

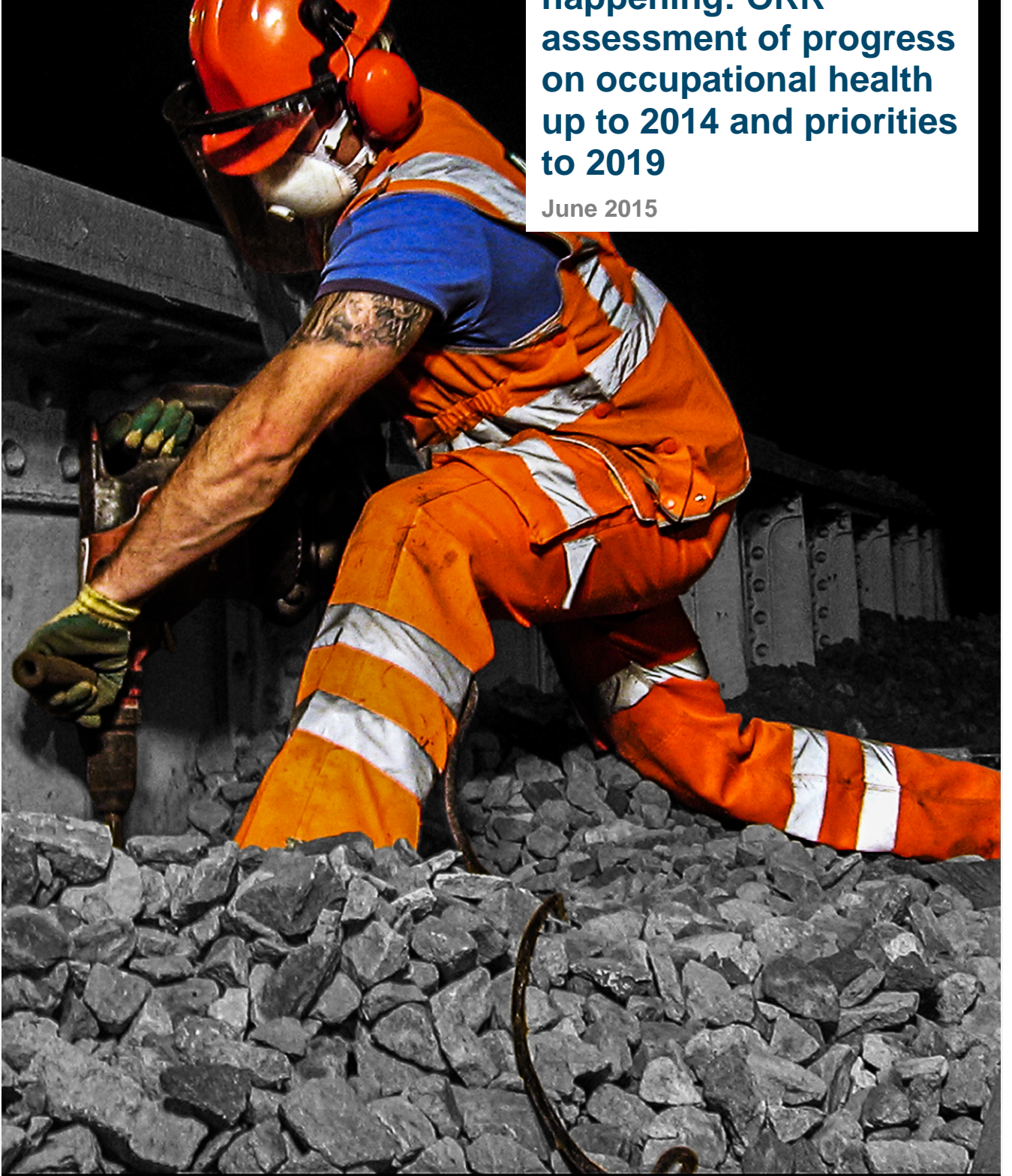


OFFICE OF RAIL AND ROAD



**Better health is happening: ORR assessment of progress on occupational health up to 2014 and priorities to 2019**

June 2015



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# Foreword

From Ian Prosser HM Chief Inspector of Railways

Director of Railway Safety and Health



For safety, we say zero harm from work activities is achievable.

For health, we say the same:

**Zero harm arising from work activities is achievable.**

I'm pleased to see in this report that better health is happening, although there is still some way to go.

This report shows that, broadly speaking, management of work-related ill health in the GB rail industry has improved since 2010. It shows benefits to the industry as a whole, to the companies that have made progress and to the lives of their workers.

But there is still more to do, particularly to make management of health risks a reality on the ground.

That's why ORR has drawn up a second programme on occupational health to take us to 2019.

We want to see a constant focus on managing work that could cause ill health in the same way that the best companies manage work so that it is safe.

If the rail industry builds on the progress it has made during our first programme, then I anticipate that they will achieve the goal of our second programme, which is for each company to run a proactive **health risk management system** that includes:

- Health policies with clear objectives, given direction by good leadership;
- Excellent risk assessments, surveys and reporting, with health assurance that is data driven;
- Strong engagement of employees and managers, who are well trained and competent;
- Public commitment to ill health reduction, legal compliance and striving for excellence, with an understanding of costs; and
- Collaboration and working together across industry to widely adopt what works.

When this is in place, we will be on course for zero harm.

A handwritten signature in blue ink, appearing to read 'Ian Prosser', with a small flourish at the end.

**Ian Prosser**

# Executive summary

## Summary

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This report provides our updated assessment on the management of work-related ill health in the rail industry by the end of our first four year health programme.

It covers the period 1 April 2010 to 31 March 2014 and aims to:

- highlight those areas where good progress has been made in managing occupational health;
- shine a spotlight on areas where there is still more to do; and
- set out where we expect the industry to take action under our 2014-19 programme.

Trends in a number of health indicator measures are reported to assess the impact of ORR's 2010-14 health programme.

Over the four years of ORR's first health programme there has been a step change in rail industry awareness on worker health, and evidence of stronger commitment to better health risk management. Real progress has been made both at industry and individual company level. Sustained effort by all parts of the industry will be essential over the coming years to maintain the impetus and deliver the vision in the Industry Roadmap.

Latest estimates on the extent and costs of ill health in rail workers reinforce the case for our industry to significantly improve its performance on worker health. The industry's own research indicates higher sickness absence rates in rail compared with other sectors. Available evidence on worker ill health cases suggests a need for action on key occupational health risks, including hand arm vibration syndrome (HAVS), musculoskeletal disorders (MSDs), respiratory diseases, and mental health.

As well as the impact on affected individuals, the financial costs to rail employers from worker ill health, potentially running to several £100 million annually, cannot be ignored and provide a real opportunity for the industry to invest in order to save.

Despite good progress so far, the industry cannot be complacent. There is still more to be done to see all of the rail industry consistently achieve legal compliance and move towards excellence in managing health.

Our second health programme for 2014-19 sets out priorities for delivering excellence in health risk management, improved efficiencies and stronger engagement, all enabled by better data and improved competence. This assessment of progress by 2014 should help the industry, as well as ORR, to prioritise effort and resources to deliver in these key areas.

During our first health programme we too often found a significant gap between corporate intention and the reality on the ground. Rail companies now need to refocus efforts to ensure that their safety management arrangements which state strong commitment to legal compliance on occupational health, actually deliver this consistently in practice. More effective monitoring and assurance, particularly through the contractor supply chain, and improved competence on health among front line managers and supervisors, will be

essential to achieving this. We want to see more rail companies use RM3 for health to identify where improvements are needed in managing key health risks, particularly carcinogens, hand arm vibration, musculoskeletal risk, and work-related stress.

Better use of meaningful health data would help the industry to focus effort and resources on key priorities. We encourage RSSB to work with the industry to develop ORR's initial proposal for a balanced dashboard of health measures and targets, which might potentially be used for benchmarking across the industry. We want to see increasing use of activity (or leading) indicators on health, and more rail companies aware of their ill health costs. They should be able to demonstrate that the direct and indirect costs associated with ill health are at least as good as comparators within and outside the industry. We also look to rail contractors to review their health surveillance and reporting arrangements for occupational diseases such as HAVS, to provide assurance on compliance with the law.

We have learnt from our 2011 and 2014 health data surveys that the rail industry is currently not sufficiently mature to reliably capture data on work-related ill health absence. Use of a total sickness absence measure for monitoring and benchmarking would be more deliverable in the medium term at least. Solid industry support is now needed to drive an escalation in pace in agreeing a common health data reporting system for mainline rail.

Public reporting on health can play a crucial role in influencing business attitude and practice. The rail sector has some way to go in order to match the best in class on this. We want to see more rail companies report publicly on worker health in their annual reports or similar, and support relevant voluntary health pledges such as the government's Public Health Responsibility Deal and the Institution of Occupational Safety and Health's (IOSH) No Time to Lose occupational cancer campaign. We want to particularly encourage freight, tram, and heritage operators to play a more visible and collaborative role in sharing good practice in managing occupational health.

In 2014, for the first time, worker health was included by the Department for Transport in rail franchising and in ORR's 2014-19 Final Determination for Network Rail, providing additional regulatory levers for driving improved worker health. We expect Network Rail to achieve £55m in efficiencies as a result of better occupational health management by 2018-19, and will be looking to see how the company delivers its health and wellbeing strategy at route level.

We have looked very closely at the lessons learned from our 2010-14 health programme, including industry views captured in our independent evaluation research. We will ensure, through delivery of our current five year occupational health programme, that we work with the industry to continue building on recent progress towards excellence in health risk management, with a closer focus on the priority areas identified in this report.

This not only matters to rail companies, but also ensures that passengers, customers and taxpayers benefit from a safer and more efficient railway, and a healthier workforce.

# 1. Introduction

- 1.1 Working towards healthier and more productive working lives must be a key ambition for everyone in the rail sector. For an industry employing around 150,000 people, and faced with growing demand and a need for increased efficiencies, the business case for continuously improving worker health and wellbeing in an ageing workforce is clear. There is good evidence that excellent management of worker health brings increased productivity and employee engagement, as well as consistent legal compliance. This report provides insight into where progress has been made and what remains to be done, to inform on-going delivery of our 2014-19 Health Programme ‘Making it Happen’<sup>1</sup>. It also assesses the impact of ORR’s first health programme in driving the industry’s progress towards excellence in managing health.

## Purpose

- 1.2 This report provides an updated assessment on the management of work-related ill health in the rail industry by 2014, at the end of ORR’s first four year health programme<sup>2</sup>. It provides an update to our initial 2011 baseline report<sup>3</sup> by discussing the scale and costs of work-related ill health, and the maturity of the industry in managing occupational health by 2014. It covers the period 1 April 2010 to 31 March 2014 and aims to identify the areas where good progress has been made by the industry, but also to shine a spotlight on those areas where more needs to be done under our 2014-19 health programme to deliver both the health and the economic benefits that arise from excellent health management.
- 1.3 This report also seeks to assess the impact of ORR’s first health programme by reviewing trends in the health indicator measures reported in our 2011 baseline report, using the results of a repeat of our baseline survey of industry in 2014, together with ORR data.

## Scope

- 1.4 This report is relevant to all parts of the rail industry, including rail operators, infrastructure managers, and contractors, whether on the mainline, metros, or heritage. It is aimed at industry leaders, those directly responsible for managing worker health, occupational health specialists, and should also be of interest to employees’ representatives and wider industry groups. The main focus of ORR’s health programmes is seeing the industry achieve excellence in the management of health through consistent legal compliance, and so this report primarily looks at the management of work-related (or occupational) ill health. This describes those

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<sup>1</sup> ORR’s 2014-19 health programme: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0007/12031/occup-health-prog-2014-19.pdf](http://orr.gov.uk/_data/assets/pdf_file/0007/12031/occup-health-prog-2014-19.pdf)

<sup>2</sup> ORR’s 2010-14 health programme: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0013/3550/occup-health-prog-2010-14.pdf](http://orr.gov.uk/_data/assets/pdf_file/0013/3550/occup-health-prog-2010-14.pdf)

<sup>3</sup> ORR’s 2011 baseline report: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0009/5796/work\\_related\\_ill\\_health\\_overview\\_2010.pdf](http://orr.gov.uk/_data/assets/pdf_file/0009/5796/work_related_ill_health_overview_2010.pdf)

conditions that are caused or made worse by work, for example the adverse effects of exposure to dust, asbestos, noise, vibration, musculoskeletal risk or work-related stress. There is, however, inevitably some overlap with wider aspects of worker health such as fitness to work and general wellbeing and lifestyle management.

- 1.5 This updated position paper has been informed by intelligence gathered from a wide range of sources, including published and internal reports, previously unpublished data, as well as information from ORR's strategic and inspection work with the rail industry. To inform this review we commissioned independent research to capture the rail industry's view on the impact of our 2010-14 health programme. We also commissioned a separate internal report to review sample data on management referrals from a leading occupational health service provider.



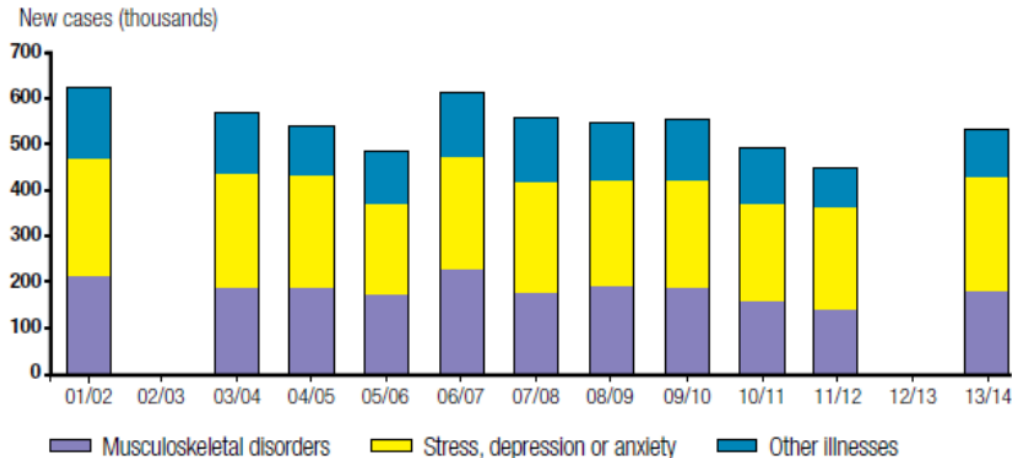
## 2. The picture across all industry sectors

### How much of a problem is work-related ill health in Great Britain?

- 2.1 Latest data published by the Health and Safety Executive (HSE) shows that in Great Britain (GB) in 2013/14, an estimated 1.2 million people who had worked in the last 12 months and a further 0.8 million former workers, suffered from ill health which they thought was work-related. Lost time resulting from work-related ill health was around five times greater than for workplace injuries: 23.5 million days lost due to work-related ill health in 2013/14 (83%) compared with 4.7 million days for workplace injury (17%). Of the working days lost due to ill health, work-related stress (11.3 million days) and musculoskeletal disorders (MSDs) (8.3 million days) accounted for the large majority. Cases of stress, anxiety or depression averaged 23 days absence in 2013/14, compared with 16 days for MSDs.
- 2.2 Since 2009/10 new cases of work-related ill health continued to fall, reaching a low in 2011/12. Comparable data is not available for 2012/13, but 2013/14 saw the number of ill health cases increase back to the level seen in 2009/10.

