childhood IPV coverage and the interim bOPV supplementation.

We believe that the reasonable policy that was pursued in response to the detection of wild poliovirus has led to broad professional and political commitment to the public health response, as well as consistent resource allocation for implementing it.<sup>1,5</sup> Such national consensus should allow our public health record to remain intact: since 1988, no case of paralytic polio nor any wild-poliovirus—

associated disease has been diagnosed in Israel.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the Public Health Services, Ministry of Health, Jerusalem (E. Kopel, E. Kaliner, I.G.); and the Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer Sheva (I.G.) — both in Israel.

- 1. Anis E, Kopel E, Singer SR, et al. Insidious reintroduction of wild poliovirus into Israel, 2013. Euro Surveill 2013;18:20586. [Erratum, Euro Surveill 2013;18:20651.]
- 2. Shulman LM, Gavrilin E, Jorba J, et al. Molecular epidemiology of silent introduction

and sustained transmission of wild poliovirus type 1, Israel, 2013. Euro Surveill 2014;19:

- **3.** Hovi T, Shulman LM, van der Avoort H, Deshpande J, Roivainen M, De Gourville EM. Role of environmental poliovirus surveillance in global polio eradication and beyond. Epidemiol Infect 2012;140:1-13.
- **4.** Surveillance systems to track progress towards global polio eradication, 2012–2013. Wkly Epidemiol Rec 2014;89:165-73.
- **5.** Kaliner E, Moran-Gilad J, Grotto I, et al. Silent reintroduction of wild-type poliovirus to Israel, 2013 risk communication challenges in an argumentative atmosphere. Euro Surveill 2014;19:20703.

DOI: 10.1056/NEJMp1406250
Copyright © 2014 Massachusetts Medical Society.

## Medical Marijuana, Physicians, and State Law

George J. Annas, J.D., M.P.H.

s Massachusetts prepares to implement its new medicalmarijuana law, agents of the federal Drug Enforcement Administration (DEA) have reportedly visited at least seven Massachusetts physicians at their homes or offices and told them they must either give up their DEA registration or sever formal ties with proposed medical-marijuana dispensaries. These encounters were meant to intimidate the physicians and to discourage them from taking an active role in medical-marijuana dispensaries, and they have apparently succeeded. But there are differences between state and federal law, between talking to patients and selling drugs, and between acting as a physician and acting as a marijuana entrepreneur. With medical-marijuana laws poised to come into effect in a majority of states, it seems worthwhile to put medical marijuana in historical and legal context.

Americans strongly support making marijuana accessible to sick people who might benefit from its use, with 86% believing that physicians should be able to recommend marijuana to their seriously ill patients. The DEA has been consistent in its campaign to discourage physicians from discussing marijuana with their patients, probably because the agency sees such discussions as legitimizing the use of a drug that it still apparently believes, in disregard of the evidence, was reasonably designated a Schedule I drug — a drug with no medical use and a high potential for abuse.

In 1997, the editor-in-chief of the *Journal* argued that the federal drug laws that prohibited physicians from helping their suffering patients by suggesting that marijuana may be beneficial to them was "misguided, heavy-handed, and inhumane." The editorial was responding to California's first-in-the-nation broad medical-marijuana law and DEA agents' subsequent threats to revoke the DEA registrations of California physicians who suggested that a patient

might benefit from marijuana as permitted by the new law.<sup>2</sup> California has now been joined by more than 20 additional states in permitting patients to possess marijuana on the advice of their physician (see table). There has, however, been no change in federal law — which still prohibits possession and sale of marijuana — and little change in the DEA's tactics.

State law cannot change federal law, and in late 1996 the Department of Health and Human Services, the U.S. attorney general, and the DEA announced their intention to continue to enforce federal drug laws in California regardless of California's new law. Attorney General Janet Reno put it this way: "Federal law still applies . . . . U.S. attorneys . . . will continue to review cases for prosecution and DEA officials will review cases as they have to determine whether to revoke the registration of any physician who recommends or prescribes so-called Schedule I controlled substances."2

States That Have Passed Medical-Marijuana Laws.				
State or District	2010 Population (millions)	Year of Adoption	Method of Adoption	Vote
Alaska	0.7	1998	Ballot Measure 8	58% yes
Arizona	6.3	2010	Proposition 203	50.1% yes
California	37.2	1996	Proposition 215	56% yes
Colorado	5.0	2000	Ballot Amendment 20	54% yes
Connecticut	3.6	2012	House Bill 5389	House 96–51; Senate 21–13
Delaware	0.9	2011	Senate Bill 17	House 27–14; Senate 17–4
Hawaii	1.4	2000	Senate Bill 862	House 32–18; Senate 13–12
Illinois	12.8	2013	House Bill 1	House 61-57; Senate 35-21
Maine	1.3	1999	Ballot Question 2	61% yes
Maryland	5.8	2014	House Bill 881	House 125-11; Senate 44-2
Massachusetts	6.5	2012	Ballot Question 3	63% yes
Michigan	9.9	2008	Proposal 1	63% yes
Minnesota	5.3	2014	Senate Bill 2470	House 89-40; Senate 46-16
Montana	1.0	2004	Initiative 148	62% yes
Nevada	2.7	2000	Ballot Question 9	65% yes
New Hampshire	1.3	2013	House Bill 573	House 284–66; Senate 18–6
New Jersey	8.8	2010	Senate Bill 119	House 48–14; Senate 25–13
New Mexico	2.1	2007	Senate Bill 523	House 36–31; Senate 32–3
New York	19.4	2014	Assembly Bill 6357	Assembly 117–13; Senate 49–10
Oregon	3.8	1998	Ballot Measure 67	55% yes
Rhode Island	1.1	2006	Senate Bill 0710	House 52–10; Senate 33–1
Vermont	0.6	2004	Senate Bill 76; House Bill 645	Senate 22–7; House 82–59
Washington	7.0	1998	Initiative 692	59% yes
District of Columbia	0.6	2010	Amendment Act B18–622	13–0
Combined population	145.1			

