



# Obstacles and Opportunities for Regulating Stove Use Across the UK

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# Denormalisation

Social denormalisation strategies seek to change the broad social norms around [a given behaviour] - to push [it] out of the charmed circle of normal, desirable practice to being an abnormal practice.

(Hammond et al., 2006: 225)



# Obstacles & opportunities: Research basis

JOURNAL ARTICLE

## Between Ordinary Harm and Deviance: Evaluating the UK's Regulatory Regime For Controlling Air Pollution From Wood Burning Stoves 🔒

James Heydon ✉

*The British Journal of Criminology*, azac102,

<https://doi.org/10.1093/bjc/azac102>

**Published:** 01 February 2023



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Nottingham



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Sheffield.

AirRated™

## Do you use a wood burning stove?

### Take part in the UK's first "Burner Alert" study

We are looking for people to take part in a national study aimed at understanding how stove/fireplace users engage with the UK's first "Burner Alert" system. This system is designed to help users make an informed choice of whether to light their fire or not by providing information on air pollution levels around their home.

### What do I need to do?

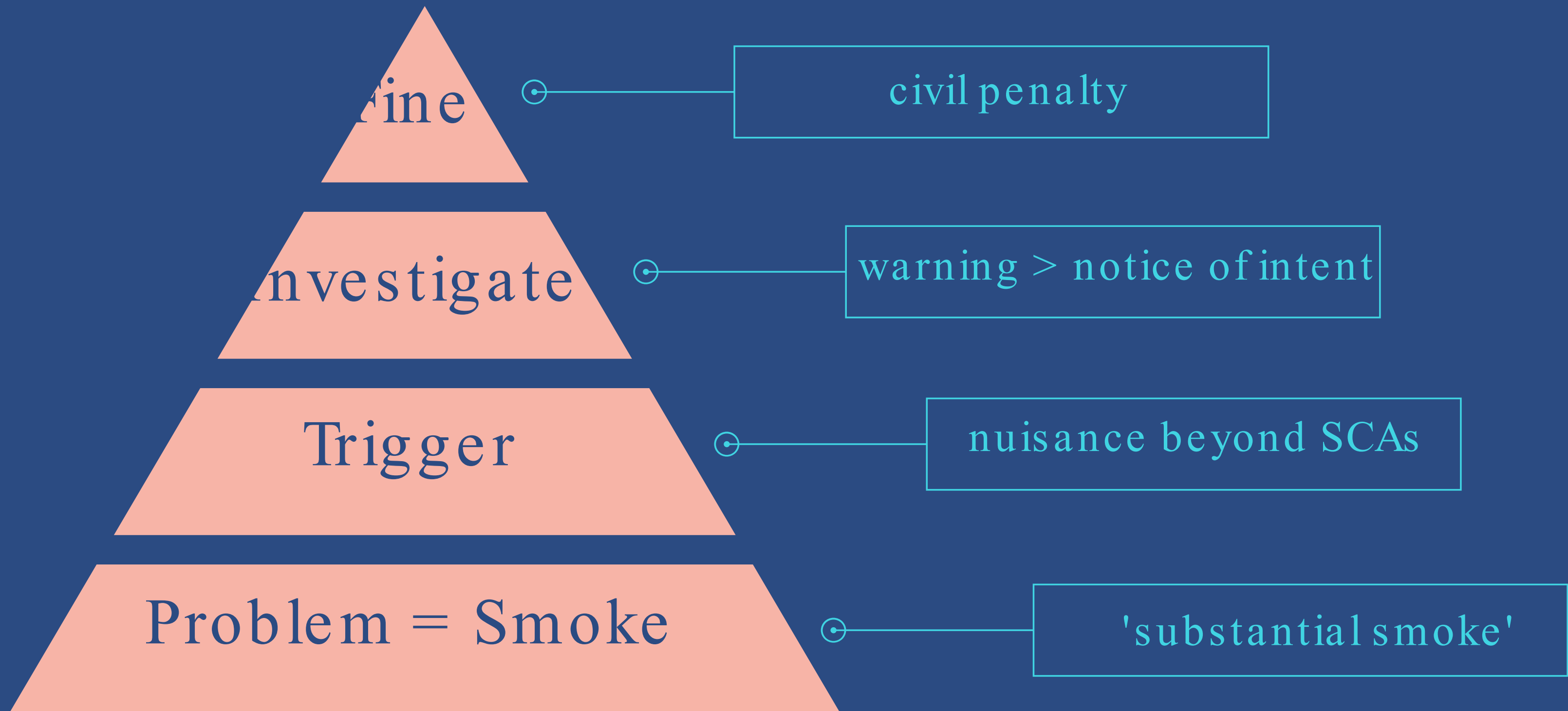
You will be asked to complete an online survey at the start and end of a 4-week period. Within these 4 weeks, you will be asked to visit the Burner Alert website to check air pollution levels in your area.