**Figure 1 - Estimated new cases of self-reported work-related illness amongst people who worked in the last 12 months**

*Note: 95% confidence interval on average +/- 7% on the total*



Source: HSE Health and Safety Statistics Annual Report for Great Britain 2013/14<sup>4</sup>

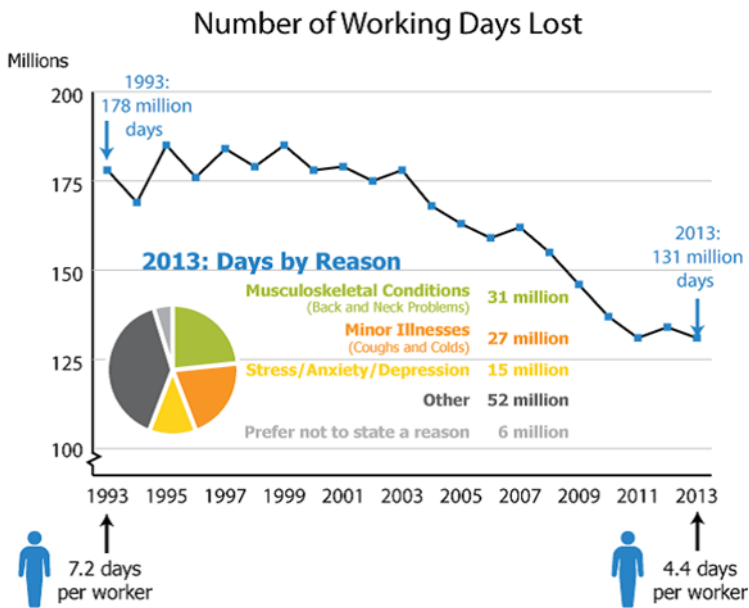
- 2.3 National data on total sickness absence, rather than just work-related ill health absence, can provide useful additional context. The 2014 Office for National Statistics (ONS) report on sickness in the labour market<sup>5</sup> estimates 131 million days lost due to total sickness absence in 2013. Almost a quarter of the working days lost (30.6 million) were as a result of musculoskeletal conditions, with stress, anxiety or depression accounting for over 10% (15.2 million). The ONS absence estimates are

<sup>4</sup> HSE health & safety statistics annual report 2013/14: <http://www.hse.gov.uk/statistics/index.htm>

<sup>5</sup> ONS sickness absence report 2014: <http://www.ons.gov.uk/ons/rel/lmac/sickness-absence-in-the-labour-market/2014/rpt---sickness-absence-in-the-labour-market.html>

not directly comparable with HSE’s working days lost statistics due to differences in coverage, information collected, and methodology used to produce measures.

**Figure 2 - Trends in total sickness absence 1993-2013**



Source: ONS 2014 Sickness Absence in the labour market<sup>5</sup>

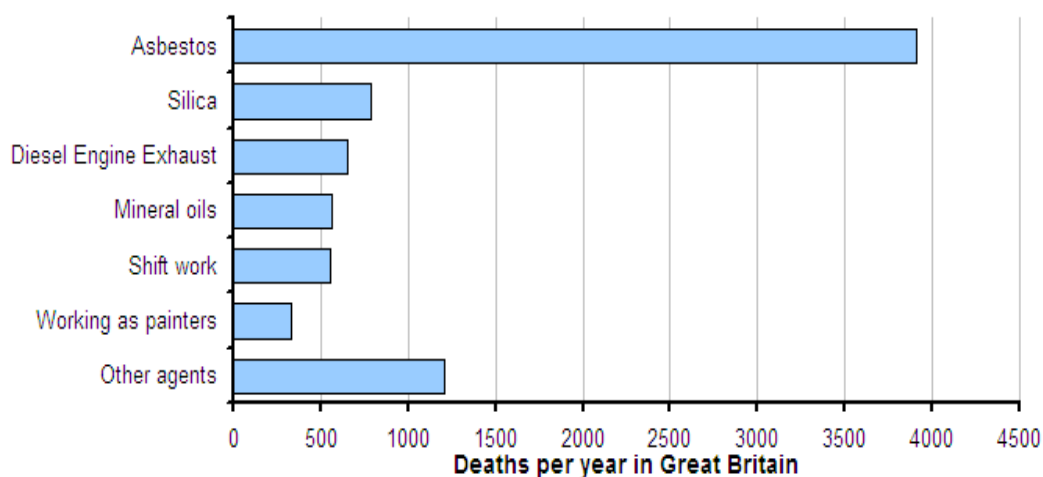
## HSE research on occupational cancer

2.4 In 2012 HSE published new independent research<sup>6</sup>, led by Dr Lesley Rushton of Imperial College London, into the burden of occupational cancer in GB caused by past workplace exposures. Based on this research, HSE estimates there are around 13,500 new cases of cancer caused by work every year and more than 8,000 deaths across all industry sectors. This research<sup>7</sup> looks at the contribution from a range of carcinogens. It estimates almost 4,000 cancer deaths per year from past occupational exposure to asbestos, almost 800 cancer deaths per year from occupational silica exposures, and around 650 deaths per year from workplace exposures to diesel engine exhaust emissions (DEEE).

<sup>6</sup> HSE cancer burden research: <http://www.hse.gov.uk/research/rrhtm/rr800.htm>.

<sup>7</sup> HSE cancer burden research by cause: [www.hse.gov.uk/statistics/causdis/cancer/index.htm](http://www.hse.gov.uk/statistics/causdis/cancer/index.htm)

**Figure 3 - Estimated occupational cancer deaths by cause in Great Britain, 2005**



Source: HSE: [www.hse.gov.uk/statistics/causdis/cancer/index.htm](http://www.hse.gov.uk/statistics/causdis/cancer/index.htm)

## What are the costs of work-related ill health in Great Britain?

- 2.5 Reducing the economic costs to society of ill health among the working population has been a key part of the government agenda over the past 10 years, with a particular focus on better systems for managing sickness absence. The government's 'Improving health and work: changing lives' report<sup>8</sup> estimated the total cost to society of working-age ill health at around £100 billion every year. The 2013 Confederation of British Industry (CBI) absence and workplace health survey<sup>9</sup> which looks only at the direct costs to employers of sickness absence, estimated sickness absence costs at more than £14 billion in 2012, with an average cost for each absent employee of £975 per year.
- 2.6 HSE estimates the cost of work-related illness (rather than total sickness absence) from current working conditions to be £8.6 billion in 2012/13<sup>10</sup>. This excludes the work-related health conditions such as cancer, caused by historic working conditions. It comprises financial (or direct) costs such as those associated with lost productivity or healthcare, and a monetary value (non-financial cost) given to individuals' pain, grief and suffering. Almost a quarter of the total illness cost (£2 billion) fell to employers.

<sup>8</sup> Improving health and work: changing lives' report: <https://www.gov.uk/government/publications/improving-health-and-work-changing-lives>

<sup>9</sup> CBI 2013 absence survey report: <http://www.cbi.org.uk/media-centre/press-releases/2013/07/work-absence-at-record-low-but-still-costs-economy-%C2%A314bn-a-year-cbi-pfizer-survey/>

<sup>10</sup> HSE cost data: <http://www.hse.gov.uk/statistics/cost.htm>

### 3. How much of a problem is work-related ill health in the GB rail industry?

3.1 In our 2011 baseline paper we reported on a number of indicators for the scale of work-related ill health in rail. These included self-reported estimates of work-related ill health from the national Labour Force Survey (LFS)<sup>11</sup>; occupational diseases reported to ORR under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR); and national sickness absence estimates. This data has been updated and supplemented with additional sources to provide a more detailed picture of the extent and nature of ill health in the rail industry by 2014.

#### Key findings - HSE and ORR data on work-related ill health in rail workers

- Latest LFS data<sup>13</sup> provided by HSE indicates that between 2% and 6% of railway operatives<sup>12</sup> suffer ill health caused or made worse by work. This is broadly comparable with the construction sector.
- Evidence from 'The Health and Occupation Research' network (THOR) data<sup>14</sup> suggests that railway operatives may suffer higher levels of work-related respiratory diseases compared with the wider working population. The level of skin disease appears to be comparable to all workers.
- Railway operatives appear to be at no higher risk of death from mesothelioma (serious asbestos-related disease) than the wider working population. The occupation group for (all) vehicle body builders/repairers, which may include some rail workers, does show a higher number of deaths from mesothelioma caused by past exposures to asbestos, than the average for all workers.
- Over the four years of ORR's first health programme, 320 cases of occupational disease were reported to us under RIDDOR: the vast majority were cases of hand arm vibration syndrome (HAVS) reported by Network Rail. The relatively small number (18) of other RIDDOR diseases reported from across the industry included upper limb conditions due to repetitive work, occupational asthma, occupational dermatitis and leptospirosis.
- We suspect that there remains a degree of under-reporting of disease to ORR under RIDDOR, particularly of HAVs cases by rail industry contractors working with vibrating tools.

<sup>11</sup> Labour Force Survey: <http://www.hse.gov.uk/statistics/sources.htm#fs>

## Key findings - Rail industry data on sickness absence in rail workers

- RSSB research<sup>19</sup> estimates an average Lost Time Rate (LTR) for all sickness absence of 3.9% across the rail industry, which represents more than one million days lost per year.
- The RSSB estimate of 3.9% LTR compares with the Office of National Statistics (ONS) estimate of 1.8% for the private sector as a whole, 1.9% for construction, and 3% for transport, storage and distribution.

## HSE data on work-related ill health in railway operatives<sup>12</sup>

3.2 In our 2011 baseline paper, we presented LFS data on work-related ill health in railway operatives for the period 2003/04 to 2009/10, and provided comparisons with similar occupations and industry groups. HSE has updated the analysis of LFS data for the combined period 2006/07 to 2011/12 and 2013/14 (no LFS data on ill health was collected by HSE in 2012/13)<sup>13</sup>. Because there is a large overlap between the periods used for the baseline and this updated analysis, it is not possible to look at change over time; rather the latest data should be viewed as a revised baseline for 2014. The estimates for railways operatives, which include rail construction and maintenance operatives, train and tram drivers, and rail transport operatives, represent a sub-set of the wider rail workforce. Some of these may, for example, be employed in the construction industry but work on the rail network, and there will be some rail workers who are not captured in this data set.

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<sup>12</sup> Railway operatives are defined using the Standard Occupational Classification (SOC): for some data the 2010 classification has been used, (8143 rail construction and maintenance operatives; 8231 train and tram drivers; 8234 rail transport operatives), for other data the 2000 classification has been used (3514 train drivers; 8143 rail construction and maintenance operatives; 8216 rail transport operatives). The coverage of the SOC2010 and SOC2000 classification is largely the same.

<sup>13</sup> HSE updated health data report for ORR: <http://www.hse.gov.uk/statistics/adhoc-analysis/work-related-ill-health-railway-operatives.pdf>.

**Figure 4 - Estimated prevalence and rates of self-reported illness caused or made worse by current or most recent job, by occupation/industry, for people working in the last 12 months, averaged 2006/07 to 2011/12 & 2013/14**

	<i>Illness ascribed to their current/most recent job</i>					
	Averaged estimated prevalence (thousands)			Averaged rate per 100,000 employed in the last 12 months		
	central	95% C.I.		central	95% C.I.	
		lower	upper		lower	upper
Railway operatives <sup>12</sup>	<b>2</b>	1	3	<b>4,150</b>	2,340	5,960
Construction operatives (SOC 814)	<b>6</b>	5	8	<b>4,230</b>	3,220	5,240
Road transport drivers (SOC 821)	<b>29</b>	26	32	<b>3,260</b>	2,890	3,620
Transport (SIC: Section H)	<b>56</b>	51	61	<b>3,610</b>	3,310	3,900
All occupations (illness ascribed to current or most recent job)	<b>1,012</b>	992	1,032	<b>3,360</b>	3,290	3,420

Railway operatives are defined by the following Standard Occupational Classification (SOC) 2010 codes: 8143 Rail construction and maintenance operatives; 8231 Train and tram drivers; and 8234 Rail transport operatives.

Figures in italics (grey shaded row) for railway operatives are estimates based on fewer than 30 sample cases. The central estimates for these figures can be volatile because of the small sample sizes. The range around the central estimate (i.e. lower and upper 95% confidence intervals) should be quoted here, rather than the exact value.

No ill health data was collected by HSE in 2012/13.

Source: LFS data from HSE<sup>13</sup>

3.3 The updated LFS data indicates that annually between 2% and 6% of railway operatives suffer ill health caused or made worse by work. Based on the range of values for the prevalence rate per 100,000 workers (between 2,340 and 5,960 for rail) it seems reasonable to conclude that the prevalence of work-related ill health in railway operatives is broadly comparable with the construction sector (3% to 5%).

3.4 HSE has also reported on data from the 'The Health and Occupation Research' network (THOR)<sup>14</sup>; this captures reports of work-related ill health from a sample of specialist consultants in respiratory disease (SWORD scheme) and skin disease (EPIDERM scheme).

<sup>14</sup> THOR scheme: <http://www.hse.gov.uk/statistics/sources.htm>

- 3.5 THOR data indicates that railway operatives suffer higher levels of work-related respiratory diseases compared with all workers, while the rate of skin disease in railway operatives appears to be comparable to all workers.
- 3.6 HSE data for 2002-2010 on mesothelioma deaths (one of the most serious asbestos-related diseases) indicate that the risk for railway operatives is no higher than for all workers. The occupation group for (all) vehicle body builders and repairers, which may include some railway workers, does however show a greater number of deaths from mesothelioma (caused by past exposures to asbestos) when compared to the average for all occupations.

**Figure 5 – HSE data from mesothelioma register for rail industry occupations**

Mesothelioma proportional mortality ratios (PMRs) for males aged 16-74 in Great Britain by SOC 2000 occupation group, 2002-2010						
SOC 2000 Code	Occupation Description	Deaths	Expected Deaths	PMR	95% Confidence Interval	
					Lower	Upper
3514	Train drivers	15	16.8	89.5	50.1	147.6
8143	Rail construction & maintenance operatives	3	7.6	39.5	8.1	115.3
8216	Rail transport operatives	16	34.7	46.2	26.4	74.9
5232	Vehicle body builders & repairers	42	19.5	215.1	155.0	290.8

A Proportional Mortality Ratio (PMR) is a summary measure used to compare mortality from a particular cause among a particular occupation, e.g. mesothelioma in train drivers, with the mortality of the general working population. If the PMR is greater than or less than 100 for a particular occupation, then the observed number of mesothelioma deaths in that occupation is relatively greater than or less than the average for all occupations.

Source: HSE<sup>13</sup>

## Relevance of HSE cancer burden research to the rail industry

- 3.7 Although HSE's 2012 cancer burden research does not provide risk estimates specifically for the rail industry, it may be helpful in identifying priority areas for our industry in managing potential carcinogenic risks. In this research rail is captured within the wider land transport group, which also includes road and pipeline transport. Within the land transport sector, the cancer burden research<sup>15</sup> estimates 284 deaths per year (based on 2005 data) from occupational exposures to DEEE, with a further 123 deaths due to past asbestos exposures.

<sup>15</sup> HSE cancer burden research by industry: <http://www.hse.gov.uk/statistics/tables/index.htm#cancer>

3.8 Many workers involved in rail renewals and construction may have similar work-related exposures to those working in the wider construction industry, which bears the largest burden of occupational cancers across all industry sectors. The HSE cancer burden research found that most cancers in the construction industry were caused by exposure to asbestos (estimated at more than 2,500 deaths per year) and silica (estimate of more than 600 deaths per year), with DEEE (more than 200 deaths), and painters (more than 200 deaths) also contributing significantly to cancer deaths.

## **ORR published data on work-related ill health in rail**

3.9 Since July 2013, ORR has published available occupational health data for the rail industry on our National Rail Trends (NRT) data portal<sup>58</sup>. This includes occupational diseases reported to us under RIDDOR, and data on manual handling and shock/trauma incidents captured by existing industry incident reporting databases (SMIS for the mainline and LUSEA for London Underground Limited). This report presents trends in this data over the four years of our first health programme.

## **RIDDOR data on occupational disease 2010-14**

3.10 We have updated the RIDDOR disease data published on our NRT data portal<sup>16</sup> to include the first six months of 2014/15 in Figure 6 below. It should be noted that since 2010 there have been changes in RIDDOR disease reporting requirements. From 1 October 2013, RIDDOR 2013 replaced RIDDOR 1995. This saw the previous list of reportable conditions in Schedule 3 replaced by Regulations 8 and 9, requiring reports for just six short latency diseases plus occupational cancers. The trigger for reporting diseases also changed under RIDDOR 2013. From 1 October 2013, reports are required not only for diagnoses of new symptoms (as in RIDDOR 1995), but also where symptoms have significantly worsened. Further guidance on these changes can be found on ORR's web site<sup>17</sup>.

