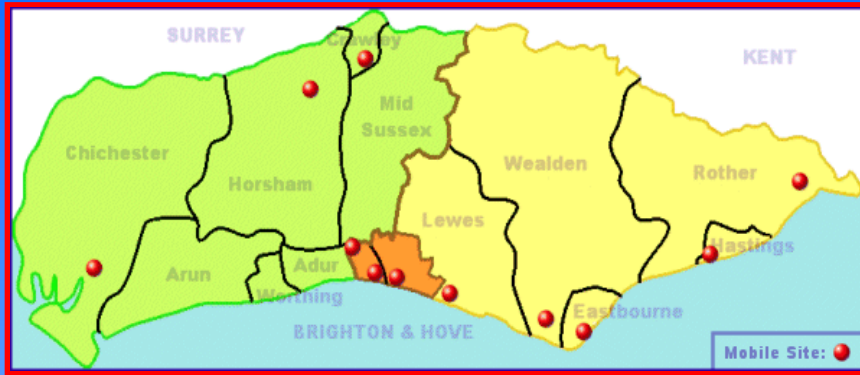


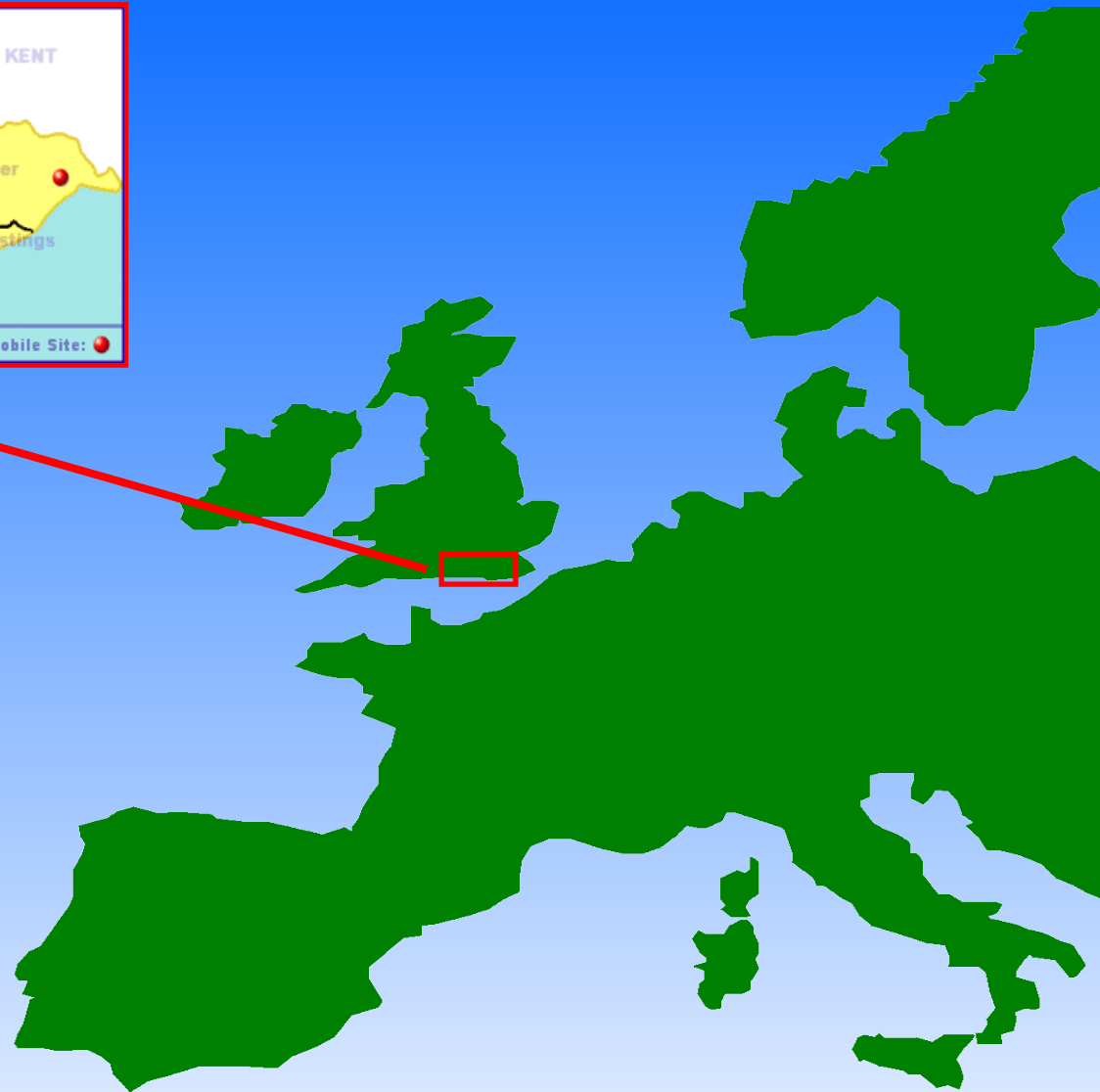


- delivering preventative health information to vulnerable people in Sussex (UK).



## Sussex- SE England

- Population= 1.5 mill
- 4x health authorities
- 13x local authorities
- 16x AQM stations
- 9x Air Quality Management Areas

