

Cost-Effectiveness Analysis of Cancer Screening

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What is Cost-Effectiveness Analysis

- Incremental Cost-Effectiveness Ratio = $(C_s - C_{ns}) / (E_s - E_{ns})$
 - C_s = system costs with screening
 - C_{ns} = system costs without screening
 - E_s = health effects with screening
 - E_{ns} = health effects without screening

Special Considerations for Screening

- Costs
 - Costs of recruitment, diagnostic follow-up, surveillance, quality control
 - Time costs of participants
 - Over-diagnosis
- Effects
 - Quality of life (screening vs. disease/treatment)
 - Rare but serious adverse events
- General
 - Long time horizon of costs and effects

Special Considerations for Cross-National Studies

- Differences in age-specific cancer incidence, age distribution and life-expectancy;
- Differences in health effects with and without screening (e.g. availability of follow-up and treatment);
- Differences in resource patterns and unit costs;
- Differences in organization of healthcare and public health system, including feasibility of conducting screening;
- Differences in overall level of national wealth and level of medical/public health resources.