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<sup>16</sup> RIDDOR disease reports: <http://dataportal.orr.gov.uk/displayreport/report/html/6b27a1f8-72c7-4287-835c-386cc74f785b>

<sup>17</sup> ORR guidance on reporting diseases: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/investigating-health-and-safety-incidents/reporting-riddor-incidents/reporting-occupational-diseases>



**Figure 6 - Occupational disease cases reported to ORR under RIDDOR 2010/11 to 2014/15 (1 April to 30 September 2014 only)**

Disease Type	2010/11	2011/12	2012/13	2013/14	1 April – 30 Sept 2014/15
<b>Carpal tunnel syndrome</b>	4	0	2	2	3
<b>Cramp in the hand or forearm due to repetitive movements</b>	0	0	2	0	0
<b>Hand Arm Vibration Syndrome (HAVS)</b>	34	95	97	76	57
<b>Legionellosis (infectious disease due to biological agents)</b>	0	0	0	0	0
<b>Leptospirosis (infectious disease due to biological agents)</b>	0	1	3	0	0
<b>Occupational asthma</b>	0	0	0	1	1
<b>Occupational cancers</b>	0	0	0	0	0
<b>Occupational dermatitis</b>	1	0	0	0	0
<b>Tendonitis or tenosynovitis in hand or forearm</b>	1	1	0	0	0
<b>Total</b>	<b>40</b>	<b>97</b>	<b>104</b>	<b>79</b>	<b>61</b>

This data comprises the number of RIDDOR reportable diseases reported through the Safety Management Information System (SMIS) and the ORR web form. No further calculations are undertaken on the received data. The RIDDOR disease data in this table has been classified using the reporting criteria under RIDDOR 1995 for 1 April to 30 September 2013, and the revised reporting criteria under RIDDOR 2013 from 1 October 2013 to 30 September 2014. 2014/15 data is for 1 April to 30 September 2014 only.

3.11 In our 2011 baseline paper we reported a total of seven cases of occupational disease reported to us under RIDDOR between January 2005 and September 2010. The level of reporting has increased significantly over the four years of our first health programme, with a total of 320 RIDDOR disease cases reported in this period. The data is dominated by HAVS cases, predominantly reported by Network Rail. Of the 75 HAVS cases reported to us by Network Rail in 2013/14, around three quarters were newly diagnosed cases or those where symptoms had significantly worsened. The remainder were repeat diagnoses of existing stable HAVS cases which had not been previously reported to us under RIDDOR.

3.12 We are confident that the increase in HAVS cases reported under RIDDOR between 1 April 2010 and 30 September 2014 (total of 359 HAVS cases) reflects the marked improvements in Network Rail's HAVS health surveillance arrangements. We expect to see this trend continue in the short term as their health surveillance and reporting systems mature further. This data shows the value of health surveillance in

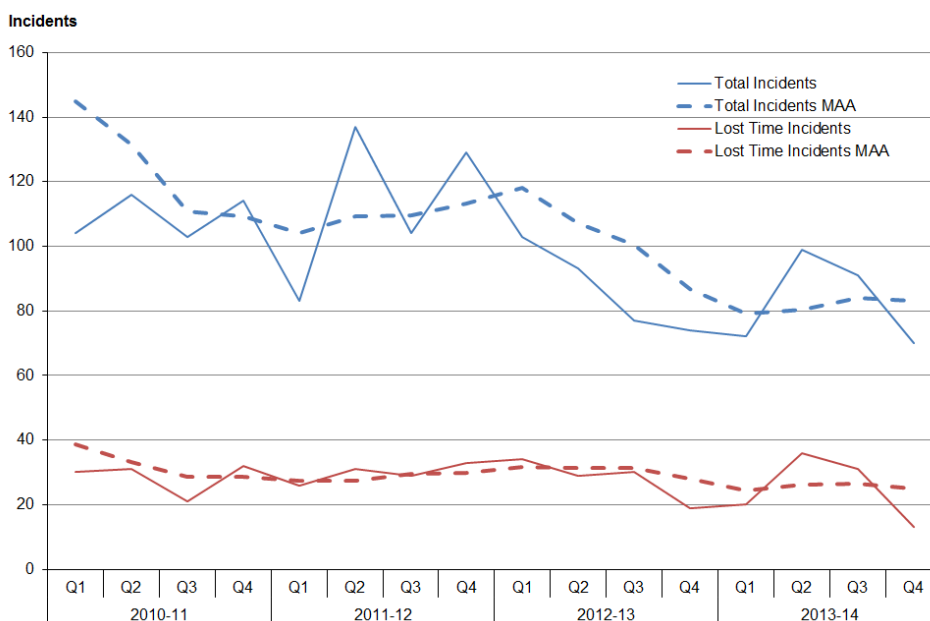
identifying vulnerable workers early, but also the need for better risk assessment and more robust control of exposure to hand arm vibration among staff working on mainline infrastructure maintenance.

3.13 The dominance of Network Rail HAVS cases in the RIDDOR data suggests possible under-reporting of HAVS by other rail companies undertaking similar types of work with vibrating tools. Between 1 April 2010 and 31 March 2014 a total of seven HAVS cases were reported to ORR by companies other than Network Rail. With a rail contractor workforce of more than 100,000, involving higher risk work with vibrating tools (for example manual ballast tamping/levelling, breaking out concrete in renewals and enhancements, and surface preparation in bridge and vehicle refurbishment) the low level of HAVS reporting is open to question. While reports arising from work on construction sites enforced by HSE are reportable to HSE, those in connection with rail renewals, enhancements, refurbishment or maintenance operations should be reported to ORR. We will continue to challenge rail companies on their reporting arrangements under RIDDOR, particularly reporting of HAVS cases on mainline and London Underground Ltd (LUL) infrastructure, to ensure consistent legal compliance and protection of workers' health.

### Rail industry manual handling and shock/trauma data

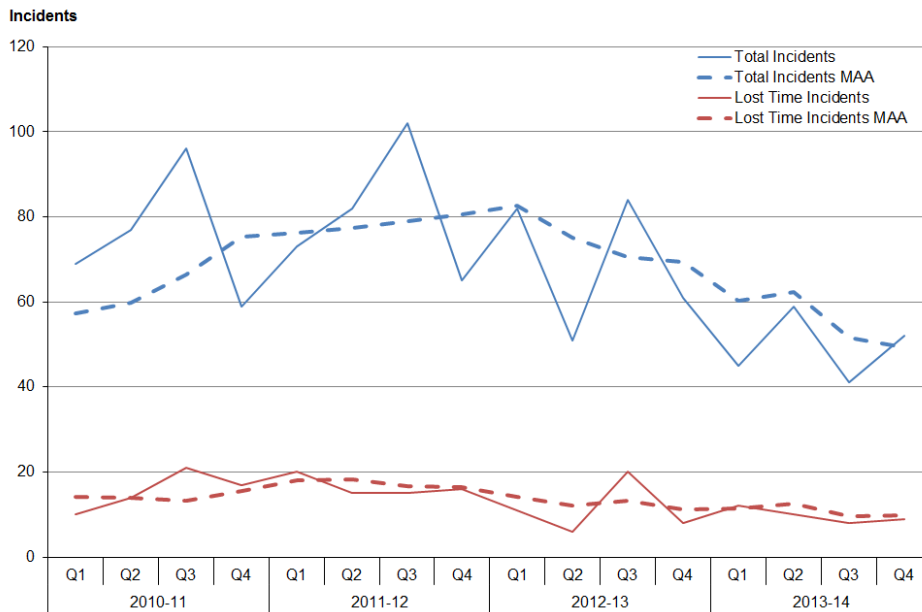
3.14 The graphs below show the trends in industry data on manual handling and shock/trauma incidents during our first health programme. Moving annual average (MAA) data is used to smooth out fluctuations and show trends in both mainline (SMIS) and LUL (LUSEA) datasets from 2010/11 to 2013/4. Further detail and discussion on this data can be found in Annex B.

**Figure 7 – Moving annual average trends in mainline manual handling incidents by quarter, 2010/11 to 2013/14**



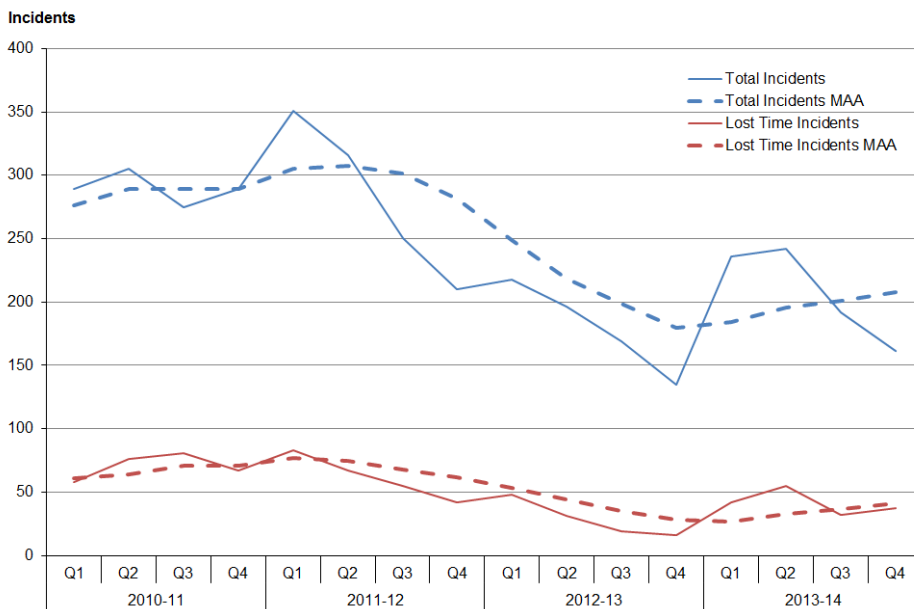
Source: ORR analysis of SMIS data supplied by RSSB

**Figure 8 – Moving annual average trends in LUL manual handling incidents by quarter, 2010/11 to 2013/14**



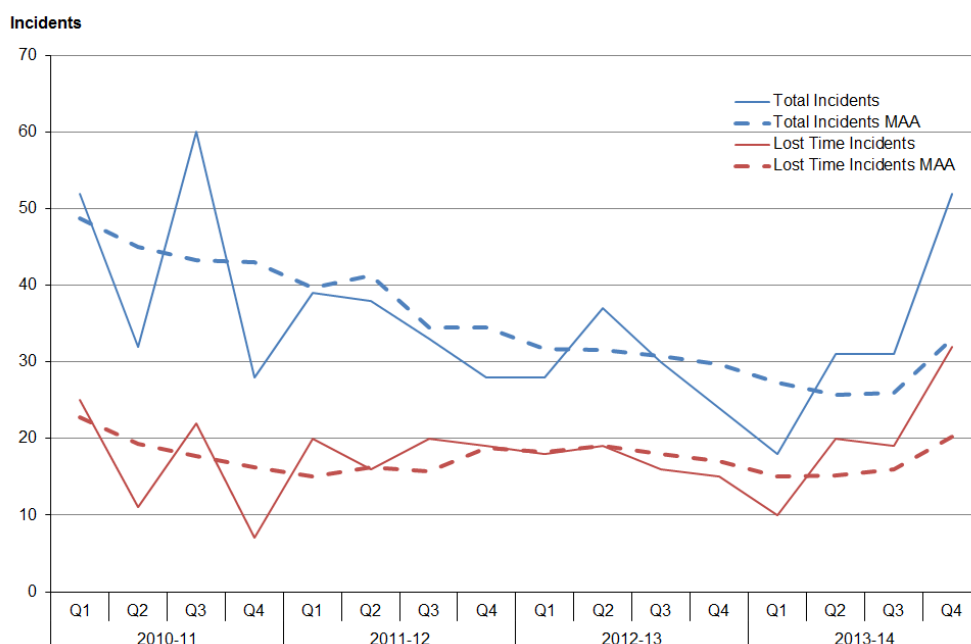
Source: ORR analysis of LUSEA data supplied by London Underground Ltd

**Figure 9 – Moving annual average trends in mainline shock/trauma incidents by quarter, 2010/11 to 2013/14**



Source: ORR analysis of SMIS data supplied by RSSB

**Figure 10 - Moving annual average trends in LUL shock/trauma incidents by quarter, 2010/11 to 2013/14**



Source: ORR analysis of LUSEA data supplied by London Underground Ltd

## Review for ORR of management referrals on health

3.15 An analysis for ORR by a leading occupational health service provider (OHP) of anonymised data on management referrals provides useful insight, and may allow for potential benchmarking of rail companies against their wider client base. The sample analysis was carried out for ORR's internal use. It captured referral data from the OHP's rail clients, representing approximately 50,000 workers from a sample of train operators (TOCs) and infrastructure contractors, between April 2012 and November 2014. Based on management referrals, the incidence of work-related ill health among their rail clients was broadly comparable with the rest of the transport sector. It showed 12% of rail referrals over the period were judged to be work-related, compared with 13% for the wider transport sector and 18% across all industry sectors. The comparatively lower incidence of work-related referrals in rail may in part reflect good use of occupational health services, including medical assessment for fitness to work, within the rail sector, meaning that some workers with chronic health problems or other incapacity may leave the industry.

3.16 In common with other industry sectors, referrals due to MSDs and mental health predominated. MSDs accounted for 26% of rail referrals (of which 18% were deemed work-related) and 18% were for mental health disorders (of which 30% were deemed work-related) over the sample period. Of the MSD referrals, back pain and lower limb disorders were the largest groups. The lower limb cases included arthritic conditions in the hip and knee seen in staff needing to work on, or repeatedly climb in and out of, moving trains, or walk on uneven ballast. The rail infrastructure clients appeared to have a very low level of referrals for MSDs (15% of all referrals in 2013/14) despite the manual nature of the job. This may reflect in part the healthy worker effect but also the safety culture of these organisations.

- 3.17 The proportion of management referrals for MSD and mental health among rail clients was slightly below the transport and all industry averages. The proportion of referrals for endocrine (mainly diabetes) and cardiovascular/cerebrovascular conditions was slightly higher, most likely reflecting the need for medical evidence of continued fitness for work in safety critical roles such as train drivers. With an ageing workforce and generally low staff turnover, particularly within TOCs, there appears to be scope for more emphasis on health promotion in this group of workers. The predominance of MSD and mental health referrals within the rail data supports the case for more early intervention and support in these specific areas, including physiotherapy and employee assistance.
- 3.18 The proportion of referrals for respiratory disorders such as asthma and bronchitis (2% total) in rail clients was comparable with the all transport average and marginally below the all industry average (3%).

## Rail industry data on sickness absence

- 3.19 At the start of our first health programme we identified the challenges created by an absence of reliable data on work-related ill health across the rail industry. Since then the RSSB Board has highlighted the poor quality of health and wellbeing data for mainline rail, and the difficulties this creates for proactive risk management and informed, targeted investment. It is encouraging that the Industry Roadmap<sup>18</sup> includes a dedicated strategic theme on reporting and monitoring, with the aim of agreeing a common health data collection and reporting system. However progress has been slow and active industry support will be needed to deliver on this work.
- 3.20 RSSB's 2014 research on the costs of impaired health across the rail network<sup>19</sup> provides useful indicators on the extent of sickness absence in the industry. Although not a direct measure of work-related ill health, broader sickness absence estimates are a more widely available indicator measure for comparing rail with other industry sectors. RSSB suggests that the best estimate of the Lost Time Rate (LTR) for all sickness absence across the rail sector is approximately 3.9%, based on their 2014 research findings and an Association of Train Operating Companies (ATOC) study in 2012. 3.9% of total time lost to sickness absence was calculated to equate to 1.06 million days per year. The RSSB study acknowledges that absence rates will be variable across the industry, but suggests LTRs for Train Operating Companies (TOCs) of 3.75%, for infrastructure contractors of 3.5%, and for Freight Operating Companies (FOCs) of 2.5%. This aligns with published absence data, for example Go Ahead Rail Division reported an average absence rate of 3.8% for 2014.
- 3.21 This latest rail industry estimate of 3.9% sickness absence compares with the ONS private sector average for 2013 of 1.8%<sup>20</sup>. The ONS report highlights the particular

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<sup>18</sup> Industry Roadmap: <http://www.rssb.co.uk/improving-industry-performance/workforce-passenger-and-the-public/workforce-health-and-wellbeing>

<sup>19</sup> RSSB impaired health research: <http://www.rssb.co.uk/Library/improving-industry-performance/2014-02-report-WHWP-costs-of-impaired-health-across-network.pdf?web=1>

<sup>20</sup> ONS sickness absence 2014 report: <http://www.ons.gov.uk/ons/rel/lmac/sickness-absence-in-the-labour-market/2014/rpt---sickness-absence-in-the-labour-market.html>

challenges faced by an ageing workforce, with sickness absence rates for those aged 50-64 (at 2.8%) almost double that of workers aged 25-35 (at 1.5%). Latest estimates from the Chartered Institute of Personnel and Development (CIPD) in their 2014 Absence Management Survey Report<sup>21</sup> indicate lost time absence rates of 2.9% for all industry; 3% for transport, storage and distribution; and 1.9% for construction. A small sample of published figures on the average number of sickness absence days per employee appears to support the conclusion that sickness absence rates in the rail industry may be higher relative to all industry and construction, for example.

