Identifikasi Masalah/Fenomena di bidang K3

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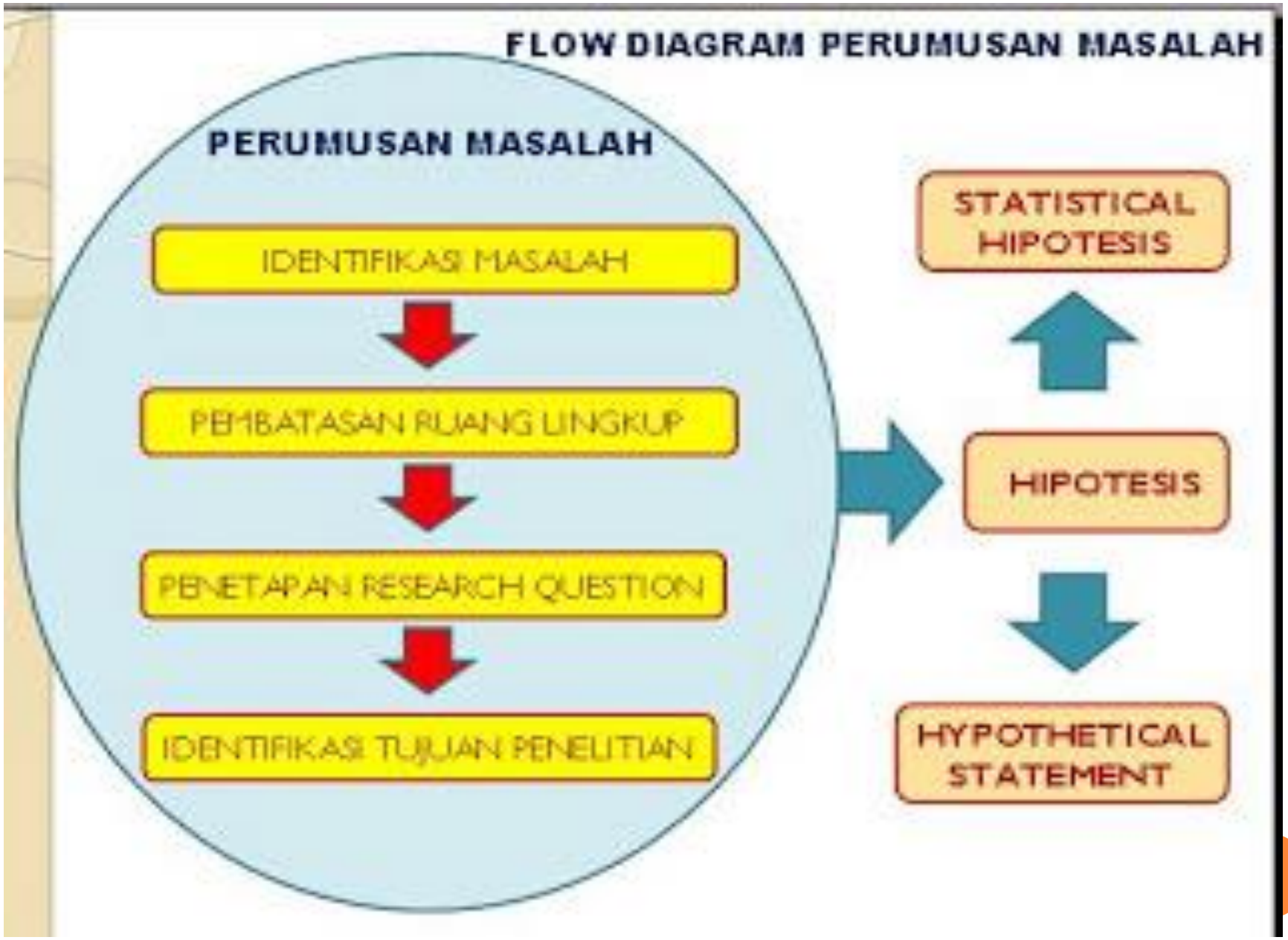
PENELITIAN itu MUDAH

Identifikasi masalah dalam penelitian

- Merupakan salah satu langkah/proses penting.
- Akan menentukan kualitas suatu penelitian.
- Akan menentukan apakah sebuah kegiatan bisa disebut sebagai penelitian/bukan.
- Temukan melalui:
  - Studi literatur.
  - Pengamatan lapangan (observasi, survei dll).


