

# Manual Material Handling: The Impact On CNA's Retail Wholesale Book of Business

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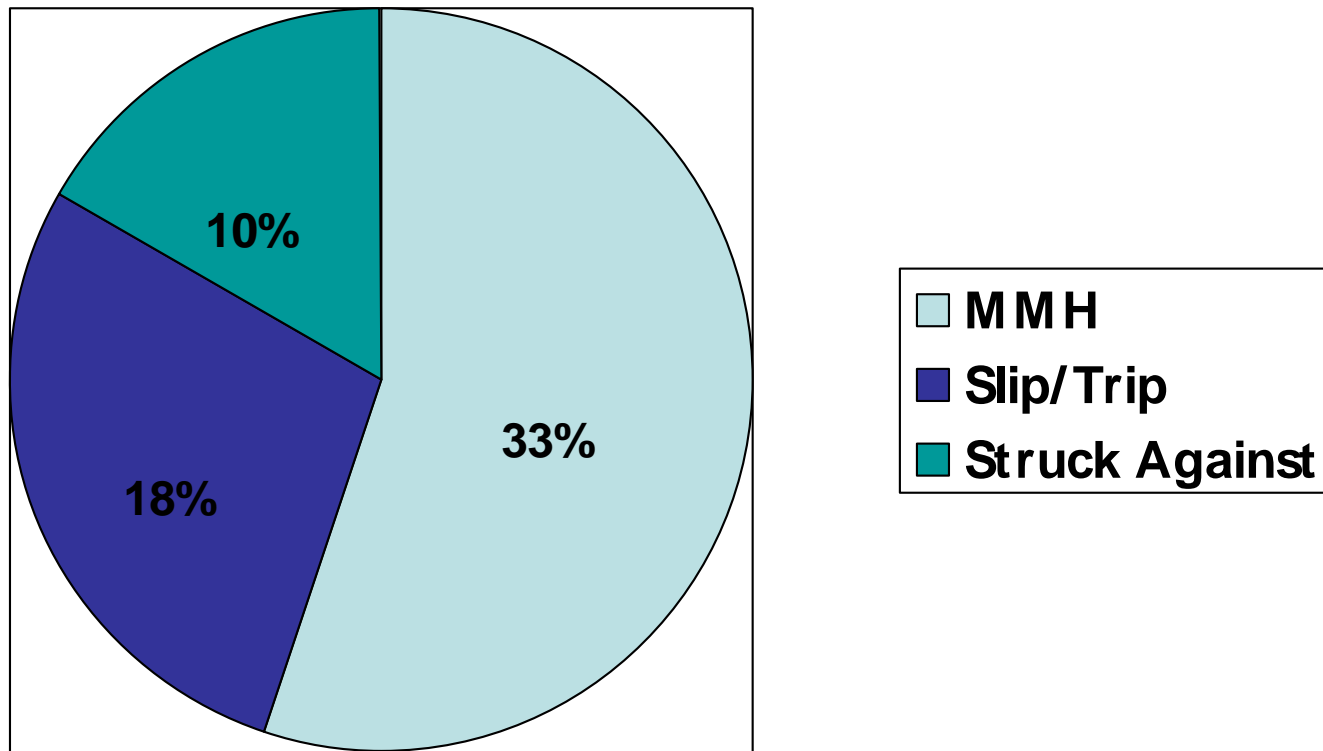
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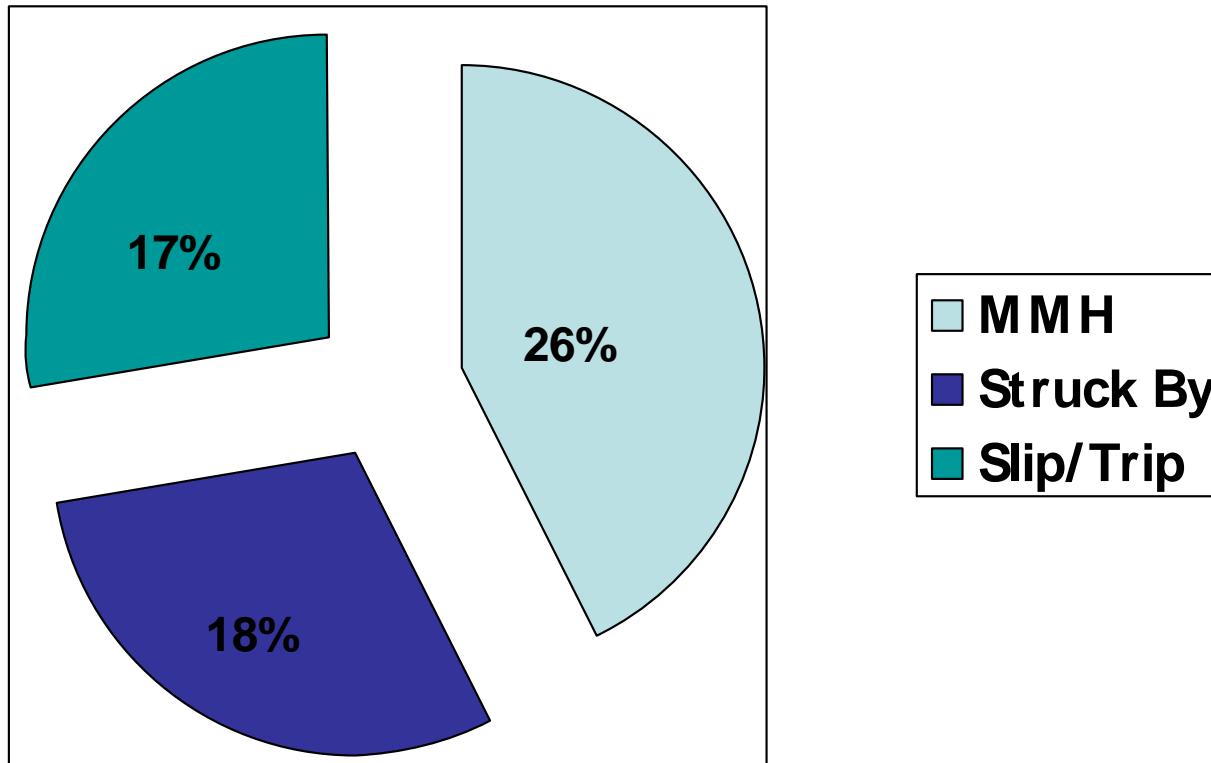
## Objectives

- To identify issues and obstacles CNA Risk Control encounters when servicing and prospecting our retail wholesale book of business.
- To better understand the emerging issues in Workers' Compensation and how they will impact productivity, efficiency, and bottom line profitability of the retail wholesale business.
- To provide strategies and directions for changing the business "DNA" of retail wholesale and how it impacts profit and keeping workers healthy and on the job.