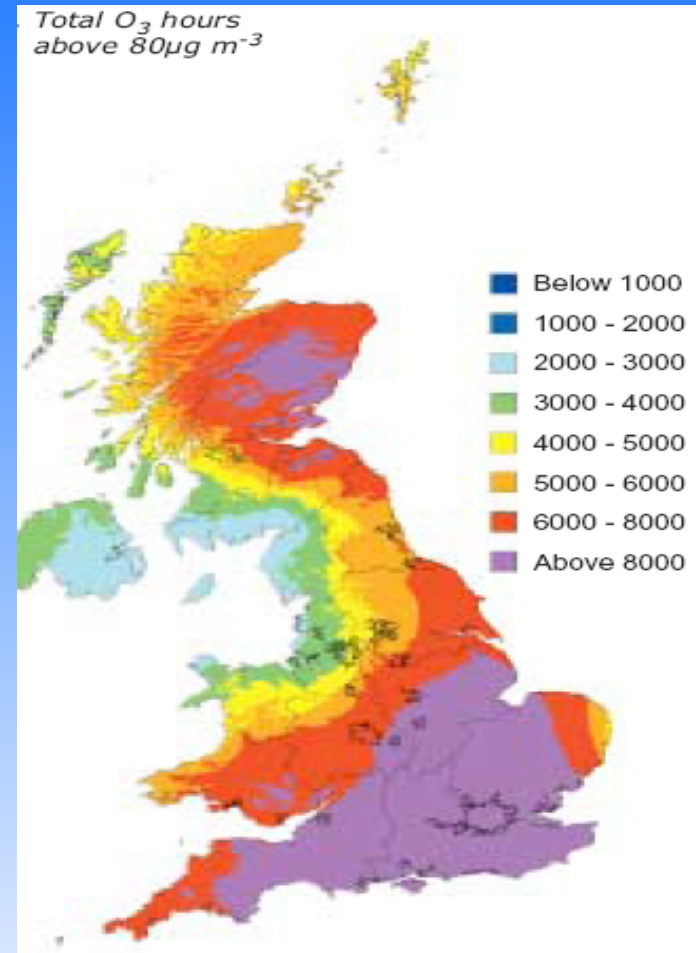


# Ozone - a regional problem.

The highest summer ozone concentrations are seen in the rural parts of South and South East England.

The main causes of days of “moderate” or higher air pollution at urban sites are now ozone and fine particles (PM10).

