

*The Involvement of Occupational Hygiene  
in the Adjudication of WSIB  
Occupational Disease Claims*

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(ODSBP)

Workplace Safety and Insurance Board (WSIB)

*So, what's in it for you?*

A better understanding of the exposure data needed for the proper adjudication of occupational disease claims.

# *Objectives*

- Highlight some differences between “traditional & non-traditional” OH
- Provide an overview of how OHs are involved in the claims adjudication process
- Provide an overview of some of our EA tools

# *Disclaimers*

Too many to mention

# *Format of Presentation*

- Background information
- Case Example
- Closing comments and Q/A

# *Statistics (2005)*

Total OD claims: 16,408

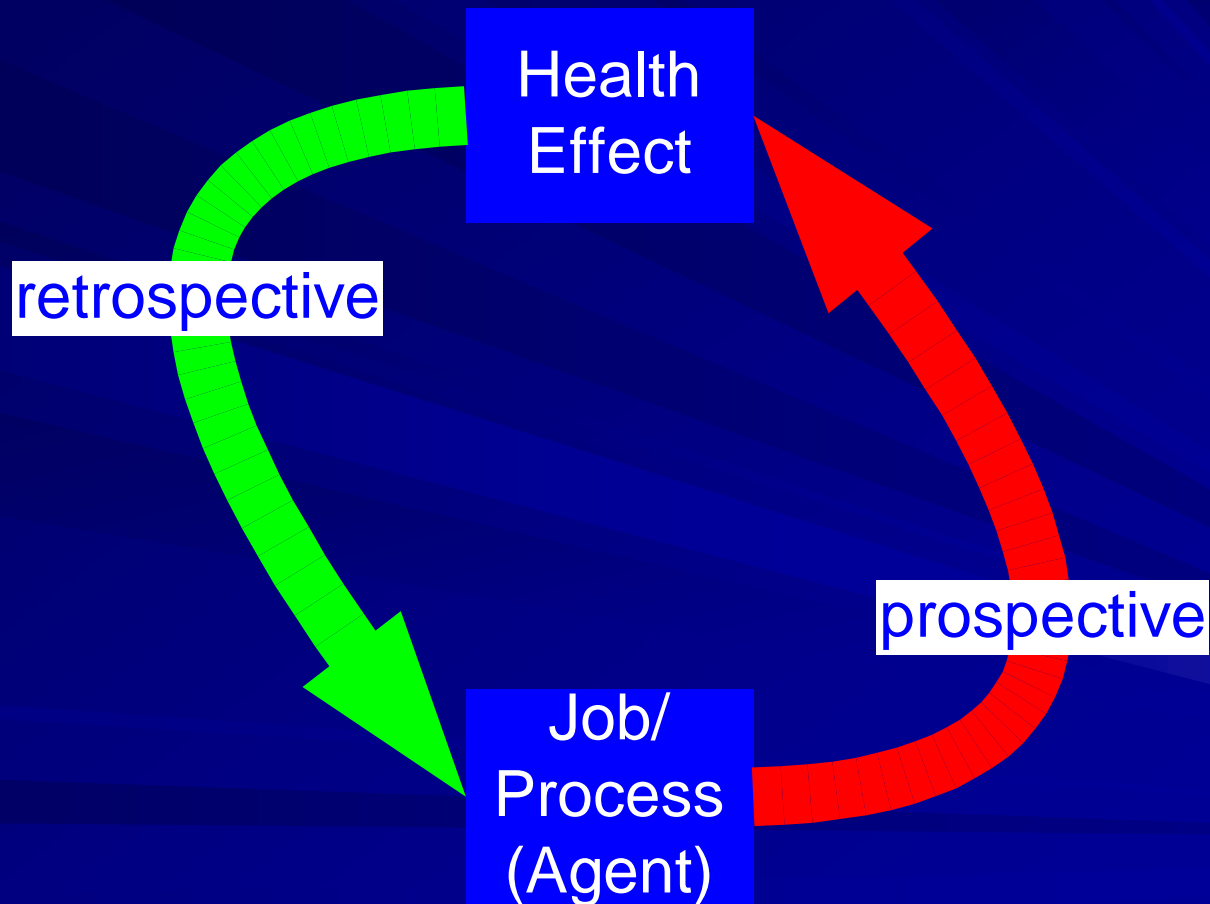
# *Scope of Work*

- Client base (internal & external)
- Structure of occupational hygiene in ODSBP (n=5)

