

# Policy Analysis and Decision-Making

with Emphasis on Chronic Non-communicable Diseases






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## Policy Options

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## Key points

-  Policy Options
-  Generating policy options
-  Evaluation criteria: types, methods, matrices.
-  AG Assessing Policy
-  Economic evaluation: An Introduction (A. Gordillo)

**Before defining options of solution to the policy problem, evaluation criteria related to the results of the selection of these alternatives need to be defined.**

- Policy goals are established. (Reduce CVD among xxx, increase levels of physical activity, etc.)
- These goals express what the policy should achieve in terms of the solution of the problem. (outcome)
- These goals are translated into objectives, more concrete statements about the future results that are desired.

## Goals, Objectives, Criteria and Measures

- 📄 Goals: formal, broad statement about desired long-run achievements
  - 📄 reduce poverty
- 📄 Objectives: focused, concrete statement about end states
  - 📄 reduce % pop on welfare
- 📄 Criteria: dimensions of the objectives used to evaluate alternative policies
  - 📄 cost; political viability
- 📄 Measures: tangible operational definitions of criteria
  - 📄 cost per 1% reduction

## In the field of policy analysis.....

- 📄 Criteria are evaluative standards that guide the processes of decision making.
- 📄 They allow ranking policy options in order of preference.
- 📄 The most important evaluative criterion is that the projected outcome will solve the policy problem to an acceptable degree.
- 📄 Criteria can be measures, rules, standards, and all those attributes considered relevant by the decision maker (individual or group) in a given situation.

## More on criteria

- ❏ Evaluation criteria are measurable dimensions that serve to compare and rank the policy alternatives.
- ❏ They are used to judge the outcomes of implementing the alternatives.
- ❏ For each alternative you list, project all of the outcomes (or impacts) that you or other interested parties might reasonably care about.

## A good criterion should be

- ❏ Clear
- ❏ Consistent
- ❏ Supported by measures

## Commonly Used Evaluative Criteria

**Legal Feasibility:** Consistency with current constitutional/legal framework, national/federal/state/local mandates as appropriate.

**Political Viability:** Acceptability of the policy option to various relevant stakeholders that hold political power (voters, legislators, president's cabinet, etc.)

**Sustainability:** Ability of the policy option to maintain its beneficial effects in the longer term.

**Social/Cultural Feasibility:** Consistency with national/local traditions, policies and institutions; acceptable for the local population.

**Technical Feasibility:** Availability of necessary resources and competencies.

**Administrative Feasibility:** Degree of ease of implementation, financial/managerial factors.

**Cost Effectiveness:** Achieving policy goals at the least cost.

**Economic Efficiency:** Maximization of satisfaction by society.

## In public health, additional criteria may include :

**Equity** (fair social allocation (distribution) of burdens (may be costs) and benefits among social groups)

**Economic and social costs** of a disease/injury; loss of productivity, medical costs, etc...

**Need to act quickly** (e.g. to mitigate a disaster, to control the spread of a disease).

**Burden of disease** (e.g. measured by the relative number of people dead – mortality-; measured by the relative number of people affected –morbidity, other).

**Effect of the problem on special populations** (lower income, women, children, the disabled, aged, etc.) or on the physical environment.

**Safety**

**Privacy**

### Examples of Different Types of Criteria

Criteria	Concept/Meaning	Illustration
Effectiveness	Has a valued outcome been achieved?	Units of service
Efficiency	Maximize the net benefits for all individuals.	Unit cost, net benefits, cost-benefit ratio <sup>1</sup>
Equity	Value judgment. It refers to the fair social allocation (distribution) of burdens (may be costs) and benefits among social groups	Various/Pareto criterion, Kaldor-Hicks criterion, Rawls criterion
Responsiveness	Policy outcomes satisfy the needs, preferences or values of particular groups.	Consistency with citizen surveys.
Appropriateness	Desired outcomes (objectives) are worthy and valuable.	Public programs should be equitable as well as efficient.

### An Example: Priority Setting Criteria for Research at the National Institutes of Health, USA

- Public health needs
- Scientific quality of research
- Potential for scientific progress (e.g. existence of promising pathways and qualified researchers)
- Diversification of the portfolio expand research
- Adequate infrastructure support (e.g. human capital, equipment, instruments, facilities).

