



By email

Our ref: 04/01/lv/473

28th January 2014

Re: Incinerators and public health

Thank you for your email of 3 January 2014 in which you asked about incinerators and public health.

Your request for information has been handled as a request for information under the Environmental Information Regulations (EIR). In accordance with regulation 5(1) I can confirm that Public Health England (PHE) does hold some of the information you have requested.

You asked:

(a) I should be grateful if you'd provide any evidence that demonstrates beyond any reasonable doubt that incinerator emissions don't harm health.

In accordance with regulation 5(1) I can confirm that Public Health England (PHE) does hold information in relation to this matter.

PHE's position is that modern, well managed incinerators make only a small contribution to local concentrations of air pollutants. It is possible that such small additions could have an impact on health but such effects, if they exist, are likely to be very small and not detectable.

This view is presented in the position statement from September 2009, reissued in February 2010, which is available here:

<http://www.hpa.org.uk/Publications/ChemicalsPoisons/IPPCAndPositionStatements/CRCEMunicipalWasteIncineration>

PHE will review its advice in light of new substantial research on the health effects of incinerators published in peer reviewed journals. To date, PHE is not aware of any evidence that requires a change in our position statement.

(b) I should also be grateful if you'd provide any evidence that demonstrates beyond any reasonable doubt that infant mortality rates are causally linked to socio-economic status.

In accordance with regulation 5(1) I can confirm that Public Health England (PHE) does hold information in relation to this matter.

The link to the most recent data on the associations between infant mortality and socio-economic status, published by the Office of National Statistics, is here: <http://www.ons.gov.uk/ons/rel/child-health/infant-and-perinatal-mortality-in-england-and-wales-by-social-and-biological-factors/2011/stb-infant-and-perinatal-mortality--2011.html#tab-Social-factors>

The age at which women have children has been shown to be related to their socio-economic status (Cooper, 2001) and significant differences in infant mortality rates by socio-economic group persist in England and Wales (Oakley et. al., 2009).

Using the father's occupation and employment status as a proxy for socio-economic status (and therefore excluding births registered solely by the mother), infant mortality rates were highest for babies of married fathers in routine occupations (5.2 deaths per 1,000 live births) and babies of unmarried father's in semi-routine occupations (5.0 deaths per 1,000 live births).

Fathers classified to the 'Other' category comprise a mixed group including those who have never worked, the long term unemployed, students and those individuals whose occupational details could not be classified. Although babies born in this group had the highest rates for stillbirths and perinatal deaths, these figures should be interpreted with caution because the rates may vary between the different sub-groups within this category (Table 7 in the ONS website data cited above).

Most causes of infant deaths show a socio-economic gradient. Maternal health, including stress, diet, drug, alcohol and tobacco use during pregnancy, has a significant influence on foetal and early brain development. Lower birth weight, earlier gestation and being small for gestational age are associated with infant mortality. An analysis of infant deaths in England and Wales showed that deprivation, births outside marriage, non-white ethnicity of the infant and maternal age under 20 years old are all independently associated with increased risk of infant mortality. A trend of increasing risk of infant death with increasing deprivation persisted after adjustment for the other factors (Marmot, 2010).

It is difficult to establish clear causality between socio-economic status and infant mortality; however, many of the factors known to influence foetal development and health are also linked with socio-economic status.

References cited:

Cooper, N (2001) 'Analysis of infant mortality rates by risk factors and by cause of death in England and Wales' In: Griffiths, Clare. Fitzpatrick, Justine. (Eds) DS 16.

Decennial Supplement: Geographic Variations in Health. Stationery Office

Marmot, M (2010), Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England Post-2010. Available here:

<http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>

Oakley L, Manochie N, Doyle P et al. (2009) Multivariate analysis of infant deaths in England and Wales in 2005-06, with a focus on socio-economic status and deprivation. Health Statistics Quarterly 42: 22-39

(c) I should be grateful if you'd name the 22 incinerators in England, Scotland and Wales that are to be used in the above study.

In accordance with regulation 5(1) I can confirm that Public Health England (PHE) does hold some of the information you have specified.

A new study to further extend the evidence base as to whether emissions from modern well run Municipal Waste Incinerators affect human health has been approved by the Health Protection Agency. On 1 April 2013 the functions of the Health Protection Agency were transferred to Public Health England. The attached table lists the incinerators in England and Wales included in the study.

If you have any queries regarding the information that has been supplied to you, please refer them to me in the first instance. If you are dissatisfied with this response and would like to request an internal review, then please contact Mr George Stafford at the address above or by emailing complaints@phe.gov.uk.

Please note that you have the right to an independent review by the Information Commissioner's Office if a complaint cannot be resolved through the PHE complaints procedure. The Information Commissioner's Office can be contacted by writing to Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire SK9 5AF.

Yours sincerely

Freedom of Information Officer