



Machining Industry Survey On the UKLA Guidance About Managing Metalworking Fluids

Survey Completed 16th July 2025

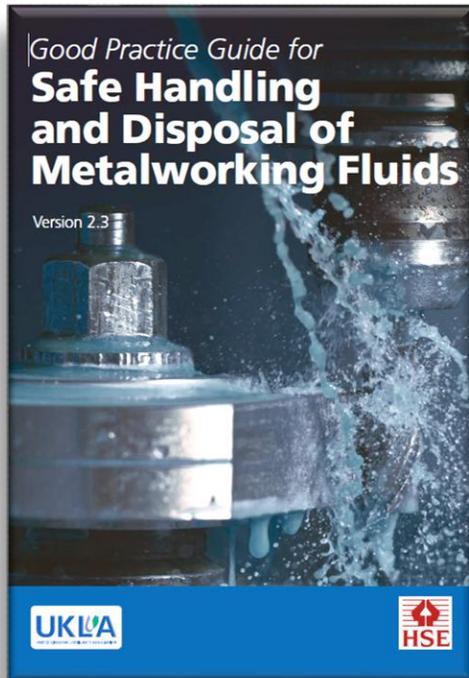
Conducted with the support of the
MTA, BOHS, UKLA Member Companies

Summary



- The UKLA PSG decided to assess the impact of its guidance document ('Good Practice Guide for Handling and Disposal of MWF') and YouTube training videos on undertaking checks on MWF quality.
- The UKLA PSG Communication group developed a short questionnaire (Slide 21) designed to assess whether people working in the machining industry are aware of these guidance and training materials, and to ask whether other areas of guidance on MWF could be provided in future.
- The intended participants for this survey included management, supervisors, HSE staff and machinists in workshops, as well as occupational hygienists and other consultants working in this industry.
- The ten-question survey was hosted on Survey Monkey. It was distributed by UKLA members to their customers and by the Manufacturing Technology Association (MTA) and British Occupational Hygiene Association (BOHS) to their members.

UKLA Guidance on MWFs



Looking After Your Metalworking FL...

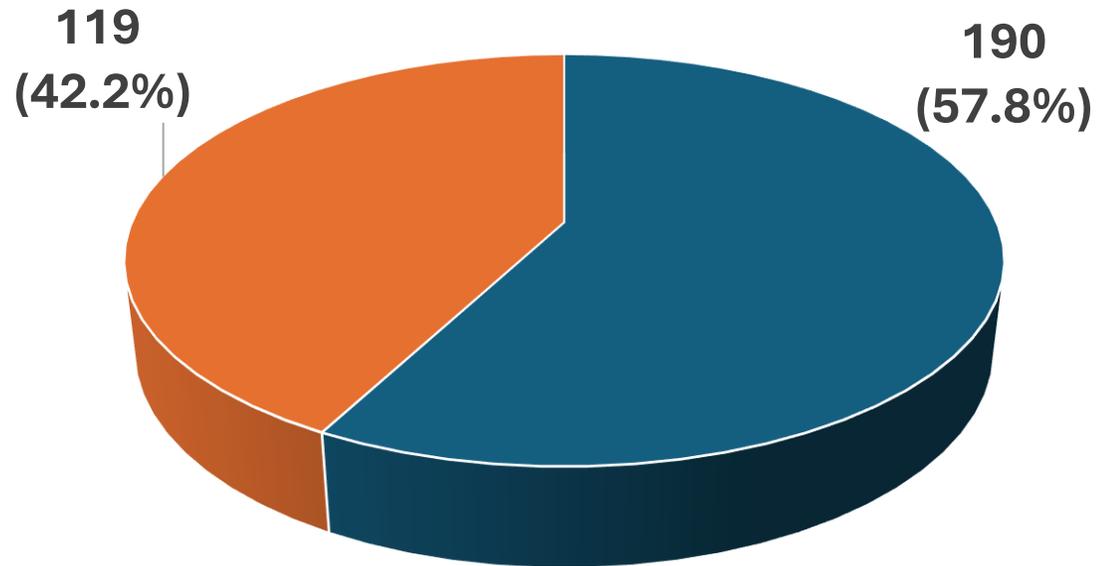
UKLA Metalworking Fluid Product Stewardship group - 1/10

↺ ↻

- 1 **Looking after your Metalworking Fluids** 3:35
UKLA Metalworking Fluid Produ...
- 2 **Visual and Odour Checks** 4:18
UKLA Metalworking Fluid Produ...
- 3 **How to Take Samples for Monitoring and Disposal** 2:45
UKLA Metalworking Fluid Produ...
- 4 **Monitoring for Tramp Oil - Looking After...** 4:17
UKLA Metalworking Fluid Produ...
- 5 **Using a Refractometer to Check the...** 6:11
UKLA Metalworking Fluid Produ...
- UKLA Module 06: Measuring

Whole Survey Results

Participation in the survey

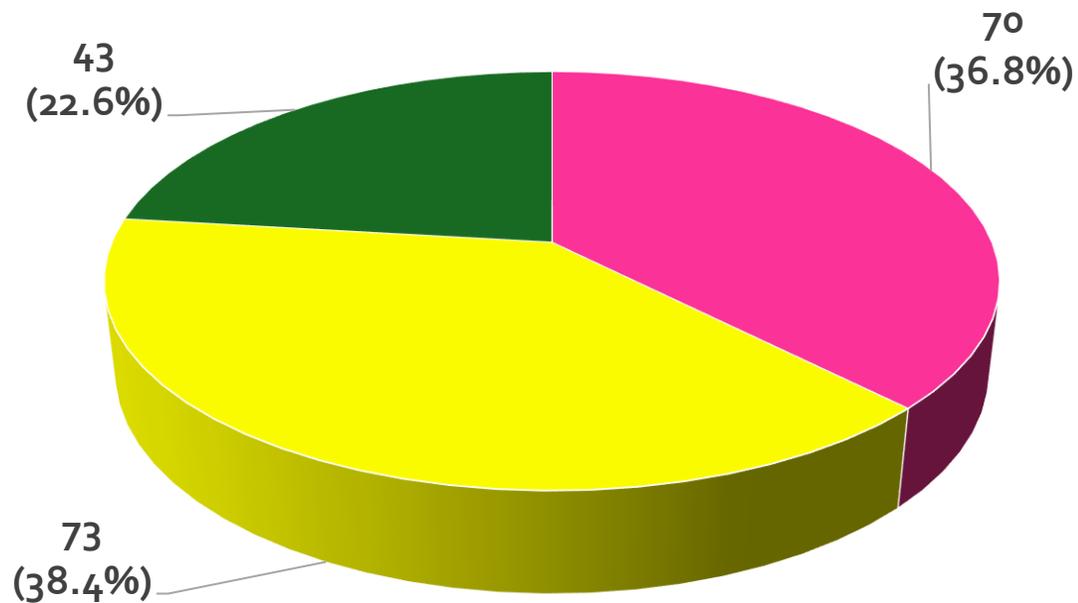


- Completed surveys
- Non-completed surveys

309 people logged onto the questionnaire but only 190 completed it (57.8%)

Whole Survey Results

Participant Company Size

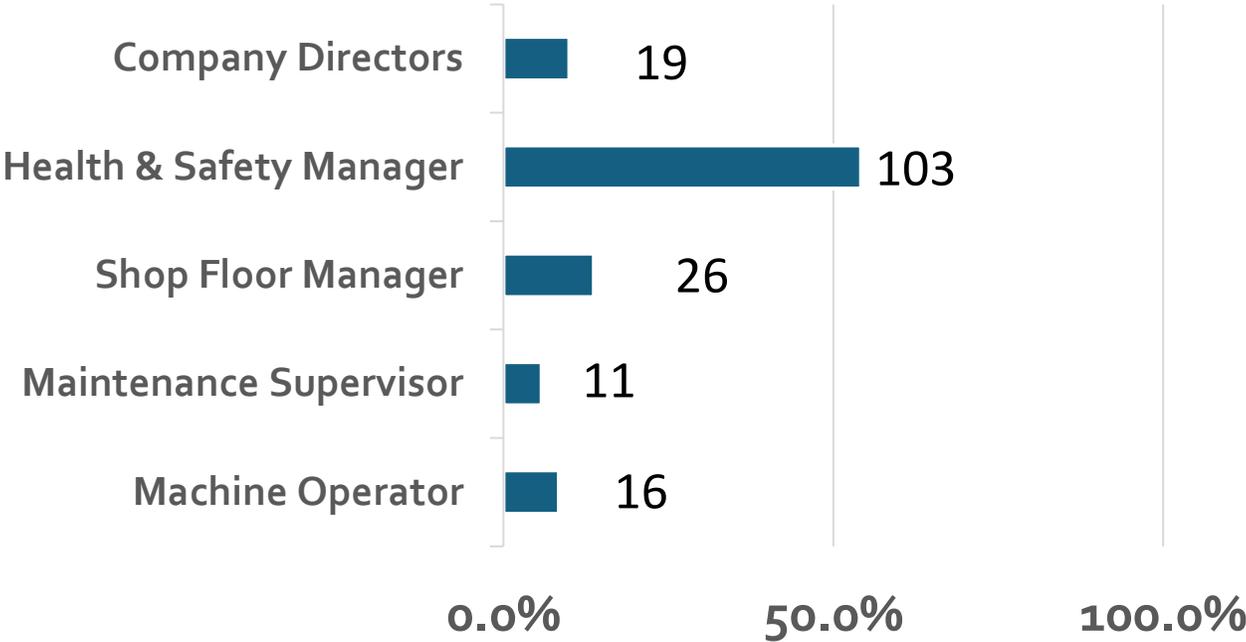


- Less than 50 employees
- Between 50 and 250 employees
- More than 250 employees

The number of participants from small and medium-sized businesses was similar, but fewer large companies participated (22.6%)