These areas tend to be hotter and sunnier than other parts of the UK, and are often downwind of polluted areas of the UK & Europe = sources of precursor emissions or ozone

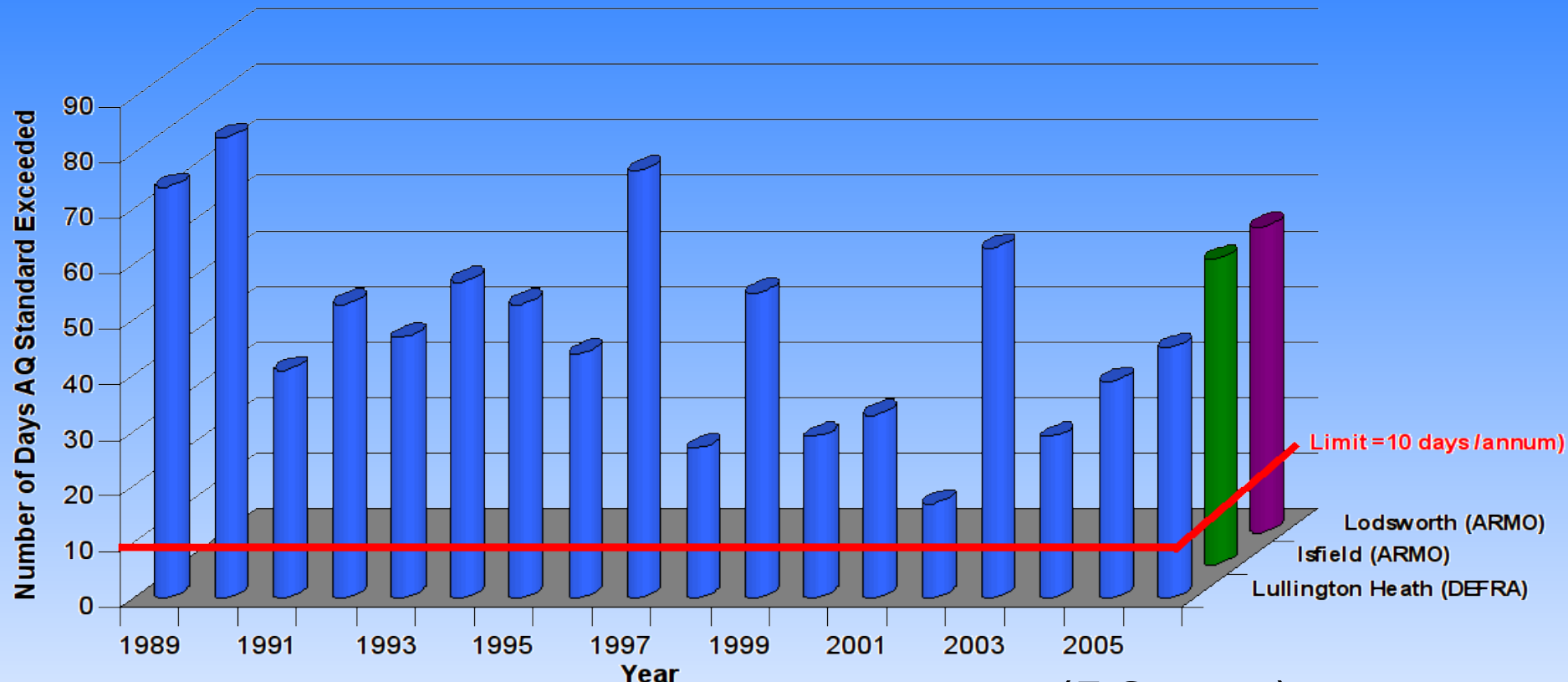


Ref: Air Quality in the UK, 2003 (DEFRA)

Sussex Air Quality Partnership

# Ozone - What's seen down in Sussex?

Ozone- Number of days exceeding AQ Strategy Objectives in Sussex (1989 - 2006)  
 (Air Quality Strategy Objective for (O3) Daily maximum 8-hour running mean > 100 µg/m³ on more than 10 days)

