



TELEWORKING ERGONOMICS

Best Practices for the “New Normal”

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IN THIS PRESENTATION

- Who am I?
 - My research
 - Why I'm here
- Intro to Office Ergonomics
 - Intro to teleworking
- Queen's Ergonomics Consulting Program
- Our Teleworker Survey Research
- Our Recommendations Moving Forward
- Take-home points





WHO AM I?

Tara Diesbourg, PhD, CPE



A LITTLE BIT ABOUT ME...

- BHK '09, MHK '11 – University of Windsor
- PhD '18 – Queen's University
 - Occupational Biomechanics and Ergonomics Lab
 - Office Ergonomics Consultant/Manager
 - Queen's Ergonomics Consulting Program
 - Kingston Police Department
 - Canadian Back Institute – Federal and DND Offices
- Oakland University – Assistant Professor
- Certified Professional Ergonomist '20



University
of Windsor



Queen's
UNIVERSITY

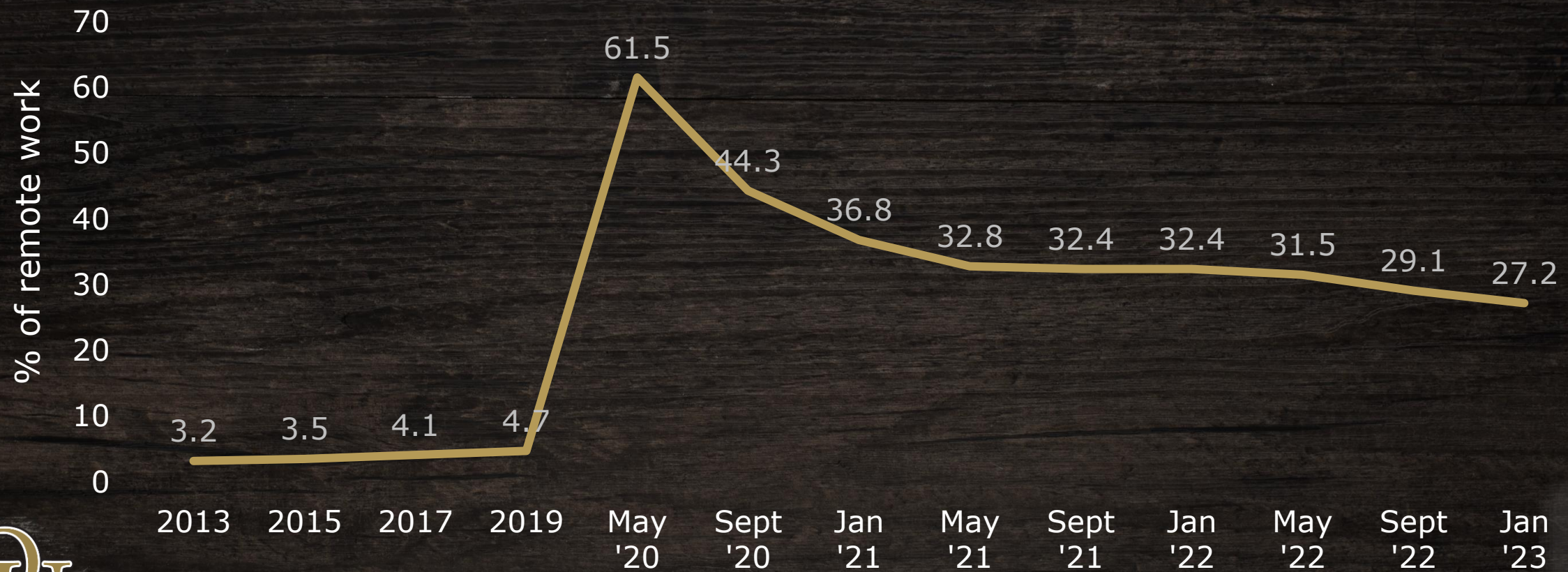


A LITTLE BIT ABOUT MY RESEARCH...