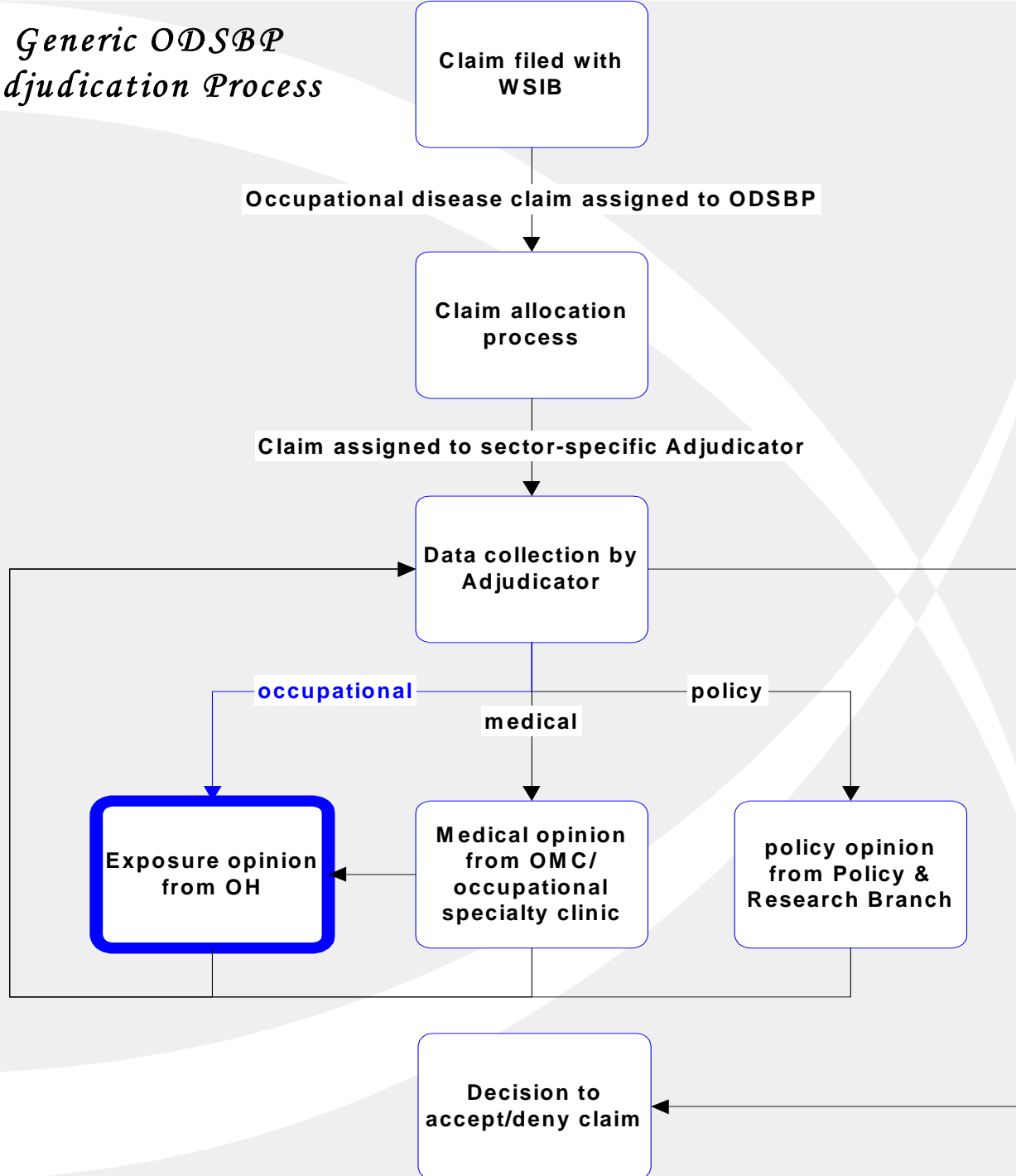
# *Challenges*

- Variety of claims: majority are long-latency multi-factorial diseases
- Volume and complexity of claims (in-take clinics)
- Adversarial process
- Majority of work involves “non-traditional” OH techniques

