

Prevention and first aid for child thermal injuries – what is new, what is possible?

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Why burns? Why children? Why prevention?



- Under 10 years burns are a major cause of death
- 5th most common cause of non-fatal childhood injuries
- Stigma, disability, rejection
- Substantial inequalities with steep social gradient
- Children disproportionately affected - vulnerability, sensitivity
- Evidence from systematic reviews & meta-analyses
- HIC interventions yet to be widely applied elsewhere



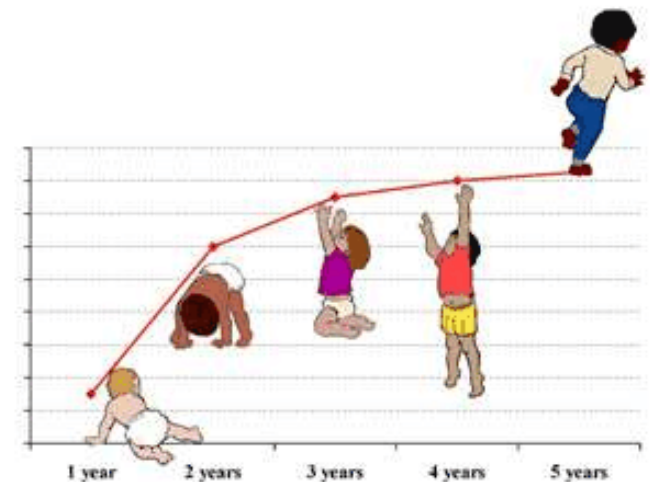
TABLE 1.2**Unintentional injury death rates per 100 000 children^a by cause and country income level, World, 2004**

| | UNINTENTIONAL INJURIES | | | | | | TOTAL |
|-------|------------------------|----------|------------|-------|---------|--------------------|-------|
| | Road traffic | Drowning | Fire burns | Falls | Poisons | Other ^b | |
| HIC | 7.0 | 1.2 | 0.4 | 0.4 | 0.5 | 2.6 | 12.2 |
| LMIC | 11.1 | 7.8 | 4.3 | 2.1 | 2.0 | 14.4 | 41.7 |
| World | 10.7 | 7.2 | 3.9 | 1.9 | 1.8 | 13.3 | 38.8 |

