

Relationships between Waste Collection Systems and MSD's

Presentation to APSE

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Aim

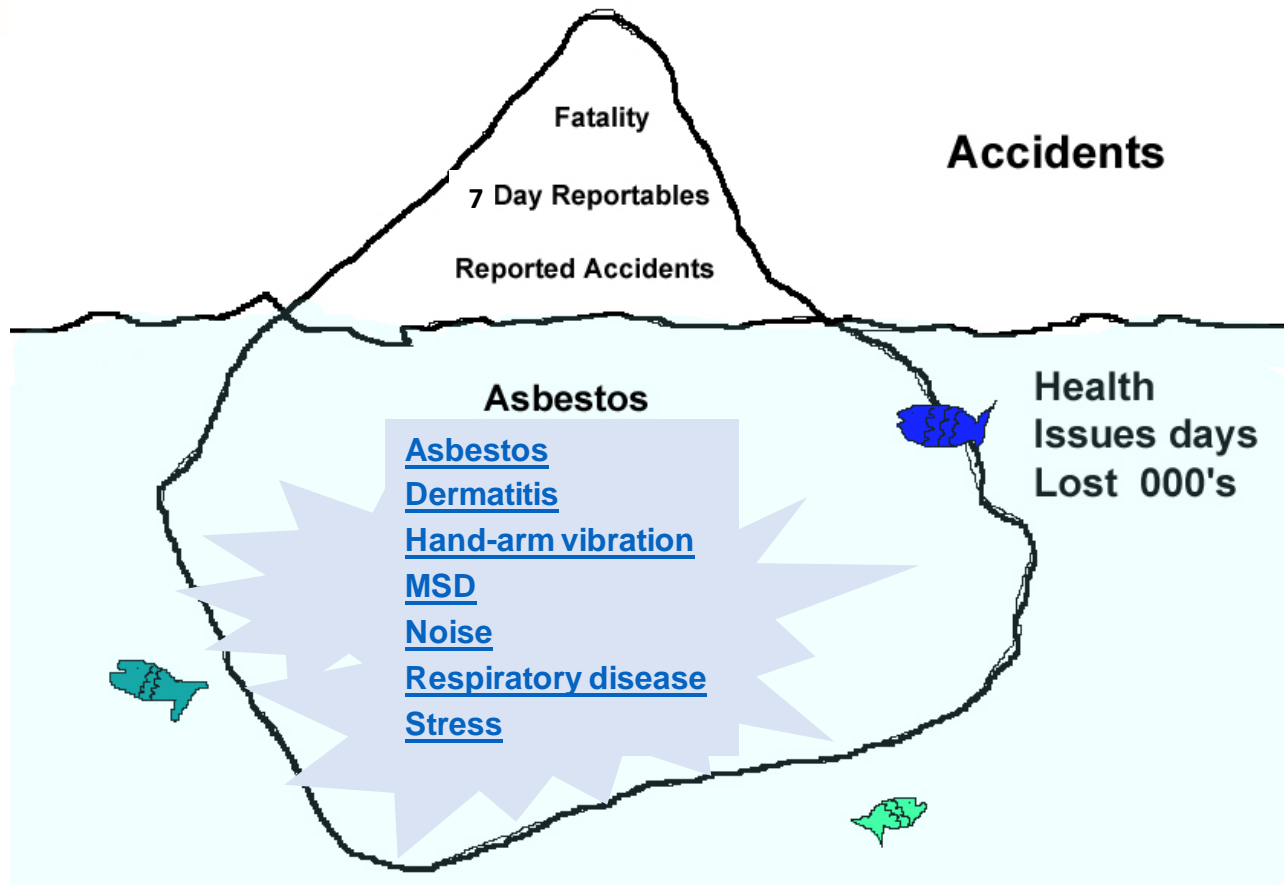
For the waste industry to take a sustainable approach to Human Resource Management.

ILO

For delegates to understand:

- How work is a cause of significant ill health
- The importance of workforce engagement
- The importance of seeking and applying knowledge

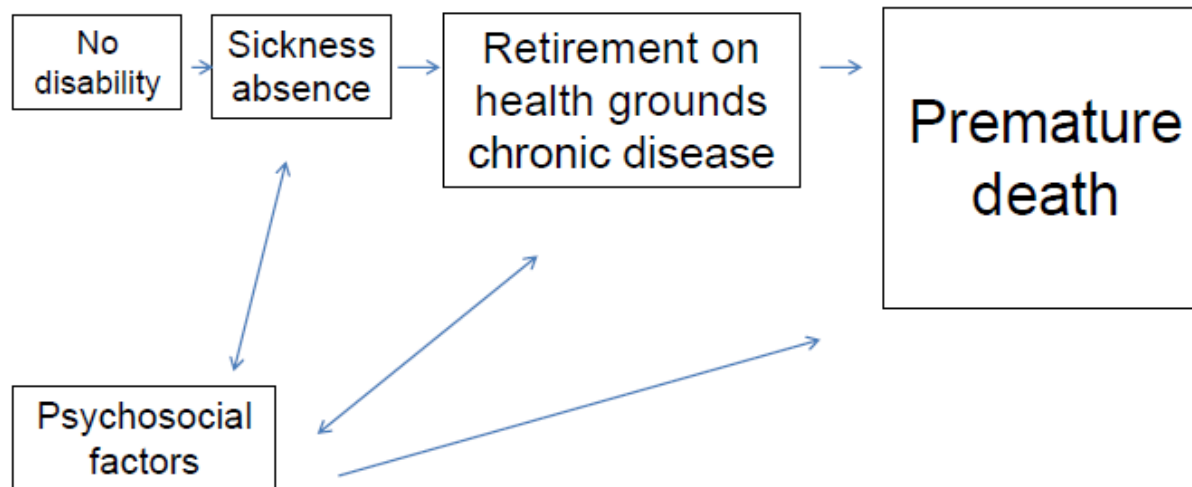
Accidents are just the tip of the Iceberg



Occupational Deaths EU & UK 2011

	Eur.Union	U.K.
• Work-related circulatory diseases	53,419	6,345
• Occupational cancer	102,527	13,330
• Work-related communicable dis.	5,000	694
• Respiratory diseases	12,079	1,570
• All work-related diseases	187,492	24,376
• Fatal occupational injuries	<u>4,692</u>	<u>717</u>
• Total occupational mortality	192,184	25,093

Why is it an issue?



Consider....

- **Evidence**
science, research, knowledge on work life, sustainability
- **Ethics**
socially sustainable solutions, quality of work life, equal treatment , defend the vulnerable in the world of work
- **Engagement**
openly engage in dialogue with staff, policy makers, stakeholders, clients, interested parties
- **Enforcement**
minimum requirement: follow regulatory measures

*Occupational Diseases Are Common
Common Diseases are Occupational*

Industry Problem

- Entrrenched views
- Historic Problem – Wheeled bins v Boxes
- Chere/WRAP – Research
- Better quality of recycling when hand sorted than MRFs
- Modern MRFs can produce high quality material
- HSL Studies and Academic Research

Still happening



Industry Headlines

RoSPA – Work related Accidents & Ill health cost
£20- £30b

Work Foundation – Over 40 million workers in
Europe are affected by MSDs attributable with work

