MUSCULOSKELETAL INJURIES WITHIN THE PODIATRY PROFESSION:

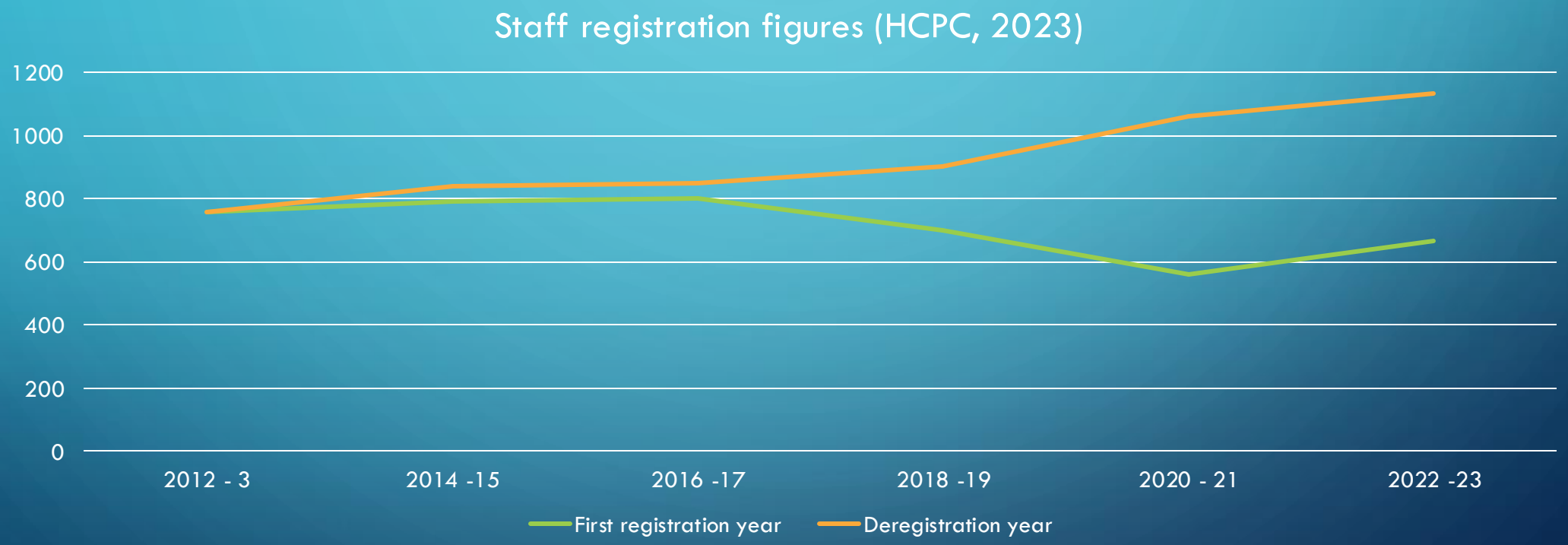
RISK FACTORS AND HOW TO REDUCE THEM

MSK INJURIES IN HEALTHCARE

- Do we ever think of our own MSK health when practicing?
- Healthcare professionals suffer some of the highest levels of workplace MSK injury (66%) in their professional career (Demou et al, 2018; Ganer, 2016)
- For those practicing podiatry this is significantly higher (76%) *(Williams et al, 2017)*

Why is this? How can we reduce this? How can we encourage longevity in podiatry?

NUMBERS OF STAFF JOINING THE PROFESSION COMPARED TO THOSE LEAVING



43% of those leaving since 2020 were for reasons other than retirement

WHY DO PODIATRISTS STRUGGLE IN THE WORKPLACE?

- - stress, burnout, work-load, paperwork?
- - what about MSK health?

- What aspects of our job cause us MSK problems?

IDENTIFIED RISKS TO MSK HEALTH

Workplace Factors

- Heavy physical work
- Sedentarism
  - Linked to back and neck pain (da Costa et al, 2022)
- Repetitive work
- Poor and/or awkward postures
- Exposure to psychosocial risks
  - (high workloads, tight deadlines, lack of control on working methods)

Lifestyle Factors

- High body mass index
- Smoking
- Physical activity and sport during leisure time

Individual Factors

- Gender (being female)
- Age
- MSK conditions arising not related to work (i.e. rheumatoid arthritis)
- General health and co-morbidity

Crawford et al (2020)

PREVIOUS RESEARCH?

