

# HEALTH IN THE WORKPLACE: EXAMINING THE CONTRIBUTION OF ORGANIZATIONAL FACTORS ON THE OCCURRENCE OF MUSCULOSKELETAL DISEASES IN THE PHILIPPINES

By

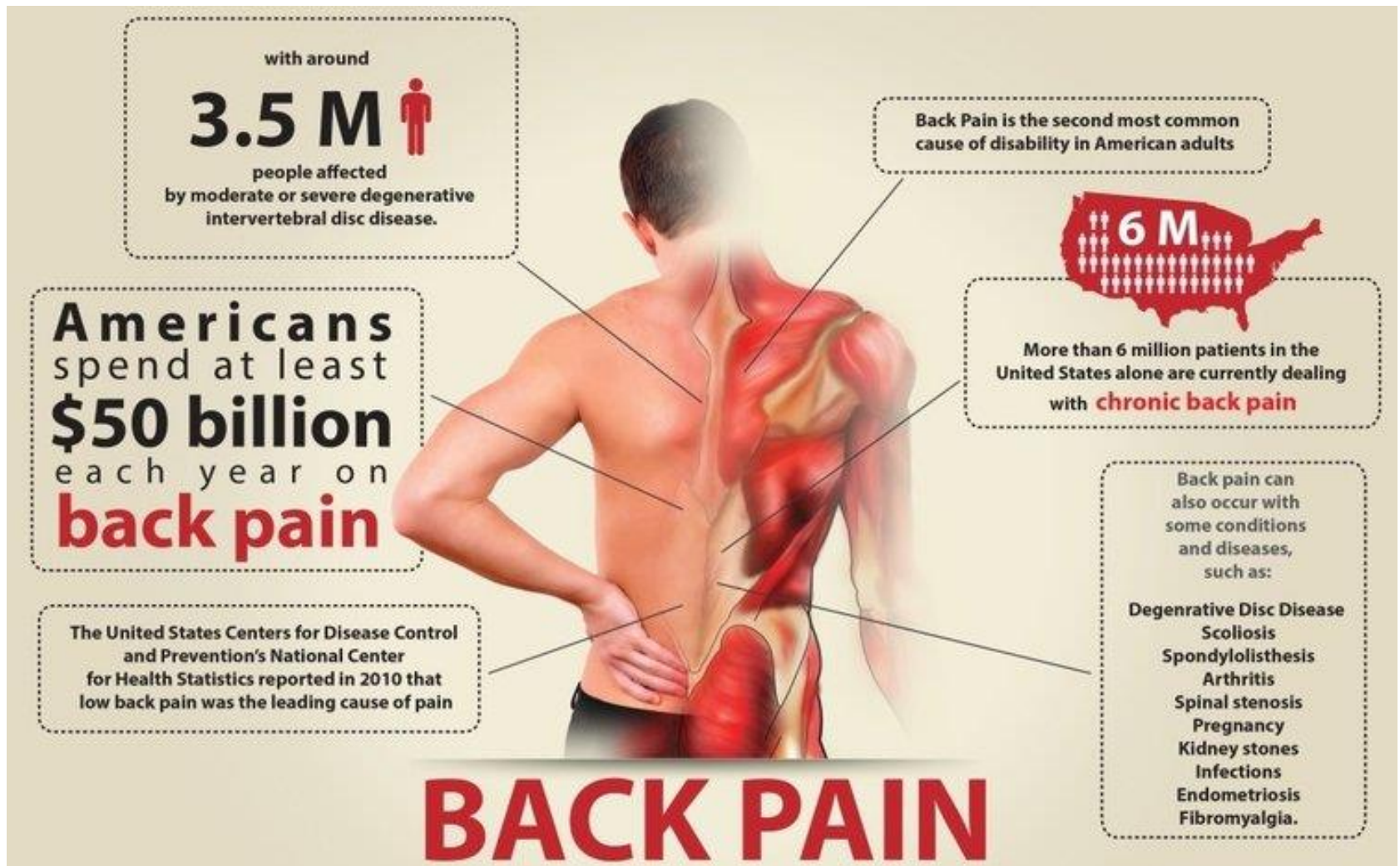
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# OUTLINE OF PRESENTATION