Whole Survey Results

Participant Job Role



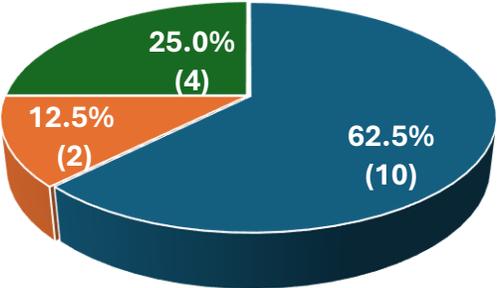
Most of the survey participants were health and safety managers (54.2%)

Whole Survey Results

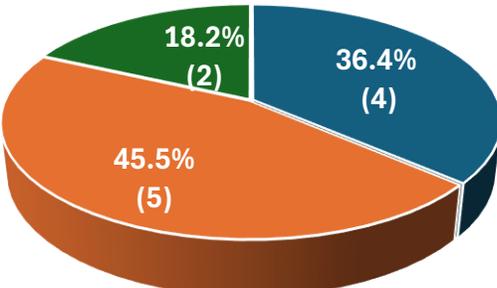
Participant Job Role and Company Size



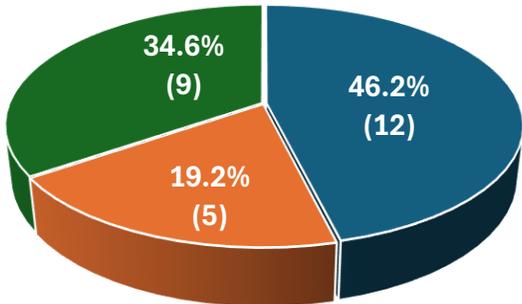
Machine Operators



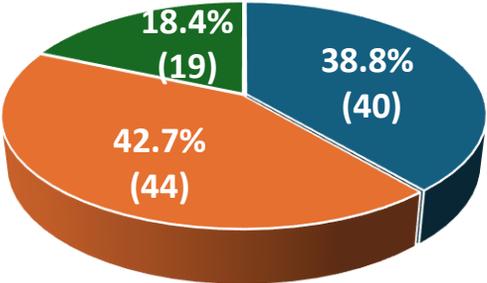
Maintenance Supervisors



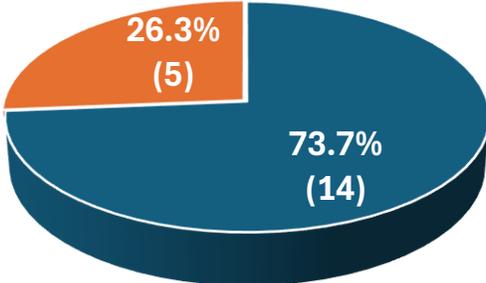
Shop Floor Managers



Health & Safety Managers



Company Directors



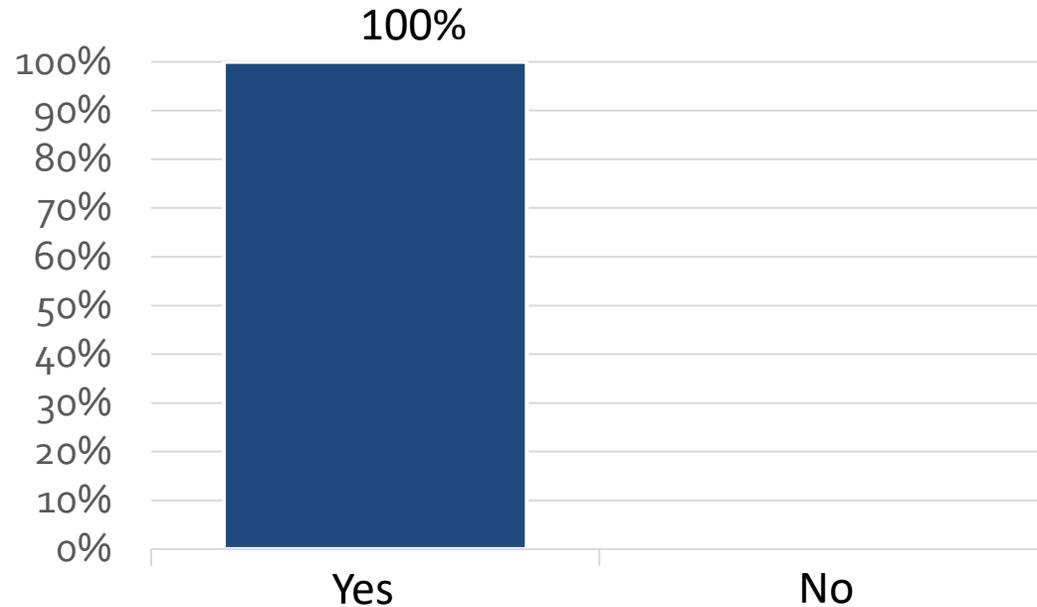
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Whole Survey Results

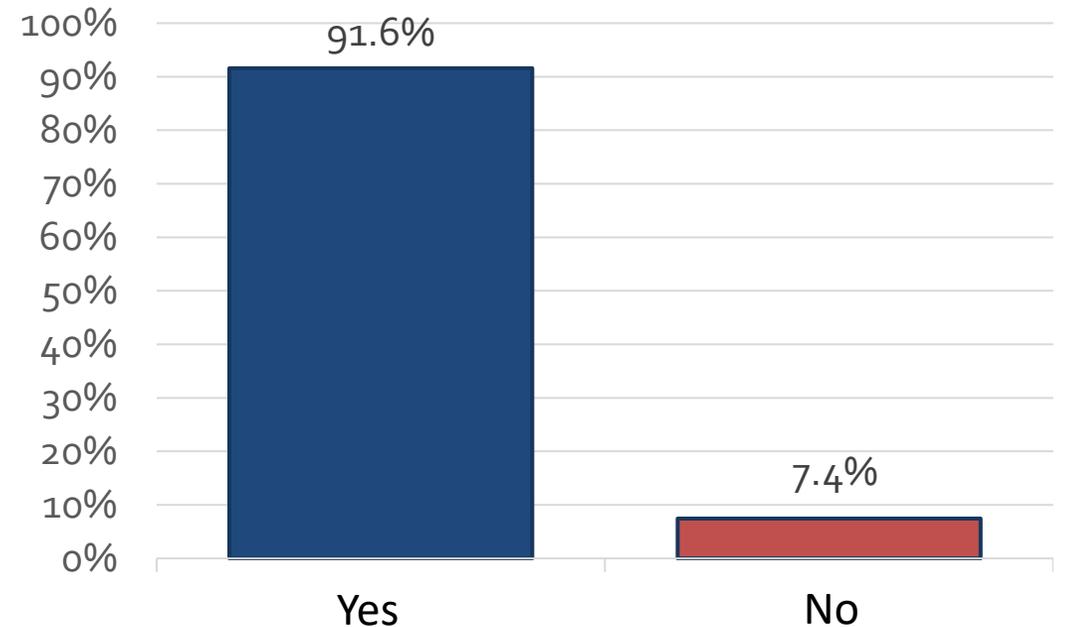
Understanding Health Risks



Skin disease



Lung disease



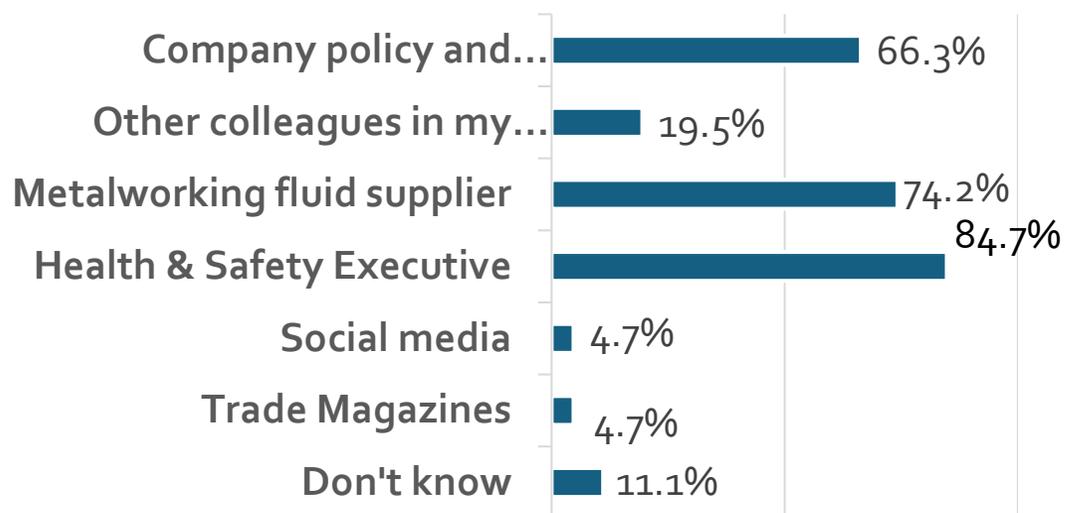
The majority of participants identified the key health risks of work with MWFs

Whole Survey Results

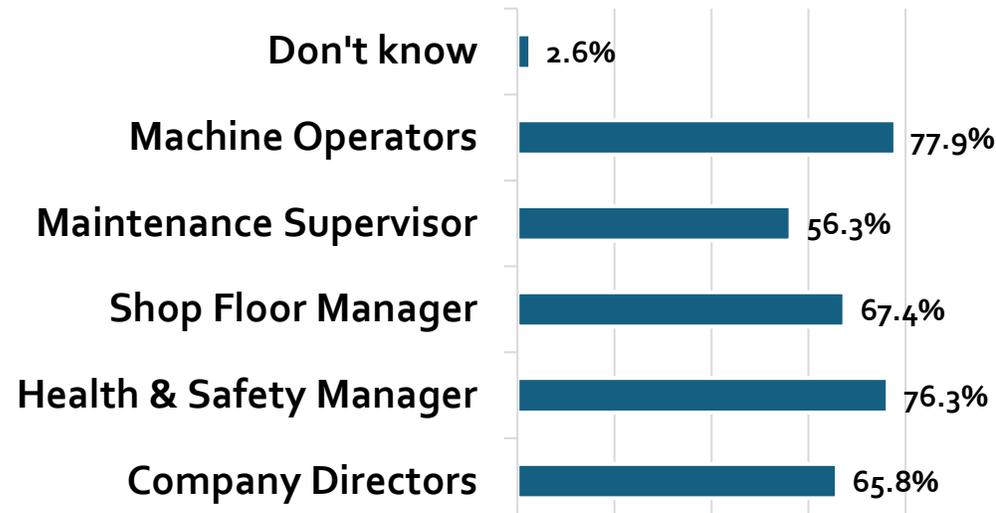
Sources of Guidance and Responsibility for MWF



Sources of guidance/advice



Who is responsible for managing MWF?