- Spine Stiffness in the workplace
 - Aging workers
 - Pregnant workers
 - Occupational Stretching Programs
- And then...COVID-19 happened
 - ~~In-person data collections~~
 - Survey research
 - Pregnant first responders
 - Esports players
 - **Office ergonomics assessments for telework**



A LITTLE BIT ABOUT WHY I'M HERE...



From National Bureau of Economic Research Working Paper 28731.



INTRO TO OFFICE ERGONOMICS

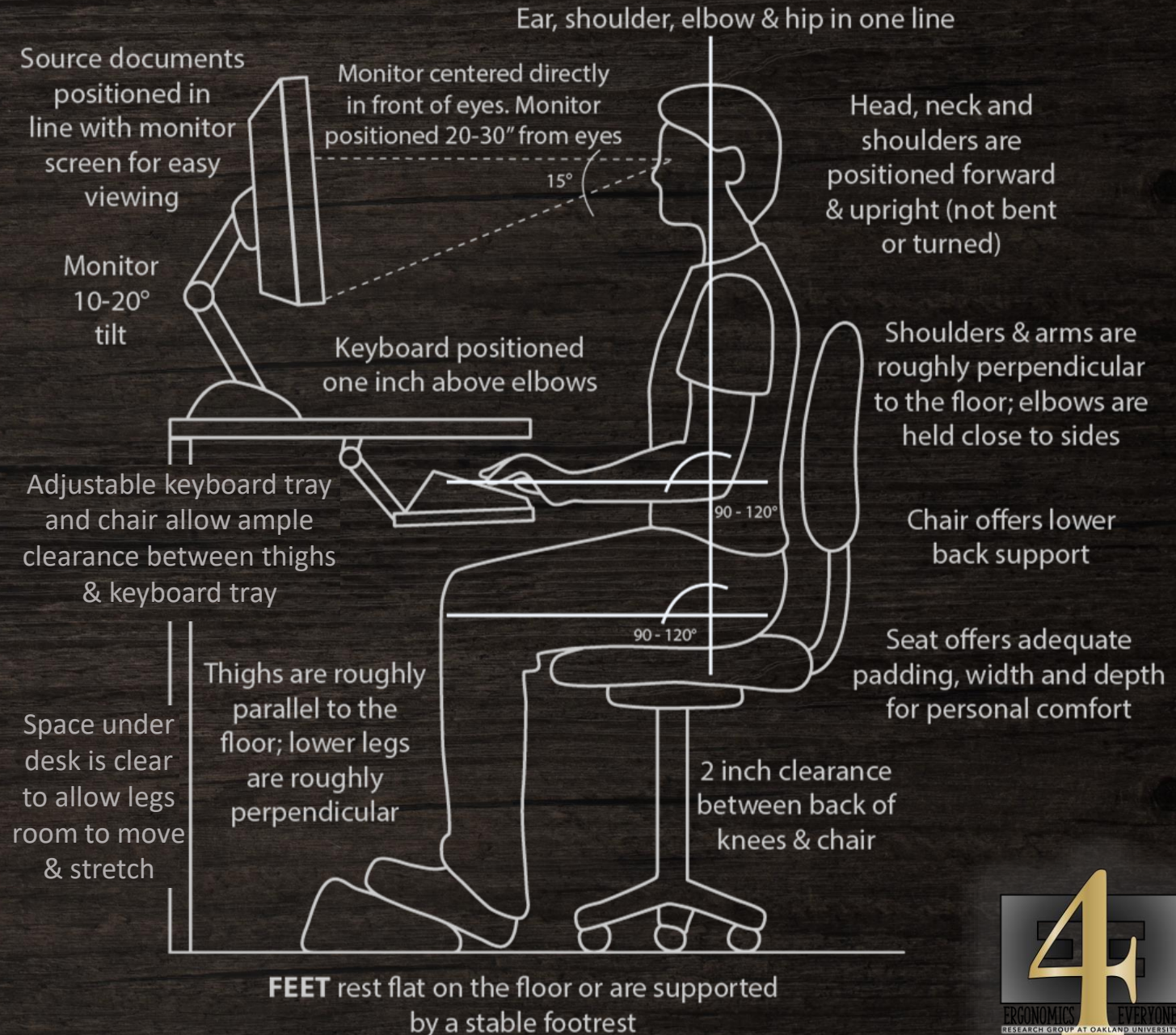
WITH CONSIDERATIONS FOR TELEWORK



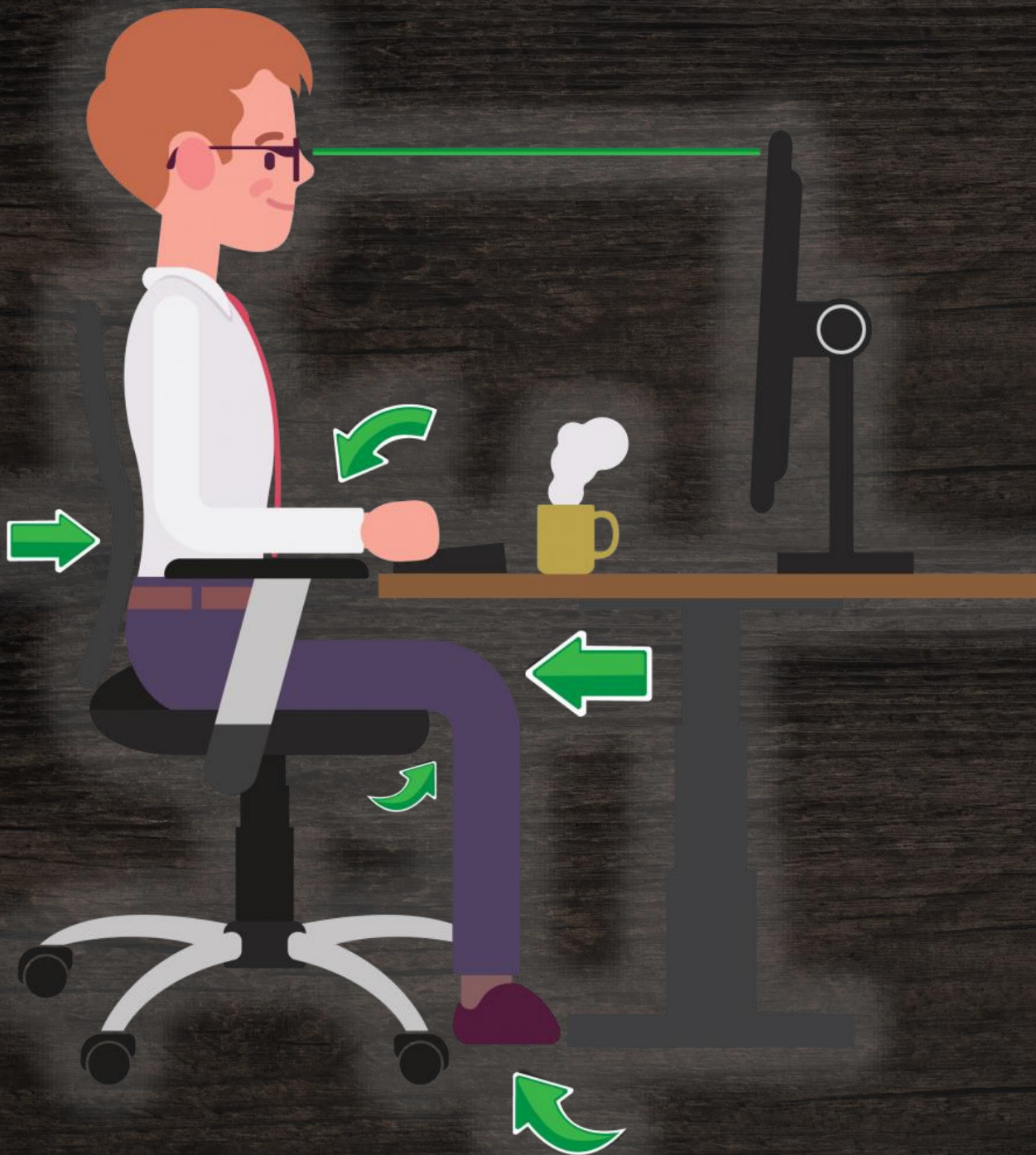
THE ERGONOMIC WORKSTATION

NOT AS SIMPLE AS IT SEEMS...

- A lot of factors to consider, especially when talking about telework



THE IDEAL POSITION











**STABLE,
SUPPORTED, &
COMFORTABLE**



ERGONOMIC OFFICE WORKSTATION

