

OCCUPATIONAL HEALTH: Tideway Arrangements

What are the issues?

Construction faces a number of challenges in relation to the health of its workers:

- It needs to manage the health risks which arise directly from the work such as lung disease, noise induced hearing loss, and hand arm vibration syndrome (HAVS).



Bad practice image - Bust, Lboro - Not Tideway

- It needs to ensure that people are fit for their work. This involves balancing the health of individual workers (e.g. with pre-existing health conditions) against work demands, taking account of any high risk work such as work in tunnels or operating cranes or large vehicles (often referred to as 'safety critical', a term borrowed from the rail industry); and making reasonable adjustments where necessary.
- It needs to ensure that the workforce as a whole is in good health, to enable them to continue working until retirement. This is more important than ever as pension ages rise and workers need to remain fit for work until the age of 67 or beyond.

Industry benefits and opportunities

- Using a single OH provider across all parts of a large project can help with the embedding of consistent standards
 - High standards of OH require engagement and commitment from all parties (providers, client and contractors)
 - Good relationships between the project-wide OH provider and contractors' providers (if different) are essential to ensure information is shared, standards are maintained and tests are not duplicated.
 - Broader wellbeing and lifestyle focussed OH activities must be in addition to, not an alternative to the need to manage workplace health risk at source.
 - The use of an OH Maturity Matrix may be a good way of driving improvements across the industry.
- It needs to address the many aspects of the industry which mitigate against good health including:
 - a workforce who may be living away from home or commuting long distances;
 - a working population who are potentially at increased risk of poor health due to low income or social status; and
 - cultural and social factors which make it more difficult to address poor physical and mental health.

Meeting these needs requires collaboration from a wide range of professionals. There are particular challenges in mega projects due to their complexity and the need to ensure there is a joined-up approach. However, there are also opportunities for good practice here to influence the health of the workforce in the smaller companies, where the majority of construction workers are employed.

What was done?

The Tideway project is still at an early stage and this summaryⁱ reports on progress to date.

Tideway approach to Occupational Health (OH)

Tideway has developed an OH strategy based on four principal components with key activities as summarised below.

<p>Worker</p> <p>Ensuring the workforce are, and remain, fit for work</p> <ul style="list-style-type: none"> • 'Safety critical' medicals • Health surveillance • Sickness absence follow-up • Treatment of minor injury and illness • Workforce training • Drug and alcohol testing 	<p>Workplace</p> <p>Controlling and monitoring hazards to minimise exposure</p> <ul style="list-style-type: none"> • Health Risk Assessment, to underpin risk management, health surveillance and training • Workplace monitoring • Health Impact Frequency Rate (HIFR)
<p>Wellbeing</p> <p>Seeking to improve the general health of the workforce</p> <ul style="list-style-type: none"> • Voluntary health checks at pre-employment • Ongoing lifestyle health checks • Health promotion activities e.g. diet, mental health, exercise, smoking 	<p>Wider Community</p> <p>Ensuring that Tideway does not adversely affect those living nearby</p> <p><i>This is not a particular focus area for our research</i></p>

This report summarises the set-up of OH services to support Tideway's strategy, and key activities and arrangements relating to Workers and Wellbeing, drawing from interviews with project staff in a wide range of positions, including OH providers; observation of project meetings and training courses; and reviews of project documentation.

A second report, "Work-related ill-health: Prevention" outlines Tideway's measures to manage exposures to workplace health hazards. Both reports are part of a longitudinal research project with Tideway funded by IOSH.ⁱⁱ

Single OH service provider

Tideway has chosen a single OH service provider, from whom all the Main Works Contractors (MWCsⁱⁱⁱ) are purchasing their services. This includes OH nurses and technicians based at the main drive sites, and occupational hygienists, who are procured through a specialist subcontractor. This approach supports consistency across the different parts of the project.

"There isn't that differentiation in the level of service... just by buying into the Occupational Health Service, you are driving to have a similar approach across the board."

OH professional

An additional advantage of the single-provider model is that it enables all the worker health data to be gathered in a single database. This makes it easier for subcontractors working across different parts of the project to have joined-up access to health records, provided suitable consent is obtained, as well as being a potential source of meta-information for the wider industry.

"I think one really good thing is that we will have the whole database. So that might be useful, looking at illness and disease."

