

# Household energy-related incidents

## Global figures

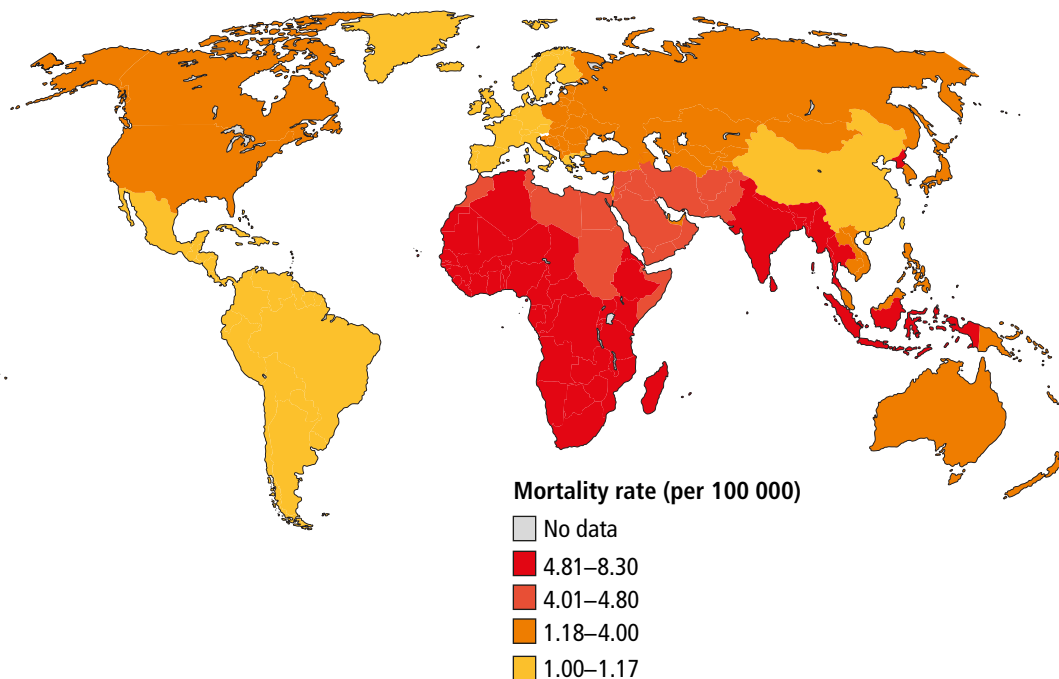
Annually, **300 000+** people around the world die from fires alone. Hundreds more die from burns caused by hot liquids, electricity and chemicals.

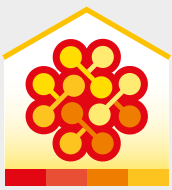
In 2004, nearly **11 million** people were burned severely enough to require medical attention.

**95%** of burn-injuries occur in developing or low- and middle-income countries.

Survivors often lead a life complicated by physical impairments and disfigurement, emotional and mental suffering, and socio-economic loss.

**Figure 1:** Global fire-related burn mortality (WHO, 2002)





## African figures

As you can see from Table 1, Africa carries an extraordinary burden of fire-related injuries (4.81–8.30 per 100 000 population).

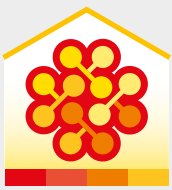
An estimated 1 million+ people are burnt annually; 18% of hospital admissions and 6–10% of mortality are burn-related. Children under the age of 5 and the elderly have the highest fire-related burn mortality rates.

**Table 1:** Fire-related burn mortality rates (per 100 000 population) by age group and sex (WHO, 2000)

Age group (years)	World		Africa	
	Male	Female	Male	Female
All ages	3.4	4.5	6.6	4.4
0-4	7.6	5.7	23.6	9.3
5-14	1.6	3.6	3.4	2.3
15-29	2.4	5.5	1.1	2.3
30-44	3.1	3.9	2.1	2.0
45-59	3.7	2.5	3.8	3.7
60-69	4.3	3.9	11.1	10.0
70-79	7.1	6.3	25.0	20.0
80+	12.5	13.3	5.1	41.2

