

Emergency Services Foundation Scholarship 2017



An analysis of the organisational response of North American Fire Services in relation to hoarding

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Executive Summary

International research estimates that hoarding behaviour affects between 3-6% of the general population. Due to the chronic and progressive nature of the condition it is predicted to grow as our population ages. For fire and other emergency services, hoarding is a growing and significant challenge.

Hoarding was first identified by the Metropolitan Fire Brigade as an emerging trend in 2007 following three separate fire fatalities involving hoarding within several months. MFB's initial response was dual purpose, to initiate research in to hoarding to quantify the organisational risk and prevalence rates within MFB's operational emergency response; and to identify the key external stakeholders.

MFB's body of research, which includes four world first studies, has identified that over the last five years MFB operation responds to an emergency incident involving hoarding and/or squalor every 4 to 6 days. In addition to fires, these incidents regularly involve assisting Victoria Police for welfare checks and Ambulance Victoria for Emergency Medical Response and/or to gain access to a structure to extricate the patient.

MFB's research was used in part to influence the Victorian State Government in convening a state-wide hoarding taskforce in 2013 which identified every state and Commonwealth funded service provider with responsibility to respond to incidents involving hoarding and/or squalor under their existing service provision arrangements. Following the convening of the state-wide hoarding taskforce, the Department of Health and Human Services published 'Hoarding and Squalor; a practical resource for providers.'

In preliminary research for this study, clusters of information were identified in particular geographic areas following residential fires involving hoarding. These incidents involved civilian injuries and/or fatalities and significant disruption to local residents. The media coverage these incidents received generated significant social and political pressure which forced agencies to develop a coordinated response.

These fires also had a significant influence on the fire services involved, in both the size and scale of the operational response. The increased risk to firefighters was also evident— highlighted by significant injuries to firefighters requiring hospitalisation; but also involving the death of a firefighter in the line of duty in New York whilst searching for occupants inside a hoarding affected apartment. Fires of this magnitude force fire services to develop a systematic and strategic response

In response to these fires, fire services have implemented various responses. In some cases, the response has been focused through fire prevention disciplines and application of the fire code as leverage to engage affected people. In other instances, fire services have responded to significant hoarding fires through the

development and implementation of hoarding specific training and operational practice.

This research in to North America fire services and their responses to hoarding highlights that the challenges associated with hoarding are not isolated to particular fire services. At some point in time, it is likely each fire service, regardless of its size, will experience a fire involving hoarding that will potentially be a bigger fire than anticipated as a result of the fuel load; and will likely produce significant social and political pressure as a result of community perceptions and expectations that authorities should respond in some way to reduce the risk. It is the social, political and organisational pressure that becomes the driver for organisational change.

Aims

The aim of this study was to identify the knowledge, practice, policy, training and engagement in relation to hoarding by fire and other emergency services in the United States and Canada and how this has been applied to achieve increased operational preparedness, response and safety for emergency responders, affected people and the community.

The intention of this study is to ensure that MFB's practice and knowledge management is reflective of these more recent developments and how any policy and practice from North American fire services may be applied to a Victorian, and Australian national fire service context.

This Emergency Services Foundation (ESF) research scholarship awarded in 2017, will review the path taken by MFB in relation to the issue of hoarding in comparison to the responses of fire services in the United States and Canada and how incidents and local drivers have both informed and driven internal and external engagement by North American fire services.

Background

In total, four research studies examining MFB's operational response to emergency incidents involving hoarding have been conducted between MFB and WPI which cover a research period between 1999 and 2014; with the fourth and most recent research study including the Country Fire Authority (CFA). The research identified, on average, people affected by hoarding are more likely to have a fire, more firefighting resources will be required to extinguish the fire, and that these type of fires result in increased challenges and safety risks for firefighters.

At an international level, the inclusion of 'Hoarding Disorder' in the *Diagnostic and Statistical Manual Fifth Edition (DSM-5)* in 2013 as a distinct form of mental illness with specific diagnostic criteria clearly indicated this psychological condition was not confined to Melbourne's Metropolitan District, Victoria, or even Australia. It is a condition experienced world-wide by people of various ages, genders and socio economic status. Hoarding is a chronic and progressive condition with prevalence rates in the general population estimated to be between 3 and 6%, so incidents involving hoarding will increasingly continue to impact fire and other emergency services.

Within MFB, the development of research, stakeholder engagement and treatments around hoarding and squalor are the responsibility of the *At Risk Groups (ARG)* team. ARG works with the risk of fire and its intersection with other high risk factors including older people, people with a disability, people living in financial and social

disadvantage, people affected by long term mental health issues including dementia, and people affected by hoarding and/or squalor.

ARG has developed systematic referral processes for operational firefighters to refer people identified through emergency response with ongoing risk residing in the community, with a significant referral rate involving people affected by hoarding and/or squalor. ARG act as the conduit between affected people and the government funded service providers best placed to be able to support an improved safety outcome and reduce risk for the individual.

The practice and engagement of ARG also has a dual purpose in relation to people and properties affected by hoarding. Firstly, to engage key external stakeholders to encourage them to register hoarding affected properties to operationalise the community based risk to increase firefighter preparedness and safety. Secondly, to refer affected people for long term support to mitigate the risk.

Within MFB, hoarding has shifted from an emerging trend in 2007 to an ongoing risk identified by firefighters with regularity; reinforced by MFB's research identifying that MFB firefighters respond to an emergency incident involving hoarding and/or squalor every four to six days, with the majority of responses involving fire, but also for Emergency Medical Response and welfare checks.

However, the difficulty for fire services in identifying hoarding affected properties prior to an emergency response, and the difficulty in engaging affected people remains ongoing, highlighted by two separate preventable fire fatalities involving hoarding in Melbourne's Metropolitan District in 2018.

MFB's practice is also to highlight the complex issue of hoarding and risk following any related preventable residential fire fatalities involving hoarding via its reports submitted to the Victorian Coroner; and to raise awareness to reduce the likelihood of similar deaths in the future.

Victorian context

MFB's hoarding research was used to support the need for the convening of a state-wide hoarding and squalor taskforce by the Victorian Government in 2013. The taskforce included representation from emergency services, community service providers, and local government which have a number of departments legislated to enforce various by-laws which can be applied to mitigate the risks associated with hoarding.

Following the establishment of the taskforce, the Victorian Department of Health and Human Services (DHHS) published 'Hoarding and squalor; a practical resource for service providers' which outlined the framework and responsibility of all government and some private agencies with responsibility or capacity to respond to affected people and the type of service provision they could provide.

The task force also developed and endorsed definitions of both hoarding and squalor, which MFB use as part of their practice and have endorsed as a signatory to the DHHS hoarding resource.

The framework of MFB's hoarding related policy, practice and strategic engagement is aligned to and consistent with the Victorian State Government resource and MFB's hoarding research.

This Emergency Services Foundation study builds on MFB's body of hoarding research and will contribute to the refinement of existing policy, practice and engagement; and influence MFB's continued development of firefighter training on the subject of hoarding.

