

# It's not easy being Green!

Reducing Manual Task Risks in Uncontrolled Environments –

How do you keep Paramedics Safe?



Peter Pollnitz

WorkFit Services Consultant  
Physiotherapist, SA Health



# SA Ambulance Service



## ➤ **2607 staff (paid and volunteer)**

- 2407 operational
- 210 support

## ➤ **Workload**

- Incidents 255, 563 (up 4.4%)
- Responses 328, 253 (up 11.9%)
- Transports 196, 625 (up 2.4%)

## ➤ **Challenges**

- Feminisation of workforce (44%)
- Volunteers
- Increased patient weights
- Budget restrictions/cost of equipment

# Pre-hospital environment

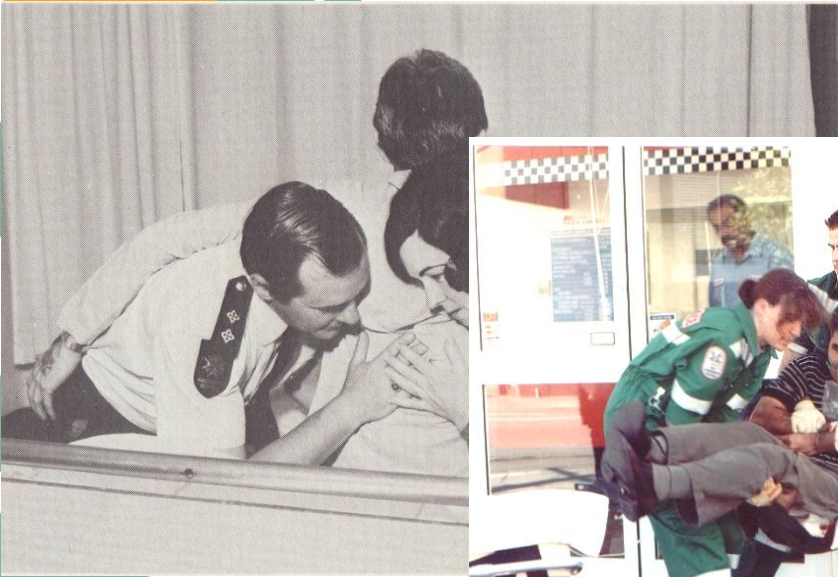
- > Uncontrolled environments
- > Emergency settings
- > Dangerous environments and patients



