Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

distributing food that minimise close person-to-person contact and volunteers are mobilising to spread hygiene and prevention messages.[5] In Kenya, which hosts 500 000 refugees from Somalia and South Sudan, the UN High Commissioner for Refugees is using text messaging to encourage migrants to report COVID-19 symptoms. Social distancing and other such measures are unlikely to be feasible in these settings. Instead of lockdowns and movement restrictions, emphasis should be placed on improving surveillance and testing; implementing feasible infection control measures, such as cohorting of cases; and ensuring prompt access to health care. These measures will be vitally important as the pandemic advances into these regions of the world because it seems probable that the virus' impact could well be severe on people living in low-income countries, specifically migrants and those affected by humanitarian crises.[6] In these contexts there could be high transmissibility due to large household sizes, intense social mixing between older and younger age groups, and high infection-to-case ratios and progression to severe disease due to the virus' interaction with highly prevalent comorbidities (eg, non-communicable diseases, undernutrition, tuberculosis and HIV).[6] Maintaining the continuity of other important health programmes will also be crucial. Humanitarian stakeholders are rightly seizing opportunities now to maximise the simplification of care and treatment of diseases including tuberculosis and HIV, and delivery of vaccination programmes, to ensure that the global health gains made in recent years are not lost.

The fragile health systems in many of these countries see major challenges in addressing the case load and it is conceivable that governments hosting many refugees and migrants could face difficult decisions around the allocation of scarce resources, how to deal with migrants within their borders, and the strategies and approaches needed to incorporate them effectively into their COVID-19 response. Therefore, action is now required to advocate for migrants globally and to guarantee their protection. 40 years of responding to the HIV epidemic has clearly taught us the benefits of a rights-based approach to ensuring an effective and proportionate response to outbreaks.[7] Advocating for equal prevention and treatment opportunities should be highlighted as a central pillar in reducing global transmission of COVID-19.[8] These migrant populations need support now, alongside early access to tests, drugs, and vaccines once available.

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COVID-19 and the coming epidemic in US immigration detention centres

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Individuals in US Immigration and Customs Enforcement (ICE) detention are at risk from serious consequences resulting from the rapid spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and inadequate access to appropriate medical care. This situation represents a moral and public health

imperative for rapid action by the US Department of Homeland Security (DHS) to mitigate the human toll of the pandemic.

SARS-CoV-2 emerged in late 2019 in Wuhan, China, causing coronavirus disease 2019 (COVID-19), which has been rapidly spreading across geopolitical, social, and economic boundaries around the world. In the USA, a rapid increase in SARS-CoV-2 infections in every state of the country has resulted in a growing number of hospitalisations, admissions to intensive care units, and deaths in specific age groups and in many people with underlying medical conditions.[1]

Individuals who are incarcerated, including immigrants in ICE detention, are among the most vulnerable to infection and complicated disease because of existing drivers of inequality.[2-3] The incarceration of undocumented immigrants is a relatively new phenomenon in the USA. The annual average daily population in ICE detention has risen more than seven times in the past 25 years to a peak of more than 50 000 individuals in 2019.[4] Many individuals in ICE detention have never been charged with a criminal offense. Immigrants in ICE detention around the country have expressed panic over conditions that put them at exceptionally high risk of an outbreak of COVID-19 and proposed an immediate humanitarian response to mitigate the risk of infection.[5] Rapid implementation of infection prevention and control measures in immigration detention is essential to the wider national public health response. Although people who are incarcerated are confined, a high degree of interaction occurs between people in facilities and the community, including people being transported between facilities, releases and new intakes that generate a population turnover, and the comings and goings of staff, visitors, vendors, and contractors. Inadequate implementation of infection prevention strategies will affect the spread of COVID-19 in the community and burden an already stretched health-care system.

Because the transmission of SARS-CoV-2 is predominantly from person to person through droplets, a pillar of infection prevention is social distancing and disinfection, which is antithetical to closed detention settings. Incarceration requires large groups of people to be held together in confined and often poorly ventilated spaces. Many areas within the facility are communal, including housing, waiting rooms, eating areas, recreation spaces, and classrooms. Disinfection and decontamination practices are also complicated by the ability of SARS-CoV-2 to survive for extended periods on materials that are highly prevalent in detention settings, such as metals and other non-porous surfaces.

