National Academy of Sciences/National Research Council
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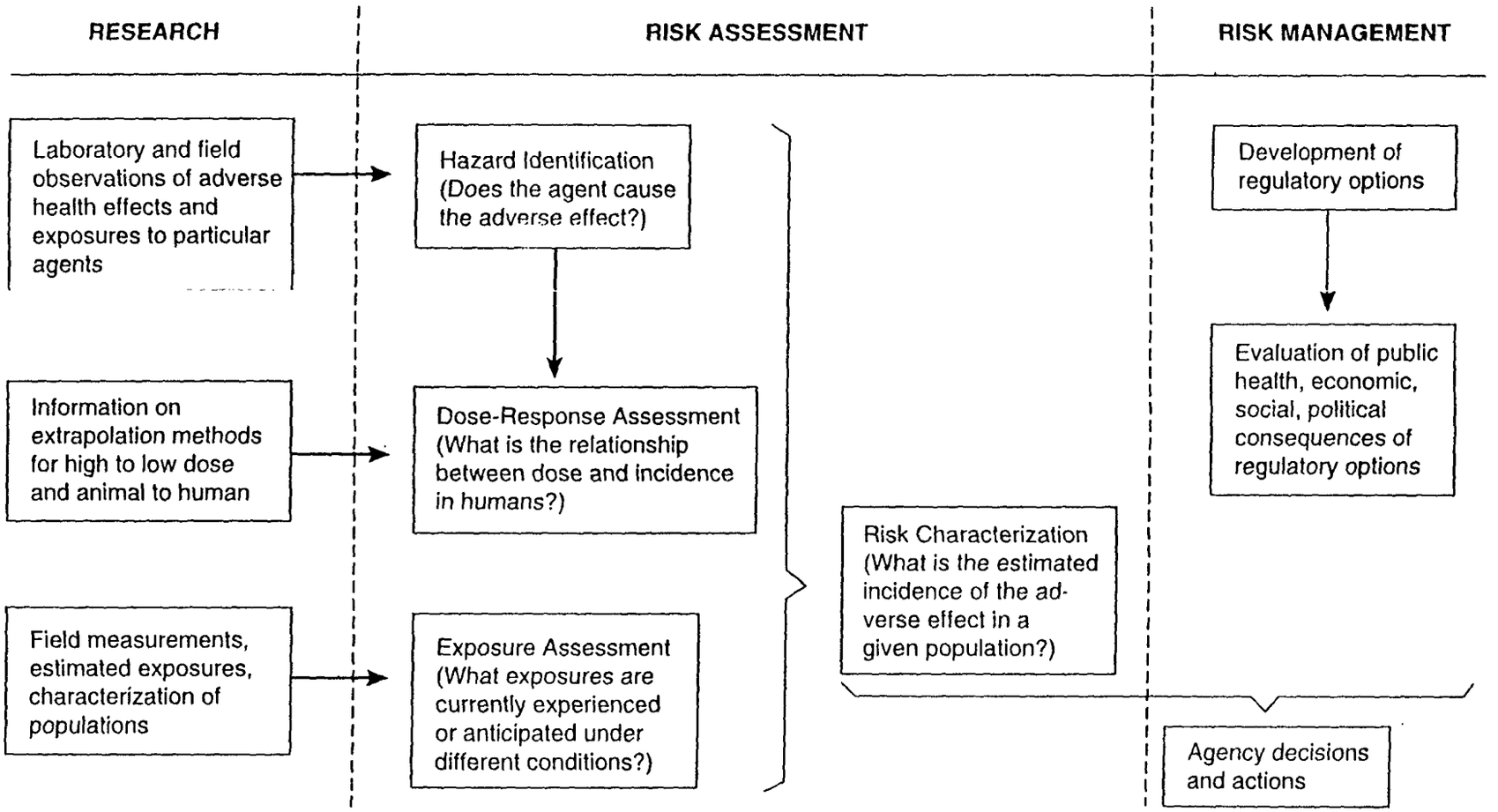
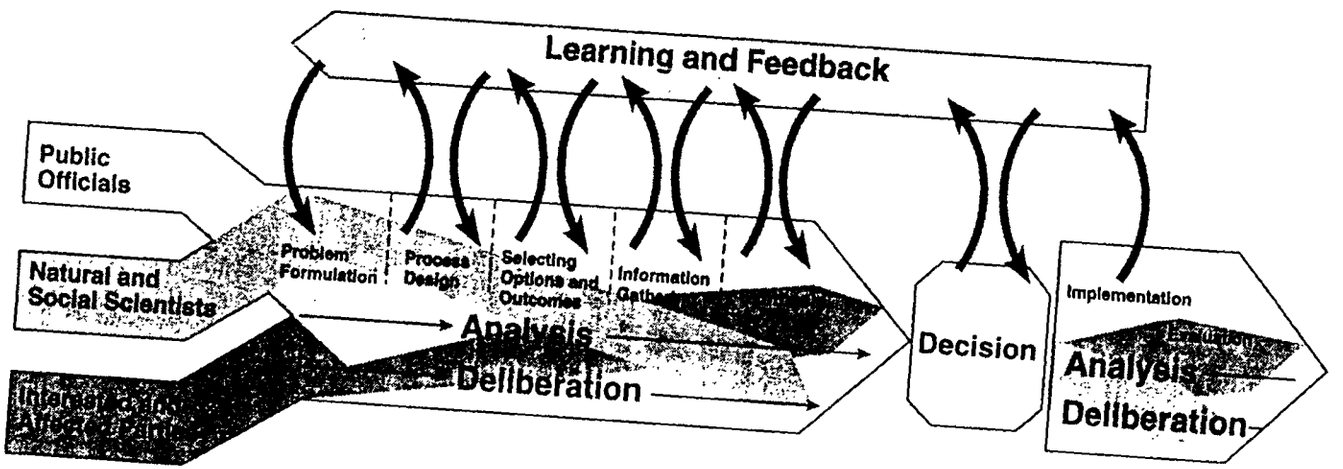
Definition

