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Section B: Age Weighting, Part 1

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Learning Objectives

- To understand the rationale for using age weights in SMPH
- To explore options for using different types of weighting approaches in SMPH
- To identify the implications of using age weights for decision making in the health sector

Rationale for Age Weighting (“Ageism”)

- Social value of health at different ages
 - Efficiency based
- Aversion to inequality in age of death
 - Equity based

Types of Age Weights: 1

- Efficiency based
 1. ***Social value*** of health at each year of age—productivity ageism

Social Values and Productivity

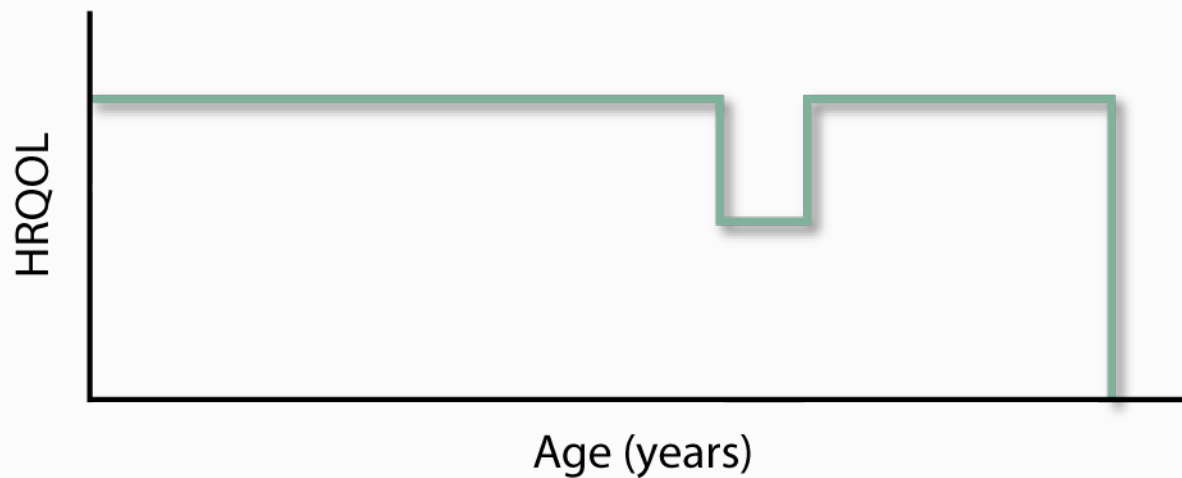
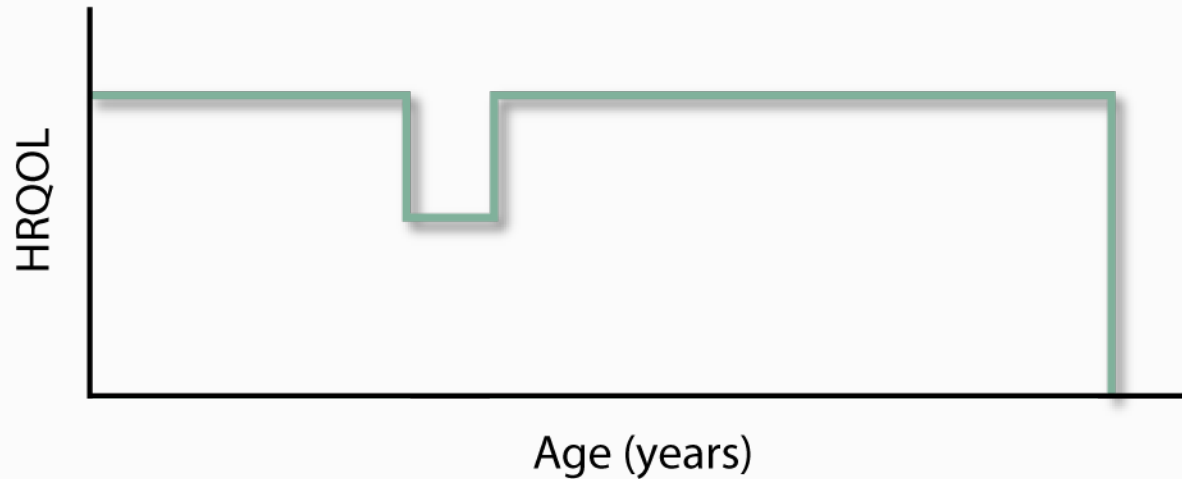
- Unequal age weights attempt to capture different social roles at different ages
- Individuals value their own health differently at different ages
- Welfare interdependence—the young and old depend on others
 - Economic productivity
 - Social productivity (welfare)

Social Values and Productivity (cont.)

- Some in the society have the responsibility to care for others
- Such values *need* to be integrated within SMPH (Murray et al.)
- Therefore ...
 - Generally more weight to middle ages and less to younger and older
 - Everyone has the potential to experience each age, and thus no one is left out

