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Virchow at 200 and Lown at 100 - Physicians as Activists.

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On the provider side, overburdened staff members have limited time; addressing financial needs may be seen as an additional burden. We have found, however, that stories about the positive effects of MFPs help promote buy-in. We have also found that breaking down abstract financial concepts into concrete examples, as clinicians do with medical problems, increases clinician and patient engagement. For example, it was critical for us to break down the effects of the second pandemic stimulus package, a complicated bill. This bill allowed families to claim thousands of extra dollars on their tax returns. Staff members became enthusiastic when they understood the effects that these provisions would have on our patients' lives. Finally, and perhaps most importantly, we believe that health care systems should have a vision to address barriers to health equity that includes developing and supporting MFPs.

An audio interview with Dr. Marcil is available at NEJM.org

Pediatric practices have led the MFP movement to date, but we believe that most low-income patients would benefit from such programs. Although more research on the health effects of MFPs is needed, the evidence that poverty and financial instability negatively affect health — among children and adults alike — is overwhelming. The Covid-19 pandemic has only increased income volatility. Experts predict that living-wage jobs will remain scarce and that hours for workers in low-wage, essential jobs will be erratic. Amid these ongoing challenges, we believe it's time for health care to step beyond its traditional boundaries and bring MFPs to patients.

Disclosure forms provided by the authors are available at NEJM.org.

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Virchow at 200 and Lown at 100 — Physicians as Activists

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> The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy.
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> — Martin Luther King, Jr., 1963

The Covid-19 pandemic has vividly reminded us not only that competent governments and good public health can save lives, but also that social factors and racial inequities affect disease. The virus has also made it clear that the problems we face today are global and, therefore, that only global solutions will be effective.

Moreover, the pandemic has forced many people to reconsider what medicine is all about. But debate over what doctoring is — and what it is not — is nothing new. This year marks significant anniversaries of the births of two physicians who took a broad view of the role of medicine.

German physician Rudolf Virchow, born 200 years ago this October, was so certain that disease was a reflection of societal failures that he claimed, "medicine is a social science, and politics nothing but medicine at a larger scale."[1] Virchow saw physicians as "natural attorneys of the poor" and viewed social problems as their responsibility,[2] and he was willing to pay a price for his advocacy. When, during the März-revolution of 1848, he took his medical students to the barricades, the government fired him from the Charité of Berlin. Yet Virchow was undaunted. He rebuilt his reputation as the leader of European pathology, then won a seat in the Reichstag. During a

political career spanning many decades, he was involved in passing laws that made Berlin a model city for health and hygiene. He also persisted in denouncing the social injustices of his time. Addressing issues raised by the industrial revolution, he wrote, "Shall the triumphs of human genius serve no other aim than making the human race miserable?"[3]

This question is even more pressing today, given the vast inequality in the distribution of wealth, racial and socioeconomic inequities in health and health care, catastrophic global dangers, and astounding failures of leadership. Such challenges have stimulated additional discussion about whether physicians should "stay in their lane" — as the National Rifle Association directed them to do in 2018 — or should instead help fill the leadership void and fulfill their roles as advocates for the sick and the poor, as Bernard Lown passionately believed.

Lown, who would have turned 100 in June 2021, spent a lifetime reminding physicians that doctoring is not incompatible with social activism — in fact, the two are closely connected. He came to the United States from Lithuania at 14 years of age, leaving behind a large Jewish family, including a grandfather who was a rabbi. When the Nazis invaded Lithuania, they rounded up his family in a synagogue and burned them alive — which prompted Lown's lifelong motto, "Never whisper in the presence of wrong." A cardiologist credited with pioneering the direct-current defibrillator for cardiac resuscitation (which he refused to patent because he wanted everyone to have access to it), Lown never forgot that being a doctor comes with social responsibilities. For his lifelong activism, he earned several international peace prizes, and he accepted the Nobel Peace Prize on behalf of the organization he cofounded, International Physicians for the Prevention of Nuclear War (IPPNW).

Lown infused the physician archetype with global and social dimensions that resonate in our era of global problems and solutions. He said in 1985 that the IPPNW "work[s] with doctors whatever their political convictions to save our endangered home." These words were prescient, given the Covid-19 pandemic and our current dual existential crises of climate change and overpopulation. United Nations Secretary-General António Guterres has called Covid-19 "a dress rehearsal" for future collective threats. As professionals dedicated to the relief of suffering, physicians are well positioned to lead a response to such threats. Doing so will require us to transcend international divisions and create a more cooperative global society. Martin Luther King, Jr., framed it as an issue of self-preservation: "We must learn to live together as brothers or perish together as fools."