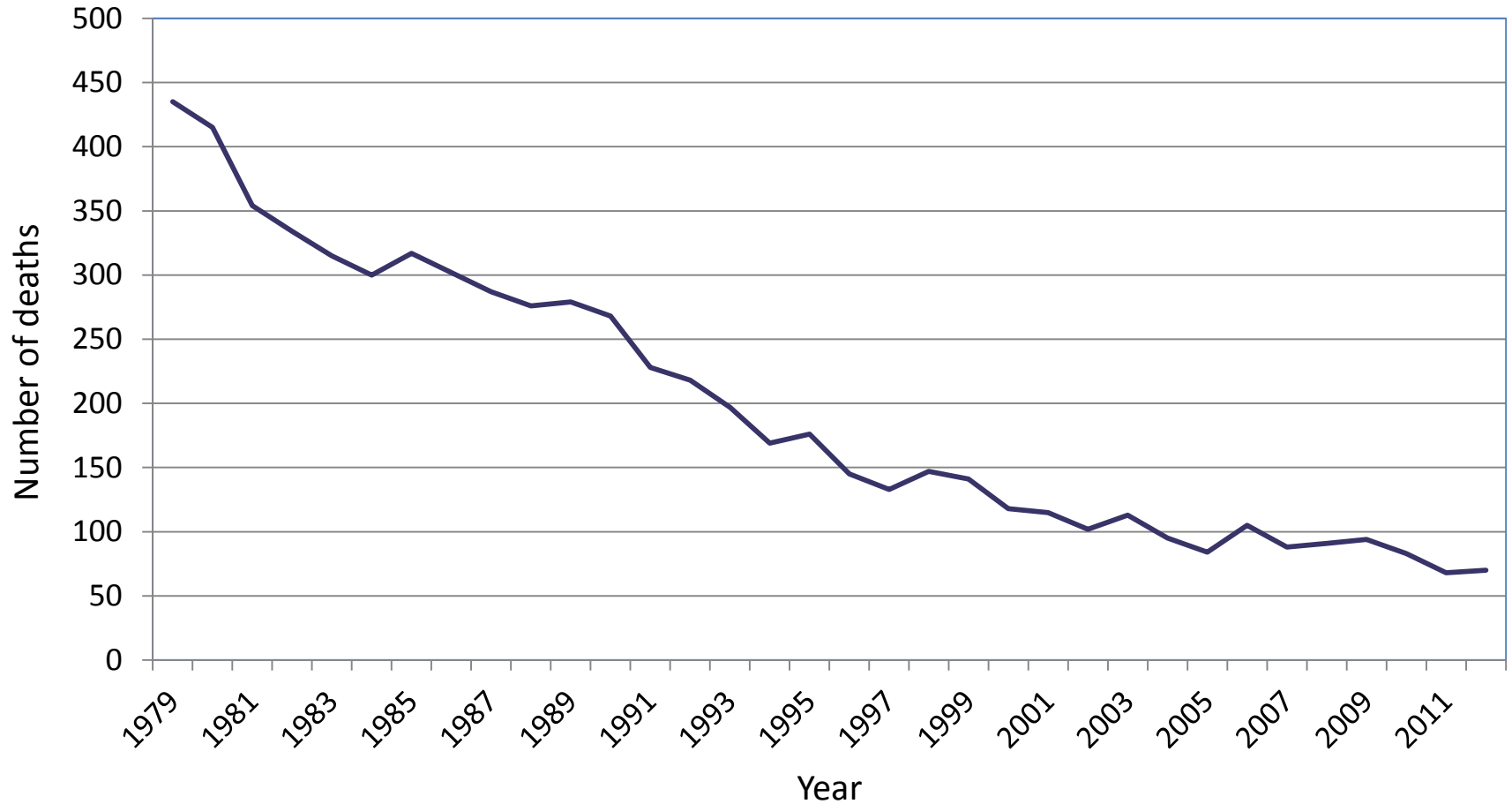
WHO, 2008

Injuries and child development - the susceptibility of the child

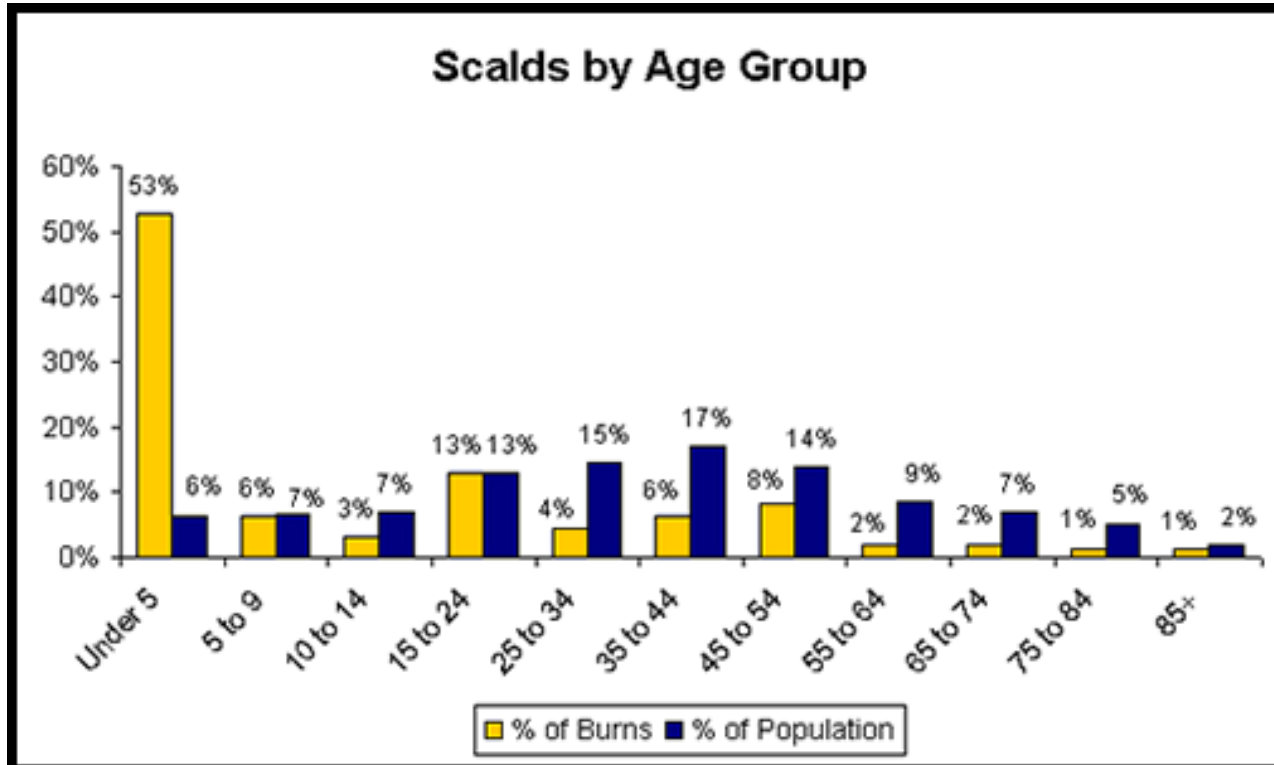
- Not just small adults
- Anatomical and physical characteristics
- Physical abilities - gross and fine motor skills
- Curious
- Cognitive abilities
- Speech and language development
- Social and emotional development
- Risk behaviours