**Figure 11 - Comparison of average sickness absence per employee across sectors**

Company data	Average days absence per employee	
	2010	2013
<b>Transport for London</b>	10.1	8.6
<b>Network Rail</b>	8.8	6.5
<b>CIPD all industry</b>	7.7	7.6
<b>CIPD construction</b>	9.7	4.9

Source: TfL Health Safety and Environment Reports 2013 and 2011<sup>22</sup>; Network Rail Sustainability Update 2013/14<sup>23</sup>; CIPD 2010 and 2013 Absence Management Surveys<sup>24</sup>.

## Other rail industry ill health data

3.22 Since 2012 ORR has used the Network Licence to incentivise Network Rail (NR) to report against a range of health metrics in their published Annual Return<sup>25</sup>. A review in 2012/13 by ORR's Independent Reporter indicated low confidence in the quality of the initial health data in NR's Annual Return. ORR has worked with NR on improving their processes for capturing HAVS cases in particular, and we will repeat the Reporter assessment once the agreed improvements to health data quality are embedded. There is, however, evidence that inclusion of health in their Annual Return has helped to drive better understanding by NR of data on health outcomes for MSDs, stress, noise, HAVS, asbestos and lead, and has contributed to far more robust health data collection and analysis. Network Rail's 2014 Annual Return<sup>26</sup> indicates that 37% of all referrals to their occupational health provider were for musculoskeletal conditions (mainly to back and lower limbs), with 18% for

<sup>21</sup> CIPD 2014 Absence Management report: <https://www.cipd.co.uk/hr-resources/survey-reports/absence-management-2014.aspx>

<sup>22</sup> TfL: <https://www.tfl.gov.uk/corporate/publications-and-reports/>

<sup>23</sup> Network Rail: <http://www.networkrail.co.uk/publications/sustainability-update/workplace/>

<sup>24</sup> CIPD: <http://www.cipd.co.uk/research/absence-management-survey.aspx>

<sup>25</sup> Network Rail Annual Returns: <http://www.networkrail.co.uk/publications/Annual-return/>

<sup>26</sup> Network Rail 2014 Annual Return: <http://www.networkrail.co.uk/publications/annual-return-2014.pdf>

psychological conditions. In both cases, around 85% cases were judged to be non-work-related.

3.23 In recent years responses from the Trade Union Congress (TUC) biennial survey of health and safety representatives have consistently identified stress as the main hazard they face at work. Latest results from the 2014 TUC survey for the transport and communications sector<sup>27</sup> confirm stress as the most frequently identified hazard (63% respondents), with bullying and harassment (45%) and back strains (40%) also in the top five concerns. An analysis of the 2014 survey returns from the train drivers' union, ASLEF, health and safety representatives (sample size of 30 respondents) showed stress, long working hours, and back strain as the most frequently identified hazards (77% respondents ranked them in the top five concerns), with stress (24%) and working hours (24%) emerging as the most important.

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<sup>27</sup> TUC biennial safety representatives survey 2014: <http://www.tuc.org.uk/health-and-safety/health-and-safety-reps-survey-2014>

## 4. What are the costs of work-related ill health in rail?

### Key findings: Costs of ill health in the rail industry

- HSE estimates costs to rail employers of work-related illness in railway operatives<sup>12</sup> to be of the order of £2.5 to £5 million per year. As this estimate includes work-related ill health arising from current working conditions, and excludes long latency disease such as cancer, true costs are likely to be higher.
- 2014 RSSB research<sup>19</sup> estimates the direct and indirect cost of total sickness absence in the GB rail industry at around £316m annually. If costs of presenteeism are included (£474 million), the total annual cost of impaired health is estimated to be as high as £790m.
- RSSB research estimates that for every £13 lost to sickness absence among employees in the railway industry, only £1 is spent on supporting their health.
- We want to see more rail companies evaluate the cost effectiveness of health and wellbeing initiatives in order to target investment efficiently, and be able to demonstrate that the costs associated with ill health are at least as good as comparators within and outside the industry.

- 4.1 In the last few years we have seen an increasing focus on the costs of ill health in rail. This has been driven by a number of factors including the McNulty Rail Value for Money study<sup>28</sup>, the introduction of worker health and wellbeing into new rail franchises (for example InterCity East Coast in 2014 and TransPennine Express and Northern in 2015), the emphasis by government on the societal and individual benefits of 'good work', the impact of low worker engagement on GB productivity, and the challenges of keeping an ageing workforce productive. For the first time, ORR has included a requirement for £55 million in efficiency savings on occupational health management in Network Rail's Final Determination for 2014-19<sup>29</sup>.
- 4.2 There are a range of estimates on the potential costs of worker ill health in the rail industry. Although the current cost estimates vary, they all indicate that the costs of failing to properly manage ill health are very significant, providing an opportunity to realise substantial savings.
- 4.3 HSE has used its cost of ill health model<sup>30</sup> to estimate costs of new cases of work-related ill health in railway operatives. HSE estimates<sup>13</sup> the total annual costs to GB society of new cases of work-related illness in railway operatives<sup>12</sup> resulting from

<sup>28</sup> McNulty report: <https://www.gov.uk/government/publications/realising-the-potential-of-gb-rail>

<sup>29</sup> Final Determination for Network Rail 2014-19: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0011/452/pr13-final-determination.pdf](http://orr.gov.uk/_data/assets/pdf_file/0011/452/pr13-final-determination.pdf)

<sup>30</sup> HSE ill health cost model: <http://www.hse.gov.uk/statistics/sources.htm#hse-cost-model>



current working conditions to be in the order of £10 to £20 million. Around half these costs fall to individuals, with the remainder shared by employers and government (24% each). Using this model, costs to rail employers of work-related ill health in railway operatives alone would be of the order of £2.5 to £5 million per year. HSE estimate the unit costs of work-related illness for all occupations to be £17,400 (based on 2012 prices), with the cost to the employer of £4,100 per case. The HSE cost estimates include only the cost of cases arising from current working conditions, and exclude any costs arising from long latency disease such as cancer. As a result, the actual costs to the rail industry from work-related ill health in railway operatives are likely to be higher.

- 4.4 Research published by RSSB in 2014<sup>19</sup> estimated the direct and indirect cost of all sickness absence in the GB rail industry at around £316m annually. If costs of presenteeism are included (£474 million), the total annual cost of impaired health is estimated to be as high as £790m. The average total annual cost of sickness absence per rail employee was estimated at £2,631, although the reports suggests that this might vary from £3,270 for each TOC employee, £1,715 for infrastructure contractors and £1,565 for FOC employees.
- 4.5 The 2014 RSSB research clearly demonstrates the business case for a more proactive approach to reducing sickness absence and presenteeism. RSSB's 2014 analysis indicated an average of £201 per person per year spent on health and wellbeing programmes. Most of this is spent on statutory requirements such as medicals, drug and alcohol testing, and rehabilitation. The cost-spend ratio for sickness absence was estimated at 13:1, meaning that for every £13 lost to sickness absence amongst employees in the railway industry, only £1 is spent on supporting their health. If presenteeism is included, the cost-spend ratio increases to 33:1, meaning that for every £1 spent on better health management and engagement, up to £33 could be saved in avoidable costs from sickness and reduced productivity resulting from presenteeism. RSSB has calculated that a reduction of just 0.4% in the LTR of 3.9% would deliver savings in sickness absence costs alone of £32m per year.

## Being informed on costs of ill health

- 4.6 Striving for greater efficiency by reducing costs from workers suffering occupational ill health is a key focus of ORR's 2014-19 health programme. We want rail companies to be aware of their costs, and be able to demonstrate that the direct and indirect costs associated with ill health are at least as good as comparators within and outside the industry. In their 2014 Absence Management Survey<sup>31</sup>, the CIPD reports that around a fifth of all organisations surveyed evaluate the impact of their employee health and wellbeing programmes. Those companies with a target for reducing sickness absence and those who use absence as a Key Performance Indicator (KPI) are more likely to evaluate the impact of their wellbeing spend than those who don't. Those who do evaluate wellbeing spend are also more likely to increase their total

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<sup>31</sup> CIPD Absence Management survey 2014: <http://www.cipd.co.uk/research/absence-management-survey.aspx>

wellbeing spend subsequently. RSSB-led projects proposed under the Industry Roadmap to develop a cost benefit analysis tool and to evaluate the impact of health initiatives, should help to support industry progress in this area.

- 4.7 Responses from rail companies to ORR's health data surveys in 2011 and 2014 (see Annex D) indicate costs of Employers' Liability Insurance Claims (ELCI) settled for work-related ill health of around £3 million per year, based on a small sample who provided claims data. The 2014 survey responses showed a marked upturn in the number of health claims submitted, which may impact on future costs of health claims settled.
- 4.8 The internal report for ORR on management referrals from a leading industry OHP indicated potential for modest cost savings to rail clients from failure to attend, or cancellation of, referral appointments. Over the period April 2012 to November 2014, avoidable (direct) costs from failure to attend or cancellation of appointments among TOC clients amounted to £91,420, with costs to infrastructure clients of £29,222.
- 4.9 Since 2010 we have seen examples of good practice by rail companies in demonstrating and sharing the cost benefits of specific health initiatives via case studies on our website<sup>32</sup>. By prioritising and tackling the key issues impacting on employee wellbeing, London Overground Rail Operations (LOROL) improved employee attendance significantly, saving £100,000 in direct absence costs in 2011-12<sup>33</sup>. Merseyrail demonstrated reductions in sickness absence, with savings of at least £11,000, in the pilot of its 'Heart on Track' fitness and healthy eating challenge<sup>34</sup>. Network Rail's physiotherapy pilot resulted in a 60% reduction in sickness absence resulting from early management referral and physiotherapy treatment<sup>35</sup>. Southern Railway has demonstrated improved ill health case management by regaining control of its health services and bringing it back in house. They shared their understanding on costs and benefits at the Industry Safety Leaders meeting. We want to see more rail companies evaluate the cost effectiveness of health and wellbeing initiatives, in order to target investment intelligently and efficiently, and to share good practice, for example by producing case studies for our website.

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<sup>32</sup> ORR health case studies: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/guidance-and-research/occupational-health-guidance/case-studies>

<sup>33</sup> LOROL case study: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0018/5355/wellbeing-study-london-overground.pdf](http://orr.gov.uk/_data/assets/pdf_file/0018/5355/wellbeing-study-london-overground.pdf)

<sup>34</sup> Merseyrail case study: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0006/3588/oh-case-study-heartontrack.pdf](http://orr.gov.uk/_data/assets/pdf_file/0006/3588/oh-case-study-heartontrack.pdf)

<sup>35</sup> NR case study: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0006/4488/physiotherapy-pilot.pdf](http://orr.gov.uk/_data/assets/pdf_file/0006/4488/physiotherapy-pilot.pdf).

## 5. How mature is the rail industry in managing occupational health?

### Key findings: Rail industry leadership and awareness on health

- Leadership initiatives on health, co-ordinated by RSSB for mainline rail, have been considered, collaborative, and positive. Extending RSSB's remit to include health and wellbeing; development of the Industry Roadmap; and delivery of the first annual industry health conference in 2014, shows real leadership, commitment, and ambition.
- We want to see recent efforts sustained across all parts of the industry and an escalation in pace to deliver key work streams in the Industry Roadmap. This will allow rail businesses to reap the benefits from improved health and engagement in their workers.
- The vision and direction provided in the Roadmap needs to be reflected in individual company health strategies and supported by visible board level commitment on health.
- We are looking to the Rail Delivery Group to actively support the mainline industry's efforts to secure progress in improving employee health and wellbeing.
- We want to see more rail companies deliver on commitments to treat health like safety by publicly reporting on worker health against quantitative targets. We would also encourage more rail companies to show public commitment and leadership on health by signing up to voluntary health pledges, in particular the Department of Health Public Health Responsibility (PHR) Deal<sup>43</sup> and the Institution of Occupational Safety and Health (IOSH) No Time to Lose occupational cancer campaign<sup>36</sup>.
- Emerging evidence of greater monitoring of health performance indicators and metrics by rail companies is encouraging, and should become the industry norm. We want to see the industry develop a common set of health performance indicators, for example by developing ORR's proposal to RSSB for a health metrics dashboard.
- Freight, tram, and heritage operators have been less visible in sharing good practice on health and wellbeing initiatives than others. We would encourage these companies to share with their peers and with wider industry what works.
- We would encourage rail companies and trade unions to help us to raise awareness on health even further by cascading ORR health guidance, including our quarterly

<sup>36</sup> IOSH No Time to Lose: <http://www.iosh.co.uk/NTTL/Home/About-NTTL.aspx>

health programme updates and health e-bulletins, within their business and providing links to ORR's health pages on their own websites and intranet pages.

## Industry leadership on health

- 5.1 ORR continues to call for stronger, more visible leadership on health by railway companies. The influential 2011 McNulty report recognised the need for the rail industry to 'increase the focus on occupational health, which will reduce levels of sickness and absenteeism as well as encouraging a healthier workforce'.
- 5.2 Industry progress at a strategic level, although relatively slow, has been considered, collaborative and positive. Since 2010 RSSB has formally extended its remit to include worker health and wellbeing. In 2014 they published an ambitious and wide ranging health and wellbeing Industry Roadmap<sup>18</sup>, following extensive cross industry consultation. The Roadmap and formation of a health and wellbeing policy group to steer its delivery, clearly demonstrate an openness and desire to work together to improve worker health and wellbeing. The introduction of health and wellbeing concerns into the mainline CIRAS confidential reporting scheme newsletter and the CIRAS pledge to the IOSH No Time to Lose cancer campaign, are a positive and visible demonstration of industry leadership. The first RSSB industry health conference in October 2014 was an important catalyst for securing wider industry participation in devising solutions and sharing good practice on health management.
- 5.3 The influential Rail Delivery Group (RDG) 'people work stream' recognises the importance of employee health and wellbeing in ensuring that the industry has the right people with the right motivation to deliver increased productivity and reduce costs. ORR is looking to the RDG to support the mainline industry's efforts to secure progress in improving employee health and wellbeing.
- 5.4 National leadership on occupational health within Network Rail now appears strong, with the introduction in 2013 of a health and wellbeing strategy 'Everyone Fit for the Future' and a clear implementation programme. NR has also strengthened its health and wellbeing expertise. The inclusion of health and wellbeing requirements in NR's revised code of practice for contingent labour has potential to drive up compliance on health through its supply chain.
- 5.5 At a working level, mainline industry leadership has been demonstrated by a number of collaborative groups: NR contractors on the Infrastructure Safety Liaison Group (ISLG) pursuing a Health Manifesto, the Ballast Dust Working Group (BDWG)<sup>37</sup> and the Track Safety Alliance (TSA)<sup>38</sup> on silica, ATOC and train operators producing guidance on specific health topics such as legionella, and use of ramps to board wheelchair users<sup>39</sup>. LUL has also continued to show leadership in collaborative working, including work with the Health and Safety Laboratory on manual handling

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<sup>37</sup> Ballast Dust Working Group: <https://www.safety.networkrail.co.uk/Toolbox-for-Supervisor/National-Supply-Chain-NSC/Ballast-Dust-Working-Group>

<sup>38</sup> Track Safety Alliance: <http://www.tracksafetyalliance.co.uk/h/about-us/tsa-videos/65/>

<sup>39</sup> ATOC guide: <http://www.atoc.org/download/clientfiles/files/2014-06-guide-T759-wheelchair-users-online-v13.pdf>

solutions for design and use of hand propelled rail handlers, and with HSE on its LIDEN (Leading Indicator of Damaging Exposure to Noise) project on noise exposure management.

- 5.6 Within the rail industry a lack of rail specific clinical support, expertise and guidance to third party providers and rail managers has presented challenges. The renewed focus on clinical knowledge and leadership included in the Industry Roadmap, being taken forward by the Health and Wellbeing Professions Committee and supported by The Association of Railway Industry Occupational Health Practitioners<sup>40</sup>, should help to drive improvements in outcomes for individuals, as well as efficiency savings for rail businesses.
- 5.7 Since 2010 we have seen the positive impact of trade union campaigns on raising awareness and seeking improved control on health and wellbeing in rail. Recent examples include initiatives by the TSSA on understanding the impact on work performance for those with dyspraxia and dyslexia, RMT guidance on diabetes and DEEE, ASLEF on train cab design, and UNITE's campaign on workplace stress and guidance on DEEE. ORR's 2013 trade union safety representatives conference<sup>41</sup> focused solely on worker health and wellbeing. It explored the key role of safety representatives in improving health risk management across a range of topics including stress, fatigue, asbestos, silica, and suicide.
- 5.8 Public reporting on worker health is an important indicator of visible leadership, and is one of the measures that ORR uses to assess progress under our health programmes. Responses to ORR's 2014 health data survey indicate a move towards stronger public visibility and accountability on health among rail companies. However the numbers of companies who report publicly on health against quantitative targets is still small, at around a fifth of the 2014 survey respondents (See Annex D), compared with two fifths who do so for safety. It is clear that worker and public safety still has a higher profile in terms of public reporting than ill health, despite an increasing recognition among rail employers that health should be treated 'like safety'.
- 5.9 Independent research in 2014 on the Business in the Community (BITC) Workwell Public Reporting Benchmark<sup>42</sup> shows a continued upturn in public reporting on health and wellbeing among FTSE 100 companies. In 2014 all FTSE 100 companies reported publicly on at least one aspect of employee wellbeing and engagement, with 90% reporting specifically on better physical and psychological health. Importantly, this report shows a significant positive correlation between companies' performance in public reporting on worker wellbeing, and their financial performance as measured by total assets and total equity. Companies scoring highly on the public reporting Wellbeing Index score outperform those who scored much lower.