PWC – absenteeism costs UK business £32bn pa

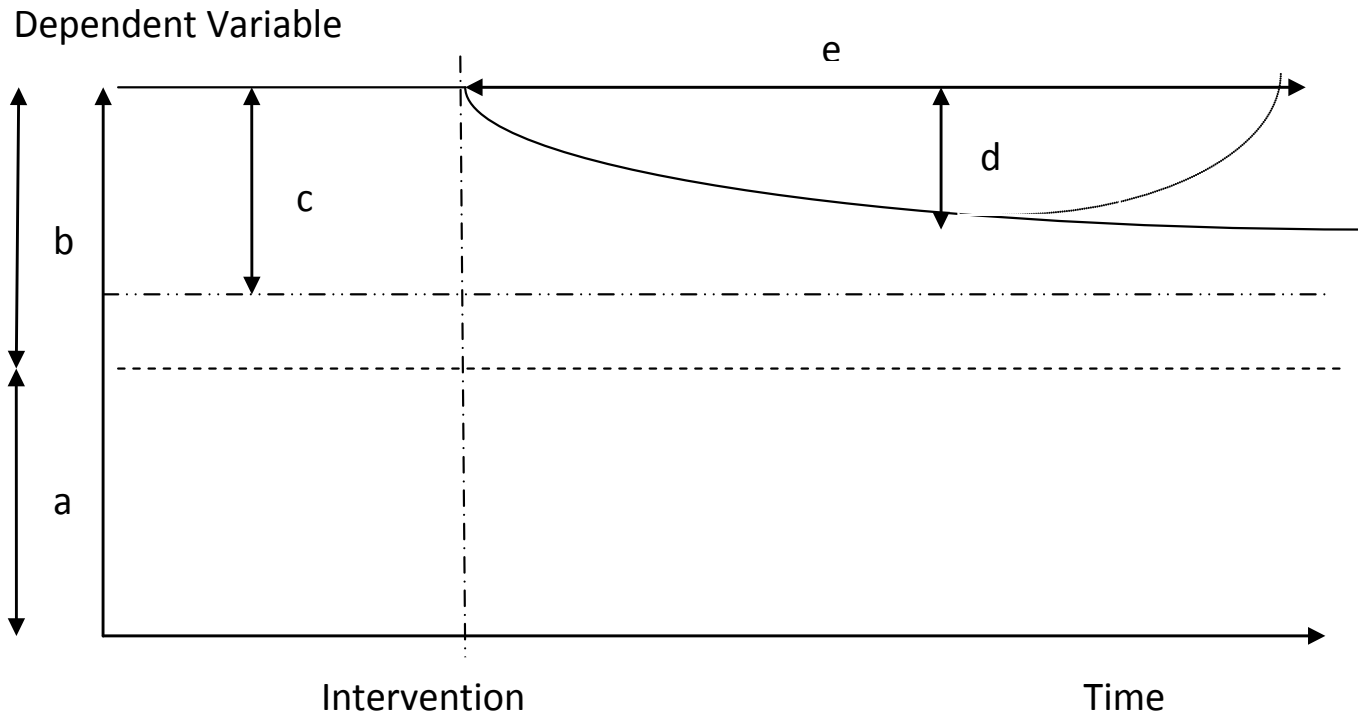
HSL- Considering W&R sector as a whole, levels of
sickness absence are approx. 30% higher than
those of other comparable sectors

MSDs and Ill Health – Aim

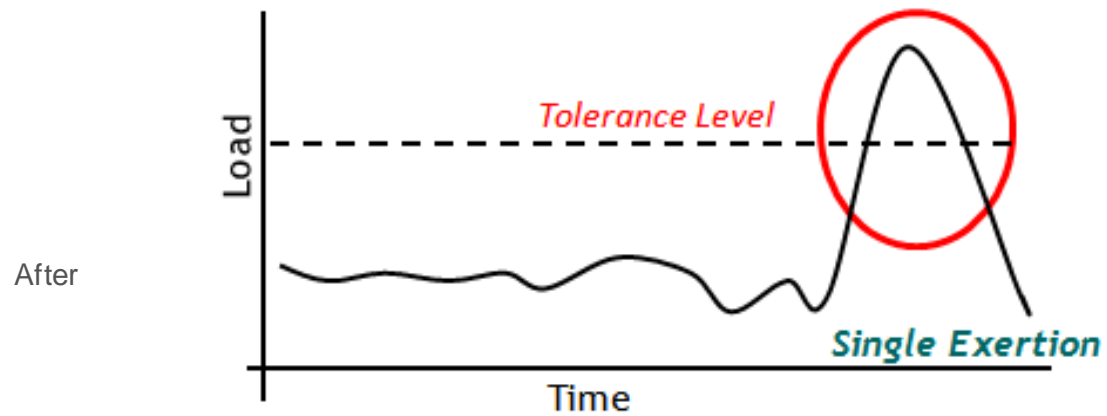
“Investigate common domestic waste kerbside collection and recycling practices in the UK to establish their relationship with operative’s health around musculoskeletal (MSD) injuries as a contribution to the risk assessment decision making process”.

Need to publish

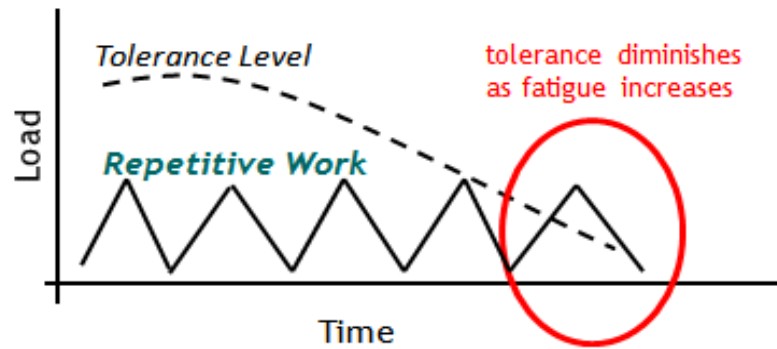
Consider Ergonomic Intervention



The work of McGill (1)

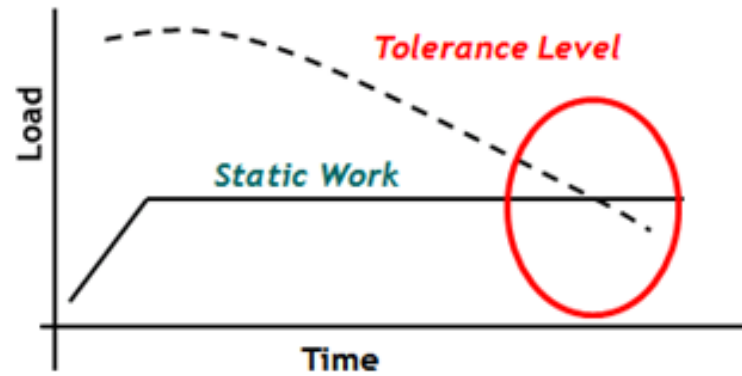


The work of McGill (2)



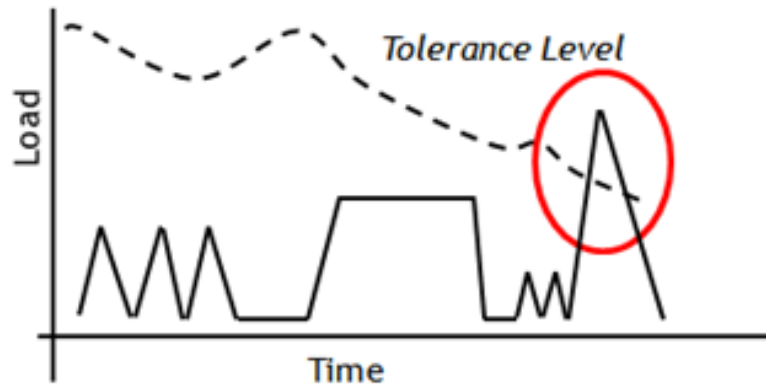
After DASH

The work of McGill (3)



After DASH

The work of McGill (4)



After DASH

Other Parts of the Body

Not just the back - Consider:

Shoulder

Knee

Lower Leg

Wrist

Literature Review

Extended search carried out

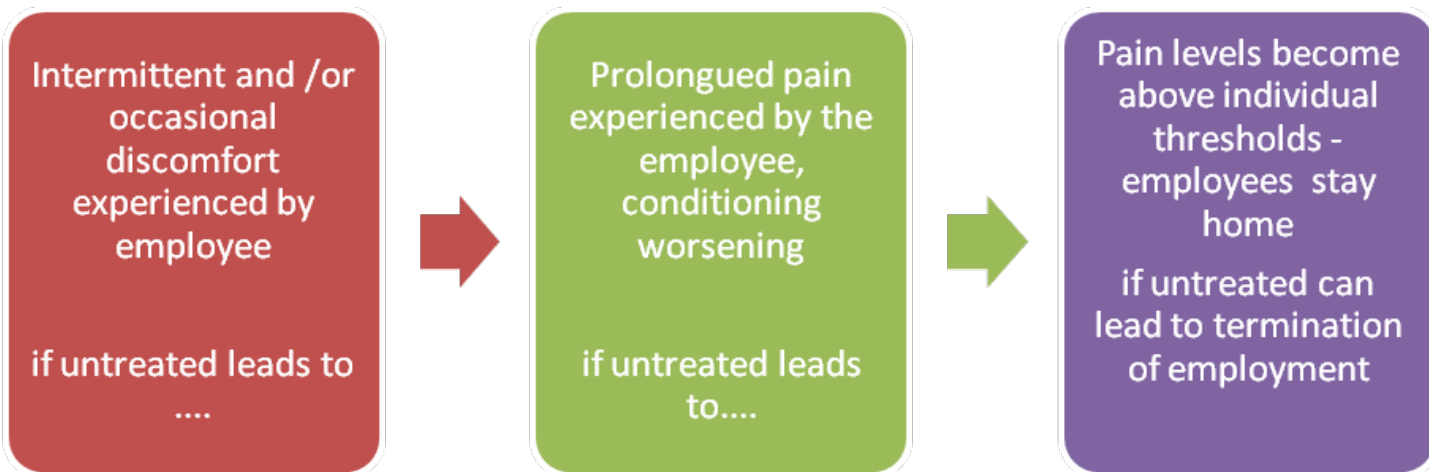
HSE /HSL Research Reports

Peer Reviewed information from university data
bases

Grey literature from local authorities...