Unintentional injury deaths, under 5s England and Wales, 1979 - 2012



Distribution of scalds by age group



iBID, UK

Keeping Children Safe is.....

- a 5 year NIHR Programme Grant for Applied Research
- a series of 17 interlinked studies
- 6 linked research questions
- being conducted in four research centres in England:
 - Nottingham, Bristol, Norwich and Newcastle.

Studies included:

Systematic reviews, meta-analyses, 3 case-control studies, surveys and interviews with parents, surveys and interviews with children's centre staff, IPB developed, randomised controlled trial

Keeping Children Safe at Home case-control study

Aim: to examine the relationship between modifiable risk factors and scald injuries in young children.

Main findings:

- Hot drinks can scald young children up to 15 minutes after they have been made
- Keep kettles/saucepans out of reach/back of work surface
- Safety gates at kitchen door reduced incidence of scald
- Supervision of babies/young children when running a bath
- Never pass hot dishes/drinks over child's head.



Children's Burns Research Centre

Mission: to develop a UK research centre of world-leading excellence

Who are we: a consortium of 4 universities and a health trust

Funding: The Healing Foundation charity for five years with support from the Welsh Assembly (Government)

Research themes:

- clinical management
- psychosocial adjustment & rehabilitation
- prevention



<http://www.bristol.ac.uk/social-community-medicine/childrens-burns/>

First-aid evidence



1. **COOL** for 20 minutes under running water

Run cool water
over area of
burn



2. **CALL** for help – 111, 999, or local GP for advice

3. **COVER** with cling film or clean non-fluffy cloth



Burn First Aid

If your child or someone you know is burned, take the following action:

Remove clothing and jewellery

- Immediately remove clothing and jewellery from the burnt area.
- Clothing can hold heat on the burnt area. If swelling occurs, jewellery can block blood flow to the burnt area.



Cool with running water

- Apply cold running water for 20 minutes.
- Keep the rest of the patient warm to prevent hypothermia.

Cover and protect the burnt area

- Use clingwrap or a clean cloth to wrap the burnt area.
- Do NOT use ice, oil, creams or other substances.

Seek medical attention

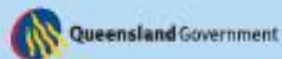
- Seek medical attention for all burns to children or the elderly or for adult burns larger than a 50 cent coin.