From emerging trend to indicator of risk

The Metropolitan Fire and Emergency Services Board (MFB) first identified hoarding as an emerging risk following three preventable residential fire fatalities in a three month period in 2007. While hoarding and/or squalor were identified as common features inside each home, the diversity of the victims was broad and included a retired medical practitioner, an aged pensioner for whom English was a second language, and a middle age person who was long term unemployed and living with mental health issues. Two of the victims occupied properties on the basis of owner occupier, while the third was a tenant. The three fire fatalities were male and their ages ranged from around 50 to 80 years of age.

These deaths identified a need for MFB to develop an understanding of hoarding and the affected people and quantify the risk including prevalence of the behaviour in the community. It was envisioned that the research would also provide evidence upon which MFB could develop policy, practice and risk mitigation advice if required.

The transition of hoarding from an emerging risk, to an indicator of risk in a residential fire context was a long process. It is representative of the complexity involved in identifying new and emerging risks. In relation to hoarding, this was most likely due to a the lack of shared definition and language to describe its actual risk rather than its perceived impact in a fire, or having enough evidence to form a basis upon or to even report it in the first place.

In 2009, MFB developed its first research project into hoarding to develop an understanding of the issue in an emergency response context. This world first research was undertaken by undergraduate students from Worcester Polytechnic Institute (WPI) in Massachusetts, USA.

The study identified compelling information, including that while fires involving hoarding represented only 0.25% of all residential fires over a ten year period, these fires accounted for 24% of all preventable residential fire fatalities.

It was envisioned that in addition to increasing organisational understanding and awareness that the research may provide an evidence base upon which to engage key government agencies and community stakeholders. While the study generated huge interest from hoarding specialists and fire services overseas, it was less successful in engaging the relevant stakeholders locally.

For other fire services, hoarding establishes itself as not just an organisational priority, but a community and political priority due to the scale and impact of a single event. This research paper presents three case studies involving residential fires where hoarding was identified as a feature. These fires significantly raised the profile of hoarding and subsequently drove organisational change within the respective fire services and influenced the strategic engagement between fire services with their key stakeholders.

On 24th September, 2010 in Toronto, Canada, a fire began in a high rise building located at 200 Wellesley Street East. “The Wellesley Street fire” as it became known within Toronto Fire Service (TFS) was considered to be one of Toronto’s largest residential fires at the time and caused unprecedented social and financial impact on the community. The scale of the emergency could be likened to a major industrial incident or a devastating wildfire requiring the highest level of operational firefighting response and large scale relief and recovery from government agencies.

The fire started at approximately 5pm on the balcony of a one bedroom apartment located on the 24th floor of the 30 storey building. The fire reached a six-alarm response, with over 120 firefighters and 27 firefighting appliances attending. The scale of the fire required a city-wide response which was led by TFS and involved Police and Emergency Medical Services.

The level of hoarding and fire load in the fire affected apartment initially prevented firefighters from opening the apartment door; with firefighters taking approximately eight hours to extinguish the one bedroom apartment and balcony fire. An estimated 5 million gallons of water was used to extinguish the fire, with the building suffering extensive water and fire damage.

Toronto Community Housing Corporation (TCHC), Toronto’s largest social housing provider, owned the building which housed people experiencing social and financial disadvantage, of which many were vulnerable. The fire required the evacuation of the approximately 1700 residents, which included approximately 1200 registered and an estimated 500-700 unregistered residents. In response to the fire, TCHC mobilised a crisis response team to provide emergency accommodation for many of the buildings occupants who had no access to alternative accommodation.

At the time of the fire the building was managed by Greenwin Property Management; who subsequently had their agreement to manage the building terminated following the Wellesley Street fire.

TFS firefighters who attended the Wellesley Street fire described it “as like being at the gates of hell” in both media reports and conversations had as part of this research. Such was the intensity of the fire, firefighters in attendance advised after the fire had been extinguished, they were overhauling the fire and below the burnt surfaces of combustible papers and materials, wet papers remained unburnt due to the weight and compression of the combustible items. Such was the impact of the Wellesley Street fire that TFS firefighters are able to recall exactly where they were when the fire occurred.

Case Study 1

24th September, 2010
Toronto, Canada

Property details:

- 200 Wellesley Street East, Toronto
- 30 storey high rise building for socially and financially disadvantaged people
- 1960's era building which was compliant with the code regarding fire safety
- Building did not have a sprinkler installation
- 711 apartments
- Fire affected apartment was a one bedroom apartment

Occupant details:

- 59 year old male occupant

Fire incident:

- Occupant not home at the time of fire
- Fire crews responded to address at 17:02 hours
- Fire started on the heavily cluttered balcony of apartment 2424 (24th floor)
- Firefighters were unable to open the door of apartment 2424 due to the level of clutter inside the apartment
- Six alarm fire involving over 120 firefighters and 27 firefighting appliances
- Fire spread to at least two other units, one on the 24th floor and one on the floor below
- Debris from balcony fire dropped to balconies below, causing spot fires
- Fire forced the evacuation of over 1700 residents, some occupants displaced for a number of weeks and months
- 2 mayday calls from firefighters during firefighting operations
- Fire brought under control after approximately 8 hours
- The use of a ground monitor in addition to 65mm firefighting handlines was required to extinguish the fire
- 17 people injured and transported to hospital, which included 5 children and 3 firefighters
- Firefighters searched the building following extinguishment of fire, with varying reports identifying between 15-17 additional units affected by hoarding
- Firefighters had to forcibly open approximately 200 doors in the building as occupants had changed their door locks
- The occupant of apartment 2424 where the fire started was relocated to a non-Toronto Community Housing Corporation building and assigned a case worker with weekly visits
- Hundreds of former and current tenants launched a class action lawsuit seeking compensation from TCHC and Greenwin (responsible for property management at the time of fire), claiming both parties knew there was a hoarding issue inside the apartment, but failed to remedy the situation
- After September fire, TCHC terminated Greenwin contract to operate the high rise
- Office of the Ontario Fire Marshal (OFM) determined that the cause of the fire was a discarded cigarette that landed on combustible materials on the Balcony of apartment 2424.



In contrast to the scale of the 'Wellesley Street fire' in Toronto; the profile of hoarding as an emerging risk escalated in Vancouver following a fire on a much smaller scale. In 2011, Vancouver firefighters responded to a residential house fire at approximately 3.30am with firefighters quickly identifying the property as affected by hoarding when arriving on scene.

Witnesses to the fire reported that a person could be heard screaming for assistance, but appeared to be trapped inside the burning structure. The level of hoarded materials and intensity of the fire prevented firefighters from entering the building to conduct search and rescue operations. During firefighting operations, Vancouver Fire Captain Gabe Roder was quoted on CBC news as saying, "There's a tremendous amount of stuff in all parts of the home and it's deemed unsafe for us to enter this home at this point in time".

Following the fire, media outlets also reported that neighbours had been aware the property was affected by hoarding for quite some time and had reported the condition of the property in complaints to the agencies responsible for code enforcement and compliance, yet no information regarding the condition of the property had been provided to the fire service prior to the fatal fire in 2011.

