

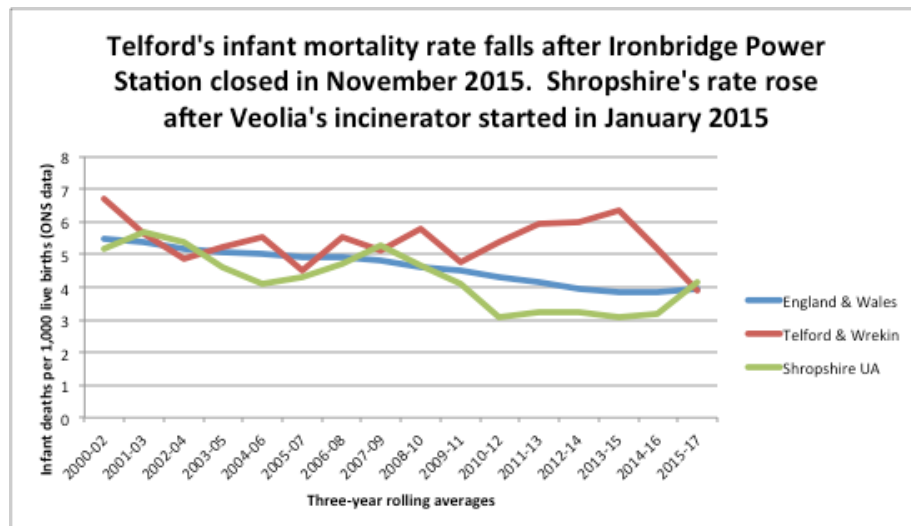
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Incinerator emissions and higher rates of infant mortality

by Michael Ryan BSC, C Eng, MICE

In 2005, ONS kindly sent me a six-year set (1998-2003) of Vital Statistics 4 (VS4) data for every electoral ward in Shropshire, which enabled me to see that wards exposed to emissions from the Ironbridge Power Station had higher infant death rates than those free from such emissions.

In January 2015, the allegedly safe Harlescote incinerator started operating and in November 2015, the Ironbridge Power Station closed down. The infant death rate in Shropshire Unitary Authority subsequently rose. The infant death rate in Telford & Wrekin, much of which was heavily exposed to emissions from Ironbridge Power Station, fell after the power station ceased operating.



In September 2006, I purchased a three-year set (2003-2005) of VS4 data for all electoral wards in England & Wales and after aggregating the infant mortality rates for the above three years was confident in finding higher rates of infant mortality in electoral wards exposed to PM2.5 emissions from incinerators and other industrial sources.

On 6 November 2006, I emailed the London Mayor about my research as I'd mapped the infant death rates in the 625 electoral wards in London (City of London counted as a single ward) and seen correlation between exposure to incinerator emissions and higher rate of infant deaths. The concerns I raised were brushed aside on 13 November 2006 as can be seen here (GLA response).

BBC Radio London sent a journalist to interview me in Shrewsbury on 12 April 2007. She later emailed the London Health Observatory and was told that their expert advisers had told them that air pollution wasn't linked to infant mortality. After the BBC dropped the news item about my research, I contacted the London Health Observatory and obtained copies of the above email correspondence. I then made a request under the Freedom of

Information Act asking for the names of their expert advisers and their reply claimed that they couldn't remember.

The first newspaper reports about this research were in six local London papers and one national in 2007. VS4 data listed numbers of births and deaths in every electoral ward in England and Wales, both as totals and by sex. The deaths were also listed in age groups: under 28 days, less than 1 year, 1-4, 5-14, 15-24 years etc.

The following London map used the same 2003-2005 infant mortality rates referred to in my email of 6 November 2006. The unexpectedly low rates of infant deaths in the L4 group of electoral wards downwind of the Colnbrook incinerator are due to the displacement and dispersal of emissions from that incinerator. I was puzzled by high infant death wards in group H7 until the Environment Agency kindly sent me a list of hazardous waste incinerators that included Reichhold's incinerator in Cricket Green ward, London Borough of Merton.

<http://www.ukhr.eu/mapa4.pdf>

London's electoral wards were unchanged for the twelve years 2002-2013 and after aggregating the infant mortality rates for those years, I looked at "groups of four" wards, i.e. any four wards that formed a single group, to see which groups had the highest and lowest average infant death rate. The following two tables are from page 8 of my November 2017 submission to the EFRA committee:

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environment-food-and-rural-affairs-committee/joint-inquiry-into-improving-air-quality/written/73685.pdf>

These four wards clustered around the Edmonton incinerator had a higher infant death rate than any other group of four wards in London:

Borough	Ward	Live births	Infant deaths 2002-2013 ONS data	Infant deaths per 1,000 live births
Enfield	Lower Edmonton	3738	36	9.6
Enfield	Upper Edmonton	3827	36	9.4
Waltham Forest	Valley	1834	16	8.7
Haringey	White Hart Lane	2710	23	8.5
	Totals	12109	111	9.2

The four Bromley wards below, which had very low infant death rates during the same 12 years, also form a single group - but are relatively free from incinerator emissions:

Borough	Ward	Live births	Infant deaths 2002-2013 ONS data	Infant deaths per 1,000 live births
Bromley LB	Darwin	589	0	0
Bromley LB	Shortlands	1034	0	0
Bromley LB	Hayes and Cony Hall	1652	2	1.2
Bromley LB	Kelsey and Eden Park	1844	1	0.5
	Totals	5119	3	0.6

Green Party Assembly Member Darren Johnson asked these questions in May 2010:

Incinerators

Question No: 41 / 2010

Darren Johnson

A constituent asks, is there any evidence to suggest that the SELCHP and Kings College Hospital incinerators which flank Southwark contributed to the Borough having the highest infant mortality rate in London in 2008?

