



SCDF

The Life Saving Force

... for a safer Singapore

FSM Briefing 2022: Fire Statistics and Case Studies

28 July 2022

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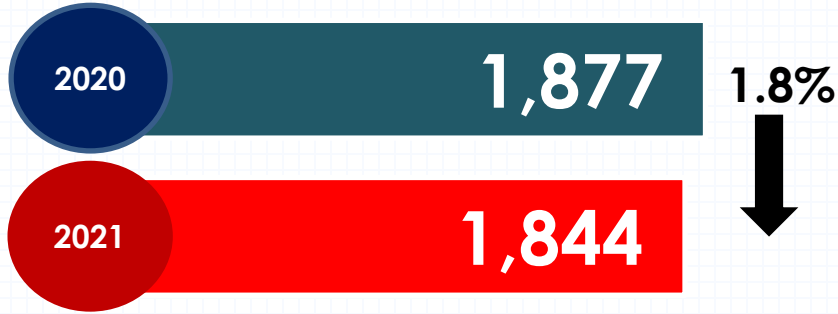


Scope

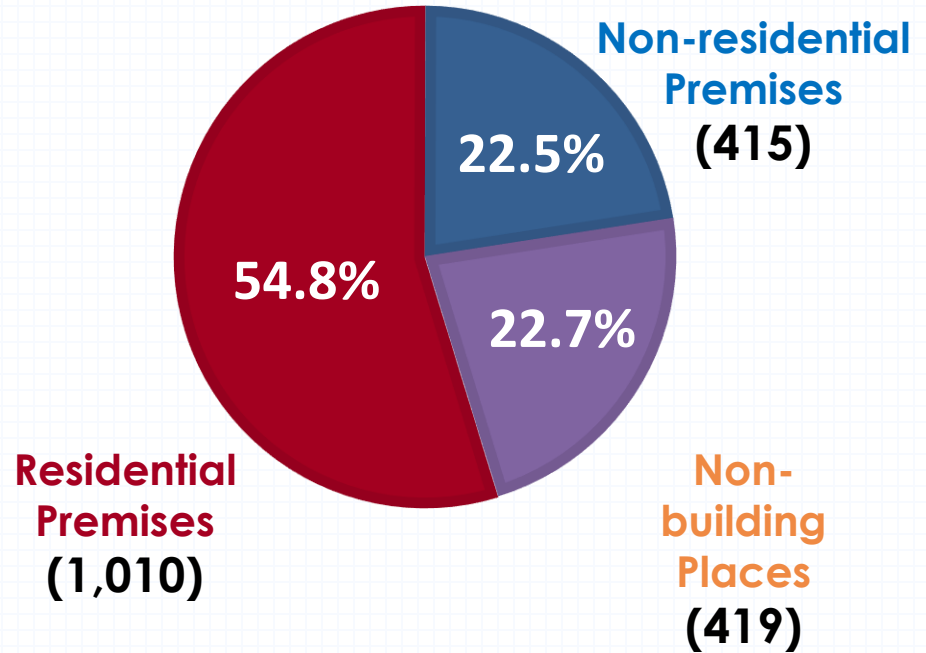
- Fire Statistics
- Case Studies & Safety Tips