Once the fire had been extinguished, the victim's body was retrieved by the fire departments high angle rescue team. Whilst this fire was on a smaller scale, it was significant for a residential house fire involving one structure. The impact of this fire on the community and political representatives was the recognition that a person could be trapped inside their home not solely by a fire, but by the volume of their possessions.

Case Study 2

October 9, 2011

Vancouver, Canada

Property details:

- Detached private residential dwelling

Occupant details:

- 50 year old male victim, lived alone in family residence, mother had been moved to full time care facility

Fire incident:

- Fire crews despatched to residential house fire at approximately 3.30am
- Witness reported trapped person could be heard screaming for assistance from inside the burning structure
- Due to intensity of the fire and amount of accumulated items fire crews were unable enter property to conduct search and rescue operations
- Fire service high angle rescue team recovered the victim's body

Whilst the case studies in Vancouver and Toronto demonstrate the organisational impact, significant fire service resourcing requirements, and the heightened community and political awareness that follows fires involving hoarding; the full impact of the increased risk to firefighters where hoarding conditions exist was experienced by the Fire Department of the City of New York (FDNY) in a fire involving hoarding on July 5th, 2014, which involved a firefighter fatality.

As is practice in the United States of America following the death of a firefighter in the line of duty, the National Institute for Occupational Safety and Health (NIOSH) undertook an external investigation in to the death of Lieutenant Gordon Ambelas under the auspices of the National Firefighter Fatality Investigation and Prevention Program. Details provided in this particular case study have been obtained from the NIOSH report in to the death of Lt Ambelas and from discussions had with FDNY Fire Chiefs at FDNY's Brooklyn headquarters.

At approximately 21:10 hours on July 5th, 2014, FDNY firefighters were dispatched to a 21 storey high rise building, owned by the New York Housing Authority which housed moderate to low income tenants, following reports from property tenants that they could smell smoke.

Firefighters located the apartment of origin, which was a one bedroom apartment on the 19th floor of the building and entered the apartment to conduct search and rescue operations and to locate and extinguish the fire. The level of clutter inside the apartment limited mobility for firefighters making search and rescue operations increasingly difficult; and delayed firefighters efforts to locate the seat of the fire and extinguishment of the fire

The fire continued to produce thick, dense smoke which became fuel for the fire, and conditions inside the apartment deteriorated which forced crews to withdraw

following significant fire development and progression within the one bedroom apartment.

FDNY Lieutenant Gordon Ambelas, a career firefighter with 14 year's firefighting experience, radioed a mayday indicating the fire was now behind him. Lt Gordon Ambelas was located by fellow firefighters following activation of the alarm on his breathing apparatus, and was found unresponsive with his breathing apparatus face piece dislodged. Lt Ambelas was transported to hospital; however he died from his injuries which included smoke inhalation and burns.

Case Study 3

July 5, 2014

New York City, United States of America

Property details:

- 21 storey residential apartment building
- Building owned by New York City Housing Authority, which provides housing for low to moderate income residents throughout the five boroughs of New York City

Occupant details:

- 51 year old male occupant

Fire Incident:

- Occupant not home at the time fire started
- Dispatch centre received a phone call at 21:10 hours reporting the smell of smoke in a high rise apartment building
- Fire affected apartment was located on 19th floor, and was a 500 square foot, one bedroom apartment
- Cluttered conditions in the apartment limited mobility for fire crews and made it difficult to identify the seat of the fire
- Visibility was limited due to thick, dense smoke
- Conditions deteriorated rapidly inside the apartment forcing crews to withdraw
- Lieutenant Ambelas radioed a mayday, stating he had fire behind him
- Lieutenant Ambelas was found unresponsive by firefighters, with his breathing apparatus face piece dislodged from his face. Lt Ambelas was transported to hospital, but died from his injuries
- Fire investigation deemed fire was started by an overheated extension cord in the bedroom

More detailed information regarding the fire involving the death of Lt Ambelas from the NIOSH report “*Career Fire Lieutenant Dies in Cluttered Apartment Fire on 19th Floor of High-rise Residential Apartment Building*” NIOSH, July 2016.

Following their investigation, the NIOSH report identified indicators of significant fire behaviour in the fire which involved the death of Lt Gordon Ambelas which included;

- Fire started close to bed and accumulated hoarded items
- Fire may have smouldered for some time before fire department arrival
- Initial crews had trouble locating the fire due to hoarding clutter
- Smoke continued to accumulate inside apartment reducing visibility
- Fire continued to grow in bedroom

The report also identified contributing factors in the death of Lt Ambelas with some including;

- Cluttered conditions within apartment blocked ingress and delayed getting water on the fire
- Fire originated in bedroom where an extension cord overheated under clutter
- Thick, dense smoke limited visibility
- Thick, dense smoke became fuel in rapid fire progression
- Lack of water on the fire
- Lack of crew integrity exiting the apartment
- Radio traffic including maydays not heard by everyone on fire ground

Response

The costs to the community, fire services and their stakeholders were significant in varying ways in each of these fires; and in these large cities the fire events brought a critical and clear focus on the risks related to hoarding for individuals, the community and emergency responders. This drove change in the organisational practice, policy and training of the respective fire service and increased their stakeholder engagement.

Toronto

Prior to the Wellesley Street fire in 2010, hoarding had been identified as an emerging trend by the Office of the Ontario Fire Marshal (OFM); with Fire Marshal Tawnya Robert, Program Specialist from the Inspection and Enforcement Unit of the OFM, advising that she had been presenting on the risks associated with hoarding for some time to various stakeholder agencies. Fire Marshal Tawnya Robert also advised the OFM had been engaged by TCHC to provide advice and undertake fire prevention related activities in a separate hoarding affected apartment at 200 Wellesley Street. This may have been in part in response to a fire in another unit affected by hoarding the previous year.

Representative of the challenge for fire services to respond to emerging risks and trends and develop a timely and appropriate response; it took a fire of the size and scale of Wellesley Street in 2010 to develop a coordinated approach by multiple government agencies.

In the immediate aftermath of the Wellesley Street fire, TFS Fire Prevention staff remained on scene for a number of days to undertake fire safety measures and inspections, which included inspecting every apartment door to ensure that doors would be replaced in more than 200 units; and to assist TCHC staff deal with the additional apartments identified as affected by hoarding/high fuel load, before the building released back to TCHC.

The OFM also remained on scene at Wellesley Street to conduct fire investigation activities; with the OFM's fire investigation report concluding; "In the context of this large multi-unit dwelling, the intensity of the fire hampered firefighting efforts of Toronto Fire Services and created a significant risk to first responders and those attempting to evacuate the building. This was due to the excessive amount of materials stored on the balcony, which well exceeded the height of the safety railing, and combustible materials that were stored at a significant depth throughout the apartment. Given the amount of these combustible materials, the dwelling was no longer being used for its intended purpose and could have physically trapped an individual inside."

OFM's fire investigation report also noted; "The tremendous growth and spread of the fire was a result of the excessive amount of combustible materials stored on the balcony and in the suite of origin".

