

Scarce Resources

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TheUpshot
THE NEW HEALTH CARE

Who Should Be Saved First? Experts Offer Ethical Guidance

Well before rationing caused by coronavirus, protocols were established about "who lives and who dies."



By Austin Friel

Published March 24, 2020 Updated March 28, 2020

Read the full story on TheUpshot.com



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Scarce Resources

Who should get the

- Personal Protective Equipment
- COVID tests
- Ventilators
- Vaccines
- Transplant organs

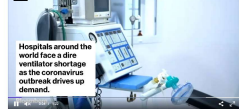
U.S. N.J. Starts Thinking Over How to Ration Scarce Ventilators

By Ellen Sussman and David Schreiner

March 26, 2020, 4:20 PM EDT Updated on March 26, 2020, 7:23 PM EDT

• State's medical society is helping form a triage panel

• Governor asked for 3,000 units. Scarce because if they will come



Hospitals around the world face a dire ventilator shortage as the coronavirus outbreak drives up demand.

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Utilitarianism

- = EUT applied to moral decision and rationing problems
- Maximize the benefit gained from the scarce resources available
- As opposed to
 - Selling to the highest bidder
 - First come, first served
 - Lottery

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BIOETHICS FORUM ESSAY

Why I Support Age-Related Rationing of Ventilators for Covid-19 Patients

By Franklin G. Miller

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Triage

Will live
even
without
treatment

Will live
only with
treatment

Will die
even with
treatment

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Equity vs. Efficiency

- **Equity**
 - Fairness, Justice
 - Giving everyone the same resources (regardless of need)
 - Giving everyone a chance
 - Fair innings
- **Efficiency** ← utilitarianism
 - Optimizing the net outcome
 - Getting the most bang for the buck
 - Maximizing outcome for a given cost
 - Minimizing cost for a given outcome

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Scarce Medical Resources

Covid-19 has hit Pittsburgh and area hospitals have 10 ventilators available. There are 20 residents suffering from severe Covid-19 complications. How will you allocate the ventilators?

You will allocate

_____ ventilators to the 10 young adults

_____ ventilators to the 10 elderly adults

(your two numbers must add up to 10)

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Research Report

How Do People Value Life?

Meng Li¹, Jeffrey Vietri¹, Alison P. Galvani², and Gretchen B. Chapman¹

¹Department of Psychology, Rutgers University, and ²Department of Epidemiology, Yale School of Public Health

Abstract

Who should be saved when health resources are limited? Although bioethicists and policymakers continue to debate which metric should be used to evaluate health interventions, public policy is also subject to public opinion. We investigated how the public values life when evaluating vaccine-allocation policies during a flu epidemic. We found that people's ratings of the acceptability of policies were dramatically influenced by question framing. When policies were described in terms of lives saved, people judged them on the basis of the number of life years gained. In contrast, when the policies were described in terms of lives lost, people considered the age of the policy's beneficiaries, taking into account the number of years lived to prioritize young targets for the health intervention. In addition, young targets were judged as more valuable in general, but young participants valued young targets even more than older participants did.



Psychological Science
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Valuing life – Saved Frame

- Imagine that both of the people below will die from Covid-19 right away unless we intervene. Because of limited resources, we can only **save one person**. **Who should be saved?**
- A 60-year-old person who has 22 years left to live
- A 20-year-old person who has 2 years left to live (because of a medical condition)

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Valuing life – Loss Frame

- Imagine that both of the people below will die from Covid-19 right away unless we intervene. Because of limited resources, we can only **prevent one death**. **Who should die?**
- A 60-year-old person who has 22 years left to live
- A 20-year-old person who has 2 years left to live (because of a medical condition)

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Strategies for Valuing life

- All lives are equally precious
- Decide based on **years left**
 - Pick the intervention that saves the most life years
 - Because that's the most benefit
- Decide based on **years lived**
 - More important to save young people than old people
 - Even if the young people have few years to live
 - Because old people have already lived a long life

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Questionnaire Study

- Rate different vaccination policies that would reduce death rate from Avian flu
- Victims have ages of 5, 20, 30, 40, 60, 80 years
- Years left to live is either
 - Normal life expectancy based on age
 - 2 years left to live (due to a health condition)
- Framing: subjects see one of two descriptions
 - People dying
 - People saved

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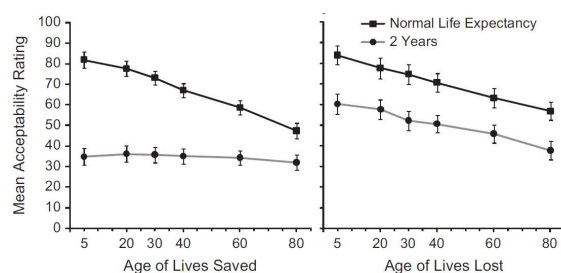
Scenario

The residents of an island community are considering different vaccination policies. If no one is vaccinated, then 1,000 people would be expected to die from the flu this year. All of the vaccination policies under consideration are expected to save some people from flu-deaths (*result in fewer than 1,000 deaths*). However, the different policies differ in terms of who is saved (*dies*).

