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Perspective

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"A Menace to the Public Health" — Contact Tracing and the Limits of Persuasion

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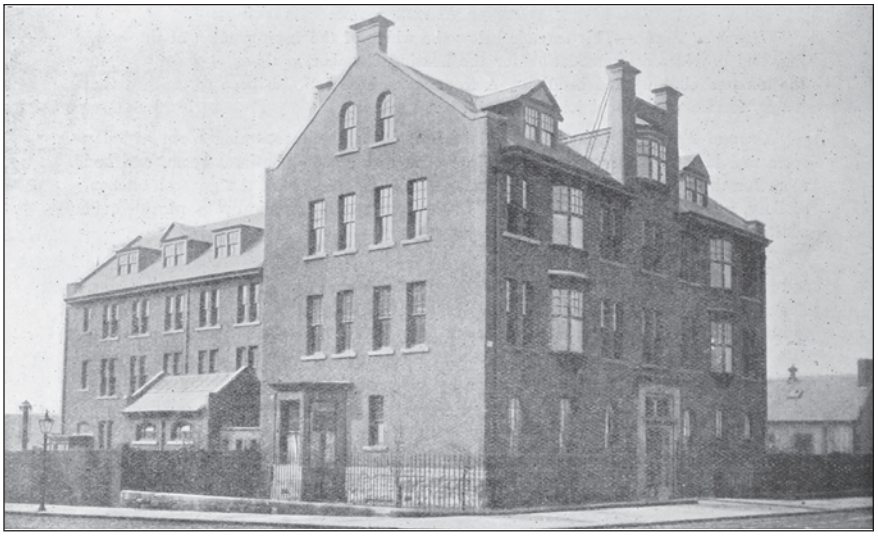
Many countries have been recruiting Covid-19 contact tracers as part of a "test, track, and trace" strategy. In the United Kingdom and the United States, for example, large corps of volunteers have signed up for online classes on the concepts and methods that have served South Korea, Singapore, and Taiwan throughout the pandemic. But whereas the systems in the latter countries rely on downloadable digital technologies, U.K. and U.S. faith is being placed in humans. By the end of July 2020, more than half a million people had enrolled for a free online Covid-19 contact-tracing course offered by Johns Hopkins, and around 20,000 people had been recruited as contact tracers in the United Kingdom.

Communication techniques are a key part of this training. Clarifying signs and symptoms and explaining local guidelines to contacts is mostly script-based and eminently teachable. But to have a meaningful impact, the tracer needs to establish rapport with the contact, which requires tact, patience, and empathy — qualities that are less readily teachable. Particularly in the United Kingdom, concerns have been expressed that the training falls short of what is needed to quell the fear and anxiety of people who are being asked to divulge very personal information. Governments thus face a stark reality: tracers' inability to persuade contacts to take precautions may prove costly in terms of illness and death.

We have been here before. In the late 19th century, when bacteriology was a new science, a vast workforce of sanitary inspectors was assembled in the United States and especially in the United Kingdom. At the time, the United Kingdom was acknowledged as a leader in the creation of an infectious disease surveillance system of notification, isolation, disinfection, and case finding. If its early efforts are anything to go by, something more than just persuasion will be required today.

From the mid-19th century, local U.K. medical officers of health directed the response to outbreaks of infectious disease, with support from a staff including a sanitary or nuisance inspector and assistants. One parliamentary document enumerated more than 1400 nuisance inspectors working in England and Wales. Liverpool's health report for 1900 listed a chief inspector, a deputy, and 36 general sanitary inspectors. To secure employment, inspectors had to pass an



A Reception House for Infectious Diseases in Glasgow, Scotland.
From the Report of the Medical Officer of Health, Glasgow, 1906.

examination that tested knowledge of four key areas: the legal aspects of public health, physics and chemistry, basic statistics, and common municipal hygiene practices.[1]

This last area included regulations for infectious diseases. According to Albert Taylor, whose *Sanitary Inspector's Handbook* went through six editions between 1893 and 1924, the sanitary inspector should visit and inspect the home of each infected person, arrange for the patient's removal, search for possible disease sources, schedule disinfection procedures, and inquire about contacts.[2] None of these actions were prescribed by the national authorities that set the parameters for inspectors' work. Nor was success on a written exam adequate preparation for the skills needed to coax information from patients and convince contacts of the need to quarantine. Nevertheless, sanitary inspectors took on these tasks and had to cultivate the art of persuasion on the job.[1]