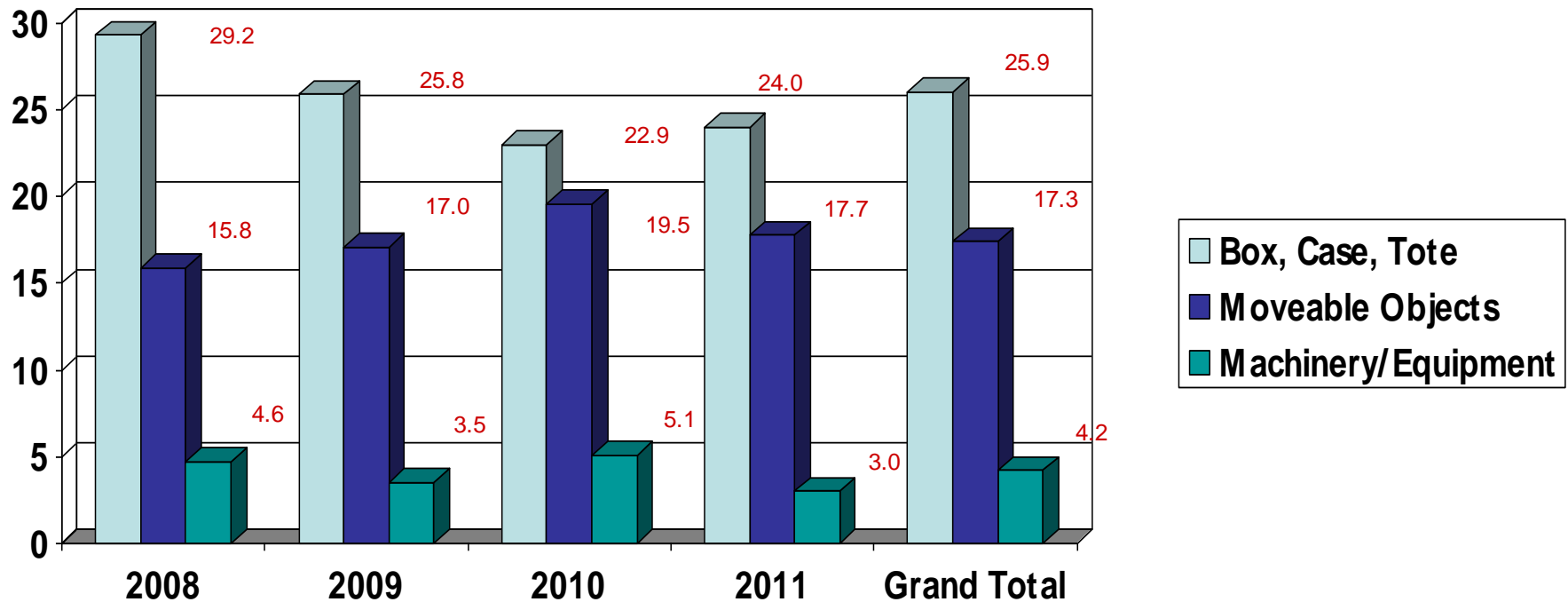
## 2008 - 2011 – Claim Severity by Incident Type



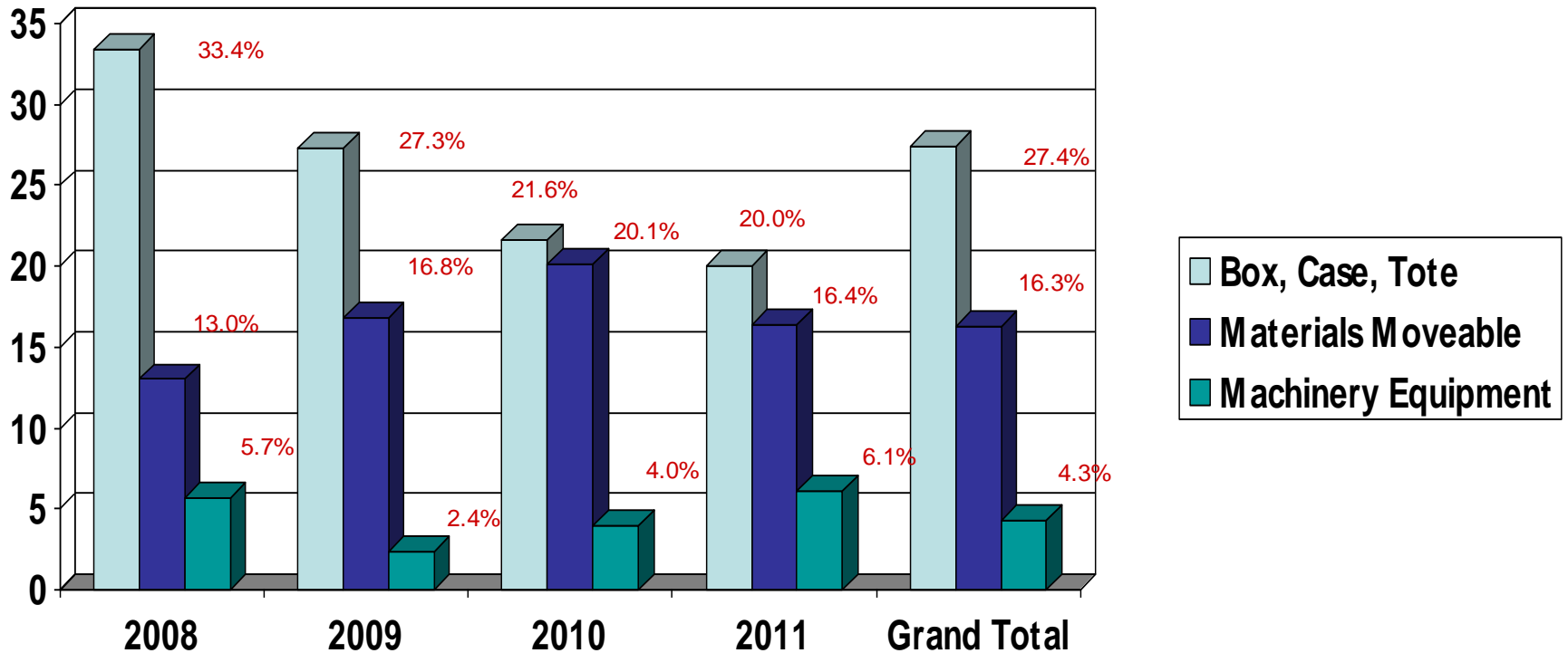
## 2008 – 2011 - Claim Frequency by Incident Type



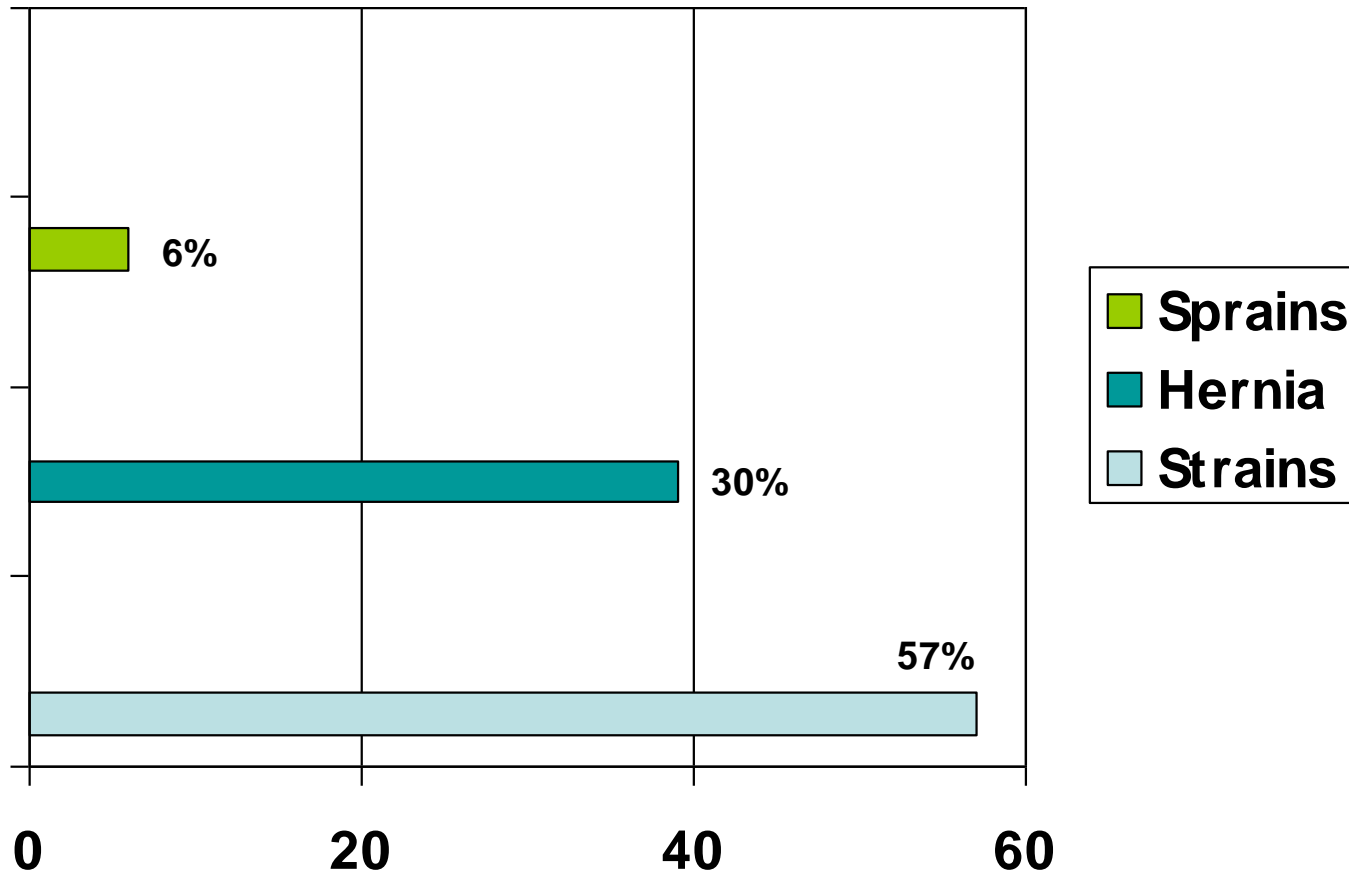
## 2008 - 2011 MMH Claims Source - Frequency