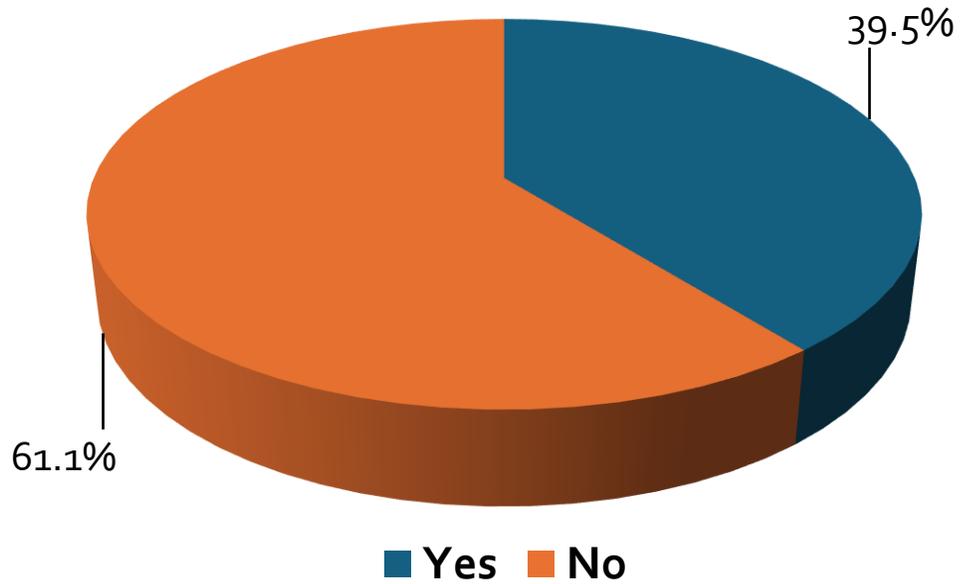
- The primary sources of guidance were company policies, the MWF supplier and HSE.
- Most participants equally recognised the responsibility of management, supervisors and machine operators for ensuring that work with MWF is undertaken safely.

Whole Survey Results

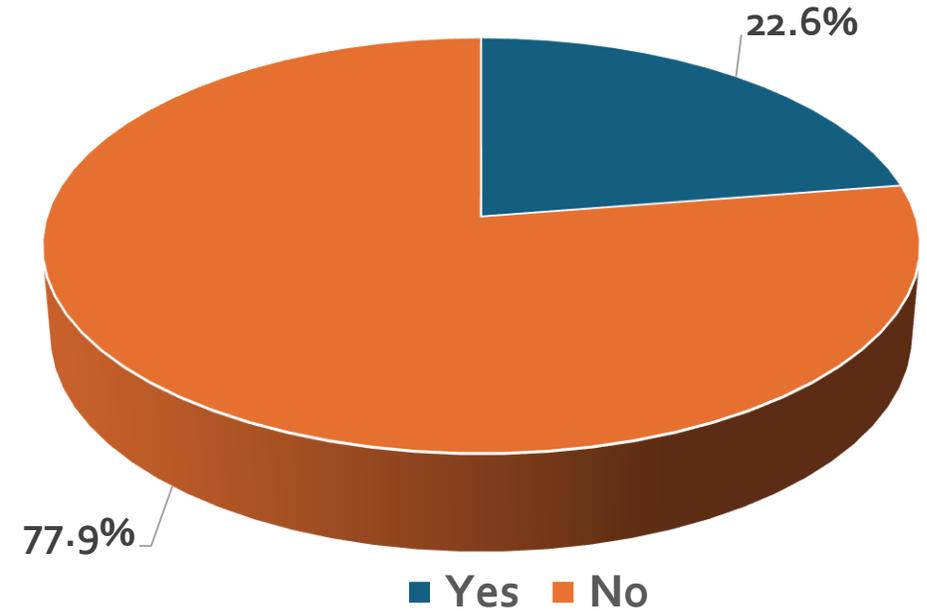
Awareness of UKLA Guidance and Training Videos



UKLA Guidance



UKLA Videos



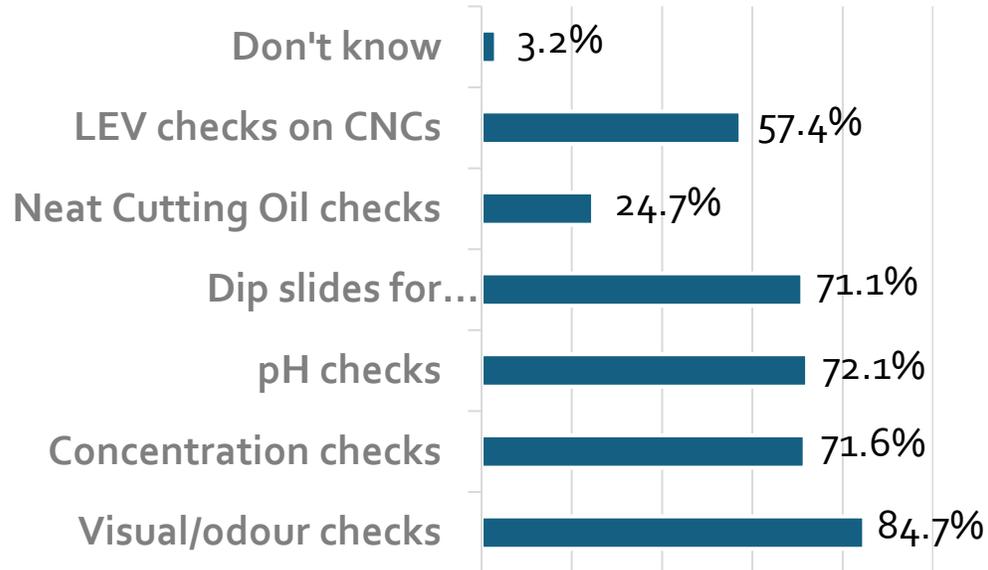
Less than 40% of participants were aware of the UKLA Guidance, and less than 23% the UKLA training videos

Whole Survey Results

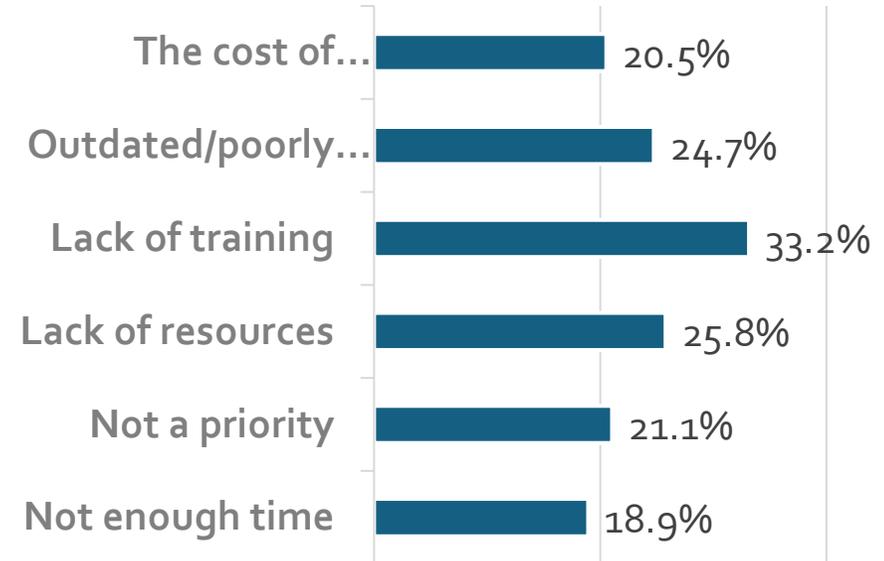


Checks on MWF and Obstacles to Improved Practice

MWF Quality Checks



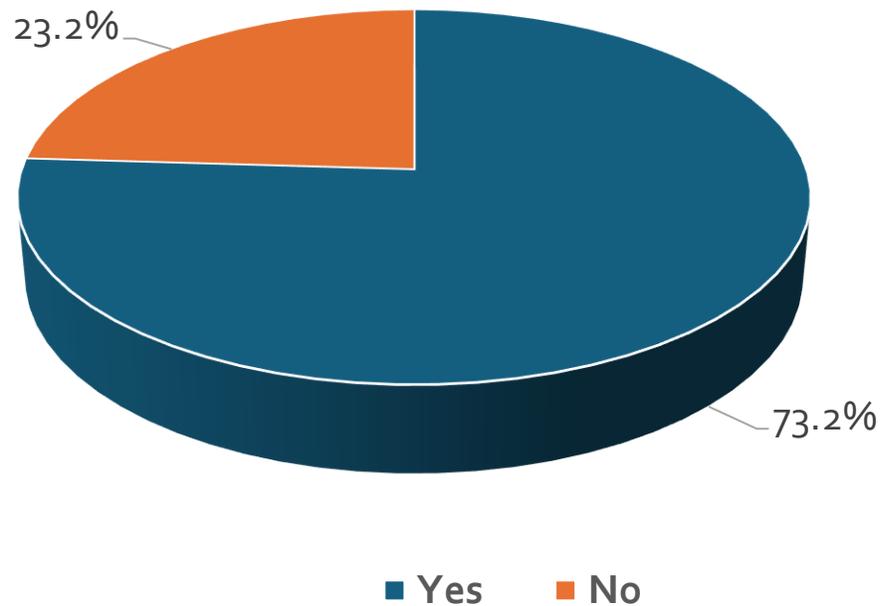
Challenges to good practice



- More than 70% of participants said they used the main quality checks in the UKLA Guidance.
- More than 20% of participants identified obstacles associated with a lack of resources and prioritisation in managing health risks cause by exposure to MWF.