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# SCA Enforcement: Old & New



# Trigger Obstacles

We haven't got a great monitoring capability at the moment, I'll be honest with you. A lot of our old air quality units are on their last legs, and we had to scrap some because they were just breaking down all the time. Unfortunately, with the cost of new equipment, we just haven't been able to [replace them].

(Air Pollution Officer 15)

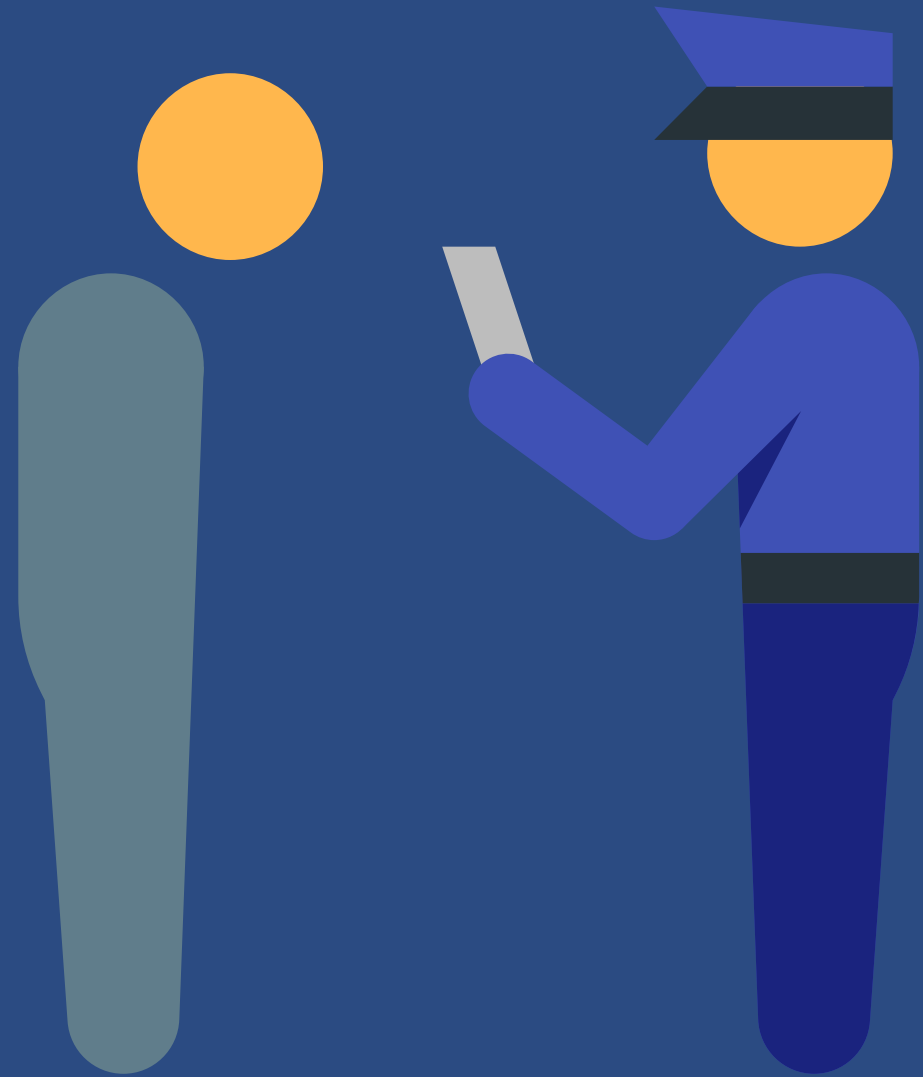
# Investigation Obstacles

Most of these complaints tend to occur at night, in the winter months, and when it's dark. So, you've got to try and go out at night looking for a smoking chimney, in the backstreets, among any number of other smoke y chimneys.