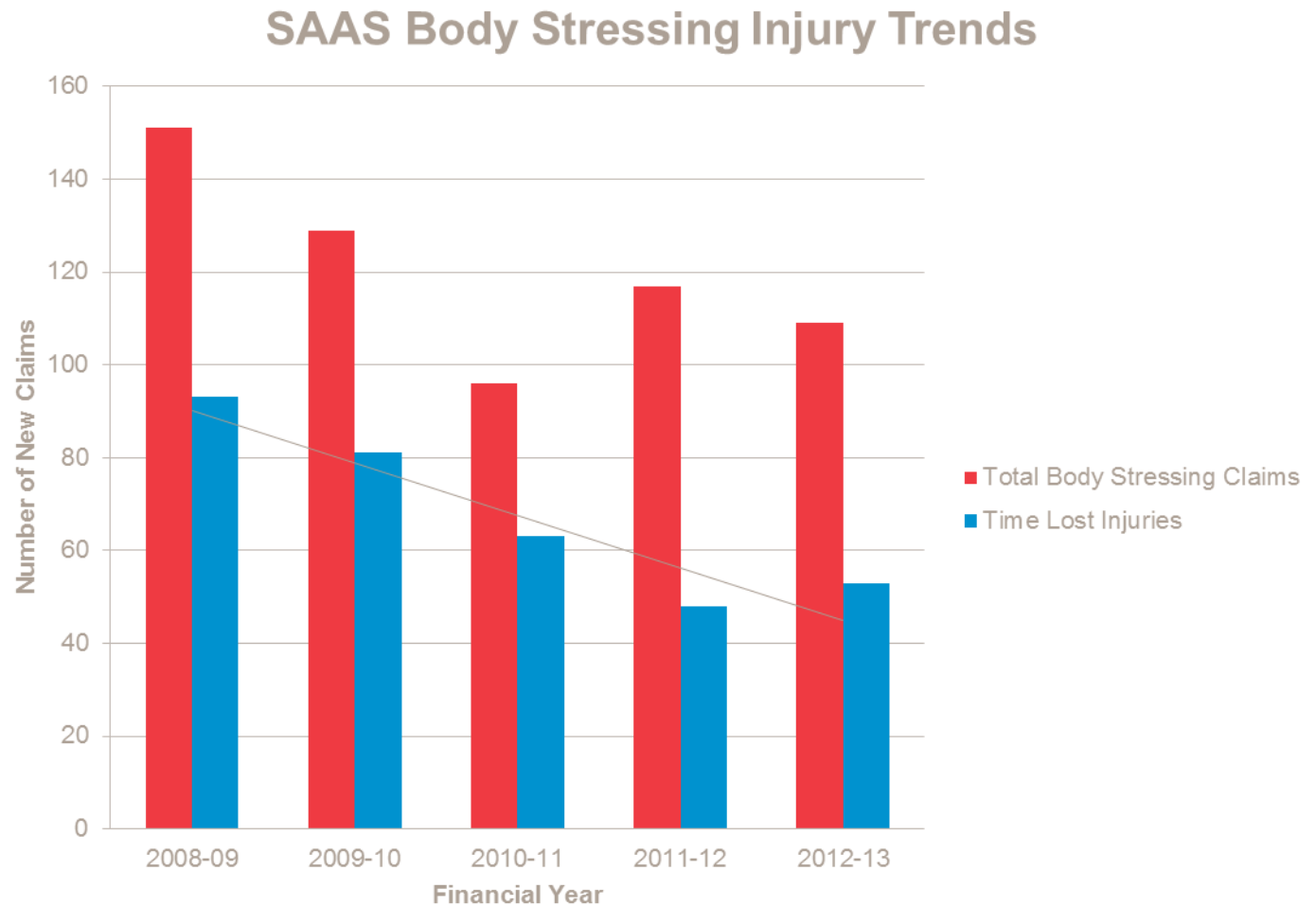


# History

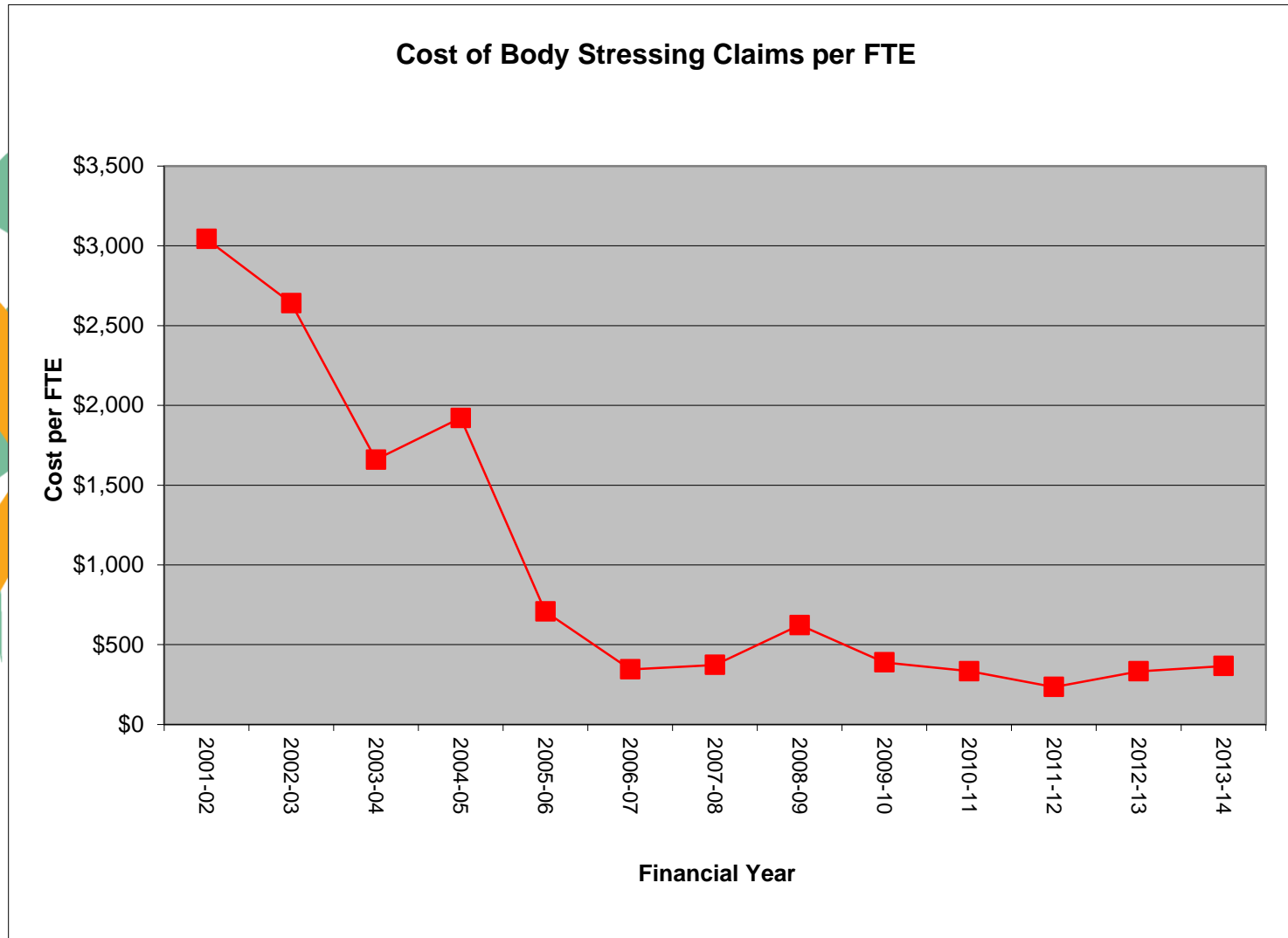
- > Demographic changes
- > Organisational culture
- > Techniques/practices/equipment changes



