Strategies to Address Household Energy-Related Injury

Presented by:

Dehran Swart
dehran.swart02@gmail.com

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The Reality…

A major concern for energy safety: paraffin poisoning; fires, indoor air pollution and burns.

Main target - informal urban and rural settlements where people are more at risk for energy-related incidents.

Informal settlements are here to stay!!!
POLITICS!!!!

Underlying Causes

Poverty & Unemployment

- Limited access to safe resources and ability to invest in safer systems
- Unsafe, cramped living conditions
- Unsupervised children
- Overcrowding
- Violence & alcohol abuse
- Lack of education

Systemic Issues

- Dangerous, illegal appliances
- No capacity to regulate or monitor.
- Lack of safe packaging and labeling
- Lack of safe, affordable appliances

Point of Consumption

- Informal housing is made from combustible materials
- Poor Ventilation
- Multiple energy sources in confined spaces

Impact

Emotional:

- Loss of loved ones
- Uncertainty and fear
- Loss of belongings and shelter
- Survivors of burn injuries are subject to stigmatization, discrimination, and social exclusion.

Socio-economic:

- Loss of one's home & possessions
- Impact on one's ability to generate income (absenteeism, loss of employment)
- Catastrophic costs of seeking medical treatment
- State resources required to care for patients and put out fires are high: health, human settlements, labour, emergency services, social development
- Externality costs of Paraffin fuel to the economy estimated to be R104 billion (Treasury report)

Physical impacts of energy-related injuries

- Death and Disability
- Reduced mobility and capacity to engage in employment
- Reduced functionality in basic day-to-day activity
- Long-term physical therapy and treatment

Research & Surveillance

GIS-based National Household Energy Surveillance System

Since 2006

1. To understand household energy in South Africa

   Usage, sales, harmful incidents, …

2. To provide evidence for household energy safety

   Energy safety campaign, safety policies, …

3. Repository of household energy data & information

   Harmful energy-related incidents
   Energy usage
   Energy safety education campaigns
   Paraffin system

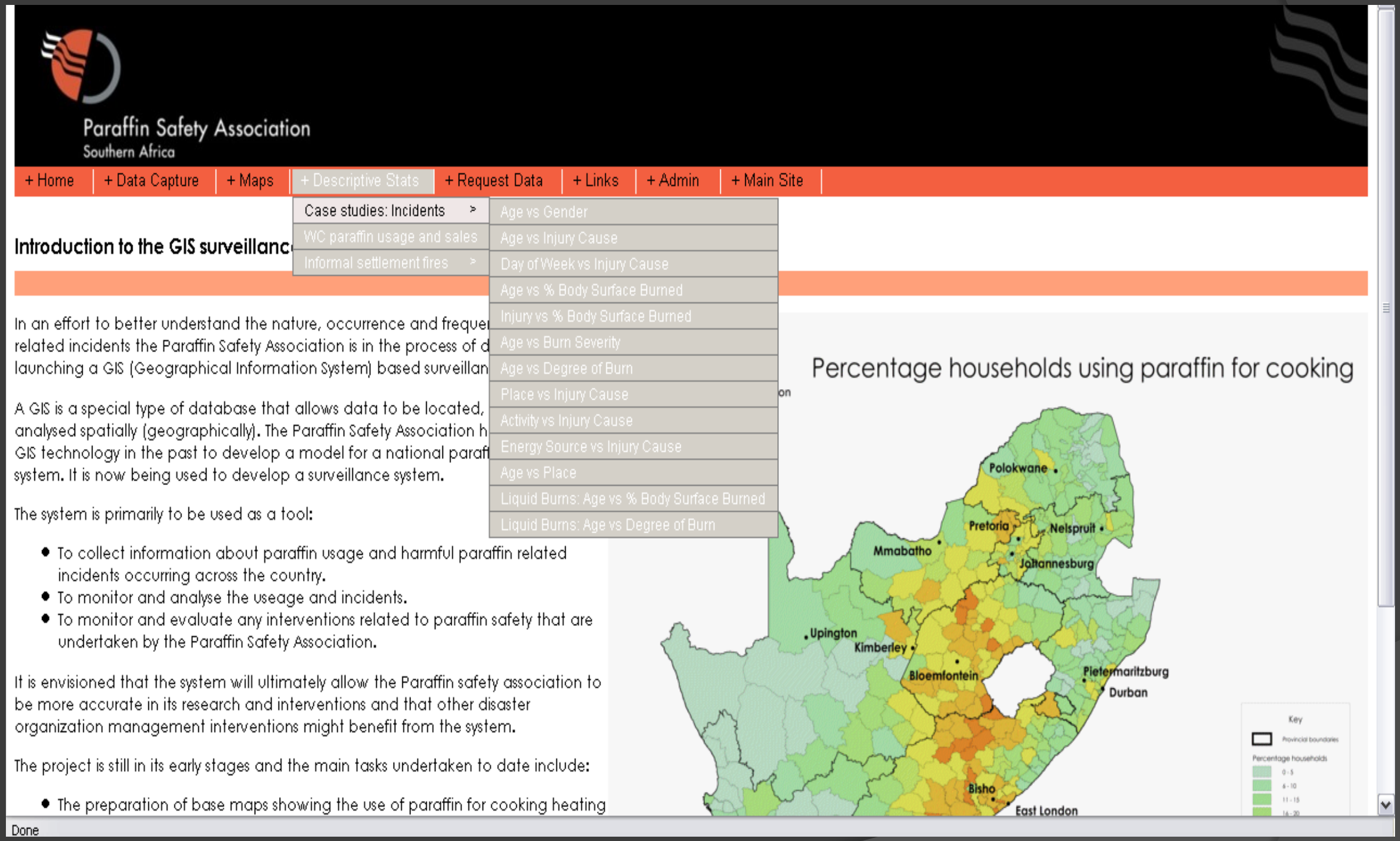
4. Repository of household energy in the Media

Data & analysis available online: http://www.gisparaffinsafety.org/

WHAT RESEARCH AND SURVEILLANCE UNDERPINS ACTION IN THE WESTERN CAPE?