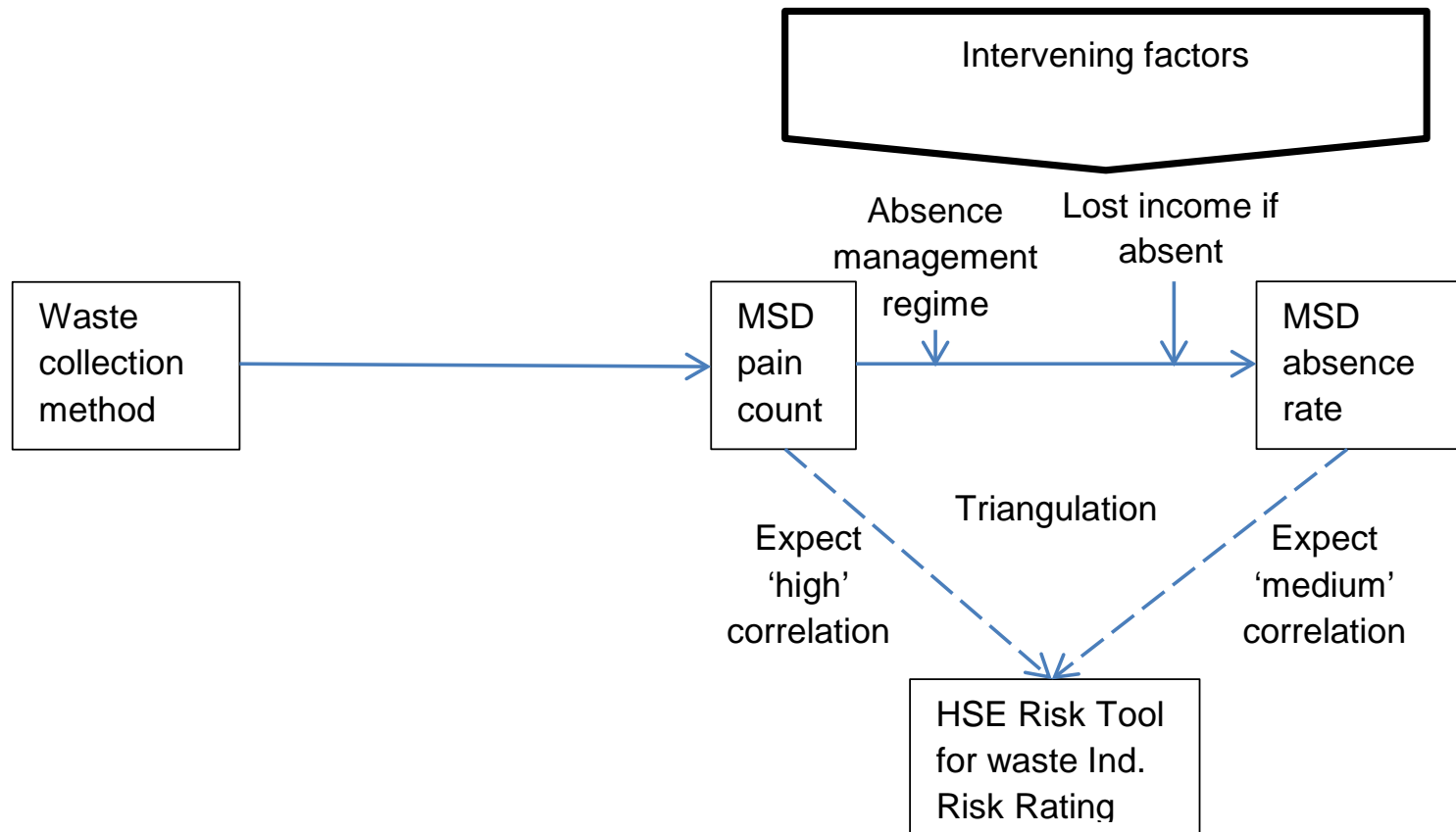
Global – providing in the English Language

Why we are doing this



Adapted from
Thomas (2012)