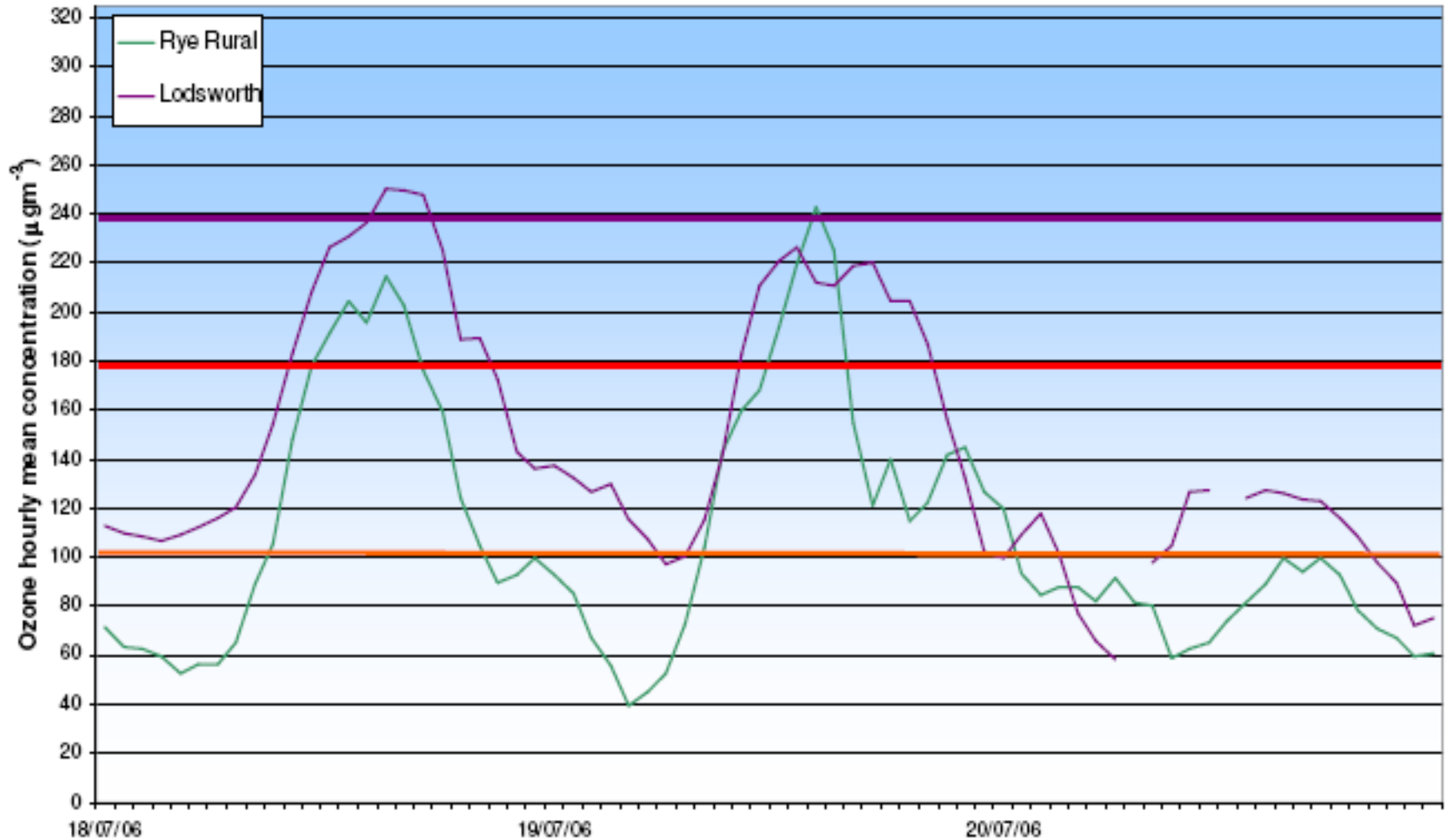


2 new AQ stations at Lodsworth (W.Sussex) and Isfield (E.Sussex):

- 2006 measured ozone were 2<sup>nd</sup> highest in UK

Sussex Air Quality Partnership

# Ozone episode at rural locations in Sussex (2006)



Hour between 18<sup>th</sup> and 20<sup>th</sup> of July

Summer heatwave 2006 (AEA) (Met-office presentation

# Ozone episode health impacts in UK (2003 & 2006)

2003:

- 1 episode (1<sup>st</sup> - 14<sup>th</sup> Aug) **214 - 580 additional deaths brought forward due to ozone**  
Represents 21 - 38% of ONS\* reported excess deaths related to air pollution effects.