(Air Pollution Officer 7)



# Sanction Obstacles

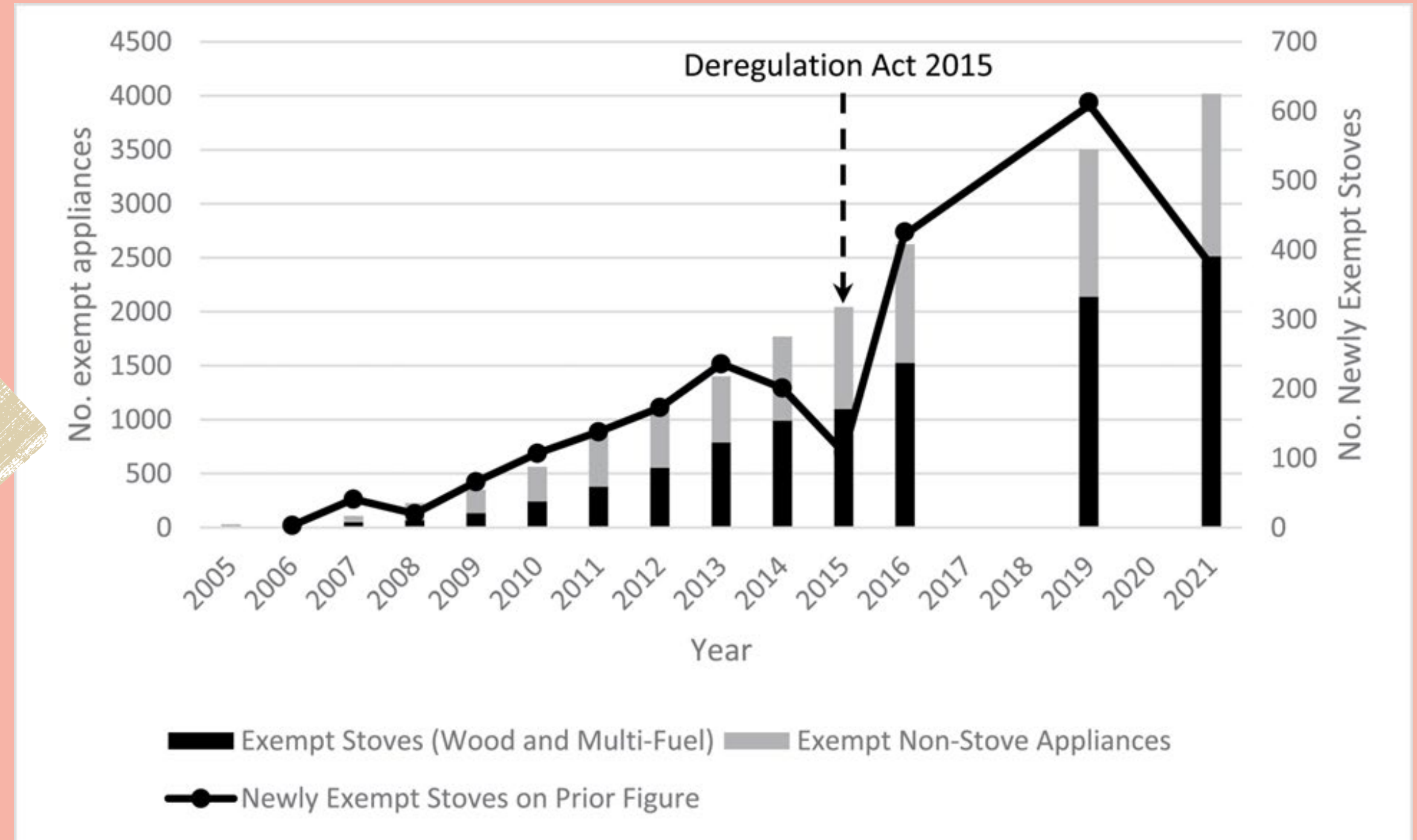


Between 2014 and 2020, 30 councils recorded 2,524 complaints.