There have, nonetheless, been changes and clarifications in the law that make Massachusetts (and other states with medical-marijuana laws) in 2014 different from California in 1996. After the DEA threats in California, a group of California physicians brought suit seeking to enjoin the federal government from taking any action against them for communicating with patients about the medical use of marijuana. A trial court judge granted the injunction and ruled that DEA action against a physician was permissible only if

the government had substantial evidence that the physician "aided and abetted the purchase, cultivation, or possession of marijuana" as prohibited by federal law. Five years later, in 2002, the Ninth Circuit Court of Appeals affirmed the injunction, ruling that the First Amendment prohibits the government from punishing physicians "on the basis of the content [the potential usefulness of marijuanal of doctorpatient communications."3 though this ruling technically applies only to states in the Ninth Circuit (Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, and Washington), there is little doubt that the U.S. Supreme Court would follow it today, given the strong First Amendment protections it has adopted for anti-abortion "counselors" outside abortion clinics. Physicians can speak freely with their patients about the potential medical risks and benefits marijuana might have for them.

On the other hand, once physicians move outside the physician–patient relationship and

into the drug-trafficking arena, their speech and actions are not protected, and the federal government may take action against them. In the case most often cited by the courts, the 1975 Supreme Court case U.S. v. Moore, a physician used his DEA registration to sell methadone prescriptions without following accepted medical practice of taking a patient's history and doing a physical exam. Moore simply wrote a prescription for the number of pills a patient requested and charged more for more pills. The court concluded that Moore, "in practical effect, acted as a largescale 'pusher,' not as a physician."

The DEA seems to be treating at least some Massachusetts physicians who are medical officers or board members of new marijuana dispensaries as drug dealers; I believe that in doing so, it is going too far. Unless a physician seeks to be paid by the dispensary on the basis of sales or volume, it's difficult to see how acting as a medical officer or member of a dispensary's board could constitute drug dealing. Massachusetts regulations specifically prohibit "a certifying physician" (one authorized to determine for specific qualifying patients that, in his or her professional opinion, "the potential benefits of the medical use of marijuana would likely outweigh

An audio interview with Prof. Annas is available at NEJM.org

the health risks") from getting paid or accepting "any-

thing of value" from a marijuana dispensary (which must be a not-for-profit entity). On the other hand, it is possible for physicians to act more like entrepreneurs than physicians in the not-for-profit sector. The DEA might, for example, even argue (if unper-

suasively, given today's health care market) that any business activity a physician engages in is outside the practice of medicine and could constitute drug trafficking.

Physicians might simply and reasonably want to avoid any hostile encounter with the DEA, even if they're convinced that they would ultimately prevail. The most recent Department of Justice guidance to prosecutors suggests limiting criminal charges to "large-scale, for-profit commercial enterprises" and endorses four priorities for federal enforcement: preventing distribution of marijuana to minors, preventing revenue from going to a criminal enterprise, preventing trafficking of other illegal drugs, and preventing drugged driving.4 However, another president could reverse or revise this policy and instruct the attorney general to prosecute federal marijuana violations more vigorously.

Since federal drug laws are unlikely to change any time soon, changes in state law become more important — and signal, I think, a tipping point: a majority of states will soon permit medical uses of marijuana. Liberalization of state laws has already, for example, caused the New York Times editorial board to advocate that the federal government "repeal the ban on marijuana" and leave regulation up to the individual states.5 Moreover, since states not only make their own laws but also send senators and representatives to Washington to make federal law, the legalization trend will inevitably lead to changes in enforcement of federal law, even if Congress does not directly change federal marijuana laws. In May, for example, the U.S. House of Representatives passed a bill prohibiting the Department of Justice (of which the DEA is a part) from expending any funds to prevent states where medical marijuana is legal from implementing "their own State laws that authorize the use, distribution, possession, or cultivation of medical marijuana." Although the U.S. Senate has not yet acted on this bill, it seems likely to pass, because supporters of medical marijuana will be joined by lawmakers wanting to reduce the number of young black men in prison, as well as by states' rights proponents and libertarians. And this unlikely coalition will seek to protect physicians who follow their states' medical-marijuana laws from overbearing and intimidating actions against them by the DEA and ultimately help to transform marijuana use from a criminal law issue to a medical and public health issue.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

From the Department of Health Law, Bioethics, and Human Rights, Boston University School of Public Health, Boston.

This article was published on August 6, 2014, at NEJM.org.

- 1. Kassirer JP. Federal foolishness and marijuana. N Engl J Med 1997;336:366-7.
- 2. Annas GJ. Reefer madness the federal response to California's medical-marijuana law. N Engl J Med 1997;337:435-9.
- **3.** Conant v. Walters, 309 F3d 629 (9th Cir. 2002)
- 4. Cole JM. Guidance regarding marijuana enforcement: memorandum for all United States Attorneys. Washington, DC: Department of Justice, August 29, 2013 (http://www.justice.gov/iso/opa/resources/3052013829132756857467.pdf).
- 5. Repeal prohibition, again. New York Times. July 27, 2014 (http://www.nytimes.com/interactive/2014/07/27/opinion/sunday/high-time-marijuana-legalization.html?\_r=0).

DOI: 10.1056/NEJMp1408965
Copyright © 2014 Massachusetts Medical Society.