THOR

The Health and Occupation Research network

(Incorporating specialists' and THOR-GP reports)

http://www.population-health.manchester.ac.uk/epidemiology/COEH/research/thor/
Or
http://www.coeh.man.ac.uk/thor

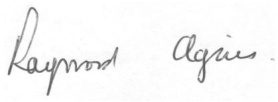
Dear colleague,

Besides the customary quarterly report based on your much valued data supplemented by our analysis and narrative, I have some recent news to share with you about THOR's research funding. This news is of the 'glass half full' (or 'half empty') type.

The UK Health and Safety Executive have awarded us an extension in funding to continue to collect data from SWORD and EPIDERM until the end of December 2016 (with analysis and reporting in 2017). This is very good news for these schemes but unfortunately does not appear encouraging for the other reporting schemes within THOR. Nevertheless, through 'scraping the barrel' of charitable funding and some consultancy income we will continue to collect data from OPRA and THOR-GP in 2016. Indeed we are very grateful for your continuing commitment to support these schemes, since your active input improves the chances of success in our persisting efforts to obtain more funding from various sources.

I hope that you will have had a relaxing festive season with the reduced occupational exposure that Mark Wilkinson has wished below. My colleagues and I extend their wishes for a successful and fulfilling new year.

Kind regards



Raymond Agius
Professor of Occupational and Environmental Medicine

QUARTERLY REPORT December 2015

This THOR and THOR-GP combined quarterly report summarises all the cases reported in the quarter July to September 2015. It includes a special feature on a work-related ill-health issue that has made headlines recently – workplace bullying.

If you have any comments regarding the type of information you would like to see included (or not) in future reports, or suggestions as to how we could improve the reports then please contact THOR's Manager, Dr Melanie Carder at melanie.carder@manchester.ac.uk or phone 0161 275 5636. We are pleased to hear from you.

CASE REPORTS: July to Sept 2015

Over 1100 physicians currently participate in THOR / THOR-GP (as of Sept 2015). Physicians can report either on a core (reporting each month) or a sample (reporting for one randomly selected month each year) basis. A total of 324 actual, 1314 (estimated) cases were reported during this period, with estimated cases being those reported by sample reporters multiplied by 12 and added to the core cases.

The actual and estimated cases by major category and diagnostic group, for clinical specialists (chest physicians, dermatologists, occupational physicians (OPs) and general practitioners (GPs)) are shown in Table 1 (NB. only actual cases are provided for THOR-GP; since methods for calculating estimated totals based on GP reports are under further development)

Table 1 Actual and estimated cases by major category and diagnostic group, July to Sept 2015

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
RESPIRATORY DISEASE	Asthma	19	41	*15*	4	26	*67*	0	0
	ascribed to sensitisation	*16*	*27*	-	-	-	-	-	-
	ascribed to irritation/RADS	*3*	*14*	-	-	-	-	-	-
	Unspecified	*0*	*0*	-	-	-	-	-	-
	Inhalation accidents	1	1	*<1*	2	13	*33*	0	0
	Allergic alveolitis	2	2	*1*	0	0	*0*	0	0
	Bronchitis/emphysema	1	1	*<1*	0	0	*0*	0	0
	Infectious disease	0	0	*0*	0	0	*0*	0	0
	Non-malignant pleural disease	22	121	*44*	0	0	*0*	0	0
	predominantly plaques	*19*	*85*	-	-	-	-	-	-
	predominantly diffuse	*2*	*24*	-	-	-	-	-	-
	Unspecified/other	*1*	*12*	-	-	-	-	-	-
	Mesothelioma	10	43	*16*	0	0	*0*	0	0
	Lung cancer	5	16	*6*	0	0	*0*	0	0
	Pneumoconiosis	19	52	*19*	0	0	*0*	0	0
	Other	12	23	*8*	0	0	*0*	0	0
	Total diagnoses	**91**	**300**		**6**	**39**		**0**	
	Total cases	**79**	**277**	***100***	**6**	**39**	***100***	**0**	**0**