## 2008 – 2011 MMH Claims Source - Severity

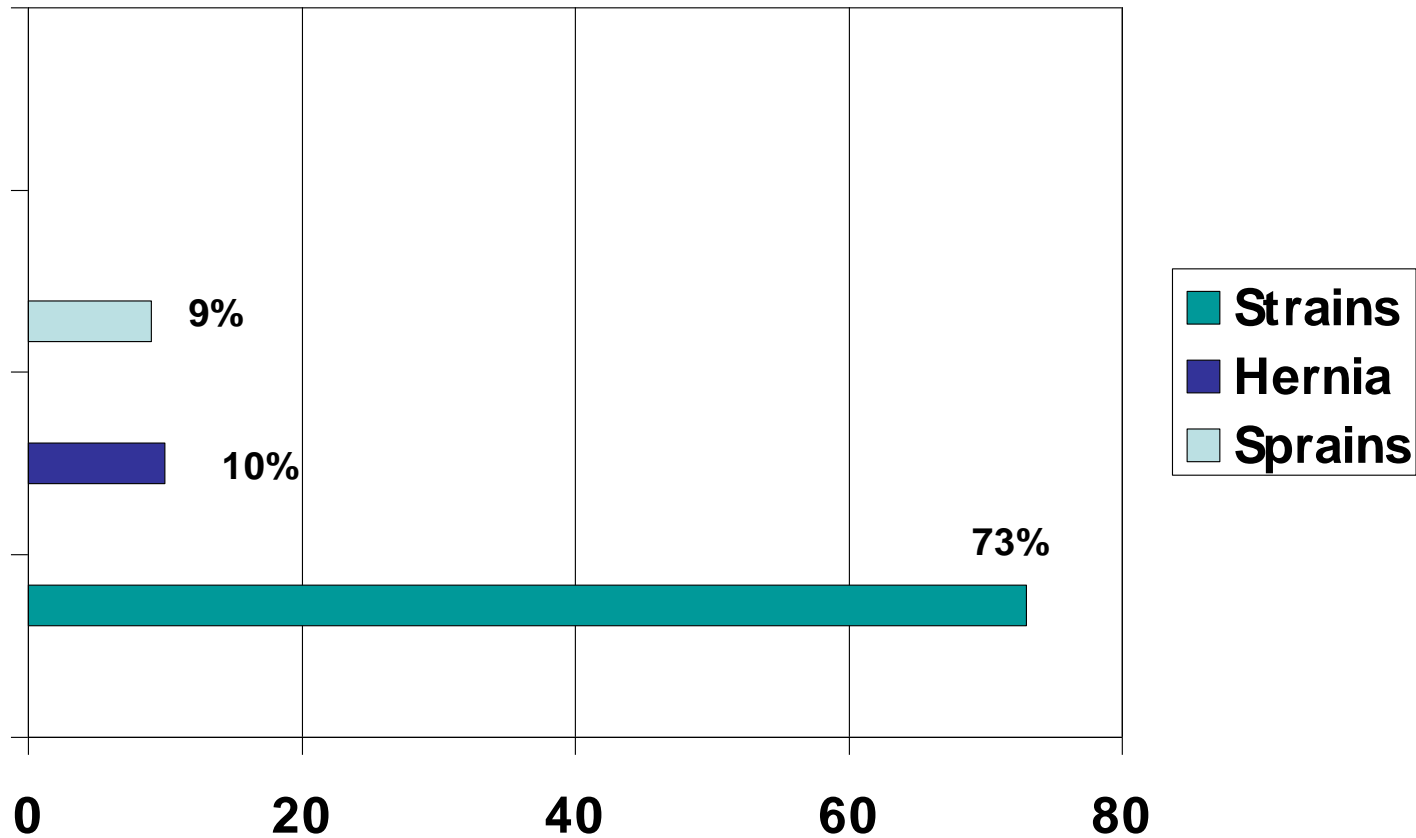


## 2008 – 2011 MMH Claims by Nature - Severity

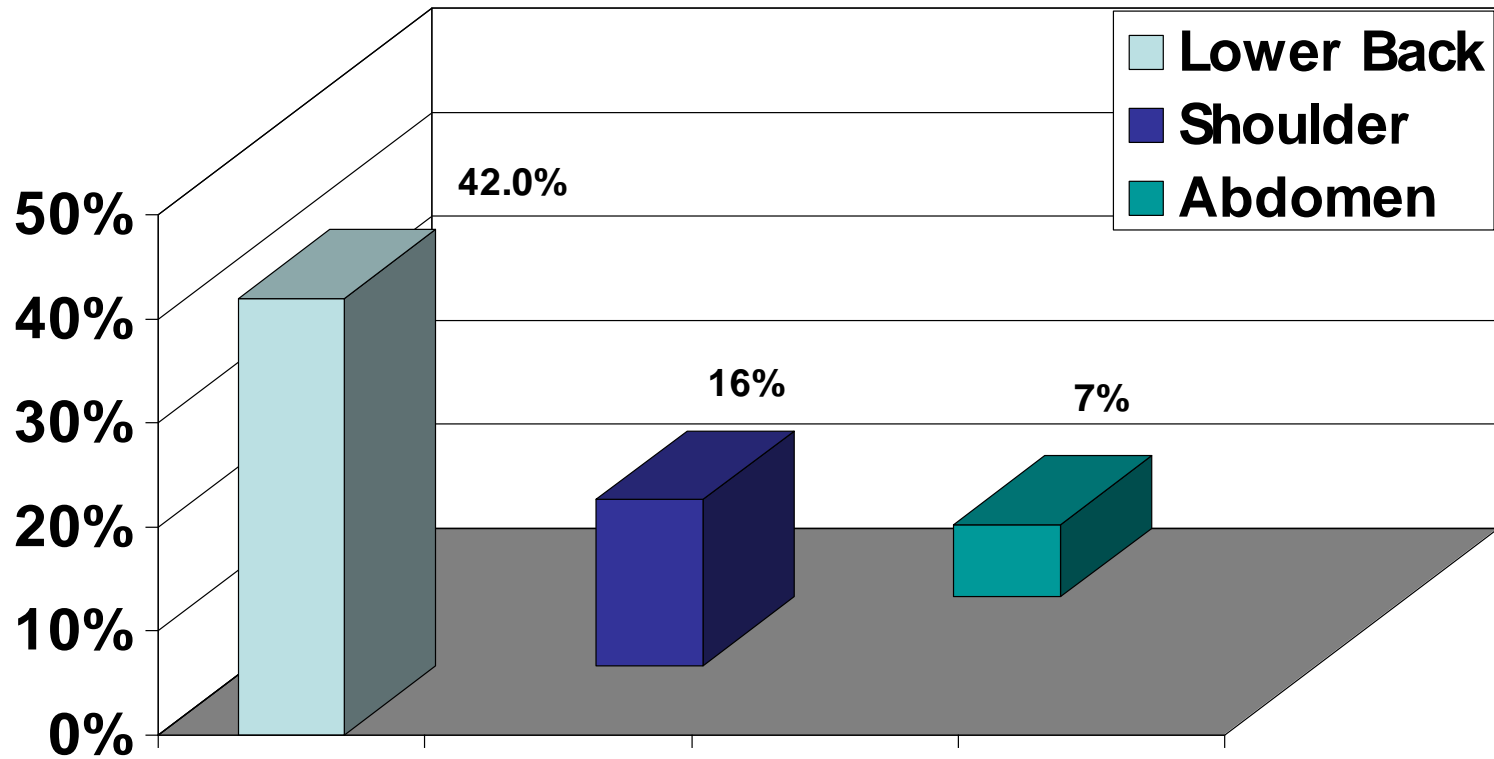




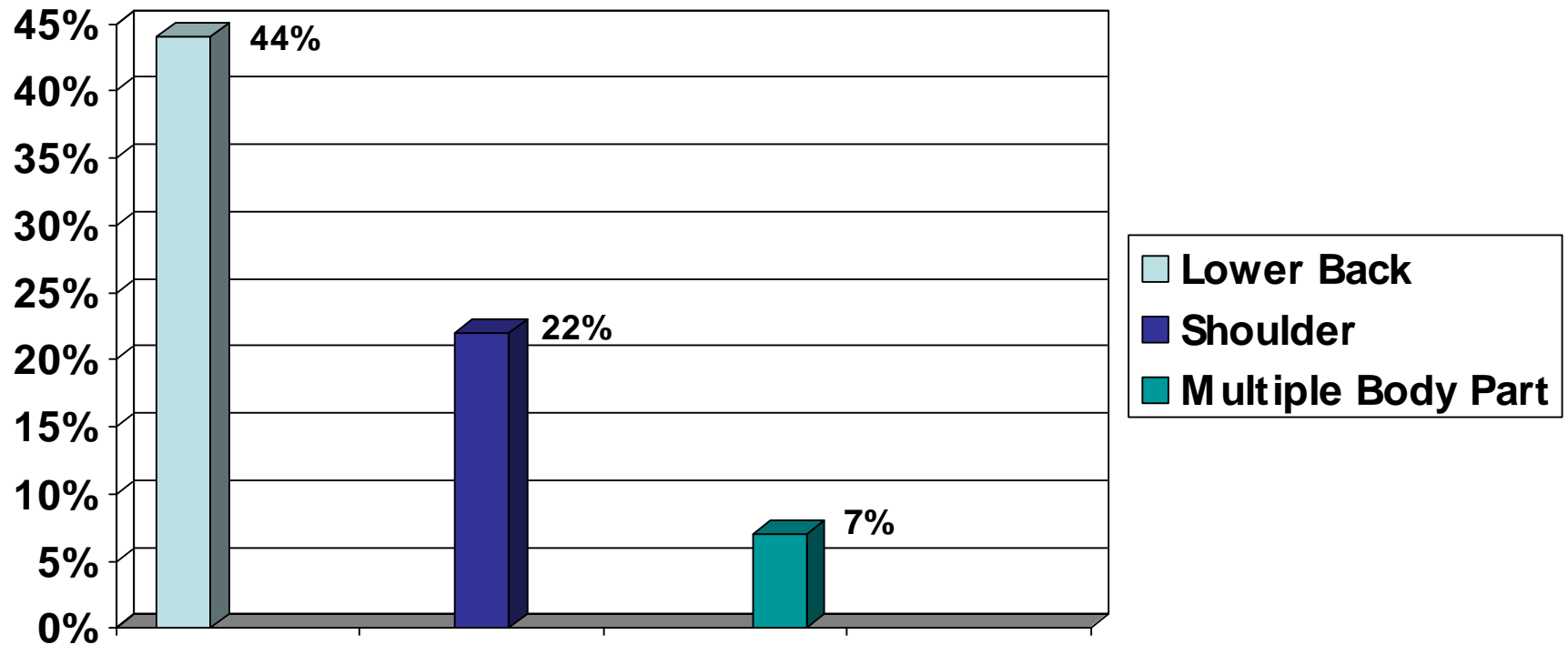
## 2008 – 2011 MMH Claims by Nature - Frequency



## 2008 – 2011 MMH Claims by Body Part - Frequency



## 2008 – 2011 MMH Claims by Body Part -Severity



## Emerging Issues

What are the two Emerging WC issues that will effect the Retail Wholesale sector?

- Aging Workforce
- Obesity

## Current Worker Population

- In 1972, average age of a US worker was 28. Currently it is approximately 46.<sup>1</sup>
- The number of workers aged 45 and older has doubled since 1950.<sup>2</sup>
- According to the American Association of Retired People (AARP), the number of people 55 years and older in the labor force – which stood at about 18.2 million in 2000 – is projected to rise to 25.2 million this year and 31.9 million by 2025.<sup>2</sup>


1. Source Ergonomics ASSE Feb 2009 Vol 2, No2 – article Ronald Porter, PT, CEAS, Director, Back School Atlanta, Enhanced Ergonomics: What Works with the Aging Workforce

2. Gaither, A., (2003). Health and Safety in the Aging Workforce, Retrieved January 20, 2006, from <http://www.asse.org/gaitherpdcpaper.htm>

## Baby Boomers

- Has your organization recognized the need to leverage an older workforce to produce in the warehouse or retail store?
- What about your competitors?
- These fundamental questions must be reviewed!

## As We Age

- Maximal Strength
  - Muscle Mass
  - Bone density
  - Visual and Auditory Acuity
  - Fitness
  - Aerobic Capacity
  - Cognitive Speed/Function
- 

- Obesity
  - Arthritis
  - High BP
  - Diabetes
  - Depression/Heart Disease
  - Menopausal/Post Menopausal Issues
- 

## Areas for Management to Review

### Demographic Analysis

- What is the age of the workforce?
- Total population
- By job type
- Is more than 10% over 50
- What type of injuries are occurring?



## Areas for Management to Review

- What will change in the next 5 to 10 years?
- Profiling the future

## Areas for Management to Review

- What are the risk factors creating the injuries?
- What are the ergonomic/biomechanical Issues?
- How do the risk factors impact aging?
- How is the aging work force impacting productivity?

## Areas for Management to Review

- How can we begin to mitigate/reduce the risk factor?
- Does transitional/RTW take into consideration aging?
- Do long term plans include aging?