- Background
- Methodology
- Results and Discussion
- Conclusion and Recommendation

# BACKGROUND



# BACKGROUND

## CASES OF OCCUPATIONAL DISEASES: 2015

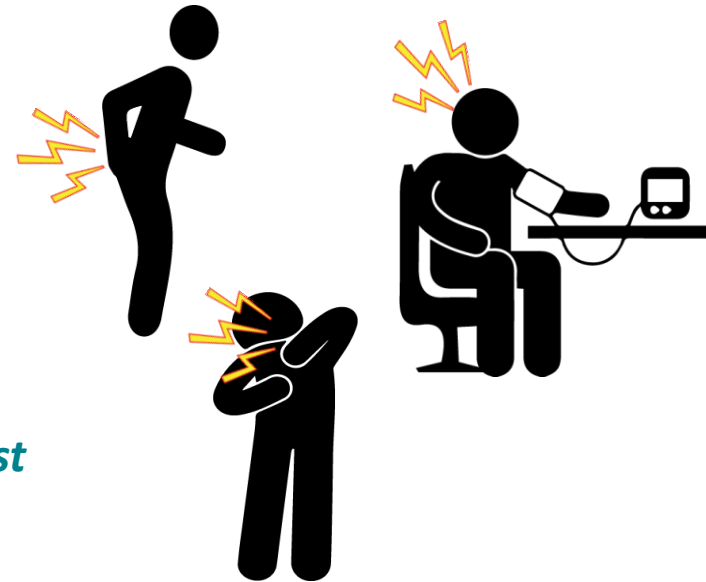
TOTAL CASES OF OCCUPATIONAL DISEASES: 125,973

### BY TYPE OF DISEASE

#### Top 3 work-related diseases:

- Back Pains (32.8%)
- Essential Hypertension (11.5%)
- Neck-Shoulder Pains (11.4%)

*Work-related musculoskeletal disease has been the most prevalent occupational disease since 2003.*



Source: Philippine Statistics Authority, Integrated Survey on Labor and Employment

# DATA/INFORMATION GAPS

There are plethora of sector/industry-specific assessment and studies on workplace health (ex. Lu, Jinky Leilanie 2008, 2009, 2012). However, there is scarcity in national level assessment of occupational health.

# Objective of the study

Examine factors or characteristics of establishments (at national level) that are associated with the occurrence of musculoskeletal diseases. There is particular focus on the commitment of employers for a safe and secure working environment which were determined through policies and programs employed in the workplace.

# WORKPLACE HEALTH MODEL

## 1 ASSESSMENT

### INDIVIDUAL

(e.g. demographics, health risks, use of services)

### ORGANIZATIONAL

(e.g. current practices, work environment, infrastructure)

### COMMUNITY

(e.g. transportation, food and retail, parks and recreation)

## 4 EVALUATION

### WORKER PRODUCTIVITY

(e.g. absenteeism, presenteeism)

### HEALTHCARE COSTS

(e.g. quality of care, performance standards)

### IMPROVED HEALTH OUTCOMES

(e.g. reduced disease and disability)

### ORGANIZATIONAL CHANGE, "CULTURE OF HEALTH"

(e.g. morale, recruitment/retention, alignment of health and business objectives)



## 2 PLANNING & MANAGEMENT

### LEADERSHIP SUPPORT

(e.g. role models and champions)

### MANAGEMENT

(e.g. workplace health coordinator, committee)

### WORKPLACE HEALTH IMPROVEMENT PLAN

(e.g. goals and strategies)

### DEDICATED RESOURCES

(e.g. costs, partners/vendors, staffing)