Do not use ice

For further information

www.coolburns.com.au



What to do if your child is burned



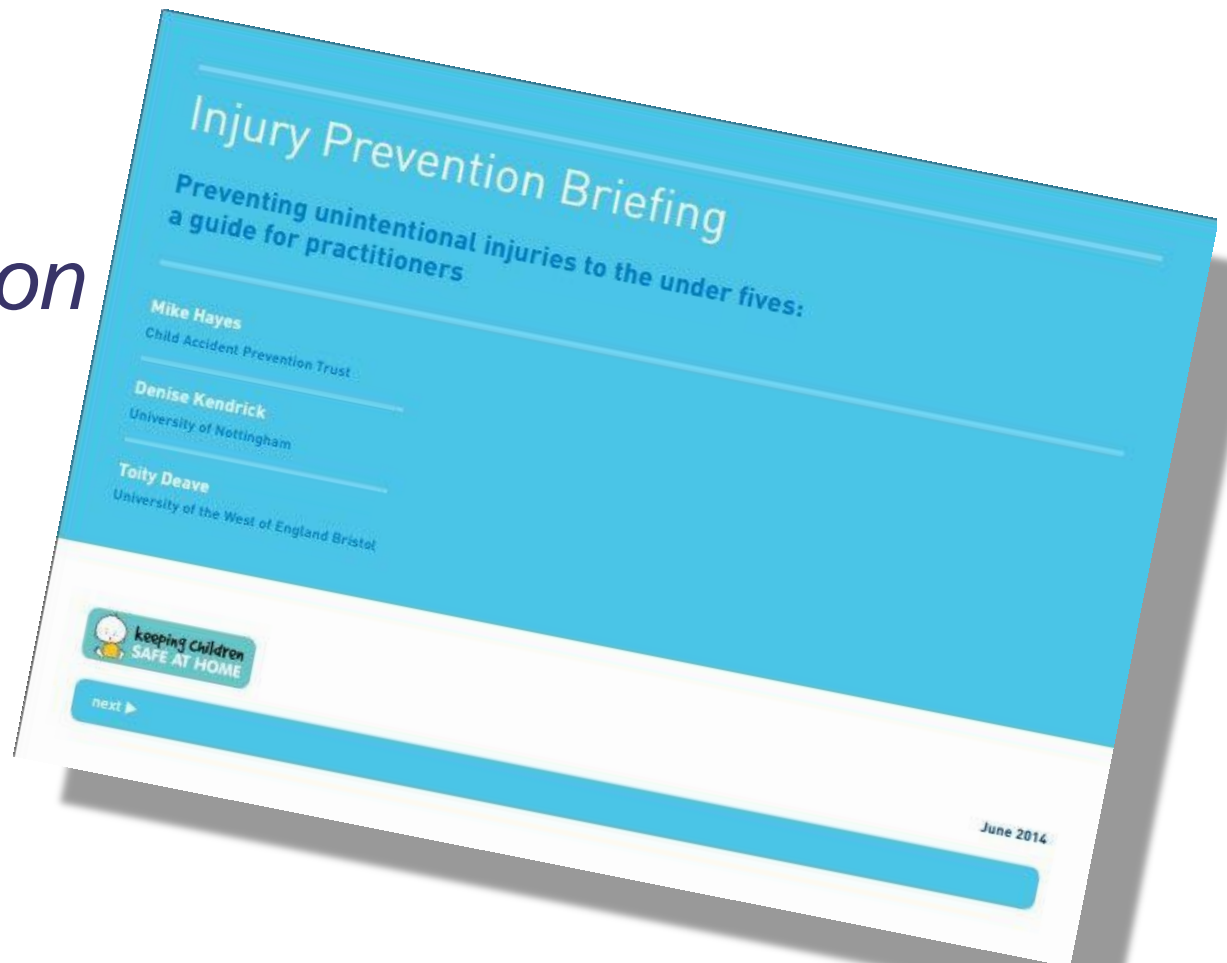
**Burn First Aid
and Injury Prevention**