Reflective of the increased risk of fire associated with hoarding, OFM's report included general advice directed at the general public which stated; "OFM is urging landlords and property owners to inform local fire departments of instances of hoarding where they believe it poses a fire safety risk. Local fire departments can help to address these instances of hoarding through the Ontario Fire Code and their partnerships with other community mental health and supporting agencies."

In addition to OFM's advice for the public to report instances of hoarding when observed, the Toronto Municipal Licensing and Standards branch which is responsible for inspecting homes and high-rises, issued the directive to its inspectors to contact Toronto Public Health when they observed people living in "excessive clutter." They also advised community members to notify the fire service when hoarding was identified.

The advice from the Toronto Municipal Licensing and Standards branch is reflective of the various agencies who may either observe hoarding whilst undertaking their work related activities, or may have a responsibility to respond to and/or engage affected people, and their desire to notify the fire service of the location of hoarding affected properties to support their strategic risk reduction measures.

Such was its size and scale of the Wellesley Street fire and its operational impact, and the directives from external stakeholder agencies advising their staff and the public to advise the fire service of properties affected by hoarding, TFS was forced to develop and initiate a strategic and systematic organisational response.

TFS have focused their response to hoarding primarily through their fire prevention discipline and their Fire Inspectors who have the primary jurisdiction over the safety of the interior of a property, and are responsible for enforcing the respective jurisdictional fire code to enforce the Fire Protection and Prevention Act 1997 (FPPA). The FPPA does not legislate against or specifically mention hoarding; but following the 'Wellesley Street fire' it was recognised that components of the fire code could be applied where hoarding was identified to achieve improved safety outcomes for affected people, their neighbours and firefighters.

TFS Fire Inspectors undertake specific hoarding related training, from both the perspective of how best to engage affected people; and the application of the FPPA. TFS implemented use of the term 'Problematic Hoarding' for the purpose of applying the fire code and to operationalise the FPPA, which they defined as; "Problematic hoarding is an excessive accumulation of (usually) personal/acquired belongings and items which are being stored/retained within a dwelling...in such quantities and/or location(s) (example: kitchen, bedroom, living room, bathroom, basement, balcony,

hallways, stairways, etc.) as to make such area(s) within the premises unsafe and/or unusable for their intended purpose.”

TFS Fire Inspectors advised during this research that in recognition of the level of risk involved when hoarding is identified, they have taken the position that; “hoarding is not illegal, but non-compliance with the Fire Code is” and apply the Fire Code accordingly in efforts to achieve improved safety outcomes for affected people, their neighbours, and firefighters.

Any complaint regarding hoarding referred to TFS must be followed up, and it has become practice for TFS Fire Inspectors to use the FPPA as an enforcement mechanism to leverage engagement from affected people. The response from TFS may include an inspection where the minimum requirements for compliance with the fire code are communicated which includes; combustibles removed from around all heat sources a distance of one metre to reduce the likelihood of accidental ignition; access to/from each room of the dwelling unit with a one metre clear access to exit throughout; the access route must be clear of any obstructions from floor through to ceiling, with the intent to provide a safe means of egress for the occupant/s and emergency responders; installation of a smoke alarm (above the legal requirements) in each room where there is sufficient combustibles to ensure adequate early warning of a fire emergency; and remove combustibles a distance of one metre from ceiling to ensure adequate clearance for smoke alarm operation.

Significant financial penalties can be applied by fire inspectors for properties deemed non-compliant with the fire code, yet the practice of fire inspectors has become one of advocacy for property tenants affected by hoarding - where commonly their tenancy is at-risk. This approach reflects the complexity of cases involving hoarding, and that punitive measures are only likely to temporarily reduce the level of hoarding.

TFS fire inspectors use hoarding related complaints and property inspections as an opportunity to quantify the risk and pass this risk-based intelligence on to operational firefighting crews to increase their awareness and provide opportunities for preplanning based on the risk. A challenge for TFS fire inspectors is maintaining the currency of information on properties of interest, in this case related to hoarding. Once a property is deemed compliant with the Fire Code, any hoarding related information on the fire services computer aided dispatch system may be removed, and there is no mechanism to reinvestigate a previously non-compliant property unless there is a further complaint. Without long term support measures put in place for people affected by hoarding, it likely that the acquiring will continue and the fire risk remains and potentially escalating.

At a Government policy and practice level, Toronto City Hall established the Specialised Interdivisional Enhanced Response (S.P.I.D.E.R) in 2013, with TFS advising that they engaged as a member of SPIDER from approximately 2015

onwards. SPIDER was established to enhance service coordination and information sharing in extreme cases including chronic hoarding, and multiple property standards and fire code violations for the purpose of connecting people to the appropriate services and reducing the vulnerabilities that they may be experiencing.

SPIDER is one of four situation tables run by Toronto City Hall, and cases involving hoarding can be brought to the team for review and coordinated service provision. Specific information sharing protocols were developed by SPIDER to ensure compliance with the respective data and health information sharing legislation. The term “situation”, rather than “case” is used to distinguish the work of the table from conventional case management that may be delivered by any of the participating services.

As of July 31, 2017, the SPIDER situation table had coordinated 115 responses to acutely elevated levels of risk (*Toronto, Report for action, Update on the Specialised Program for Interdivisional Enhanced Responsiveness, August 25, 2017*). A review of these 115 situations identified most situations involved acutely elevated risk of eviction (88%), risk of fire (44%), and/or sanitation issues associated with odour or waste (54%). Problematic hoarding behaviours and related property maintenance issues were core drivers of these risks. Within the fire risks, 75% involved problematic hoarding, 43% involved excessive storage of combustible materials, and 31% had blocked exits. Within the eviction risk situations, 50% had safety risks due to excessive clutter.

Additional analysis showed 12% of all SPIDER situations are brought to the table by Toronto Fire Services, and 45% of all SPIDER interventions are assisted by Toronto Fire Services.

Responses to hoarding cases from SPIDER are complaints driven, with the Clutter Image Rating Scale (CIRS) used to assist with triaging cases. Hoarding at level 4 and above in the kitchen; or level 5 and above in the bedroom or living room is deemed as requiring fire service intervention through application of the Fire Code. This approach is reflective of MFB’s hoarding research that identified injuries and fatalities are more likely to occur where clutter at level 5 or above on the CIRS is present.

Health privacy and data sharing legislation is cited as a barrier to agencies referring hoarding affected properties to fire services outside of any emergency response. SPIDER overcame this by developing specific data sharing protocols to ensure each agency would only receive the information they were allowed/required. SPIDER personnel advised they can also bypass privacy legislation for the purpose of mitigating risk. Agencies are able to share identifying issues, and the legislation allows information disclosure for acute reasons.

In addition to changes in organisational practice and the development of a coordinated government response and policy following the Wellesley Street fire, the Ombudsman initiated an investigation following complaints about the city's response and concerns regarding whether the City's policies and procedures were appropriate given the vulnerable nature of many in the social housing population, with 15 recommendations made in the Ombudsman's report.

Vancouver

Similarly to the development of SPIDER in Toronto following the Wellesley Street fire; the Vancouver case study presented involving a residential fire fatality in a hoarding affected property in 2011 is considered a contributing factor in the formation of the city's Hoarding Action Response Team (HART), of which Vancouver Fire Rescue Service (VFRS) takes a lead role which like TFS is led by their Fire Inspectors and their responsibility to enforce the fire code.