- Fully-Adjustable chair that fits the user
 - Accessories to improve fit
- Sturdy desk that fits the user
 - Clearance under desk for legs
- Adjustable computer monitor
 - Accessories to improve adjustability
- Input devices to



A top-down view of a dark wooden desk. In the top left corner, a portion of a white computer keyboard is visible, showing keys like 'alt', 'ctrl', and 'shift'. In the top right corner, there is a white coffee cup filled with dark liquid, sitting on a blue saucer. A brown pencil lies diagonally across the upper right section of the desk.

WORKING FROM HOME

Examples

KITCHEN SETUP



BASIC HOME OFFICE



COUCH SURFING



STANDING DESK

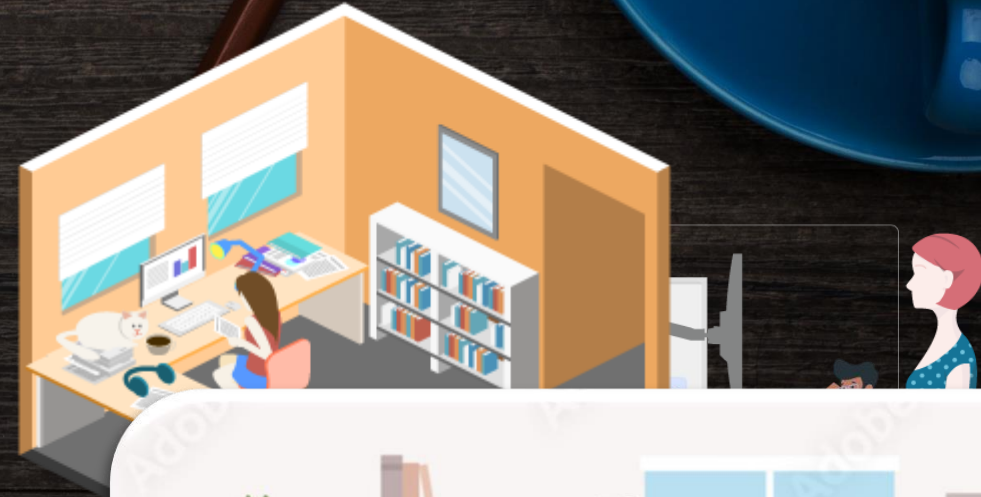


OTHER TERRIBLE OPTIONS



BEST PRACTICES

- Frequent breaks
 - 5 minutes, every 55 minutes
- Flexibility
 - Positional
 - Schedule
- Dedicated space
 - Quiet, distraction-free



TELEWORKERS BY CHOICE

- Teleworkers should be able to:
 - Balance work and home life
 - Work independently
 - Work comfortably at home
 - Feel supported
 - **Opt-In**





THE QUEEN'S ERGONOMICS CONSULTING PROGRAM

at Queen's University in Kingston, Ontario



HOW IT WORKS

- Established in 1998
- Run through EHS Department
 - Staff
 - EHS Administrator
 - Graduate Student Consultants
 - Senior Graduate Student Manager
 - Reporting
 - Employee file in EHS
 - Employee
 - Supervisor



MAIN FUNCTIONS

- Customized Office Assessments
- Departmental/Group Assessments
- Return to Work (with EHS)
- Education





WAS IT ENOUGH?