Whole Survey Results

Implementing Occupational Health Checks



- More than 70% of participants stated that occupational health checks were undertaken in their company.

Whole Survey Results

Comments from Participants



Health Risks.

- Old and poorly designed machines pose difficulties in effectively containing and extracting MWF emissions.
- Retrofitting control measures to older machinery can incur high costs.
- Retrofitting interlocks and timers to control enclosure doors on older machines can be challenging.
- Poor machine design causes increased oil leaks and MWF mist emissions.
- Waste fluid must be carefully managed and disposed of through approved and proper waste streams.

Occupational Health Surveillance.

- The expense of conducting occupational health checks can be significant, particularly for a small business.



Whole Survey Results

Comments from Participants



Checking MWF quality.

- It appears to be a workplace hazard that is not given sufficient emphasis on its risks and controls.
- Machinists find it hard to prioritise fluid checks when they are under pressure to deliver work.
- There is a tendency for staff to forget to undertake fluid checks and to carry these out as a 'tick box' task.
- Maintaining the correct concentration of water-mix MWF can be challenging.
- Infrequent use of machines poses a challenge to maintaining the quality of their fluid supplies.
- Supply systems are not being cleaned out and may stink.
- Controlling bacterial growth within safe limits can be challenging, and the solutions are not clear.



Whole Survey Results

Comments from Participants



MWF Suppliers.

- MWF suppliers lack sufficient information on safe off-site disposal via third-party contractors, especially for companies dealing with small lubricant quantities.
- MWF suppliers do not provide enough information about the safe working limits of their products.
- There is a need for more guidance, such as the risk of skin contact with MWFs, as most available guidance focuses on the inhalation risks.
- More guidance is needed about managing water-mix MWF in areas with 'hard' water supplies, which affect the stability and quality of the MWF.
- More advice is needed about the safe disposal of small quantities of used MWF.
- There is a need for safer formulations of MWFs, including environmentally friendly formulations.



Whole Survey Results

Comments from Participants



Staff Engagement.

- Machinists see control measures as a bother and can overlook the health risks linked to MWFs.
- There is a lack of engagement from machinists and insufficient enforcement from line managers.
- Older, experienced machinists may resist change more strongly.
- Staff with delivery deadlines do not have time to clean out machine MWF supply systems properly.

Training.

- It appears to be an overlooked or insignificant aspect of the business, and staff with no training are left to handle the risks of working with MWFs.
- MWFs are still often seen as a non-critical part of manufacturing. Those making purchasing decisions about lubricants may lack the knowledge to consider the health and safety risks.
- Training that highlights the dangers/risks posed by work with MWFs is essential, and can be overlooked quite easily, as this is not a visible 'high-risk' danger.



Whole Survey Results

Comments from Participants



Cutting Machines

- Machine design is key to reducing the risk of exposure to MWF.
- An effective extraction solution is required for machines that cannot be readily or completely enclosed.

LEV solutions.

- Cutting machines may require different setups multiple times daily, making standard methods for reducing emissions difficult.
- There are concerns regarding the effectiveness of recirculating mist extractors.

Compressed airlines.

- Guidance is needed on choosing safer designs for compressed air guns.



Whole Survey Results

Comments from Participants



Management Role.

- Different managers may hold varied views on health and safety priorities and relevant sources of guidance.
- Securing support and engagement for H&S concerns from senior managers.

Business Constraints.

- The expense of complying with health and safety regulations can affect smaller businesses.
- For a sole trader, it is not practicable to undertake all these measures to manage the quality of MWFs.

Regulatory Compliance.

- HSE visits do more harm than good. There are concerns that these visits are carried out to generate inspection fees rather than to assist with health and safety issues.
- Some machining requires fluid lubricants, but some machining methods do not. Managing the exposure risks requires judgment, but there is no formal guidance, and risk perceptions may vary between machinists.

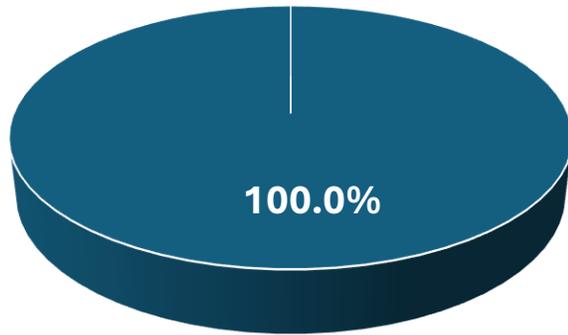


Survey Results Comparison by Job Role

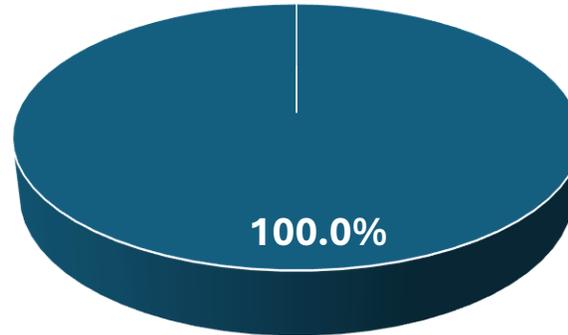
Awareness of skin disease risks



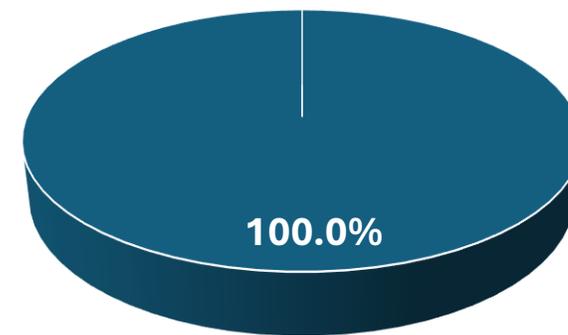
Machine Operator
(n=16)



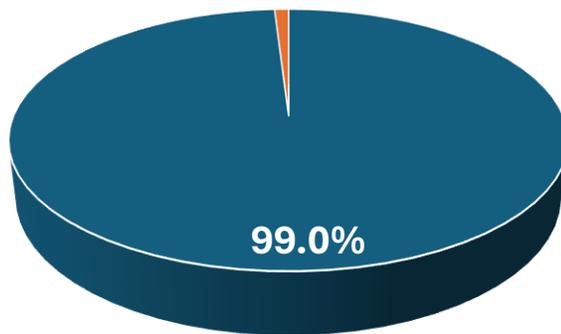
Machine Supervisor
(n=11)



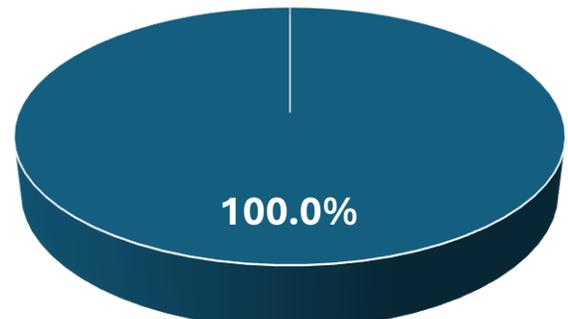
Shop Floor Manager
(n=26)



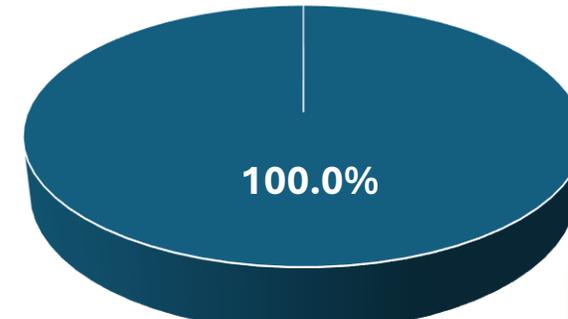
Health & Safety Manager
(n=103)



Company Director
(n=19)



Other Occupation
(n=30)



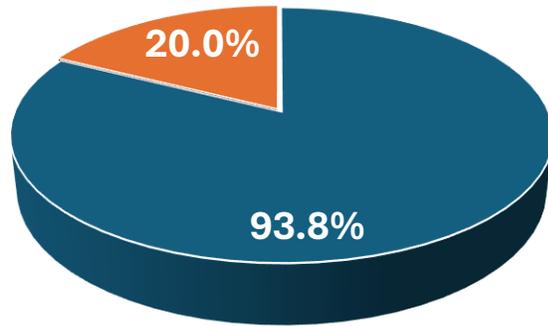
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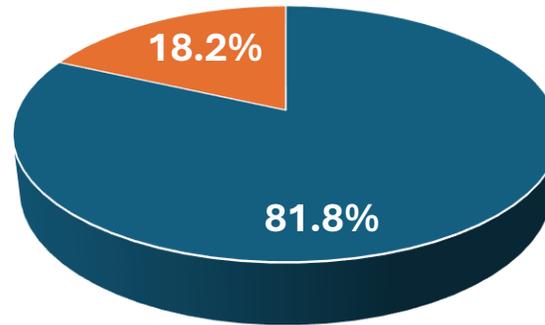
Awareness of lung disease risks