From a public health perspective, mitigation strategies in detention facilities should be complemented by routine screening and containment procedures. These entail screening all people who enter facilities, including individuals in detention, staff, visitors, and vendors, and quarantining those who screen positive for COVID-19 exposure. People who screen positive for symptoms on intake or develop symptoms during detention must be medically isolated and receive appropriate medical care. ICE facilities do not have the staffing capacity or facilities to screen, quarantine to monitor for symptoms, isolate infected individuals, or deliver medical management in a setting with high rate of infection.[6]

Clinical deterioration, often rapid with COVID-19, will require the rapid transfer of individuals with COVID-19 to local medical facilities for specialised care that might exceed the capacity of local health-care systems, particularly in the rural and semi-rural settings where many ICE detention facilities are located. The combination of a captive population exposed to a highly infectious disease and substandard care has the potential to increase the incidence of infection and case-fatality rates among detained individuals, put the public at greater risk, and consume substantial medical and financial resources.

Because of the existing barriers to adequate mitigation, containment, and provision of medical care in detention facilities, the policy response to this crisis must involve the release of individuals in ICE detention and a halt of ICE enforcement action in the community. These actions should include the immediate release on humanitarian parole of individuals at risk of severe disease and death due to COVID-19 infection. An even more robust and effective response would be to release all individuals who do not represent a threat to public safety. This does not represent amnesty, but rather the use of existing structures within the DHS and the US Department of Justice to enforce immigration laws in the community setting.

As physician advocates, we believe that prompt action in this brief and rapidly closing window represents not only the humanitarian and moral course, but also the best public health intervention to prevent unnecessary deaths.

We declare no competing interests.

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Dearth of infectious diseases physicians as the USA faces a global pandemic

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The ongoing coronavirus disease 2019 (COVID-19) pandemic has exposed stark problems in the US health-care system. With more than half a million Americans infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the health-care industry is at the front line of grappling with a type of disaster that has not been seen in generations. There remains a shortage of testing kits, scalable infrastructure, and personal protective equipment to keep health-care workers and first responders safe, as well as an absence of adequately run clinical trials or clear recommendations from many of the governing bodies to guide practice. As health-care systems continue to navigate the logistics of coordinating a response to a unique problem, increased focus needs to be on infectious diseases physicians.

Infectious diseases physicians are experts who are trained in internal medicine and who complete extensive training in infections and associated diseases. Their training encompasses multiple practice settings, including epidemiology, antibiotic stewardship, international health, sexually transmitted infections, and comprehensive care of people living with HIV. Despite being one of the most frequently consulted services in most hospitals, the number of infectious diseases physicians is not keeping up with the need. According to the National Resident Matching Program statistics for the most recent physician fellowship match in 2020, 84 (21%) of 406 available infectious diseases trainee positions in the USA went unfilled, compared with two (<0·1%) of 1010 available cardiology positions, or two (<1%) of 615 available oncology positions that went unfilled. Although the number of infectious diseases physicians in the USA has increased steadily from 6424 in 2008, to 9136 in 2018 (a 42% increase, including physicians in patient care, teaching, and research faculty), the rate of future increase is uncertain.

There are several reasons for such discrepancies in the number of infectious diseases physicians in the US health-care workforce. One reason is that infectious diseases physicians are some of the lowest paid physicians among all specialties. Paediatric infectious diseases specialists were paid the least in 2019, with adult infectious diseases specialists not paid much more. Several medical and surgical specialties, such as cardiology and neurosurgery, on average earned two to three times the amount that their infectious diseases counterparts did. This discrepancy in earning stems from a reimbursement system based on a numerical quantity, known as relative value units, which are inherently skewed toward procedure-based specialties. This system of reimbursement affects non-procedural specialties such as infectious diseases that often work at

For data on the **number of active physicians in the USA by specialty** see https://www.aamc.org/data-reports/workforce/interactive-data/active-physicians-largest-specialties-2017

For **compensation data on paediatrics and infectious diseases specialists** see https://www.medscape.com/slideshow/2019-compensation-overview-6011286#1

For **compensation data on paediatric and adult infectious diseases specialists** see https://blog.doximity.com/articles/doximity-2019-physician-compensation-report-d0ca91d1-3cf1-4cbb-b403-a49b9ffa849f

For **National Resident Matching Program statistics** see http://www.nrmp.org/fellowship-match-data/