# *Traditional vs. Non-Traditional*



# *Generic ODSBP Adjudication Process*



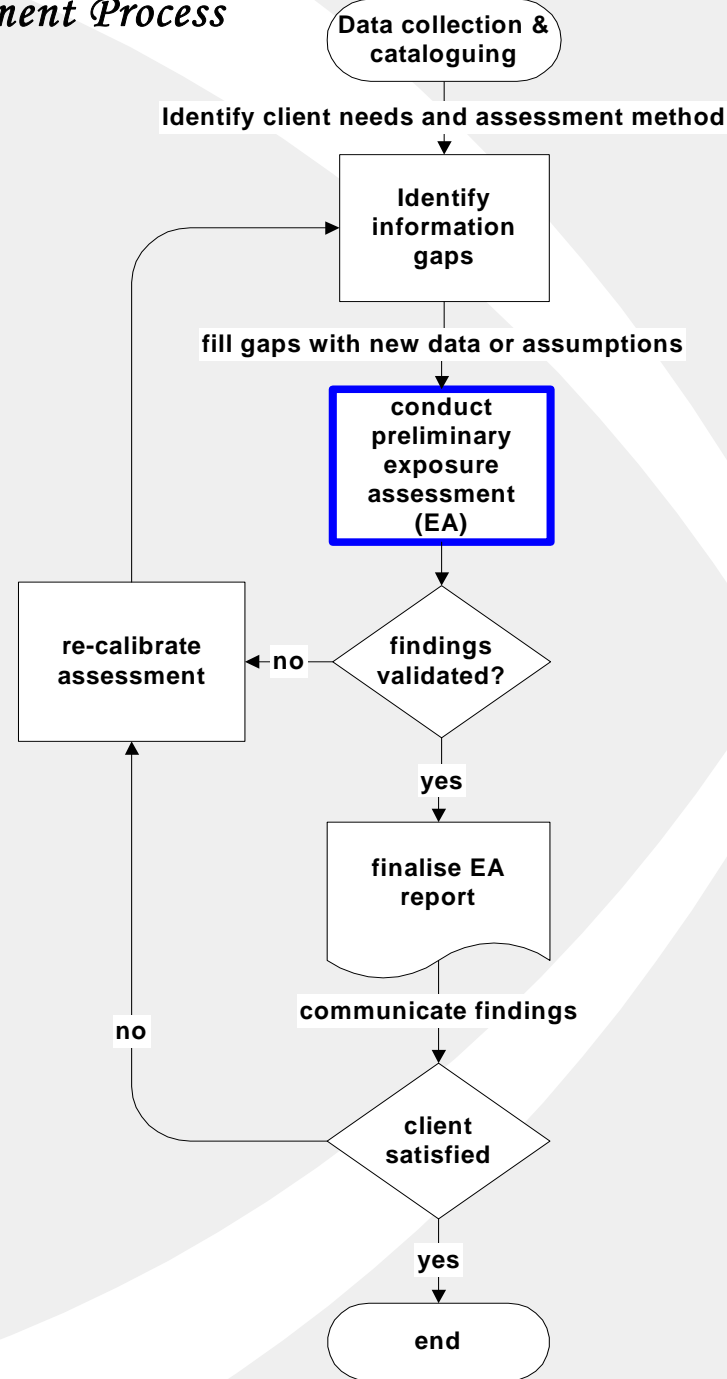
# *Typical Questions*

- Depends on the type of claim and who's asking
  - Hazard identification
  - How much, long, often
  - Presence or absence
  - Estimation of “dose”