[T]he amount of enforcement that takes place will not deal significantly with any emissions...[because] ninety-nine percent of people, if you talk to them, they will explain to you what they're doing and if they're doing something wrong will correct it.

(Air Pollution Officer 9 )

# 'Authorised' stoves beyond control



2021 = 2,513 models exempt; 10 -fold increase since 2010.

# Beyond Smoke Control Areas

- Escalation of SCAs is difficult because of the numerous obstacles to evidence-gathering.
- Perfect application of SCA regulations would encourage behaviour producing PM<sub>2.5</sub>.
- A system is needed that:
  - 1) Moves beyond 'smoke' to focus on PM<sub>2.5</sub>
  - 2) Is fair, accurate and transparent
  - 3) Is responsive to changing circumstances



# Reconceiving stove use regulation: The potential for 'Burn Bans'

**NO ALERT**

San Francisco Bay Area  
**Air Quality Status**  
Friday, 6/23  
**NO ALERT**  
Understanding Alerts and Advisories  
See Full Forecast

**5 Day Air Quality Forecast**  
Last Updated Thursday, June 22 at 11:02 AM  
Enter City Forecast

|               | Thu | Fri | Sat | Sun | Mon |
|---------------|-----|-----|-----|-----|-----|
| Northern Zone | 35  | 35  | G   | G   | G   |

**Check before you burn**  
It is illegal year-round to burn wood on days when a Spare the Air Alert is in effect. Wood smoke is the number one pollutant in the winter.

- PM pollution fell between 11 and 15 percent in its first year (Yap and Garcia 2015).

**CAA**  
PUGET SOUND  
Clean Air Agency

Air Quality | Permits & Registration | Priorities | About Us | How Do I... | Search...

**Air Quality Burn Ban Status**

Home > Air Quality > Air Quality Burn Bans > Air Quality Burn Ban Status

**Air Quality Burn Ban Status**

|           |        |
|-----------|--------|
| KING      | No Ban |
| KITSAP    | No Ban |
| PIERCE    | No Ban |
| PENINSULA | No Ban |

- PM pollution returned to federal limits within three years (Department of Ecology 2014).

# Piloting the UK's First 'Burner Alert' system

Find the burner alert status in your area

CF10 1NS

Search

Current Burner Alert Guideline for: CF10 1NS (Cardiff)

Particle pollution in this area is approaching guideline levels.  
Please consider not lighting your stove, particularly if you  
have an alternative source of heating.

0-5



5-15

Advisory

12.81 ug/m3

> 15



# Could 'no burn days' work in the UK?: Preliminary Findings

- 92 % (n=46 ) received an alert .
  - 74 % (n=34 ) avoided lighting their stove at least once (range = 1-8).
- 33 % (n=11) of these also lit their stoves for a shorter duration (1.8 hours reduction pp).
- Over two weeks, the Burner Alert prevented 65 stove uses and 178 hours of burn time (conservative figure).



# Dominant reasons for compliance

Don't like the thought of my children's lungs being polluted and damaged.

The red alert made me feel guilty!

I felt bad lighting the fire when I realised it was

a blue sky day.