### COMMUNICATIONS

(e.g. marketing, messages, systems)

## 3 IMPLEMENTATION

### PROGRAMS

(e.g. education and counseling)

### POLICIES

(e.g. organizational rules)

### BENEFITS

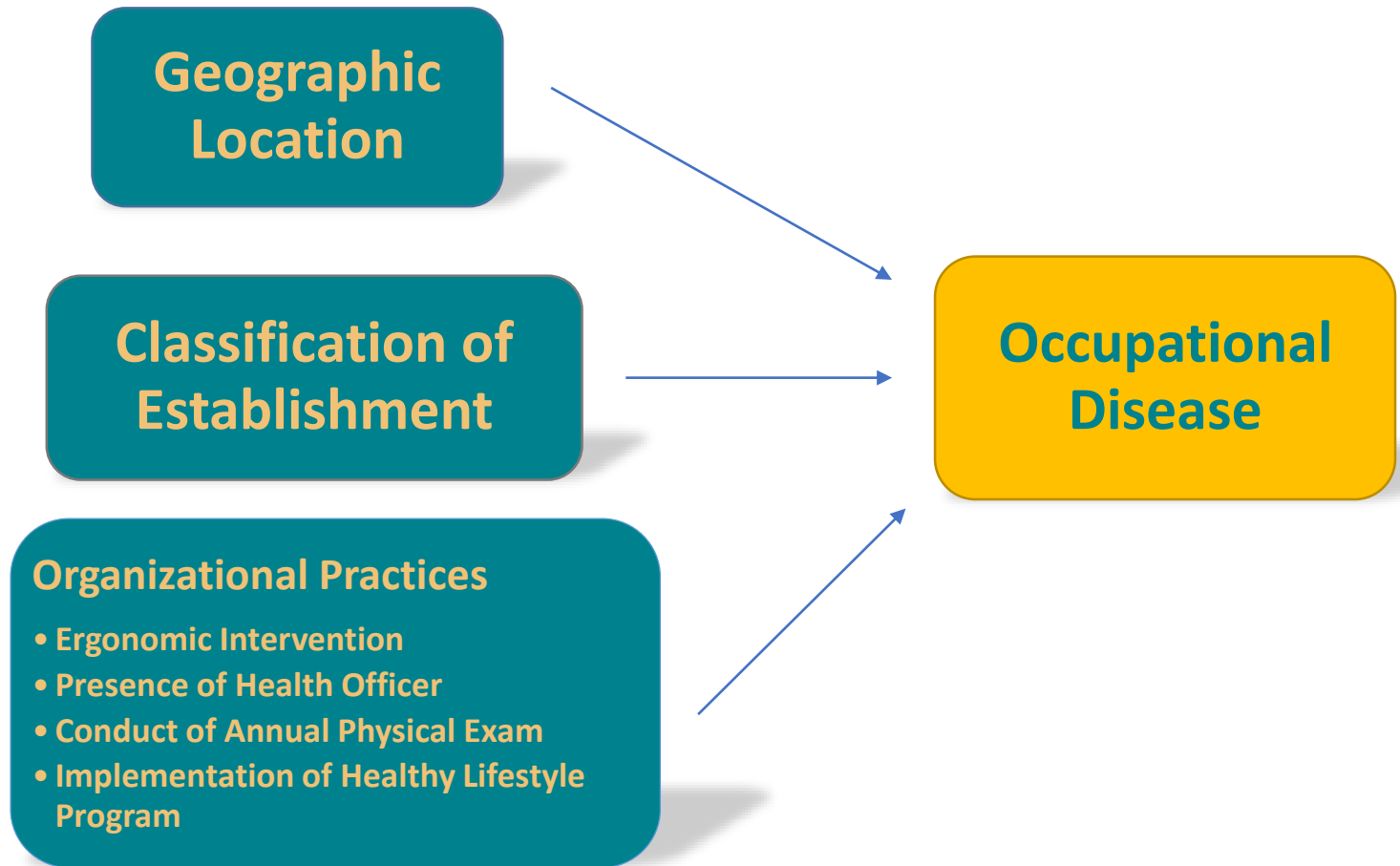
(e.g. insurance, incentives)