OH professional

Collaboration

The three MWCs meet regularly through the OH Working Group, a sub-group of Tideway's THSG (Transforming Health and Safety Group). They have collaborated to agree detailed arrangements for OH management: that are

documented in an Occupational Health Standard which has also been endorsed by Tideway. This outlines how the requirements of the Tideway Works Information (WI) “will be both met and exceeded as part of a transformational occupational health programme.” For example it includes standards and frequencies agreed for ‘safety critical’ medicals, the arrangements to address workplace stress and the processes for risk assessment and management of health hazards.

“This is the opportunity for us to say, ‘Well, you [Tideway] have said this... in the Works Information; we are interpreting it to be this, this, this and this. This is what we’re going to do to achieve that level.’”

OH professional



An example of this collaboration in practice is the establishment of a Central Onboarding Facility (COF)^{iv} where all new starters attend a single location and go through a common process to ensure they are fit for (their) work. Pre-existing certificates of fitness are accepted provided they have been issued by an accredited OH provider and have at least six months to run. The OH staff within COF liaise with the nurses based on the main drive sites, who do any necessary follow-up, such as repeat medicals and health surveillance as well as worker training and health promotion.

“Everybody and anybody that’s coming on the project, regardless, goes through the onboarding hub and they have medicals; health surveillance, drugs and alcohol testing, pre-employment screening.”

OH professional

“If there’s medical things that come out, so somebody’s got raised blood pressure or a high cholesterol level, that gets passed on to the nurse on site....(who) then picks them up and monitors them.”

OH professional

Health and wellbeing

All workers on Tideway are given opportunities to improve their general health through voluntary health checks offered at onboarding and every two years thereafter. These have been well received with most taking up the offer.

Through the OH standard, Tideway, the MWCs and the OH provider are committed to an ongoing programme of needs assessment and associated health promotion activities. Health campaigns and interventions have included neck/shoulder massages, pilates and yoga classes at the main project offices; flu vaccinations; and smoking cessation support on at least one main drive site.

Mental health

Tideway is a pilot site for Mates in Mind.^v This programme, launched in 2017 by the British Safety Council and the Health in Construction Leadership Group, is aimed at improving and promoting mental health across the construction industry. Suicide kills around 400 construction people in the UK each year and there are many factors in the industry which increase the risk of depression and anxiety such as job insecurity, family separation and long working hours.

Each MWC has a number of trained Mental Health First Aiders (MHFA). In addition, briefing sessions for all workers to ‘begin the conversation’ about mental health will be provided through the Mates in Mind programme, using a Train the Trainer model.

Additional interventions on mental health include regular mindfulness sessions on one of the main drive sites and a recent stand-down for the workforce which included discussions around mental health and an opportunity to attend a mindfulness session.

In addition, the HSE stress management process (the Management Standards^{vi}), is

being used by Tideway and each MWC incorporating an annual survey and action plans.

Fatigue and shift patterns

Fatigue has been identified as a particular risk for tunnellers on Tideway, and the WI specifies that they must work shifts no longer than 10 hours. Some interviewees identified possible challenges with this working pattern – including higher costs; the need for more handovers; the difficulties of getting enough workers; worker preference; the risk of workers moonlighting or socialising more in their down time; the impact on those living away from their families.



“Some of the lads prefer the eight hours, a lot of them prefer the twelve because they get the longer break - four days at home, which is a good break, whereas on eight hours the most they get is three days, and most of the breaks are only two days - The eight hours... the lads have got too much time, free-time on their hands down here.”

Our longitudinal research will follow the implementation of the tunnellers’ and other workers shift patterns on Tideway to see what lessons can be learned.

Occupational health maturity matrix (OHMM)

An OHMM is being used at Tideway to assess how well the MWCs are managing occupational health and health risks, and to drive improvement over time. OHMMs are a relatively recent innovation in construction. The Tideway OHMM has been developed from one piloted on the London 2012 Olympic Park.^{vii} Other projects such as Crossrail have also developed OHMM models. To achieve level 1 on the Tideway OHMM, the MWCs had to comply with the WI, levels 2-4 require further improvements. Level 5 and 6 encourage the MWCs to be transformational by helping their subcontractors to manage OH better and driving improved standards within the wider industry.