FLOW DIAGRAM PERUMUSAN MASALAH
PERUMUSAN MASALAH
IDENTIFIKASI MASALAH
PEMBATASAN RUANG LINGKUP
PENETAPAN RESEARCH QUESTION
IDENTIFIKASI TUJUAN PENELITIAN
STATISTICAL HIPOTESIS
HIPOTESIS
HYPOTHETICAL STATEMENT

Masalah penelitian

- pernyataan yang mempermasalahkan suatu variabel atau hubungan antara variabel pada suatu fenomena.
  - Variabel: pembeda antara sesuatu dengan yang lain.
- Sumber masalah dari mana?
  - People and problem.
  - Program.
  - Phenomenon.

Identifikasi masalah penelitian

- Masalahnya apa (Substansinya)?
- Bermasalah menurut siapa?
- Dianggap masalah dalam konteks apa?
- Dalam perspektif apa?

Mencari masalah penelitian

- Masalah masih baru.
- Aktual.
- Praktis.
- Memadai.
- Sesuai dengan kemampuan peneliti.
- Sesuai dengan kebijaksanaan pemerintah.
- Ada yang mendukung.
- Memilih Masalah Penelitian.

Menetapkan masalah penelitian

- Apakah topik tersebut dapat dijangkau dan dikuasai (*manageable topic*).
- Apakah bahan-bahan/data tersedia secukupnya (*obtainable data*).
- Apakah topik tersebut penting untuk diteliti (*significance of topic*).
- Apakah topik tersebut cukup menarik minat untuk diteliti dan dikaji (*interested topic*).

Evaluasi masalah penelitian

- Apakah menarik?
- Apakah bermanfaat?
- Hal yang baru?
- Dapat diukur/diuji?
- Dapat dilaksanakan?
- Apakah masalah yg penting?
- Tidak melanggar etika?

Beberapa contoh masalah/fenomena bidang K3

Workplace Safety & Health Topics

TRAUMATIC OCCUPATIONAL INJURIES

In 2010, there were an estimated 139,064,000 civilian workers in the U.S. private and public sector employed labor force, according to the Bureau of Labor Statistics Current Population Survey. Each day, many of these workers suffer injury, disability, and death from workplace incidents. In 2012, more than 4,383 U.S. workers died from occupational injuries. Although difficult to enumerate, annually about 49,000 deaths are attributed to work-related illnesses. In 2012, an estimated 3.8 million workers in private industry and state and local government had a nonfatal occupational injury or illness. In 2011 an estimated 2.9 million workers were treated in emergency departments for occupational injuries and illnesses, and approximately 150,000 of these workers were hospitalized (NIOSH, unpublished data, 2013).

Each year occupational injuries and illnesses cause employers, workers, and society to pay tremendous costs for workers' compensation and other insurance, medical expenses, lost wages and productivity, and the personal and societal costs associated with day to day living for injured and ill workers. A recent economic analysis suggested that traumatic occupational deaths and injuries cost the nation $192 billion annually, including direct medical costs and indirect costs such as lost wages and productivity (Leigh

OCCUPATIONAL HEARING LOSS (OHL) SURVEILLANCE

Facts and Definitions

Scope of the Problem

- In the United States, hearing loss is the **third-most common** chronic health condition among older adults after hypertension and arthritis.
- **Over 11%** of the U.S. working population has hearing difficulty.
- About **24%** of the hearing difficulty among U.S. workers is caused by occupational exposures.

What causes Occupational Hearing Loss (OHL)?