Tomorrow's Queensland: strong, green, smart, healthy and fair

Structured process of combining evidence with practical service delivery

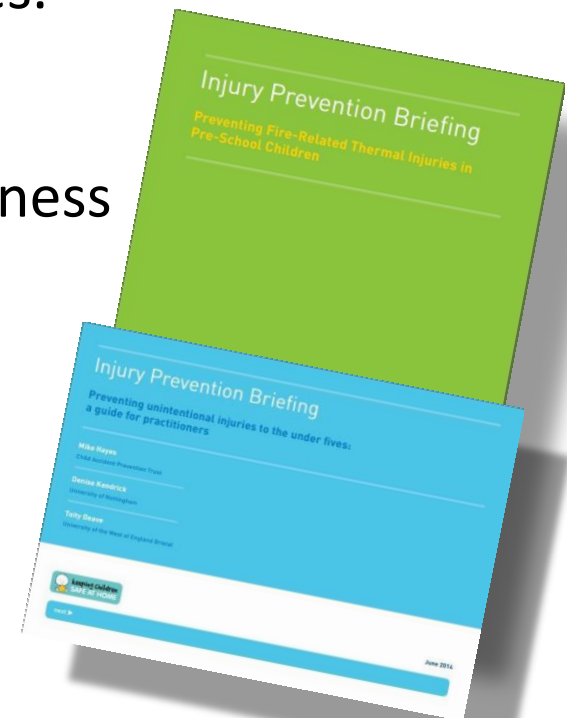
The *Injury Prevention Briefing (IPB)*



Development of the IPB



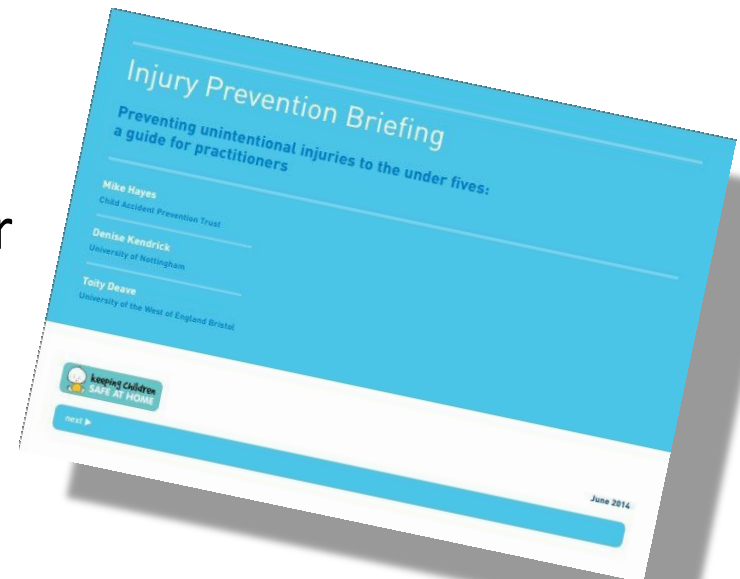
- **Workshops** with practitioners in four cities in England
- **Research results**
 - Interviews with children's centre staff
 - Three multicentre case-control studies. Data collection in seven English cities
 - Decision modelling and cost effectiveness studies
 - Literature reviews



Strengths of method



- Research based, focuses on effective interventions
- Developed through collaboration with potential users
- Target audiences – range of practitioners providing support for families
- pdf version available free at <http://tiny.cc/kcspage>