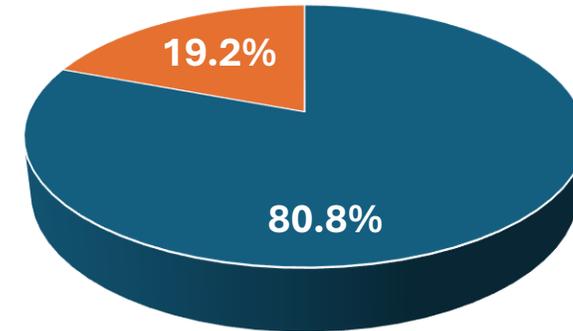
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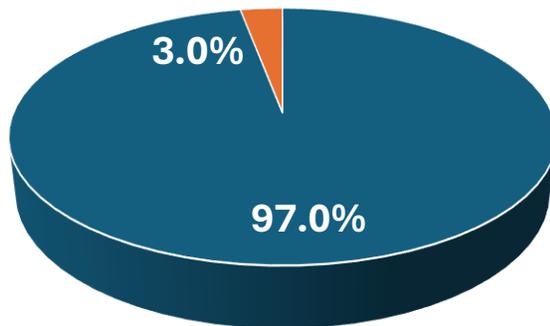
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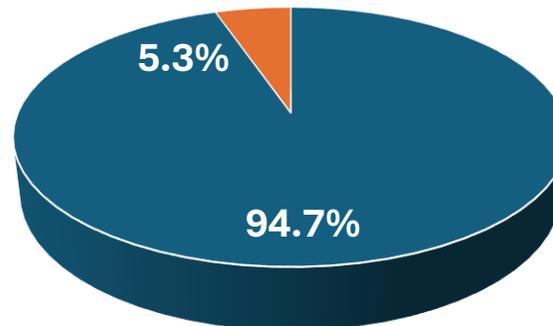
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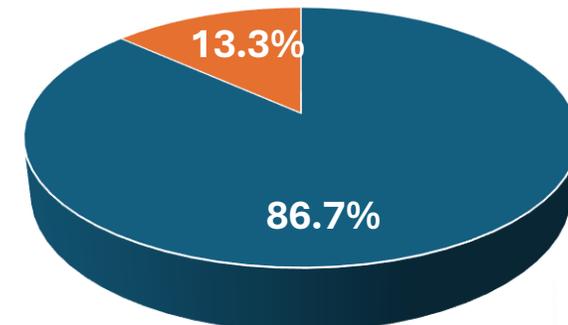
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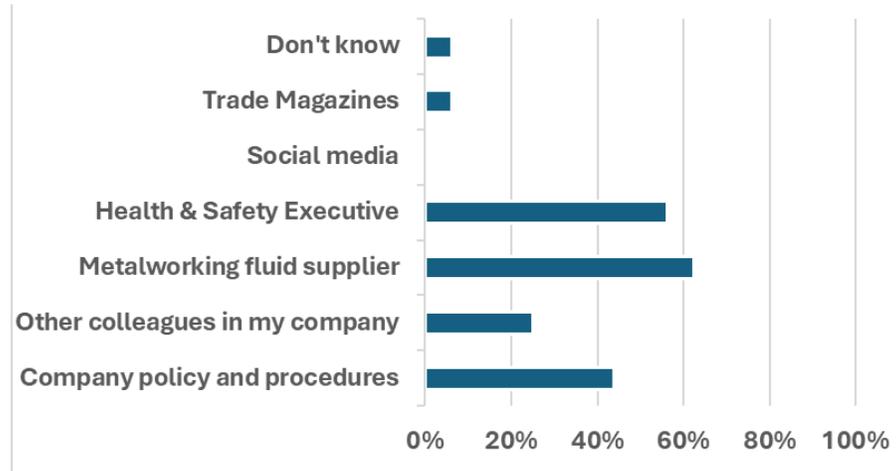
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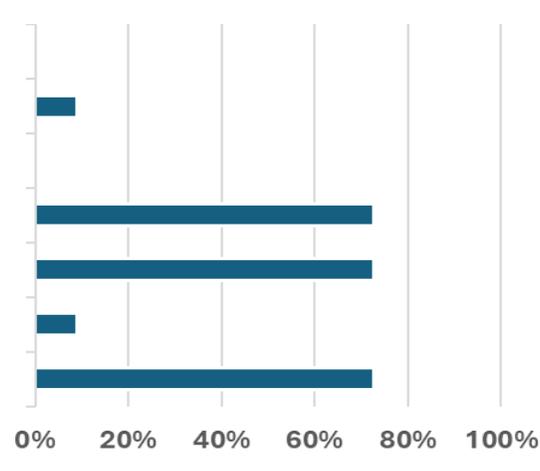
Sources of guidance used



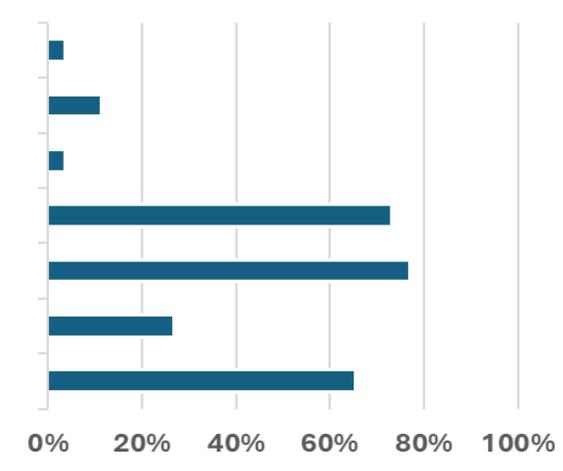
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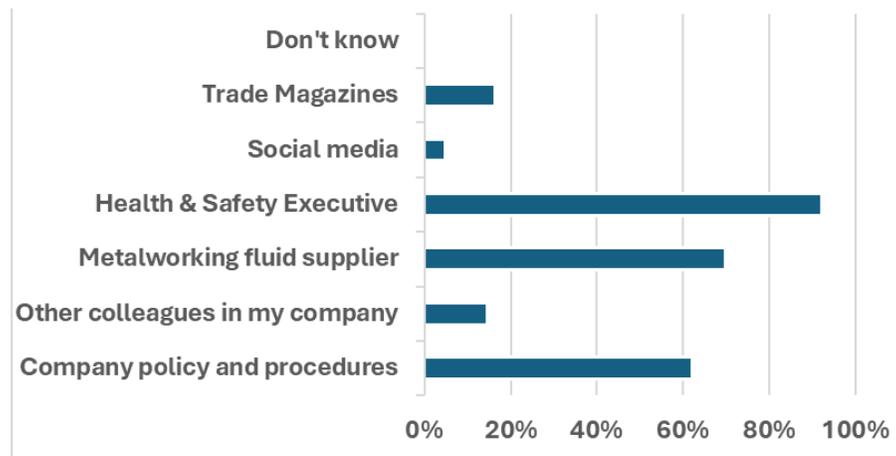
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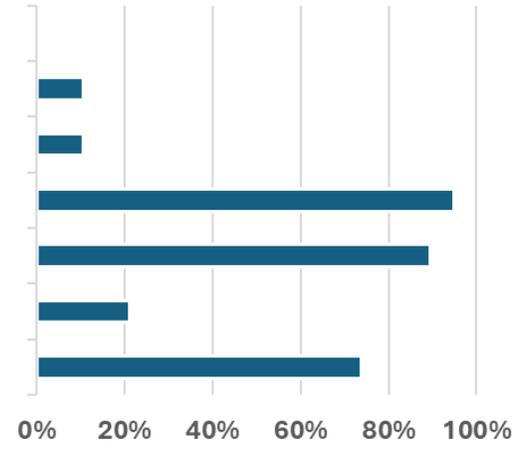
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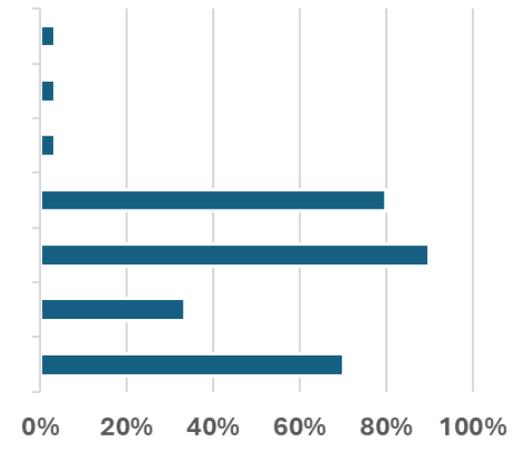
Health & Safety Managers (n= 103)



Company Directors (n=19)



Other Occupations (n=30)