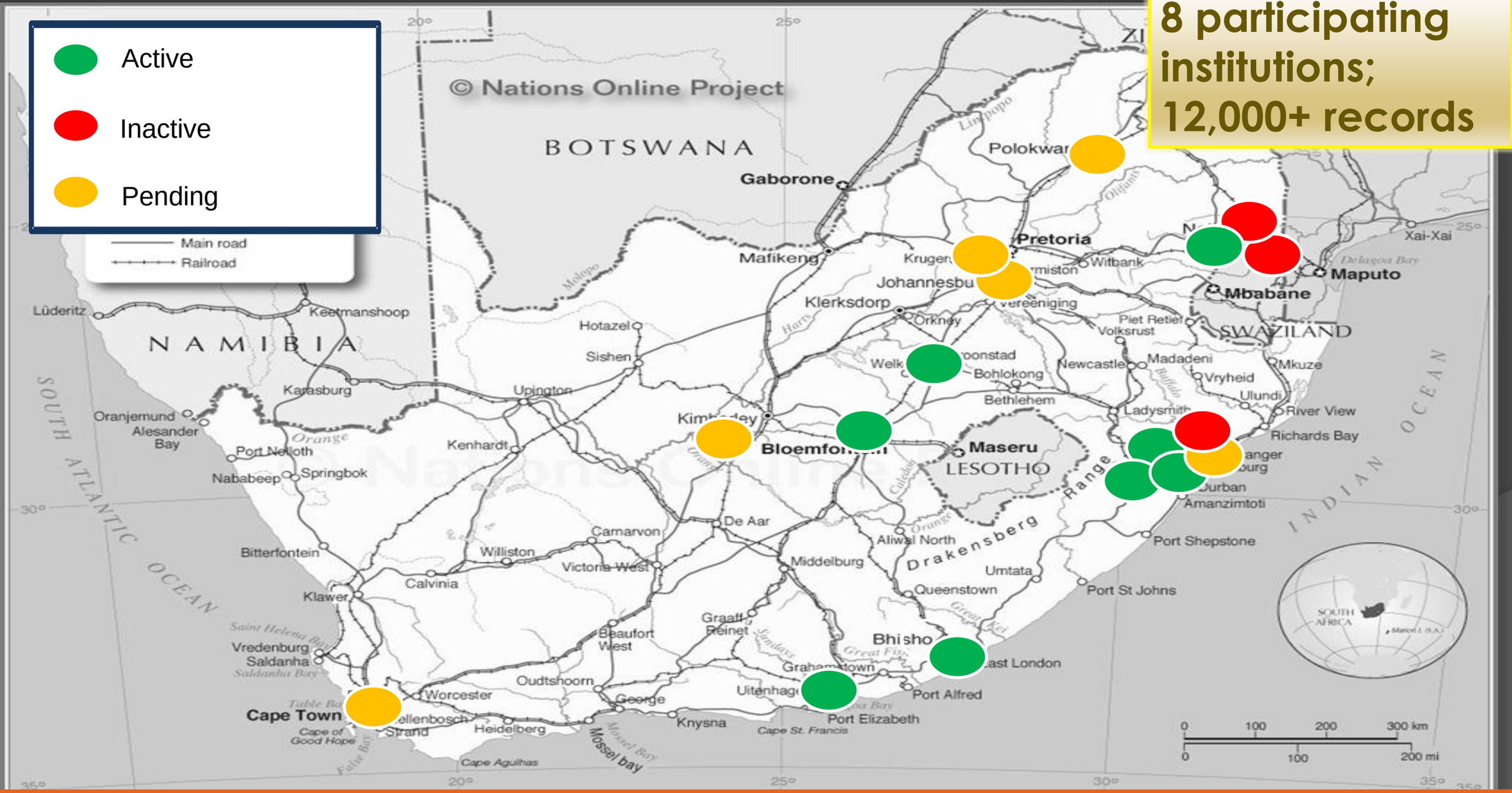
Research & Surveillance

GIS-based National Household Energy Surveillance System



Research & Surveillance

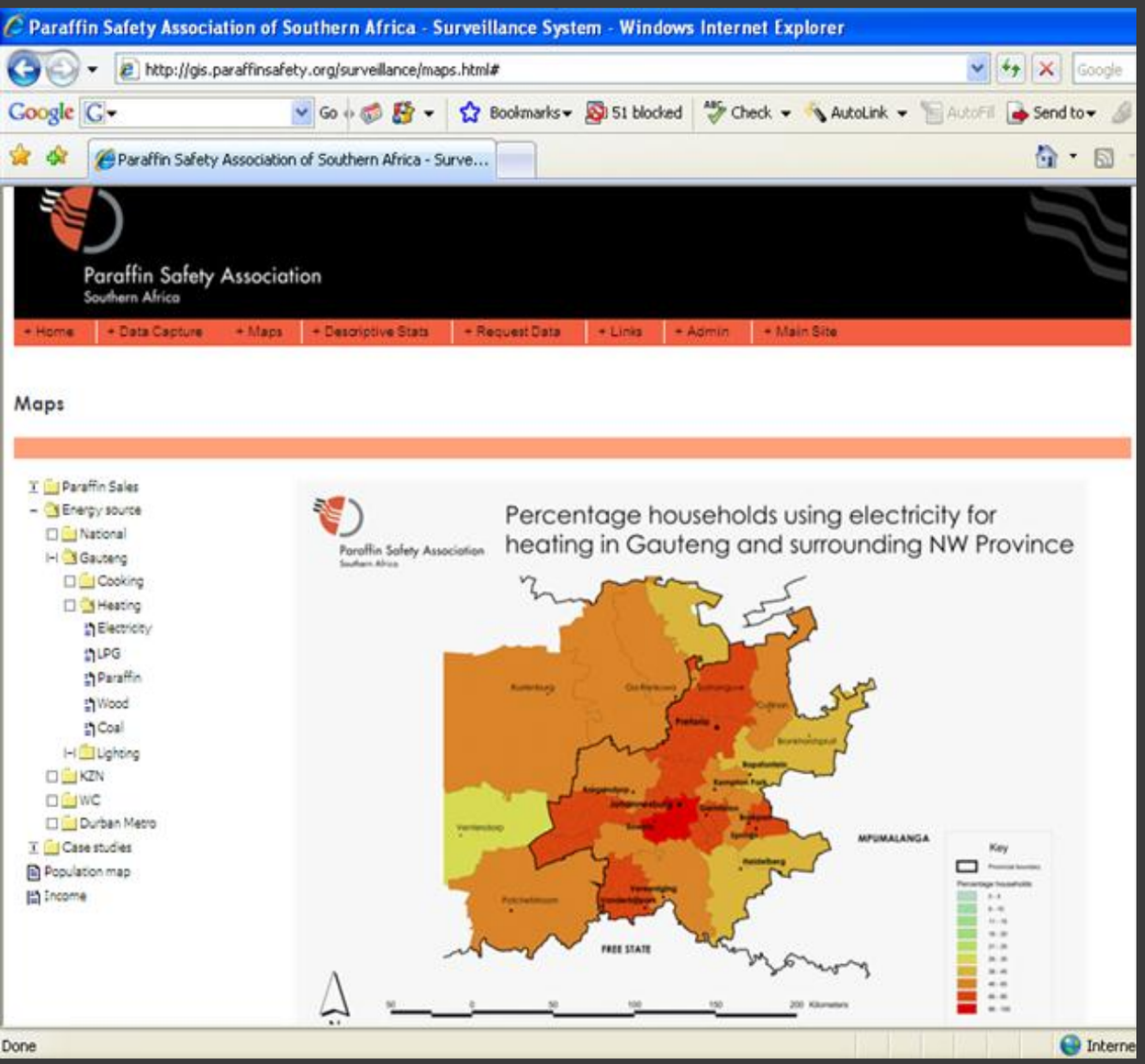
In addition to household surveillance of low-income households, PASASA developed the **Injury Surveillance System** in 2006 to understand **the nature, occurrence and frequency** of paraffin- and energy-related morbidity and mortality in South Africa.

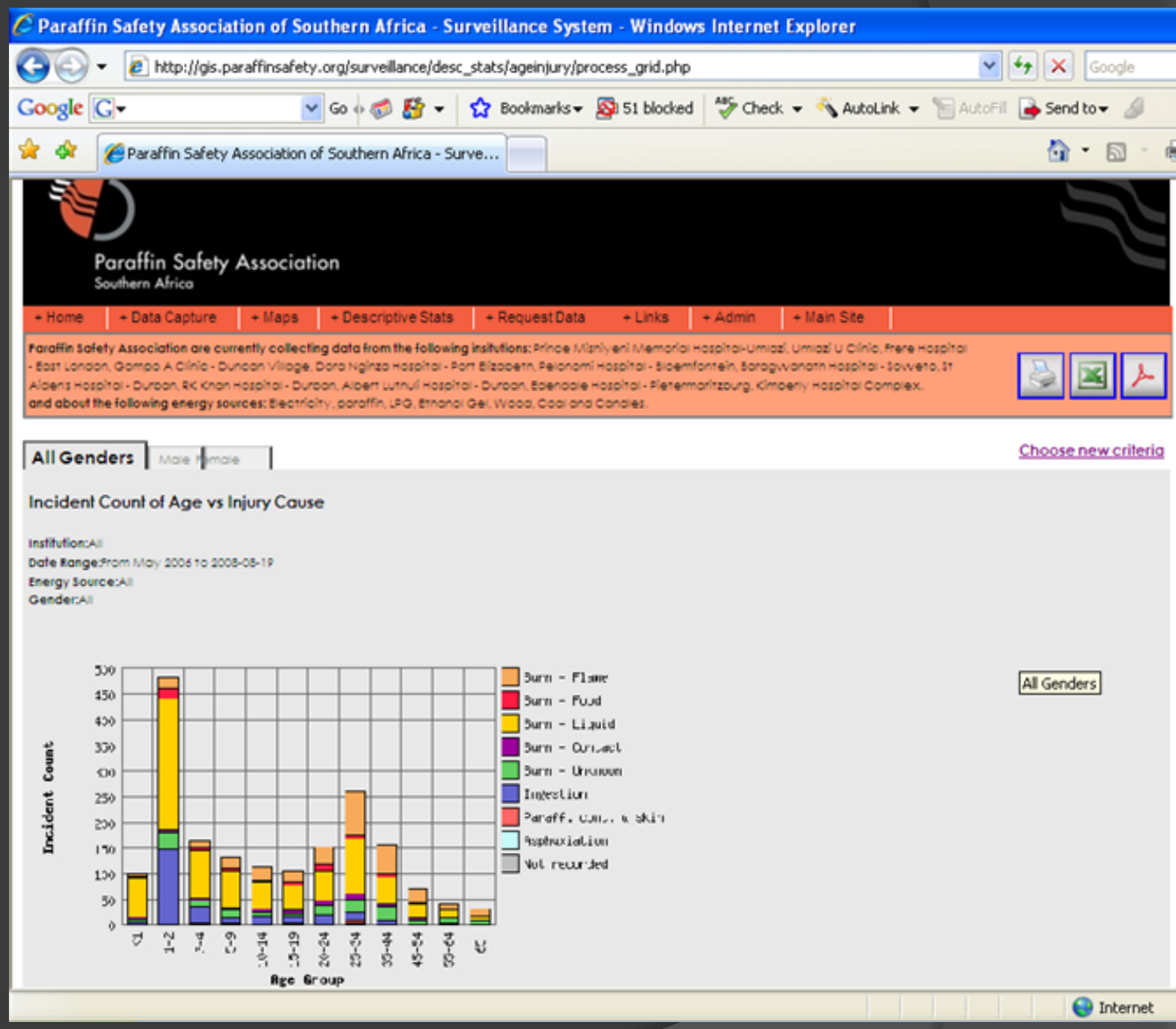


Research & Surveillance

GIS-based National Household Energy Surveillance System

Geographical analysis available online as graphs and charts:

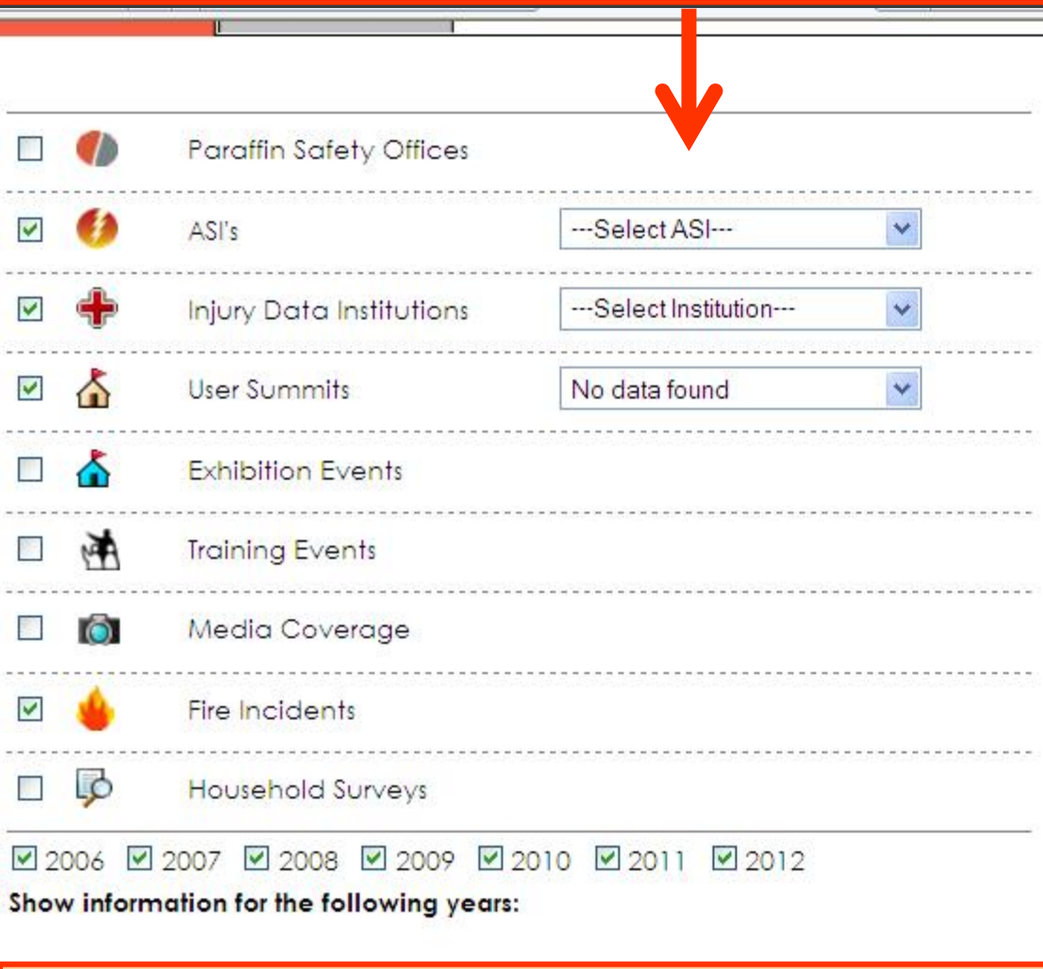


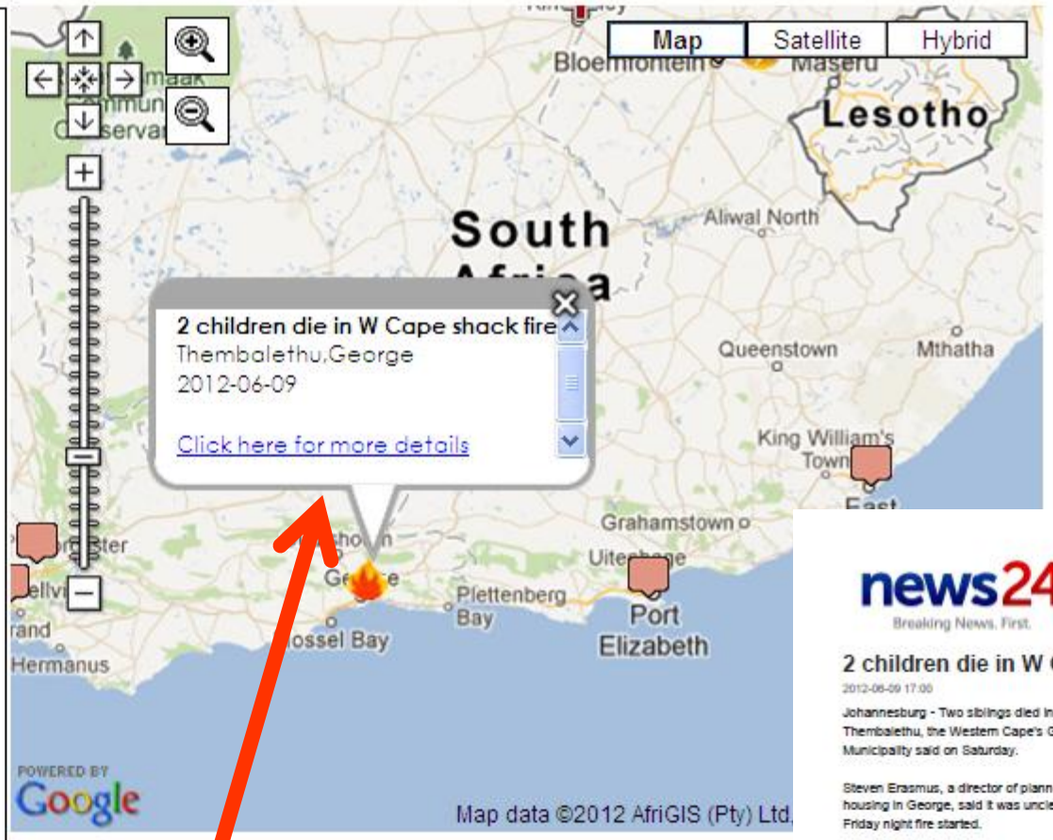


Research & Surveillance

GIS-based National Household Energy Surveillance System

Ability to visualize Association's activities, resources, media and fire surveillance across the country by selection:






news24
Breaking News. First.
Print this article

2 children die in W Cape shack fire

2012-06-09 17:00

Johannesburg - Two siblings died in a shack fire in Thembalethu, the Western Cape's George Municipality said on Saturday.

Steven Erasmus, a director of planning and housing in George, said it was unclear how the Friday night fire started.

"People reported that two children died from the fire, a four-year-old and an 11-year-old," he said.

"There is speculation that the children were on their own. When the police complete their investigation it could potentially be a crime scene."

Erasmus said once his department had located the remaining family members, they would offer them shelter.

- SAPA

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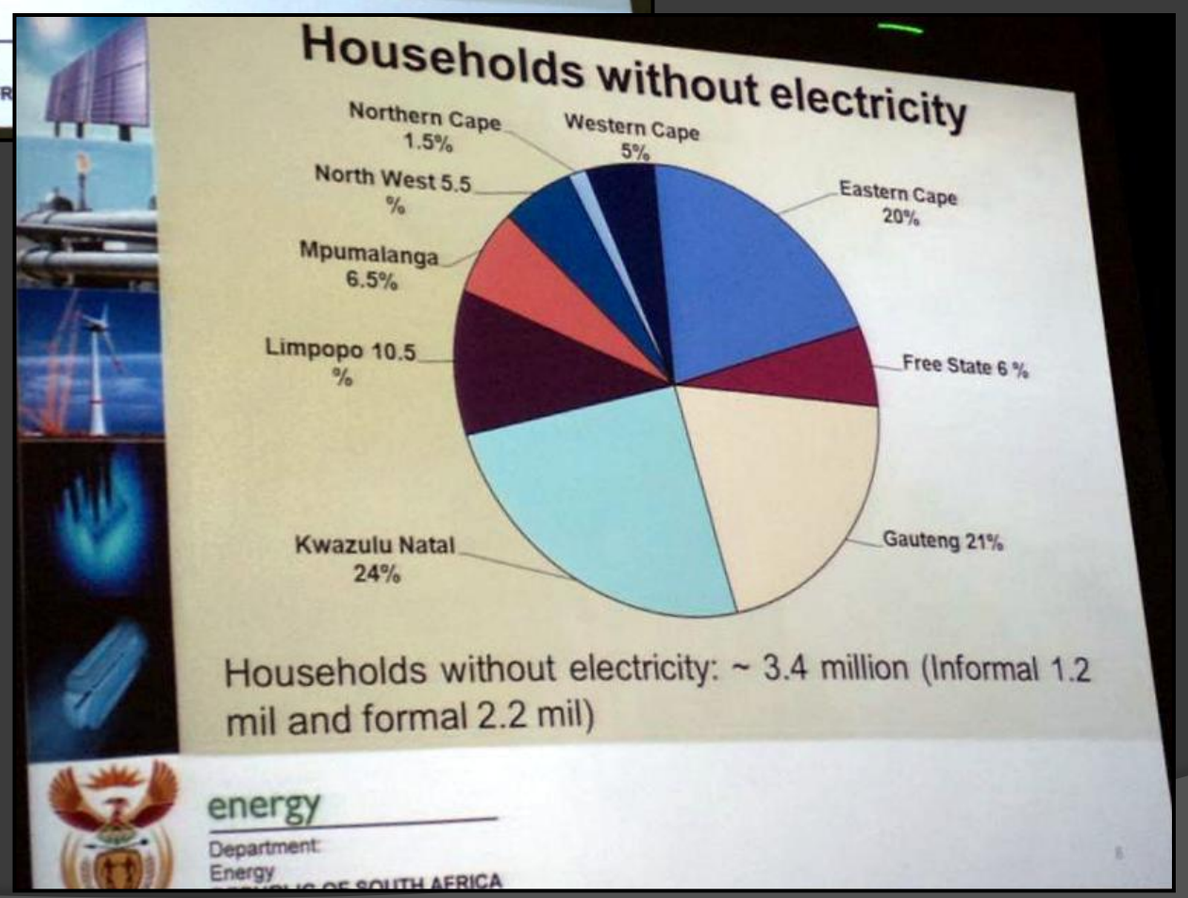
Related Links
Siblings die in blaze tragedy
30 shacks burn down in Johannesburg
Shacks gutted in Pretoria fire

Links to supporting documents and additional resources are also provided.