2006:

- Episode 1 (27<sup>th</sup> June - 7<sup>th</sup> July) = **191 - 432** & episode 2 (13<sup>th</sup> - 23<sup>rd</sup> July) = **208 - 494** additional deaths brought forward due to ozone.

Key respiratory groups that [airAlert](#) can help target:

- 1 in 12 adults suffer from (some form of) asthma: (Asthma UK)
  - Sussex = 127,000
  - Cost of admission (£860/€1,100 per day) 1-day
- Registered patients with COPD (Chronic Obstructive Pulmonary Disease)
  - Sussex = 50,000
  - Cost of admission (£2000/€2,500 per day) 3-day (min)

Prevention via an intervention is key to help

## Asthma UK Report (2007):

“Every eight minutes a person with asthma requires emergency treatment to help them breathe, at an estimated cost of £58.3 (€74.6) million a year.”  
(UK)

“Approximately 3/4 of these hospital admissions could be avoided ...

, saving an estimated £43.7 (€56) million a year from the NHS hospital budget ”

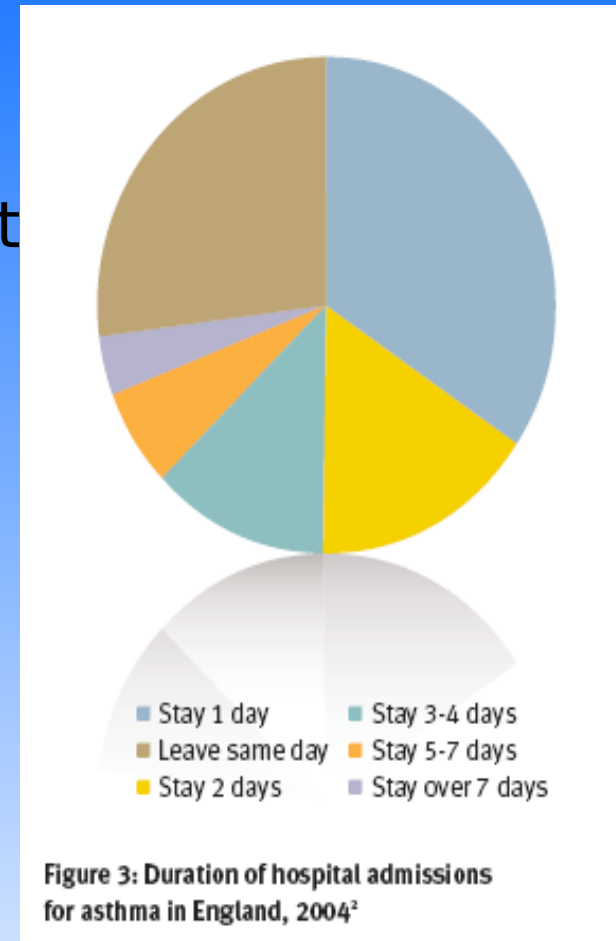


Figure 3: Duration of hospital admissions for asthma in England, 2004<sup>2</sup>

## What is **airAlert**.

- **airAlert** is a service which provides **FREE** air pollution alerts to vulnerable people in Sussex. It has been running since 2006 and has been funded through the Sussex Air Quality Partnership.
- **airAlert** sends out alerts when pollution levels are predicted to exceed UK health banding levels.
- **airAlert** uses SMS/text, voice messaging, email, web and RSS to deliver the alerts, the day before the likely incident.
- **airAlert** is a flexible service with the capacity to inform people about a variety of conditions/information which may affect them, helping with health and well-being.

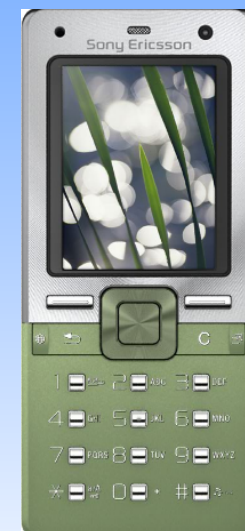
## airAlert messages – voice, SMS/text & email



|           |   |
|-----------|---|
| Moderate  | Mild effects are unlikely to require action, but may be noticed by sensitive people.  |
| High      | Sensitive people may notice significant effects, and may have to take action to reduce or avoid them (for example, by reducing the time spent outdoors). Asthmatics will find that their reliever inhaler is likely to reverse the effects of pollution on their lungs. |
| Very High | The effects on sensitive people, described for 'high' levels of pollution, may worsen.  |

### Example message:

airAlert: Probable Moderate Ozone, for non roadside, areas, until noon Mon 17<sup>th</sup> Jul. For more information - visit website see info-card.