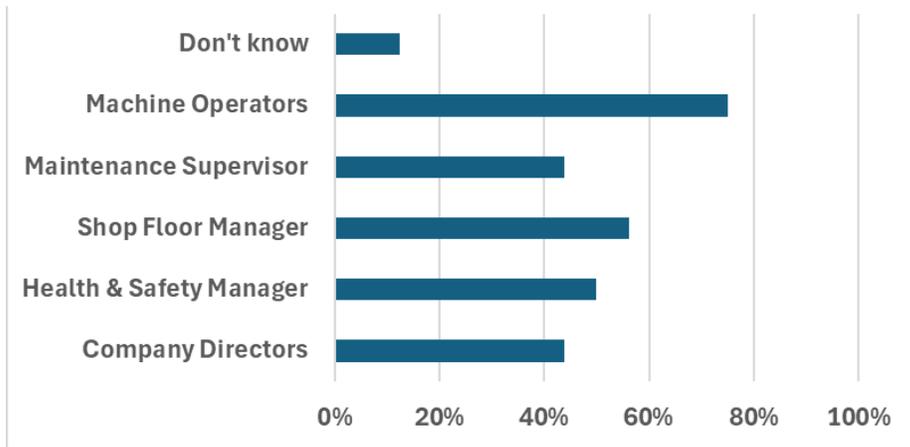


Survey Results Comparison by Job Role

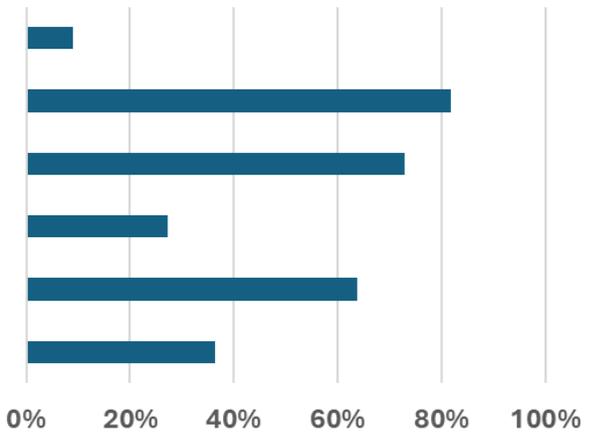
Who is responsible for managing MWFs



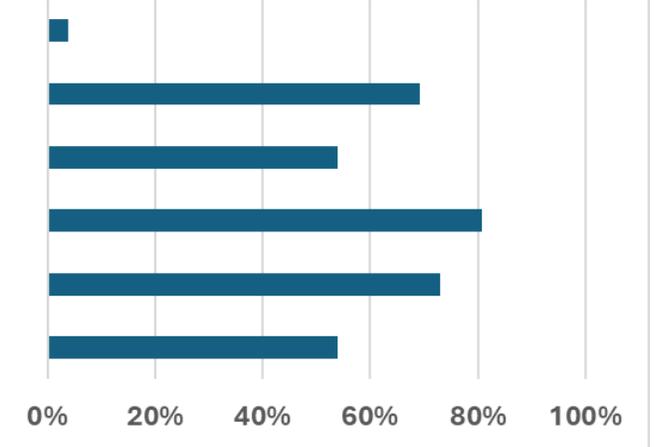
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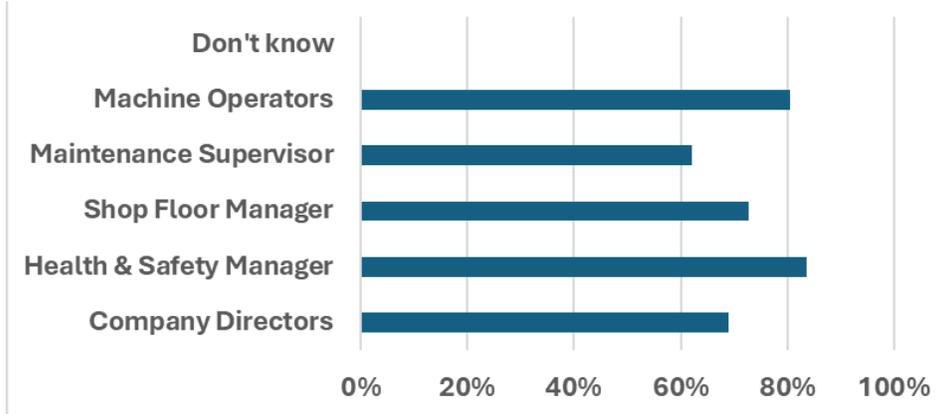
Machine Supervisor (n=11)



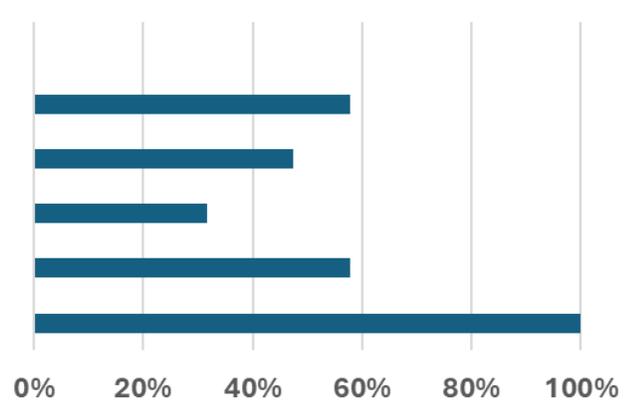
Shop Floor Manager (n=26)



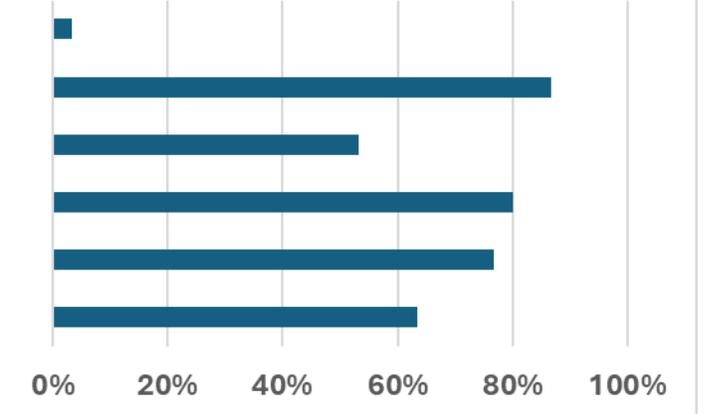
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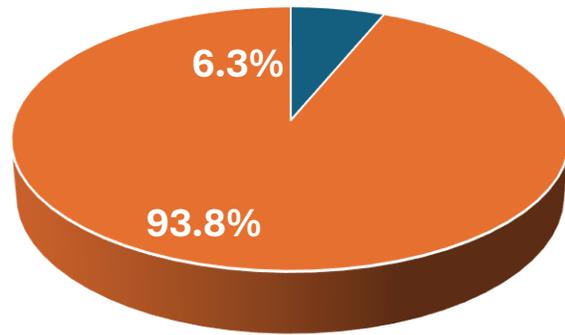


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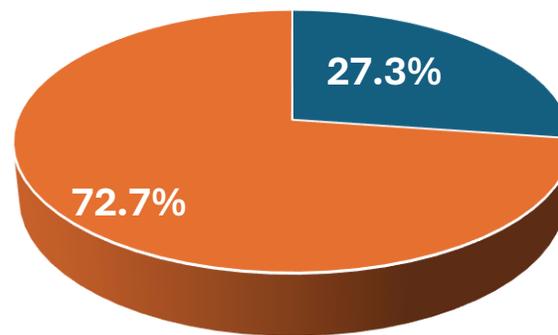
Awareness of UKLA Good Practice Guidance



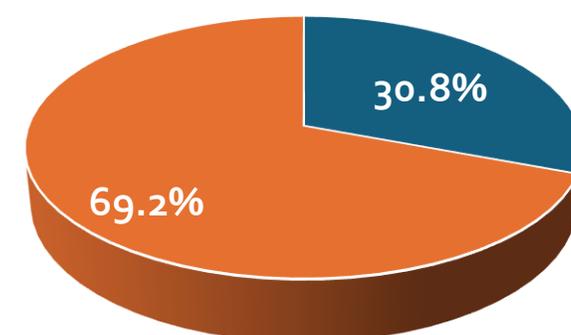
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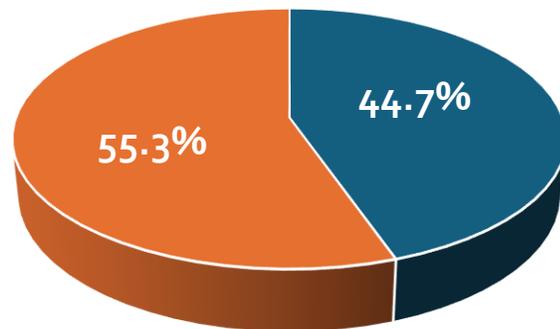
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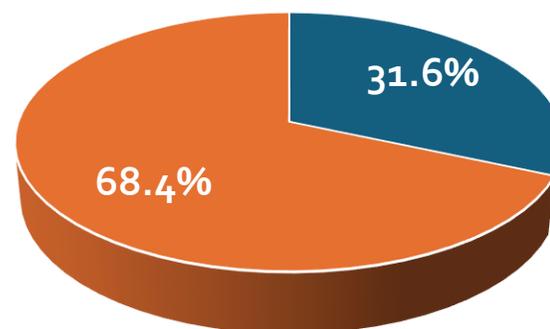
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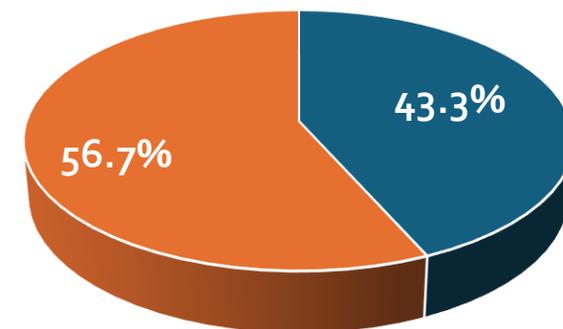
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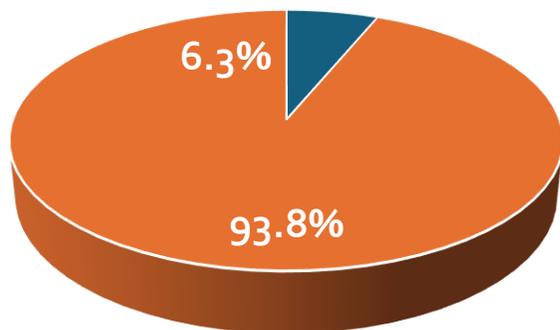
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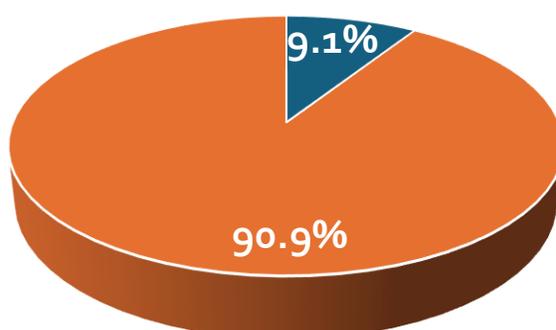
Awareness of UKLA Good Practice Videos