# *Reconstruction of the Past*

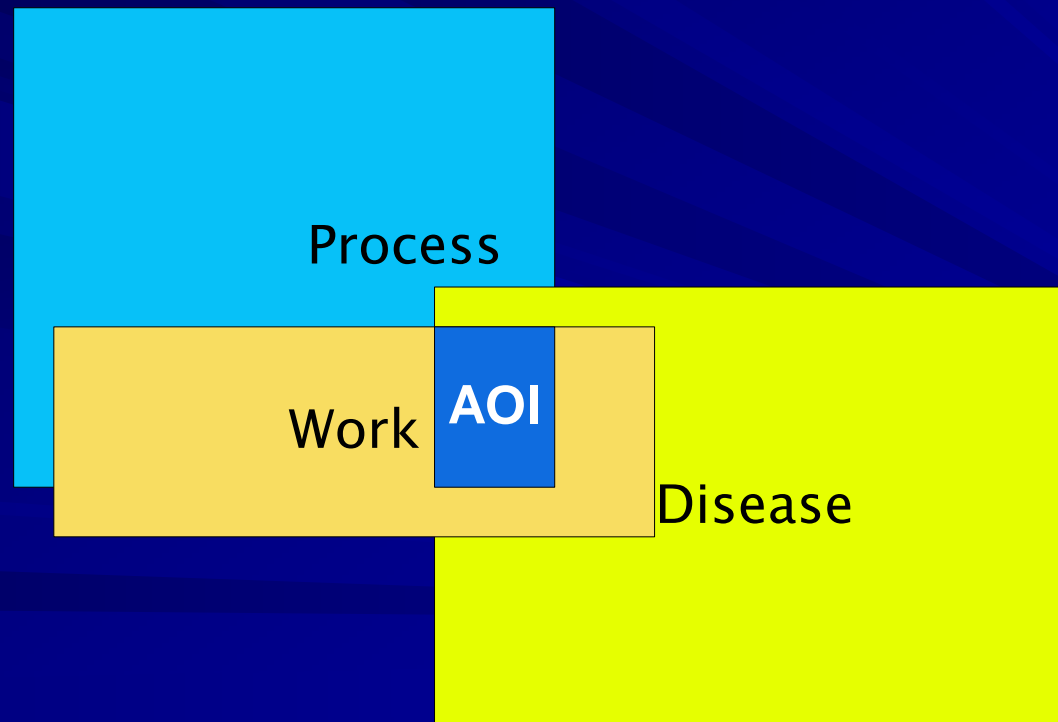
- Employment history
- Work processes
- Environmental conditions