Total Fire Calls



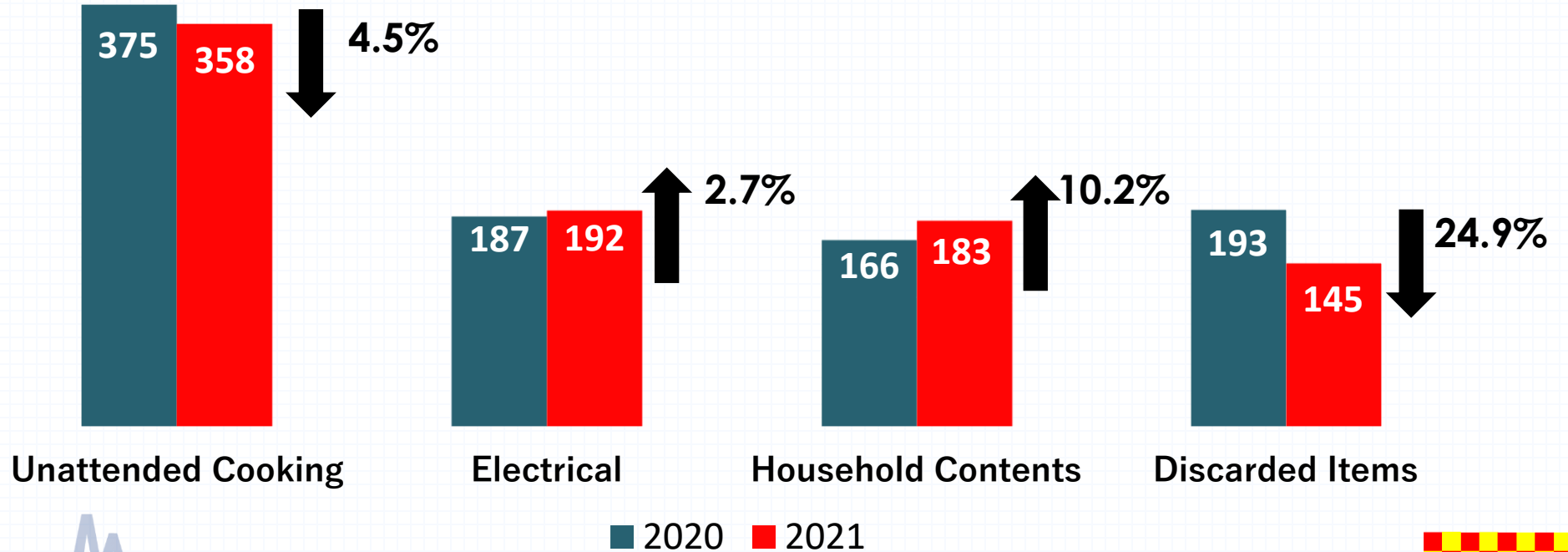
Breakdown of Fire Calls



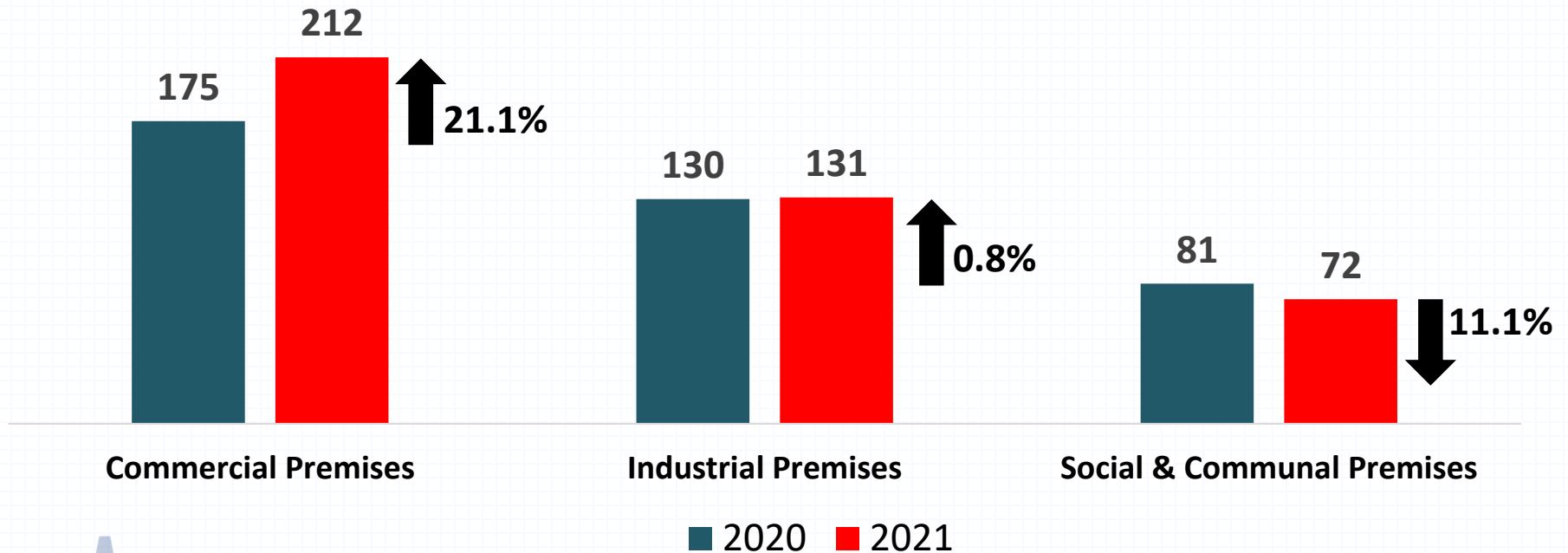