## Definitions of Obesity

- Obesity: Body Mass Index (BMI) of 30 or higher.
- Body Mass Index (BMI): A measure of an adult's weight in relation to his or her height, specifically the adult's weight in kilograms divided by the square of his or her height in meters.

## Definitions of Obesity

- Obese is generally defined as at least 30 to 40 pounds overweight.
- Severely obese is considered to be at least 60 pounds overweight.
- Morbidly obese is at least 100 pounds overweight.
- Super obese is considered at least 200 pounds overweight.

## Scope of the Problem

- The most obese workers file twice as many WC claims as healthy weight workers.
- The most obese have 13 times more lost workdays than healthy weight workers.
- Workers Compensation medical claims cost are 6.8 times higher for the most obese workers.

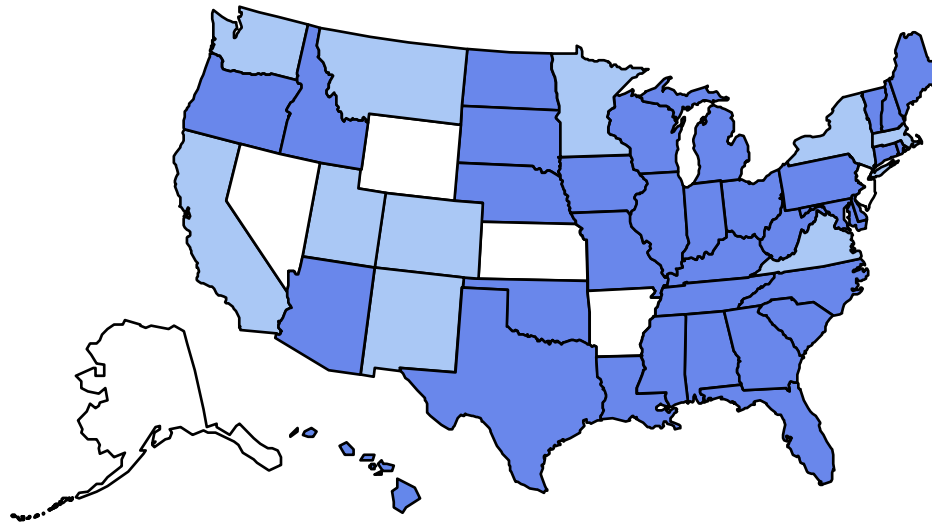
Source: Ostbye, T., et al, "Obesity and Workers Compensation," Archives of Internal Medicine, April 23, 2007 Emerging Risks in Workers Compensation, Workers' Compensation Educational Conference, Robert Hartwig, PHD, CPCU, President Insurance Information Institute

## Scope of the Problem

- Indemnity costs are 11 times higher for most obese workers than healthy weight workers.
- The body parts most prone to injury are: back, lower extremities, wrist, and hands.
- The most common causes of these injuries were lifting, lowering, and slipping.

# Percent of Obese (BMI $\geq$ 30) in U.S. Adults

1990

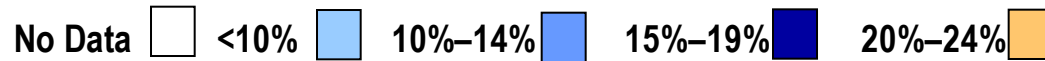
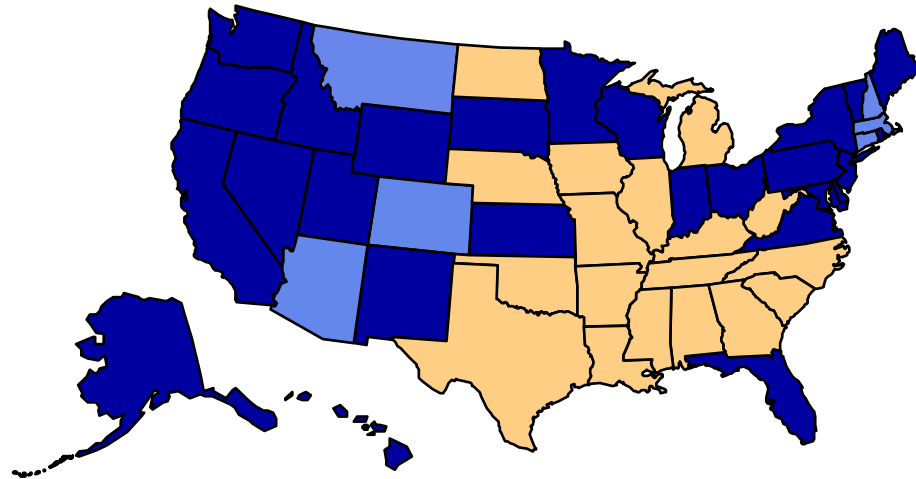