As more than one diagnosis may be reported the sum of percentages and total cases in each diagnostic category may be greater than 100%

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
SKIN	Contact dermatitis	101	178	*93*	12	111	*99*	6	*86*
	Allergic	*41*	*74*	-	-	-	-	-	-
	Irritant	*33*	*44*	-	-	-	-	-	-
	Allergic and irritant	*22*	*55*	-	-	-	-	-	-
	Unspecified	5	5	-	-	-	-	-	-
	Contact urticaria	3	3	*2*	0	0	*0*	0	*0*
	Folliculitis/acne	0	0	*0*	0	0	*0*	0	*0*
	Infective	0	0	*0*	0	0	*0*	1	*14*
	Mechanical	0	0	*0*	0	0	*0*	0	*0*
	Nail	2	24	*13*	0	0	*0*	0	*0*
	Neoplasia	3	14	*7*	0	0	*0*	0	*0*
	Other	0	0	*0*	1	1	*1*	0	*0*
	Total diagnoses	**109**	**219**		**13**	**112**		**7**	
	Total cases	**104**	**192**	***100***	**13**	**112**	***100***	**7**	***100***
MUSCULOSKELETAL	Hand/wrist/arm	**No case reports from clinical specialists**			17	105	*40*	1	*10*
	Elbow				4	37	*14*	0	*0*
	Shoulder				4	48	*18*	2	*20*
	Neck/thoracic spine				0	0	*0*	1	*10*
	Lumbar spine/trunk				6	50	*19*	5	*50*
	Hip/knee				2	13	*5*	0	*0*
	Ankle/foot				1	12	*5*	1	*10*
	Other				0	0	*0*	1	*10*
	Total diagnoses				**34**	**265**		**11**	
	Total cases				**34**	**265**	***100***	**10**	***100***

As more than one diagnosis may be reported the sum of percentages and total cases in each diagnostic category may be greater than 100%

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	**Estimated diagnoses**	***%***	**Actual diagnoses**	**Estimated diagnoses**	***%***	**Actual diagnoses**	***%***
MENTAL ILL-HEALTH	Anxiety/depression	**No case reports from clinical specialists**			29	238	*60*	3	*38*
	Post-traumatic stress disorder				3	25	*6*	0	*0*
	Other work-related stress				29	161	*40*	6	*75*
	Alcohol or drug abuse				0	0	*0*	0	*0*
	Psychotic episode				0	0	*0*	0	*0*
	Other				2	13	*3*	1	*0*
	Total diagnoses				**63**	**437**		**9**	
	Total cases				**58**	**399**	***100***	**8**	***100***

As more than one diagnosis may be reported the sum of percentages and total cases in each diagnostic category may be greater than 100%

Other cases

In addition to the main diagnostic categories described in Table 1, OPs and GPs can report 'other' diagnoses of work-related ill-health (WRIH).

OPs reported five other cases this quarter, including 4 audiological cases; all diagnosed as noise induced hearing loss in a furnace-man, turner, painter and vehicle inspector, and 1 case of 'other' work-related ill-health, diagnosed as worsening of hypertension in an anaesthetist.

GPs reported no 'other' work-related cases this quarter.

QUARTERLY FEATURE

WORK-RELATED MENTAL ILL-HEALTH AND BULLYING

The economic cost of workplace bullying and difficult working relationships has recently been highlighted in the news as costing an estimated £18 billion to the UK economy[1]. With this in mind, for this quarter's feature we thought reporters might be interested in a descriptive overview of the cases of work-related mental ill-health reported to THOR that have bullying / interpersonal difficulties specified as the precipitating event.

Occupational physicians and general practitioners currently report cases of work-related mental ill-health to THOR via the OPRA and THOR-GP schemes. Consultant psychiatrists previously reported cases via the Surveillance of Occupational Stress and Mental Illness (SOSMI) scheme which ceased data collection in 2009. The reportable diagnostic categories for all three schemes are as follows: anxiety / depression; post-traumatic stress disorder (PTSD); other work-related stress; alcohol or drug abuse; psychotic episode; other psychiatric problems.