# Generic Exposure Assessment Process

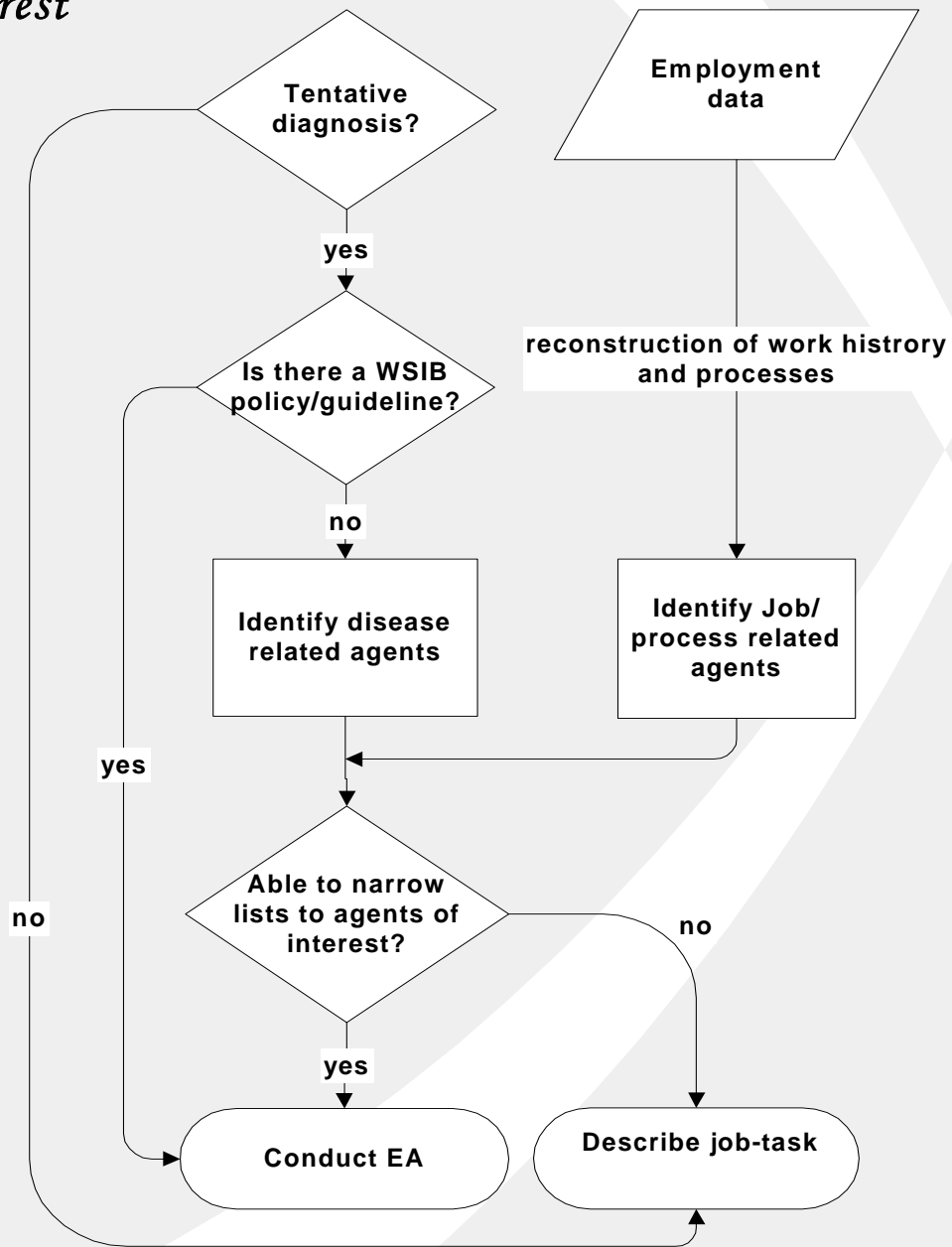


# Conducting EA: Where to begin

*Narrowing Agents of Interest*



# Determining Agents of Interest



# *Data Analysis Tool Kit*

- Quantitative: air sampling
- Semi-Quantitative: modeling (e.g. 2-zone)
- Qualitative: modeling
- Statistical tools (BDA, MCS): uncertainty analysis