Methods Followed



Key Contacts

65 LA's contacted

20 provided information

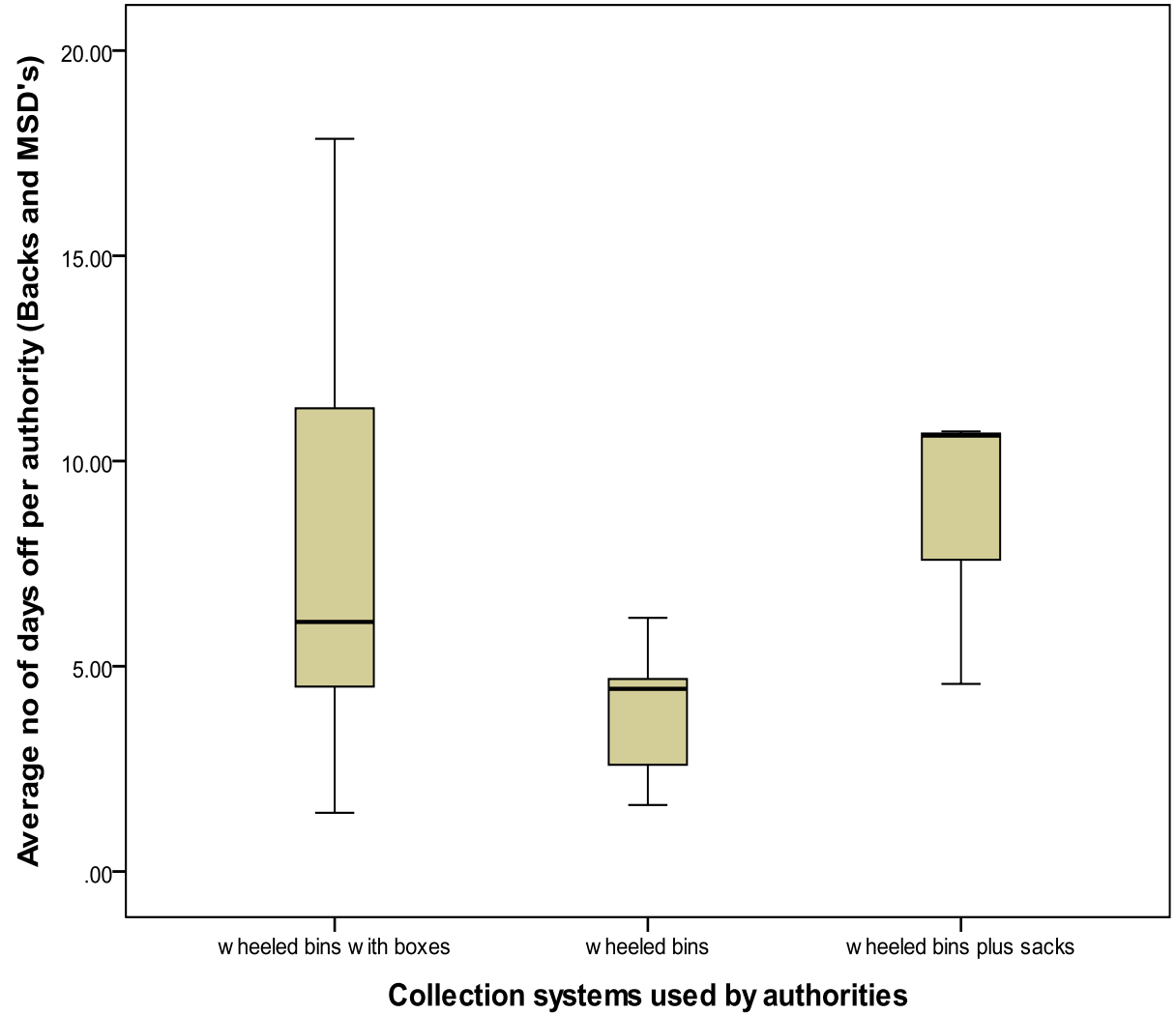
15 sets was useable

5 authorities – followed up work

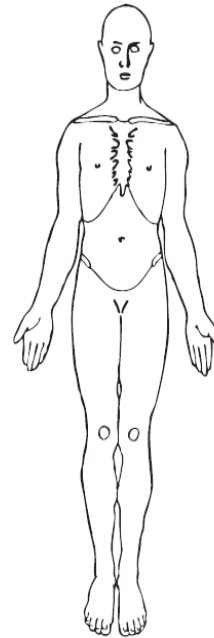
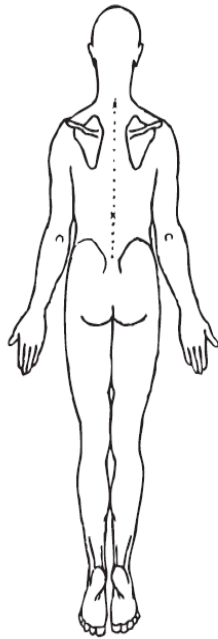
AVDC in effect a case study

Direct contact, FOI of limited use

Some Fin



Body Mapping – What is it?





Adapted from
Thomas (2012)

What is APC (APC=P/E)

APC = Average Pain Count

APC= No. of Pain Markers (P)/number of employees (E)

Epidemiological

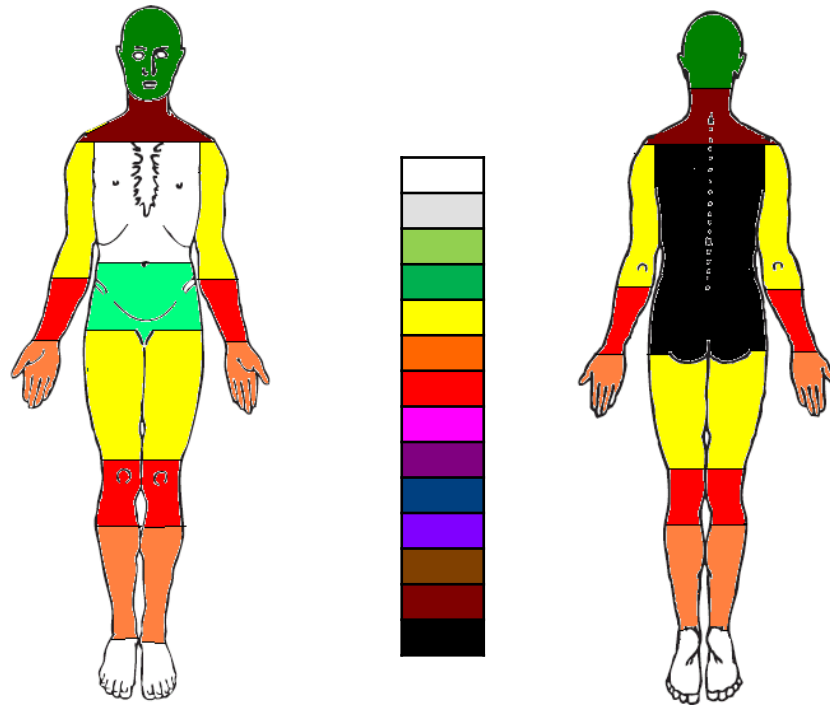
Simple process utilising amount of pain experienced within a work group

Is a very useful comparator of pain being experienced by different work groups

Worked Examples

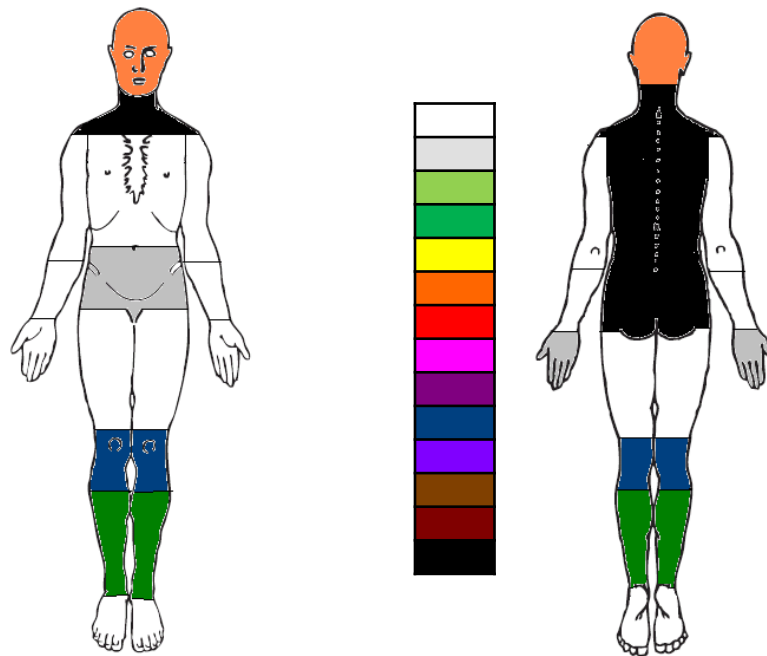
1. Comparison of pain amongst refuse collectors carrying out waste collection using different methods
2. Identification of pain experienced by office based staff at AVDC

Workstream 1 Example – Loader recycling Boxes



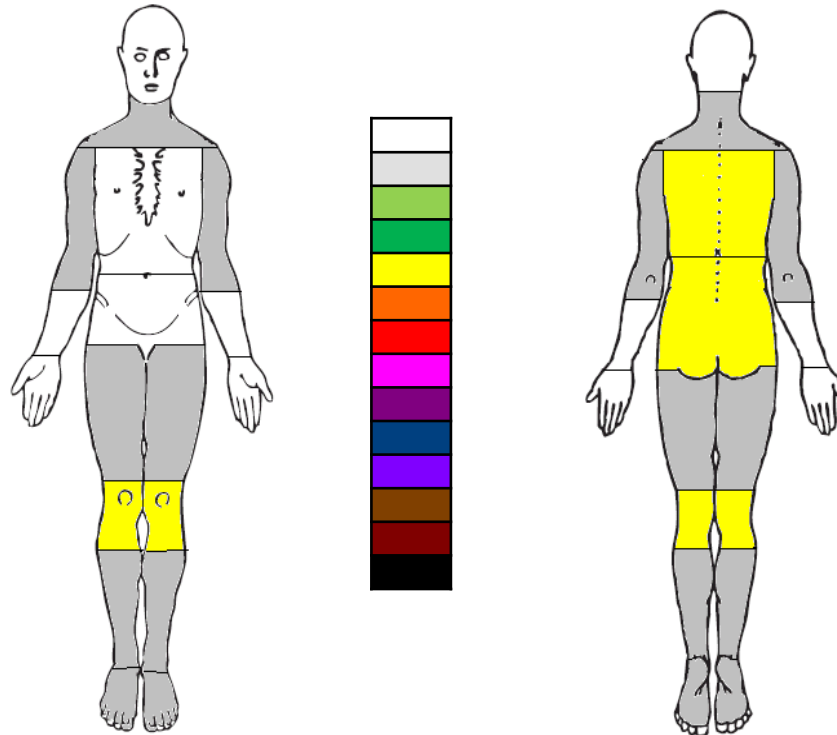
Adapted from
Thomas (2012)

Example – Drivers



Adapted from
Thomas (2012)

Example – All Service – Wheeled Bins



Adapted from
Thomas (2012)