Same Lifetime Years under Different Distribution Patterns

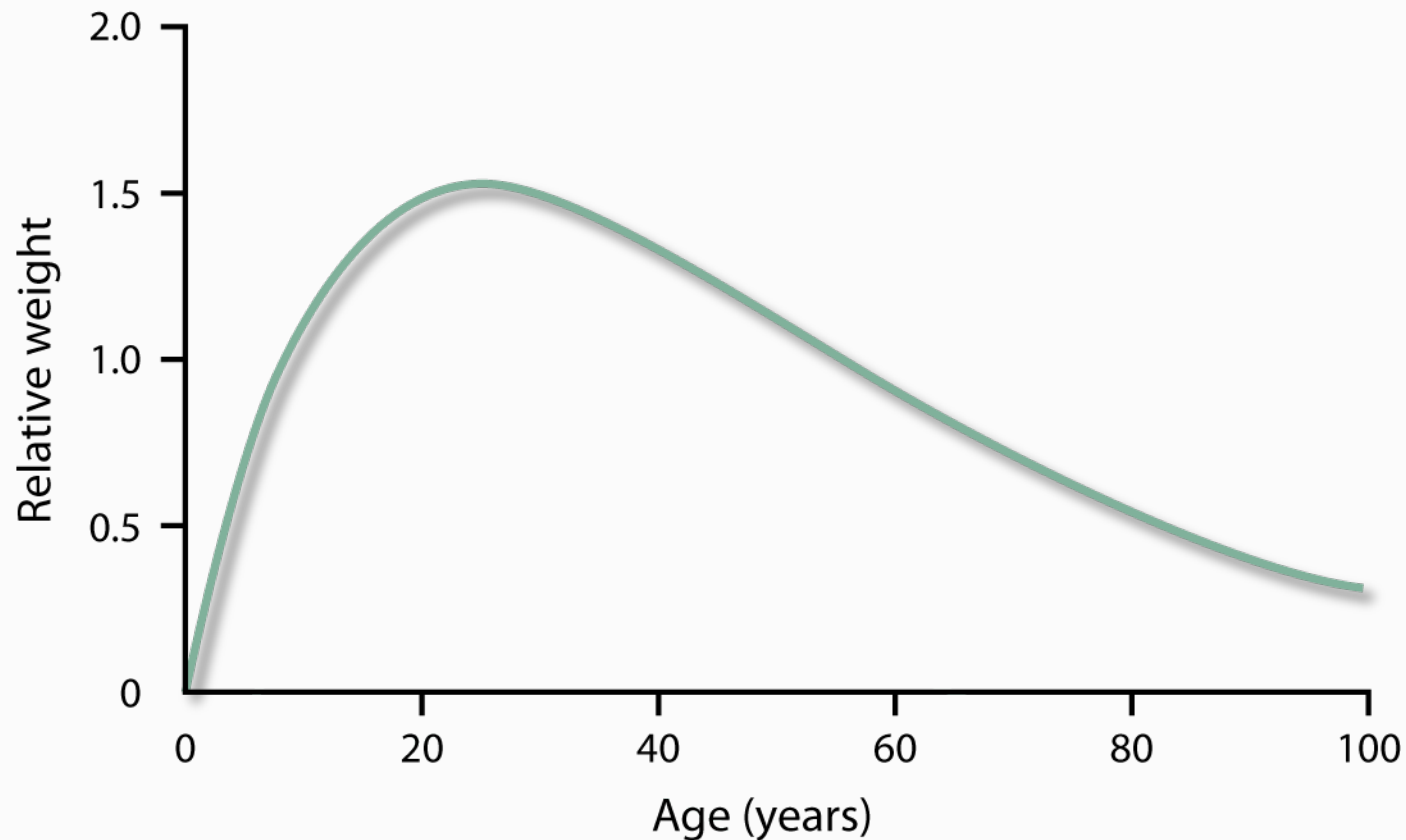
- Same lifetime years under different distribution patterns: Which one is preferred?



Adapted by CTLT from Tsuchiya A, 1999.

Age Weight Function of DALY₁₉₉₀

Age Weight Function of DALY: A Relative Value of a Year of Life Lived at Different Ages



Adapted by CTLT from Murray CJ, 1996.

Types of Age Weights: 2

- Efficiency based
 1. ***Social value*** of health at each year of age—productivity ageism
 2. Greater value to saving lives of younger people since they are ***expected to*** live longer—“utilitarian ageism”

Utilitarian Ageism

- Favoring the young as they are expected to gain more
- Greater expected duration of health benefits for those currently younger
- Essentially a function of the life expectancy—greater for those who are younger

Types of Age Weights: 3

- Efficiency based
 1. ***Social value*** of health at each year of age—productivity ageism
 2. Greater value to saving lives of younger people since they are ***expected to*** live longer—“utilitarian ageism”

- Equity based
 3. Greater value to saving lives of younger people since they ***have had*** shorter lives—“egalitarian ageism”

Equity Concerns

- Everyone is entitled to some “normal” span of health
- Thus, those who die early have been “cheated” out of their potential
- While those who live more are on “borrowed” time
- Called the “fair innings” argument (Williams, 1997)



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Egalitarian Ageism

- Favors those who have lived less—due to an aversion to unequal age at death
- An individual has the right to enjoy additional life years, the fewer life years he or she has had
- Equality of “total life outcomes”

Types of Age Weights (recap)

- Efficiency based
 1. ***Social value*** of health at each year of age—productivity ageism
 2. Greater value to saving lives of younger people since they are ***expected to*** live longer—“utilitarian ageism”

- Equity based
 3. Greater value to saving lives of younger people since they ***have had*** shorter lives—“egalitarian ageism”

Another Choice ...

- Refuse age weights!
- Or consider a year of life lived at every age equal to each other
- A year of life at age 5 is equal to a year of life at age 25, and 55 and 75, etc.
- Used in HeaLYs (Hyder and Morrow)

Comparison of Discounted HeaLYs and DALY1990

Comparison of Discounted HeaLYs and DALYs Lost from Premature Mortality, by Age at Death