Cause
of fires

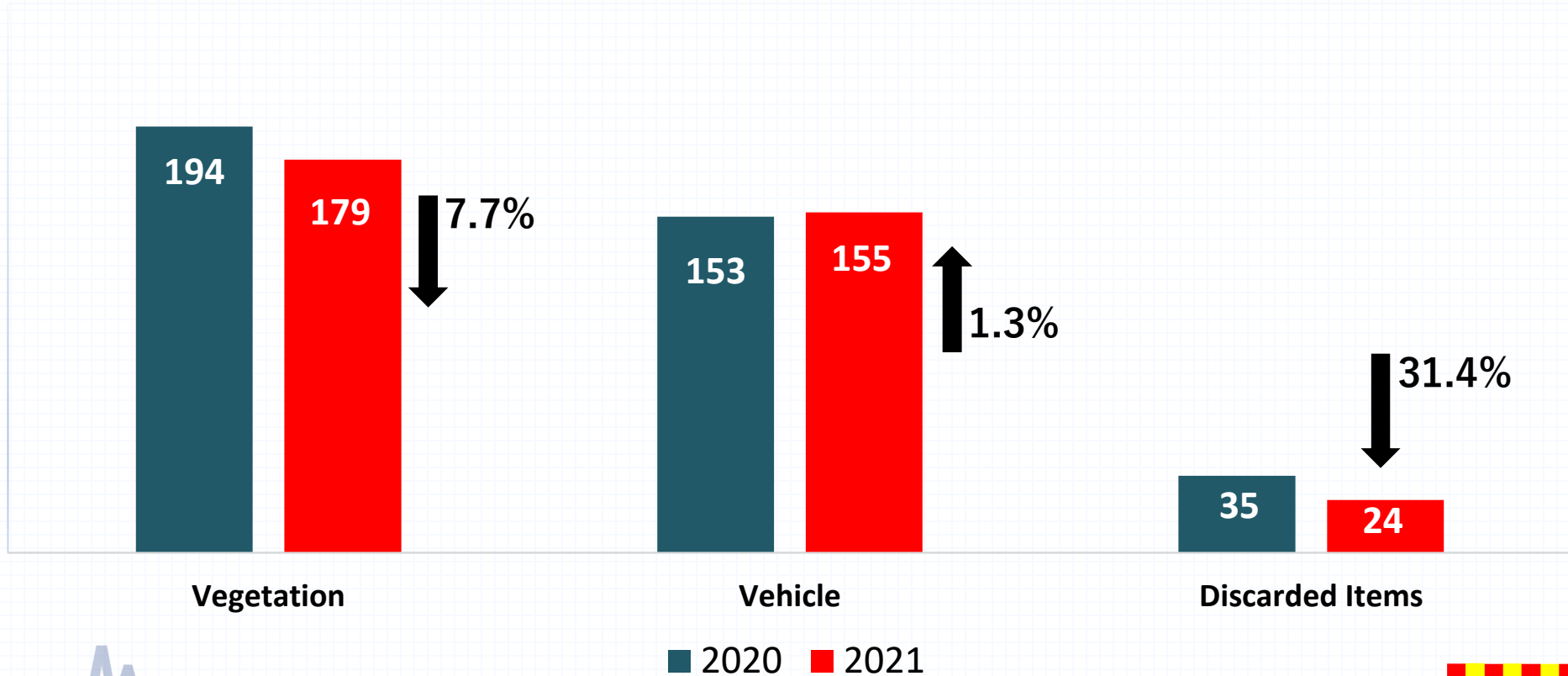
Common types of Fires in Residential Premises