- Limited
- Focus on nail dust and inhalation
- That which has been performed on MSK health has indicated tendency to pain in the shoulder/neck (Adams et al, 2021), lower back (Losa et al, 2011; Leah and Birtles, 2014) and hand/wrist (Halford et al, 2006) due to instrument use.

SPECIFIC RISKS?

- Much in healthcare has been reported to affect the upper limb
- Work-related upper limb disorders have been shown to have a direct link with activities such as
  - Gripping
  - Insufficient recovery time – high caseload
  - Poor posture
  - Non-neutral wrist position
  - Repetitive movements and overuse – RSIs.
    - Symptoms can include aches, pain, swelling, numbness, tingling or cramps
    - Much goes un-reported

(Juntura et al, 1998)

And… stress. Stress makes muscles and soft tissues become tense, and more prone to injury

- These problems can be made worse with an awkward and static posture.
- Accessing the foot at an inappropriate height or position
  - Ergonomic aids in clinic – do we use them?

    (Ganer, 2016)

    - Ergonomic aids need to be used effectively

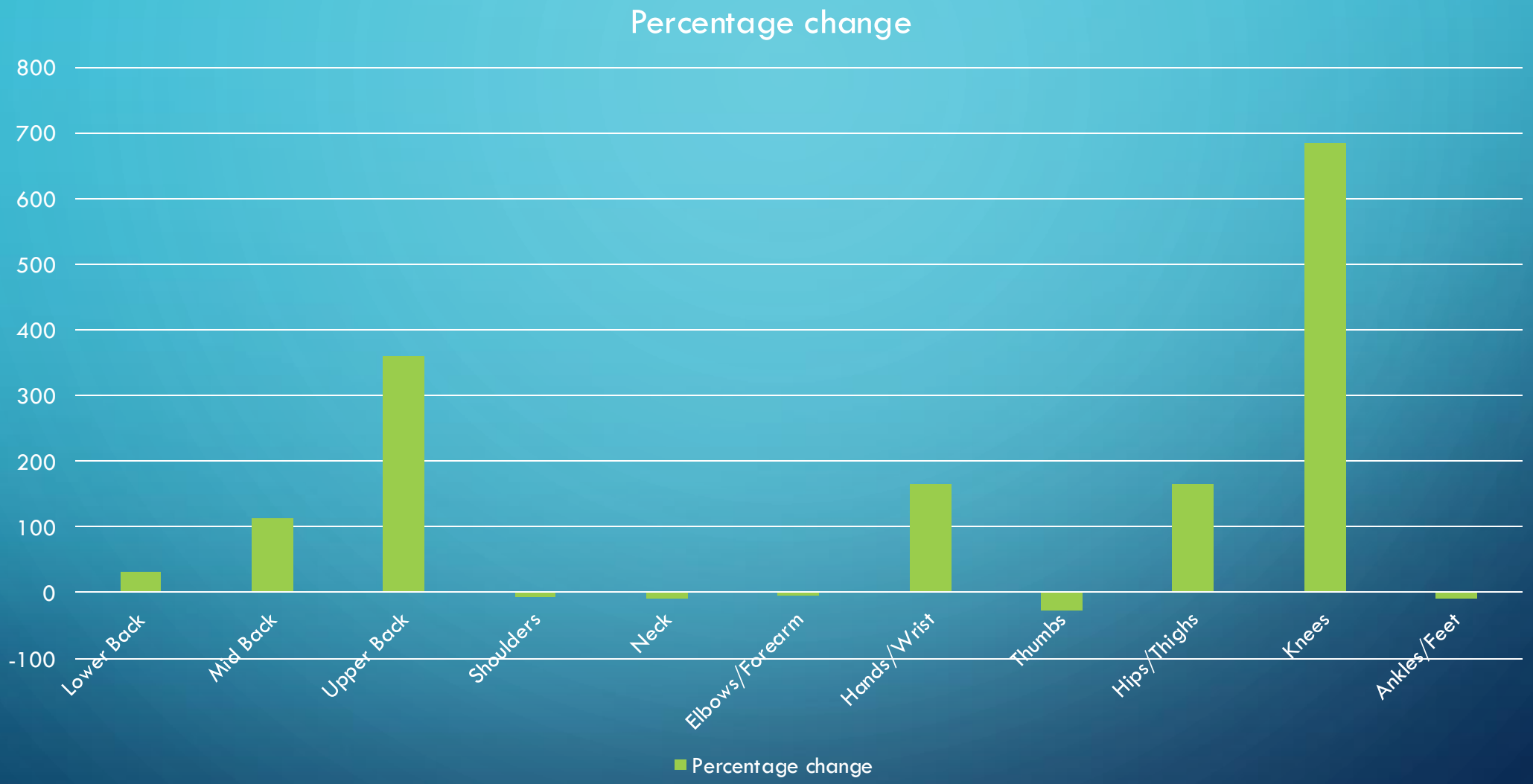
- The risk between upper arm elevation and shoulder pain
  - Just an increment of an extra 1% arm elevation over the working day can be linked to shoulder pain and tendonitis (Ganer, 2016)