The OHMM has demonstrated improvement for the MWCs with all achieving level 4 or 5 only 18 months into the assessment process. It is also being used to highlight examples of good practice to be shared and areas where improvements are needed.

The OHMM is an important development in construction as it provides opportunities to drive up the standards of the smaller subcontractors working on mega projects. We will watch its development and impact through our research as Tideway progresses.

Tideway Occupational Health Maturity Matrix						
CATEGORIES	1 INFANCY	2 DEVELOPING	3 EVIDENT	4 ESTABLISHED	5 INTEGRATED	6 TRANSFORMATIONAL
	Basic compliance with WI	Evidence of developing OH risk management	Some evidence of strategic OH risk management	Evidence of established OH risk management	Evidence of strategic OH in the supply chain	Evidence of transformational changes
OH focus on the WORKPLACE	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.
OH focus on the WORKER	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.
OH focus on WELLBEING	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et feugiat nisi.



What have we learnt?

Tideway has put measures in place to support high standards of OH provision and their impact will only become apparent as the project progresses. There are some particular challenges for Tideway and the wider industry which our research will consider, including:

- **How OH services are provided**

Tideway's 'sole provider' approach for OH provision is different from the approach on previous major projects. For example, on London 2012, services were funded and provided centrally by the client for the contractors and subcontractors to use; on Crossrail, contractors were able to choose their own provider as long as key criteria were met.

Whatever approaches other projects and mega projects take, it is important that they:

- support smaller companies^{viii} to develop and embed their own arrangements for OH services on an ongoing basis
- support development of consistent standards across the industry; and
- support data and record sharing, so that workers who move from one company or project to another easily access their records to ensure a joined-up process; and so that data about the health of workers can be used at a population level to influence health policy.

- **What OH services are provided**

Tideway's OH arrangements include a focus on worker wellbeing and opportunities to improve their general health. Improving employee health is a laudable aim, and is a

growing area of interest across construction. However, there is potential for it to distract from the management of work-related risks, as observed by Crossrail's CEO Andy Wolstenholme who has commented that:

'...it's no good giving people fruit and porridge as they come through the turnstile if we're then giving them exposure to dust and carcinogens....'^{ix}

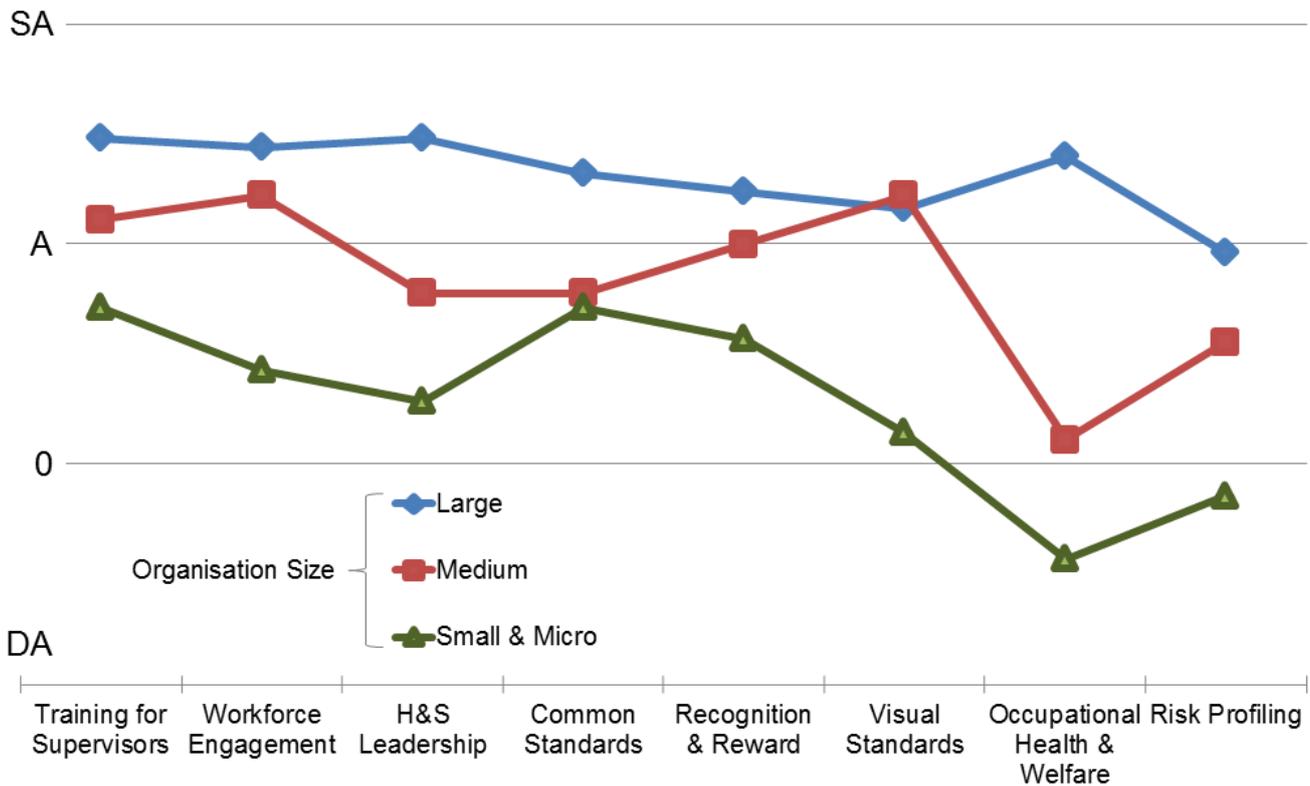
It should be possible to meet both the workplace and the general health agenda. Many workers at Tideway and other projects value input to improve their general health; this can also improve engagement with OH services to allow better intervention on workplace risks. However, it is important that one does not come at the expense of the other.