- OHL can occur when workers are exposed to loud noise or ototoxic chemicals.
- **Noise** is considered loud (hazardous) when it reaches 85 decibels or higher, or if a person has to raise his/her voice to speak with someone 3 feet away (arm's length).
- **Ototoxic chemicals** (and examples) include:
  - organic solvents (styrene, trichloroethylene, mixtures)
  - heavy metals (mercury, lead, trimethyltin)
  - asphyxiants (carbon monoxide, hyrdrogen cyanide)

How Many Workers are Exposed?

How Many Workers are Exposed?

- About **22 million workers** are exposed to hazardous noise each year.
- About **10 million workers** are exposed to solvents and an **unknown number** are exposed to other ototoxicants.

What is OHL Surveillance?

OHL surveillance includes:

- Collecting worker hearing data, exposure data and related information for analysis;
- Estimating how many workers have hearing loss or related health outcomes and how many workers are exposed;
- Examining these estimates by industry and occupation; and
- Monitoring trends over time.

The NIOSH OHL Surveillance Project commenced to establish a national repository for OHL data, and to conduct surveillance and research of this common occupational illness.

Sign up for Project Email Alerts

“Prevalence of Hearing Loss in the United States by Industry”

The dataset analyzed in our first published article, along with the article reference, abstract and description of data collection efforts, are available below.

Reference

Masterson EA, Tak S, Themann CL, Wall DK, Groenewold MR, Deddens JA, Calvert GA. (2013). Prevalence of hearing loss in the United States by industry. American Journal of Industrial Medicine, 56: 670-681

Abstract

Background: Twenty-two million workers are exposed to hazardous noise in the United States. The purpose of this study is to estimate the prevalence of hearing loss among U.S. industries. Methods: We examined 2000–2008 audiograms for male and female workers ages 18–65, who had higher occupational noise exposures than the general population. Prevalence and adjusted prevalence ratios (PRs) for hearing loss were estimated and compared across industries. Results: In our sample, 18% of workers had hearing loss. When compared with the Couriers and Messengers industry sub-sector, workers employed in Mining (PR = 1.65, CI = 1.57–1.73), Wood Product Manufacturing (PR = 1.65, CL = 1.61– 1.70), Construction of Buildings (PR = 1.59, CI = 1.51–1.68), and Real Estate and Rental and Leasing (PR = 1.61, CL = 1.51–1.71) had higher risks for hearing loss.

Conclusions: Workers in the Mining, Manufacturing, and Construction industries need better engineering controls for noise and stronger hearing conservation strategies. More hearing loss research is also needed within traditional “low-risk” industries like Real Estate.

Lower Back

Efficacy of the Revised NIOSH Lifting Equation to predict risk of low-back pain associated with manual lifting: A one-year prospective study.
Human Factors 2014; 56(1):73-85.

The NIOSH Lifting Equation and low-back pain, Part 1: Association with low-back pain in the BackWorks prospective cohort study.
Human Factors 2014; 56(1):6-28.

The NIOSH Lifting Equation and low-back pain, Part 2: Association with seeking care in the BackWorks prospective cohort study.
Human Factors 2014; 56(1):44-57.

Low-back pain ratings for lifetime, 1-month period, and point prevalences in a large occupational population.
Human Factors 2014; 56(1):86-97.

Cumulative spine loading and clinically meaningful declines in low-back function.
Human Factors 2014; 56(1):29-43.

Are workers who leave a job exposed to similar physical demands as workers who develop clinically meaningful declines in low-back function?
Human Factors 2014; 56(1):58-72.

Upper Extremity

A prospective study of musculoskeletal outcomes among manufacturing workers: I. Effects of physical work factors.
Human Factors 2014; 56(1):112-130.

A prospective study of musculoskeletal outcomes among manufacturing workers: II. Effects of psychosocial stress and work organization factors.
Human Factors 2014; 56(1):178-190.

The Strain Index and ACGIH TLV for HAL: Risk of trigger digit in the WISTAH prospective cohort.
Human Factors 2014; 56(1):98-111.

Evaluation of alternate category structures for the Strain Index: An empirical analysis.
Human Factors 2014; 56(1):131-142.

The impact of posture on wrist tendinosis among blue-collar workers: The San Francisco study.
Human Factors 2014; 56(1):143-150.

