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## 2.2 Burden of Occupational Diseases and Concept of “Vision Zero”



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# Learning Objectives

- have knowledge of burden of occupational diseases and work related diseases
- have knowledge of vision zero



# Background

- Occupational diseases (ODs) and work-related injuries (WRI) have a heavy burden on workers and employers
- Enormous economic costs
- The information on incidence and prevalence of OD is poor and fragmented
- There is a need to develop methods and instruments to trace new and emerging occupational health(OH) risks

# Health approach promoted by WHO

## Occupational Health

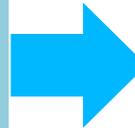
Labour contract

Only at the workplace

Employer's responsibility

Only work-related health issues

Negotiation between workers  
and employers



## Workers Health

All workers

Beyond the workplace

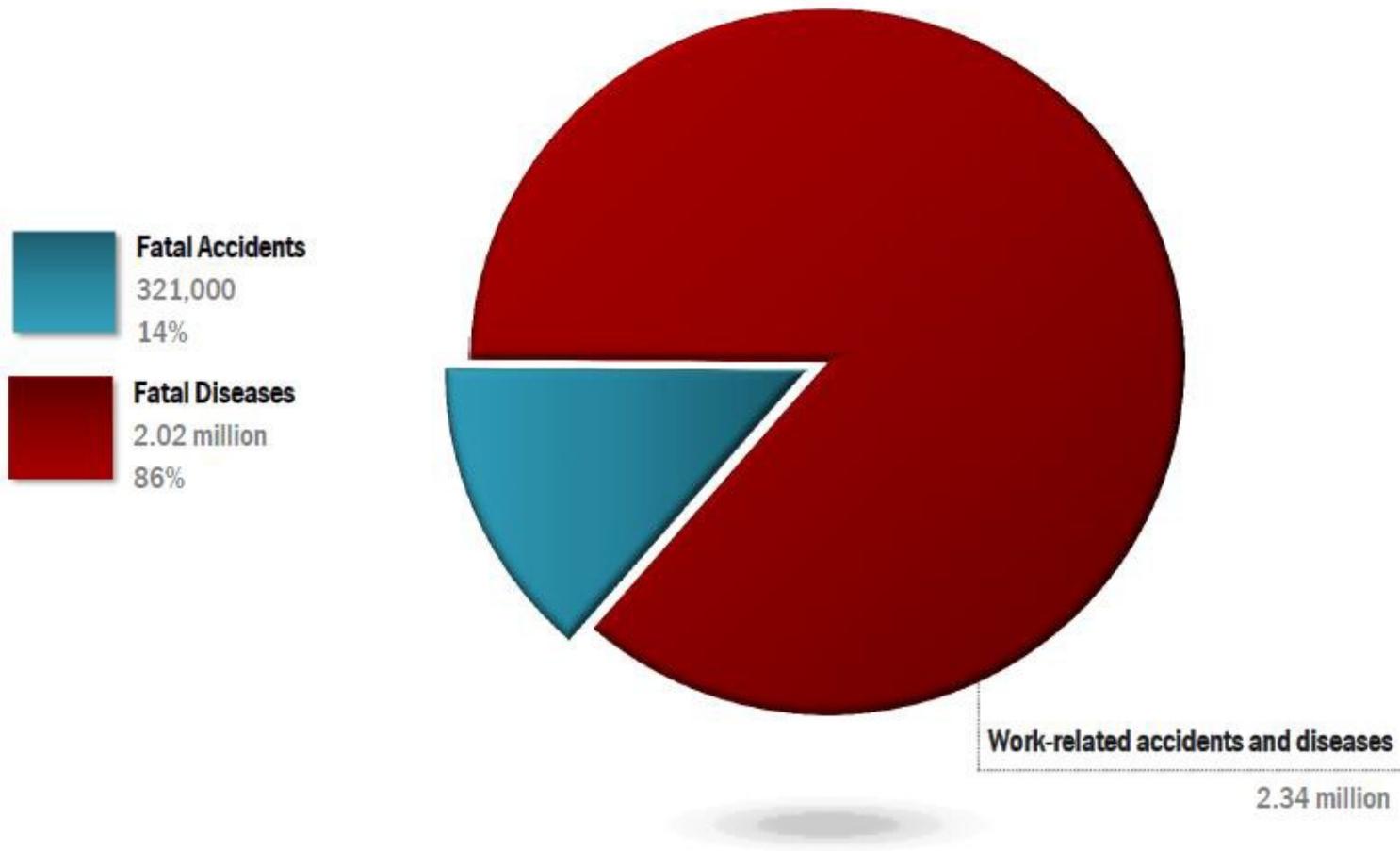
Responsibility of everybody

All health determinants

Health protection not subject to  
collective negotiation

Other stakeholders: health and  
environment authorities, insurance

# The hidden epidemic: a global picture



# The hidden epidemic

- **problems** at working environment (International Labor Organization (ILO):
  - ✓ accidents at 60 %
  - ✓ occupational diseases 40 %
  
- **the deaths**
  - occupational diseases 80 %
  - death resulting from occupational accidents is only 20 %
  - Informal workers



\* The most common fatal work-related disease groups are cancers (25%), circulatory diseases (21%), and communicable diseases (28%) (Hämäläinen et al, 2011).