INDICATIONS FROM WORKING IN THE PANDEMIC

- Research performed during the pandemic has started to draw the links between component workload and MSK pain, which the college has since built upon this year. (Adams et al, 2021)
- Different patients/treatments, different levels of component workload.

KEY FINDINGS

- **The type of work undertaken was highly relevant for reported pain:**
  - An increase in domiciliary work resulted in both higher levels of reported pain (on a scale of 1-10) and higher frequencies of pain. It also resulted in increased frequencies of both back pain and knee pain.
  - An increase in distance consultations (telehealth) resulted in increased frequencies of knee pain


Percentage change
800
700
600
500
400
300
200
100
0
-100
Lower Back
Mid Back
Upper Back
Shoulders
Neck
Elbows/Forearm
Hands/Wrist
Thumbs
Hips/Thighs
Knees
Ankles/Feet
Percentage change

WHY?

- Doms – less options for ideal positioning
  - Slumped posture, excessive flexion of the neck
  - As little as 20% flexion has been shown to impact on neck pain (Leah and Birtles)
- Ergonomic aids on doms – a compromise – easier treatment vs carrying. And then, can you use them?
- Podiatrists are often in cramped awkward positions for lengthy periods of time, which puts specific demands on the body.

RCPOD AIMS

- To improve workforce retention levels
- Identify occupational risk factors of podiatry
- To look at ways in which we can safely incorporate the component workloads into our profession to mitigate these risks
  - Reasonable adjustments, ergonomic aids, mechanisms for reporting problems, activities and resources for maintaining MSK health
- Creation of an online resource for staff to reference in order to report injury, and to address and manage issues of MSK health.

RCPOD – WORKPLACE INJURY

- How are we going to achieve this?
- Updated survey launched at the Primary Care Conference in May
  - On Podiatrist's daily work
  - On MSK injuries suffered
  - On perceived risk factors and contributing risk factors

RCPOD RESULTS

- 95% had experienced MSK pain or injury as a result of their work, 77% in the previous 12 months. The most common causative factors or this were attributed as:
  - Activities of repetition
  - Bending or twisting your back in an awkward position
  - Working in the same position for a long period of time.
- These were also the most common perceived risks of the profession, along with
  - Working in awkward or cramped conditions
  - Continuing to work when injured or hurt