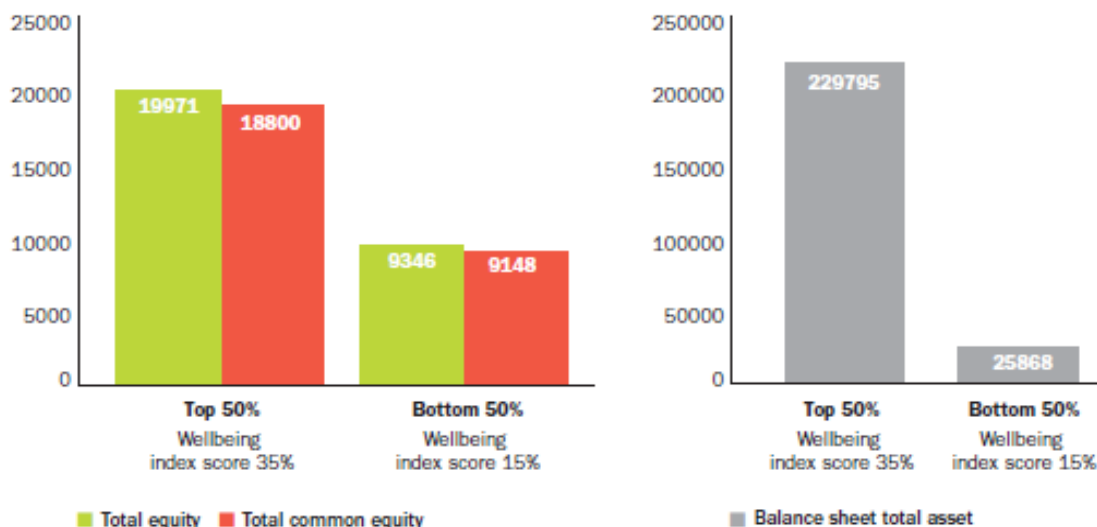
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<sup>40</sup> ARIOPS: <http://www.ariops.org.uk/>

<sup>41</sup> ORR TU reps conference 2013: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/occupational-health/presentations-and-events>

<sup>42</sup> Business In The Community FTSE 100: <http://www.bitc.org.uk/our-resources/report/ftse-100-public-reporting-wellbeing-and-engagement>

**Figure 12 – Relationship between total score on public reporting against the BITC Workwell Model and financial performance (£GBP million)**



Source: BITC FTSE 100 public reporting Employee engagement and wellbeing 2014<sup>42</sup>

5.10 We have also looked at public commitment by rail companies to improve worker health and wellbeing under the voluntary Department of Health Public Health Responsibility (PHR) Deal<sup>43</sup>, first launched in March 2011. During our 2010-14 health programme, around 10 rail industry companies (including wider construction contractor groups also working in rail) publicly pledged their support. ORR is actively promoting rail industry commitment to the PHR Deal under our current health programme and it is encouraging to see further good progress in this area. Between April 2014 and January 2015, a further 16 companies operating in the rail sector (excluding occupational health providers) have signed up. It is notable that the majority of the signatories are either construction companies or specialist rail contractors. Of the non-contractor signatories, there are three train operators (Arriva Group, Northern Rail and Virgin Trains) plus Network Rail. The most common pledges are in relation to occupational health provider standards, health and wellbeing reporting, and mental health and wellbeing. All the contractors have committed to the construction and civil engineering industry pledge. We would like to see more rail companies, particularly passenger, freight, and light rail operators, showing public commitment and leadership on health in this way.

5.11 Despite the significant improvements in leadership since 2010, we have yet to see a clear strategy across all parts of the industry to drive progress on health, or visible board level commitment across all duty holders. ORR recognises that ill health and associated sickness absence continues to impose significant personal, business and societal costs. We will continue to push for better leadership and planning to improve compliance and reduce the direct and indirect costs of health.

<sup>43</sup> Department of Health PHR Deal: <https://responsibilitydeal.dh.gov.uk/>

## Industry awareness on health

- 5.12 There is clear evidence that rail companies are now far better informed on occupational health than in 2010. There are positive signs of a higher profile for health at senior management level, with many rail companies setting performance indicators on health. Under its 2014 Health and Wellbeing Strategy, Network Rail has established a series of specific quantitative targets on occupational health, alongside a dashboard of health and wellbeing metrics to track progress. TfL reports publicly on sickness absence by cause and business area, supplemented by additional health performance indicators in priority areas such as mental health and MSDs. We are aware of some mainline train operators, including for example Southeastern Trains, London Midland and Northern Rail, developing health metrics as KPIs. Although there is still no universal set of core metrics across the industry, common features include sickness absence rates, including absences for specific causes such as MSDs or stress. They also include participation rates for health surveillance and wellbeing initiatives such as health fairs and online health tools. In 2014 ORR submitted to RSSB an outline proposal for a possible dashboard of health metrics which might be developed further for benchmarking across mainline rail. We hope to see work in this area progress during our current health programme.
- 5.13 The launch by RSSB in 2014 of its Health and Wellbeing Resources and Assessment Tool<sup>44</sup> and the current project on health risk assessment for common rail environments (T1085) should help to drive better understanding and compliance on health risk assessment. However, we believe that there remains significant scope for the rail sector to make quicker and better use of established good practice and well-tested health risk assessment tools (for example the HSE MAC tool for manual handling, and the HSE Management Standards approach for work-related stress). More rail companies could harness help and support on health and wellbeing from outside the industry, including initiatives within the Department for Work and Pensions, NHS and health charities such as MIND and the British Heart Foundation.
- 5.14 Since 2010, ORR has found many rail companies willing to share good practice across the industry by producing case studies to show the health and financial benefits of health management initiatives. Over the four years of our health programme 21 health case studies from across the industry were published on our health web pages<sup>32</sup>. Freight, tram and heritage operators have been less visible in sharing good practice on health than others, and we would encourage these companies to share with the wider industry what works. We will continue to seek to build an evidence base of these case studies because we believe occupational health improvements can provide value for the money invested and will act as a powerful driver for improvement.

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<sup>44</sup> RSSB health & wellbeing resources: <http://www.rssb.co.uk/improving-industry-performance/workforce-passenger-and-the-public/workforce-health-and-wellbeing/behavioural-change/health-and-wellbeing-assessment/health-and-wellbeing-assessment-resource>

- 5.15 Independent research for ORR in 2014 to evaluate the impact of our first health programme<sup>45</sup> confirms an increased awareness on health across the rail industry. For example, more than three quarters of industry respondents reported having visited ORR health web pages, and more than half had attended an ORR health event. ORR data on visits to our website confirms significant and sustained increases in use of ORR's health web pages as industry awareness has increased. We recorded over 32,500 visits to our health web pages during our first health programme. More detail on use of ORR health web pages, as one of the indicators we use to assess the impact of our health programmes, is in Annex D.
- 5.16 The growth in the industry's subscription to ORR's quarterly health programme updates<sup>46</sup>, which provide guidance and key messages on occupational health, provides a useful additional indicator of awareness on health. Since the launch of our online subscription service in April 2013, the subscription base had grown to more than 400 by April 2014, and by May 2015 to more than 550 subscribers. Our quarterly health update appears to be reaching a wide cross section of the industry. Current subscribers span more than 35 separate rail industry organisations including the four rail trade unions, contractors, rail operators, infrastructure managers, ATOC, British Transport Police and occupational health service providers. However, the independent evaluation report indicates that our message on health is not getting to all those who may need it. Although the quarterly health update was viewed positively by the majority of those who saw it, only a third of the survey respondents actually received it. We continue to work hard to increase awareness across the industry of the health guidance available on our website, including the quarterly updates and periodic health e-bulletins. We would also ask rail companies and trade unions to help us, for example by cascading useful ORR guidance and updates within their business, and providing links to ORR's health pages on their own websites and intranet pages.

## Culture of excellence within rail companies

### Key findings: Culture of excellence within rail companies

- We have seen numerous examples of good practice in managing worker health across many parts of the industry. We commend efforts to work collaboratively to tackle specific health problems, for example silica in ballast dust and manual handling in Passenger Assist, and the further development of innovative approaches to reducing potentially harmful exposures.

<sup>45</sup> ORR independent evaluation report: [http://orr.gov.uk/data/assets/pdf\\_file/0019/14815/accent-report-on-2010-14-occupational-health-programme.pdf](http://orr.gov.uk/data/assets/pdf_file/0019/14815/accent-report-on-2010-14-occupational-health-programme.pdf)

<sup>46</sup> ORR quarterly health updates: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/occupational-health-quarterly-updates>



- However, occupational ill health must be better managed by railway duty holders, not least because we have found evidence of failure to meet minimum legal requirements across the industry, which in too many cases required formal enforcement action.
- RM3 (Railway Management Maturity Model) scores for occupational health management remain significantly and consistently below those seen for managing safety. We want to see rail companies make more use of RM3 for health and identify key areas for improvement, particularly in relation to monitoring and review of compliance with legal duties on health.
- Despite recent progress, the rail industry continues to underperform in managing health compared with safety risks, particularly in mainline maintenance and renewals. Compliance on occupational health is lagging behind comparable industry sectors.
- Key areas of under-performance include:

- Underlying many of these weaknesses is a lack of competence among front line managers for health risk control at site level, and insufficient attention to assurance on health. Failure to tackle these two key issues will significantly undermine industry efforts and investment on occupational health.

## **Maturity in health risk management**

- 5.17 Inspection work under our 2010-14 health programme confirmed that rail worker health still has a lower profile than worker and passenger safety. Occupational ill health must be better managed by all railway duty holders, not least because we have found evidence of failure to meet minimum legal requirements across the industry.
- 5.18 Over the four years of our first health programme we served 20 formal enforcement notices for failure to adequately control risks to workers' health or welfare on the mainline, underground and heritage infrastructures. Five of these were prohibition notices arising from failure to control a serious personal risk to health. Formal enforcement has been needed to secure improved control of risks from use of hazardous substances, including asbestos, isocyanates, welding fumes, concrete dust and cleaning of train under-frames; HAVS; manual handling risks in station refurbishment and infrastructure maintenance; and inadequate welfare provision.

Details of ORR enforcement notices can be found on the ORR public register<sup>47</sup>. It is disappointing that since April 2014 we judged a need to serve a further five notices on health, including two prohibition notices.

5.19 During our first health programme, ORR inspectors started to use our Railway Management Maturity Model<sup>48</sup> (RM3) to measure the maturity of elements of occupational health risk management. Sample RM3 assessments have revealed wide variations in maturity between companies, but also in how well individual duty holders manage different health risks. We are still building our understanding of the industry's capability in managing health risks using RM3 and do not yet have a complete picture. However, overall the sample RM3 scores for occupational health management remain significantly and consistently below those seen for managing safety, with level 2 (managed) most prevalent, and in a few cases no better than level 1 (ad hoc). However, we did find pockets of more mature health management for Transport for London (TfL) and in some TOCs. Although RM3 elements such as leadership and policy typically rated higher, many key elements including local management and supervisory accountability, competence, control of contractors, target setting, and proactive monitoring, typically scored lower. This assessment underpins the case for the rail industry to make more use of RM3 for health and identify key areas for improvement. This is particularly important in relation to arrangements for monitoring and review required under Regulation 5 of the Management of Health and Safety at Work Regulations 1999. New ORR guidance on RM3 for health<sup>49</sup> and also on assurance for health<sup>50</sup> should help rail companies to do this.

## Good practice in managing worker health

5.20 We have seen an increase in good practice and innovative approaches to health risk management during the four years of our first health programme. We are encouraged by increased efforts to reduce health risks by engineering means, rather than rely on the use of personal protective equipment (PPE) or job rotation. Examples include work to reduce silica exposures by better wetting of mainline ballast wagons and stockpiles, and localised water misting for breaking out concrete in sub surface tunnels, and reducing DEEE by charging air cylinders from shore supplies rather than via engine running. Other examples include more effective use of continuous monitoring systems on high vibration tools to assess and manage HAV risks, as well as efforts to source lower vibration hand tools. We are encouraged that the RSSB Rail Technical Strategy (SPP03) recognises the potential for greater innovation to drive improved worker health and wellbeing (and reduce associated costs). We support the industry in actively seeking innovative solutions to improve worker health.

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<sup>47</sup> ORR public register: <http://orr.gov.uk/publications/public-register>

<sup>48</sup> ORR RM3 guidance: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0013/2623/management-maturity-model.pdf](http://orr.gov.uk/_data/assets/pdf_file/0013/2623/management-maturity-model.pdf)

<sup>49</sup> ORR RM3 on health: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/occupational-health-and-the-railway-management-maturity-model>

<sup>50</sup> ORR guidance on assurance: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/health-risk-management-assurance>

- 5.21 Network Rail's 2013 health and wellbeing strategy puts effective management of occupational health at its heart and identifies key health and wellbeing topics for specific attention, including priority areas such as HAVs, mental health, and respiratory disease. The strengthening of professional support to route managers by recruiting occupational health managers for each route is a positive step. Network Rail and its contractors have worked collaboratively at national level to raise awareness and promote improved standards of control in managing exposures to silica in ballast dust. However, much remains to be done in order to embed and deliver the good practice at site level. We have seen signs of innovation in mainline bridge refurbishment, including a recent trial where health risks from lead and isocyanate exposure were reduced by use of high pressure steam jetting to remove old lead based paint. This was followed by application of a non-isocyanate coating system designed to adhere to the cleaned paint surface.
- 5.22 LUL and their contractors have also shown innovative approaches to the health risk management challenges presented by the need to carry out maintenance work extensively underground, with difficult access often via stations built in the Victorian era. Good practice examples include use of remotely operated, rather than manual, breakers and use of 'concrete bursting' techniques to break up concrete pit blocks and sleepers, reducing silica, HAVS and noise exposures. Health risks in train carriage refurbishment were reduced by improved design of mobile spray enclosures for isocyanate paint spraying, and replacement of electric chisels with lower vibration pneumatic chisels with longer handles, also reducing MSD risks from crouching and kneeling. The need for manual handling via the stairs was minimised by installation of conveyor systems in some underground stations to deliver maintenance and renewals equipment direct to the platform. In addition to health risk reduction, these improvements invariably delivered productivity benefits.
- 5.23 Train and freight operators have also adopted, and been keen to share, good practice in health risk management. Some examples include Arriva Train Wales' (ATW) approach to trauma management<sup>51</sup>, Merseyrail's Heart on Track Challenge<sup>35</sup>, First ScotRail's work to improve legionella risk management in carriage wash facilities<sup>52</sup>, and training in safe working practices and face fit testing of drivers by DB Schenker to minimise exposures to silica in ballast dust. There have also been proactive approaches by Northern Rail, ATW, Southern, and South West Trains to assessing and mitigating MSD risk in train cabs<sup>32</sup>. We have seen innovation by some TOCs in using GPS controlled systems on older rolling stock (without retention tanks) to prevent discharge of toilet effluent at specific locations. We have seen other examples where, following a thorough review of health management arrangements, TOCs have introduced additional health surveillance for groups of staff.

