Home Hospital increased in-patient capacity during the COVID-19 surge

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A research team from Brigham and Women's Hospital has found that delivering acute care at home for non-COVID patients freed up substantial inpatient capacity during the COVID-19 surge last spring. From March 15, 2020, when Massachusetts' state of emergency restrictions took effect, until the surge ended on June 18, 2020 (defined as less than 30 patients hospitalized with COVID-19), the Brigham's Home Hospital program provided care for 65 acutely ill patients at home, amounting to 419 bed-days. In addition to freeing up beds for patients at the hospital, the Home Hospital program offered a care option for patients who may have otherwise deferred care during the pandemic. Results of the team's retrospective analysis are published in *The Journal of General Internal Medicine.*

"Our study shows that another benefit of home hospital care is that it can be a part of the pandemic playbook," said corresponding author David Levine, MD, MPH, MA, of the Division of General Internal Medicine and Primary Care at the Brigham. "We know that home hospital programs can provide high-quality care for patients from the comfort of their home. Our study shows that this model can also be effective during a pandemic to free up hospital beds during a surge by treating non-COVID patients at home."

Levine and colleagues performed a retrospective analysis of the Brigham's Home Hospital program, which operates within five miles of two sites in Boston: Brigham and Women's Hospital and Brigham and Women's Faulkner Hospital. During COVID-19, the Home Hospital

program did not treat patients who were positive for COVID-19, but patients with other infections or exacerbations of heart failure, chronic obstructive pulmonary disease or asthma were eligible, among other diagnoses. Home Hospital patients received a daily in-home or remote visit from an attending general internist and two daily in-home visits from a registered nurse from Mass General Brigham Home Care; they also had access to 24-hour physician coverage and cutting-edge connectivity, including continuous monitoring, video and texting.

Over the period studied, 65 acutely ill patients were cared for at home. Cumulatively, they were cared for at home for 419 days—or the equivalent of 5 percent of all medicine patients without COVID-19 who were cared for at the hospitals during that time. The authors note that their study was limited to two sites, to a small cohort of clinicians, and to the pandemic conditions in Boston.

"The home hospital model could have an important impact on the ongoing response to the pandemic," said Levine. "Home hospital programs can create much-needed capacity by building on programs that many hospitals already have in place and do not require the financial and staffing resources of other approaches, such as field hospitals."

Levine added that since the Centers for Medicare and Medicaid Services created a temporary payment mechanism for home hospital in November 2020, programs have rapidly grown across the U.S., with more than 145 hospitals taking up the model.

"Home hospitals may represent a key response mechanism for a pandemic, but there's also great evidence for their use when there isn't a pandemic—patients have good outcomes, and they report great experiences receiving care at home," said Levine.

More information: Levine, DM *et al.* "Acute care at home during the

COVID-19 pandemic surge in Boston" *Journal of General Internal Medicine* [DOI: 10.1007/s11606-021-07052-5](DOI: 10.1007/s11606-021-07052-5)

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