System Risk Assessment



Health and Safety
Executive

Collecting, transfer, treatment and processing household waste and recyclables

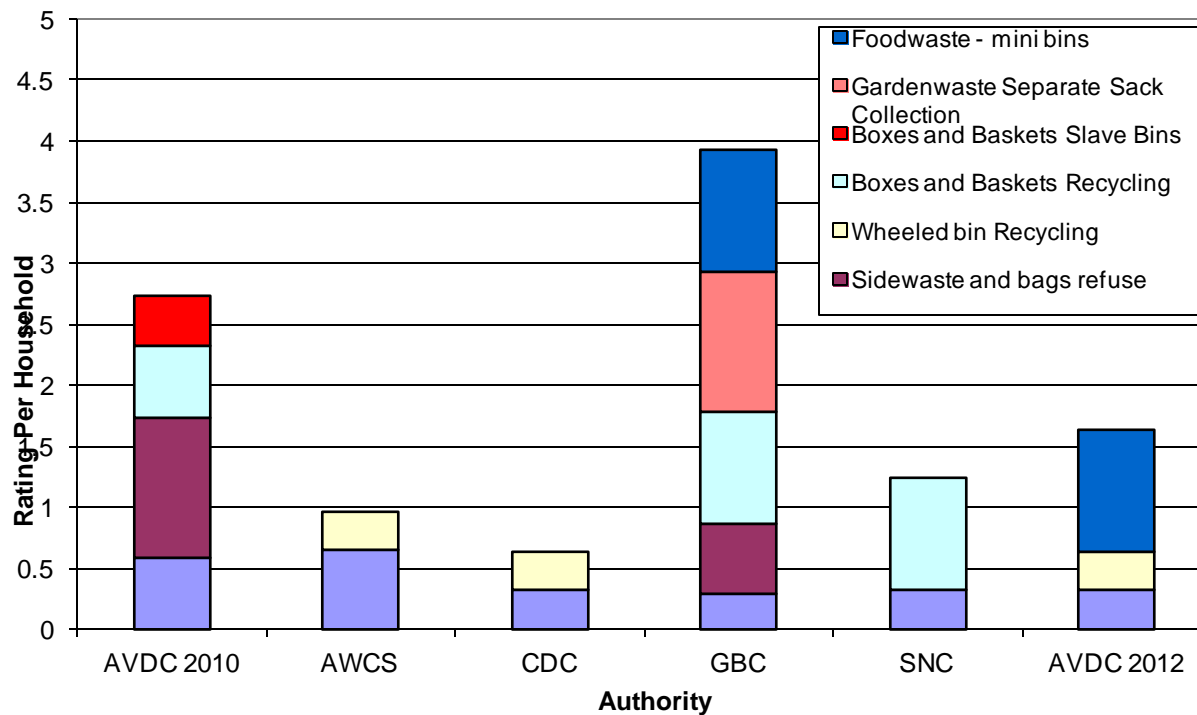
Assessment of the occupational health and safety risks of systems to provide HSE, local authorities, waste/recycling companies and others with data that will assist in the selection of the most appropriate system whilst meeting environmental targets

Prepared by the **Health and Safety Laboratory**
for the Health and Safety Executive 2008

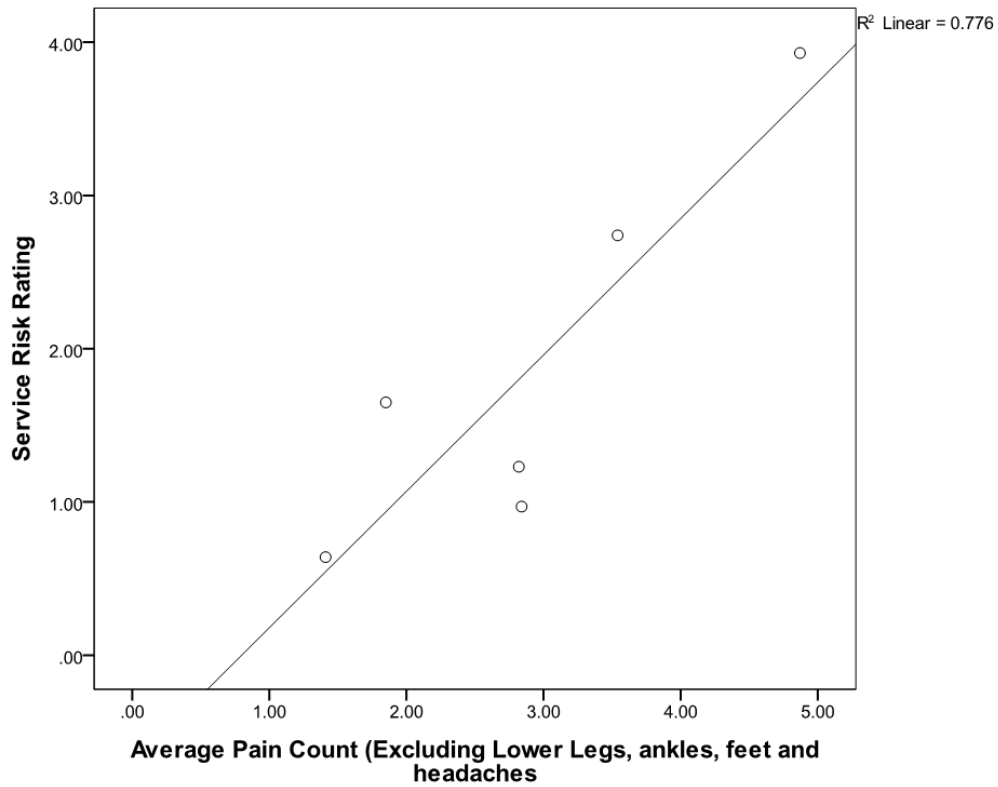
Shane Turner, Jane Hopkinson, Laraine Oxley,
Sandra Gadd, Nicola Healey & Peter Marlow
Health and Safety Laboratory
Harpur Hill
Buxton
SK17 9JN

RR609
Research Report

HSE's Risk Comparator Tool



Com



Sustainability – age comparisons

Authority	No of Participants indicating an age	Mean Age
AVDC 2013	48	38.25
AVDC 2010	62	39.42
AWCS	49	42.22
CDC	60	39.42
GBC	31	41.74
SNC	21	31.76
TOTAL	271	39.16