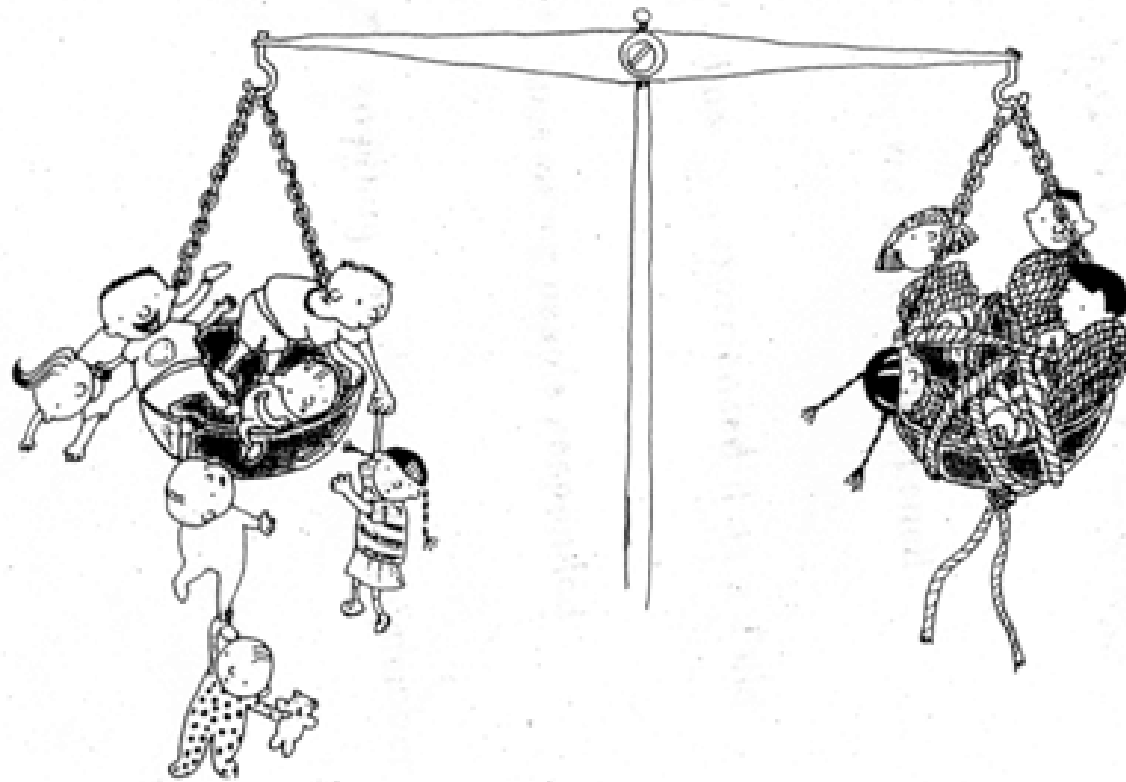
Barriers to child injury prevention

Nationally/internationally

- **Advocacy:** not seen as important/lack of engagement
- **Epidemiology and research:** lack of accurate data; specific to individual contexts hampering adaptation to other settings
- **Policy:** even if legislation in place, enforcement lacking

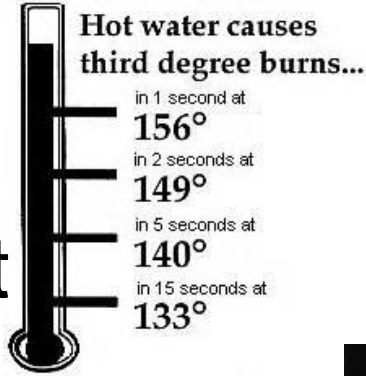
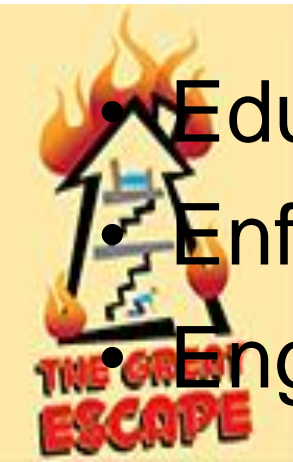
Parents/in practice

- **Awareness:** lack of knowledge about hazards
- **Finance/resources:** personal, organisational, safety schemes
- **Supervision:** constant supervision cited but not possible



Possible interventions – difficult to embed into practice?