No Data <10% 10%–14%

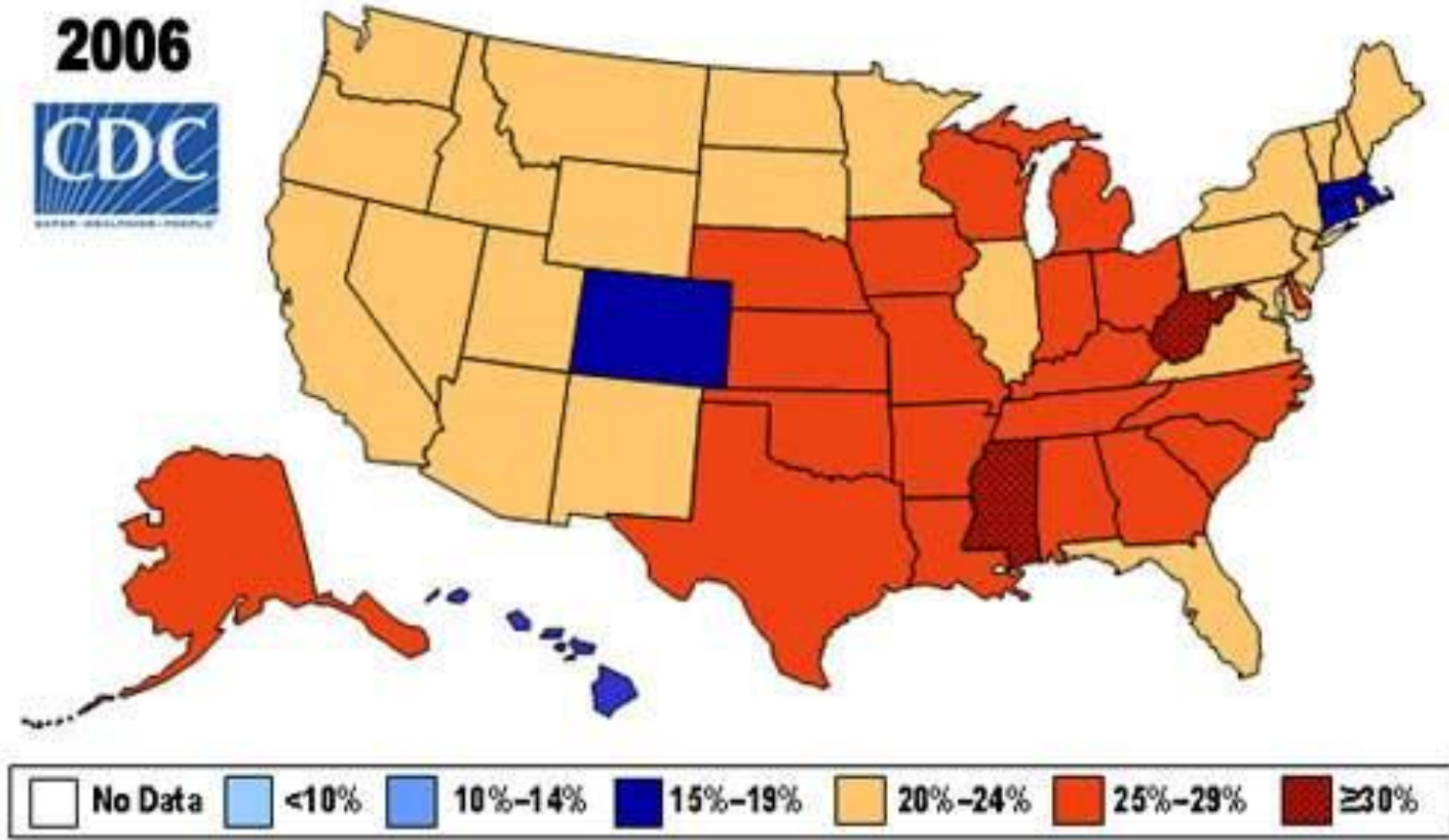


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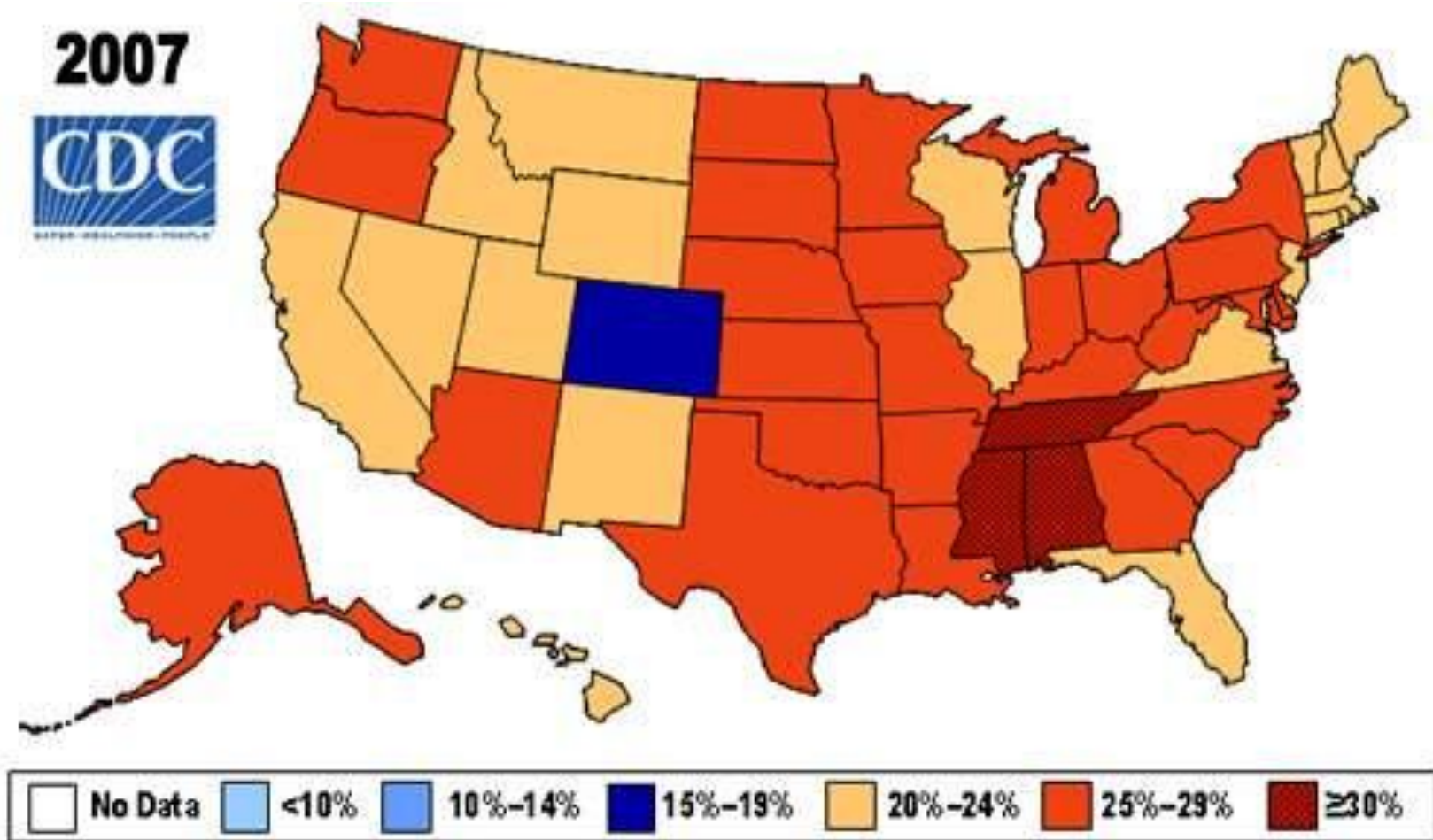
1999