# *Presentation of Findings*

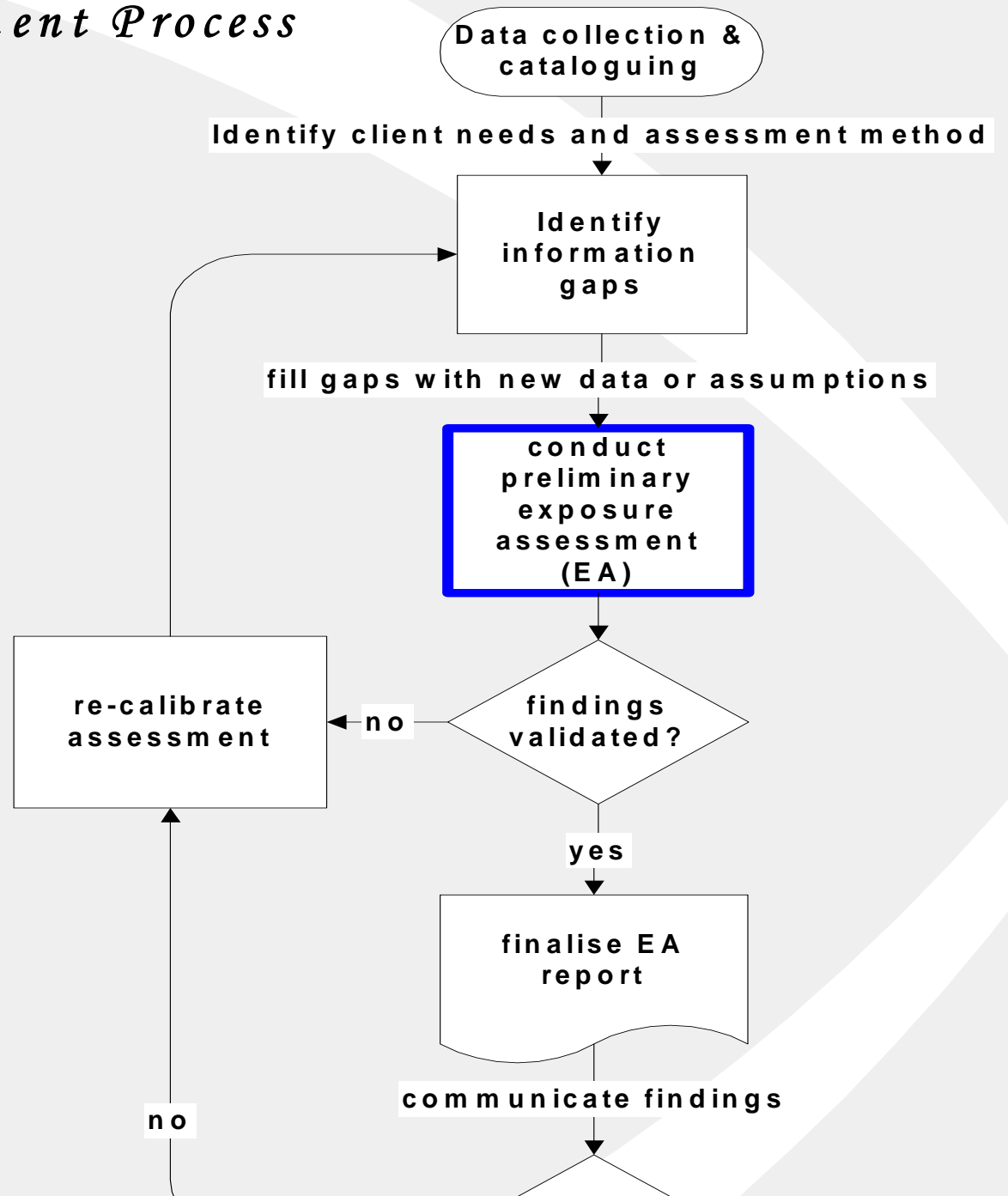
- *Non-technical*: keep it simple, but not too simple
- *Transparent*: opinions, assumptions & sources
- *Succinct*: don't leave anything out, but get to the point