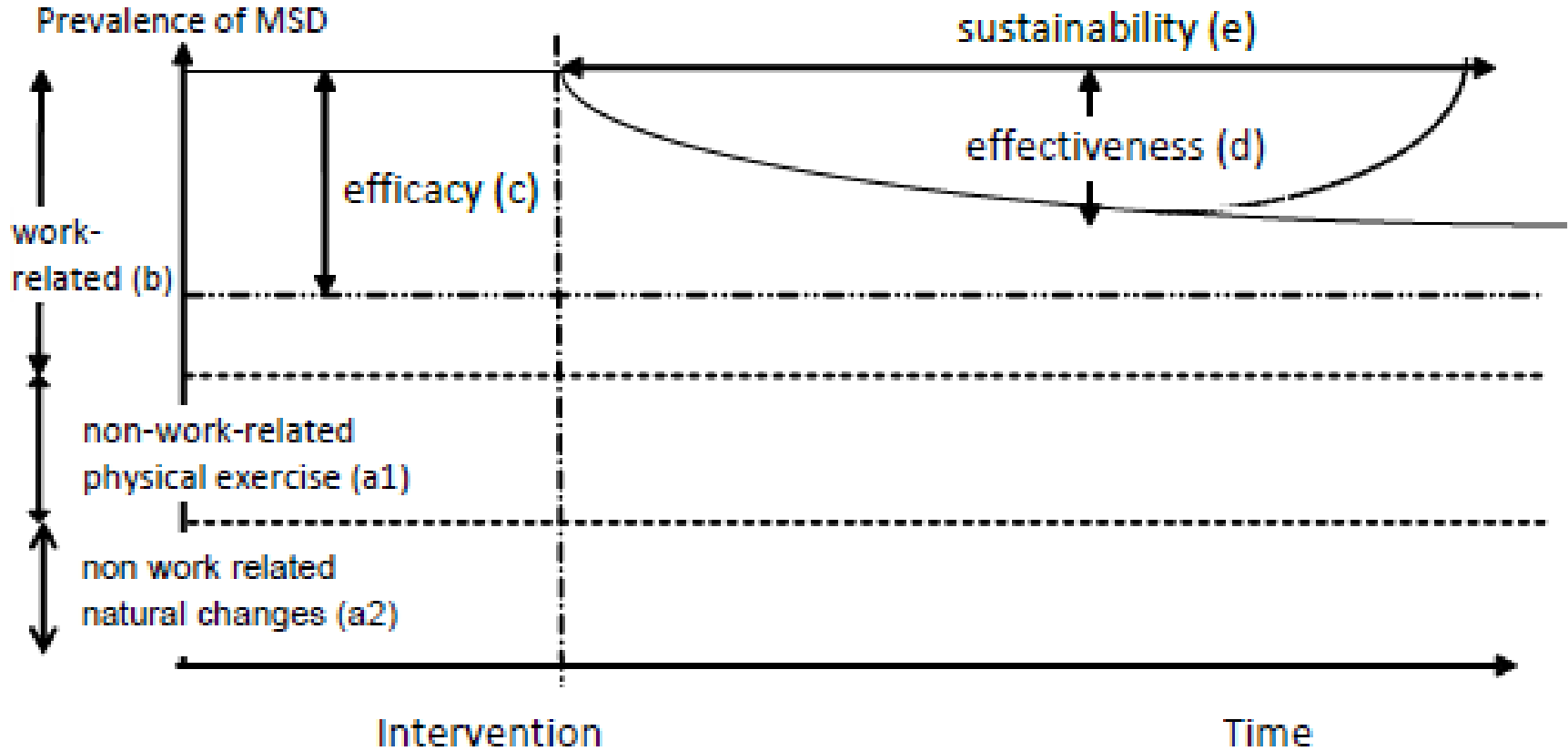


UNIVERSITY OF GREENWICH

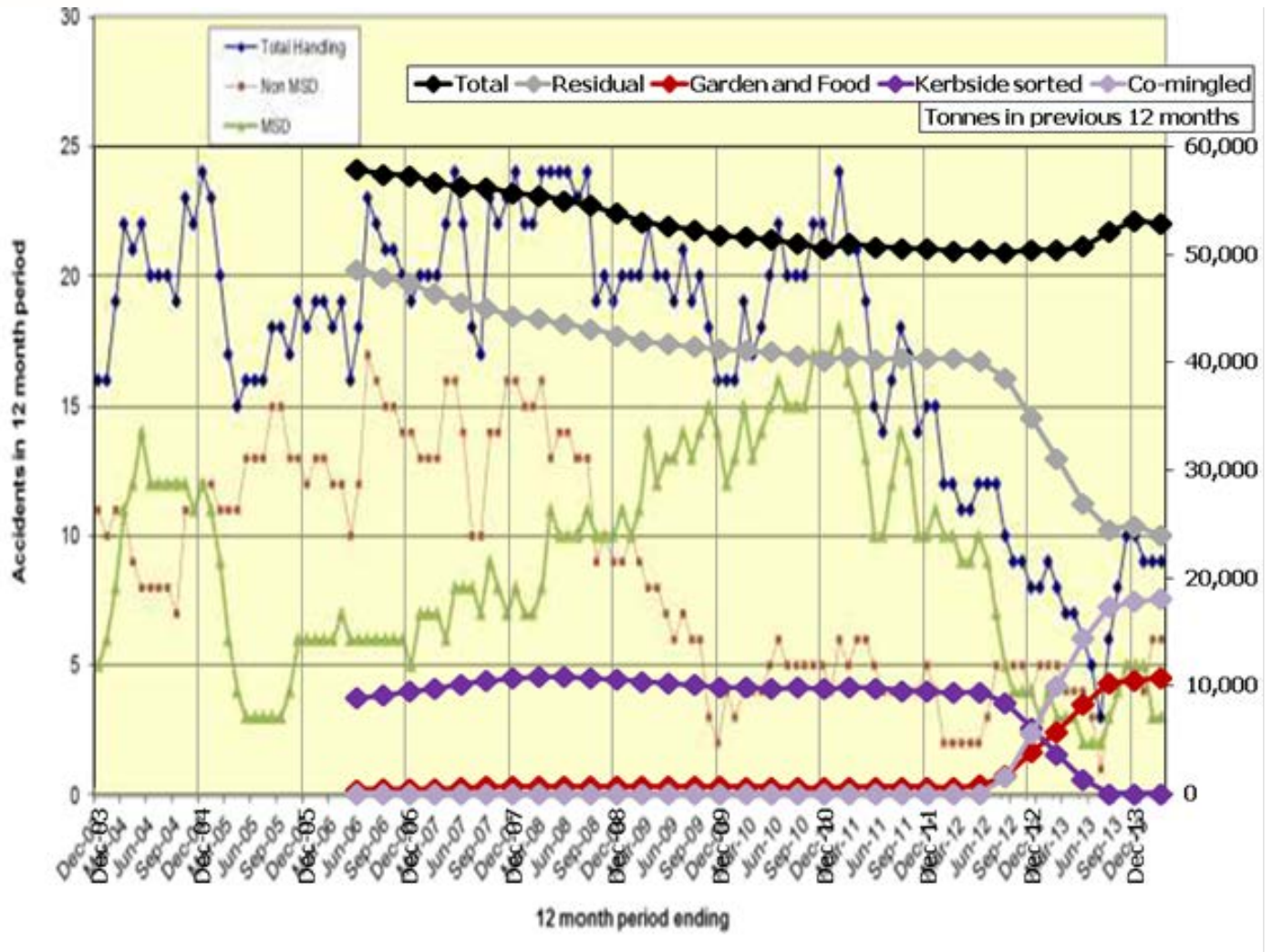
Recommendations

Further Study	6
Waste Industry	7
Use of Body Mapping	5
Others	2

Dependent Variable:
Prevalence of MSD



Case Study- From WYG Consultants



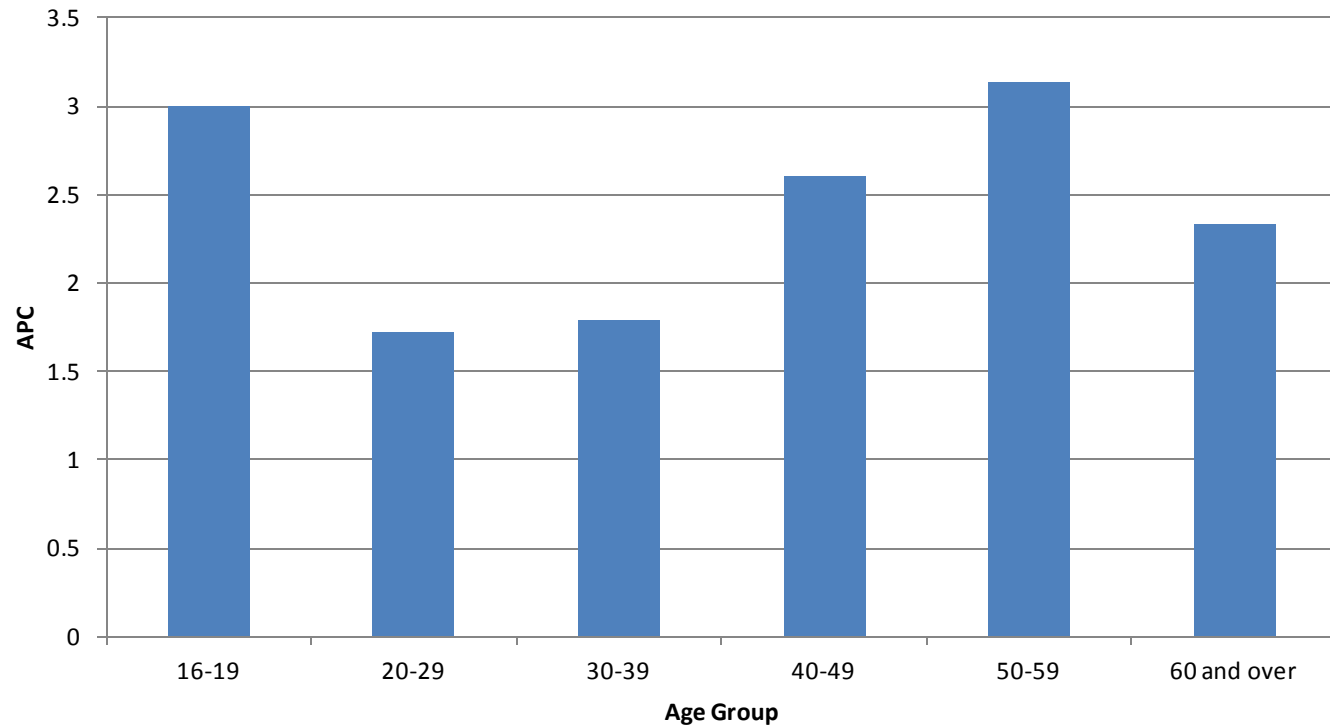
Comparison

Part of the body marked	APC 2010	APC 2013	APC 2014
Arm including elbow	0.54	0.24	0.17
Shoulder including neck	0.91	0.19	0.51
Forearm including wrist	0.14	0.26	0.12
Back (mainly lower)	0.86	0.33	0.64
Hand and Fingers	0.20	0.13	0.06
Upper Leg	0.17	0.11	0.25
Knee	0.61	0.43	0.56
Lower Leg and Ankle	0.49	0.22	0.45
Total	4.46	2.31	3.00
Total less foot, toes and head	4.02	2.07	2.35
Percentage Response Rate	96	71	95
Average Age (years) by those declaring	38.42	38.25	38.63
