

## Knowledgebase

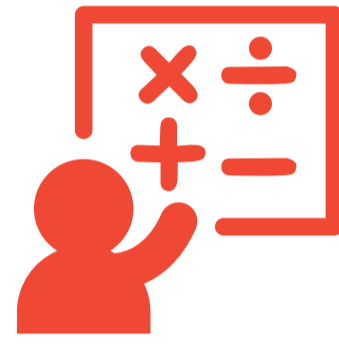
## Resource Allocation in Health Care Decision Making

Understand how mathematical optimization techniques can be used to make better use of health care dollars

Resource allocation methods consider efficiency in the context of real-world constraints on available resources, the feasibility of different implementation options, and relevant priorities.

### What can resource allocation models tell us?

These methods use mathematical optimization techniques to identify the allocation of health care dollars between a set of alternatives to either:



**Maximize** some goal within a defined budget or amount of other resources, such as reduced morbidity or increased quality-adjusted life-years for a given level of spending on interventions

- or -



**Minimize** resource use to reach a specified goal, such as which vaccines to fund to reduce vaccine-preventable deaths by 50%

### How can different players in the public health and healthcare system benefit from resource allocation methods?

Some examples include...



**Payers:** Selecting drugs to include on a formulary or treatment options to cover for a given health condition



**Pharmaceutical companies:** Selecting targets for research and development or for focused marketing strategies



**Government public health entities:** Budgeting for a public immunization program, identifying target risk populations for prevention or screening programs



**Healthcare providers:** Selecting organ donor recipients, operating room scheduling, staff scheduling, feasible integration of new medical devices

### In addition, these methods provide



Transparency by using a **formal decision-making process** and

Increased control of expenditures via **efficient use of resources**.



Learn more about our expertise in resource allocation and other health economic modeling at RTI Health Solutions.