- Was training sufficient to
 - Set-up home office properly?
 - Adjust home office workstation appropriately?
 - Mitigate work-related discomfort?
 - Take breaks frequently?

when forced to work from home full time during COVID-19?



OUR SURVEY STUDY

and what we found...

PARTICIPANTS

- Queen's office workers working at home due to COVID-19



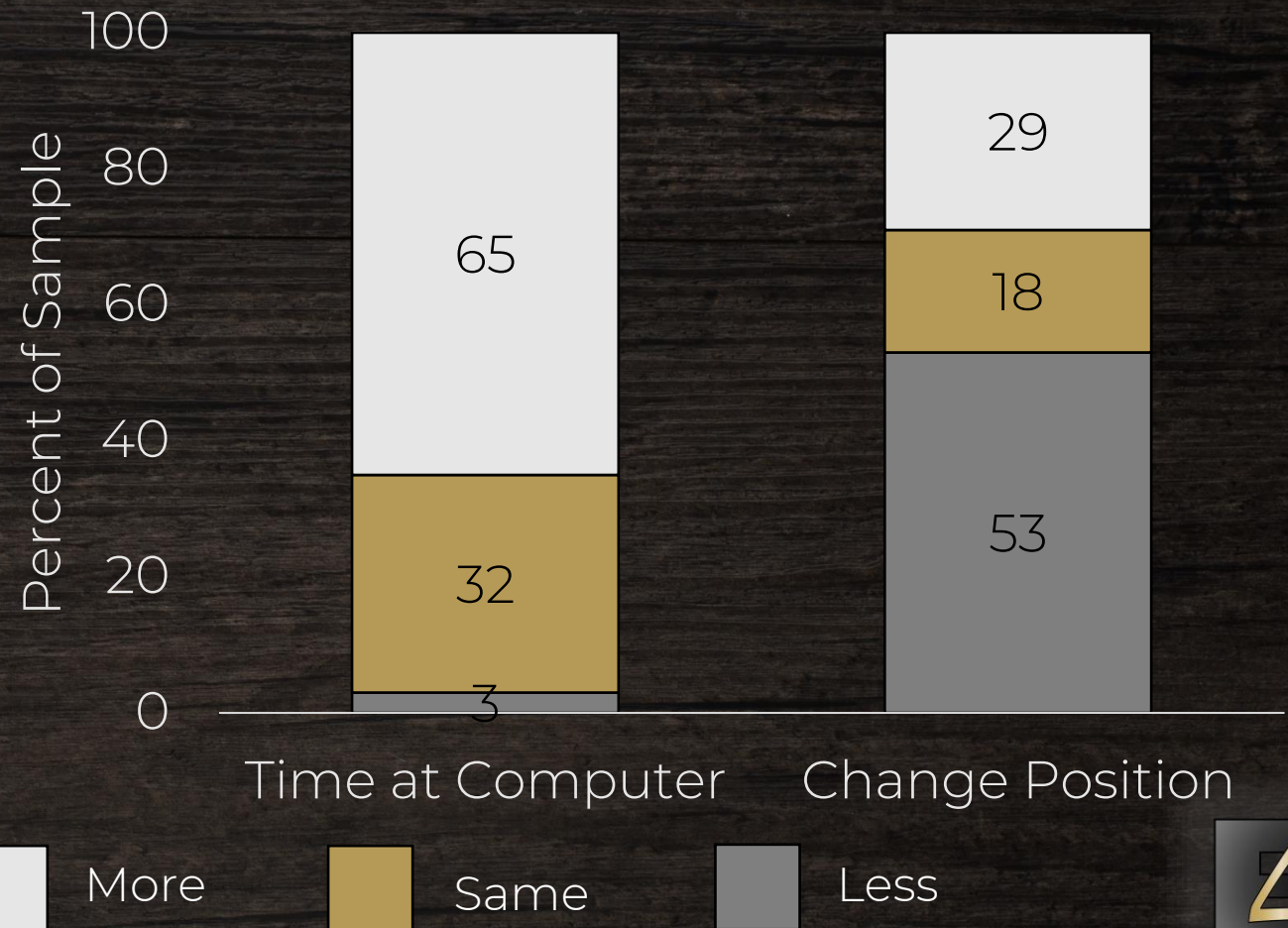
QUESTIONS ASKED

- Work Conditions
- Tasks/position variability
- Workload
- MSK Pain
- Equipment
- Home environment