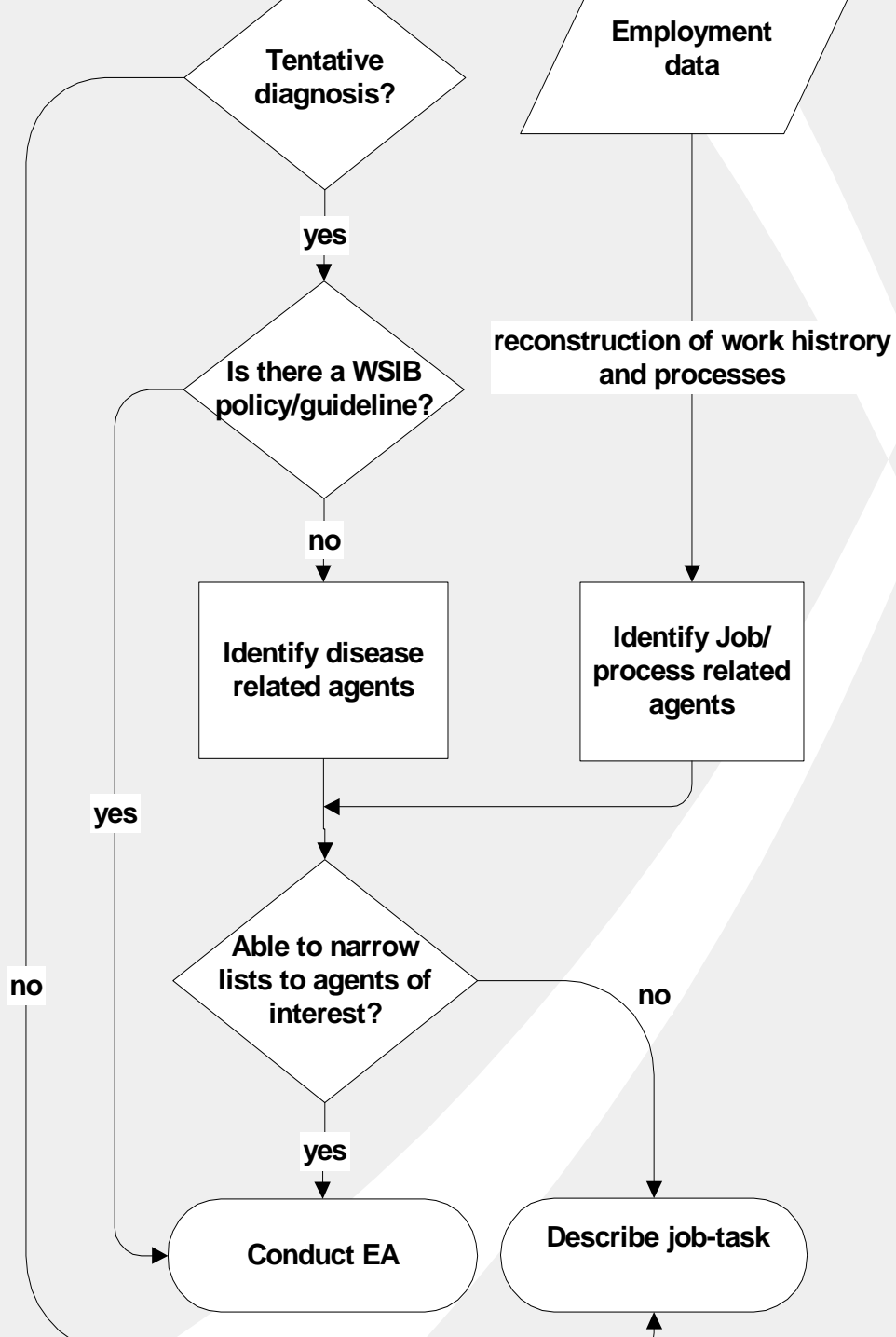
# *Scope of Work*

- Was asbestos present– Mesothelioma policy
- How many yrs. exposed– Asbestosis policy
- Approximate conc. – Compare with epidemiology
- Cumulative dust– COPD guidelines

*OFTEN: given a diagnosis, were there agents in the work environment which could have contributed to the disease?*

# *Environmental Exposure Assessment Process*





## *Agents of Interest: Data Sources*

- Carcinogens – IARC, EPA’s NTP
- Others– NLM’s HAZMAP, TOXSEEK
- Process Information– NIOSH, ILO, EPA, Kirk Othmer Encl. Chem Tech  
Many other print & electronic sources

## *Example: Grey Iron Foundry Worker*

- Silicosis and lung cancer diagnosed post mortem a year ago
- Minimal medical history from more than five years ago
- Pack a day smoker, quit 15 yrs. ago
- Work history very sparse from widow co-worker, most recent employer

# *Lung Cancer Foundry Policy*

- 10 yrs. minimum prior to 1956
- 20 yrs. predominant sand moulds, floor pouring of castings, evidence of ventilation less than satisfactory
- Latency (risk cessation to diagnosis)  
15 yrs. for smoker, 20 yrs. for non-smoker