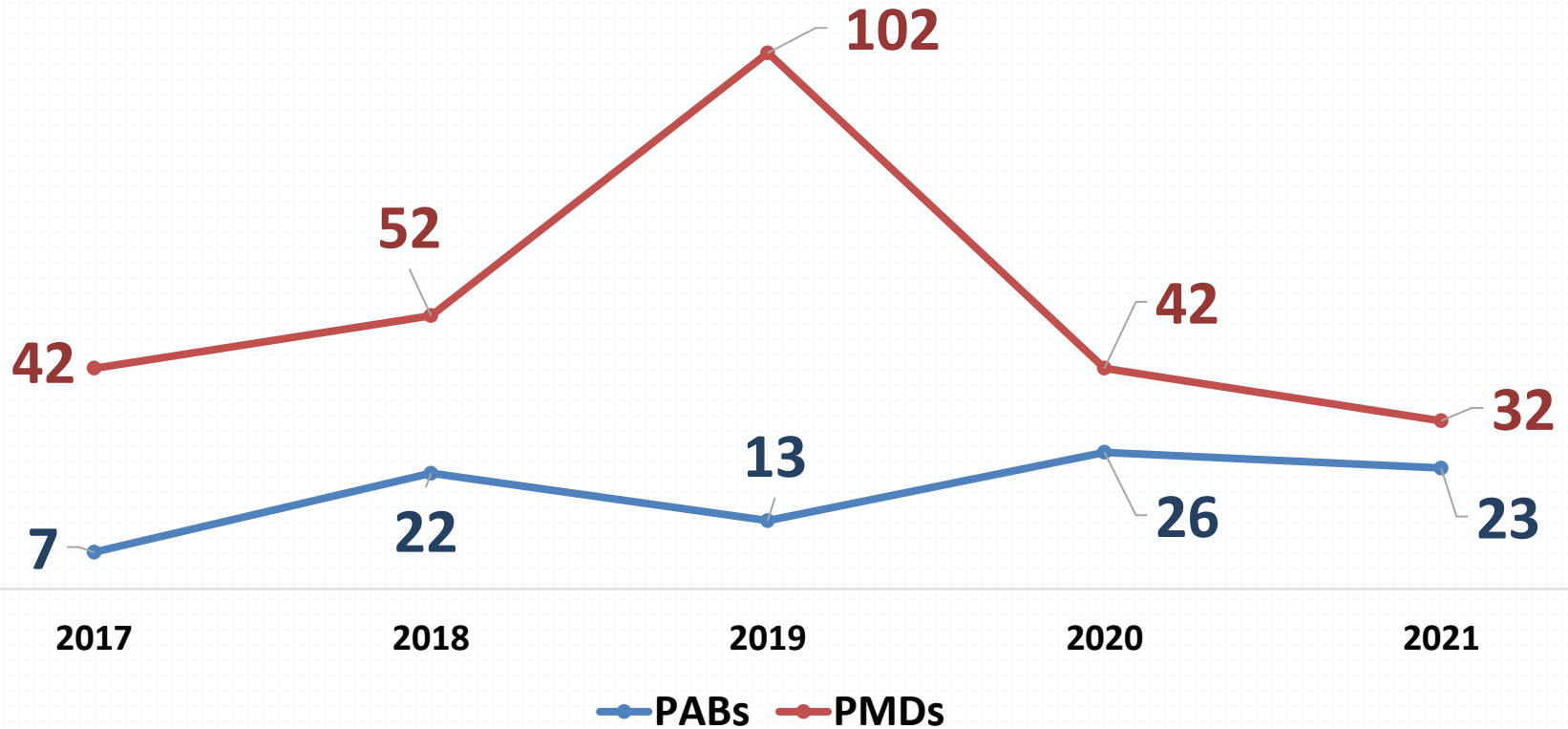
Breakdown of Fires at Non-Residential Premises



Breakdown of Fires at Non-Building Places



PMD and PAB Fires Over The Last 5 Years

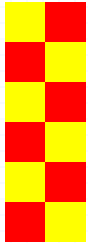




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Case Studies & Safety Tips



Case Study #1

Electrical Fire at Retail Shop

- Fire originated from wall switches and was extinguished by sprinklers.
- Although, fire damage was localised, the water damage affected the shops from level 2 to basement 1.



Common signs of faulty switches

Temperamental switch

- Lights that take a longer time or flickers before turning on completely could be a sign that the metal component inside the switch is wearing out.
- It is likely failing to make a complete electrical conduction needed to complete the circuit.



Noisy switch

- Faulty switches can make a variety of sounds such as clicking, sizzling, popping or buzzing noises.
- It can be caused by loose connection.