# Lost time injuries



# Cost of Body Stressing Claims per FTE



SA Ambulance Service

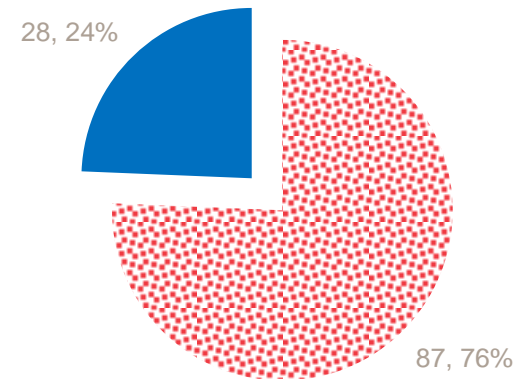
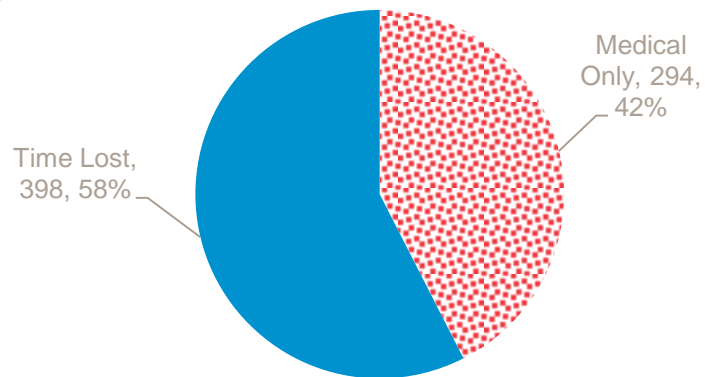
# SA Health TLI profile vs. SAAS