## *Other Policies*

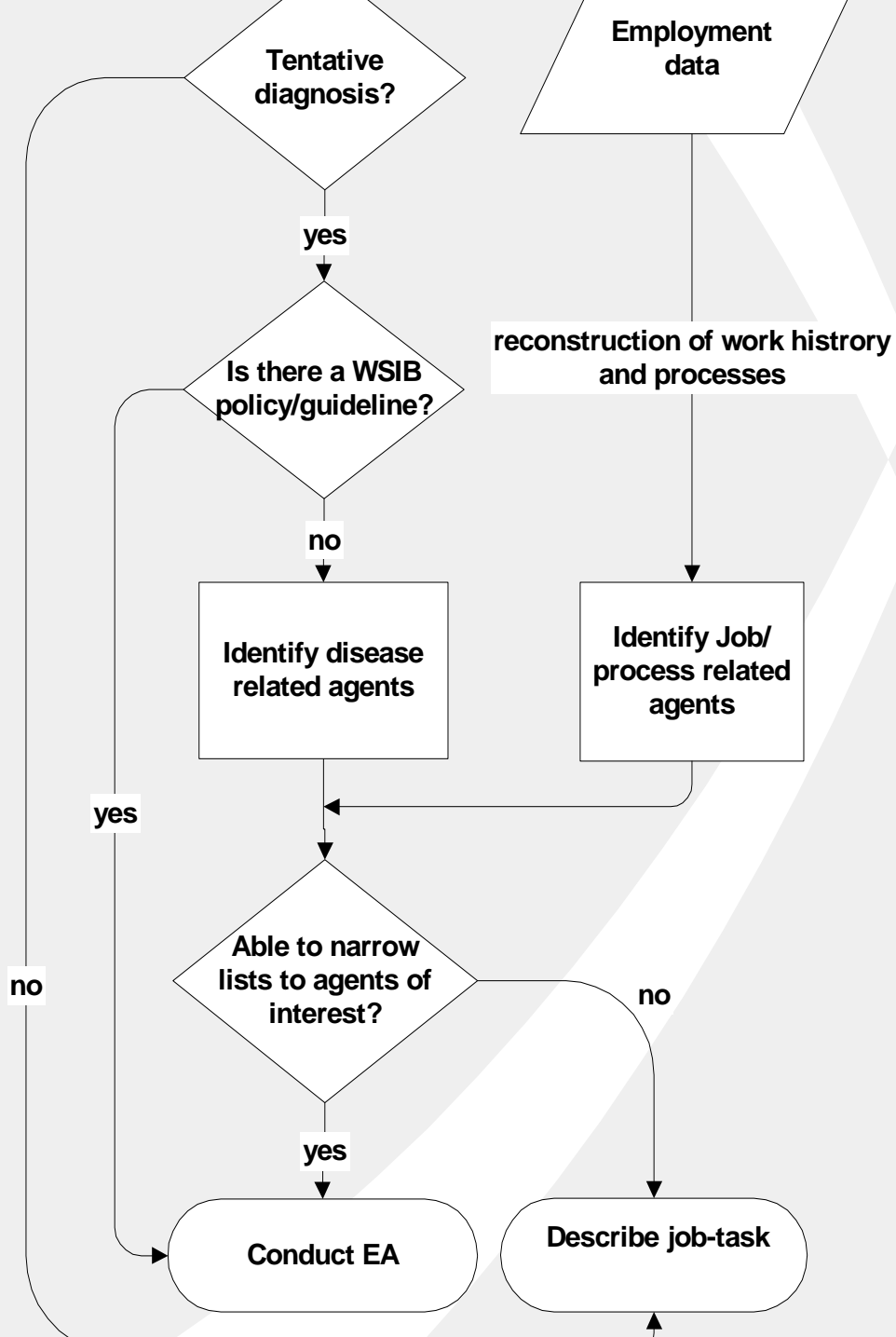
- Silicosis–Clear & adequate history of at least two years of exposure to silica dust
- Lung Cancer–ASBESTOS– Clear & adequate history of at least 10 years exposure to asbestos

# *Sparse Work History*

SOURCE	DATES	EMPLOYER	TASKS
Widow	55-60	Windsor Machine Shop	????
USWA	62-70	Foundry?	????
Employer Record	65-75	Small foundry	Labourer
Co-worker	75-90	Engine block plant	Grinder
Employer	1990- 2000	Foundry	Lead-hand

# *Tentative Employment History*

YEAR/DEPT.	JOB TITLE/TASK	POTENTIAL EXPOSURES
55-60 Machine Shop	Machinist?	Chromium? Nickel? Metal dust/fume
62-75 Foundry	Labourer	Silica, Asbestos, Metal fume, PAHs



# *Communicating Uncertainty*

## PROBABILITY IN THE ABSENCE OF DATA

Unlikely= 0.001

Not likely

Probable

Very likely

Almost certain=0.999

# *Silica Assessment*

TASK	TIME	PROBABILITY
Machine Shop	55-60	Unlikely
Foundry Labourer	62-75	Very likely

# *Closing Comments*

- *Air sampling data:* include descriptions of job, work process & conditions
- *Investigation of health incidents:* include description of worker's current & previous work