Energy Use & South Africa's Poor



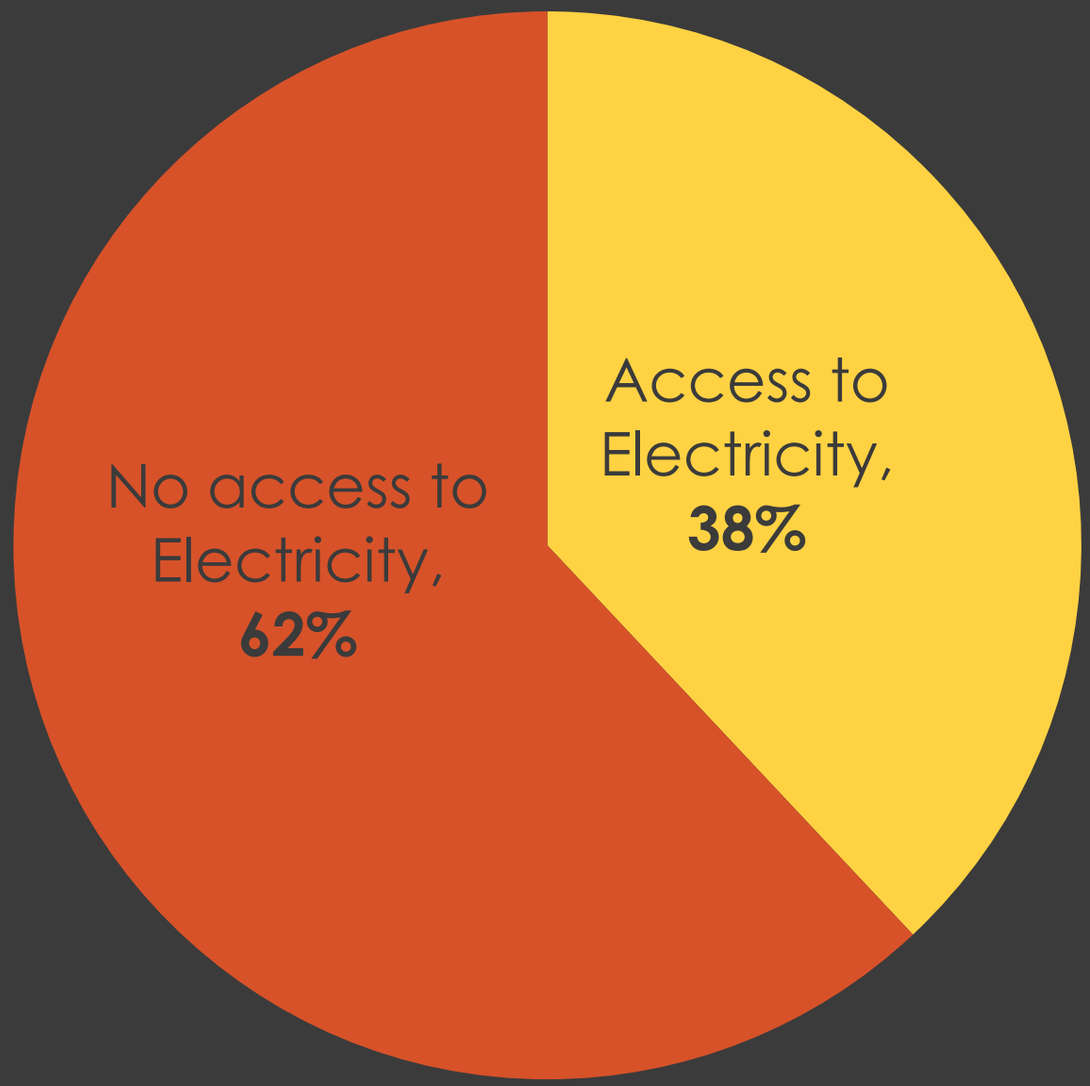
Despite the successes of South Africa's electrification program, the South African Department of Energy has indicated that 3.4 million households currently do not have access to electricity across South Africa

An excerpt from proceedings at the 2012 conference for domestic use of energy [1].

[1]Barnard, W. *Modern Energy Services for the last 20% in South Africa*. in *Domestic Use of Energy Conference 2012*. 2012. Cape Peninsula University of Technology.

Energy Use in South Africa

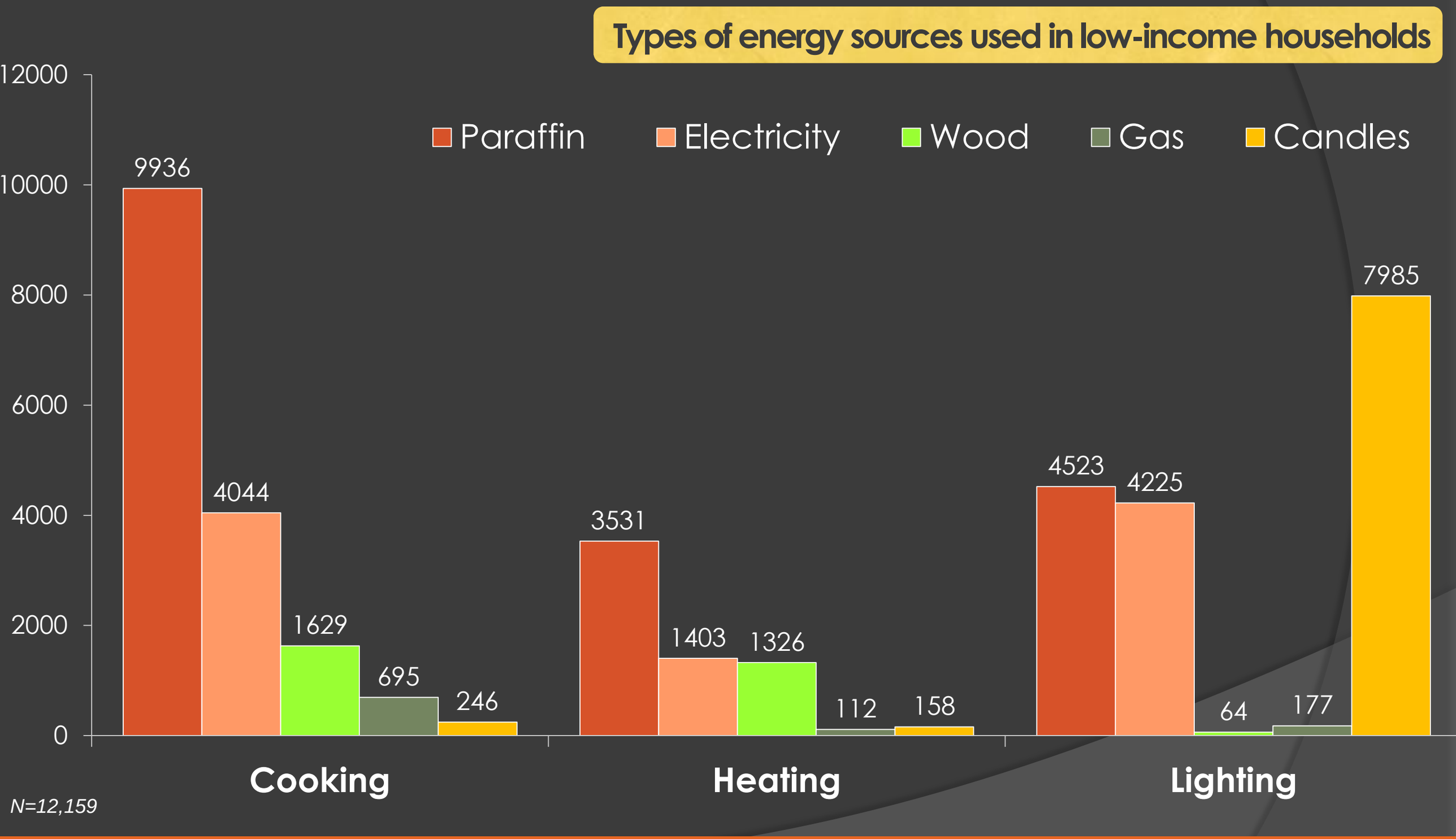
Access to Electricity in low-income households