## SA Health

## SAAS

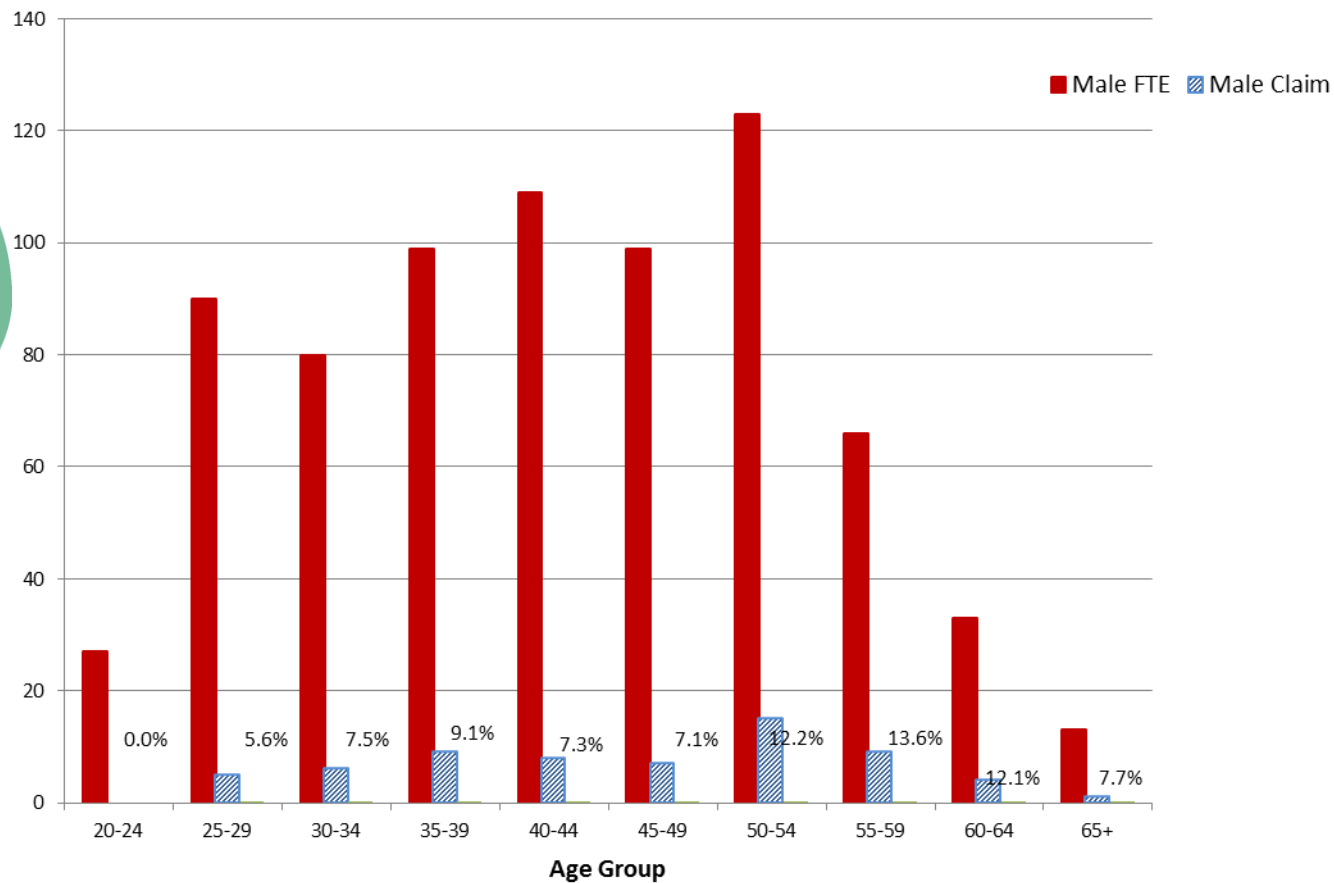
Time Lost Profile  
for New MSI Claims  
2013-14 YTD

