

## **Risk Perception and Public Policy Making**

Paltiel, A. D. & Stinnett, A.A. (1996). Making health policy decision: is human instinct rational? Is rational choice human? *Chance*, 9, 34-39.

Prenatal care during the first trimester of pregnancy reduces the need for medial attention in the first year of life. It has been shown to cost only a fraction of the money that it saves. Yet, in the United States, approximately 20% of white mothers and 40% of black mothers receive no such care.

It has been estimated that enactment of bicycle safety helmet standards in the United States could prevent up to one death every four minutes. The economic benefits of such a requirement would likely exceed the associated costs. No bicycle helmet law currently exists.

In passing the 1980 Asbestos Hazards Emergency Response Act, the U.S. Congress authorized the expenditure of billions of dollars to prevent what it understood to be .25 deaths per million people from low-level asbestos exposure.

Each year of life saved by reducing emission of toxic pollutants under the 1990 amendments to the Clean Air Act will cost an estimated \$5,000,000.

The inefficient allocation of society's health resources suggests that economic principles fail to capture qualitative elements of choice

### **The Oregon Experience**

Develop a priority ranking of medical conditions and treatments.

Give a priority scores to each of 1600 different medical services based on the ratio of cost to benefits conferred.

But failed to pass

### **The Gates Foundation**

Maximize the help of lives per dollar spend

### **Factors Affecting Public Risk Perception and Attitudes**

#### 1. Personal Responsibility

Error of omission vs. error of commission

Natural or unnecessary (whom to blame)

#### 2. Ethical duty

#### 3. Visibility of the victim (Identifiable lives vs. Statistical lives)

Rule of Rescue: The ethical sense of duty to the identified life in peril. It is a natural human predisposition to focus on highly visible individuals in danger, even when actions to rescue them may divert resources way from other programs that could save a greater number of unseen "statistical lives.

#### 4. Whether the hazard is a naturally occurring (as opposed to a manmade) phenomenon

5. Controllability of the risk
6. Degree to which blame can be assigned

On one hand, people adopt the rule of rescue which posits that lives are created equal.  
On the other hand, people place different values on different lives and deaths.

Ex. A debate on whether it is worth a young college student's life for saving an old night-soil (manure) collector

To what extent is economic efficiency an ideal that we wish to pursue?

What role should human values play in the policy process?

### **Saving Lives: Government Regulations of Risks**

Two cutoff points:

Value per life: 1 life worth \$7 million (willingness to pay method)

Cost-ineffectiveness: \$21 million – more harm than good

### **Life-History Variables, Risk Taking, and Differential Implications of Public Policies**

#### **Gender:**

Life-span -	<i>Men &lt; Women</i>
Reproductive span -	<i>Men &gt; Women</i>
Reproductive variance -	<i>Men &gt; Women</i>

#### **Life-history stage:**

Age  
Marital status  
Parental status

#### **Environmental stability**

Amount and variance of resources  
Sources of mortality  
Intensity of mating and social competition  
Environmental hostility and predictability

Who would have a steep discounting of future and strong propensity for risk taking and thus a higher accident and mortality rate?

Young (age)  
Single (marital / parental status)  
Males (gender)