3 - HOME VISITS - PROBLEMS

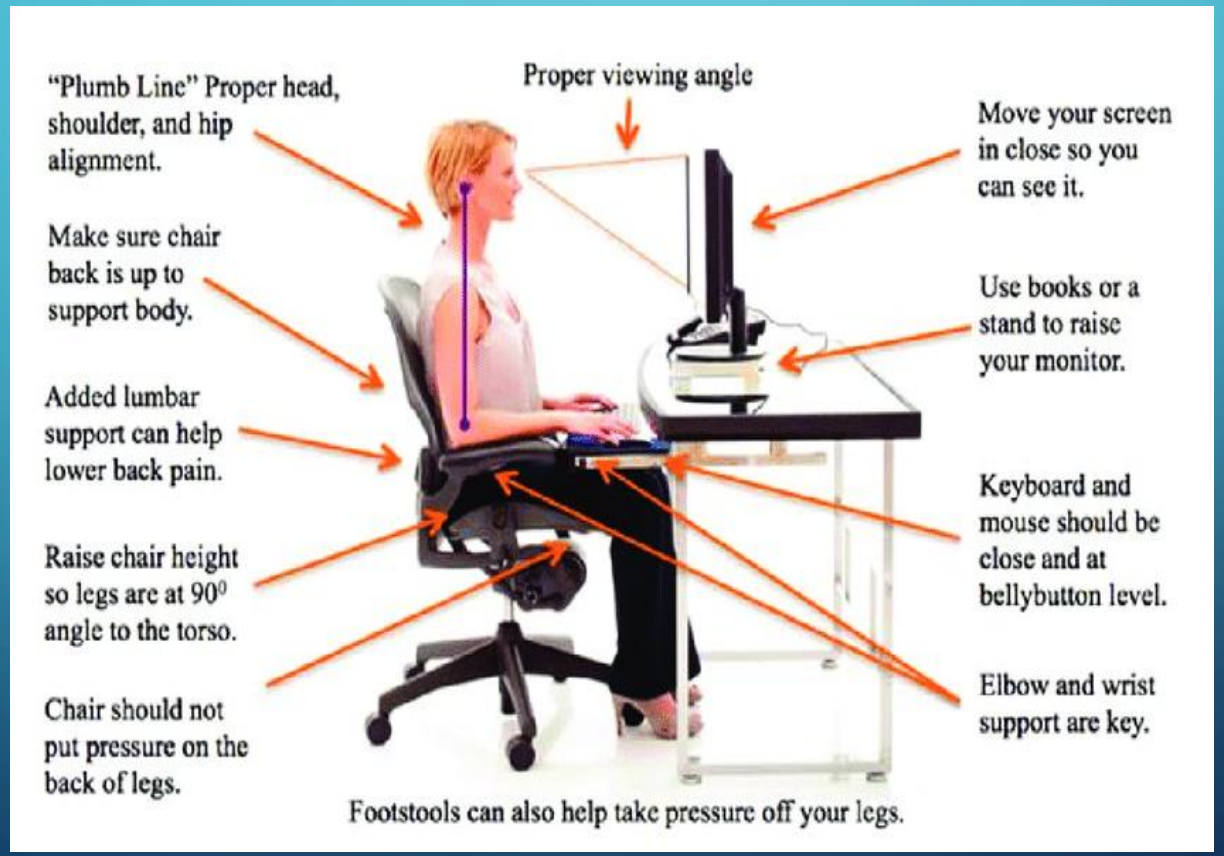
- Working outside of the clinical setting, in cramped, awkward conditions:
  - Dom bags – why do we carry so much?
    - Reduced stock
    - Ergonomic aids
    - Joint visits
  - The HSE Report 2008: Musculoskeletal disorders in podiatry and chiropody professionals recommends:
    - Kneeling mat or kneeling stool
    - Limb support

TELEHEALTH/DISTANCE CONSULTATION

- Location? Clinic or:
  - Kitchen table, car, sofa?
  - We don't all have a home office
  - Many people don't have equipment to help for home-working
- Muscle imbalance can impact on soft tissue and result in injury (Renstrom and Johnson, 1985) and as such, incorrect desk set up can result in excess stress to some muscle groups leading to pain and injury.

RECOMMENDATIONS –

- Some of these risks we can address.
- 1 - Display screen equipment assessment (DSE) – do we do this?



Indriyani et al, 2018

IMPACT OF MSK INJURY ON CAREERS…

- 46% of those who had retired, had retired at least partially due to MSK injury (remember 43% from the HCPC left for reasons other than retirement)
- 15% reported specifically that they had retired early due to MSK injury
- 11 people were no longer able to practice clinically as they had sustained MSK injury causing issues to their hands, back and neck

INDICATION OF PAIN AND IMPACT

- The most common site of injury reported was to the back, with 1/3rd of ppts experiencing this in the preceding 6 months alone. (supports work on dentistry)
- 65% experienced this daily to a few times a week
- 70% do not stop working because of this

- The main coping mechanisms were:
  - Analgesia – 64%
  - Exercises - Therapeutic exercises (45%), Yoga/Pilates (28%), other (23%)
  - Just putting up with it: 46%

- With this in mind…

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