N=4,427

WHAT IS THE WC PICTURE? PLAN FOR A VARIETY

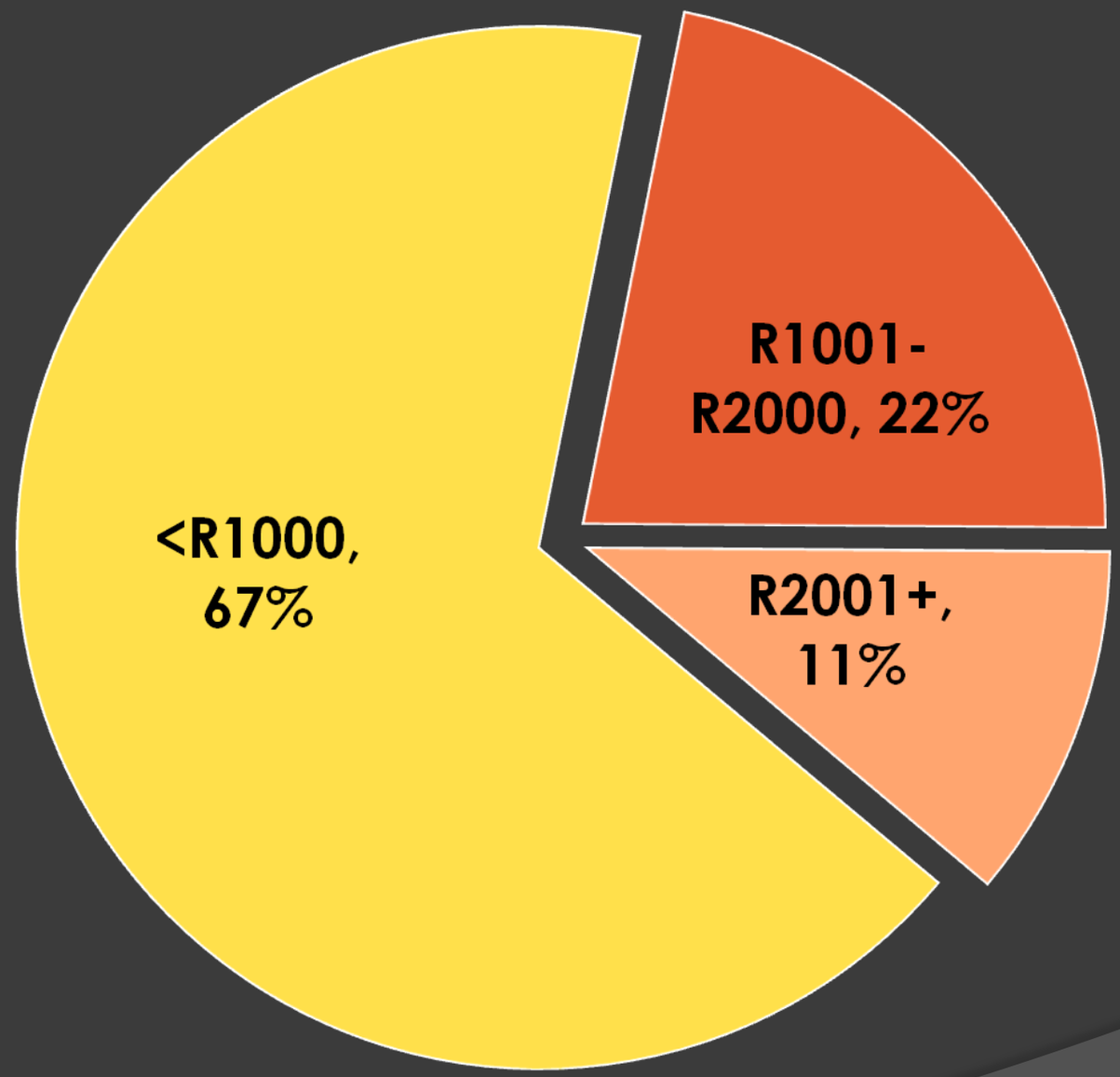
Energy Use in South Africa



RECOGNISE THE ROLE OF PARAFFIN AND

Energy Use & South Africa's Poor

Monthly Household Income



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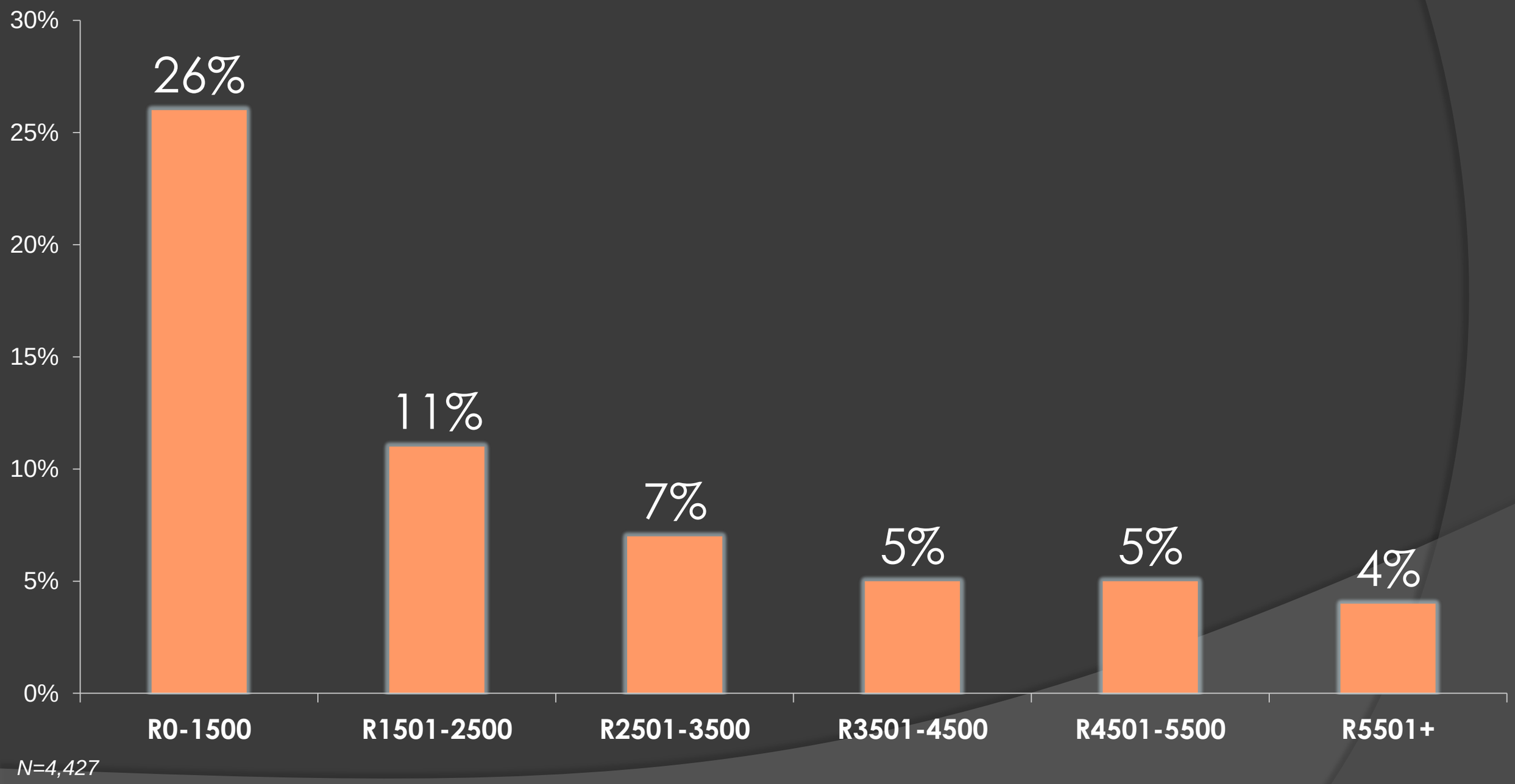
Understand energy poverty; energy usage; relationship

Energy Use & South Africa's Poor

Average monthly expenditure on energy as a percentage of monthly household income