Average length of Service by those declaring	6.20	5.88	8.03

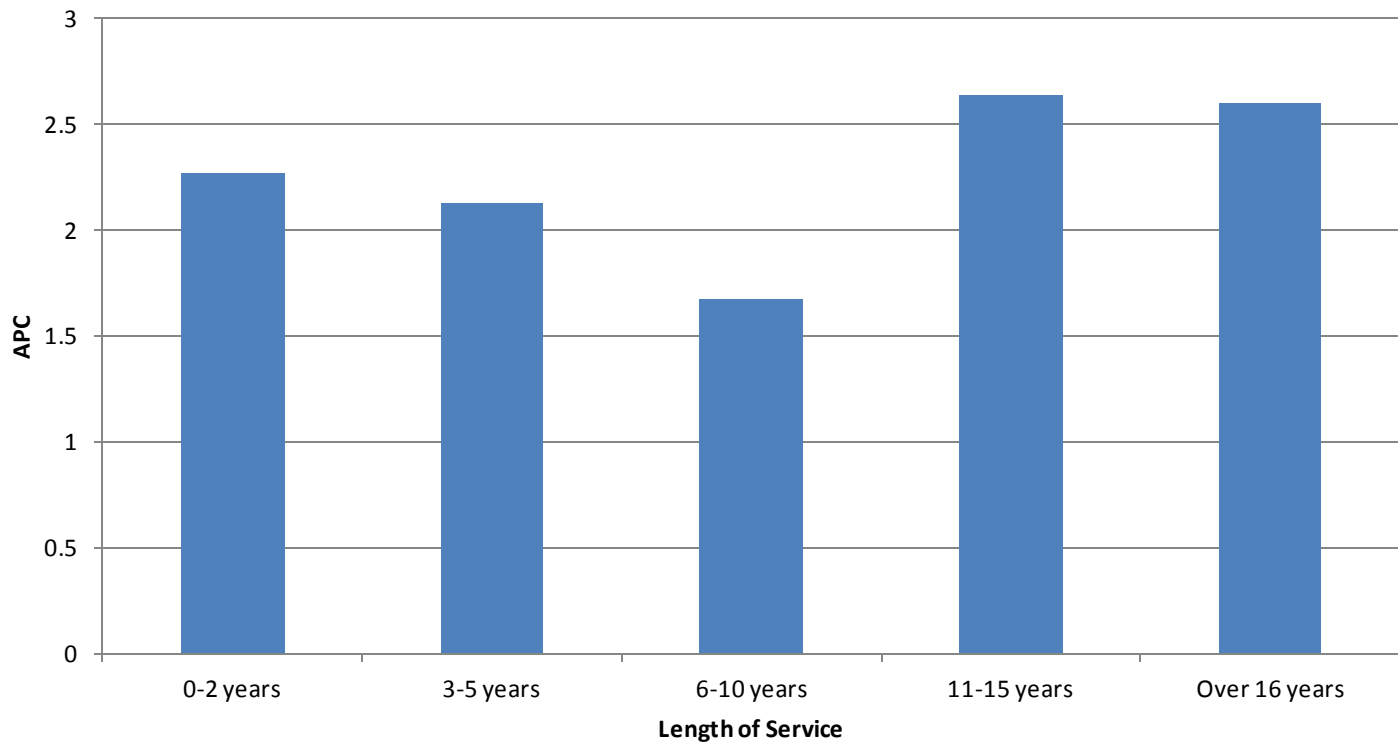
2014 APC

Activity	APC (Total less foot, lower leg toes and head)
Loader All Activity, including Wheeled Bins/Food waste - Trade Waste	1.96
Loaders- Those identifying as predominantly Food waste collectors	2.73
Loaders - Wheeled Bins Only	2.33
Mixed Activity –Loaders & Drivers	2.33
Driving all activity	2.67
Total	2.35

Comparison of APC with Age



Comparison of APC with Length of Service



On-going Challenge

Campaigner threatens councils over commingled collections

19 June 2014 | By Chiara Francavilla



Way Forward? For UK; Issues ?

Promoted by APSE



Summary

Literature review suggests relationship

Absence ill health data suggests a relationship but limited statistically significant data