HART was launched as an 18 month pilot program in May 2011 in an effort to develop coordinated practice and address the risks associated with hoarding. It is a partnership between the city and Vancouver Coastal Health. HART initially included four professionals — including a city inspector, VFRS fire inspector, and two mental-health workers — to jointly work with people identified as affected by hoarding behaviour. The pilot goals were to help discover and support people affected by hoarding in Vancouver by conducting inspections and referring clients to community resources. Since the pilot was initiated, researchers from the University of British Columbia have joined HART.

VFRS's approach through HART when responding to hoarding is focused on achieving voluntary compliance and improving safety in properties affected by hoarding. This aligns with research from Dr Christian Bratiotis which identifies that standard fire prevention efforts, fines and other enforcement tools often provide little traction in reducing fire risks associated with hoarding. Whilst more extreme forms of enforcement exist and on the surface appear to be effective in reducing potential fire risk, the risk is likely only temporarily mitigated and may come at the cost of immense social and financial hardship to the occupant. Many people affected by hoarding do not view their living conditions as problematic, and those without awareness often reject both the authority of enforcement officials and any well intentioned offers of help.

With the establishment of HART, the City of Vancouver implemented a centralised reporting system for complaints related to hoarding via their existing 311 telephone line which is maintained by city hall. The phone is also used by fire, police and ambulance services to report cases of hoarding centrally.

Like Toronto, the Clutter Image Rating Scale is used to assess the level of clutter and deem whether a response from Fire Inspectors is warranted, with clutter at level 6 or above on the CIRS, or if moderate hoarding is present in the context of physical or mental health concerns then a HART response is initiated. In the '*Annual Report of the Vancouver Hoarding Action Response Team 2016-2017*', it was identified that 193 hoarding cases were referred to HART via 311 between January 2016-2017, with 43.5% of referred cases meeting HART's criteria for case management.

As TFS did with the development of their hoarding related practice, HART has defined hoarding and categorises the response by attaching a tier level to the hoarding ranging from Tier 1 which is deemed to require immediate action as a the level of hoarding is deemed severe; Tier 2 requires intervention with clear objectives and deadlines; and Tier 3 allowing for a slower response as the hoarding is deemed not to present an immediate danger.

Like TFS, VFRS Fire Inspectors use the intelligence gathered through their coordinated practice to inform operational fire crews of locations of interest where hoarding is present. For all three tier levels VFRS attribute to hoarding, VFRS submit a location of interest form noting the presence hoarding to VFRS communications in efforts to improve firefighter safety.

As community awareness around HART's practice has increased over time, the volume of hoarding complaints has increased which places significant demand on HART, with the average waitlist time between the initial 311 report of hoarding and the initial inspection identified as 67 days. HART has a maximum of 50 cases being managed at any one time, with additional cases waiting to be accepted as existing cases are closed. In the document, '*Review of the Vancouver Hoarding Action Response Team (HART) 2016*', it was identified that the case load of HART is unsustainable if they are to continue providing the same level of intervention necessary by VFRS and Vancouver Coastal health. The report identified Vancouver Coastal Health had a list of approximately 80 cases, including those that are open and on a waitlist, however they can only reasonably case manage 15 clients at a time.

Addressing hoarding through the legislated responsibilities of fire inspectors to enforce the Fire Code requires significant resourcing from fire services. In HART's 2016 research report it was identified of the cases managed by HART, 4.7 inspections occurred on average per case. And on average, cases lasted 164 days from initial inspection to case closed.

As with TFS, significant penalties can be applied to properties deemed non-compliant with the fire code; yet the practice of HART takes a coordinated approach by including mental health practitioners to support longer term outcomes for affected people. As HART schedule re-check inspections, VFRS Fire Inspectors modify their standard procedure to recognise the mental health aspects of hoarding, which may

include allowing for slower compliance and waiving of inspection re-check fee's, as long as affected people who have been engaged by HART show some degree of cooperation.

VFRS fire prevention personnel have the capacity to issue a Chiefs order, which is a legal document that can be sent to allow access into a home, or to increase pressure to comply with by-law regulations if people appear non-compliant with fire service engagement. VFRS also have the capacity to apply 'do not occupy' orders, which effectively evict a tenant.

The practice of VFRS Fire Inspectors assuming a lead role in responding to hoarding in collaboration along with mental health professionals as part of HART meant hoarding focused training for VFRS members was initially prioritised towards VFRS' fire prevention discipline; which has been expanded to VFRS operational firefighters.

New York City

In contrast to the case studies presented from Vancouver and Toronto where the profile of hoarding was raised significantly following fire related events; New York City could be considered the modern cultural birthplace of hoarding, with hoarding in the public consciousness, as well as FDNY's, dating back to the historical case of the Collyer brothers who lived in their booby trapped Harlem brownstone building, in which they were both found deceased in 1947.

Following the deaths of the Collyer brothers, over 100 tonnes of hoarded items were removed from the building; and whilst there was no fire at their home, the case had a significant cultural influence on the Fire Department of the City of New York (FDNY), to the point organisational short hand language had been appropriated. The term "Collyer's Mansions" became culturally synonymous within FDNY and was used organisation wide- including at the firefighting training academy- to teach firefighters about the increased risks and challenges encountered when hoarding is present.

FDNY firefighters discussed as part of this research that they anticipated encountering hoarding conditions at every structure fire they attended, due in part to the small apartment sizes within the city and a lack of sufficient storage space for residents; but also from their internal culture where they were taught about 'Collyer's Mansions' from their recruit firefighter training onwards.

Whilst unable to obtain FDNY's investigation and review in to the death of Lt Gordon Ambelas for of this research, the NIOSH report in to his death made a number key recommendations, with report Recommendation #5 highlighting the increased risk to firefighters and stated; "Fire departments should ensure that all firefighters are trained on the unique hazards presented by hoarding and standard operating procedures are developed and enforced to provide guidance for fire fighters confronted with hoarding conditions."

Whilst the response to hoarding within TFS and VFRS was primarily focused through their fire prevention disciplines and the enforcement of their jurisdictional fire code to leverage improved safety outcomes; FDNY's response has been focused towards the development of operational procedures and their reinforcement through practical based training for operational firefighters. Recommendation #5 from the NIOSH report following the death of Lt Gordon Ambelas in the line of duty is reflective of FDNY's response.

FDNY advised they recognised the importance of initiating data collection to identify the prevalence rates at which FDNY was encountering hoarding conditions through emergency response rates, and to quantify the organisational and operational risks associated with hoarding.

To support the collection of data, the direction was given to FDNY personnel that an entry noting the presence of hoarding should be made when completing a fire report. FDNY also advised a review of their fire reporting system was being undertaken to identify opportunities to include specific data fields for fire officers to aid systematic data reporting of hoarding.