N=4,427

Address the monetary burden of the poor

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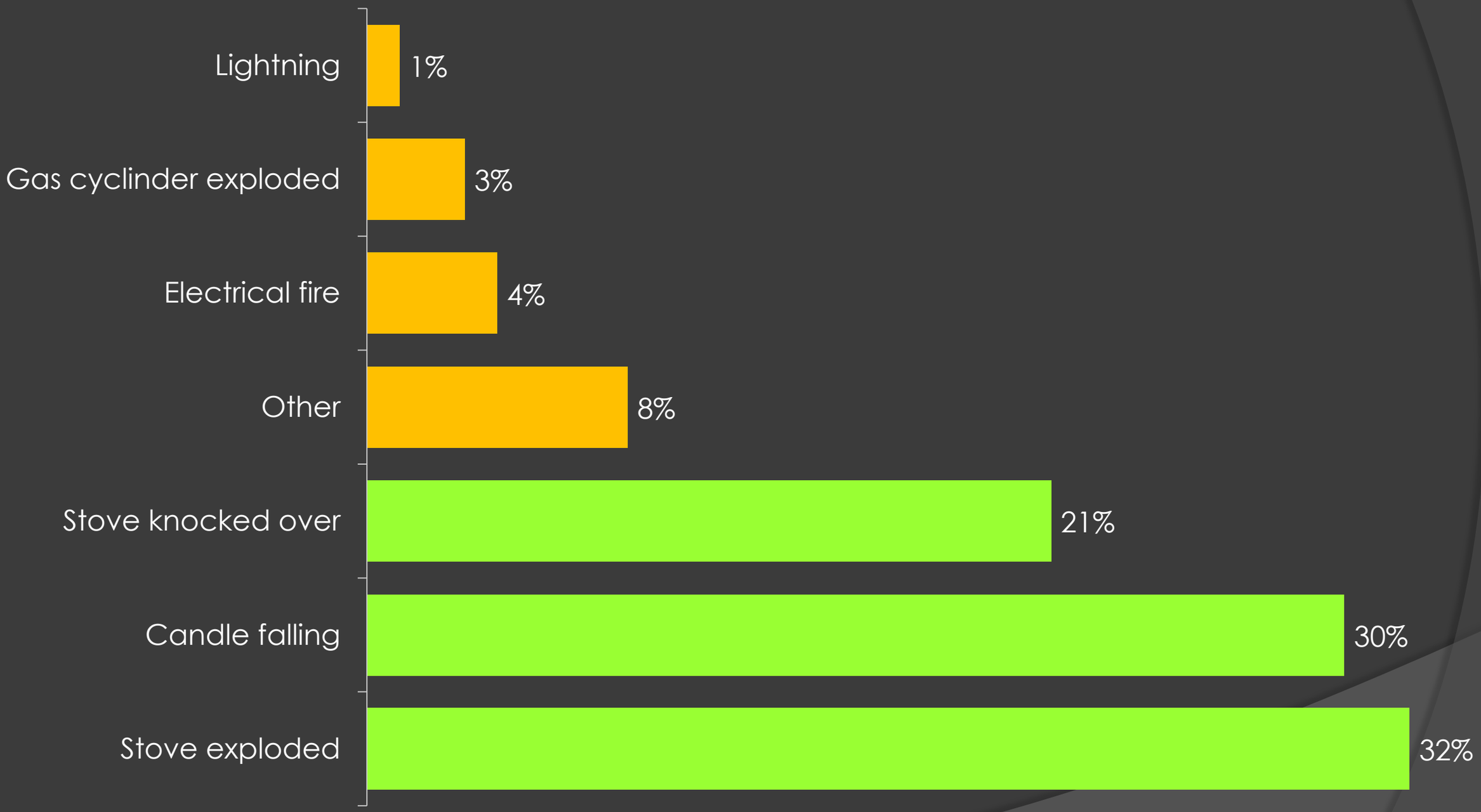
Energy-Related Fires in South Africa

Causes of Fires



Make energy systems safer (packaging, supply, appliances);

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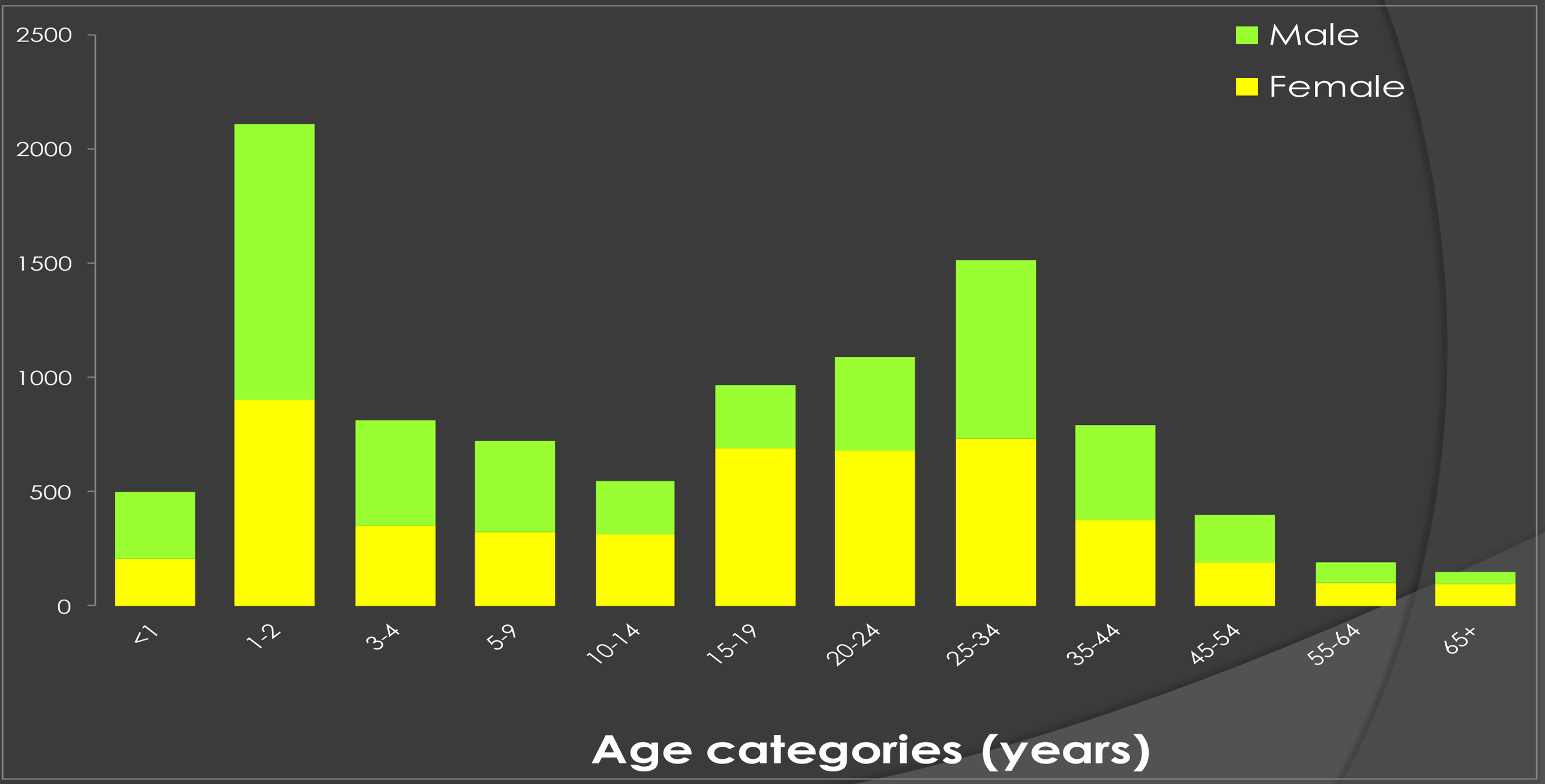
Energy-Related Injuries in South Africa