### ENVIRONMENTAL SUPPORT

(e.g. access points, opportunities, physical/social)

Source: Center for Disease Control and Prevention

# CONCEPTUAL framework





# METHODOLOGY

# DATA SOURCE

## *Integrated Survey on Labor and Employment (ISLE) 2015-2016*

- nationwide survey of establishments with at least 20 workers
- modular survey that covers different aspects of employment, labor standards, and labor relations
- only source of survey-based official occupational safety and health (OSH) and occupational injuries and diseases (OID) statistics
- Sample: 9,894

# Variable of Interest

## *Occupational Disease*

- the occurrence of work-related disease which is measured as either “present/with recorded case/s of occupational disease” or “absent/without”.
- *Present* refers to those establishments with at least one (1) recorded case of any occupational disease for the reference year otherwise *absent* if there is no recorded incident.

# Explanatory variables

- **Location** - establishments were sorted into urban and rural based on their geographic code (based on Philippine Standard Geographic Code)
- **Classification** - establishments were classified into two (2) categories: 1) product or 2) non-product based on their economic activities (goods and/or services)

# Explanatory variables

*Implement/practice the following prevention/control measures/activities against health hazards:  
(Yes/No)*

- Designation of health officer
- Conduct of annual physical exam
- Healthy lifestyle program
- Ergonomics intervention

# Statistical Analysis

Organizational factors that are associated with the occurrence of musculoskeletal diseases at establishment level are tested using logistic regression model.

# RESULTS AND DISCUSSION

# Profile of the Establishments surveyed by selected background characteristics, Philippines, 2015-2016

		Percent (n=9,894)
<b>Geographic Location</b>	Urban	64.5
	Rural	35.5
<b>Establishment's Category</b>	Product	29.5
	Non-Product	70.5
<b>Have a Designated Health Officer</b>	Yes	90.7
<b>Conduct Annual Physical Examination</b>	Yes	80.5
<b>Implement Healthy Lifestyle Program</b>	Yes	60.8
<b>Ergonomics Intervention</b>	Yes	30.8
<b>Musculoskeletal Disease</b>	Present	14.1

Source: Philippine Statistics Authority, Integrated Survey on Labor and Employment



# Establishment's classification is associated with the occurrence of MCD.

FULL MODEL			
		Odds Ratio	95 % Confidence Interval
<b>Establishment's Classification</b>	Product	2.0	[1.75, 2.23]***
<b>Geographic Location</b>	Urban	0.9	[0.75, 0.96]*
<b>Conduct Annual Physical Examination</b>	Yes	1.4	[1.17, 1.69]***
<b>Implement Healthy Lifestyle Program</b>	Yes	1.4	[1.25, 1.64]***
<b>Ergonomics Intervention</b>	Yes	1.4	[1.20, 1.55]***
<b>Have a Designated Health Officer</b>	Yes	1.2	[0.95, 1.56]

Source: Philippine Statistics Authority, Integrated Survey on Labor and Employment

# CONCLUSION AND RECOMMENDATION

# 5 out of 6 organizational factors are associated with the occurrence of MCDs in establishments

Using logistic regression model, the results showed that the following variables are linked with MCD:

1. Establishment's classification
2. Geographic location
3. Conduct of annual physical exam
4. Implementation of healthy lifestyle program,
5. Ergonomics intervention

- This study highlights that occurrence of MCD is linked with certain organizational factors. MCDs were observed despite the implementation of safety and health control measures/programs/interventions in the workplace which contradicts the purpose of prevention.
- Further studies on a combined individual and organizational data to be able to have a more holistic picture of workplace health status is recommended.



thank you  
for listening!