The intelligence captured by operational firefighters is recorded on their respective dispatch system to alert fire crews to the increased fuel load and risk to increase their awareness and preparedness in the event of any further emergency response to the property. Similar to Canadian fire services, maintaining the currency of information on properties affected by hoarding is challenging for FDNY, particularly in a fire service the size of FDNY, with over 10,000 uniform firefighters and over 3000 EMT's and an estimated population in 2017 of over 8,500,00 in New York City. FDNY advised that hoarding related property information is largely obtained through their own emergency response data collection, advising that the respective health and data privacy legislation is a barrier to external agencies referring properties affected by hoarding to them.

Whilst the term 'Collyer's Mansion' had been colloquially used within FDNY, there was recognition of the need for shared, consistent and appropriate language to benefit operational practice and to support personnel to report their observations when identifying hoarding. Subsequently, the directive was given to all personnel to cease use of the term 'Collyer's Mansion' and the phrase "clutter conditions" was to be used.

For consistency of practice, FDNY implemented a variation of the Clutter Image Rating Scale as a tool for assessing the level of clutter and categorised hoarding in to 'Light Clutter', 'Medium Clutter' and 'Heavy Clutter'.

In the progression of hoarding related operational firefighting practice, FDNY published the following directive; "It is important for members to communicate the presence of a clutter condition when it may impact operations. When discovered, members should communicate the degree of clutter (light, medium or heavy) and its

impact on operations. The steps being taken to overcome the problem(s) and any additional resources that will be needed should be relayed to the Incident Controller (IC). The IC will need to adjust strategy and tactics and/or request additional resources if necessary that at emergency incidents where hoarding impacts their operational response.” When ‘clutter conditions’ are identified by FDNY firefighters, it is not uncommon for them to transmit additional information and messaging via radio for oncoming fire crews and typically includes language similar to; “clutter conditions present, search will be delayed.”

The progression in operational practice also involved the implementation of hoarding specific operational considerations and actions which included information relating to access and egress; member safety; and search, fire suppression and EMS activities.

FDNY has existing referral procedures for people affected by hoarding with FDNY EMS personnel to making referrals to Adult Protective Services for older people residing in hoarding affected properties and firefighters referring affected people to the New York City Department of Health and Mental Hygiene. Anecdotal information was that FDNY EMT’s will have firefighters dispatched when they observe hoarding to quantify the risk and increase their own awareness of the risk and its location.

FDNY also routinely publish information and training articles related to hoarding including operational reviews of hoarding fires/ incidents and the use of appropriate language when engaging with people affected by hoarding.

Unique to FDNY was the development and implementation of practical hoarding training for all firefighters. Conducted at FDNY’s firefighter training academy, hoarding conditions are simulated within residential structure training props and firefighters conduct search and rescue drills in breathing apparatus with blacked out face pieces to reinforce their hoarding specific operational procedures and train for high impact events that significantly impact firefighters ability to undertake effective search and rescue. These drills also force firefighters to consider alternate means of entering a burning home where hoarding is present, including breaching the walls or using ladders to go through a window, and it is “extremely hazardous” to climb atop debris because it could inadvertently lead them out a window.

From preliminary research identifying potential fire and rescue services to support this research, a number of fire services provided the material they use for internal firefighter training and external presentations to various stakeholders. A review of these training materials consistently identified firefighters provide a historical reference point of hoarding, which typically references the Collyer brothers from New York City.

Recognising a gap in state-wide practical firefighting training involving hoarding following the death of Lt Ambelas and a number of near misses involving firefighters, two FDNY firefighters, Captain Ken Begbie and Firefighter Bob LaGrow, both firefighter instructors with New York State qualifications approached the New York

State Association of Fire Chiefs (NYSAFC), for whom they had done previous training for with a proposal to undertake theory based hoarding training for firefighters across nine counties of the state of New York.

NYSAFC supported the proposal and facilitated the state-wide hoarding training seminars which were called “Collyer’s mansions and Hoarder Homes, A Firefighters worst nightmare.” The position they advocated when training firefighters state-wide was for firefighters to fall back on their procedures and to still to be tactically “aggressive”, but to be “knowledgably aggressive” when encountering situations involving hoarding.

Additional Stakeholders

The risks to firefighters are unique in emergency situations involving hoarding, with fire services having only one interest in people affected by hoarding- that is the risk of fire. Whilst fire services may take a lead role in responding to hoarding, a number of agencies have a responsibility under the funding arrangements of their service provision to engage people affected by hoarding, which can often include community and public housing providers where the tenancy of social housing residents may be at risk as a result of their hoarding behaviour.

In the city of Boston, Massachusetts, the response to hoarding has been led by Metropolitan Boston Housing Partnership (MBHP), who in 2006, in partnership with the Boston University School of Social Work developed a strategy to address hoarding with the goal of reducing evictions caused by hoarding. MBHP developed a hoarding intervention model using case management that merged risk reduction strategies with cognitive-behavioural therapy techniques.

The success of this initial pilot led to a joint partnership with the Boston Tenancy Preservation Project (TPP) in a program known as the Hoarding Intervention and Tenancy Preservation Project which was aimed at assisting individuals and families with mental illness, addiction disorders, or developmental disabilities at-risk of eviction. Of the program participants, 98 per cent of referrals to the program were able to maintain their housing, avoiding eviction or loss of their housing subsidy due to hoarding behaviour.

Participants were able to substantially reduce the volume of clutter and maintain their homes in a safer fashion. In addition, the program has been able to create change in the way government and judicial systems respond to cases of hoarding, working with state and local governments to identify practices and policies that could be modified or changed to better support residents with hoarding behaviours. Based on these successes, the model is being replicated in other cities including San Francisco; Burlington, Vermont; and Bedford and Burlington, Massachusetts.

Whilst the success of the MBHP program is evident and the Greater Boston area houses a number of the leading researchers and practitioners in relation to hoarding disorder, across the disciplines of psychology and social work, approaches to the fire services to join hoarding taskforces in the region have been unsuccessful in some instances. This may be reflected in the organisational priorities of fire services within the region.

Boston Fire Marshalls provided a tour of their geographical response area, and it was evident that opioid use in the region had a significant impact on the operational response of Boston Fire Department. Whilst Boston Fire Marshalls indicated that hoarding was not their highest organisational priority, their advice was that hoarding was an issue that significantly impacted firefighting operations, and that anecdotally

the organisation referred people affected by hoarding on to the most appropriate agency to engage and support affected people.

Hoarding Taskforces

Whilst the operational practice of the fire services in Vancouver, Toronto and New York were the most advanced of the larger fire departments I visited, there are a number of smaller fire departments driving organisational change in relation to hoarding, reflected in the movement towards creating coordinated hoarding taskforces that convene with membership from various stakeholders including housing providers, health department personnel and additional emergency service agencies.

Whilst the goals and functions of hoarding taskforces vary, they are usually convened to develop coordinated policy and practice to respond to cases involving hoarding. Membership of the taskforces usually includes participation from social services, housing providers, compliance and code enforcement authorities, regional mental health service providers and fire and other emergency services.