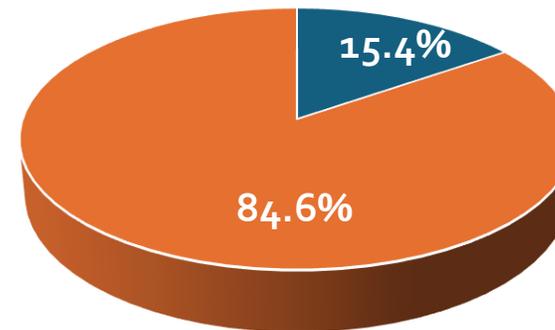
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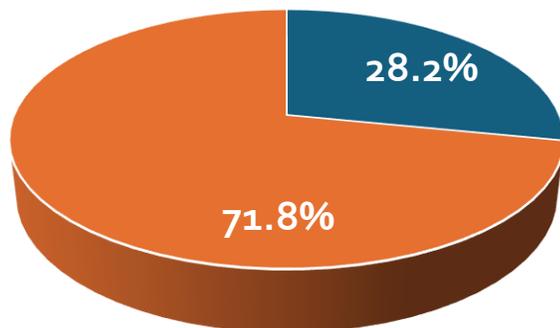
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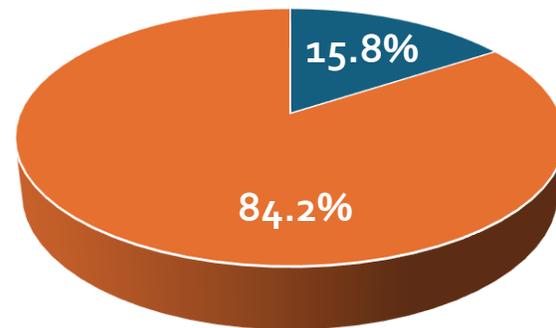
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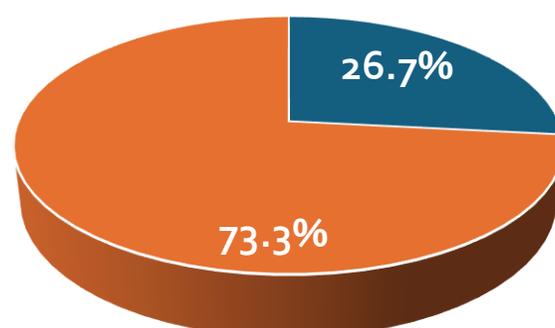
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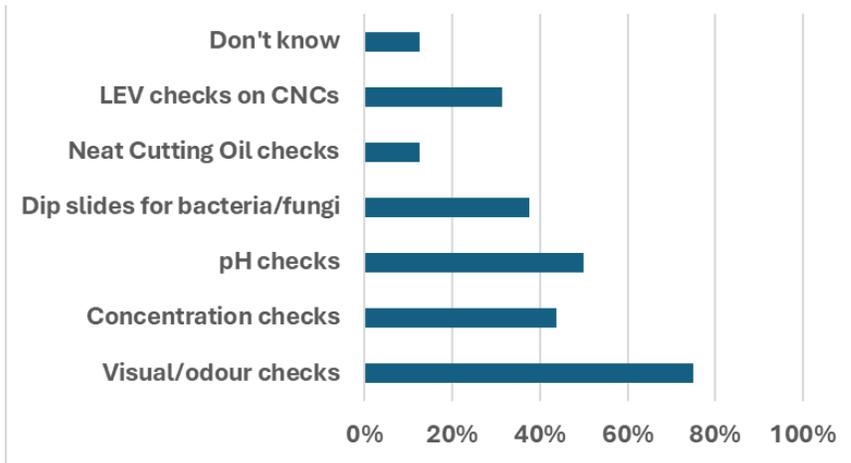
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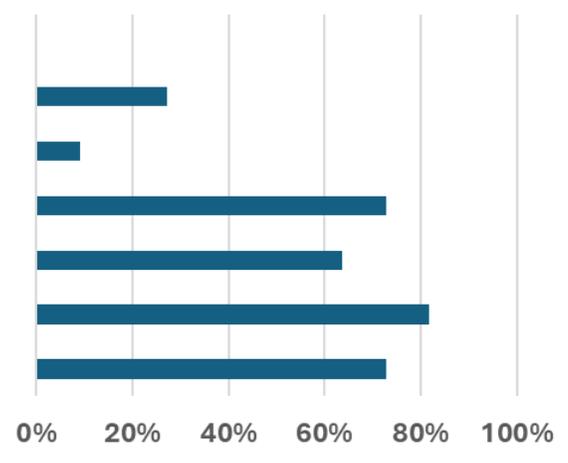
Checks Undertaken on MWF Quality



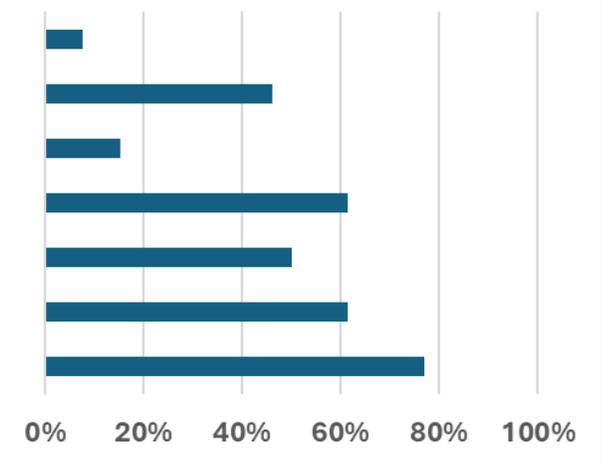
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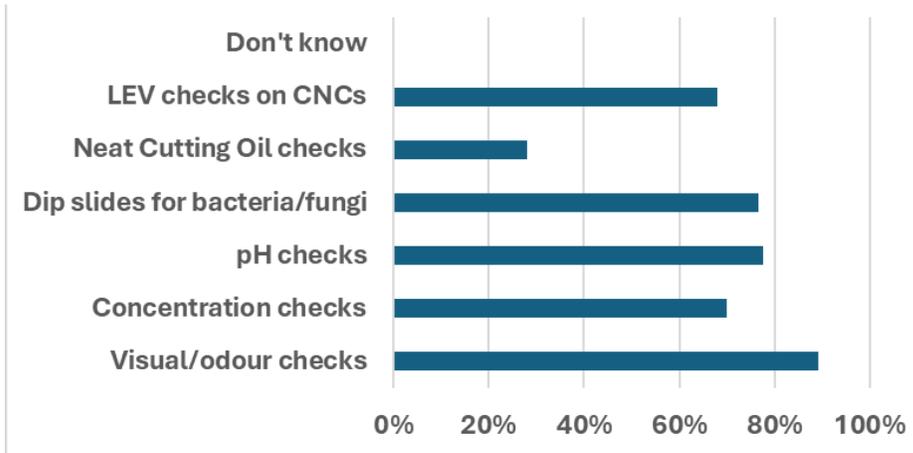
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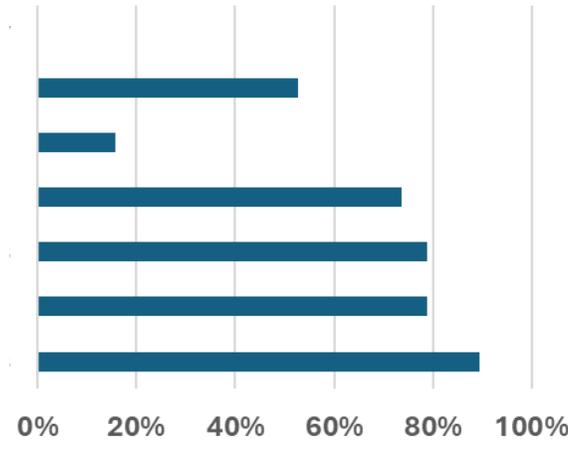
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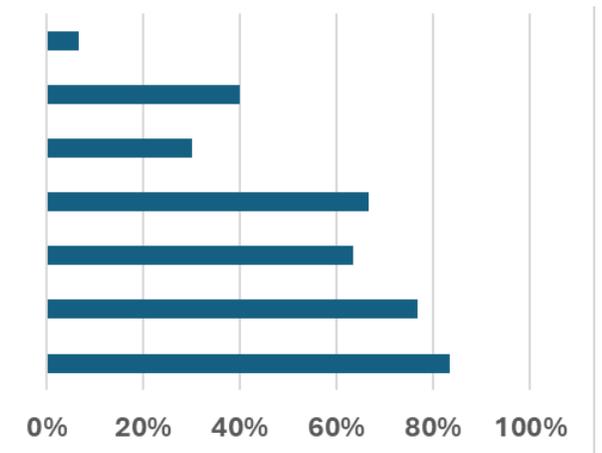
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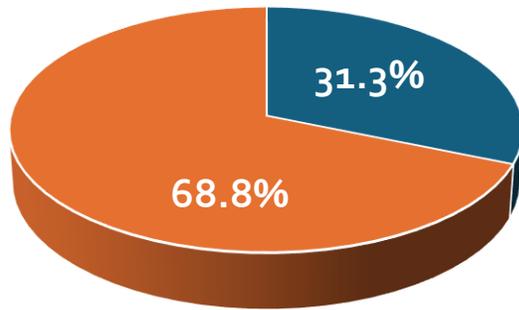