Free pollution alerts direct to you, by text/SMS, voice-mail or email for people with asthma or poor respiratory health

air quality early warning system



## Welcome to the airAlert service for Sussex

You are on this page >> [Home](#)



### What is airAlert?

airAlert is a pilot service, provided by the Sussex Air Quality Partnership (SAQP), that will send free messages to your mobile or home telephone, informing you that poor air-quality is predicted in your area of West or East Sussex.

### Register for airAlert

You can register **FREE** for airAlert on this website. Please go to the [registration page](#) and fill out your details. Your data will be securely stored online, you will be able to login and change your preferences.

[read more... →](#)

### airAlert Service pages

- [airAlert text and voice messages](#)
- [RSS](#)
- [e-Alerts](#)
- [airAlert-4-Schools](#)
- [airAlert media](#)

Search

#### Current airAlert



There is a **Very High** pollution alert in Sussex

#### Login to your account

username:

password:

[login](#)

[Register here](#)

*“airAlert definitely helped me understand the link between pollution & my health.”*



airAlert provided by Sussex-air

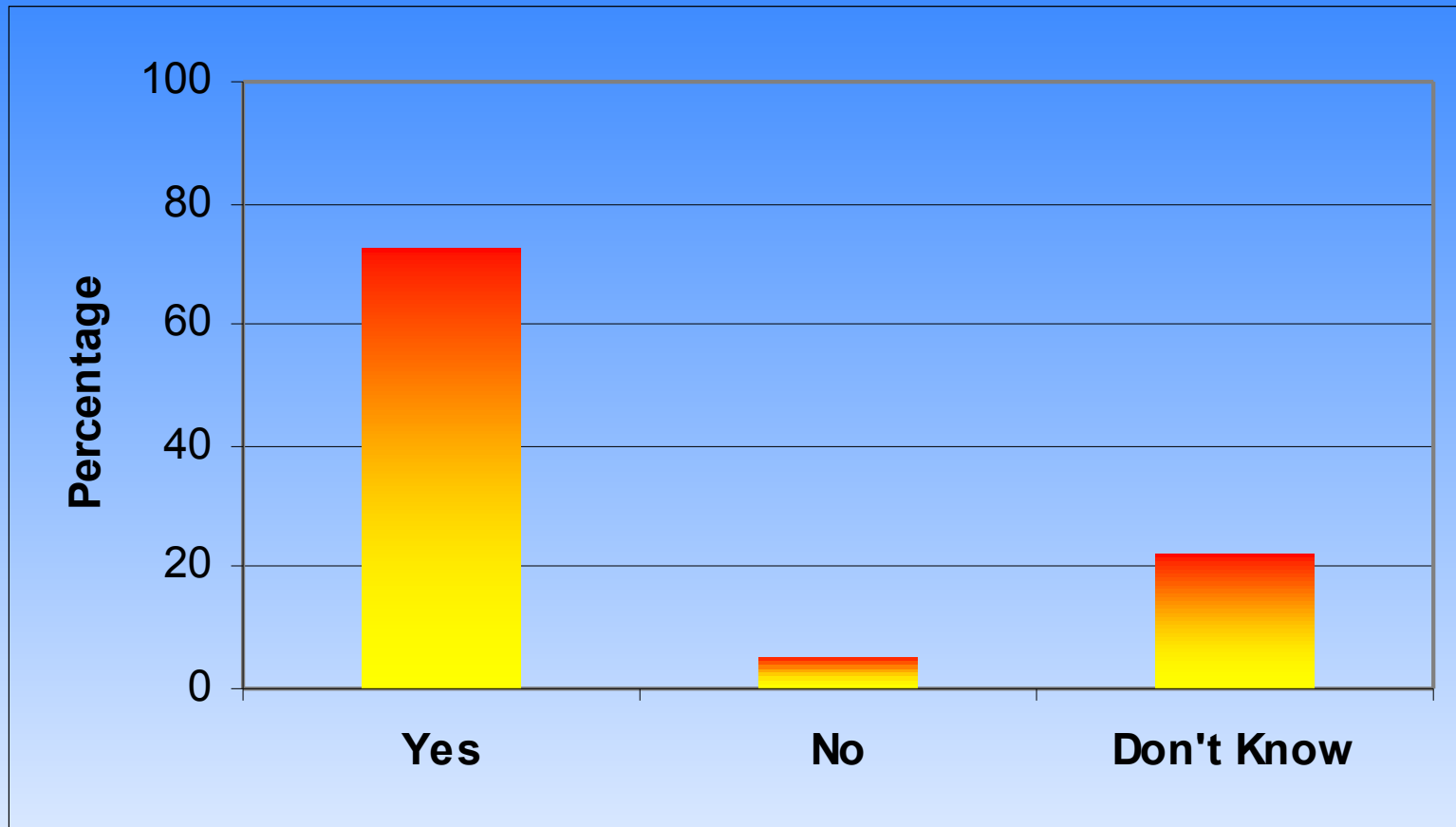
## airAlert services (08):