- **How to contribute to the health of the workforce**

There are many features of the industry which can adversely affect the mental and physical health of the workforce including heavy work demands, long commuting, shift patterns and workers living away from home. An industry debate is needed about where the responsibilities lie for addressing these, and the relative contributions of individuals, employers, megaprojects and the industry.

- **Driving industry improvements**

Over time it is anticipated that the OHMM and other interventions on Tideway will result in improvements in OH practices. Aligned to this is the potential for good practices on Tideway to lead to improvements elsewhere. Transferring good practice from megaprojects to SMEs is a challenge for all aspects of health and safety, but particularly so in relation to health. The following graph draws from a study of the transferability of key initiatives from the London 2012 Olympic Park construction to other organisations and projects. Smaller organisations find it harder to apply these initiatives than larger ones but also occupational health and welfare creates the biggest challenge.



Ease of implementing London 2012 OSH interventions on later projects by organisation size
(O'Brien, Cambridge CEM masters, 2016)

In recent years, construction has started to wake up to the challenges of workers' health, and interventions to address this have been a feature of mega projects including CTRL (Channel Tunnel Rail Link, now known as HS1), Heathrow Terminal 5, London 2012 and Crossrail. Attention is expected to be similarly focused on forthcoming projects such as HS2, Hinckley Point C and the Heathrow expansion.

An important measure of such interventions within Tideway and other major projects will be not only how well they have supported their workforce, but whether industry culture changes so that the workforce continues to be well supported when they leave. This will only happen if good practices permeate to become the industry norm so that provision of good OH arrangements is as embedded in even the smallest companies as wearing safety boots and a hard hat.

ⁱ Summary authors: Jones W, Gibb AGF, Dainty ARJ, Haslam RA, Fuller P, Pinder J & Bust PD, Loughborough University (August 2017).

ⁱⁱ The Institution of Occupational Safety and Health (IOSH) and Tideway are supporting the Loughborough longitudinal research to trace the effectiveness of HSW interventions throughout the Tideway project.

ⁱⁱⁱ Main Works Contractors is the term used on Tideway to refer to the Joint Ventures (JVs).

^{iv} Onboarding is the induction process at Tideway which includes EPIC, attendance at COF and site based induction.

^v www.matesinmind.org

^{vi} www.hse.gov.uk/stress/standards/index.htm

^{vii} Occupational health provision on the Olympic Park and athletes' village www.hse.gov.uk/research/rrpdf/rr921.pdf

^{viii} Typically Small and Medium Sized enterprises, SMEs, who employ up to 250 workers.

^{ix} www.constructionmanagemagazine.com/news/health-su4mmit-in3dustury-lea4ders-challenge/