■ Medical Only ■ Time Lost



# Relative risk of different age groups

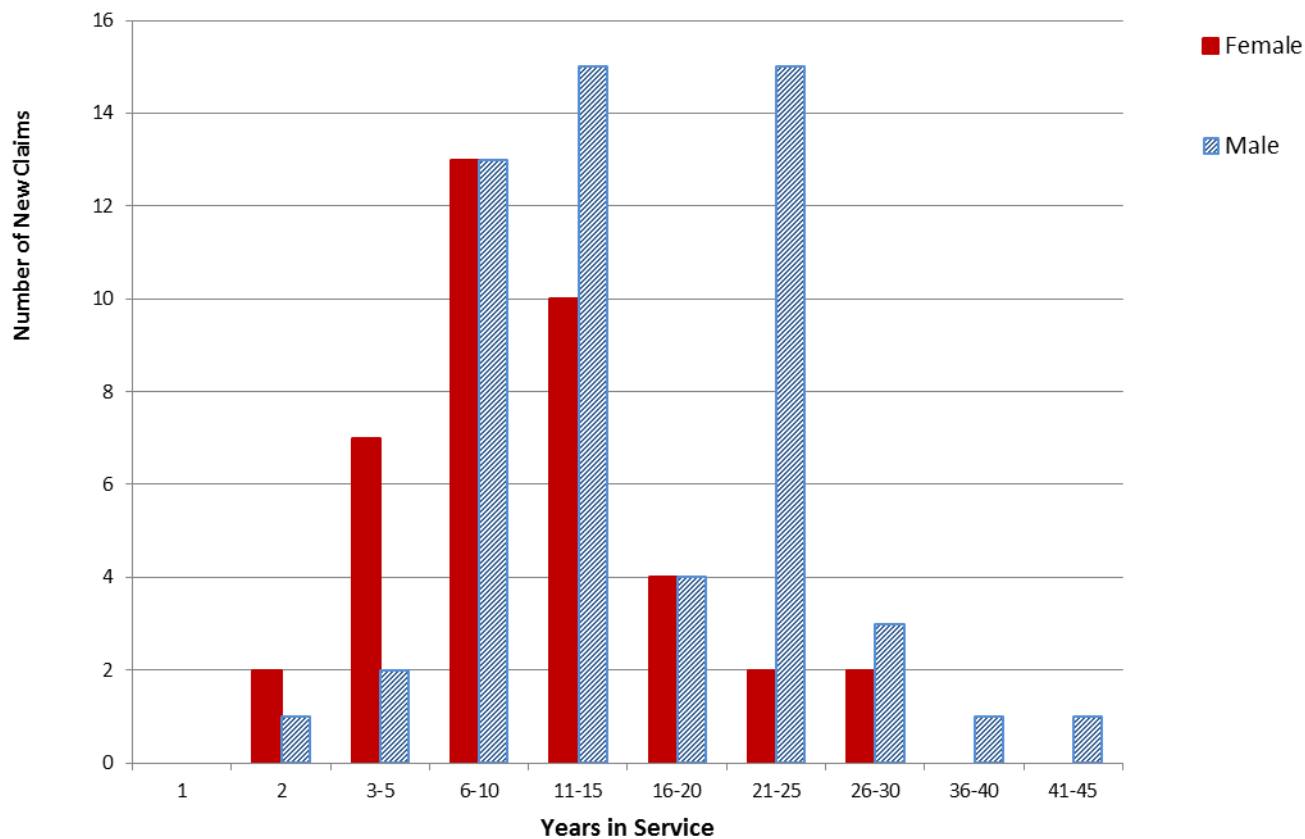
Distribution of New Male Body Stressing Claims by Age Group & as a % of FTE YTD