Infant morality (sic) rates

Question No: 42 / 2010

Darren Johnson

Will you publish electoral ward-level data and a map showing the 2002-2008 infant mortality rates in London?

The Greater London Authority later claimed to have no knowledge of the subsequent report which can be seen here.

Note that there are no incinerators marked on the map on page 8 and also that the authors wrongly claimed on pages 4 & 5 that Newham had the highest infant death rate in 2002-2008, whilst the table on page 2 of the report shows that Southwark had the highest rate at 7.2 per 1,000 live births.

“Therefore we would expect areas with higher levels of child poverty and have a high IMD rank to have higher levels of infant mortality and visa versa. These relationships can be seen in London. For example, Newham had the highest infant mortality rate (6.5) of all London boroughs and was also the third most deprived London borough and had the fourth highest proportion of children living in income deprivation (0.52).”

If the above statement is correct for Newham Borough, “the poor” must have been leaving in droves prior to SELCHP incinerator starting in 1993 and then there must have been a sudden post-incinerator influx of poor people to “explain” why there was a sudden increase in Newham’s infant death rate.

<http://ukhr.eu/incineration/selchp.htm>

The above graph was the first I prepared showing a post-incinerator rise in infant mortality rates in Councils exposed to emissions and this Liverpool Echo letter explains more:

“SUGGESTING that incinerator emissions don't harm health is very easy (Liverpool Echo, 25 January 2014).

But providing evidence of "lack of harm" has so far eluded the Environment Agency, Health Protection Agency and also Veolia's legal team at the Shrewsbury incinerator public inquiry in 2011, where Dr Dick van Steenis was my expert witness.

Infant mortality rates are accurate indicators of the health of a community and a rapid fall in rates in [England and Wales](#) followed the switch to the cleaner North Sea Gas- but no causal link was apparently made between the two events.

In December 2012 the Office for National Statistics kindly released the 1970-2010 infant mortality rates for all London boroughs and I doubt if any of the above can offer any explanation, other than changing levels of airborne pollution, for the similar, falling rates in the boroughs of Wandsworth, Lewisham, Newham and Tower Hamlets prior to the start-up of the [SELCHP](#) ([South East London](#) Combined Heat and Power) incinerator

in 1993 and the sudden rise in rates in the three boroughs most exposed to emissions from SELCHP, while the rate in 'upwind' Wandsworth continued to fall.

Michael Ryan, Shrewsbury"

<http://www.thefreelibrary.com/Harm+is+hard+to+prove%3B+You+Say+Email%3Aletters@li verpoolecho.co.uk.-a0357065225>

This letter explains more about how the former Health Protection Agency failed to act with due diligence over the incinerator issue:

"Incinerator deaths study was misleading

'The enormous incinerator that controversially looms over the M5 in rural Gloucestershire' (Western Daily Press, May 25) will be seen by many who also live within range of an incinerator and who have also been told that incinerator emissions cause no health damage, by experts unable to provide supporting evidence.

Having read about the then newly-formed Health Protection Agency being aware of "public concern about ill health consequences of long-term exposure to chemicals, such as those emitted from landfills, incinerators and industrial sites" ('Chemical danger testing', Western Daily Press, August 6, 2003), I used Fol in March 2008 to ask the HPA for a list of incinerators around which they'd examined the rates of illness and rates of premature deaths at all ages at electoral ward level and compared upwind wards with those downwind of incinerators .

Justin McCracken, the second CEO of the HPA, had the brass neck to confirm in May 2008 that they'd not checked any such data around any incinerator, whilst in that same month his claim to be "proud to put public health first" was reported in Nigel Hawkes' interview (The Times, May 20, 2008), which included: "Our role is to develop evidence and make sure that those who can act on it are given it and do act on it".

After a series of critical articles by Mark Metcalf in Big Issue in the North, the HPA promised a study into a possible link between incinerator emissions and infant mortality in 2011, which was carried out by SAHSU and published over seven years later. After adjusting ONS infant mortality data for deprivation, ethnicity and socioeconomic status, the authors concluded that there was no risk.

For the SAHSU rationale to hold, there'd have to have been major population shifts before and after incinerators started operating, with "the poor etc" leaving prior to the start-up to "explain" the then falling infant death rates and sudden returns after incinerators started operating to account for the rise in rates of baby deaths. These very location-specific and time-critical population shifts just didn't occur at council level, which SAHSU and other experts should have realised before submitting a flawed and misleading study for publication.

Michael Ryan

Shrewsbury"

(Western Daily Press, 1 June 2019, pages 26 & 27)

*****End*****