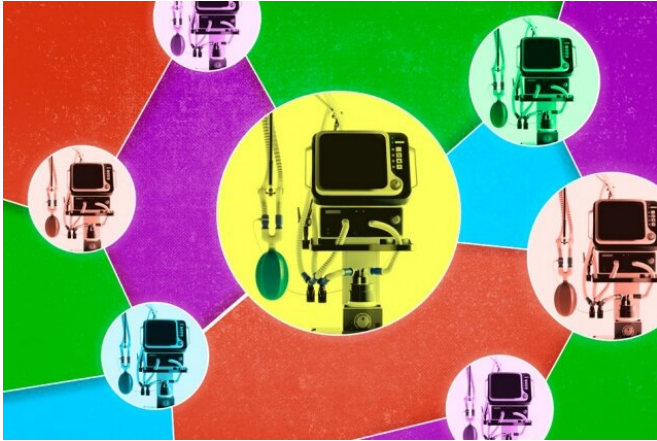


# Economist proposes a new way to handle medical shortages during a crisis

14 May 2020, by Peter Dizikes



MIT economist Parag Pathak is co-author of a paper offering a new system for assigning ventilators and other medical resources to Covid-19 patients. Credit: José-Luis Olivares, MIT

When hospitals face ventilator shortages during the COVID-19 crisis, they often rely on state policies to determine which patients are assigned the equipment. In Michigan, for example, medical personnel who get sick have priority for ventilators. Many other states determine patient priority from a formula using a patient's prognosis and age.

Those rules address tough decisions, but as constituted they also raise questions about equity, since these policies prioritize particular groups—such as health care workers and younger patients. A new working paper co-authored by an MIT professor offers an alternative design: a "reserve system" that would allocate medical resources among multiple groups at the same time, rather than applying a single set of criteria to all patients.

"The overwhelming majority of states use a single-dimension [priority](#) points system to allocate ventilators," says MIT economist Parag Pathak, an

expert in designing markets that allocate nonfinancial goods. "Instead of requiring a single score for all units, we suggest what we call reserve categories, where for [only] a portion of units, we use one such priority ordering." With such an approach, he adds, "You never run into this situation where [one group] either gets all of the ventilators, or they get none of them."

The principles behind the reserve system need not only apply to ventilators, notes Pathak. Looking ahead to the full trajectory of the COVID-19 pandemic, the concept also relates to the distribution of tests, therapeutic treatments, and vaccines—any medical resource where demand exceeds supply.

The paper, "Leaving No Ethical Value Behind: Triage Protocol Design for Pandemic Rationing," appears in the *National Bureau of Economic Research* working paper series, but has not yet been peer-reviewed by experts in the field.

**More information:** Parag Pathak et al. Leaving No Ethical Value Behind: Triage Protocol Design for Pandemic Rationing, *National Bureau of Economic Research* (2020). [DOI: 10.3386/w26951](https://doi.org/10.3386/w26951)

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