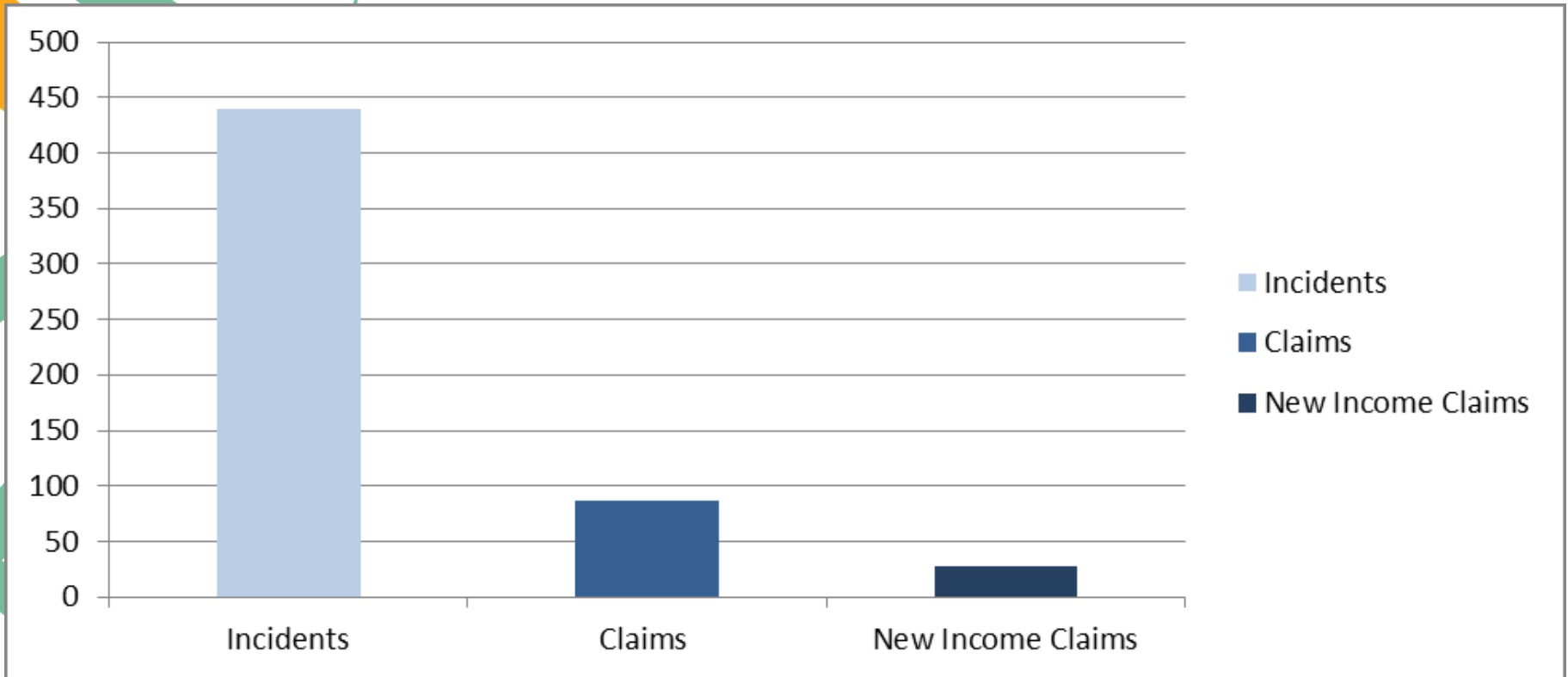


# Cumulative nature of injury

Distribution of New Body Stressing Claims by Gender & Years in Service



# Strong reporting culture





# Incident & Injury Analysis

- > Analysis of SAAS incidents showed these common injury mechanisms:
  - Raising laden stretchers from half to full height
  - Lifting and carrying laden spinal boards
  - Lifting patients off the ground
  - Loading and unloading stretchers
  - Unexpected patient collapse
  - Lifting and carrying equipment (monitors, kits, etc.)
  - Repetitive/cumulative injuries
  - Lateral transfers
  - Obese and bariatric patients

# Which way to go?



Make the job easier, or toughen up the workers?

# Pre-employment screening

> FCE based on critical job demands

> Strength:

- Grip
- Lift
- Push/pull



> Fitness, flexibility, hypermobility, etc.



# Special Operations Team

- > Specific FCE based on job analysis of unique physical tasks





# Manual Tasks Training

- > Manual Tasks Instructor Model
- > Training used to be 'technique based', with a skills log or checklist
- > Evolved to eliminate or reduce exposure to manual task hazards by changing the way things are done
- > Focus on dynamic risk assessment and improved planning to choose the best
  - Equipment
  - Technique
  - Number of staff

# Simulation and Scenarios





# Bariatric Vehicle



Automated stretcher



CAMEL



HoverJack



Stair chair



HoverMatt

# Regular ambulance



SA Ambulance Service



With HoverMatt and HoverJack the  
stretcher stays in the ambulance/helicopter



SA Ambulance Service

# Lifting patients off the ground



SA Ambulance Service



# Folding step for ambulant patients



# Slide sheet tubes to reduce friction



SA Ambulance Service

# Stair chairs





# Successes in changing practice

Lifting and carrying laden spinal boards:

- > 2010-11: 16 incidents, 9 claims
- > 2011-12: 5 incidents, 4 claims
- > 2012-13: 4 incidents, 2 claims



# Successes in changing practice

Patient collapse during transfer or walking:

2010-11: 13 incidents, 7 claims

2011-12: 4 incidents, 2 claims

2012-13: 6 incidents, 4 claims



# Supportive Organisation





[peter.pollnitz@health.sa.gov.au](mailto:peter.pollnitz@health.sa.gov.au)



**Government  
of South Australia**

---

SA Health



**SA  
Ambulance  
Service**