which could restrict independent access. The listed status of the building meant that it did not always adhere to the building regulations and retained some inaccessible elements. Its design and layout also offered little opportunity for privacy.

The fact that ERC accommodation was provided on the first floor of a building with lifts that could have been affected by the flooding was a concern. One of the volunteers at the site expressed surprise that the building had been used as an ERC because of this. Horizontal circulation offered wide access routes, but these were intersected with heavy manually operated double doors. The doors were also fitted with half height vision panels which would obscure visibility for wheelchair users.

Welfare provision including the lack of washing facilities and bedding was a concern. There were no shower facilities and only one accessible toilet in the reception area. The toilet was in a poor state and the height of the toilet flush and sink limited independent access. The lack of welfare provision would have made the venue particularly unsuitable for people occupying the ERC for any length of time.

Communication was another issue, which could have had a potential impact on evacuees, the site had limited hearing enhancement systems and information was not made available in alternative formats including Braille and large print.

The ERC in case study 2 had undergone recent refurbishment and as a result adhered to many of the requirements of Part M uilding Regulations and in some instances took into account good practice recommendations contained within the British Standard: BS8300. The design and layout of the leisure centre worked well as an ERC and contained many essential facilities such as onsite parking, automated entrance doors, a reception with a lowered counters and a cafeteria. The building was also able to deal with large numbers of people and provide private sleeping quarters for couples and families.

As the building was used for sporting activities there were a large number of accessible toilets and showers available. A number of the toilets reviewed did have some inaccessible fittings such as grab rails and sinks which could have impacted on independent access.

While this building offered good access, there were some issues that needed to be addressed, predominantly the provision of beds and bedding, the on-site provision of suitable medical facilities and the lack of accessible communications.

The ERC in case study 3 was opened in 2005 and adhered to many of the requirements of Part M and in some instances took into account good practise recommendations made by BS8300. The building was in a good state of repair and decoration, so provided a pleasant environment for the evacuees who had to stay for an extended period.

The design and layout of centre was good and worked well as an ERC. The building had onsite parking, automated entrance doors, wide corridors and a kitchen. A mixture of open plan and cellular space also afforded people some privacy when required.

While this site offered good access to its users, some issues were noted. These mainly related to facilities that were not part of the buildings day-to-day operations, including the provision of beds and specialist communication facilities. They also related to facilities that would not normally be used to the extent and for duration that was required during the activation of the ERC, for example the shower and washing facilities were poor. There were two accessible toilets and only one shower. The shower offered poor independent access with no seat and grab rails. One of the volunteers interviewed used a wheelchair and advised that the work surface in the kitchen was too high making it difficult for him to get a glass of water without assistance.

<u>Recommendations based on the case study results</u>

<u>*1) Emergency Planning Officers should not rely on adherence to Part M of the UK Building Regulations as the sole indicator for ensuring that buildings selected as ERCs are accessible*</u>.   These regulations require only a minimum standard of access and only apply to new buildings, or those that have undergone major refurbishment or a change of use. The newer/ refurbished buildings in case studies 2 and 3 did have greater adherence to Part M and subsequently better access than the building in case study 1, but there were still issues with some elements of the building. This is because during an emergency, access may be required to facilities that are not part of the buildings normal operation and/or facilities that would not be expected to be used to the extent, or for the duration, that the ERC is in operation. The lack of communication facilities at both the rest centres in case studies 2 and 3 and inadequate toilet and shower provisions in case studies 1 and 3 are two examples of these barriers.

Within the USA, FEMA produce guidance through an ADA checklist for emergency shelters (ADA 2007). This is a 2 part process involving a quick-check survey followed by a full accessibility assessment. A National Shelter System has also been set up, this is a web-based database which records information on location, capacity, ADA compliance, etc and stores 54,000 potential shelters across the USA (FEMA 2010). A potential development of this would be a link to GIS information locating Centres for Independent Living and requirements of disabled people.

In contrast the UK situation appears much less prepared with limited guidance available other than assumed compliance to the Building Regulations, when in fact many ERCs are established in older premises. With public funding cutbacks this situation is going to continue. As O'Brien and Read (2005)

neatly state "in the UK, local government emergency planning has often been the Cinderella of local services. It is something never needed until it is required." In a more recent article O'Brien (2008) discusses UK's emergency preparedness and the Civil Contingencies Act 2004 and the potential to bring in Regional Resilience Forums and Community Risk Registers. Whilst this does bring more of a top-down co-ordination, there is still a lack of detailed guidance on accessibility issues of ERCs and the level of detailed consideration of disabled people's requirements as compared to the USA.