Age & Demographics of Energy Related Injuries



Targeted interventions for children and care givers

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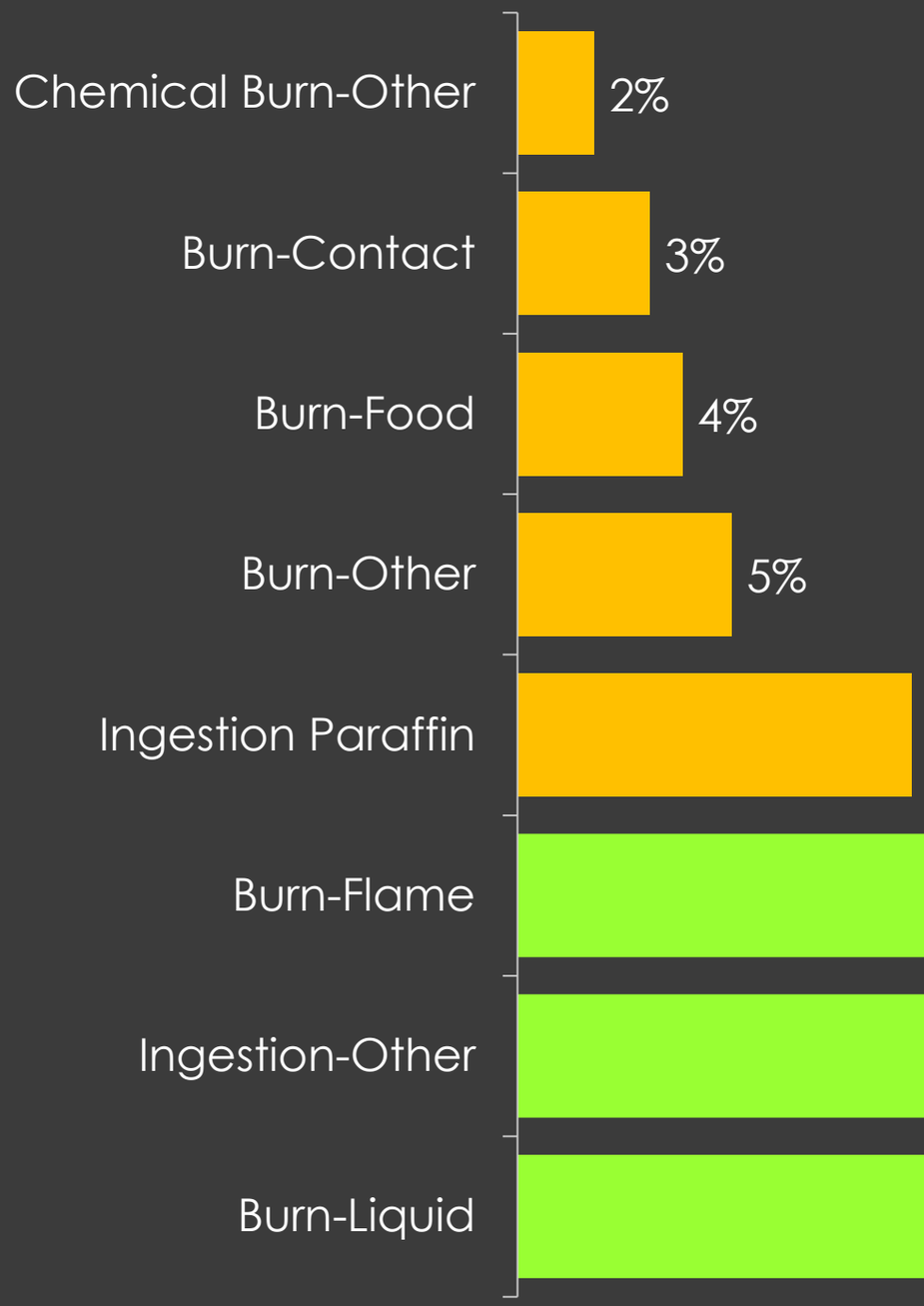
Energy-Related Injuries in South Africa



Prevalence of Energy Related Injuries

The top three injury types recorded in the database are 1) scalds/liquid burns, 2) other ingestions, and 3) flame burns

Paraffin ingestions account for 25% of all ingestions recorded!

Scalds and flame burns account for 56% and 27% of all burns recorded.

Prevention programmes targeting ingestions and scalds

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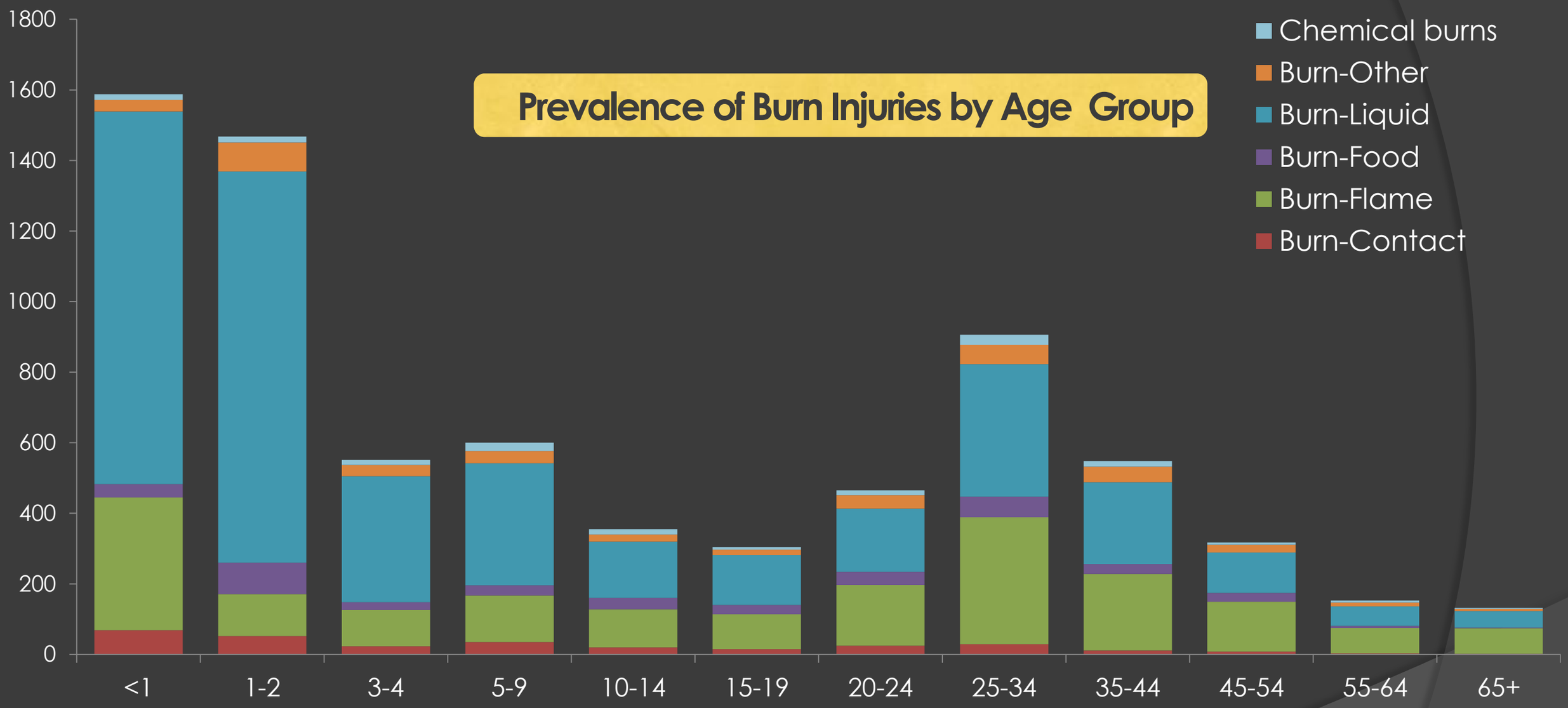
Burn Injuries in South Africa



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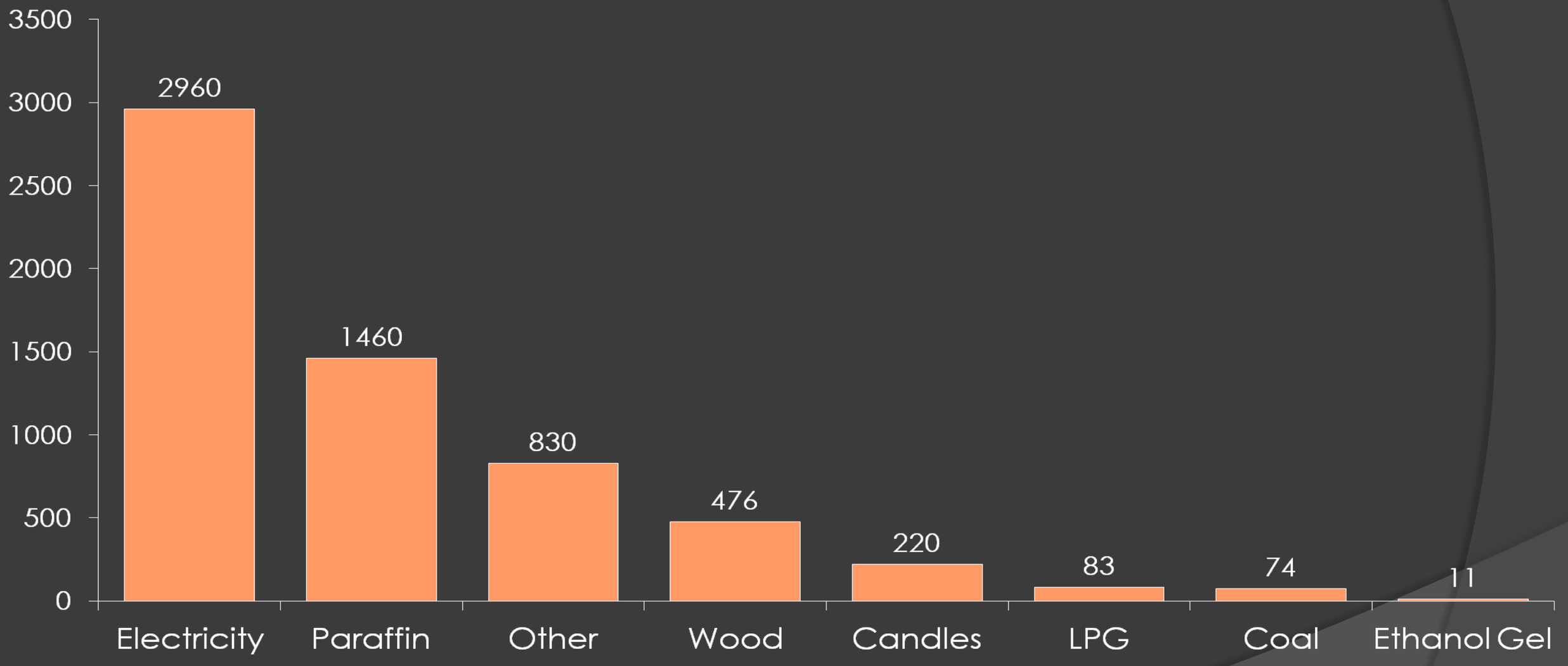
Burn Injuries in South Africa