Switch is warm to touch

- A standard switch is generally cool to touch.
- If the switch is feeling warm, it is a sign of faulty.
- The heat could be caused by improper flow of electricity

Sparking switch

- It is not uncommon to see sparks coming from the switch when switching on or off.
- This happens when electricity jumps between the connection as they are pull apart.
- However, larger sparks is an indication of a fault.

Fire Safety Tips

Loose / Improper Connection

- Increase resistance in the circuit.
- High resistance causes overheating.
- Arcing may occur with frequent making / breaking of contacts.
- May ignite the conductors or nearby combustibles.

Have a Licensed Electrical Worker to Perform Regular Checks / Servicing




Case Study #2

Workstation Fire in an Office

- Fire originated from electrical devices connected to a Portable Socket Outlet.
- Common **electrical devices** e.g. Workstations, laptops, chargers, fans, power banks all found 'switched on' / energized in nearby desks.



Some tips on electrical devices safety

1. Always ensure your product bear the safety mark. 
2. Keep electrical appliance clean and in good working order.
3. Use adaptors and chargers that are compatible with the devices.
4. Don't leave devices charging overnight.
5. Devices like hair dryer/straighteners can get very hot –always switch them off and leave them to cool on a heat proof surface.



Fire Safety Tips

Overloading

- Occurs when current exceeds rated capacity.
- Excessive current can cause heating, melting and insulation damage to the wires/cables, possibly starting a fire.
- May ignite the conductors or nearby combustibles.

Never overload electrical outlets with electrical appliances



Case Study #3

Power Supply Room Fire

- Fire involved the contents of an electrical distribution box.
- Although fire was confined to the distribution box, there were power disruptions to sections of the mall which resulted in the evacuation of public.
- Prompt actions by CERT helped in the prevention of fire spread and the safe evacuation of public.



How else can CERT/FSM help?

- Post Fire :

To assist in fire investigation

- ✓ providing pre-fire information e.g building plans, layout map, retrieve CCTV footages etc.
- ✓ providing information about the firefighting / evacuation efforts.



Case Study #4

Overheating of the contents of wok in a Kitchen

- Fire originated from wok that was left unattended on the stove.
- Prompt actions by kitchen staff helped in extinguishing the fire.



Unattended Cooking Fires

Overheating of the contents

- Do not leave cooking unattended; turn off all the cooking appliances and unplug them when not in use.
- Keep flammable liquids (e.g cooking oils and wine) and combustible materials e.g.(paper and batteries) away from the heat sources.
- Do not use water on hot oil.
- To abide by the regulatory requirements to clean & maintain every 12 months.



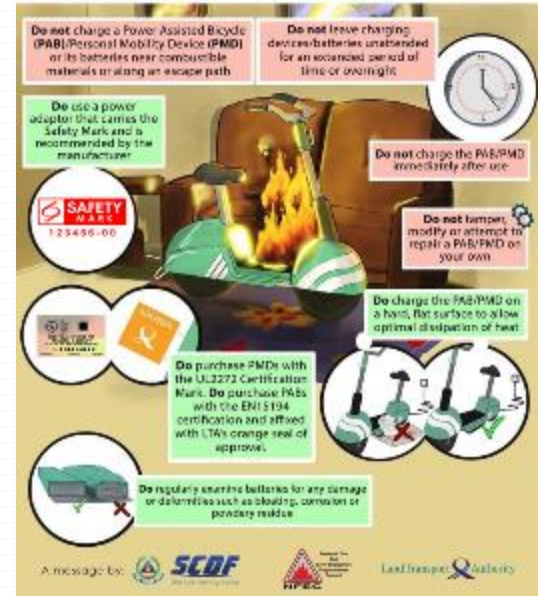
Do not leave cooking unattended; extinguish all open flames or off the electric appliance when not in use

Active Mobility Devices Fires

- Occurs during charging, as well as stationary and in motion.
- About half of the involved devices had some forms of modification.
- Overheating can cause thermal runaway in batteries leading to ignition.
- May ignite nearby combustibles

Adhere to the rules and regulations of use and use compliant devices and accessories

Fire Safety Tips for PMDs and PABs



**Thank You for Being Part of
Fire Safety Family!**