Can portable air quality monitors protect children from air pollution on the school run? An exploratory study

[James Heydon](#) ✉ & [Rohit Chakraborty](#)

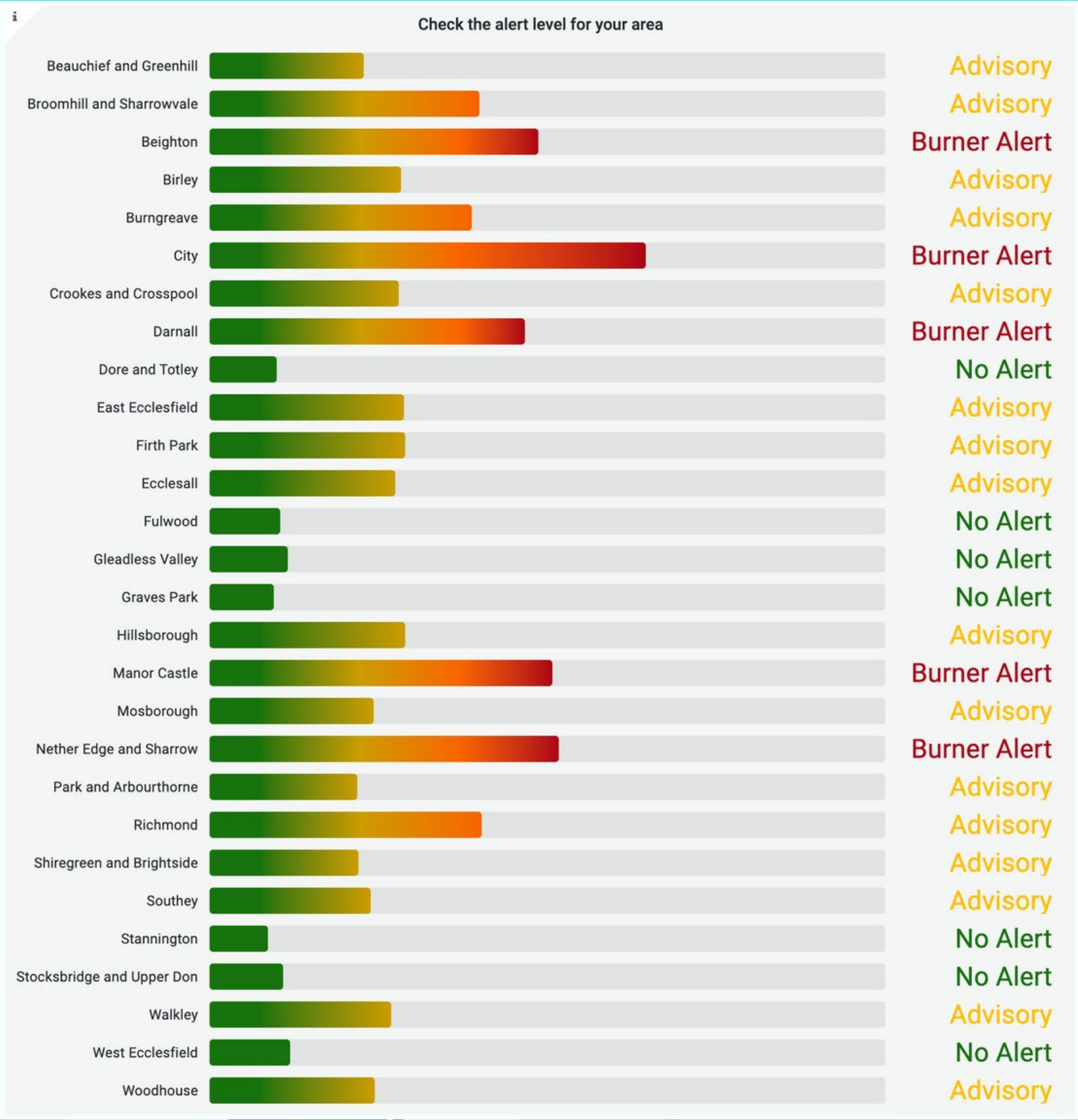
[Environmental Monitoring and Assessment](#) **192**, Article number: 195 (2020) | [Cite this article](#)

Wood burning stoves, participatory sensing, and 'cold, stark data'

[James Heydon](#) ✉ & [Rohit Chakraborty](#)