## Each criteria is operationalized, see example for public health needs

### Public health needs

- Scientific quality of research
- Potential for scientific progress.
- Diversification of the portfolio to expand research
- Adequate infrastructure support.

- Number of people that suffer from a particular disease.
- Number of deaths caused by the disease.
- Degree of disability caused by the disease.
- Degree in which the disease shortens a normal, productive and comfortable life
- Economic and social costs of the disease.
- Need to act quickly to control the spread of the disease.

## Defining Policy Options

## How can I identify policy options?

- 📄 Keep the current system (do nothing)
- 📄 Modify the current system (tweak or embark on more profound changes)
- 📄 Use an existing design (maybe that works in another part of the country for a similar problem and population)
- 📄 Create a new design
- 📄 Combinations?

## Policy options may also be of different nature

- 📄 **Technical** (add or expand services, facilities)
- 📄 **Managerial** (modify the current operation of the system or service)
- 📄 **Economic/Financial** (change the prices charged, modify taxes, etc.)
- 📄 **Regulatory**



## Suggestions for developing policy options

- Essential to understand causes, associations and contexts and thus structure the problem adequately; it will help to develop effective interventions/programs (to solve the problem)
- Identify various different options, then narrow by
  - Aggregating related options
  - Dropping irrelevant options
- Describe each option in depth
- Be explicit about status quo option (implications, costs, political repercussions, etc.)

## How to Develop Policy Options

- If no policy exists, begin from generic alternatives.
- If there is a current policy, use it as a base and then gradually modify components of current policy. That is, add, reduce, substitute, combine or split, eliminate, reorient, switch, new components, approaches, resources, modify timing, try different forms of financing, etc.)
- Develop typologies, use analogies and/or metaphors.
- Compare the various alternatives with real experiences or with an ideal situation.
- Consult with experts and stakeholders (brainstorm, debate, use mail surveys, public hearings, focus groups, formal and informal meetings, etc.).
- Specify a range of alternatives that include at least:
  - Maintain or modify the current system.
  - Apply a policy design that has been tried and tested in other settings
  - Create a new one.
  - Do nothing (current policy as base).

## Suggestions

- 📄 Don't wait to find the perfect option.
- 📄 Compare preferred policy with those already in existence.
- 📄 Estimate all the alternatives in terms of the established goals.
- 📄 Ensure that the alternatives are mutually exclusive.
- 📄 Avoid alternatives that are too broad or lack specificity.
- 📄 Try to ensure that the options are consistent with the available resources.

For example, considering the policy problem of morbidity and mortality due to traffic accidents mainly caused by behavioral factors related to limited use of seat belts and to drinking and driving, we know that the following may reduce then the severity of the problem:

1. Wearing a shoulder and lap restraint
2. Seat belt use (saves over 26 billion dollars a year if use were universal).
3. Air bags and seat belts.
4. Use of child restraints.
5. Motorcycle and bicycle helmets.
6. Reducing the number of drivers that drink and drive.

**Therefore, we may develop the following alternatives:**

**Enforce existing laws to ensure that:**

All drivers wear a shoulder and lap restraint.

All children use appropriate car seats and child restraints.

All motorcycle and bicycle riders use helmets

1. Develop and implement health education and promotion strategies to modify behavioral factors related to driver fatigue, driver distraction (talking to passengers, attending to children, eating or drinking, personal grooming, looking at maps, reading, attention to electronic devices and verbal exchanges).
2. Develop and implement health education strategies to reduce risky driver behaviors (drinking and driving, exceeding the posted speed limit, and aggressive driving.)
3. Establish automated systems for enforcing speed limit and red light laws.
4. Establish graduated drivers licensing laws that put limits on drivers aged 16–18 (or whatever the driving age in the country).
5. Promote transportation policies that encourage mass transit, walking, and cycling.
6. Enforce motor vehicle safety standards.
7. Reduce the number of days or hours of operation of liquor stores and bars.
8. A combination of the alternatives mentioned above.
9. Alternative 1 + Alternative 2 + Alternative 3
10. Alternative 2 + Alternative 3
11. Alternative 5 + Alternative 9
12. Alternative 4 + Alternative 3tc.