- Full year service
- **airALERT-4-schools** across all 400+ Sussex primary schools (Ages 5 -12) (>25,000 child(>3000 with asthma)).
- **e-ALERTs** to media - Sussex radio stations (100,000).
- [www.airalert.info](http://www.airalert.info) - health information, registration

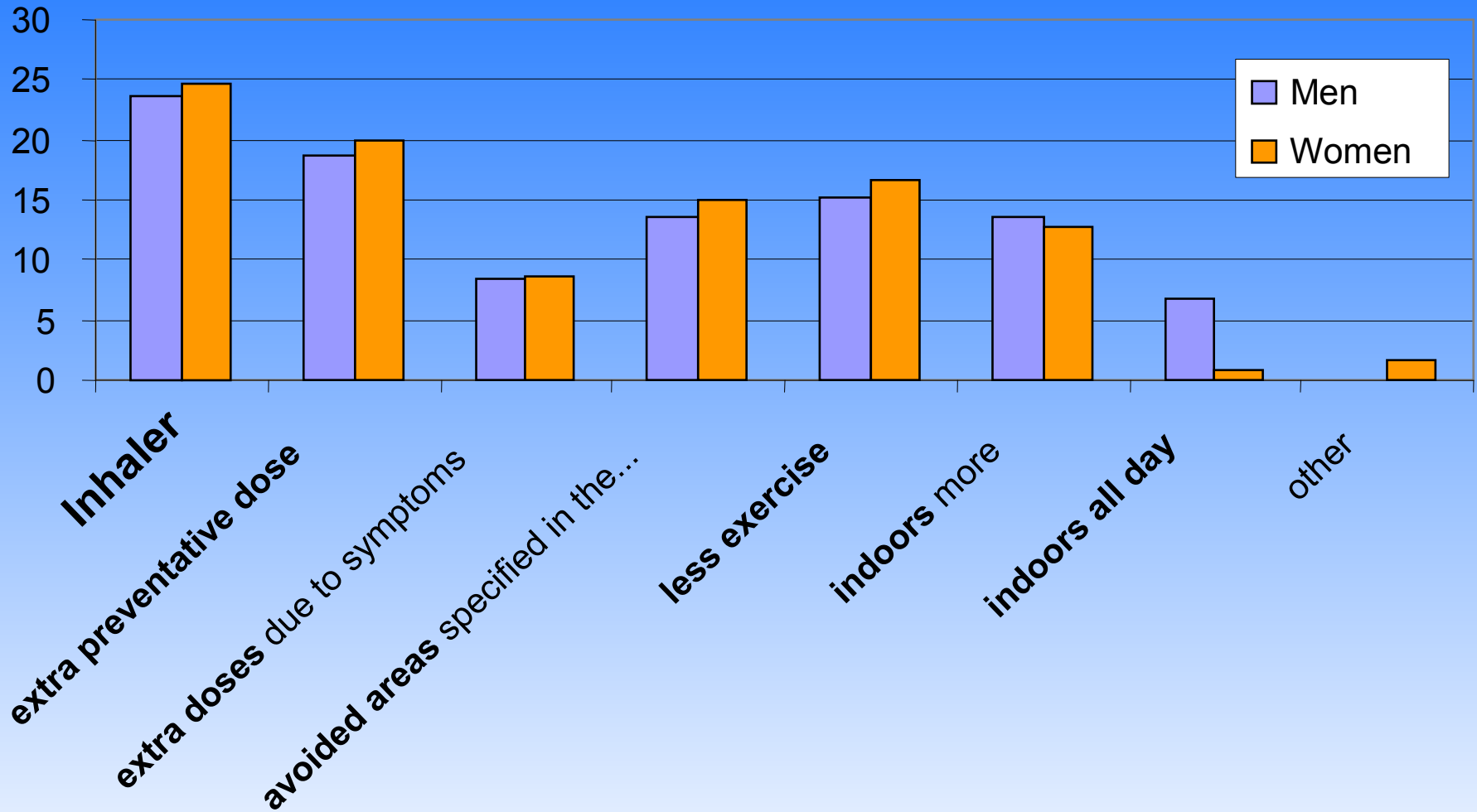
and service management.