17% of the work-related mental ill-health cases reported by consultant psychiatrists to the SOSMI scheme (1999-2009) were attributed to bullying / interpersonal relationships as the precipitating event. Within OPRA, occupational physicians reported 30% of all of the mental ill-health cases as attributable to bullying / interpersonal relationships (1996-2014); for GPs 39% were considered to be caused or aggravated by these workplace psychological exposures (2005-2014). Figure 1 shows the proportional mix for these cases attributed to bullying / interpersonal relationships reported to each scheme:

[1] **'Workplace Bullying on the rise', BBC News, http://www.bbc.co.uk/news/business-34833261 16th November 2015**

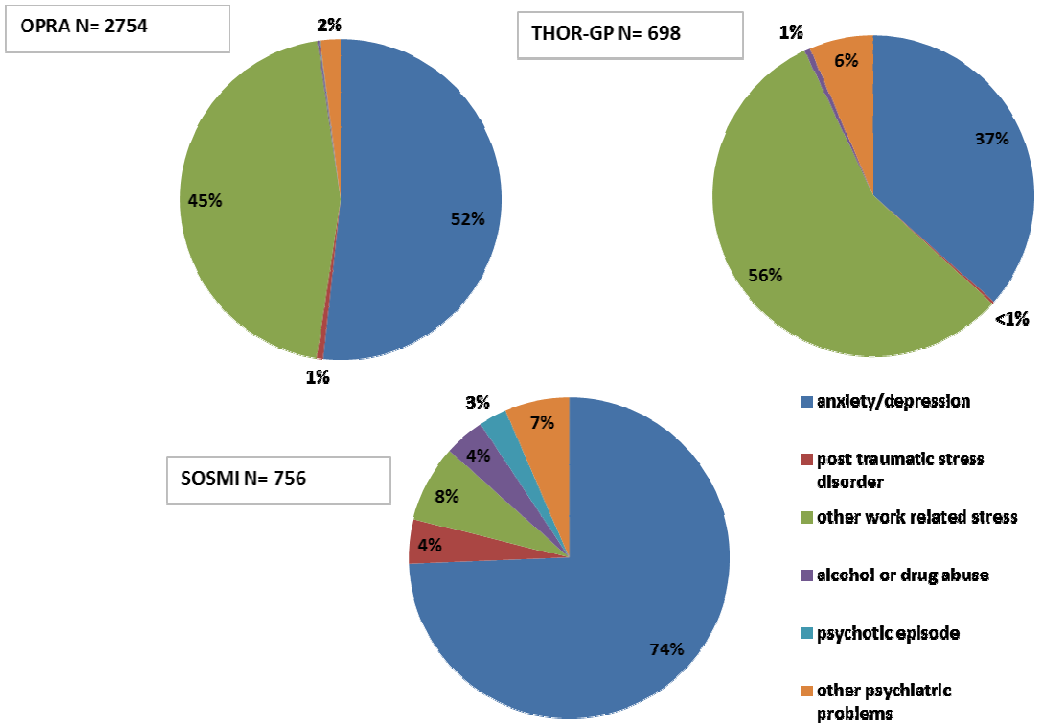


Figure 1 Proportion of actual cases of work-related mental ill-health attributed to bullying / interpersonal difficulties reported to SOSMI (1999-2009), OPRA (1996-2014) and THOR-GP (2005-2014)

For all three schemes, cases of work-related mental ill-health attributed to bullying / interpersonal difficulties were reported more frequently in females (SOSMI 52%; OPRA 65%; THOR-GP 67%) with a similar mean age for all three schemes - SOSMI 45 years (age range 16-72 years); OPRA 44 years (age range 18-69 years); THOR-GP 41 years (age range 17-66 years)

In terms of industry sectors, health and social care, public administration and defence and education (all large public sector industries) were reported most frequently for cases of work-related mental ill-health attributed to bullying / interpersonal difficulties to the three schemes (see Figure 2). Unsurprisingly, bullying issues within the NHS often also make the headlines in the UK [2]. In addition to these main sectors, GP reports also show a relatively high proportion of cases reported in the retail sector and land transport and storage sector, compared to OP and consultant psychiatrist reports.