Body mapping shows a relationship

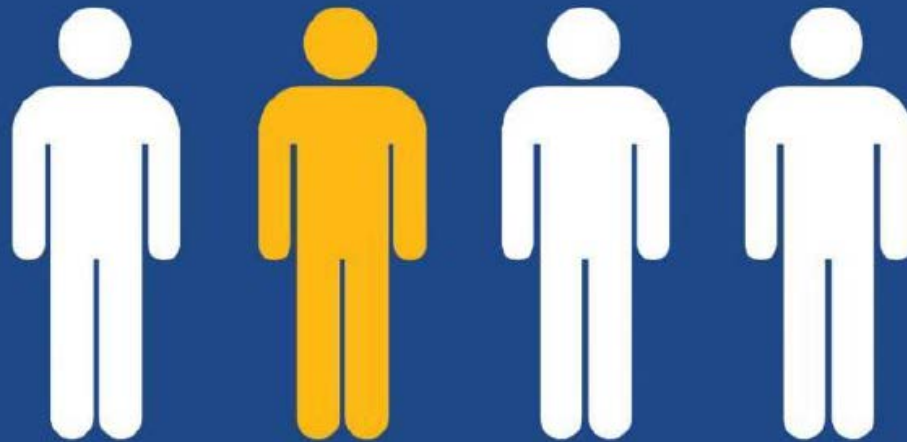
RR 609 developed from literature

Weakness in traditional H&S advice

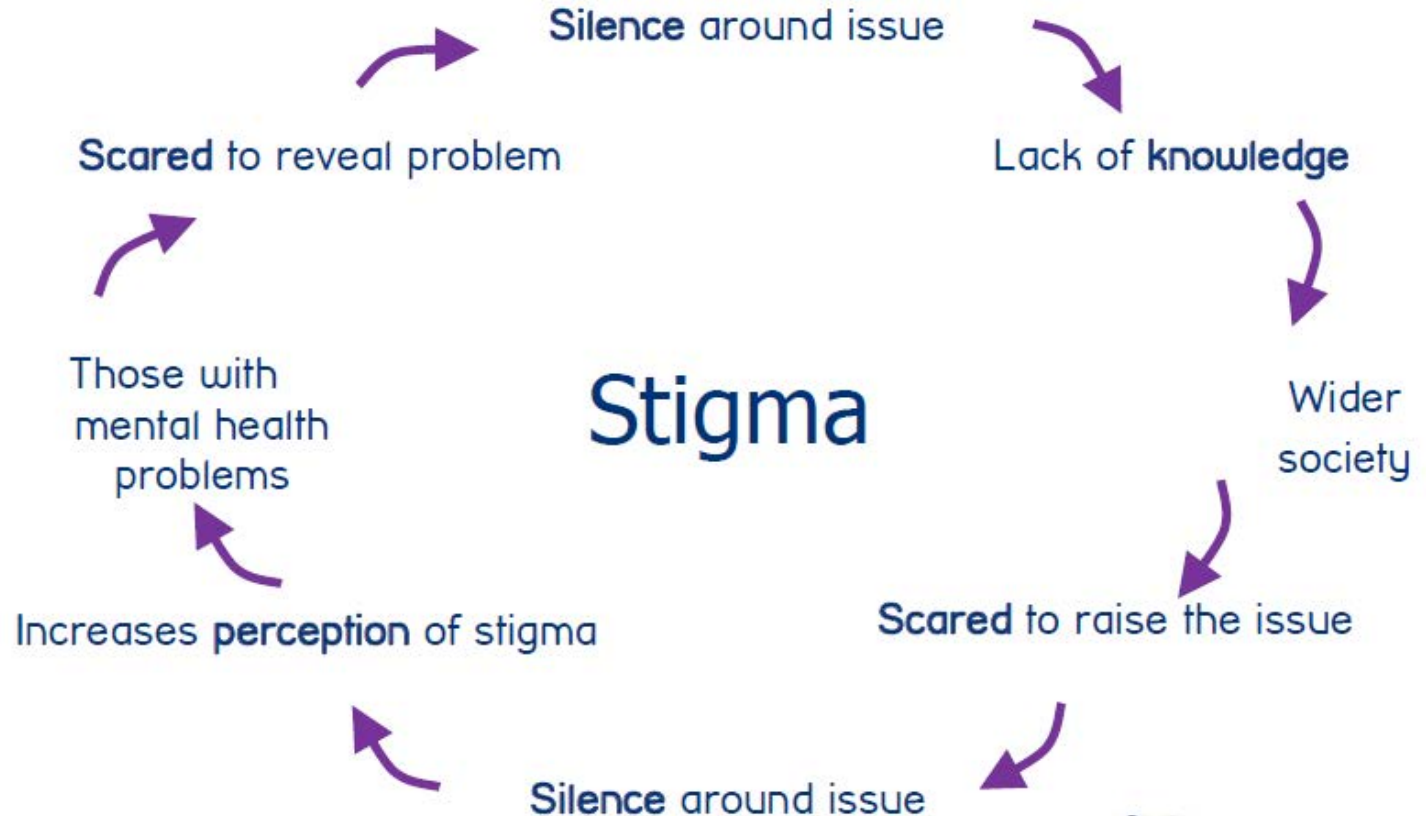
Co incidence???

Mental Health Issues..

1 in 4 people experience a mental health problem in any given year



Consider...



Work-related stress

Background

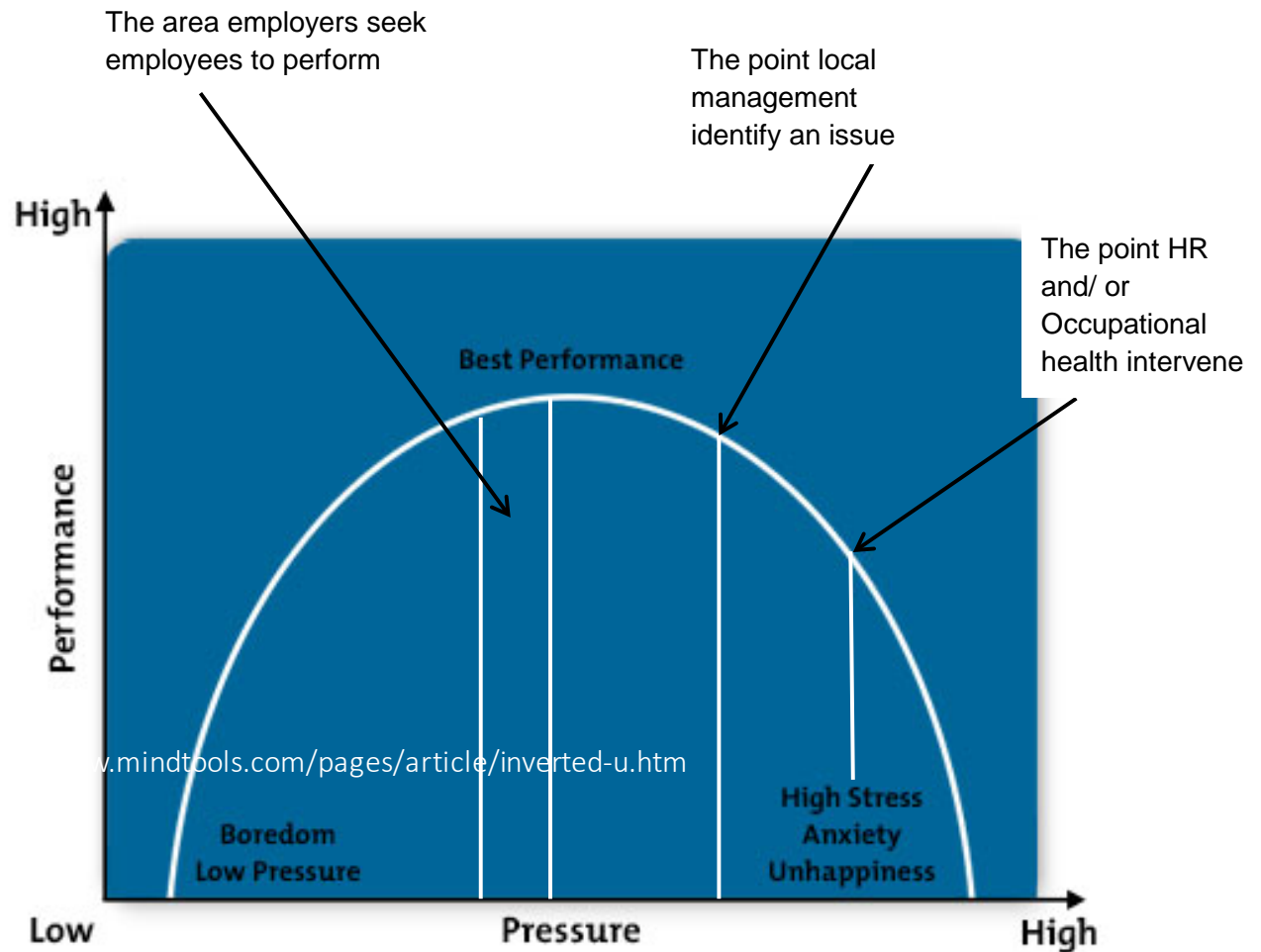
Your organisation's policy

HSE management standards

- ???????

Stress risk assessment

Yerkes-Dodson Law



The 1992 Rio Declaration on Environment and Development

No 1 -

People are entitled to a healthy and productive life in harmony with nature.

Raising the retirement age- issues?

IOSH EWMG Initiative

Listen or translate

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Free safety training for waste collection industry

20 November 2015

A new training programme has been launched to help keep waste collection workers safe.



The Institution of Occupational Safety and Health's (IOSH) Environmental and Waste Management Group (EWMG) has put together the bespoke training package.

The Group felt that general health and safety training alone was no longer sufficient in the industry and worked closely with IOSH's Public Services Group and the Chartered Institution of Wastes Management (CIWM) to produce the training.

The training, called Waste collection health and safety management, was launched on Thursday 19 November at a meeting of IOSH's Yorkshire Branch.

The programme is being made available to all local authorities in the UK. It is specifically aimed at team leaders who have a responsibility toward staff who collect waste and face many hazards and risks.

These hazards and risks include manual handling, mental health issues, insufficient hygiene standards and reversing refuse collection vehicles.

The material was created following consultation with the WISH Competency Working Group, Local Authorities (LAWS) and the HSE.

Related pages

You may also be interested in the following pages:

- [The burden of cancer in Great Britain: Cutaneous melanoma and exposure to sunlight \(2015\)](#)
- [IOSH well-being](#)
- [IOSH worker policy](#)
- [Move more - impact of better techniques or behaviour at work](#)
- [IOSH health and safety](#)

IOSH Twitter

 [IOSH @IOSH_tv](#)

Check out our new video which helps you help tackle mental health in the workplace...

Further Information

Non H&S Background

<https://www.gre.ac.uk/ug/ach/oshe>

Existing H&S Background

<https://www.gre.ac.uk/pg/ach/saheen>