Jail cycling and COVID-19 spread

A study of the relationship between jailing practices and COVID-19 community infections (Health Affairs, June 4) found that jail cycling is a significant predictor of SARS-CoV-2 infection. Using data from Cook County Jail in Chicago, the authors found that cycling through Cook County Jail alone is associated with 15.7 percent of all documented COVID-19 cases in Illinois and 15.9 percent in Chicago as of April 19. These findings support arguments for reduced reliance on incarceration as an emergency measure during the present pandemic and as sustained structural change for future pandemic preparedness and public health.

Impacts of lockdowns and other non-pharmaceutical interventions

A study of non-pharmaceutical interventions (Nature, June 8) found that these practices prevented about 60 million COVID-19 infections in the United States. The modeling study compiled data on 1,717 local, regional and national non-pharmaceutical interventions deployed in the ongoing pandemic across localities in China, South Korea, Italy, Iran, France and the U.S. In the absence of policy actions, authors estimate that early infections of COVID-19 exhibit exponential growth rates of roughly 38% per day. They found that anti-contagion policies have significantly slowed this growth, estimating that interventions prevented or delayed approximately 62 million confirmed cases, corresponding to averting roughly 530 million total infections.

A study of major COVID-19 interventions across 11 European countries (Nature, June 8) found that major non-pharmaceutical interventions have had a large effect on reducing transmission. In studying interventions from the start of COVID-19 until May 4, when lockdowns started to be lifted, the authors found that lockdowns in particular had a substantial effect, leading to an 81% reduction in transmission rate. Across all 11 countries, between 12 million and 15 million individuals have been infected up to May 4, representing between 3.2% and 4% of the population. The results imply that the populations in Europe are not close to herd immunity and, with Rt values below one in all countries, the rate of acquisition of herd immunity will slow down rapidly.

A study of four nonpharmaceutical interventions for reducing COVID-19 cases and deaths in the U.K. (The Lancet: Public Health, June 2) found that that intensive interventions in conjunction with lockdown periods were the most effective way of reducing hospital and ICU bed capacity strain. Given predictions of another potential
wave of COVID-19 cases later in 2020, these findings are important to consider. The study compared the effectiveness of school closures, physical distancing, shielding of older people (age 70 and older), self-isolation of symptomatic individuals and a combination of all four interventions compared to an unmitigated response. None of the interventions alone reduced healthcare need below available capacity or reduced R0 enough for a sustained decline of new infections. In combination for 12 weeks, these interventions were still unlikely to control the epidemic and reduce ICU strain. However, the authors estimated that implementing lockdown periods in addition to the intensive interventions would result in a high number of ICU bed occupation but at lower levels than a scenario without lockdown periods.

SARS-CoV-2 spread in therapy and companion animals
This [CDC guidance](https://www.cdc.gov/coronavirus/2019-ncov/dAILY/owners-handlers-sah.html) (CDC, June 4) provides steps handlers of service and therapy animals can take to prevent the spread of COVID-19 to these animals. This includes not bringing service or therapy animals into settings where exposure to people with COVID-19 may occur and disinfecting animal collars and other equipment. Notably, face coverings should not be put on animals.

This [case report](https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6925a5.htm) (MMWR, June 8) provides evidence of two domestic cats becoming naturally infected with SARS-CoV-2, the virus that causes COVID-19. The cats both had respiratory illnesses lasting eight and 10 days, are owned by individuals with suspected or confirmed COVID-19 and are believed to be the first companion animals with reported COVID-19 in the United States. While animals are not currently known to play a significant role in transmitting COVID-19 to humans, individuals with COVID-19 should avoid contact with companion animals. Animals that test positive for SARS-CoV-2 should be quarantined and separated from humans and other animals until they recover. Both cats observed in the case report fully recovered from COVID-19.