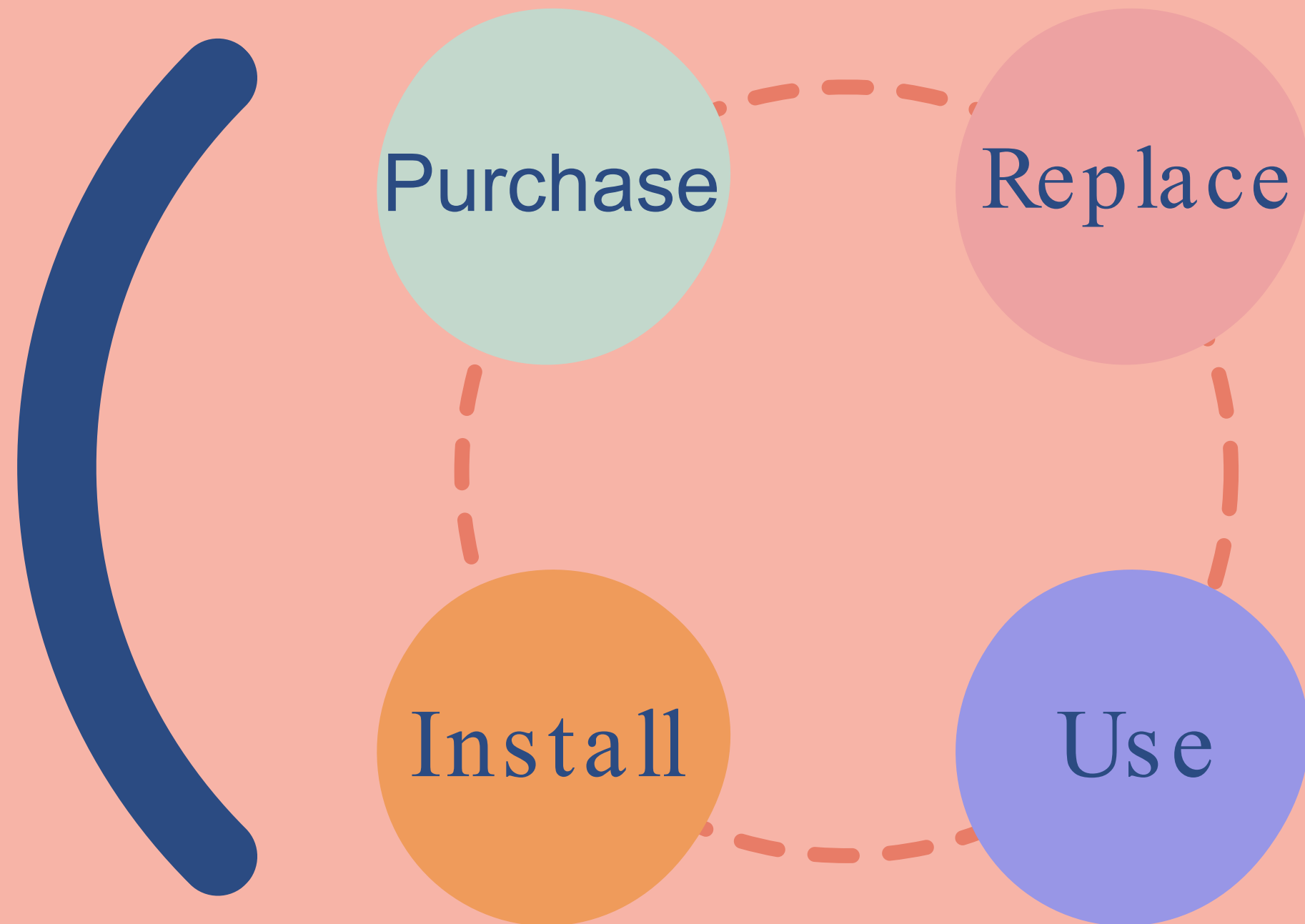
[SN Social Sciences](#) **2**, Article number: 219 (2022) | [Cite this article](#)