The association between combination of hand force and forearm posture and incidence of lateral epicondylitis in a working population.
Human Factors 2014; 56(1):151-165.

Using job-title-based physical exposures from O*NET in an epidemiological study of carpal tunnel syndrome.
Human Factors 2014; 56(1):166-177.

Impacts of differences in epidemiological case definitions on prevalence for upper-extremity musculoskeletal disorders.
Human Factors 2014; 56(1):191-202.

General Resources

Considerations for Selecting Protective Clothing used in Healthcare for Protection against Microorganisms in Blood and Body Fluids
This document provides an overview of scientific evidence and information on national and international standards, test methods, and specifications for fluid-resistant and impermeable gowns and coveralls used in healthcare. This document focuses on selecting protective clothing primarily on the basis of their barrier properties. It does not address all aspects of garments related to their design, integrity, durability, comfort, and functionality.

State of the Sector | Healthcare and Social Assistance Identification of Research Opportunities for the Next Decade of NORA
DHHS (NIOSH) Publication No. 2009-139 (June 2009)

Healthcare and Social Assistance - Advancing priorities through research and partnerships
DHHS (NIOSH) Publication No. 2009-149 (June 2009)

NIOSH Program Portfolio: Health Care and Social Assistance
The mission of the National Institute for Occupational Safety and Health (NIOSH) research program for the HCSA sector is to eliminate occupational diseases, injuries, and fatalities among individuals working in this sector through a focused program of research and prevention.

A Compendium of NIOSH Health Care Worker Research 2001
DHHS (NIOSH) Publication No. 2003-108 (December 2002)
Overview of research projects related to the healthcare industry.

Chemical Hazards and Controls

NIOSH List of Hazardous Drugs in Healthcare Settings Allows Healthcare Workers to Minimize Exposure and Reduce Health Risks
DHHS (NIOSH) Publication No. 2011-189 (August 2011)

Best Practices for the Safe Use of Glutaraldehyde in Health Care (2006) [PDF-262 KB]
This handbook helps employers and employees understand and control exposures to glutaraldehyde, a toxic chemical used to disinfect and clean heat-sensitive medical, surgical, and dental equipment.
Occupational Safety and Health Administration (OSHA)

Glutaraldehyde: Occupational Hazards in Hospitals
DHHS (NIOSH) Publication No. 2001-115 (May 2001)
Describes the adverse effects of exposure to glutaraldehyde, occupational exposures, and control.
En Español

Mercury in Health Care (August 2005) [PDF - 33 KB]
World Health Organization

Control of Smoke From Laser/Electric Surgical Procedures (Hazard Control)
DHHS (NIOSH) Publication No. 96-128 (March 1998)
Describes how to control airborne contaminants generated by these surgical devices.

Waste Anesthetic Gases - Occupational Hazards in Hospitals
DHHS (NIOSH) Publication No. 2007-151 (September 2007)
This brochure increases awareness about the adverse health effects of waste anesthetic gases, describes how workers are exposed, recommends work practices to reduce these exposures, and identifies methods to minimize leakage of anesthetic gases into the work environment.

Physical Hazards and Controls

Ergonomics and Musculoskeletal Disorders

Workplace Solutions: Preventing Work-Related Musculoskeletal Disorders in Sonography
DHHS (NIOSH) Publication No. 2006-148
Provides case summaries and recommendations for preventing MSDs in health care workers giving sonograms.

Safe Lifting and Movement of Nursing Home Residents
DHHS (NIOSH) Publication No. 2006-117 (February 2006)
This guide is intended for nursing home owners, administrators, nurse managers, safety and health professionals, and workers who are interested in establishing a safe resident lifting program.

Ergonomics: Guidelines for Nursing Homes
Occupational Safety and Health Administration (OSHA)

Beyond Getting Started: A Resource Guide for Implementing a Safe Patient Handling Program in the Acute Care Setting (2006) [PDF - 1.2 MB]
This booklet was developed by the Alliance Implementation Team of the Association of Occupational Health Professionals in Health Care (AOHP) and the Occupational Safety and Health Administration (OSHA).

Terima kasih