"We go into medicine to make a difference," Lown said in 2013, "and we are in a unique position to do so." As he told the *Boston Globe* in 2001, "you cannot be committed to health without being engaged in social struggle for health." Putting his ideas into practice, Lown spent the last years of his life writing in bold ways about the climate crisis, which recent data suggest may have facilitated the emergence of Covid-19. At critical moments during the 20th century, scientists provided intellectual and moral leadership. Lown remained steadfast in his belief that physicians also have the necessary clout to effect broader societal change. He might have been right: the manifestations of worldwide appreciation for frontline doctors have been a tribute to that.

We believe that social issues ought to be part of medical school curricula, not only because doctors need to know that the social determinants of health account for 80% of health outcomes,[4] but also because students should understand that only by addressing social issues can they truly improve the health of the population. Whether physicians push for change as advocates, activists, or legislators, we contend that social involvement should be part of the job description. At Sidney Kimmel Medical College, for instance, we encourage students to be involved in community service by participating in our student-run clinics at five Philadelphia homeless shelters, and we consider engagement with social issues in faculty-promotion decisions. Many other schools have taken similar steps.

Current Surgeon General Vivek Murthy wrote in 2019 about the need for physicians to be guardians of integrity: "People will accuse us of being political, but if people accuse you of being political because you're standing up for people who can't stand up for themselves, then you should do it anyway, because that is at the heart of our profession."[5] The misinformation and mismanagement surrounding the Covid-19 pandemic have reinforced the need for physicians to speak up

regarding moral issues. The alternative approach — indifference — reflects the narrow view that being political is not what doctors do.

Dante Alighieri, who was educated as an apothecary and died 700 years ago this September, had so little tolerance for indifference that he relegated bystanders to the worst part of his hell: the Ante-Inferno. The ancient Greeks simply called people who refused to get involved "idiotes." We believe that indifference in times of challenge and controversy is akin to complicity. Covid-19 may finally force our profession to understand that an essential competency of medical trainees should be advocacy and activism.

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One Hundred Years of Insulin for Some

Amy Moran-Thomas, Ph.D.

There is not one story of insulin; there are many. As a young child, Mr. J. lost his mother to what was presumed to be type 1 diabetes. He recalled taking whatever kinds of insulin he could get for his own type 1 diabetes growing up, thanks to the generosity of his neighbors and extended family. But after going without countless times, he now faced frequent seizures and diabetic comas, he told me a few months before his death at 21 years of age. Ms. C., meanwhile, had been diagnosed with type 2 diabetes, only to be told years later that she actually had type 1. Because of this misdiagnosis, it took years before her treatment included insulin — and by then, each injection that brought her blood sugar into the "normal" range made her feel violently ill. She died at 36. I met both these patients in 2010 as part of an ethnographic project about people's experiences living with diabetes in Belize. Statistics on type 1 diabetes weren't being kept in the country at the time, as is the case in many overstretched health systems, so Mr. J.'s and Ms. C.'s dilemmas — like their deaths — weren't registered as part of global diabetes figures.

As the story is often told, 100 years ago — on July 27, 1921 — two young researchers in Canada, Frederick Banting and Charles Best, isolated the hormone insulin. Within months, doses began reaching patients. In 1923, the collaborating inventors sold the insulin patent to their university for $1 each, with the goal of keeping treatment affordable and accessible for everyone. Ensuing narratives often depict linear timelines of scientific progress stretching toward the present day: glucose-monitoring devices, miniature insulin pumps, insulin analogues, the promise of the bionic pancreas, and numerous therapeutics that have hugely increased chances for survival.

But these narratives often eclipse more uneasy stories: Mr. J.'s and Ms. C.'s situations give a glimpse into struggles happening every day throughout the world.[1-3] Patients without other options inject expired or suboptimal types of insulin or ration their supplies, and safer analogue insulins and pumps remain unavailable to many. Caregivers fight for basic tools; some explained that they were afraid to prescribe insulin for home use after knowing patients who died from overdoses because they couldn't afford glucose-measurement tools. Families face impossible choices as they attempt to procure treatment in regions where insulin for a child with type 1 diabetes can consume most of a household's budget.[3] Today, more children with type 1 diabetes worldwide benefit from