2) Selecting the right building is a key element to reducing the barriers to access. The results from the case studies identified that the most accessible ERCs were located in single storey buildings with sufficient parking, automated entrance doors, large reception areas and good links between living, eating and sleeping spaces. In addition buildings with a mix of open plan and cellular space were preferred as this allowed people to congregate in groups, or to have personal space and privacy if required. This is supported by research from the US, particularly the SNAKE report which noted that the poorer quality shelters were overcrowded, lacked privacy or access to basic facilities such as food, water and welfare facilities (NOD 2006).

3) Consider access required to facilities and elements that do not comprise part of the buildings normal operation. This can be overlooked when allocating a building as an ERC.   For example access to beds was a key issue at all of the sites in the case studies. A variety of solutions were used including, army beds, crash mats and mattresses on the floor. In all instances these were too low to allow independent access for disabled people. As evacuation to an ERC often includes an overnight stay, this is an important issue that may benefit from further research.

Communication is another important element. Many of the representatives interviewed in the case studies were not aware of the communication facilities that were available within their ERCs. Some elements of good practise were

evident within each of the ERCs reviewed. In case study 1 a television with subtitles was provided. In case study 2 information was made available in large print and Braille. In case study 3 evacuees were provided with a daily bulletin and care was taken to communicate information to evacuees with literacy issues. These are all key communication facilities that should have been available at each of the ERCs. In addition induction loops accessible telephony and computer access and sign language interpreters should have been a consideration.

The importance of communication in an emergency is a theme running throughout UK civil protection legislation, however there is limited guidance available on how to provide effective communication for disabled people. This contrasts with guidance in the US that stresses the need for planning communication for people with impairments in "hearing, vision, speech, cognitive or intellectual limitations, or limited English proficiency" (FEMA 2008). For those affected by a disaster, communication is vital for keeping fully appraised of developments, obtaining aid and finding family members. As a minimum each Local Authority needs to have an effective communication strategy in place.

4) Consider the building facilities that would not normally be used to the extent or duration that the ERC is in operation. This is particularly important when reviewing welfare facilities. In case study 1 the ERC had no shower facilities, even though people were evacuated overnight. In case study 3, the ERC was activated for three weeks, but had only one shower for use by the 70 to 100 people accommodated at the centre. The alternative option was to use a local off site sports centre facility which was a 10-15 minute walk.

5) Consider the need for immediate access to health and social care: Medical problems were exacerbated during the flooding and many people were evacuated without medical supplies. Issues were reported in case studies 1 and 2 with obtaining immediate health and social care provision. In case study 1an evacuee suffered from diabetic shock because they did not have

access to insulin. In case study 2 the staff on duty had to intervene when an evacuee with mental health issues started to display aggressive behaviour.

It is important that priority access to health and social care is established as soon as an ERC is activated. In order to do this, relationships with health authorities and Primary Care Trusts need to be strengthened.   This is supported by the SNAKE report in the US which highlighted the importance of immediate access to medical and mental health services. This meant that disabled people could remain in general population shelters rather than being relocated to medical facilities. The relocation of disabled people to specialist facilities was fraught with issues and often resulted in the separation of people from families and support networks at a time when these were most needed (NOD 2006). While there may be benefit from pursuing this practice for the care and treatment of people with very severe, or specialist medical requirements, it should not be considered an appropriate strategy for all disabled people.

6) Ensure that emergency planners and rest centre staff have the skills and training they need to understand the barriers to access faced by disabled people. Most of the research participants had limited formal training in access issues. Any training that had been undertaken was generally linked to local authority diversity training. This did not give any instruction on dealing with access during an emergency. Only the local authority in case study 3 specifically utilised rest centre managers who worked in a disability related field. They also ran rest centre exercises using disabled participants. These exercises had been attended by a volunteer who was a wheelchair user and he advised that access to the majority of the building was good and staff did give consideration to disabled people. The inclusion of disabled people within the emergency planning and response process is an important consideration. These are the people best placed to advise on potential barriers to access and the most effective way forward.

The results of the research study indicated that the qualities of the people running the rest centre; particularly their enthusiasm, commitment and experience was important when overcoming barriers to access. Employing the day to day building operational staff to work within the ERC environment in case studies 1 and 2 worked well. This mode of operation removed any confusion regarding roles and responsibilities. In addition the staff understood the operational elements of the building. This advantage should not be underestimated. Where barriers to access where noted, the skill and commitment of staff meant that they were often able to work around these.