# Addressing non-/ inconsistent compliance

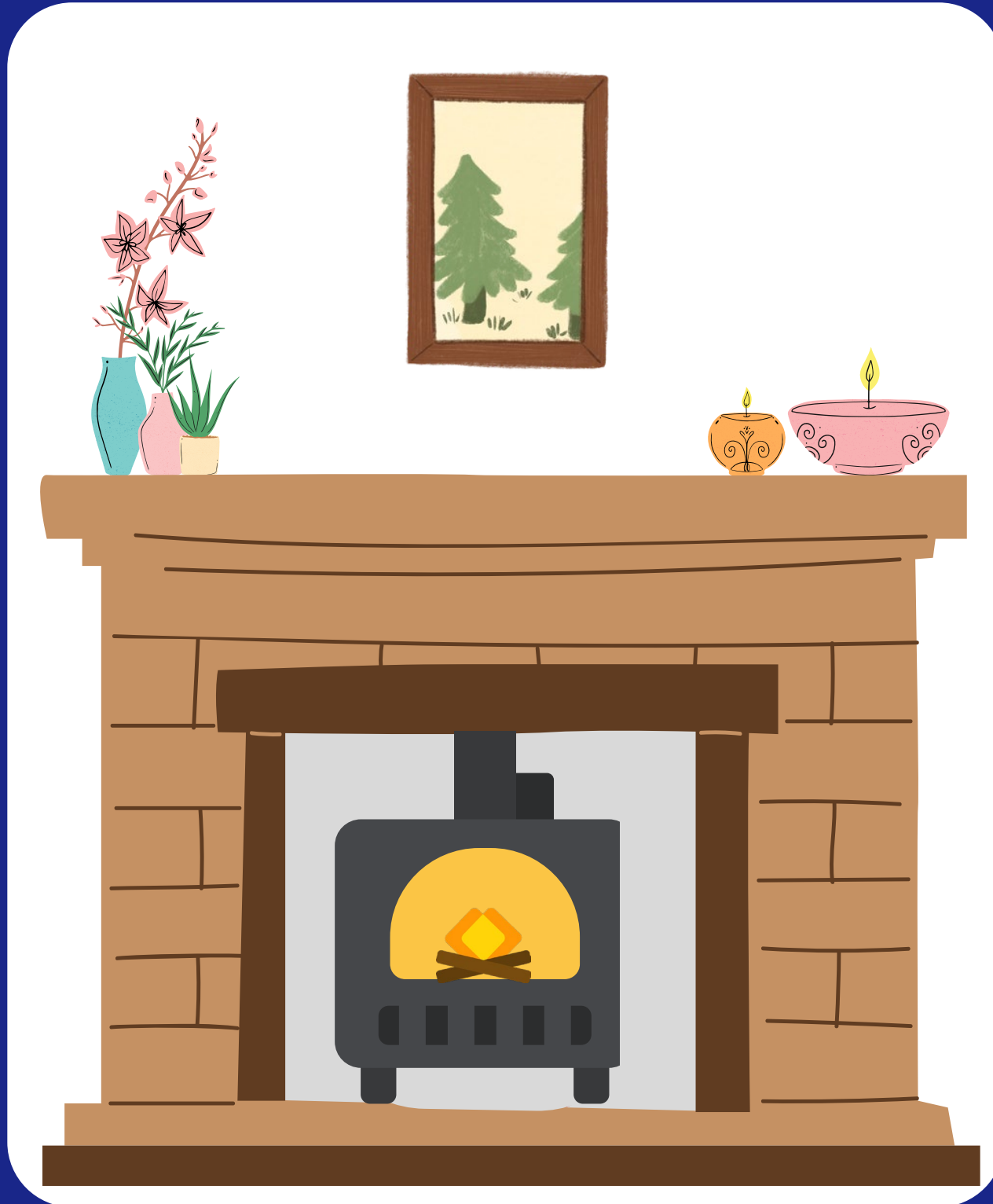


# Denormalising stove use: Sites for action

Less formal cultural  
interventions



# Concluding Comments



- Smoke control areas encourage use of more efficient fuels/stoves but, in doing so, help normalise  $\text{pm}_{2.5}$ -producing behaviours .
- 'No burn days' could work in the UK, with appropriate monitoring and communication.
- Tackling stove use should be seen as one part of a broader suite of responses aimed at denormalisation .