(Li et al, 2010, *Psychological Science*)

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Results



N=290

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Theoretical Implications

- Value of life metric changes with framing
- Normative/efficient years-left metric: gain frame
- More equitable years-lived metric: loss frame

Practical Implications

- Support for a health policy can be altered by the framing of that policy

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Research Article

Grouping Promotes Equality: The Effect of Recipient Grouping on Allocation of Limited Medical Resources

Helen Colby¹, Jeff DeWitt², and Gretchen B. Chapman²

¹Anderson School of Management, University of California, Los Angeles, and
²Department of Psychology, Rutgers University

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To continue you must finish distributing the kidneys and determine who will not get a kidney.
 You cannot continue until six people have been given a kidney and six people have not.

Chance of Success: High

Number of Kidneys to Give This Group:



Name: Jennifer Name: Steve



Name: Eli Name: John

Chance of Success: Low

Number of Kidneys to Give This Group:



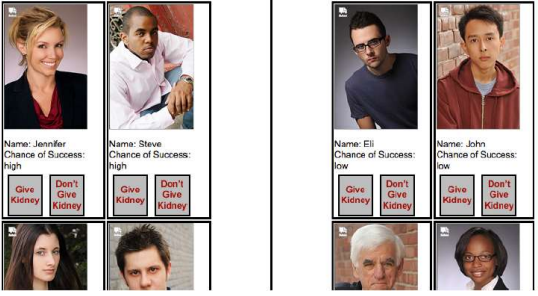
Name: Eli Name: John



Name: Jennifer Name: Steve

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To continue you must finish distributing the kidneys and determine who will not get a kidney. You cannot continue until six people have been given a kidney and six people have not. Once you have distributed the kidneys, please hit continue at the bottom to move on.



Names and Chance of Success for recipients shown:

- Row 1: Jennifer (high), Steve (high), Eli (low), John (low)
- Row 2: [Name obscured] (low), [Name obscured] (low), [Name obscured] (low), [Name obscured] (low)

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Percentage of Participants who Allocated Kidneys Perfectly Efficiently

Allocation Condition	Group Likelihood Condition	Individual Likelihood Condition
Group Allocation	40%	55%
Individual Allocation	52%	75%

N=470

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Chance of Success: Low or High



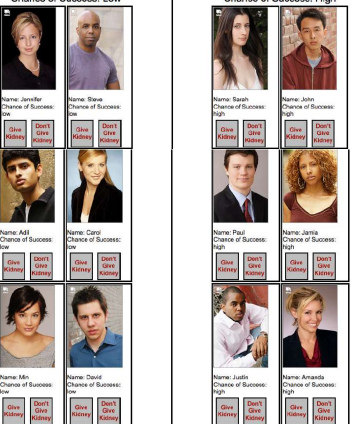
Names and Chance of Success for recipients shown:

- Row 1: Jennifer (low), Steve (low), Sarah (low), John (high)
- Row 2: Adi (low), Carl (low), Paul (high), Jamie (high)
- Row 3: Min (low), David (low), Justin (high), Amanda (high)

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Chance of Success: Low

Chance of Success: High



Names and Chance of Success for recipients shown:

- Low Column: Jennifer (low), Steve (low), Adi (low), Carl (low), Min (low), David (low)
- High Column: Sarah (low), John (high), Paul (high), Jamie (high), Justin (high), Amanda (high)

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Percentage of Participants who Allocated Kidneys Perfectly Efficiently

Condition

Grouped 70%

Unified 80%

N=996

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Theoretical Implications

- Resources spread across groups if there are groups
- Not mediated by comments about fairness
- Is mediated by comments about individual characteristics of the recipients
- Decision makers may rationalize their tendency to spread resources across groups by appealing to individual characteristics.

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Practical Implications

- Policies are made at the group level
 - E.g., pediatric recipients and prior living donors get priority
- Allocation decisions are made at the individual level
 - E.g., a transplant organ just became available – to whom do we give it?
- Grouping could promote fairness in contexts where that is the desired pattern (e.g., hiring)