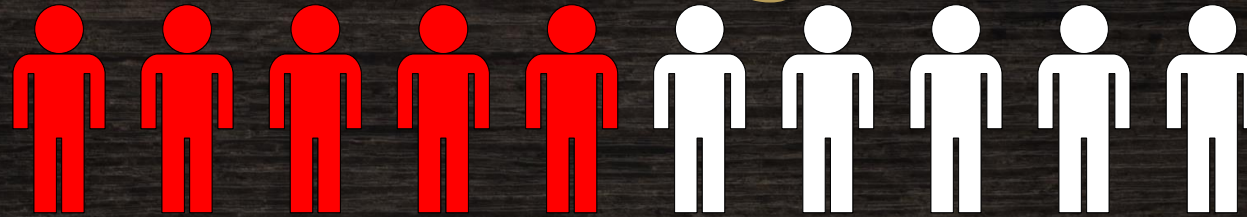
RESULTS

- Working Conditions

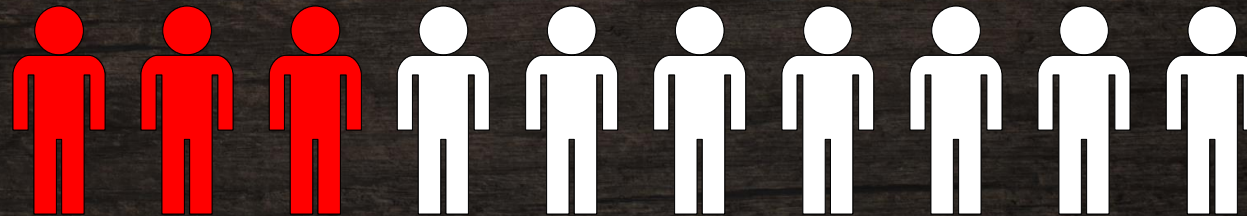


RESULTS

Worsening Pain



New Pain



RESULTS

- Workstation Quality

80

60

40

20

0



21



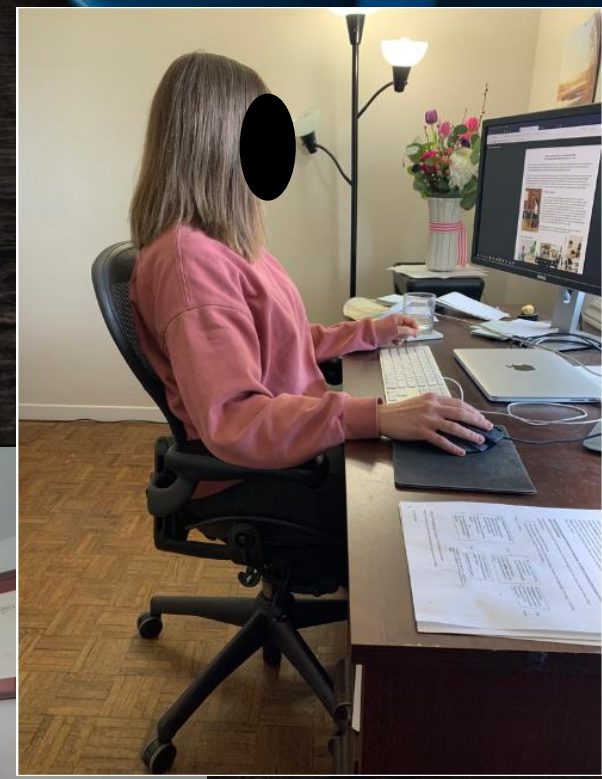
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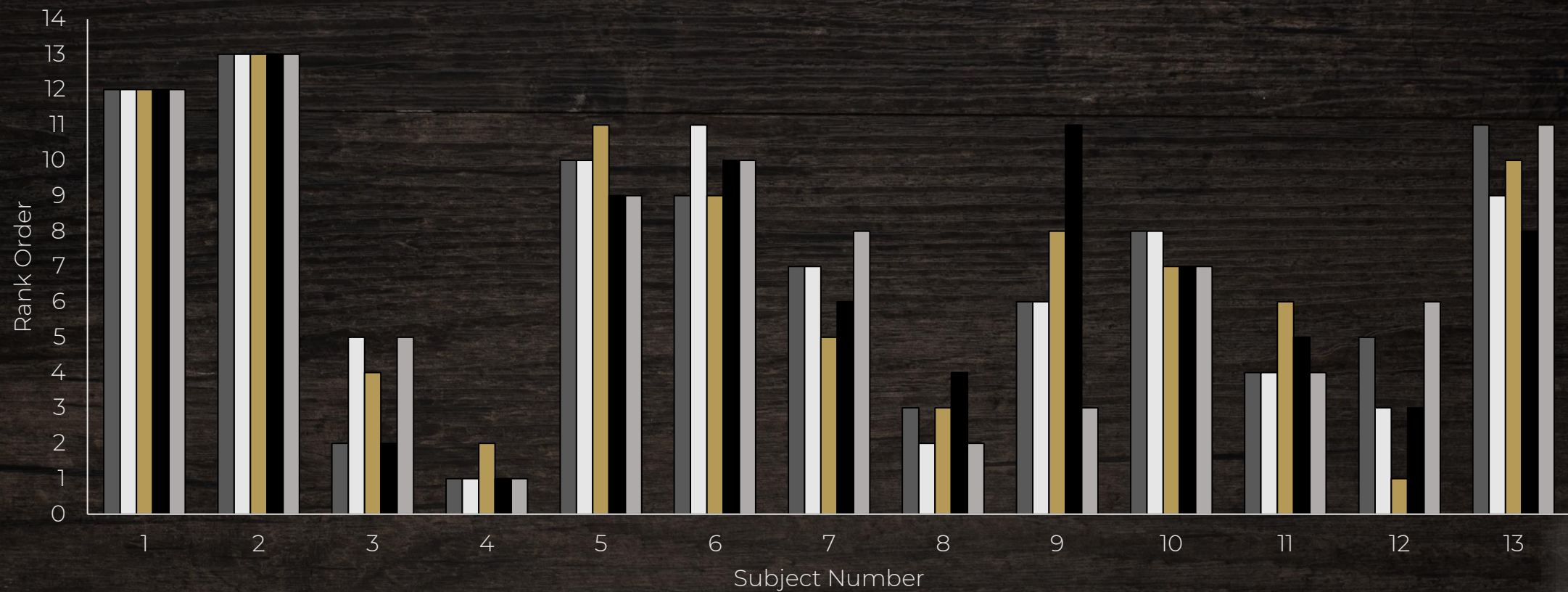
65

RESULTS

aining!



RESULTS



Unpublished data from McAllister, et al. (2022) Appl Ergon.102: 103749.

RESULTS

- Perceptions towards virtual assessment



McAllister, Costigan, Diesbourg. (2023) Appl Ergon. (Under Review)



MOVING FORWARD...

So, what do we do with this?