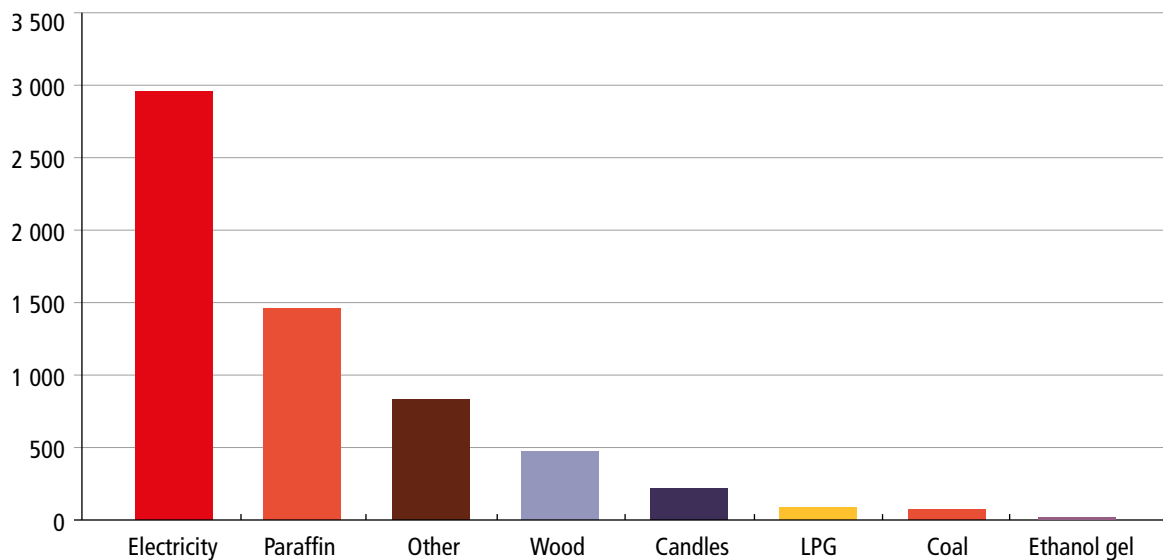
## South African figures

- Each year, approximately 3.2% (1.6 million) of the South African population suffer from burn injuries, with the vast majority being from poorer communities.
- This is driven by factors like: increasing urbanisation; haphazard urban development; overcrowding; inadequate electrification of homes in low-income communities; the use of paraffin and bio-mass fuels as a primary energy source; and lack of effective preventative and education programmes.
- Children under the age of 3 are particularly vulnerable, with 1 300 deaths as a result of burn injuries each year.
- After the age of 4, incidents of burn mortality decreases, but between the ages of 15 and 34, it increases again when people take on greater responsibility for lighting fires or managing heating, cooking and lighting appliances.



A study conducted by the Paraffin Safety Association of Southern Africa (PASASA) with 3 500 respondents, found that the most common energy source involved in burn injuries was electricity, followed by paraffin.

**Figure 2: Energy sources involved in burn injuries in South Africa**  
(Paraffin Safety Association of Southern Africa, PASASA)



The prevalence of energy-related injuries were:

- Scalds/liquid burns accounted for **56%** and flame burns accounted for **27%** of all burns.
- Paraffin ingestion accounted for **25%** of all ingestions.

### References

- Donson, H. (Ed). (2009). *A Profile of Fatal Injuries in South Africa 2008: Annual Report for South Africa based on the National Injury Mortality Surveillance System* (NIMSS. MRC-UNISA Crime, Violence & Injury Lead Programme (CVILP). Medical Research Council.
- Peden, M., McGee, K., Sharma, G. (2002). *The injury chart book: a graphical overview of the global burden of injuries*. Geneva, World Health Organization.
- Swart, D. (2012). *Busting Household Energy Myths in South Africa: Using Research to Inform Action*. Paraffin Safety Association of Southern Africa (PASASA).
- World Health Organisation (WHO), Department of Injuries and Violence Prevention. (2007). *WHO Update*. [Online]. Available at: [www.injuryprevention.com](http://www.injuryprevention.com)