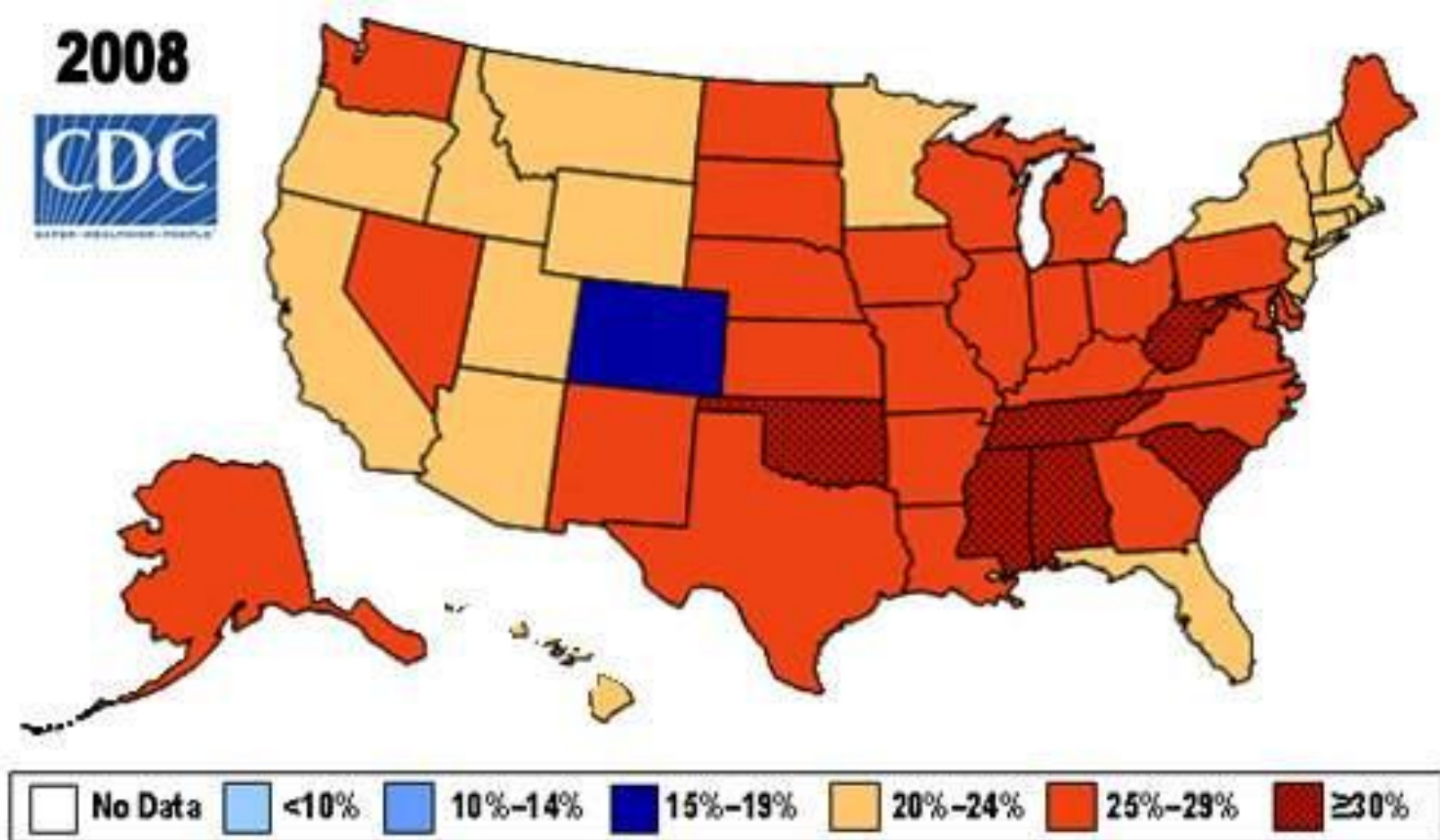
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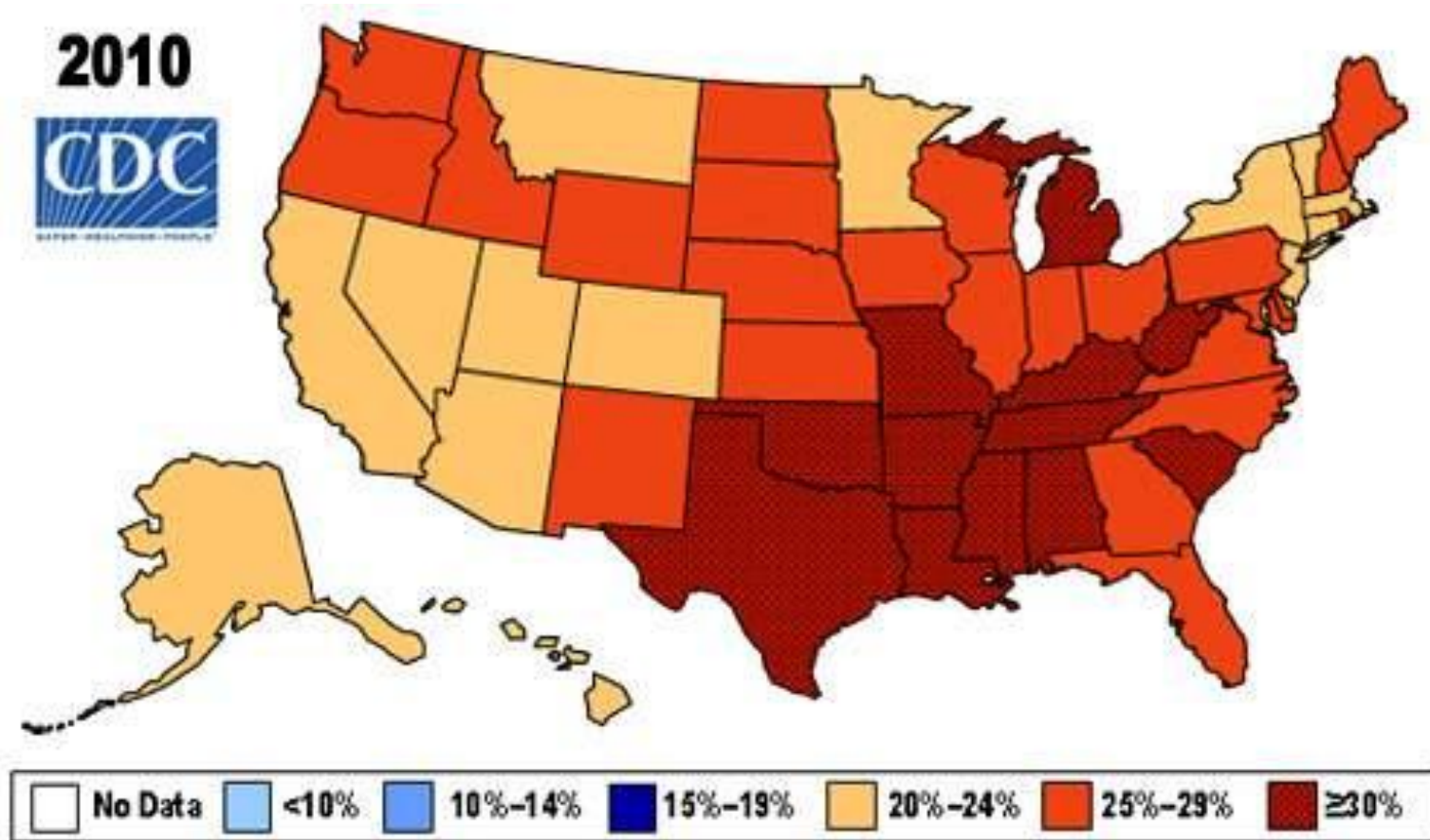
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## What Do CNA Consultants Encounter in the Field

### Wholesale, Warehousing, and Retail operations:

- Everything on the floor! Why is the majority of material and stock on the floor or six inches off the floor?
- We have done it this way for 40 years and we have made a profit!
- Most accounts do not see manual material as a efficiency and productivity issue.
- Accounts do not know how and what to measure.

## What Do CNA Consultants Encounter in the Field

- Strong emphasize on upper extremity at check out stands, little on MMH.
- Lay out of storage areas where MMH equipment could be used – Limited amount of thought given to layout in relation to MMH equipment for the employees.
- High fatigue level of employees in warehouse settings.

## What Do CNA Consultants Encounter in the Field

- Very focused on OSHA regulations and inspections.
- Not focused on loss drivers for the location.
- Loss Prevention: Focused on shrinkage.
- Random placement of materials by weight and size in racking systems.



## What Do CNA Consultants Encounter in the Field

- Not utilizing the equipment provided.
- Employees not trained on how to use equipment provided.
- Overloading of manual pallet jacks and carts.
- Stacking too high cannot see over load.