\* Hastalıkların maliyeti incelendiğinde ise;

- *%40 ile kas iskelet sistemi hastalıkları en çok harcama yapılan hastalık grubudur.*



# Burden of accidents and ill-health at workplaces in the world

- 2.34 million people died from work-related injury or illness , 2.08 million from illness and 321,000 from accidents ( ILO, 2008 ) .
- An estimated 160 million people suffer from work-related diseases (ILO, 2003).

# Burden of accidents and ill-health at workplaces in EU

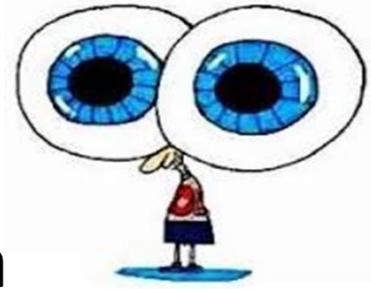
- In the EU-27 in 2007, 5,580 deathly accidents and 2.9 % of the workforce had an accident at work that resulted in more than three days of absence.
- 23 million people had a health problem caused or made worse by work in 1 year (Eurostat, 2010)



# Burden of accidents and ill-health at workplaces in EU

- In the Netherlands, the costs of poor or non-OSH were estimated at EUR 12.7 billion in 2001, or 3 % of GDP (Koningsveld et al., 2003).
- Costs to the United Kingdom economy of GBP 13.4 billion in 2010/11, excluding occupational cancers (calculated to be approximately 1 % of GDP (1))





- In 2005 in the United Kingdom, 8,019 ca deaths from occupation, the majority associated with substance exposure (Rushton et al., 2010).
- Exposure to hazardous substances at work contribute significantly to mortality through carcinogenic and respiratory diseases.
- Exposure to occupational carcinogens alone result in a global disease burden of 152,000 deaths and 1.6 million disability-adjusted life years (Driscoll et al., 2005).



## ➤ **ECONOMIC BURDEN of OCCUPATIONAL DISEASES in TURKEY**

- 2009 yılı Türkiye GSMH'sı 953 Milyar TL
- Türkiye'nin yükü 9-27 Milyar TL olarak tahmin edilebilir\*\*
- ✓ Doğrudan maliyetler Sosyal Güvenlik Sistemi tarafından karşılanmaktadır.

*Geçici işgöremezlik ödenekleri*

*Kalıcı işgöremezlik ödenekleri*

*Tedavi giderleri gibi.*

**\*\*Sadece TEDAŞ yılda İş Kazası ve Meslek Hastalığı tazminatı olarak 54-70 Milyon TL ödemekt edir.**



Ülkeler arasında deęişmekle birlikte, bir yılda her 1000 işçi için 4-12 meslek hastalığı beklenirken bu oran ülkemizde 100.000 de 5 civarındadır.

# Costs categorized into five main types:

- Productivity costs: decreased output or production.
- Healthcare costs: direct (e.g. pharmaceuticals) and indirect (e.g. caregiver time) costs.
- Quality of life losses: monetary valuation of the decrease in quality of life, physical pain and suffering.
- Administration costs: applying for social security payments or reporting on a workplace accident etc.
- Insurance costs: costs regarding insurance, such as compensation payments and insurance premiums.



# Costs by the perspective(s) of stakeholders:

- Workers and family
- Employers: the company or organisation
- Government: the relevant public authority regarding, for example, social security payments.
- Society: the effect on society is the overall impact of an injury or illness, excluding transfers between stakeholders.



# Vision Zero Movement

A movement that aims to inculcate a mindset that all injuries and ill health at work are preventable and a belief that zero harm is possible



# Vision Zero Movement

- Paying attention to workplace Safety and health is a socially responsible and it makes good business sense for the companies
- Starts with a strong safety culture and a mindset shift from fault finding to one that focuses on finding solutions to prevent injuries and ill health



# What actions should be taken?

*Companies/Stakeholder Groups*

## 6 STEPS TOWARDS VISION ZERO

VISION ZERO

**Step 1**

— Make a —  
**COMMITMENT**

VISION ZERO

**Step 2**

— SET A —  
**GOAL**

VISION ZERO

**Step 3**

**COMMUNICATE**  
the goal

VISION ZERO

**Step 4**

**IDENTIFY**  
WSH  
**CHALLENGES**

VISION ZERO

**Step 5**

**FIND**  
**SOLUTIONS**

VISION ZERO

**Step 6**

**REVIEW**  
&  
**MONITOR**  
PROGRESS



# What actions should be taken?

## *Individuals*

### **Set a personal pledge**

**1. Belief**– I can prevent all injuries and ill-health at work

**2. Behaviour** – Better manage risks/ Look after each other

**3. Way of Life** – How you work is how you live





# Summary