## Areas of weakness in managing worker health

- 5.24 Despite increasing examples of good practice in specific areas, since 2010 our inspection work has continued to find significant weaknesses in management of key

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<sup>51</sup> ATW case study: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0020/2783/atw-stress-case-study.pdf](http://orr.gov.uk/_data/assets/pdf_file/0020/2783/atw-stress-case-study.pdf)

<sup>52</sup> Scotrail case study: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0011/3611/oh-case-study-legionella-scotrail.pdf](http://orr.gov.uk/_data/assets/pdf_file/0011/3611/oh-case-study-legionella-scotrail.pdf)

health risks across the industry. We found some rail duty holders still failing to properly assess and manage key health risks, including HAV and silica dust during mainline maintenance and renewals, asbestos management in railway premises, and MSDs from manual handling activities on track, on trains and at stations. On manual handling, failure to assess and control risks from frequent manual lifting and carrying of heavy concrete troughs by mainline track maintenance workers was of particular concern. We also found inadequate manual handling risk assessments for TOC staff assisting wheelchair users, and for handling access ramps and catering trollies, as well as weaknesses in monitoring of safe working practices, among some train operators.

- 5.25 We found scope for improved control of exposure to noise and DEEE in some depots, including more regular testing and maintenance of exhaust ventilation systems, and more consistency in use of suitable hearing protection. We found evidence of continued reliance on the use of bought-in packages to assess risks from hazardous substances. Companies could achieve more effective results if their own competent staff took ownership of the assessment and risk management process. We found failures to identify the health risks associated with by-products from an activity (for example metal fumes when welding, and legionella bacteria from train carriage washing). Such a lack of detailed assessment is significant because it inevitably leads to inadequate controls.
- 5.26 The absence of a co-ordinated and systematic approach to health risk management at route and site level by NR and its contractors was of particular concern. It remains a key focus of our inspection work on health. The marked upturn in HAVS diagnoses reported by NR since 2010, coupled with systemic weaknesses in HAVS risk management identified by our inspection work, has been a key driver in NR identifying HAVS as a strategic priority for 2014/15 and beyond. We continue to monitor their progress in implementing improved procedures for assessing and managing individual HAV exposures, particularly in track and property maintenance and renewals, as well as through their supply chain, including equipment procurement.
- 5.27 Evidence gathered from our sample inspections of the heritage sector found lower than expected awareness of some specific health management duties required by law. There were particular weaknesses in record-keeping: for example, flaws in maintenance records for local exhaust ventilation equipment, failings in maintaining registers on the possible location of asbestos, and risks from manual handling of sleepers. We identified some weaknesses in the way skin-disease causing hazardous substances such as oil, grease, and man-made mineral fibres used in boiler-lagging were managed. Also in the management of worker exposure to noise and vibration, particularly during the maintenance and repair of vehicles. We continue to monitor and address these issues as part of routine inspection work.
- 5.28 Our inspection work has identified a fundamental weakness across the industry to proactively monitor and review compliance with health risk management on the ground. We believe that, without this key assurance activity in place, efforts to raise compliance standards on health will be undermined and investment in health largely

wasted. Improving rail manager competence on occupational health will be essential to delivering better assurance and consistent compliance.

5.29 In response to our recent inspection findings, ORR has identified three areas of health as requiring a mandatory investigation<sup>53</sup> (from 2014) when reported to us. These are Legionellosis (legionnaire's disease) where the source of infection may be on a railway location enforced by ORR, any suspension from work of a worker due to high blood lead levels, and any report of a case of occupational asthma resulting from exposure to a respiratory sensitizer, such as isocyanate paint.

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<sup>53</sup> ORR mandatory investigation policy: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0008/14399/mandatory-investigations-policy-and-guidance.pdf](http://orr.gov.uk/_data/assets/pdf_file/0008/14399/mandatory-investigations-policy-and-guidance.pdf)

## 6. Key priorities for the industry in moving towards excellence in managing health

- 6.1 ORR's second health programme for 2014-19 identifies priority areas for action under the themes of enabling, efficiencies, excellence and engagement. Our assessment of progress by 2014 supports the need for sustained effort across the industry to deliver against these priorities, which align broadly with those in the Industry Roadmap. The evidence in this report suggests that a number of fundamental weaknesses need to be addressed in order for the industry to close the compliance and performance gap on health and move towards excellence.

### Manager competence (Enabling)

- 6.2 Inspection findings indicate that a key challenge for the industry in moving towards excellence is a lack of adequate knowledge, experience and skills among many front line managers and supervisors on what the law requires, and on what good health risk management looks like. We welcome proposed work under the Industry Roadmap to identify health training requirements to support behavioural change, but recognise that delivery may be some way off.
- 6.3 ORR has already produced comprehensive guidance for the industry on developing rail manager competence on health<sup>54</sup>, which identifies the key areas of knowledge that most rail managers should need. Early in our 2010-14 health programme we worked with the National Examining Board for Occupational Safety and Health (NEBOSH) on potential development of a NEBOSH Certificate on Health and Wellbeing in the rail industry, to be taken forward with sufficient industry support. Although we saw little initial progress, as a result of our further recent work with NEBOSH and the National Construction College, there are plans to pilot a series of shorter Level 3 courses on health specifically for rail managers during 2015/16. We believe that strengthening the competence of front line managers in occupational health will be essential to delivering real improvement on the ground. We are looking for industry support to make this happen over the next two years.

### Better health data (Enabling)

- 6.4 The absence of reliable health data at industry level, to inform better targeting of effort and resource, remains a challenge. Early work under the RSSB Workforce Health and Wellbeing Project to explore and specify health data collection needs across mainline rail was complex and challenging, resulting in limited progress. ORR is keen to see substantive progress and an escalation in pace under the Industry Roadmap.
- 6.5 Many rail companies still have much to do to collect and make use of meaningful health data. The results of ORR's repeat health data survey for 2013/14 indicate that around two thirds of the rail companies who responded were not able to identify the

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<sup>54</sup> ORR guidance on rail manager competence: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/guidance-and-research/occupational-health-guidance/rail-manager-competence>

extent (and therefore costs) of work-related ill health (more detail is in Annex D). At individual level, we expect each rail company to have systems for recording and monitoring relevant health data, linked to outcomes from health surveillance, which support setting of priorities and legal compliance on employee health.

- 6.6 Improved RIDDOR reporting of HAVS cases by Network Rail seen during our first health programme is not evident in the rail contractor community. Many contractors will undertake higher risk work with vibrating tools, for example in bridge or rail vehicle refurbishment. This leads us to suspect a degree of under-reporting by some rail contractors. We will continue to challenge rail companies on their reporting arrangements under RIDDOR and expect rail contractors to review both their health surveillance and reporting arrangements for HAVS in particular.

## **Making the business case (Efficiency)**

- 6.7 Making a convincing business case for investment in better health management remains a priority for many rail businesses. Much has been done since 2010 to demonstrate the financial case, including the ORR event in November 2012 which showcased examples of where properly targeted, modest funding in improving employee health resulted in efficiency gains for the business. Many of the good practice case studies on our website demonstrate clear benefits, but only in a few cases have these been quantified. However, for the industry to really move forward, companies need to be more aware of the direct and indirect costs of failing to manage health risks and the efficiency savings that better health management can deliver. We recognise that this is not straightforward and will continue to support the industry to develop information on return on investment and evaluating the impact of health initiatives. RSSB has started work in this area and we want to see continued progress. Our expectation for 2014-19 is that rail companies should be aware of their costs and be able to demonstrate that the direct and indirect costs associated with ill health are at least as good as comparators within and outside the industry.

## **Monitoring and assurance (Excellence)**

- 6.8 ORR's use of RM3 for health by 2014 confirms that maturity in managing health is less well developed than for safety. Key RM3 elements on local accountability, competence, control of contractors, target setting, and proactive monitoring typically scored poorly. We now want to see rail companies make more use of RM3 for health to identify key areas where improvements are needed in managing key health risks, particularly carcinogens, hand arm vibration, musculoskeletal risk, and work-related stress. We will continue to build our evidence base on RM3 for health so that by 2019 we can look towards benchmarking between duty holders.
- 6.9 Since 2010, we know that many rail companies have been working to improve their health data collection and use of health metrics as KPIs. Greater monitoring of health performance indicators and metrics by rail companies is encouraging, and should now become the industry norm. In particular we want rail companies to develop activity (leading) indicators on health rather than just rely on outcome indicators which focus on measures of sickness absence and ill health referrals or diagnoses.

ORR guidance on assurance<sup>50</sup> for health risk management should support rail companies to design and use more meaningful health performance indicators.

- 6.10 By 2019 we want the mainline industry, under the Reporting and Monitoring strategic theme in the Industry Roadmap, to have agreed a common set of health performance indicators/metrics to inform future benchmarking. This might, for example, be informed by ORR's 2014 proposal to RSSB for a balanced dashboard of health measures and targets.

## Public reporting on health (Engagement)

- 6.11 Public reporting on worker health is not only an important indicator of visible leadership, but there is evidence<sup>42</sup> to show a positive correlation with financial performance. By 2019 we want to see the remaining gap between reporting on health and on safety closed. We are looking for rail companies to deliver on commitments to treat health like safety by publicly reporting on worker health against quantitative targets. We would also encourage more rail companies to show public commitment and leadership on health by signing up to voluntary health pledges, in particular the Department of Health Public Health Responsibility (PHR) Deal<sup>43</sup> and the IOSH No Time to Lose occupational cancer campaign.<sup>55</sup>

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<sup>55</sup> IOSH No Time to Lose pledge: <http://www.iosh.co.uk/NTTL/Home/Get-involved.aspx>



## 7. Assessing the impact of ORR’s first health programme

### Comparing ORR’s health indicators between 2009/10 and 2013/14

- 7.1 A lack of reliable industry health data makes it difficult to accurately assess the impact of ORR’s health programmes. So, at the start of our first health programme we proposed five health indicators as markers for excellence in health management, leadership and awareness on health, to help us in assessing the impact of our health programmes. We used data from a 2011 survey of rail companies for the baseline indicators on incidence, cost and visible leadership on work-related ill health, and ORR data to measure awareness. For this report we have updated the indicator measures for 2013/14 using responses from a 2014 repeat of our rail industry survey and updated ORR data. Further details on the scope and analysis of the responses to ORR’s baseline (2011) and repeat (2014) surveys of rail companies can be found in Annex C.
- 7.2 Headline changes in our health indicator measures over the four years of our first health programme are outlined in Figure 13 below. More detailed discussion on our health indicator measures, including analysis of findings from our industry surveys, on RIDDOR disease reports, and visits to ORR’s health web pages, is set out in Annex D.

**Figure 13 – Headline changes in ORR health indicator measures over our first health programme**

Indicators on occupational health for ORR’s 2010-14 programme	2009/10 baseline measure	2013/14 updated measure	Progress
<p><b>Excellence</b> in health management: a measure of incidence of work-related ill health</p> <ul style="list-style-type: none"> <li><b>proportion of available working time lost due to work-related ill health, as reported to ORR by key duty holders</b></li> </ul>	<p><b>0.12%</b> total hours lost due to work-related ill health (total 55,900 hours)<sup>56</sup></p>	<p><b>0.08%</b> total hours lost due to work-related ill health (total 112,600 hours )</p>	<p>Unable to assess progress due to limited confidence in data reliability (as discussed in Annexes C and D)</p>

<sup>56</sup> The indicator measures on incidence and cost of work-related ill health for 2009-10 have been recalculated to improve reliability, details of which are summarised in Annex C

Indicators on occupational health for ORR's 2010-14 programme	2009/10 baseline measure	2013/14 updated measure	Progress
<p><b>Excellence</b> in health management: a measure of cost of work-related ill health</p> <ul style="list-style-type: none"> <li>number and value of employers' liability claims related to occupational ill health, as reported to ORR by key duty holders</li> </ul>	<p>Total value of claims settled for work-related ill health = <b>£3.08 million</b><sup>56</sup></p> <p>Number of claims submitted for work-related ill health = <b>336</b></p>	<p>Total value of claims settled for work-related ill health = <b>£2.99 million</b></p> <p>Number of claims submitted for work-related ill health = <b>1,494</b></p>	<p>Volume of claims increased markedly, but claims value stable</p>
<p>Industry <b>leadership</b>: a measure of visible leadership on OH</p> <ul style="list-style-type: none"> <li>proportion of rail companies who report publicly (e.g. to their shareholders) on OH against quantitative targets, as reported to ORR by key duty holders</li> </ul>	<p><b>16%</b> of respondents report publicly on ill health against quantitative targets, compared with 40% who do so for worker and public safety</p>	<p><b>22%</b> of respondents report publicly on ill health against quantitative targets, compared with 39% who do so for worker and public safety</p>	<p>Modest increase in public reporting on health</p>
<p>Industry <b>awareness</b> on health: a measure of level of reporting under RIDDOR</p> <ul style="list-style-type: none"> <li>number of reports of prescribed diseases reported under RIDDOR to ORR</li> </ul>	<p><b>4</b> cases of prescribed diseases reported – 3 cases of HAVS, and 1 case of dermatitis</p>	<p><b>79</b> cases of prescribed diseases reported – 76 cases of HAVS, 2 cases of carpal tunnel syndrome and 1 case of occupational asthma</p>	<p>Substantial increase in RIDDOR disease reports</p>
<p>Industry <b>awareness</b> on health:</p> <ul style="list-style-type: none"> <li>number of visits to ORR's web pages on health</li> </ul>	<p><b>849</b> visits to ORR health web pages over 4 months (Sept 2010 to Feb 2011)</p> <p><b>8.5%</b> of visit rate to ORR main health and safety regulation page</p>	<p><b>10,045</b> visits to ORR health web pages over 12 months</p> <p><b>34%</b> of visit rate to ORR main health and safety regulation page</p>	<p>Substantial increase in use of ORR health web pages</p>

## What progress has been made?

7.3 In our 2011 baseline report we identified a number of expected trajectories (or trends) in our health indicator measures, to help us to assess the impact of our health programmes. Progress seen for each indicator measure by the end of our 2010-14 health programme is summarised below.

### Incidence of work-related ill health

- **What we expect to see on incidence of work-related ill health:** An increase in the proportion of rail companies who collect reliable data on work-related sickness absence. Allied to this, we predict a probable increase in the reported incidence of work-related ill health. In the longer term, once data collection has improved, we would expect to see a decreasing trend in the incidence of work-related ill health.
- **Progress by 2013/14:** Reporting on health has improved. Based on industry responses to ORR's health data surveys, we have seen a modest increase (of around 13%) in the proportion of respondents who are able to report reliable data on work-related ill health absence. The proportion of larger rail employers who do so has not increased. We have seen a marked increase in occupational diseases reported to us under RIDDOR, particularly of HAVS driven by improvements in NR's ill health recording and reporting arrangements. We expect to see this upturn in reported HAVS cases by NR continue in the short term as health surveillance outcomes for their remaining workers in higher risk jobs are reported. It should then decline as improvements in HAV risk management take effect. We might expect a modest increase in RIDDOR disease reports (for example in HAVS cases from rail contractors) resulting from better compliance on RIDDOR reporting across the rest of the industry during our current health programme.
- Trends in the incidence of work-related ill health over our 2010-14 health programme are more difficult to assess, with available data sources capturing different snapshots of the wider picture. HSE data from the LFS survey cannot be used to infer any changes in the extent of work-related ill health in railway operatives over our four year health programme, due to the large overlap in the baseline and updated data sets. The revised HSE data suggests that the prevalence of work-related ill health among railway operatives is broadly comparable with that in the construction industry, but that levels of respiratory disease may be higher than in the rest of the working population. An analysis of health referral data by a leading OHP suggests levels of work-related ill health in their rail clients are similar to the average for the rest of the transport sector, and below the all industry average. Recent RSSB research on impaired health suggests that sickness absence rates in the rail sector may be higher than those for all industry and construction.
- The data on the proportion of hours lost due to work-related ill health from ORR's health data surveys is not judged sufficiently reliable to assess progress on the

incidence of work-related ill health. Around two thirds of rail companies responding to our 2014 survey were either unable to provide data on work-related ill health absence, or (less credibly for all but the smaller employers) reported zero hours lost due to work-related ill health. As a result, we propose use of a more widely available measure of total sickness absence as an indicator measure for the remainder of our current health programme. If the impetus in the rail industry on health is maintained, we might expect to see sickness absence rates starting to decline by the end of our 2014-19 health programme.