If improvements are to be made to the accessibility of ERCs then this needs to be driven by both the government and the local emergency planning teams responsible for planning and response.   In order to do this, both groups need to increase their understanding of the barriers to access experienced by disabled people during an emergency. An important element of this will be further education and training. This subject has been the focus of research in the USA. The Nobody Left Behind research project studied disaster sites across the USA using telephone surveys, reviews of local emergency plans and a web based consumer survey to come to the overall conclusion "that emergency managers would benefit from taking educational courses, having reliable surveillance tools and developing specific guidelines aimed at addressing emergency management needs of persons with disabilities." (White et al 2007). These recommendations were largely taken up by the Federal Emergency Management Agency (FEMA) in their planning guide (FEMA 2008). They also took onboard the need to move away from "special needs" considerations towards a more function based consideration of maintaining independence; communication; transportation; supervision; and medical care (FEMA 2008, Kailes and Enders 2007) which leads to a more flexible planning and response framework.

7) Learn from the experiences of others. The research undertaken within the USA and detailed in this article provides a useful indication of emergency

response and ERC provision in real life situations. The USA has experienced numerous large scale disasters and this has resulted in extensive research into the response to these disasters and the associated impact on disabled people. In particular Hurricane Katrina has been a catalyst for much of the research focussing on the needs of disabled people, particularly within an ERC environment. The research could provide valuable insight and guidance to emergency management teams operating within the UK.

Conclusion

Given the significant number of people residing within the UK who have a disability, or can be expected to have one in the future through the process of ageing, compounded with the possibility that people will also become disabled as a result of an emergency situation, then it is likely that any disaster will involve disabled people who have a diverse range of access requirements. This research highlights the complexity of providing access for disabled people to ERCs and the important role that the government and emergency planning teams play in this process.

In particular the government have a key role to play and need to provide guidance and instruction to Local Authority Emergency Planning Officers. While the Disability Discrimination Act makes it unlawful for public bodies (including emergency planning teams) to discriminate against disabled people, this compliance is hampered by the quality of civil protection legislation, such as the Civil Contingencies Act (OPSI 2004) and it's supporting documents within the UK. These documents contain limited instruction, or guidance, on access for disabled people. Within the legislation, where consideration is given to disability, the information is often advisory rather than statutory, and vague rather than prescriptive. The documents also focus on concepts of vulnerability rather than inclusion and self reliance.

They fail to consider that disabled people can be self reliant once barriers to access are removed.

There needs to be a more holistic approach to emergency planning and response, and the government needs to take the lead in promoting concepts of inclusion, self reliance and independent living in ERC situations. One way forward would be to follow the lead of resources developed in the USA such as ERC accessibility checklists and a web-based resource database, potentially embedded with GIS information. In order to accomplish this it would require Emergency Planners to strengthen their knowledge of disabled people and to understand how barriers can impede access.

Developing a user based approach to emergency planning should also be a key priority. Disabled people and their advocates have the skills and knowledge to provide expert advice and instruction.   The inclusion of disabled people and advocacy groups within the emergency planning and response process will strengthen the Emergency Planners understanding of disabled people. However, it should be noted that disabled people are not a homogenous group, but individuals with differing capabilities, opinions, needs, and circumstances. There is no single organisation that speaks for all disabled people, so care needs to be taken to ensure that a range of groups representing people with a range of disabilities are consulted as part of any emergency planning and response strategy

Those with responsibility for allocating buildings as ERCs should also take care to ensure that buildings have a minimum standard of access, and this should not be based solely on compliance to Part M of the Building Regulations. Local Authorities also need to give consideration to how they will provide access to facilities that are outside of the buildings normal sphere of operation, such as accessible beds, welfare facilities, adaptive aids and communication technologies. While ERCs are meant to be functional rather than luxurious or spacious, and should be regarded as temporary

environments designed to meet people's most basics needs, the research identifies that these facilities often need to be used for a lengthy period of time. The length of time that people are evacuated can determine the potential impact of any barriers. Where ERCs operate as a short term facility, whilst alternative overnight accommodation is sourced, the lack of access to welfare and sleeping facilities would have less impact. However, it has a far greater impact when an ERC is used over a longer period. This means that a lack of access provision could have a progressively detrimental effect. Barnes (2006) refers to the possibility of moving away from terms such as "evacuation shelter" to "home away from home" to develop disaster survivor resiliency. Obstacles that are an inconvenience for someone evacuated for a matter of hours become a real barrier to access if this situation continues for days, or even weeks.

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