[2] **'Bullying in the NHS is getting worse, annual survey shows', The Telegraph, February 2015** http://www.telegraph.co.uk/news/nhs/11432976/Bullying-in-the-NHS-is-getting-worse-annual-survey-shows.html

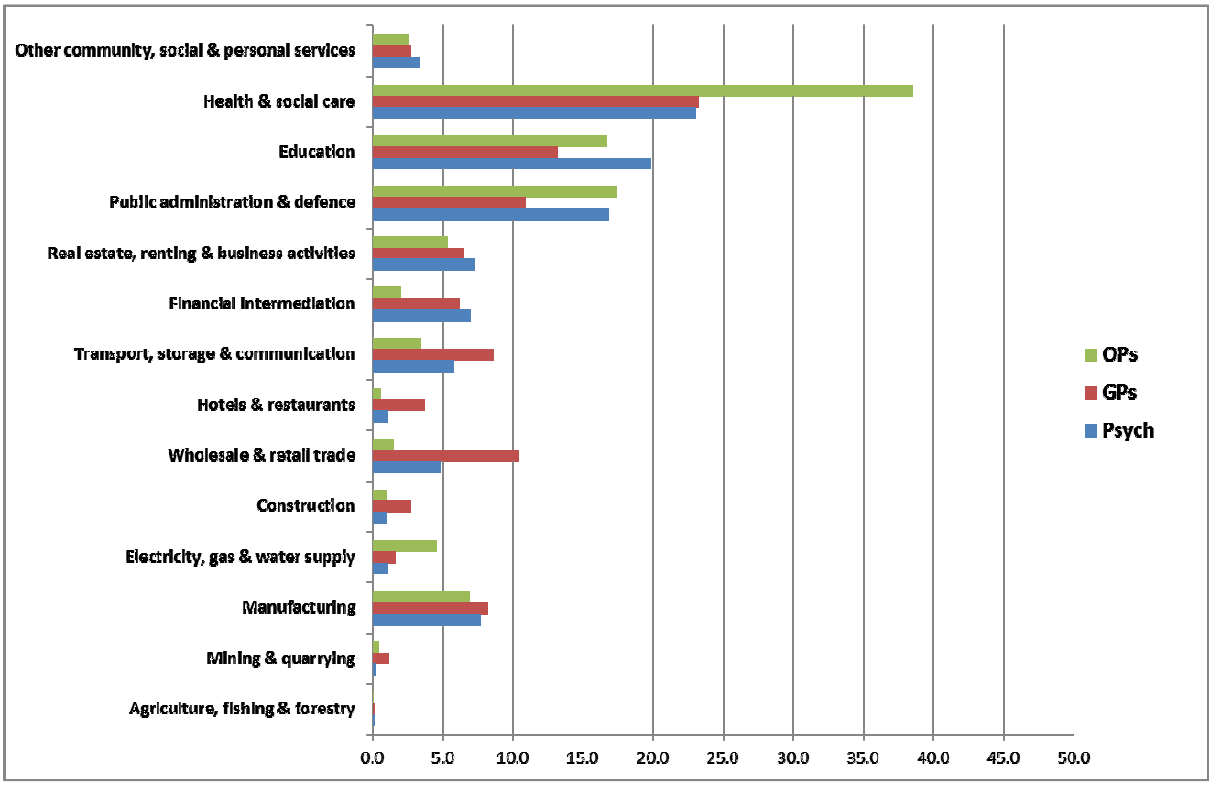


Figure 2 Proportion of actual cases of work-related mental ill-health attributed to bullying / interpersonal difficulties by Standard Industrial Classification (SIC) reported to SOSMI (1999-2009), OPRA (1996-2014) and THOR-GP (2005-2014)