Policy Options	Possible Issues
Enforce existing laws to ensure that: all drivers wear a shoulder and lap restraint, all children use appropriate car seats and child restraints, all motorcycle and bicycle riders use helmets	Proven very cost effective options, needs to be accompanied by behavioral change strategies.
Develop and implement health education and promotion strategies to modify behavioral factors related to driver fatigue, driver distraction (talking to passengers, attending to children, eating or drinking, personal grooming, looking at maps, reading, attention to electronic devices and verbal exchanges).	Effective but long term and may involve high costs, new legislation.
Develop and implement health education strategies to reduce risky driver behaviors (drinking and driving, exceeding the posted speed limit, and aggressive driving.)	Effective but long term and may involve high costs.
Establish automated systems for enforcing speed limit and red light laws.	Evidence shows that running red lights is the most common cause of urban crashes. Changing this behavior may be accomplished more effectively in the short term with installation of red light cameras which has proven effective in reducing collisions. May involve initial installation costs of lights and sensors.
Establish graduated drivers licensing laws that put limits on drivers aged 16–18 (or whatever the driving age in the country).	Effective, but may require new regulations and initial costs.
Establish/enforce transportation policies that encourage mass transit, walking, and cycling.	Behavior change may consume a great deal of financial resources; results may be too long term and effectiveness not always proven.
Enforce motor vehicle safety standards.	Enforcing traffic laws in dense urban areas by traditional means poses special difficulties for police. It endangers motorists and pedestrians as well.
Reduce the number of days or hours of operation of liquor stores and bars.	Possible strong opposition from liquor store and bar owners who would lose revenues, as well as from some groups of consumers. May also require new legislation, create loss of revenue.
A combination of the alternatives mentioned above.	
Alternative 1 + Alternative 2 + Alternative 3	
Alternative 2 + Alternative 3	
Alternative 5 + Alternative 9	
Alternative 4 + Alternative 3	
Etc.	

Example: If the goal were to have fewer deaths and injuries as possible from traffic accidents, what would be the most important considerations to achieve the goal:

- Is it cost (to the hospitals? To the government? To the population? To certain groups in the population?)
- Is it equity (reduction among certain age groups at risk (males, teenagers, elderly? Other high risk groups, such as pick up truck drivers, people living in urban areas?)
- Is it the burden of disease to certain population groups? Loss of social and economic productivity of teenagers, etc.?)
- Is it effectiveness (of measures, such as use of seat belts or child restraining seats?)

And so on.

We would also need to establish the meaning of “fewer death and injuries” since achieving 100% is not possible. Then, how much is fewer? For which injuries? What percentage? For which groups? In which neighborhoods?

## Screening Alternatives

### Problem Analysis

- Large number of impacts
- Large number of possible alternatives
- Estimation of all impacts for all alternatives is impossible (and not worthwhile)
- Costly and time consuming
- Many will have similar impacts
- Some will be dominated by others

### Solutions to problem

- Incomplete analysis
- Ignore some impacts
- Examine few alternatives
- Add a screening step
- Broad-brush examination of wide range of alternatives,
- Eliminate unpromising alternatives,
- Retain promising alternatives for detailed analysis

## Deployment and Assessment of Options

### Criteria

**Effectiveness**

**Political Feasibility**

**Administrative feasibility**

**Efficiency**

**Equity**

Degree to which the option addresses or responds to the problem.








Consistency with government priorities.  
Public perception.  
Effect on tax payers.  
Impact on the private sector.

Complexity and timing of implementation.  
Fiscal impact on government.  
Legal, jurisdictional or commercial restrictions.

Economic cost benefit.  
Environmental cost benefit.

Disproportionate impact on some social groups or regions.