- Education
- Enforcement
- Engineering

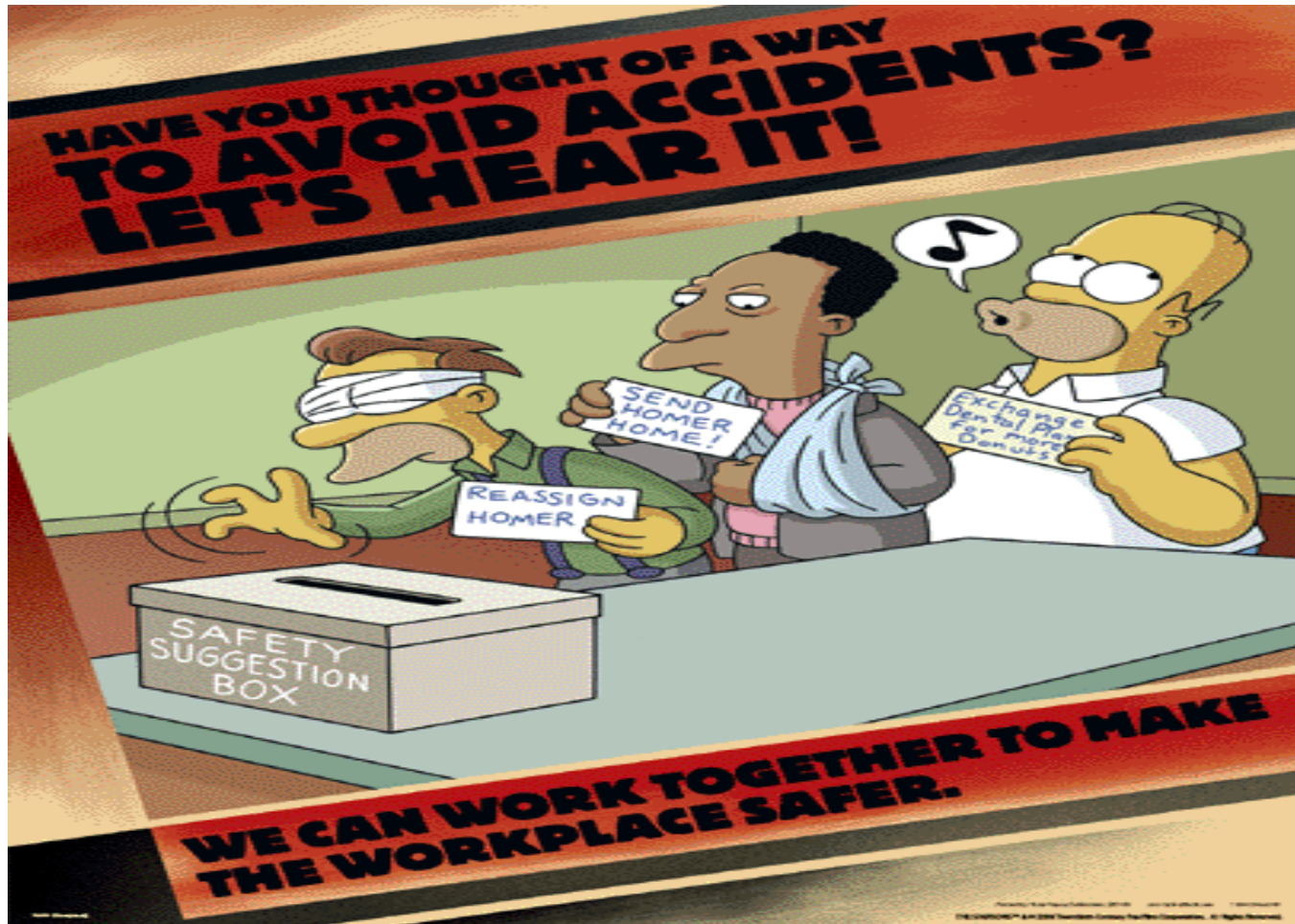


**HOT DRINKS
PLEDGE**



Preventable injury?