Energy Source involved in Burn Injury



All energy carriers need to be focused upon. Do not assume electricity usage = no injuries

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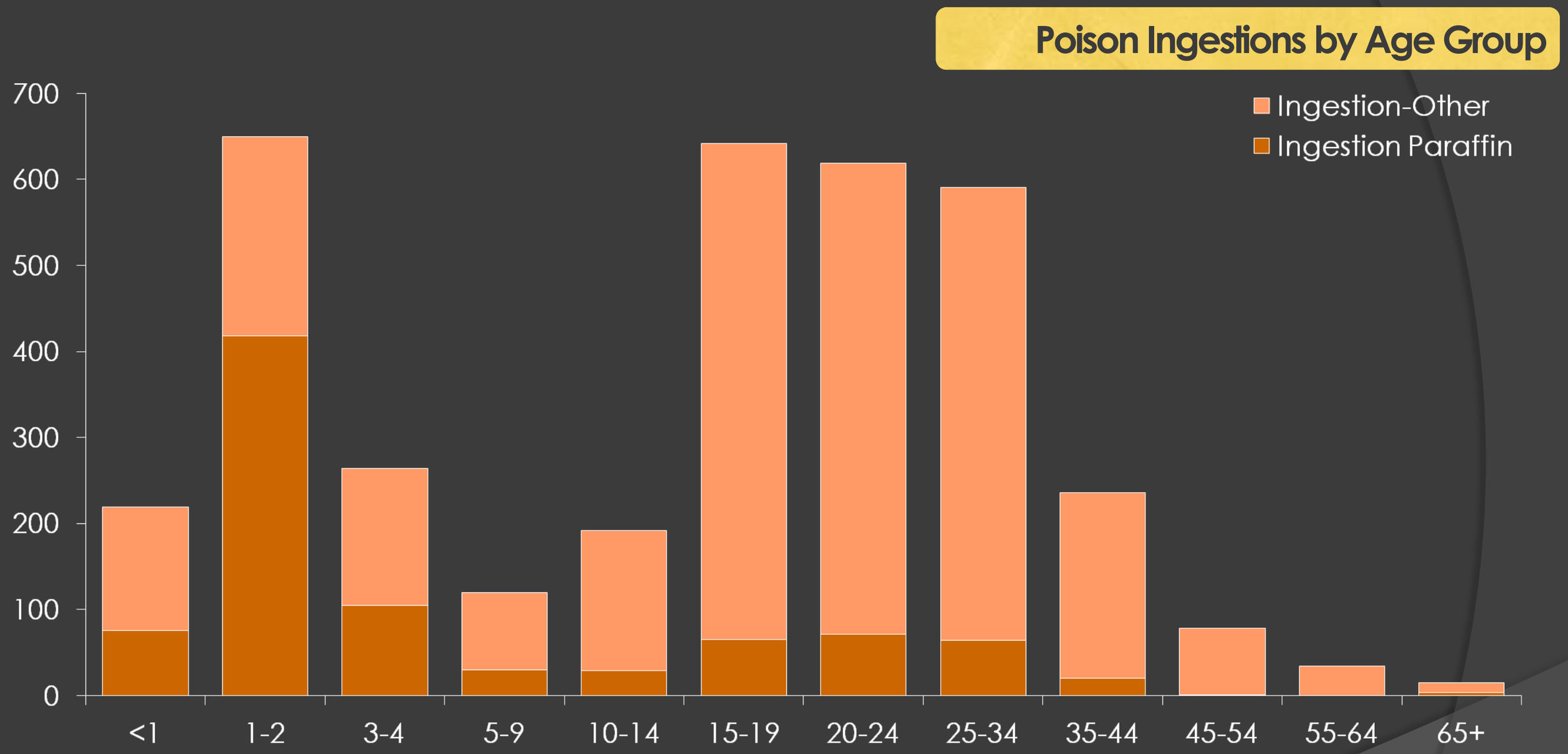
Poison Ingestion Injuries in South Africa



Focus prevention strategies on children; indication of deeper social issues

The Need for a Household Energy Policy

Outcomes of a Household Energy Policy "Panel of Experts"

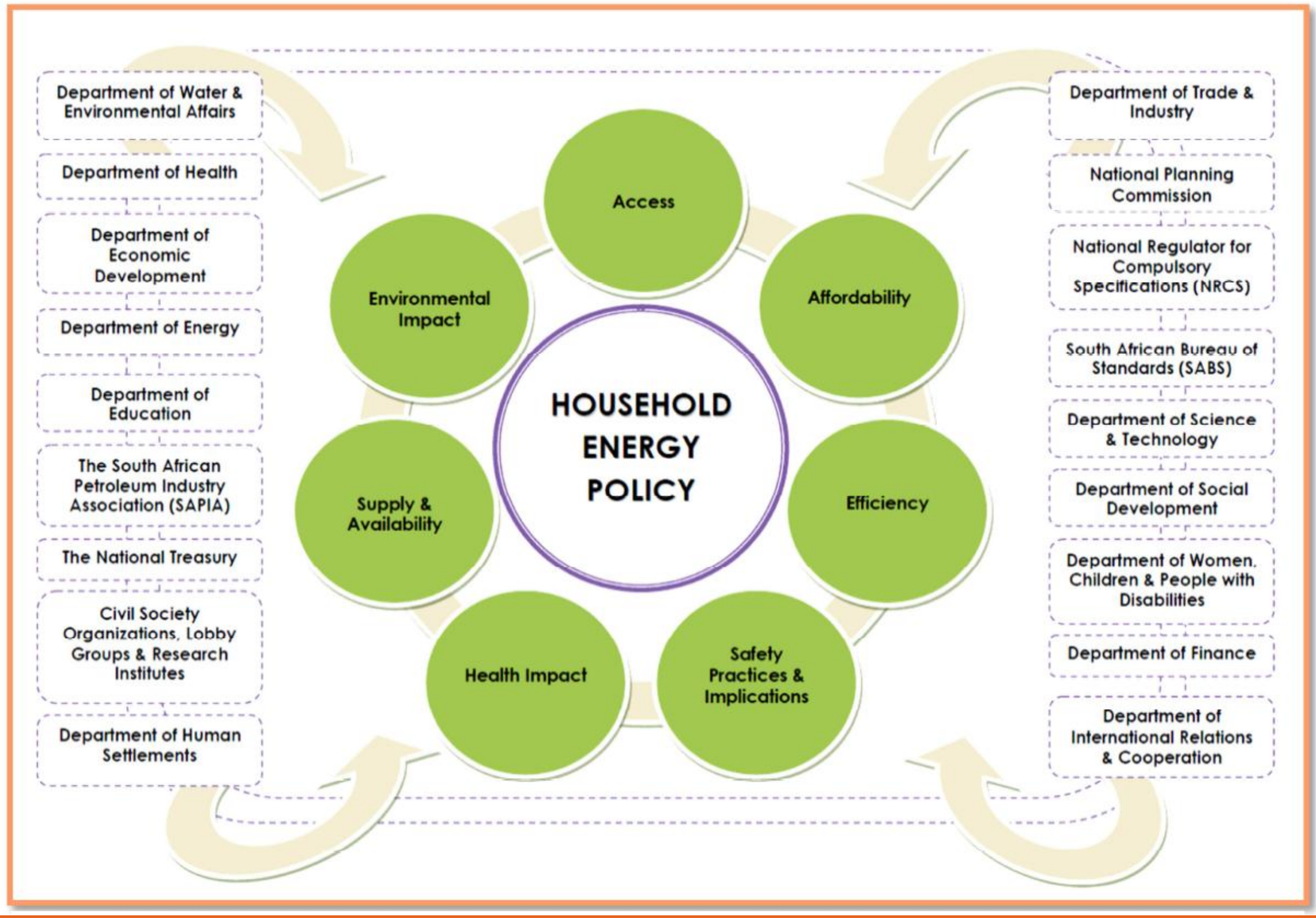
A Household Energy Policy "Panel of Experts", jointly hosted by the Paraffin Safety Association of Southern Africa (PASASA) and the South African National Energy Development Institute (SANEDI) of the Central Energy Fund (CEF), was held in Johannesburg on 3rd May 2012.

- The solution to the household energy crisis must be **multifaceted and policy-based**.

- There is currently **no framework to support the current energy policies** and **efforts thus far have been reactionary** to electrification initiatives.

- In order to effectively tackle the problem, proactive efforts need to take place through collaborative efforts of key stakeholder and the government.

Proposed Framework



Who are the stakeholders in WC?

Proposals & Concluding Remarks

- Research and Surveillance
- Forensics
- Buy-in and action by government departments
- Collaboration in planning and interventions
- Enforcement
  -regulations and standards
- Illegal appliances – prosecution needed
- Household energy safety and efficiency policy
- Community engagement, ownership
- Ownership, accountability, life of task teams

Questions, discussion

Joe Slovo Informal Settlement, Cape Town, January 2005