## The Goals/Alternative Matrix

-  Ranking alternatives according to criteria is a priority setting exercise.
-  Matrix is useful to illustrate the comparison of alternatives according to the criteria established once the relative weights have been established.
-  Policy consequences are rarely linear:
  -  the results of a program may in fact give rise to additional issues or problems in the same or other areas or sectors.
  -  Therefore, policy alternatives need to be compared not only in terms of the desired outcomes (or goals), but also in terms of the possible spillovers or externalities that its implementation may produce.
-  Recognize that technically sound options may not have the necessary political and/or social support.
-  Some good policies may not be easily implemented due to the financial burden that may impose of others.

## The Goals/Alternative Matrix

Criteria	Option A	Option B	Option C
<b>Effectiveness</b>	Very Positive	Positive	No impact
<b>Flexibility</b>	Very Positive	Positive	Positive
<b>Sustainability</b>	Positive	Positive	Negative
<b>Political Feasibility</b>	High	Medium	Low
<b>Administrative Feasibility</b>	High	Medium	Low
<b>Time</b>	Short	Medium	Long
<b>Cost</b>	High	Medium	Low

### Desirable Characteristics of Good Policy Options

Characteristic	Description
Involvability	Can function if one or more parts fails
Flexibility	Can be used for more than one objective or purpose
Degree of Risk	Does it have a high probability to fail?
Communicability	Is it easily understood by those involved and affected?
Merit	Does it actually address the problem at hand?
Ease of Implementation	Is the option relatively easy to implement?
Compatibility	Is it compatible with existing norms and procedures?
Evaluability	Are policy outcomes measurable, would they allow monitoring and evaluation?
Reversibility	How difficult is it to return to previous conditions should the option fail?
Stability	Would it work even when conditions change?
Ethical	If appropriate, is the option ethical?
Reliability	Has it been tried elsewhere with success?

## A final thought....

*“The definition of the alternatives is the supreme instrument of power...because the definition of alternatives is the choice of conflicts, and the choice of conflicts allocates power.”*

Schattschneider, E.E. (1975). *The Semisovereign People: A realist's view of democracy in America*. Hinsdale, Illinois: The Dryden Press.

## Suggested Reading(s)

Anand, Sudhir, F. Peter and A. Sen. *Public Health,, Ethics and Equity*. (2004) Oxford University Press. (pp. 15-33 and 93-106).

Kraft, M. and Scott Furlong. *Public Policy: Politics, Analysis and Alternatives*. (2004). CQ Press, Chapter 6: Assessing Policy Alternatives.

Munger, Michael. *Analyzing Policy: Choices, Conflicts and Practice*. (2000). New York: W.W. Norton. (Chapter 11, Cost Benefit Analysis)

Marc Suhrcke, Rachel A. Nugent, David Stuckler and Lorenzo Rocco *Chronic Disease: An Economic Perspective* London: Oxford Health Alliance 2006.

<http://www.oxha.org/initiatives/economics/knowledge/publications/oxha-chronic-disease-an-economic-perspective.pdf>

Pal, Less (2000). "There ought to be a law!" Instrument choice: an overview of the issues. Carleton University Research and Statistics Division. CA. *Strategic Issues Series*. rp02-10e. <http://canada.justice.gc.ca/en/ps/rs/rn/02/02/02-10.pdf>

Patton, C. y D. Sawicki. (1993) *Basic Methods of Policy Analysis and Planning*. Englewood Cliffs, NJ: Prentice Hall. Second edition. (Chapter 8: Displaying Alternatives and Distinguishing among Them.)

Rice, Thomas. (April 1997). Can markets give us the health system we want? *Journal of Health Politics, Policy and Law*. 22(2): 383-425.

Stone, D. (2001) *Policy Paradox: The Art of Political Decision-making*. Revised Edition. New York: W. W. Norton & Co., pp. 163-187 (Numbers). (Handout)

US Department of Health and Human Services. (1997) *Cost-Effectiveness in Health & Medicine*. USDHHS, Washington DC. (Chapters 1 and 2, Pp. 1-33, Cost-Effectiveness Analysis as a Guide to Resource Allocation in Health: Roles and Limitations; Theoretical Foundations of Cost-Effectiveness Analysis).

Weimer, David L. and Aidan R. Vining. *Policy Analysis: Concepts and Practice*. 3rd edition. (2004). Prentice Hall. (Chapter 11: Goals/Alternatives Matrices.)