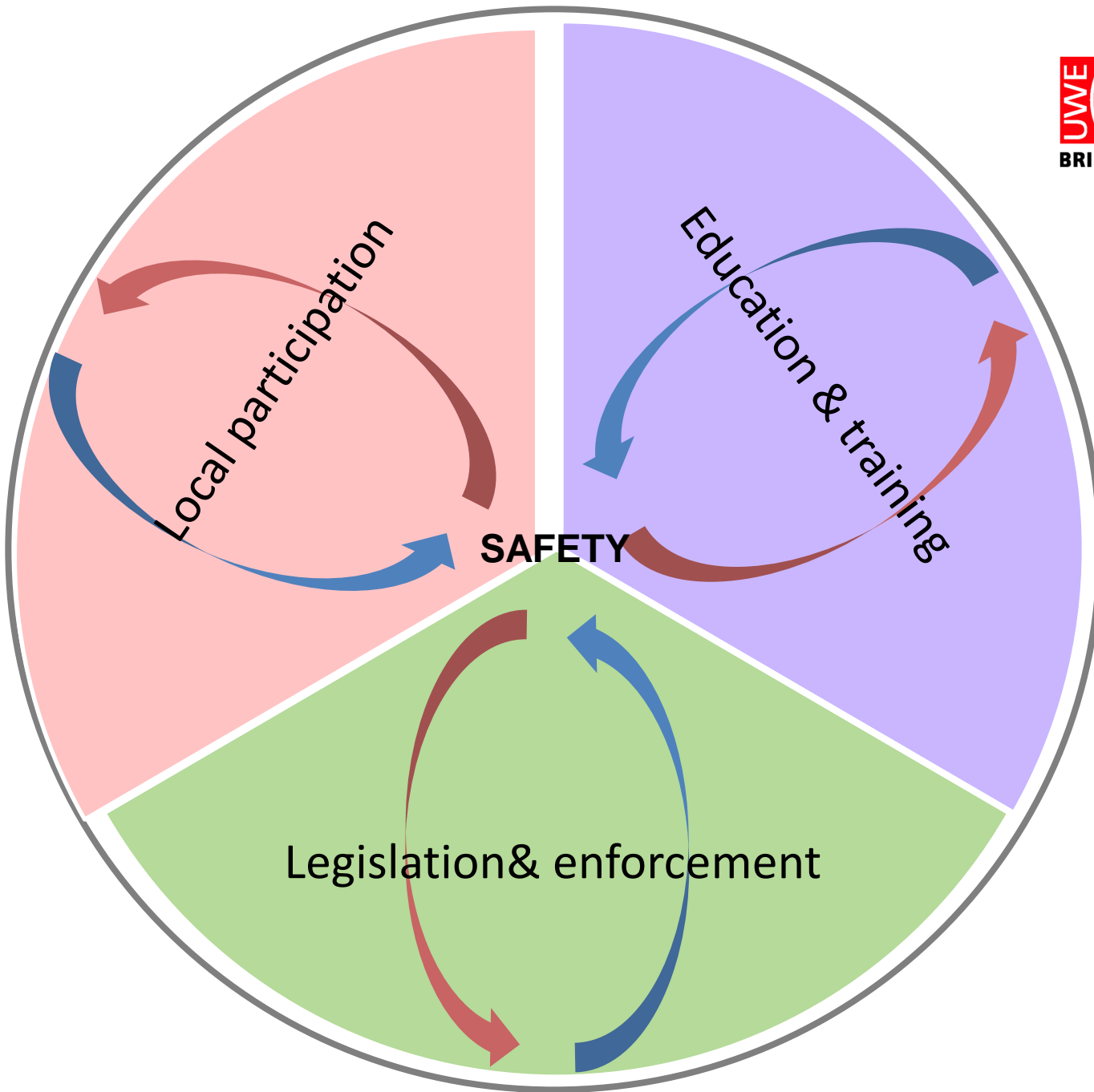
How to get the message out there?



Small changes.....

- Think big, act small
- Cross organisational working
- Three levels of intervening:





Small changes.....



- Think big, act small
- Cross organisational working
- Three levels of intervening:
 - Local participation
 - Legislation (evidence needed!)
 - Education and training
- Determination
- We have to believe we will succeed.



Thank you. Any questions?

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