Risk characterization *is a synthesis and summary of information about a potentially hazardous situation that addresses the needs and interests of decision makers and of interested and affected parties. Risk characterization is a prelude to decision making and depends on an iterative, analytic-deliberative process.*


RESEARCH
RISK ASSESSMENT
RISK MANAGEMENT
Laboratory and field observations of adverse health effects and exposures to particular agents
Information on extrapolation methods for high to low dose and animal to human
Field measurements, estimated exposures, characterization of populations
Hazard Identification (Does the agent cause the adverse effect?)
Dose-Response Assessment (What is the relationship between dose and incidence in humans?)
Exposure Assessment (What exposures are currently experienced or anticipated under different conditions?)
Risk Characterization (What is the estimated incidence of the adverse effect in a given population?)
Development of regulatory options
Evaluation of public health, economic, social, political consequences of regulatory options
Agency decisions and actions


Learning and Feedback
Public Officials
Natural and Social Scientists
Problem Formulation
Process Design
Selecting Options and Outcomes
Information
Analysis
Deliberation
Decision
Implementation
Analysis
Deliberation

Seven Principles of Risk Characterization

1). decision-driven

2). broad understanding of the consequences

3). analytic-deliberative process

4). early and explicit attention to problem formulation

5). mutual and recursive process

6). develop a provisional diagnosis of the decision situation

7). enhance organizational capability

Five Criteria for Successful Risk Characterization

1). Getting the science right

2). Getting the right science

3). Getting the right participation

4). Getting the participation right

5). Developing an accurate, balanced and informative synthesis

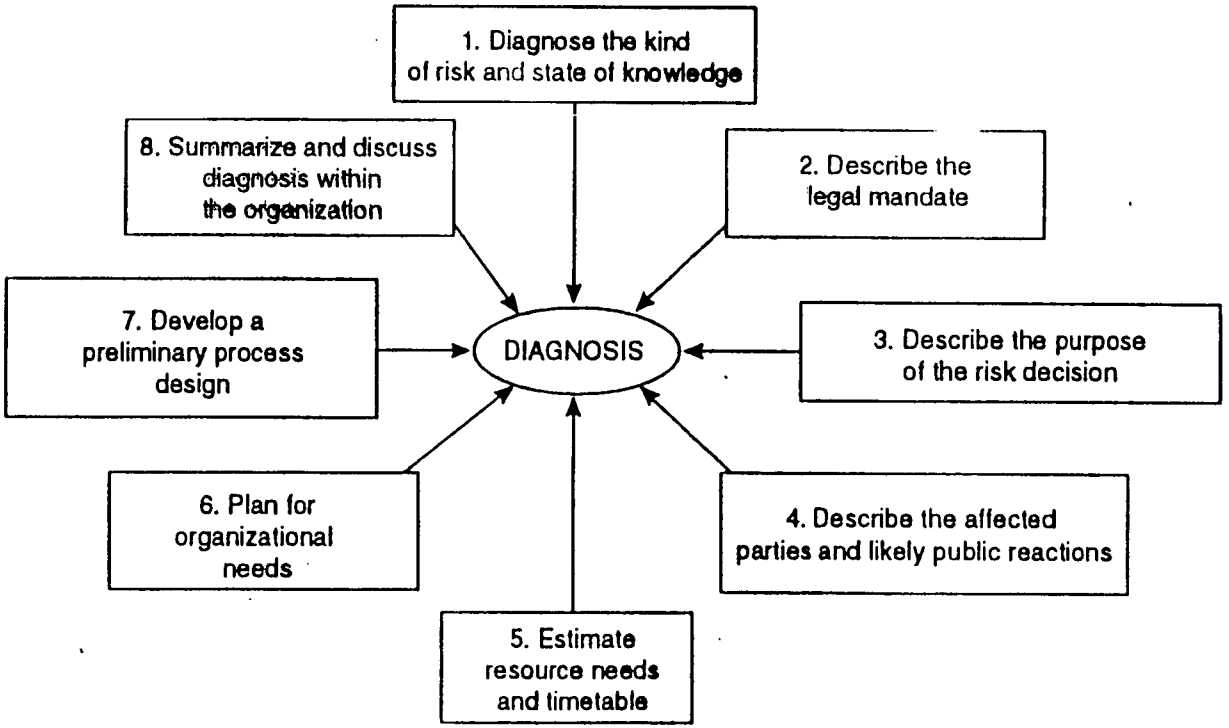


FIGURE 6-1 Diagnostic steps for risk decision making.