## What Do CNA Consultants Encounter in the Field

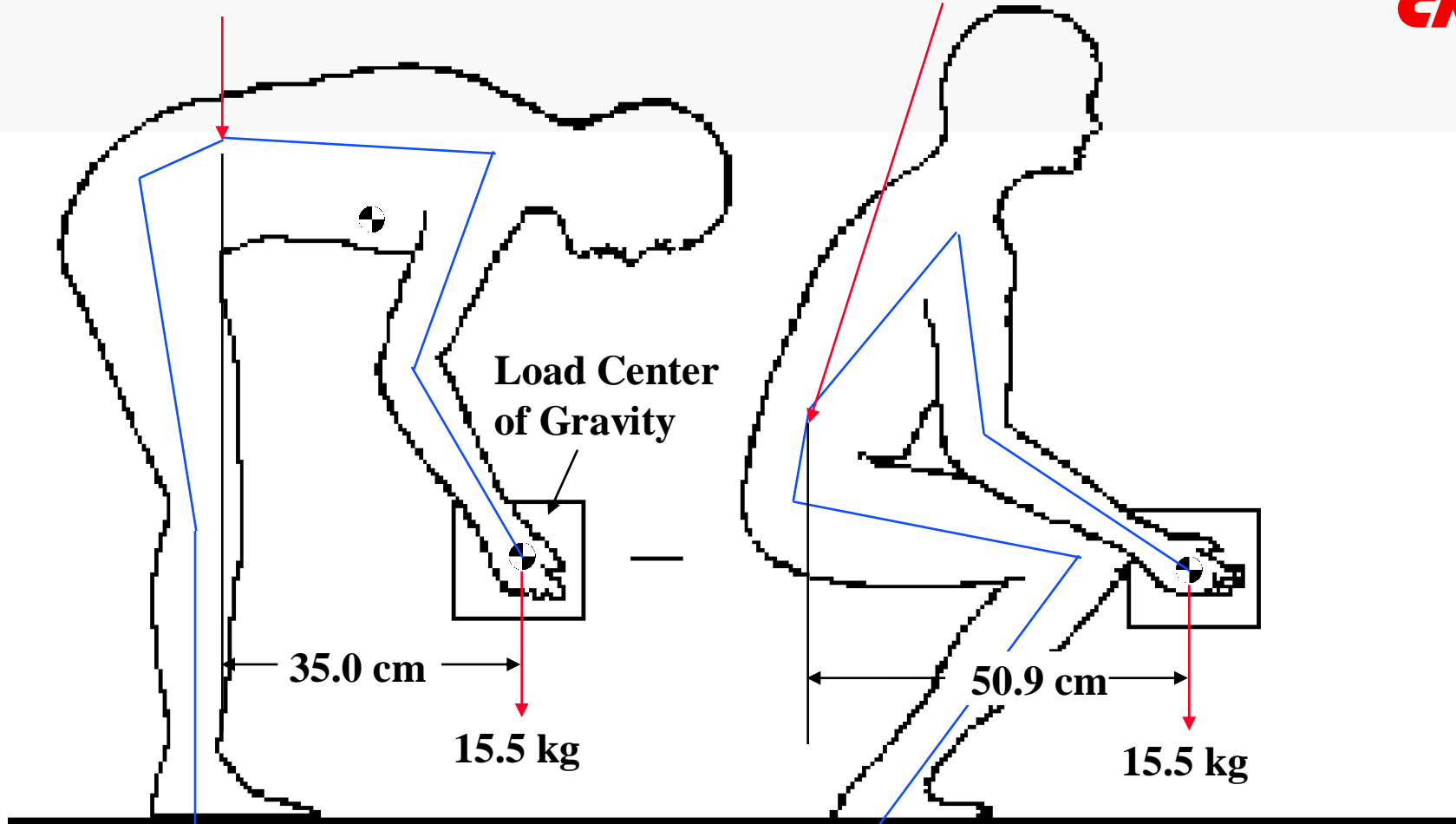
- Utilization of lifting videos; Stop using lifting videos!!!
- Lifting videos do not reduce the forces on the body and they do not work!
- Bend your knees keep your back straight does not work most of the time.

**L5/S1 Disc**

**Compression = 183.9 kg**

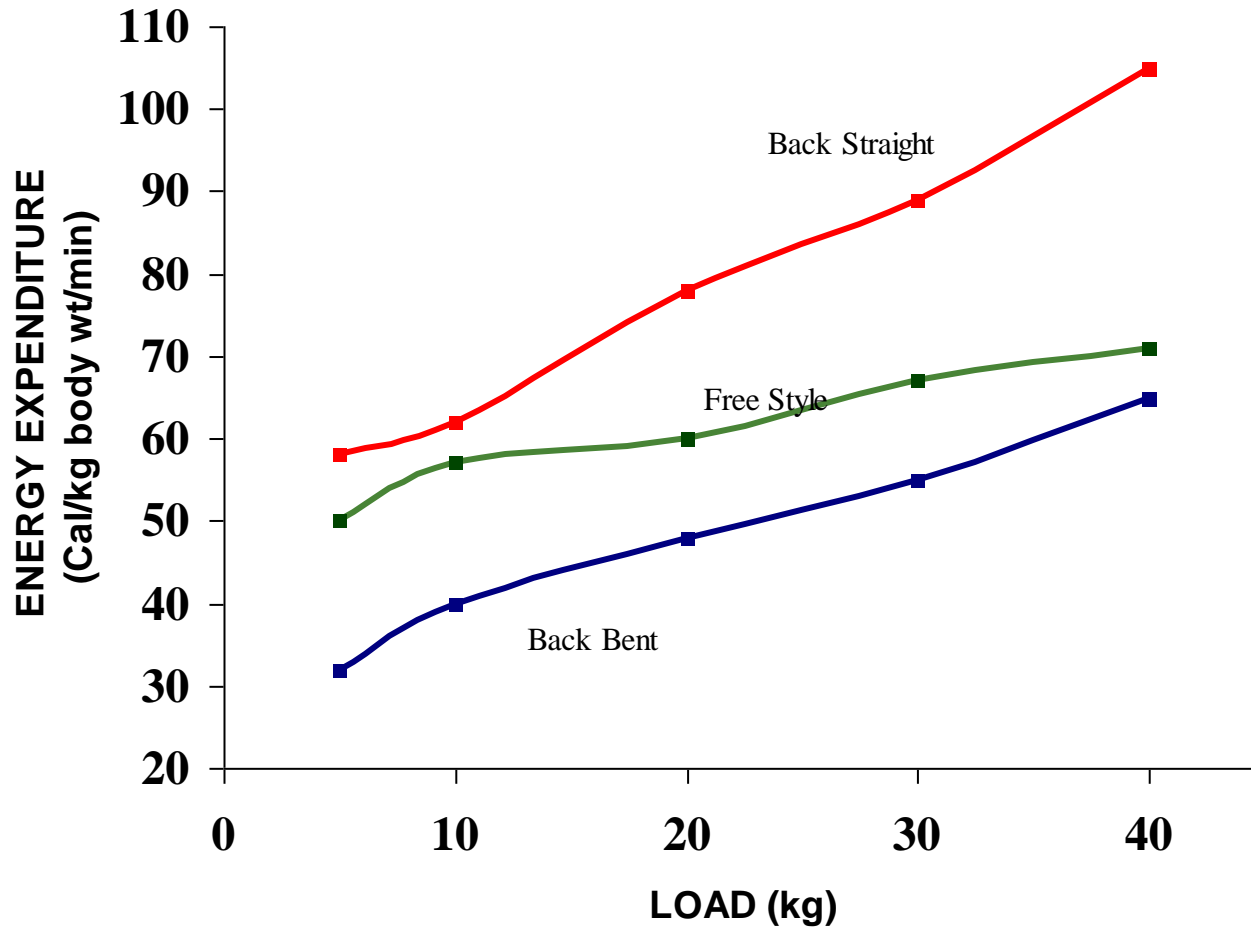
**L5/S1 Disc**

**Compression = 278.5 kg**



Adapted from Park and Chaffin, 1974, Occupational Biomechanical, second edition

# Metabolic Rate for Different Postures (Brown)



## What Do CNA Consultants Encounter in the Field

- Look Beyond “Bend Your Knees; Keep your Back Straight”
- Be Innovative; take the opportunity this conference allows you and let’s start developing and designing equipment that will reduce the exposure level.

## Strategies and Controls

- Review your organizations safety and engineering requirements.
- Are there job limits? What are the physical capabilities?
- Work method techniques and organizational policies accommodating to the known and expected capability shifts of older workers.
- Design for the aging workforce.

## Strategies and Controls

- Design to the Human Interface.
- Understand the force, body posture, and repetition an employee endures on a daily basis.
- Good design of equipment will enhance productivity, efficiency and risk factors.
- Understand how to measure on an annualized basis.

## Strategies and Controls

- Instead of thinking out of the box; you are going to have to be “out of the box” on how your organization addresses manual material handling and how you do business on a daily basis.
- We have to change how the organization thinks about:
  - On time
  - On cost
  - On quality
- Let’s put our expertise and skills together and begin the process of developing manual material handling equipment that can change the culture, risk factors, productivity and efficiency of this industry.



**QUESTIONS ?**