In addition to the demographic information reported to THOR, GPs can also submit information relating to sickness absence and return to work. Figure 3 shows the proportion of mental ill-health cases attributed to bullying / interpersonal difficulties reported to THOR-GP which were issued with certified sickness absence, those considered fit for work, and the proportion issued with a 'maybe fit note', (only applicable to cases reported after the fit note was introduced in April 2010) i.e. some adjustment to their working conditions which may enable the patient to remain in work. We know from previous work published in the peer reviewed literature that the burden of sickness absence for work-related ill-health reported to THOR-GP is greatest for mental ill-health cases[3]. Between 2005-2014, those cases resulted in 16,538 days lost.

[3]**Hussey L, Turner S, Thorley K, McNamee R and Agius RM. (2012) Work-related sickness absence as reported by general practitioners in the UK. Occup Med (Lond), 62(2):105-11**

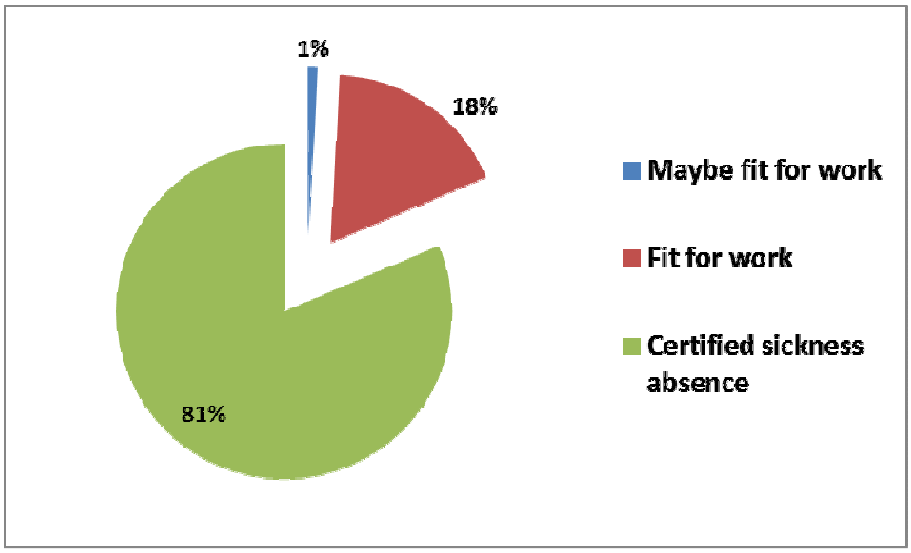


Figure 3 Proportion of actual cases of work-related mental ill-health cases attributed to bullying / interpersonal difficulties by certified sickness absence reported to THOR-GP (2005-2014)

BECK REPORT

We are most grateful to Dr Mark Wilkinson for this quarter's 'Beck Report', which provides a commentary for cases of work-related skin disease reported to THOR and THOR-GP UK this quarter

Of note this month were the 5 of 7 patients reported through THOR-GP who had an irritant dermatitis related to cleaning products. Four of these were in the catering industry. Irritant dermatitis remains the commonest occupational skin disease.

A review of EPIDERM data has demonstrated an increase in dermatitis in the healthcare sector associated with changes in hand hygiene practices[1]. Consequently, it was surprising to see that the 2 cases in healthcare workers reported to OPRA had their dermatitis attributed to gloves. In one of these, latex was the suspected causal agent although the literature would suggest that this is now a very rare cause, following the introduction of low protein powder free gloves to reduce the risk of sensitisation. Interestingly, 5 cases were reported to EPIDERM of immediate type reactions in healthcare workers. In 4 of these either prick or specific IgE tests for latex allergy were negative. In 2, reactions were also attributed to nitrile gloves and one was said to be dermographic. In my experience, symptomatic dermographism is now a commoner cause of immediate type reactions and should always be excluded if tests for latex allergy are negative[2]. EPIDERM has also recently reviewed the changing allergens causing glove related allergic contact dermatitis[3] and identified an increasing trend in reports due to carbamates used as accelerators. It should be remembered that these are found not only in latex rubber, but also nitrile gloves, and so avoidance can be more difficult.