The inspector's visit was especially pertinent in the case of smallpox, since contacts could receive compulsory vaccination on the spot. Once contact tracing became a public health tactic for a wider range of diseases by the early 20th century, however, the calculus shifted. By 1900, antitoxin and bacteriologic tests had become available for the childhood scourge of diphtheria, and schoolchildren were also targets for measles control. After the phenomenon of asymptomatic carriers was described with regard to typhoid fever, asymptomatic carriage was increasingly suspected for diseases such as tuberculosis, scarlet fever, and cerebrospinal fever (bacterial meningitis) as well.

As the powers of the contact-tracing visit increased, a delicate balancing act was needed to treat the infected persons detected by these schemes. First in Glasgow (1890) and later throughout Scotland (1897), statutory powers were granted for the maintenance of a "reception house" for people who had been in contact with infectious diseases and were living in overcrowded dwellings (see photo). They were bathed, reclothed, and vaccinated, if necessary. Contacts were given free board and lodging, and though they were allowed to continue working, they had to reside at the reception house for at least 14 days and were released only when clear of infection.

In England, by contrast, local authorities had no such laws available to them, and instead sought to control contacts through persuasion — or what they claimed was persuasion. Newcastle-upon-Tyne's medical officer of health said that persuading contacts to go to the isolation house was "practically successful in every case," and many people did acquiesce to quarantine willingly. But, as the officer admitted, obstinate contacts were met with threats to lock them up at home or charge them with conveying infection in a public place.[3]

Most contacts would have known full well that gentle persuasion was but a prelude to such coercive threats. Yet if persuasion failed to convince contacts to comply with public health measures, money usually succeeded. One health officer in London conceded that his local authority "bribed them," arguing that "the £40 or £50 which they had expended on 'contacts' had saved the ratepayers some hundreds of pounds they would otherwise have had to spend on patients."[4] It is difficult to tell how widespread compensation payments were, or whether they extended to diseases other than smallpox, though they are referred to frequently in the public health literature of the time, and the national authority sanc-

tioned them for smallpox contacts throughout the country in 1902.

These payments recognized the economic sacrifices made by quarantined contacts; persuasion was but a flimsy stick that required a nourishing carrot. If nothing else, such payments showed that an argument about fiscal prudence could be made for a contentious public health measure, even though extending payments to, say, scarlet fever contacts was prohibitively expensive.[5]

Unfortunately, contact management was applied unequally, both in the letter and the spirit of the law. The letter: Scottish legislation specifically targeted working-class tenement dwellers. The spirit: Glasgow's assistant medical officer, declaring that contacts were "a menace to the public health," said the danger lay not with the "educated," but with the poorer classes who willfully withheld information and made misleading statements.

These examples from early contact-tracing efforts may help us understand the limits of persuasion in the Covid-19 pandemic. As in early-20th-century Glasgow, people with privilege and wealth have the greatest capacity to quarantine at home. Although the prospect of coercing vulnerable people who have few reasons to trust government-led interventions always lies just behind efforts at persuasion in the public interest, it also seems clear that strategies that recognize the real financial costs of complying with public health measures such as quarantine are more likely to succeed.

Consequently, depending on modes of communication that are difficult to teach risks jeopardizing the success of "test, track, and trace." Early-20th-century U.K. leaders understood this reality, created laws to quarantine contacts, and (in a time before the creation of a humane welfare net) gave people compensation to acknowledge their service to the community. These early contact tracers had resources we now lack: in 2020, sweeping legislation to ensure quarantining of and financially compensating Covid-19 contacts seems unlikely.

Instead, today's tracers will want to develop their own set of community assets so that they can provide contacts with actionable measures to access social welfare, food banks, and other means of support. Recent experiences of austerity suggest that even this approach may prove to be too little, too late — yet another notch on the post of disinvestment in health and social services. Currently, cadres of Covid-19 contact tracers are being asked to do more — with much less — than their 19th- and 20th-century counterparts. They are going to have to be very persuasive, indeed.

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