SUPPORT FOR TELEWORKERS

- Voluntary opt-in
- Equipment
- Training
- Virtual Assessments
- Ergonomics Counseling



VOLUNTARY OPT-IN

- Allow people to decide where and how they work best
 - Job autonomy
 - Psychosocial Risk!
 - Schedule
 - Location
 - Hotelling
- **Emergency Considerations!*



EQUIPMENT

- Teleworker Kit



Adjustable Office chair



Keyboard & Mouse



Adjustable, Free
Standing Monitor

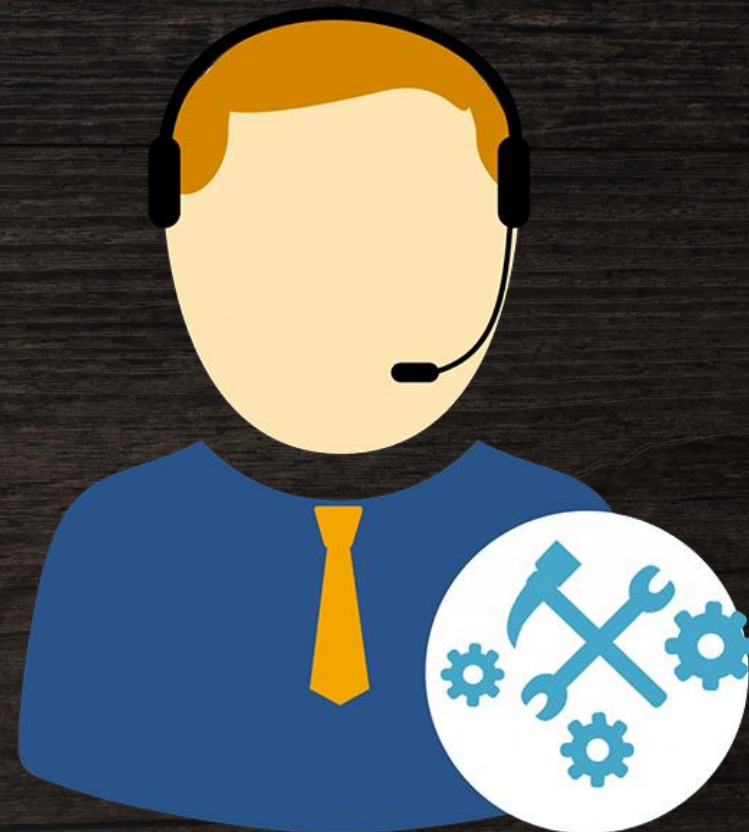
TRAINING

- Ergonomics best practices
 - Setting up a home office
 - Break cycles
 - Accessories
 - ...
- Adjusting the equipment
 - Specific to equipment provided



ERGONOMICS COUNSELING

- Available as needed for concerns



VIRTUAL ASSESSMENTS

- Pre-telework assessment
- On-demand assessments
 - Return-to-Work
 - Job/task Restriction
 - Job/task change



A top-down view of a dark wooden desk. In the top left corner, a portion of a white computer keyboard is visible, showing keys for 'alt', 'ctrl', and 'shift'. To the right of the keyboard is a white computer mouse. Further right is a sharpened brown pencil. In the top right corner, a white cup of coffee sits on a blue saucer. The text 'IN CONCLUSION...' is centered on the desk in a large, white, bold, sans-serif font.

IN CONCLUSION...



COVID-19 IS IN THE PAST... TELEWORK IS HERE TO STAY!

- Telework workstations need to be treated like any other office workstations in the company
- Need to prepare for next emergency lockdown situation
 - Do not leave workers unsupported
- Telework is a great option in ideal circumstances
 - Less great in less-than ideal circumstances
 - Have to get creative!

SUMMARY

- Provide workers with proper equipment, setup at home
- Provide ergonomics support, regardless of location
 - Virtual options are effective and easy to implement

THANK YOU!

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