## Cost of work-related ill health

- **What we expect to see on cost of work-related ill health:** Decreasing trend in the value and/or number of Employers' Liability Compulsory Insurance (ELCI) health claims as one measure of the cost of work-related ill health.
- **Progress by 2013/14:** Based on industry responses to ORR's health data surveys, we have not seen a downward trend either in the cost of health claims settled or the number of health claims submitted, over the four years of our first health programme. Sample data from the ORR surveys indicate costs of health claims settled remained stable at around £3 million in both survey years, while the number of health claims submitted increased markedly in 2013/14. Major changes introduced during 2013 in how civil claims for compensation are brought may have affected the ELCI claims data for 2013/14. It is possible that the upturn in health claims submitted in 2013/14 may reflect the predicted surge in claims before the removal of strict liability for civil cases from 1 October 2013, although we cannot determine this from the survey data. Improvements in health risk management are unlikely to feed through to claims data in the short term, but we might expect to see a downward trajectory over the longer term as better worker health translates to a reduction in number and cost of health claims. Work planned under the Industry Roadmap to help rail companies to better understand and reduce their ill health costs, may, in time, feed through to reduced claims.
- Over the course of our current health programme, external factors may have had a greater impact on ELCI claims than any changes from within our industry. Legislative changes introduced in October 2013 removing the right to bring a civil claim for breach of statutory duty under health and safety law may reduce the number of health claims brought in the medium term, although other changes to limit claimants' costs introduced in April 2013 may offset this to some extent (discussed further in Annex D).

As it may be difficult to interpret any trends in ELCI disease claims in the short to medium term, it would be sensible for ORR to explore use of an alternative cost indicator measure for assessing the impact of our health programmes.

## Visible leadership on health

- **What we expect to see on visible leadership on health:** Increasing trend in the proportion of rail companies reporting publicly on worker health against quantitative targets.
- **Progress by 2013/14:** Based on industry responses to ORR's health data surveys, we have seen a modest increase (of around 6%) in the proportion of respondents reporting publicly on health against quantitative targets, as leadership and awareness have improved. Responses to our 2014 survey indicated that around a fifth of respondents report publicly on health against quantitative targets. There remains a significant gap between public reporting on worker health and that for worker and public safety. We expect to see this gap close during our 2014-19 health programme. The level of commitment shown by rail companies in reporting publicly against voluntary health pledges under the Department of Health PHR Deal will provide additional supporting evidence to track progress against this leadership measure.

## Awareness on health

- **What we expect to see on awareness on health:** Increasing trend in awareness on health, as measured by improved reporting under RIDDOR 2013 requirements.
- **Progress by 2013/14:** There is clear evidence of improved reporting of occupational disease to ORR by Network Rail. Evidence of improved RIDDOR reporting by other parts of the industry is less convincing. We believe that there remains a degree of under-reporting, particularly among rail contractors. We are confident that the marked upturn in RIDDOR disease reports during our first health programme has been driven by improved awareness on health, particularly by Network Rail, rather than by the changes to RIDDOR in October 2013. We expect Network Rail's reporting of HAVS cases to remain relatively high in the next two to three years, as all their higher risk maintenance workers are captured by the rolling programme of health surveillance. We are also looking for other rail companies, including contractors, to review their RIDDOR reporting arrangements for work on rail infrastructure, and we might expect to see a modest upturn in disease reports, particularly HAVS cases, as result.

As industry HAV risk management improves, we might expect to see a gradual reduction towards the end of our current health programme.

## Industry awareness on health

- **What we expect to see on industry awareness on health:** Increasing trend in awareness, as measured by increased use of ORR's web pages on health.
- **Progress by 2013/14:** Despite recent changes in how we record visits to ORR's website, we have seen sustained increases in external use of ORR's web pages on health. This is both in absolute numbers and also as a proportion of visits on other health and safety regulation issues. The improved response from rail companies to ORR's repeat health data survey in 2014 (81%), the sustained increases in subscription to ORR's quarterly health programme updates and health e-bulletins, and the addition of more good practice case studies by rail companies to our website, support our assessment of an increased industry awareness on health. The impact of ORR's 2010-14 health programme in raising awareness on health was also confirmed in an independent survey of the industry for ORR in 2014. As the industry matures and develops more rail-specific guidance on health, for example as outputs from the Industry Roadmap, we might expect to see the recent increase in use of ORR's health pages level out.

## Annex A: Glossary

ARIOPS	= Association of Railway Industry Occupational Health Practitioners
ASLEF	= Associated Society of Locomotive Engineers and Firemen
BDWG	= Ballast Dust Working Group
BITC	= Business in the Community
CIPD	= Chartered Institute of Personnel and Development
DEEE	= Diesel Engine Exhaust Emissions
ELCI	= Employers' Liability Compulsory Insurance
IOSH	= Institution of Occupational Safety and Health
ISLG	= Infrastructure Safety Liaison Group
KPI	= Key Performance Indicator
LFS	= Labour Force Survey
LTR	= Lost Time Rate
MSDs	= Musculoskeletal disorders
NEBOSH	= National Examining Board for Occupational Safety and Health
NRT	= National Rail Trends
OHP	= Occupational Health Provider
ONS	= Office for National Statistics
PPE	= Personal Protective Equipment
RDG	= Rail Delivery Group
RICA	= Rail Industry Contractors Association
RIDDOR	= Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
RM3	= Railway Management Maturity Model
RMT	= National Union of Rail, Maritime and Transport Workers
RSSB	= Rail Safety & Standards Board
THOR	= The Health and Occupation Research network
TSA	= Track Safety Alliance
TSSA	= Transport Salaried Staffs' Association
UNITE	= UNITE the union (trade union)

# Annex B: Rail industry data on manual handling and shock/trauma incidents

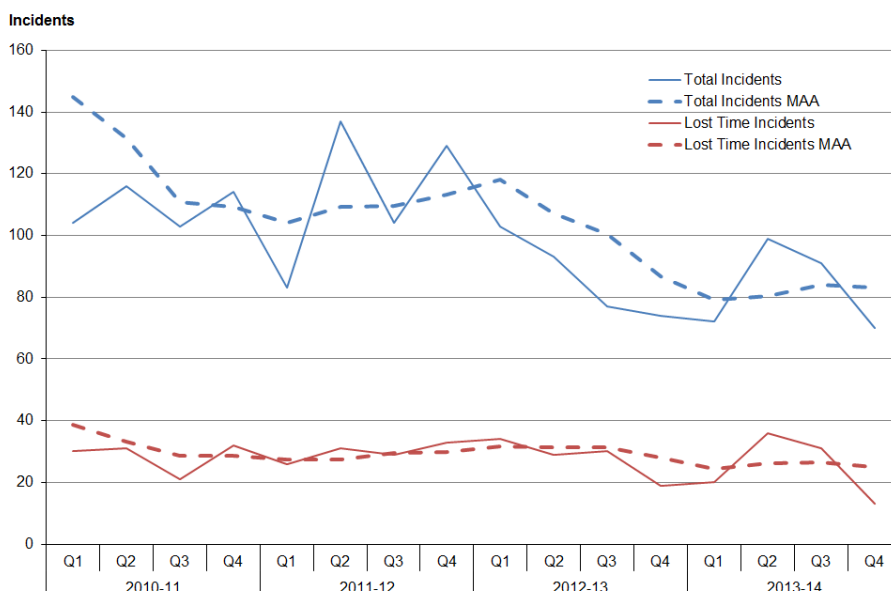
## B1 - rail industry manual handling data

The health and safety reports on ORR's NRT data portal<sup>58</sup> include rail industry data (SMIS for mainline rail and LUSEA for LUL) on manual handling incidents from 2005/06 to 2013/14. It should be noted that these industry datasets do not capture all parts of the industry (they exclude light rail, heritage and some rail contractors and freight operations), and the reliability of reporting into SMIS in different parts of the industry may disproportionately affect data for some groups of workers. More information on the industry data sources and methodology can be found in the manual handling reports on our data portal.

The graphs below show trends in industry data on manual handling during our first health programme. Moving annual average (MAA) data is used to smooth out fluctuations and show trends in mainline and LUL datasets over our first health programme.

MAA data for the mainline shows a downward trend in reported manual handling incidents since 2010, with 43% fewer total manual handling incidents and 35% fewer lost time incidents reported into SMIS in quarter 4 of 2013/14, compared with quarter 1 of 2010/11. The downward trend in manual handling incidents may be the result of better case management for individuals, including earlier intervention, and better rehabilitation to support earlier return to work.

**Figure 14 – Moving annual average trends in mainline manual handling incidents by quarter, 2010/11 to 2013/14**



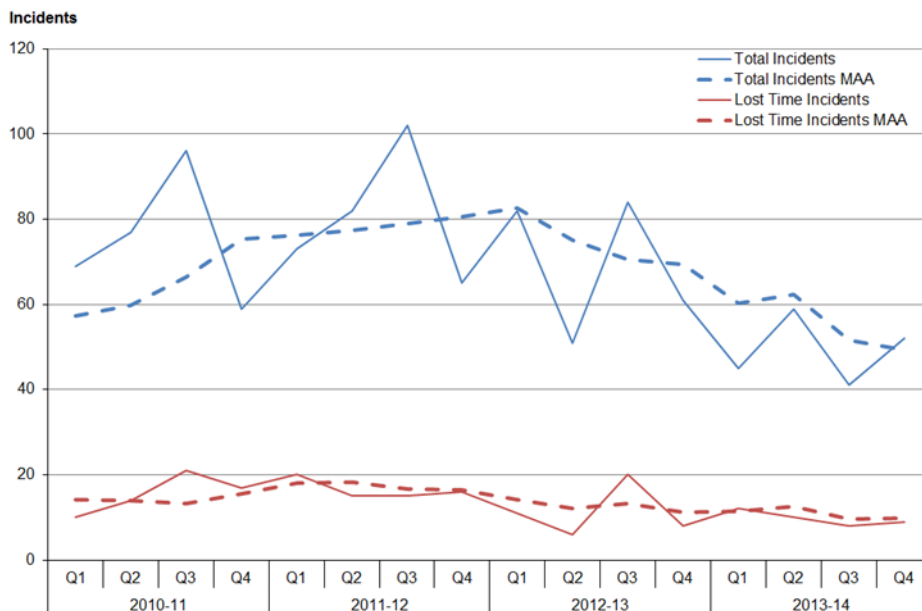
Source: ORR analysis of SMIS data provided by RSSB.

MAA data for LUL shows a fluctuating pattern in manual handling incidents, but with an overall reduction over the period. The MAA data show 14% fewer total manual handling



incidents and 32% fewer lost time incidents reported into LUSEA by quarter 4 of 2013/14, compared with quarter 1 of 2010/11. Over this period LUL used initiatives aimed at preventing MSDs and reducing absence times, including lower limb classes and lower back pain physiotherapy services.

**Figure 15 – Moving annual average trends in LUL manual handling incidents by quarter, 2010/11 to 2013/14**



Source: ORR analysis of LUSEA data provided by London Underground Ltd

A breakdown of manual handling incidents by duty holder group<sup>57</sup> shows that, since 2010, the majority of lost time manual handling incidents were reported by infrastructure managers and their contractors, rather than by train and freight operators (reversing the pattern seen prior to 2010). The combined share of manual handling incidents reported by TOCs and LUL fell from a MAA of 78% in 2009-10 (Quarter 3) to 48% in 2013-14 (quarter 4).

## B2 - rail industry trauma/stress data

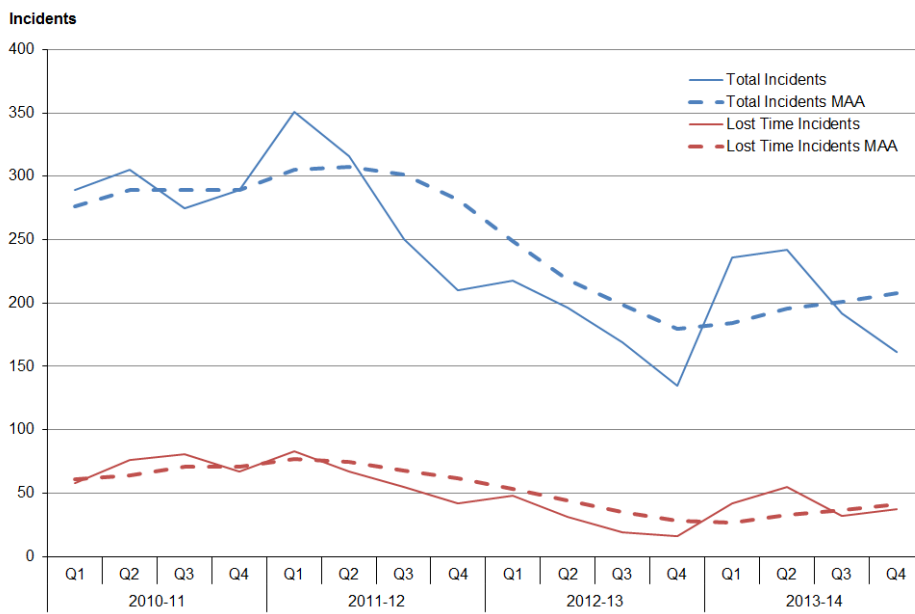
The health and safety reports on ORR’s NRT data portal<sup>58</sup> include rail industry data (SMIS for mainline rail and LUSEA for LUL) on shock/trauma incidents from 2005/06 to 2013/14. Although rail industry datasets do not capture all incidences of work-related stress (arising from workload, job quality or working patterns), incidents involving shock or trauma arising from verbal/physical assault or signals passed at danger, or witnessing traumatic events such as suicides or accidents, they can act as one useful marker for work-related stress.

The graphs below focus on trends in the industry shock/trauma data during our first health programme. Moving annual average (MAA) data is used to smooth out fluctuations and show trends in mainline and LUL datasets during our first health programme.

<sup>57</sup> ORR data portal report: <http://dataportal.orr.gov.uk/displayreport/report/html/f215078d-db4c-4ef0-b297-cd6d1cdae7b2>

MAA data for the mainline shows a broadly downward trend in shock/trauma incidents, reaching its lowest for the period in late 2012/13, followed by a slight upturn during 2013/14. The MAA data shows 25% fewer total shock/trauma incidents and 32% fewer lost time incidents reported into SMIS in quarter 4 of 2013/14, compared with quarter 1 of 2010/11.

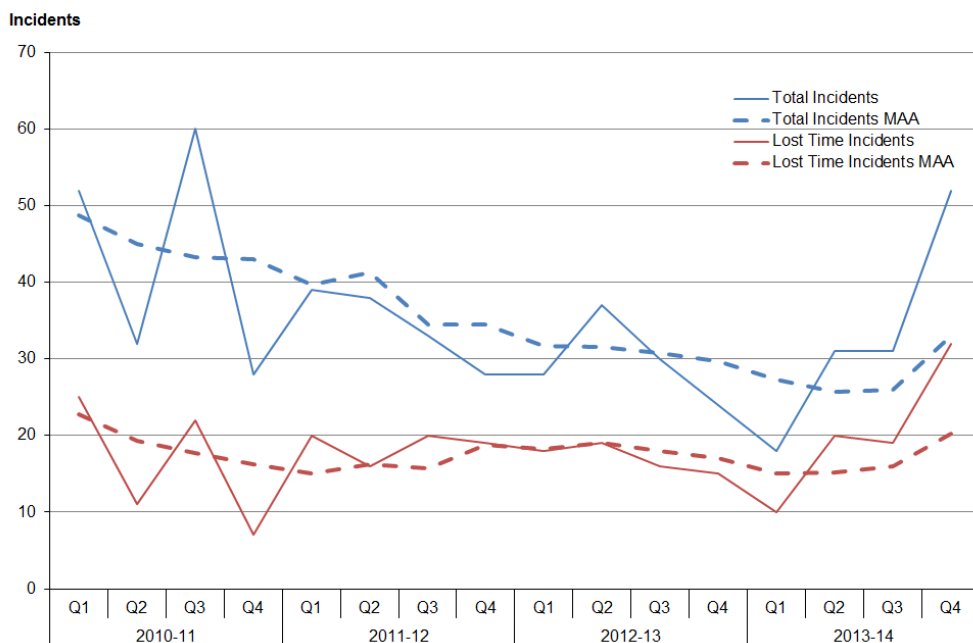
**Figure 16 – Moving annual average trends in mainline shock/trauma incidents by quarter, 2010/11 to 2013/14**



Source: ORR analysis of SMIS data provided by RSSB

MAA data for LUL also shows a downward trend in shock/trauma incidents since 2010/11, also with a slight upturn during 2013/14. The MAA data shows 32% fewer shock/trauma incidents and 11% fewer lost time incidents reported into LUSEA by quarter 4 of 2013/14, compared with quarter 1 of 2010/11. Over the past ten years LUL has implemented a number of stress management initiatives across the company aimed at both post-traumatic stress support and building personal resilience.

**Figure 17 - Moving annual average trends in LUL shock/trauma incidents by quarter, 2010/11 to 2013/14**



Source: ORR analysis of LUSEA data provided by London Underground Ltd

A breakdown of shock/trauma incidents by duty holder group<sup>58</sup> shows that since 2010/11 the majority of lost time shock/trauma incidents continue to be reported by train operators and LUL.

