

# How supply chains influence health and safety at work



# Our research and development programme

IOSH, the Chartered body for safety and health professionals, is committed to evidence-based practice in workplace safety and health. We maintain a Research and Development Fund to support research, lead debate and inspire innovation as part of our work as a thought leader in safety and health.

In this document, you'll find a summary of the independent study we commissioned from Cardiff and Oxford Brookes Universities: 'Understanding the role of supply chains in influencing health and safety at work'.



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# How supply chains influence health and safety at work

## What's the problem?

Organisations have always needed suppliers and have always been suppliers of products and services themselves, so the concept of supply chains – the means of moving products or services from supplier to client/buyer – isn't new. However, changes in the way organisations operate have made supply chains even more important in the national and global economy. Key drivers behind these changes include:

- developments in information technology and logistics
- changes in economic, political and regulatory strategies
- reduction in the power of trade unions
- weakening of the traditional employer–employee contractual relationship as the legal basis of paid employment
- increasing flexibility in work patterns and organisations.

Against this backdrop, organisations are trying to manipulate features of the supply chain to improve their profitability, efficiency and market position. As they do this, the question of what happens to the health and safety of the workers affected by these strategies has become the focus of increased attention.

The research literature suggests that poorer working conditions are an indirect consequence of the manipulation of price and delivery conditions by those in influential positions in the supply chain. Complex and fragmented relationships between contractors and subcontractors also contribute to this situation.

In contrast, a small number of these studies acknowledge that in certain circumstances there may be improvements in health and safety arrangements for the workers and organisations involved. These direct effects are usually the result of powerful players in the chain requiring their suppliers to adopt certain policies and practices.

We commissioned Professor David Walters at Cardiff University and Professor Philip James at Oxford Brookes University to look into this complex issue and carry out a rounded analysis of the nature of supply chain relationships, the factors that shape them and their role in influencing health and safety management and standards in supplier organisations.

The research had three key goals:

- to carry out a two-pronged review of the relevant international research literature on:
  - supply chain management in general
  - the nature and extent of supply chain influences on health and safety
- to describe the current nature of the supply chain influence on health and safety and what this means for regulation, inspection and control
- to outline further research that could be carried out to test the validity of these positions.

## What did our researchers do?

The team used three methods to identify relevant literature:

- designing and carrying out searches of relevant databases of academic papers
- reviewing the papers identified
- identifying other relevant sources of literature, eg government reports and publications by professional bodies.

## What did our researchers find out?

From their searches of databases in the social and public health sciences between 1980 and 2007, the researchers found that overall there was a notable lack of rigorous evidence on how supply chains affect health and safety management and performance. In turn, this pointed to a mismatch between policies on how supply chains can be used to improve health and safety standards and the evidence base on which these policies are based.

The evidence they found was split into three categories:

- theoretical analyses that looked at the potential for supply chains to have negative health and safety effects
- findings based on observation that shed light on the tendency for workers employed in sub-contracting organisations or where outsourcing is common to suffer work-related injury and ill health
- observational studies of how the supply chain operation in particular sectors affects working conditions.

These sources of evidence provided considerable support for the suggestion that supply chain dynamics often have adverse health and safety effects. These adverse effects are closely connected to the downward cost pressures on suppliers caused by these dynamics – as a result, the suppliers have more fragmented health and safety management arrangements.

They also found that adverse indirect effects can occur alongside initiatives by organisations at the top of the supply chain to directly influence and improve how their suppliers manage health and safety. These initiatives included:

- procurement strategies that use health and safety standards to select contractors
- certification schemes aimed at verifying the competences of contracting organisations and those working for them
- requirements for risk assessment and communication on work sites involving multiple contractors and subcontractors.

Some of these initiatives operated on a sector basis and others at organisational or project level.

Robust evidence on the impact of these initiatives was sparse. A limited number of examples were found that demonstrate their positive impact on health and safety management and performance. In these cases, a key feature of the initiative was the inclusion of arrangements for supplier supervision and control.

Generally, the precise effects of supply chains can vary within the same sector, as a result of:

- the differences in attitudes and objectives of buyers/clients and suppliers
- the balance of power that exists within supply relationships
- the extent to which these relationships are based on trust and mutual co-operation.

The findings suggest that the potential to use the supply chain to improve health and safety management and performance is unlikely to be harnessed solely for market-based reasons. The wider supply chain literature shows that proactive, voluntary attempts by buyers to maintain and improve health and safety standards in their suppliers are likely to be relatively uncommon and concentrated in relationships where it is relevant to the satisfactory delivery of services. The best examples were found in situations where this type of activity is encouraged and supported by external social, political and regulatory pressures.

## What does the research mean?

The research team summed up the current influence of supply chains on health and safety as follows:

- The attention paid to health and safety-related issues by supply chain buyers varies considerably.
- This variation in attention is likely to reflect differences in:
  - the extent to which suppliers' health and safety management affects the effective supply of goods and services to buyers
  - legislative and regulatory pressures.
- Health and safety in supply chains is influenced both directly and indirectly by buyers and can be both positive and negative.
- Attempts by buyers to influence their suppliers' health and safety management will be more effective where:
  - they are supported by adequate monitoring and penalty arrangements
  - the relationship is relatively collaborative and trust-based.
- Collaborative and trust-based relationships are more likely to exist where:
  - buyers and suppliers have worked well together for a relatively long time
  - there is a supportive environment
  - there is regulatory scrutiny or pressure.
- Attempts by buyers to influence suppliers' health and safety management will be less successful where:
  - they clash with the suppliers' business interests
  - suppliers view the risks associated with failing to comply with them as low.
- Regulation of the supply chain can take various forms, but in all cases there are implications for inspection and auditing of compliance.

## Don't forget

Like most studies, this one had limitations. Although the key findings are supported by evidence, there isn't enough research available to give us a sound and rounded understanding on:

- the extent to which the operation of supply chains should be seen as posing problems for health and safety
- which types of supply chain are more or less supportive of effective health and safety management
- the factors that influence standards of health and safety management and performance within such chains
- the need for policy initiatives to improve how health and safety issues are addressed in supply chains
- which parts of the economy these initiatives should focus on
- whether these initiatives should be mandatory or voluntary
- how initiatives can best be designed and effectively implemented.

## Our current position

To find out about our policy on corporate social responsibility, visit [www.iosh.co.uk/Books-and-resources/Corporate-Social-Responsibility-and-Sustainability.aspx](http://www.iosh.co.uk/Books-and-resources/Corporate-Social-Responsibility-and-Sustainability.aspx).

## What's next?

This research project has highlighted the need for further investigation of the above points. As a result, we've commissioned further work from the research team. The next study will look at factors that influence the way health and safety is managed by suppliers operating in different sectors, such as construction and transport.

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Our summary gives you all the major findings of the independent project report by Cardiff and Oxford Brookes Universities. If you want to read about the study in more depth, you can download the full report from [www.iosh.co.uk/supplychains](http://www.iosh.co.uk/supplychains).

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