The formation of hoarding taskforces is not a new practice, with Orange County Hoarding Taskforce (OCHT) in California recognised as one of the longest standing hoarding taskforces in the United States. OCHT had previously had fire service representation from a fire inspector from the Orange County Fire Service; however, the retirement of that fire inspector saw fire service engagement with the taskforce end, with the hoarding taskforce unable to influence further membership from the fire service.

The success of enduring hoarding taskforces is reflective of their strategic purpose and direction, with hoarding taskforces commonly folding for a variety of reasons including; an unclear purpose to begin with, attempting to take on too much too soon rather than focusing on one goal at a time, an inability to create partnerships and negotiate outcomes in relation to hoarding, taskforce members going beyond the requirements or scope of their organisational role out of a desire to assist affected people yet with staff attrition- replacement personnel are unable to fill the void; and a lack of data/statistics which highlight prevalence rates and associated impacts and costs, both financially and in the time required in efforts to reduce the risk- which they described as critical when attempting to acquire additional funding.

The difficulty and ability of hoarding taskforces to draw membership by fire services is also reflected in Massachusetts. It is the case that educational institutions in Massachusetts have a number of the leading researchers and practitioners in relation to hoarding across both psychology and social work disciplines, including Professor Randy Frost who was instrumental in having Hoarding Disorder added to the DSM-5, yet, he advised his approaches toward fire services for hoarding network membership have gone unmet.

Demonstrating the organisational tensions that exist in prioritising an organisational focus; the priorities of the North American fire services varied, but consistently referenced emerging trends involving threats of terrorists using smoke and fire as weapons; firefighters responding to incidents involving 'active shooters'; and the use of opioids across the nation impacting emergency medical response from firefighters and/or Emergency Medical Technicians.

This may be reflective of practice of other fire services, both internationally and in Australia, that organisational practice by fire services is influenced by operational trends at the time; and without research and data on the organisational impact of a specific risk the organisational response and exposure, in this case to hoarding, cannot be quantified.

There were limited examples of engagement between emergency service agencies (police/ambulance/fire) at a strategic level, but most notably Police and Paramedic services participated in the practice of SPIDER in Toronto. The agencies use the structured framework of the program as an opportunity to share intelligence regarding people and properties affected by hoarding that may not have existed at an operational level.

At a local hoarding taskforce level in Orange County, the Police department had made a training video, in collaboration with the Mental Health Association in Orange County, for police officers on how to engage with people affected by hoarding.

Observations and Recommendations

Whilst MFB's research underpins its existing practice, there is potential application for a number of the observations made during this research to influence MFB's hoarding related practice, particularly in relation to the training of operational firefighters.

At a national level there has been significant reform across both the Aged and Disability sectors respectively, which has seen the responsibility for funding revert to the Commonwealth Government and the implementation of a Consumer Directed Care model with dedicated national entry points for assessment and service provider allocation. Subsequently, service providers are increasingly working across state boundaries in their service provision role, with these organisations having expectations that the hoarding policy and practice of one fire service is duplicated across each of the fire services' jurisdiction. This reform should be considered as a catalyst to align the hoarding related policy, practice and stakeholder engagement of all Australian Fire Services and ensure that good, sustainable practice that best serves the interests and resourcing capabilities of the fire services becomes the model nationally.

The Metropolitan Fire Brigade is the agency lead, in collaboration with fire services from several other states, supported by the Australasian Fire and Emergency Services Authority Council (AFAC) in the formation of a fire services working group. The purpose of this is to align the organisational policy, practice and engagement of Australian fire services in relation to hoarding. The observations in this report may provide new information for fire services to consider when developing shared policy and practice.

- **Shared definition of hoarding**

The experience of significant hoarding fires for these North American fire services led them to develop a definition of hoarding to provide a framework for firefighters to understand what they were seeing and to operationalise the purposeful application of their respective fire codes; and to support firefighters to articulate their observations in efforts to provide an increased safety outcome and to varied based on the terminology used by defining.

Whilst the terminology and phrasing differed between the fire services, the definitions consistently referenced the acquisition of items and the impact it had on the ongoing health and safety of affected people.

MFB currently uses the Victorian State Government definitions of hoarding and squalor as a participant on the state-wide taskforce and signatory to the published resource. Australian Fire Services may benefit from developing a shared definition, endorsed by AFAC, which differs from clinical based definitions

and references the increased risks of fire to affected people, their neighbours and firefighters.

- **Implementation of consistent and appropriate language**

In the experience of the three respective fire services discussed in the case studies, the need to implement specific, consistent and appropriate hoarding related language was identified. Historical practice had contributed to the cultural appropriation of various terminologies and inconsistent use of language, but as each of the incidents occurred, subsequent actions saw the benefit of implementing consistent language to support organisational practice and underpin the respective organisational definitions of hoarding.

MFB implemented the use of the phrase hoarding/high fuel load when referring to hoarding, which was chosen as 'high fuel load' references the risk to firefighters, reflecting the one interest of fire services in people affected by hoarding- which is the risk of fire.

The fire services hoarding working group may consider developing and implementing shared terminology across all Australian Fire Services when referring to hoarding to aid interoperability across fire service jurisdictional boundaries and support consistent fire service engagement with external stakeholders.

- **Reinforcement of the existing policy and practice framework at a state level**

MFB's policy, practice and engagement is underpinned by the framework established in the Victorian Department of Health and Human Services hoarding resource for service providers, which outlines the expected response from every State and Commonwealth Government funded service provider within their existing service provision arrangements.

The state-wide taskforce was convened in 2013, which was followed by the publishing of the resource for service providers. There appears to be limited awareness of the document across the relevant agencies and inconsistent application of the response framework, which has contributed to the document losing its currency.

MFB should continue to advocate at a State policy level to have the state-wide hoarding taskforce reconvened to revisit the resource, and review the effectiveness of current practice and referral pathways for people affected by hoarding and squalor.

MFB should also continue to use the state government resource to engage and influence the additional emergency service organisations that are signatories to

the resource, including police and ambulance services, and promote to these organisations that they are at risk if they capture intelligence regarding people affected by hoarding through their own operational response and fail to refer them on to the agencies funded and equipped to respond.

These emergency service organisations should develop hoarding specific policy and practice, looking through the lens of the risk of fire, and that clutter increases the opportunity for ignition and can significantly impact the affected person's ability to evacuate in the event of a fire or other emergency, and impede the ability of firefighters to undertake effective search and rescue techniques.

- **Developing a nationally endorsed risk reduction advice model**

Hoarding is a complex mental health condition, with affected people difficult to engage without some form of leverage. Treatment is primarily focused through Cognitive Behavioural Therapy and peer support type programs, with motivation a significant factor for people affected by hoarding. Research has identified that the most effective approach in achieving a longer term outcome is engagement in the first instance, followed by risk reduction and the slow removal of items.

Whilst Fire Inspectors in Canada have legislation that can be used as a tool to leverage engagement with people affected by hoarding in efforts to achieve an improved safety outcome, MFB has no capacity to enforce any by-law or undertake any fire code related enforcement activities to reduce the risks associated with hoarding.

The code enforcement by Fire Inspectors is based on the principle of strategic risk reduction, evidenced in Toronto where Fire Inspectors clearly articulate the measures required to be undertaken to be deemed compliant with the fire code.