# How did airAlert do?

## Did airAlert help you manage your symptoms?



## How did they modify their behavior/manage their health?



Health costs (asthma only):

Asthma admissions and cost in Sussex Health Authorities (2004).

| Health Authority (PCT)                  | Admiss     | Cost                                  |
|---|------------|---------------------------------------|
| <b>Brighton and Hove City PCT</b>       | <b>73</b>  | <b>£ 62,845</b>                       |
| <b>East Sussex Downs and Weald PCT.</b> | <b>153</b> | <b>£ 131,716</b>                      |
| <b>Hastings and Rother</b>              | <b>207</b> | <b>£ 178,204</b>                      |
| <b>West Sussex PCT</b>                  | <b>405</b> | <b>£ 348,660</b>                      |
| <b>TOTAL</b>                            |            | <b>£ 721,425</b><br><b>(€923,000)</b> |

## Asthma prevention:

**airAlert** sent out 17 alerts in 2007 to >300 users

=>5,000 personal alerts.

If 1 in 30 (of cohort) day admissions were prevented, Sussex Health authorities savings =  
£26k/€33k

Cost to run airAlert ~~Sussex Air Quality Partnership~~ £5k/€6.4k! (Unit cost =   
 [www.sussex-air.net](http://www.sussex-air.net) [www.airalert.info](http://www.airalert.info)

## airAlert's potential for health improvement:

**airAlert** has the potential to be a important method of positive intervention to prevent or reduce likely consults and/or admissions for people with respiratory conditions.

At present we target people with asthma, however many other groups/people concurrently benefit :

- Younger and older people
- Carers
- People with COPD
- Schools and children
- Health professionals
- People in

## Services like **airAlert** can adapt for the future:

- Deliver useful information to help people manage their own health. Providing information to/for:
  - COPD, HEAT-waves, UV warnings, Cold, Flu.
  - fast directed information to patients, carers, health professionals, clinics and A&E(ER).
  - needs to be managed well with appropriate health advice.

## Engaging with UK Health Authorities:

In UK services like airAlert need the engagement and ownership of Health Authorities to target and deliver a more comprehensive service to:

- Provide networks of communication
  - Professionals
  - Clients (patients, carers, older people)
- Health advice

- Support (£/€)

## airAlert - the challenges:

- Who should support this service - NHS, HA, GP's?
- Selling the service = research/business plan?
- Sustaining a service (funding and support):
  - Health and Environmental partnerships
  - Public private partnership with sponsorship

- Maintaining a high quality and valued service

Any questions  
& thank-you.

Nigel Jenkins – Sussex-air

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331)