<sup>58</sup> ORR data portal health: <http://dataportal.orr.gov.uk/browse/reports/5>

# Annex C: ORR's 2011 and 2014 health data surveys of rail companies

## C1 - scope of ORR health data surveys

Our baseline (2011) and repeat (2014) health data surveys involved us asking key rail duty holders for specific information on the incidence and cost of work-related ill health, and on public reporting on ill health. We wrote directly to infrastructure managers, train and freight operators, light rail and tram operators, as well as contractor members of the mainline Infrastructure Safety Liaison Group (ISLG) and the Rail Industry Contractors Association (RICA), but excluded heritage operators. Both the surveys were piloted with a small number of duty holders in advance and we changed the wording on the 2014 survey form, adding clearer explanatory notes, based on feedback received in 2011.

Copies of the survey forms used can be found on our website<sup>59</sup>.

In our 2014 repeat survey we wrote to 113 rail companies, comprising 48 infrastructure managers and rail operators and 65 rail contractors, an increase on the 93 companies surveyed in the 2011 baseline survey. 81% of the target audience responded in 2014 (response rate of 85% for contractors and 77% for non-contractors), a marked improvement on the 56% response rate to the 2011 baseline survey. This is very encouraging and indicates an increased awareness and willingness across the industry to engage with us on health.

## C2 - analysis of survey responses and data reliability

When comparing the repeat survey returns for 2013/14 with the baseline returns for 2009/10, we identified some apparently anomalous figures in both data sets which fell far outside the expected range. These were mainly on time lost due to work-related ill health, but also on health related claims. We contacted individual companies to clarify apparently anomalous data, but in the few cases where they were not able to do so, extreme outliers in the data were excluded from the analysis to improve its reliability. This data cleansing exercise revealed that in many cases, data originally reported in 2009/10 as hours lost due to work-related ill health was in fact hours lost due to all sickness absence. As data on the work-related element of absence was not available, more than 3 million hours previously and incorrectly reported as work-related ill health absence were removed from the lost time incidence rate calculations for 2009/10.

For each of the health indicator measures, only a proportion of the companies surveyed provided the requested data. We therefore treated the available responses for each indicator measure independently, with calculations based on the sub-set of respondents who actually provided data for that specific measure (rather than the whole survey population). This adjustment, and the exclusion of anomalous data as described above, means that the measures on incidence of work-related ill health and health related claims will not necessarily be an accurate reflection of the true industry picture, as they are based on a relatively small proportion of the rail companies surveyed.

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<sup>59</sup> ORR health indicator survey forms: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/occupational-health-assessment>

## Annex D: Detailed comparison of ORR's health indicator measures during our 2010-14 health programme

This section provides details and commentary on ORR's health indicator measures on the incidence and cost of work-related ill health, and on industry leadership and awareness on health. Comparisons are made between the position at the start (2009/10) and the end (2013/14) of ORR's first health programme, including data from ORR's baseline and repeat surveys of industry duty holders.

The indicator measures on incidence and cost of work-related ill health for 2009/10 have been recalculated to improve reliability, details of which are summarised in Annex C.

### D1 - ORR indicator measure on incidence of work-related ill health

#### Key findings from the 2009/10 and 2013/14 industry survey returns:

- Total hours lost due to work-related ill health in 2013/14 was 112,600 hours – this compares with a recalculated figure of 55,900 for 2009/10;
- This equated to 1.4 days sickness absence per employee in 2013/14, compared with 2 days per employee in 2009/10;
- The lost time incidence rate (proportion of total hours worked lost due to work-related ill health) for 2013/14 was estimated at 0.08% - this compares with a recalculated figure of 0.12% for 2009/10. In 2013/14, the reported lost time incidence rate among contractors was higher at 0.11%, than for non-contractors (infrastructure managers and rail operators) at 0.08%;
- In 2013/14, approximately two thirds of rail companies surveyed reported either zero hours lost, or were unable to provide data for time lost due to work-related ill health. In 2013/14, 15 companies employing more than 1,000 workers (of which four employed more than 4,000 workers) reported zero or no data available for time lost due to work-related ill health. This compares with 13 companies employing more than 1,000, including six employing more than 4,000, in the 2009/10 survey. This data suggests that there remains a lack of reliable data on work-related ill health across the industry, including among many larger rail employers;
- Overall, the proportion of all the companies surveyed who were able to identify time lost due to work-related ill health has increased by around 13% since 2009/10, however (and perhaps surprisingly) the number of larger companies unable to do so seems to have remained broadly static.

It is important to recognise that all the above estimates on time lost due to work-related ill health are based on limited data from a relatively small sample of the rail companies surveyed, as most companies were unable to provide work-related ill health absence data. The 2009/10 estimates are based on data from only a fifth of rail companies surveyed, capturing only 22% of the rail workforce (28,300 workers). The 2013/14 estimates are based on data from around a third of the rail companies surveyed, capturing around 54%

of the rail workforce (80,500 workers). On the basis on the small sample sizes, and the errors and inconsistencies we noted in reporting, we have limited confidence that ORR's indicator measure on incidence of work-related ill health is accurate or sufficiently representative of the true industry picture.

We recognise that it will take time for the industry to improve its understanding and recording of work-related ill health absence data. For the remainder of our 2014-19 health programme we propose the use of data on all sickness absence as a more deliverable and reliable indicator measure. Current industry estimates of the sickness absence lost time rate in rail compared with other industries indicates that rates in the rail industry are currently higher than in comparable sectors.

## **D2 - ORR indicator measure on costs of work-related ill health**

### **Key findings from the 2009/10 and 2013/14 industry survey returns:**

- The total cost of ELCI claims settled for work-related ill health in 2013/14 was just under £3 million. This compares with a recalculated figure of £3.08 million for the cost of health claims settled in 2009/10;
- This equates to an average claims cost for each employee of around £31 for both 2009/10 and 2013/14. This average figure masks a variation in the data between contractors and non-contractors (rail operators and infrastructure managers). In both years the average claims cost per worker was roughly three times higher for contractors than for non-contractors;
- In both years the majority of the total cost of settled claims, as well as the number of claims submitted, was for non-contractors. In 2013/14, rail operators and infrastructure managers accounted for 82% of the total cost of claims settled and 92% of the total number of new claims submitted. It is important to note that the claims data for contractors is based on a very small sample size and is therefore likely to be less representative and reliable than that for non-contractors;
- Although the total cost of claims settled was broadly unchanged in 2013/14 compared with 2009/10, the 2013/14 survey saw a marked upturn in the number of health related claims submitted that year. In 2013/14 the number of claims submitted increased to almost 1,500, a fourfold increase on the 336 claims submitted in 2009/10. Based on only two snapshots of what are independent datasets on claims value and numbers, it is not possible to infer any changes in cost per claim settled between 2009/10 and 2013/14.

The estimates on claims costs are based on a small number of companies surveyed who actually settled health related claims during the two survey years. In both the 2009/10 and 2013/14 survey returns, more than 80% of companies surveyed either reported zero cost of claims settled or cost data not available.

Major changes introduced during 2013 in how civil claims for compensation are brought may have affected the ELCI claims data for 2013/14. However, we are not able to make any assessment of whether this was the case, based on the data provided. It is possible that the upturn in the number of claims submitted by respondents in 2013/14 reflected the

widely predicted surge in civil claims before the removal of breach of statutory duty under health and safety law as grounds for a civil claim on 1 October 2013, under the Enterprise and Regulatory Reform Act 2013. The impact of this change for occupational diseases may be limited by the fact that many (although not all) duties relating to risks to health are qualified by reasonable practicability, rather than strict liability. Also legislative changes on claimants' costs introduced on 1 April 2013 (Qualified One-Way Costs Shifting Scheme) may offset any predicted fall in future claims. It is reasonable to suggest that the removal of strict civil liability from October 2013 may reduce the volume of health claims submitted in future years, but the impact on cost is uncertain (as identified in the government impact assessment for this change to the law). As it may be difficult to interpret any trends in ELCI disease claims in the short to medium term, it would be sensible for ORR to explore use of an alternative cost indicator measure.

### **D3 - ORR indicator measure on visible leadership on work-related ill health**

#### **Key findings from the 2009/10 and 2013/14 industry survey returns:**

- For 2013/14, only 22% respondents (20 companies) reported on ill health against quantitative targets in their annual reports and accounts, a modest increase from the 16% (8 companies) who reported in 2009/10;
- 2013/14 saw a small increase in public reporting on health against quantitative targets by the rail operators and infrastructure managers, from 11% (three companies) in 2009/10 to 24% (nine companies), while the rate among contractor respondents remained at around 20% (11 companies in 2013/14);
- This compares with around 40% of companies surveyed who report on worker and passenger safety against quantitative targets in annual reports and accounts, unchanged between 2009/10 and 2013/14;
- For 2013/14, 22% respondents (21 companies) reported on ill health publicly (but not necessarily against quantitative targets) via Corporate Social Responsibility Reports or similar. This figure compares with 33% (17 companies) who reported in 2009/10.

The 2013/14 survey returns suggest a move towards improved public reporting on health however the numbers of companies who do so is still small. It is clear that worker and public safety still has a higher profile in terms of public reporting than ill health. Many respondents indicated in their survey returns an intention to develop quantitative performance indicators on health in the near future.

### **D4 - ORR indicator measures on industry awareness of occupational health**

Our health indicators include some internal measures to reflect industry awareness on health. These include RIDDOR reports on health and the number of visits to ORR's web pages on health.

## **RIDDOR disease cases reported to ORR:**

- The number of occupational disease cases reported to ORR under RIDDOR increased from a total of four cases in 2009/10 to 79 cases in 2013/14, with a total of 320 disease cases reported over the four years of our first health programme;
- Although the introduction of new reporting requirements under RIDDOR 2013 could have influenced the reporting of disease between 1 October 2013 and 31 March 2014, we believe that any such effect will be small. Changes introduced by RIDDOR 2013, including widening of the scope for reporting HAVS cases and the requirement to report worsening cases, might have had some impact on the numbers. However it is increased awareness, particularly by NR, rather than legislative change that has driven the increase. The marked increase in RIDDOR disease cases reported to us in the three years preceding the RIDDOR 2013 changes (241 cases reported between 2010/11 and 2012/13) provide evidence to support this assessment.

## **Number of visits to ORR's web pages on occupational health:**

- In 2013/14 we recorded over 10,000 visits to the health pages on ORR's website, which represents 34% of the visit rate to ORR's main health and safety regulation page<sup>60</sup> over the same period. We reported an original baseline figure of 849 visits for the six months from 3 September 2010 (when ORR's first health pages went live) to 28 February 2011, representing 8.5% of the visit rate to our main health and safety page;
- Not surprisingly the occupational health landing page<sup>61</sup>, providing links to topic specific pages, was visited most frequently. Looking at the average monthly views in the 2013/14 data, the most frequently viewed health topic pages were managing work-related stress<sup>62</sup> (140 views monthly average), good practice case studies<sup>63</sup> (100 monthly average for single page), rail manager competence on health<sup>64</sup> (77 monthly average) and occupational health quarterly updates<sup>65</sup> (76 monthly average);
- It is difficult to make a direct comparison between the 2013/14 data and the original baseline figures, as we made some important changes in how we monitor use of ORR's website during 2013. These changes included moving from capturing both internal (ORR) and external website visits prior to September 2013, to recording only those visits from outside ORR (external web page visits). This will have resulted in a downturn in the visits data from September 2013 onwards. From September 2013 we

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<sup>60</sup> ORR health & safety regulation landing page: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety>

<sup>61</sup> ORR occupational health landing page: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/occupational-health>

<sup>62</sup> ORR stress guidance: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/guidance-and-research/occupational-health-guidance/work-related-stress>

<sup>63</sup> ORR health case studies: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/guidance-and-research/occupational-health-guidance/case-studies>

<sup>64</sup> ORR rail manager competence on health: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/guidance-and-research/occupational-health-guidance/rail-manager-competence>

<sup>65</sup> ORR quarterly health updates: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/occupational-health-quarterly-updates>



also changed from recording page visits, which does not count returns to the same page within a browser session, to page views, which provide a more accurate figure by counting returns visits to the same page. This will have resulted in a slight upturn in the data;

- Despite these changes, we are confident that the data reflects a real and substantial increase in use of ORR’s health web pages, as industry awareness increases. Increase in traffic on health issues will have been supported by us continuing to add more pages on health to support industry efforts under our health programme. By May 2015 we had increased the number of health web pages to 25.

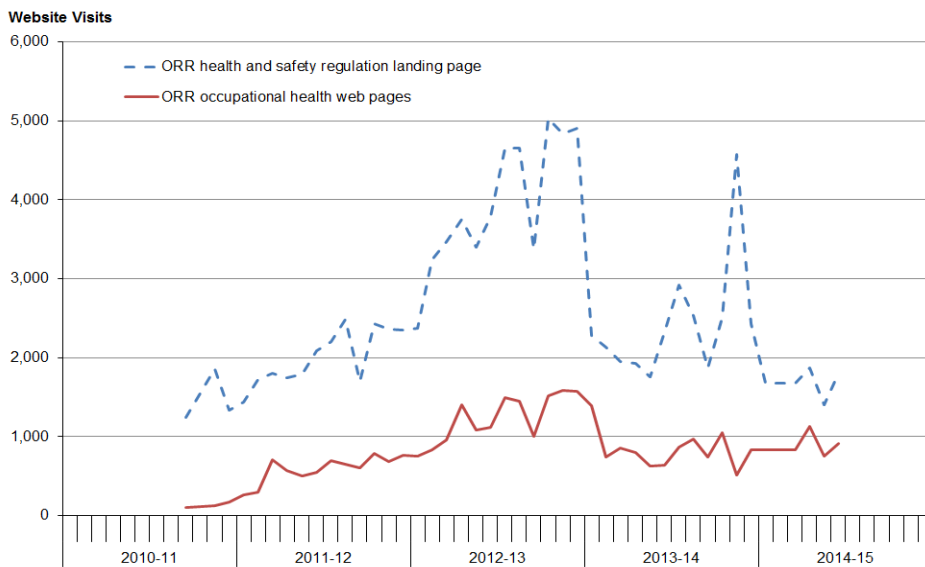
**Figure 16 - ORR data on visits to ORR health web pages relative to main ORR health and safety landing page**

Period	Total OH web page hits	No of OH page links (URLs) accessed	Visit rate for OH pages compared with H & S regulation landing page
<b>Baseline Dec 2010<sup>66</sup> – March 2011 visits</b>	519	5	8.7%
<b>Year 1 - April 2011 – March 2012 visits</b>	7,090	10	29%
<b>Year 2 – April 2012 – March 2013 visits</b>	14,974	11	31%
<b>Year 3 – April 2013 – March 2014 views<sup>67</sup></b>	10,045	15	34%
<b>Six months April – Sept 2014 views</b>	5,294	16	52%

<sup>66</sup> Due to a change in how ORR records website visits, comparable data is only available from December 2010.

<sup>67</sup> A third party coding issue on ORR’s website between 17 February and 20 June 2014 distorted the raw data for page views, inflating the figures artificially. We have adjusted the data for this period by applying monthly averages, to increase the reliability of the data. For the 2013/14 data, for the adjusted monthly estimate for March 2014 is based on the monthly average for April 2013 to February 2014. For the April to September 2014 data, the six monthly average figures were applied for April to June 2014.

**Figure 18 - Trend in visits to ORR occupational health pages by month, 2010/11 to 2014/15**



We made some important changes to how we monitor use of ORR's web site during 2013 which will influence the data. From September 2013 we moved from capturing both internal (ORR) and external web site visits, to recording only those visits from outside ORR (external web page visits). We also changed from recording page visits, which does not count returns to the same page within a browser session, to page views, which provide a more accurate figure by counting returns visits to the same page. We know that a software problem on ORR's web site between 17 February and 20 June 2014 may have distorted the raw data for page views; we have adjusted the data for this period by applying monthly averages, to increase its reliability.

Source: ORR

Although not included in our dashboard of indicator measures, the independent research carried out for ORR to obtain direct industry feedback on our first health programme and the growth in ORR's quarterly health programme update support this indicator measure in demonstrating an increased awareness among rail companies on occupational health.

Use of the name, the Office of Rail and Road, reflects the new roads functions conferred on ORR by the Infrastructure Act 2015. Until this name change is confirmed by legislation, the Office of Rail Regulation will continue to be used in all documents, decisions and matters having legal effects or consequences.



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