These measures are representative of MFB's risk reduction model which is underpinned by research, and has application across existing service providers. Consideration should be given amongst all Australian fire services in developing a joint risk reduction model in efforts to align the policy, practice and engagement of fire services.

- **Data collection**

The experience of FDNY following the death of Lieutenant Ambelas in the line duty highlighted the need for the fire service quantify the organisational risk, to identify the prevalence of hoarding within their respective emergency response rates, and to identify clear and systematic pathways for firefighters to report the risk of hoarding.

Whilst MFB's research has identified the frequency of emergency response rates involving hoarding and/or squalor, this research was challenging and resource intensive as there were no established pathways for reporting hoarding, and a lack of consistent language used to describe hoarding.

Whilst Fire and Rescue New South Wales implemented a trial through their electronic reporting systems, which saw a significant increase in operational reporting rates of hoarding information, and the Australian Capital Territory Fire and Rescue service implemented a drop down box within the fire reporting system to capture hoarding information, there has been no consistent approach to hoarding data collection nationally.

A review of the national AIRS fire reporting system should be undertaken by the fire services hoarding working group to identify and implement methods for firefighters to systematically report hoarding related data from emergency response to accurately capture the true impact of hoarding on Australian fire and rescue services.

Nationally, information should also be collected to establish a baseline related firefighter injuries which occur when responding to residential properties affected by hoarding.

- **Currency of information**

Fire services were effective in capturing intelligence related to hoarding affected properties through their emergency response; however the larger fire services had difficulty in maintaining the currency of information in relation to hoarding affected properties.

In Canada, the issue arose once a property was deemed compliant with the Fire Code. Any hoarding specific information attached to a property of interest was removed with no capacity to reinvestigate any potential re-escalation of hoarding. Whilst in New York, information was attached to properties following an emergency response, but there was no way to reinvestigate whether the hoarding remained unless there was an additional emergency response to the property

Smaller fire departments that provided their own dispatch and emergency response appeared to be more responsive and flexible which was evidenced in the fire department in Framingham, MA. For larger fire departments, it may not matter how organised they are, maintaining the currency of information is challenging.

MFB implemented its Hoarding Notification System with the responsibility to register hoarding affected properties resting with MFB's external stakeholder agencies. A discreet electronic alert is placed on a property address, with a

notification lasting 18 months, at which point the referring person or agency must renew the notification to maintain the alert on the property address.

MFB practice was developed on a third party relationship model. This is where agencies working with affected people are advised about the risk and then provide an address to the MFB. This ensures information used for safety purposes flows both ways. This model also utilises the relationship between the third party and the affected person, usually a service agreement inclusive of privacy and consent clauses, to maintain the currency of the data via an automated renewal.

- **Continued development of hoarding related training for firefighters**

There are opportunities to further develop practical training involving hoarding for MFB firefighters. As evidenced in the practice of FDNY who implemented practical hoarding related training for firefighters following the death of Lt Ambelas in a hoarding fire- the risk to firefighters is significant.

MFB firefighters are currently provided theory based hoarding training underpinned by research as part of their skills maintenance training regime, as well as in recruit firefighter training and promotional courses.

Theory based hoarding training for fire services should reference the unique and powerful position firefighters are in as emergency responders in an agency likely to identify people and properties affected by hoarding through an unplanned emergency response.

Attendance from emergency service personnel may leave affected people feeling deeply exposed and vulnerable. Whilst an initial reaction of surprise or shock from firefighters/emergency services personnel at the living conditions experienced by people affected by hoarding, firefighters must move on quickly as their initial response likely sets the framework for any additional agencies or service providers that may be engaged.

Additionally, the responsibility to engage affected people may not necessarily lie with an officer of the fire department, but rather with any firefighter who has the temperament and technical skills to engage the affected person and develop a meaningful relationship.

Whilst the framework for firefighter training is linked to qualification standards, a body of world first research identifying MFB firefighters respond to an emergency incident every 4 to 6 days has the potential to influence practical operational firefighter training.

Further practical training opportunities should be investigated between MFB's training and education departments and *At Risk Groups*. Firefighters undergo practical training for high risk, low frequency events such as petrochemical fires,

yet firefighters currently have no practical training for events involving hoarding which are high frequency, high impact events.

- **Further investigation in to firefighter deaths at fires involving hoarding**

The hoarding fire involving the death of FDNY Lt Gordon Ambelas is not an isolated incident. The NIOSH report in to his death noted additional firefighter fatalities at hoarding affected properties, involving both career and volunteer firefighters.

Anecdotal information provided by FDNY firefighters indicated a number of these firefighter fatalities involved firefighters being found with their breathing apparatus face mask removed, and air remaining in the breathing apparatus cylinder.

The MFB led AFAC member Hoarding Group should maintain a watching brief on firefighter deaths and injuries in relation to hoarding to remain aware of the potential risks.

Appendix 1. MFB's existing hoarding policy and practice

- Research – developed world first research on hoarding and squalor incidents which also now includes a state wide study of emergency incidents involving hoarding and squalor in partnership with CFA. This study identified 170 emergency incidents between 2012 and 2015 involving hoarding and squalor.
- Risk Reduction Advice – developed hoarding fire risk reduction advice in 2009. It has been available on both the MFB and CFA internet for affected people, their families and friends and the agencies which support them and/or are legislated to develop interventions.
- Hoarding Notification System – developed the Hoarding Notification System which attaches a discreet electronic alert onto affected properties to alert operational firefighters when turning out to an emergency at a hoarding property. This is the first systematic response developed by a fire service in Australia.
- Emergency Response Guidebook – developed advice and considerations for operations in relation to hoarding and squalor has been included in the MFB Emergency Response Guidebook for over four years. The new joint MFB and CFA edition currently being developed will also include this information.
- Training – developed information about hoarding is provided in a range of MFB operational promotional courses including Recruits, Leading Firefighter, Station Officer, Senior Station Officer and Commander level courses.
- Residential Risk Referrals – firefighters can refer residential properties identified with hoarding and/or squalor to At Risk Groups for follow up. A referral will result in the individual being referred for assessment and/or support to address the ongoing risk. Advice and information is also available to affected people, their families and friends including a wide range of agencies providing either support and/or intervention.
- Hoarding Inspections – conducts hoarding inspections by order via the Victorian Civil Administrative Tribunal (Civil List, Guardianship List, Residential Tenancies List), Magistrates Court and at the request of an external agency (local government, community care agency) with the consent of the occupant. A report is compiled identifying the risks and providing risk mitigation advice.
- Engagement – represents MFB on various regional hoarding network groups including participation in the Department of Health and Human Services State wide Hoarding and Squalor Task Force. At Risk Groups regularly presents on hoarding and risk to various government funded agencies and programs including local government Health, Local Laws, Building Inspection and Compliance and Aged and Disability Departments, Acute Health Social Work Occupational Therapy and other Allied Health workers, sub-acute Social Work and Rehabilitation services, Not for Profit providers of community aged and disability services, Victoria Police, Coroners Court of Victoria and the State Gerontology Training Board.