Also hand hygiene related was a reaction to a chlorhexidine containing hand wash in a veterinary nurse. Chlorhexidine is unusual in that it can cause both contact urticaria and allergic contact dermatitis[4] and at least in the healthcare sector is recognised as a relevant allergen[5].

Sodium benzoate was an unusual contact allergen in a healthcare worker present in a hand hygiene product. With a move away from methylisothiazolinone, it will be interesting to see what preservatives are used as a substitute and if they also start to cause problems in the workforce. Coconut diethanolamide, a surfactant, was also an unusual contact allergen reported in hand wash. It is made by reacting coconut oil with diethanolamine. Whilst immediate type allergy to coconut is rare, contact allergy to coconut diethanolamide is more frequent despite the fact that it is found predominantly in rinse off cleansing products. In general, because of the reduced contact time with the skin, rinse off products tend to be less problematic than leave on.

Talking of reduced contact, hopefully you'll all be having more time at home rather than being at work over the next few weeks. Happy Christmas!

Dr Mark Wilkinson, Consultant Dermatologist
Leeds General Infirmary

1. The impact of national-level interventions to improve hygiene on the incidence of irritant contact dermatitis in healthcare workers: changes in incidence from 1996 to 2012 an interrupted times series analysis. Stocks SJ, McNamee R, Turner S, Carder M, Agius RM. Br J Dermatol. 2015; 173: 165-71.

2. Symptomatic dermographism mimicking latex allergy. Golberg O, Johnston GA, Wilkinson M. Dermatitis. 2014; 25: 101-3.

3. UK Rates of Occupational Skin Disease attributed to Rubber Accelerators, 1996 – 2012. Warburton KL, Urwin R, et al. Contact Dermatitis 2015; 72: 305–11

4. Contact allergy to chlorhexidine in a tertiary dermatology clinic in Denmark. Opstrup MS, Johansen JD, et al. Contact Dermatitis. 2015 Nov 11. doi: 10.1111/cod.12487

5. Chlorhexidine-still an underestimated allergic hazard for health care professionals. Wittczak T, Dudek W et al. Occup Med (Lond). 2013; 63: 301-5.

PUBLICATIONS

The following are recently published, or forthcoming, papers based on THOR work:

Carder M, Bensefa-Colas L, Mattioli S, Noone P, Stikova E, Valenty M, Telle-Lamberton M. (2015) A review of occupational disease surveillance systems in the Modernet consortium. *Occup Med*, Volume 65 (8) p:615-625

A, Money, M. Carder, L. Hussey and R. M. Agius, (2015) The utility of information collected by occupational disease surveillance systems. *Occup Med*, Volume 65 (8) November 2015 p:626-631

Jabbour R, Turner S, Hussey L, Page F, Agius R. (2015) Workplace injury data reported by occupational physicians and general practitioners. *Occup Med (Lond)*

Agius R, Hussey L. Certified sickness absence: does the 'fit-note' work? (2015) *Occup Environ Med.* 72(7):463-4.

Urwin R, Warburton K, Carder M, Turner S, Agius R, Wilkinson SM. (2015) Methylchloroisothiazolinone & methylisothiazolinone contact allergy: an occupational perspective. Contact Dermatitis, 72(6):381-6

Hussey L, Money A, Gittins M, Agius R. (2015) Has the fit note reduced general practice sickness certification rates? *Occup Med (Lond)*, 65 (3): 182-189.

THOR CONTACTS

Many thanks for your continued support of THOR, please contact us (Table 2) if you have any queries or data requests.

Table 2 THOR Contact details

SCHEME	email	Phone
EPIDERM	Christina.O'Connor@manchester.ac.uk	0161 275 7103
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OPRA	Susan.taylor@manchester.ac.uk	0161 275 5531
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