Survey Results Comparison by Job Role

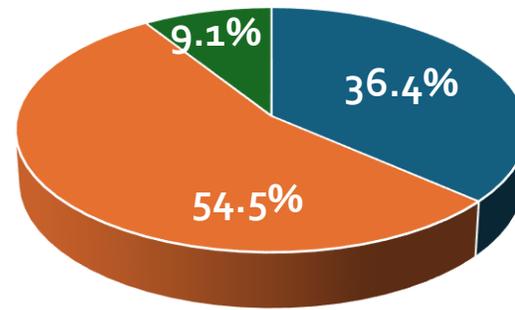
Use of Occupational Health Surveillance



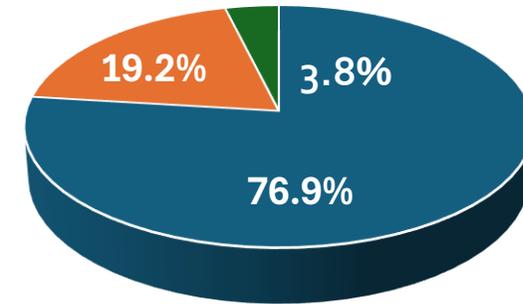
Machine Operator
(n=16)



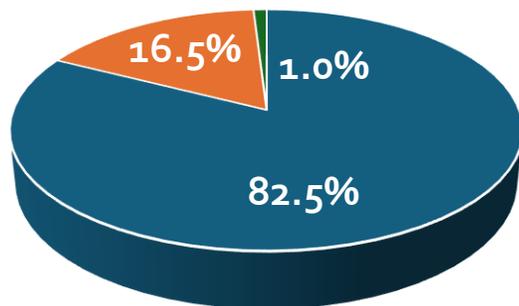
Machine Supervisor
(n=11)



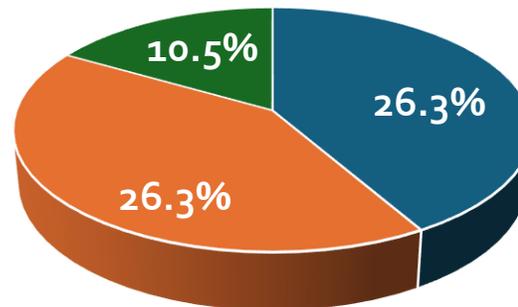
Shop Floor Manager
(n=26)



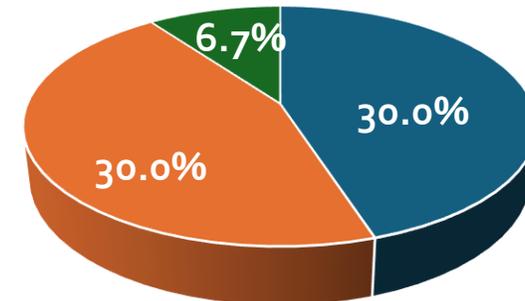
Health & Safety Manager
(n=103)



Company Director
(n=19)



Other Occupation
(n=30)



Yes = 
No = 
Don't know = 

Survey Results Comparison by Job Role

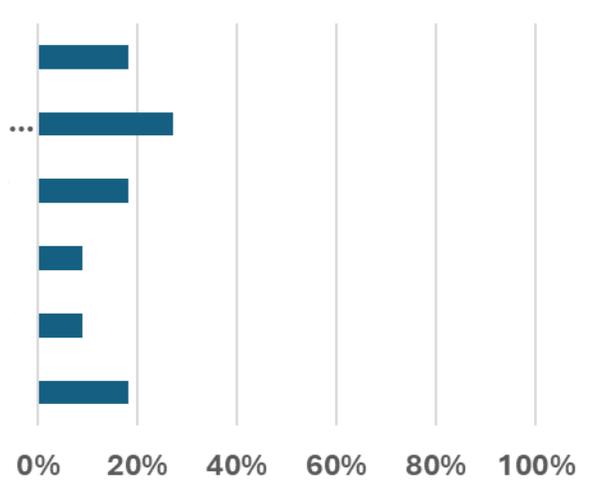
Challenges to Good Practice



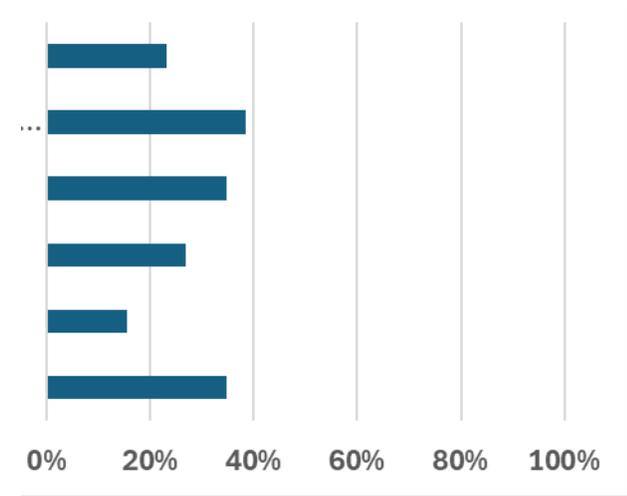
Machine Operator (n=16)



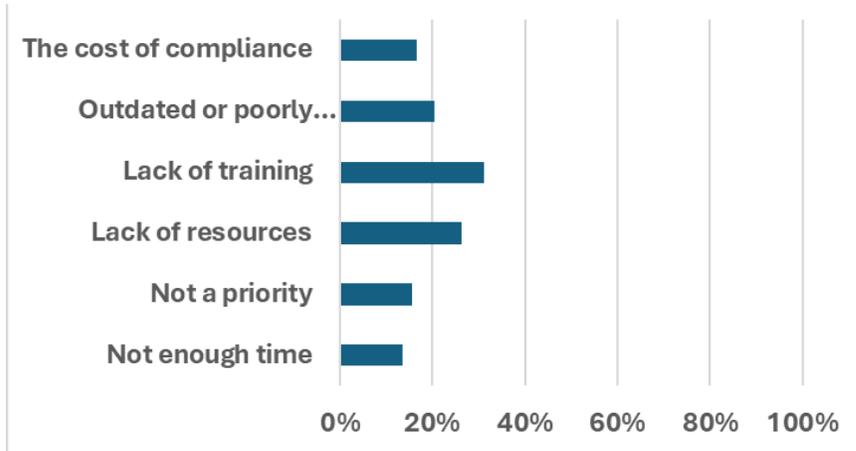
Machine Supervisor (n=11)



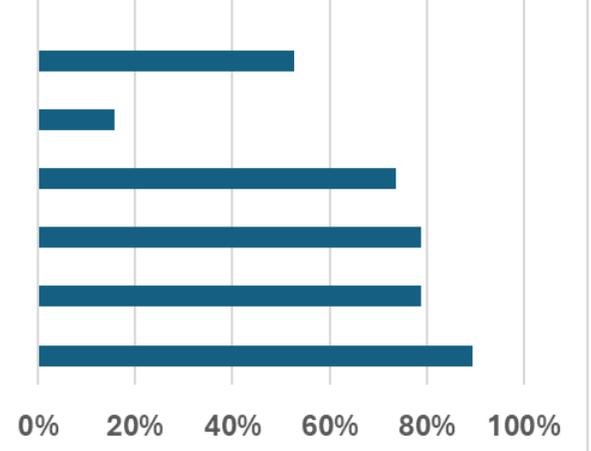
Shop Floor Manager (n=26)



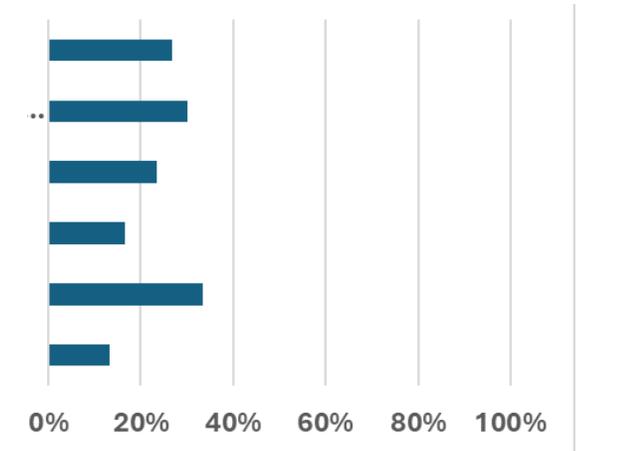
Health & Safety Manager (n=103)



Company Director (n=19)



Other Occupations (n=30)



UKLA PSG Survey Questions



1. Do you or your organisation use metalworking fluids (MWFs), also called coolants or whitewater?
2. Do you know about the potential health risks of working with MWFs?
3. Who in your company is responsible for working safely with metalworking fluids?
4. Where do you get information on working safely with MWFs?
5. UKLA has produced a Good Practice Guide for the Safe Handling and Disposal of Metalworking Fluids. Have you used this guide?
6. UKLA has also produced a series of videos on fluid quality checks. Have you used these videos?
7. What checks and controls do you have in place for the use of your MWFs? (Tick all that apply.)
Does your workplace provide health surveillance (health checks) for workers exposed to MWFs?
8. Which of the following present challenges to working safely with MWFs [tick those that apply]? Please suggest other challenges you have encountered.
9. Any Other Comments on Metalworking Fluids
10. About your company. How many people does your company employ? (Tick the option that applies.)
11. Which of these best describes your role where you work?

The UKLA MWF Product Stewardship Group



Thank you for your attention



secretariat@ukla.org.uk