

Virtual Mentor

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Ethics and Public Health: Physicians as Agents of the State

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Virtual Mentor

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FROM THE EDITOR

The Health of the Patient, the Health of the Public: Goals in Tension

What, then, is the rightful limit to the sovereignty of the individual over himself? Where does the authority of society begin? How much of human life should be assigned to individuality, and how much to society?

—John Stuart Mill, *On Liberty*

Thus begins a chapter in one of the most influential texts ever written on the concept of social liberty. The question raised by the 19th-century philosopher John Stuart Mill is not an easy one to answer. Mill, who argues that individuals should have the right to do as they please as long as their actions do not harm others, decides that society can exercise power over any of its members to prevent harm to others, but no more.

These ideas about society and freedom are more than just philosophical fodder. The dichotomy between the authority of the government to impose limitations and the free development of individuality takes center stage in the medical realm. In the practice of medicine, the role of a physician to care for the patient is separate from the role of the government to attend to the interests of all the people under its rule. For the sake of public health, however, these two domains can collide if the government asks (or forces) the physician to comply with demands that supersede some of the patient's rights. In this case, the physician may be acting as an agent of the state, having to compromise his patient's autonomy for the sake of the general welfare of the public.

This poses serious ethical challenges for the physician, who, on one hand, has professional obligations to the welfare and interests of his patient and, on the other, has civic responsibilities to the public to maintain the general good. How does a physician balance an individual patient's rights with the interests of the state (representing, in theory at least, the interests of the people) when the public health is at stake? When a physician is acting in his or her role as an agent of the state, what justifies breaching that role, and what necessitates compliance with it?

This issue of *Virtual Mentor* explores state-mandated actions and the responses of the physicians, as well as the patients, who are affected by them. The first clinical case explores the ethics of public school initiatives that take aim at potential health problems in children, like obesity, and request action on the part of parents and private physicians. The second case is a reaction to West Virginia's new Medicaid program, which uses incentives to encourage healthy behaviors while providing only

basic services to noncompliant patients. This health policy creates an ethical dilemma for physicians who may feel compelled to provide service based on compliance in the face of limited resources. The third case provides insight into how medical professionals can balance competing ethical obligations when treating undocumented immigrants for infectious diseases like tuberculosis that must be reported to the health department. Given the widespread impact on the public health of a potential TB outbreak, the clinical pearl outlines ways to diagnose and manage this communicable disease before it escalates to that point.

Our content then looks at the broader ramifications of legal and health mandates. The two policy forum articles are good examples of how public health goals at times compete with autonomy and privacy: the first examines the argument for mandatory vaccination to prevent human papillomavirus (HPV) infections and compares it with justification for mandatory vaccination against more easily transmitted diseases. The second discusses the importance of the New York City A1c Registry, a diabetes surveillance and reporting program, and pits the benefits of the program against the potential for invasion of patients' privacy. The health law section examines mandatory reporting laws through the lens of two court cases—*Landeros v. Flood* and *Becker v. Mayo Foundation*—that elucidate the principle of physician liability for failure to report suspected child abuse.

The journal discussion deals with mandatory reporting from another perspective—the idea that physicians' compliance with mandatory reporting of certain communicable diseases can be affected by their understanding of the law and public health benefits that follow from careful reporting. The author of our medicine and society article explores the complex interactions between politics and medicine from a historical framework, and the history of medicine piece looks more specifically at the development of physician reporting laws and opposition to them.

The op-ed author places intimate partner violence in the context of mandatory reporting and discusses the advantages and disadvantages of such a policy to victimized populations. Finally, this issue features the winning entry of the 2007 John Conley Ethics Essay Contest, which wrestles with the dilemma of whether a member of a family medicine practice can leave a pandemic flu-ridden city, acting against urgent pleas by the department of health for all “all available” primary care and infectious diseases physicians to report to duty.

It is our hope that these clinical vignettes and scholarly discussions will provide some insight to present and future physicians who may find themselves pondering the kinds of questions that Mill once posed, wondering, “First do no harm. But what of society?”

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CLINICAL CASE

Role of Schools in Monitoring Student Health

Commentary by Benjamin Caballero, MD, PhD

Sarah is a pleasant, happy-go-lucky 8-year-old at Brookline Elementary School who came home one day with a note from the nurse's office. It warned her parents that their daughter, who weighed 70 pounds and stood 4 feet tall, had a body mass index (BMI) that placed her in the 90th percentile of kids her age. In other words, the note indicated, she was "at risk of becoming overweight."

Sarah's parents were outraged. Although they considered Sarah to be somewhat pudgy, they weren't worried about her health because they knew that Sarah was an active child who played outdoors, rode her bicycle, and ate healthy meals prepared by her mother, both at home and school.

Sarah herself was deeply disturbed by the letter, convinced that her teachers were rebuking her for eating too much at home or being lazy in school. Her parents then noticed that she began eating less and skipping meals.

After calling the school to complain, Sarah's parents found out that the school had recently instituted a policy under which all children with BMIs above the 85th percentile were referred for a regimen of weight management, behavioral counseling, and other staged interventions under the guidance of a primary care physician to help them achieve certain goals for lifestyle and health consciousness. Even though Sarah's parents were convinced there was nothing wrong with their daughter's health or weight, they made an appointment with Sarah's pediatrician, Dr. James, to discuss the matter.

Having been the family pediatrician for nearly a decade, Dr. James had monitored Sarah's growth and health carefully for most of her life and had always thought of her as a relatively healthy child. When he learned about Sarah's predicament at school, he realized that to comply with the school's expectations of care for children they deemed "overweight" or "obese," he would have to monitor Sarah's health far differently than he typically did for a child her age. On her regularly scheduled visits, he would have to perform complete work-ups for all obesity-related risk factors; labwork would include blood pressure, lipid profile, fasting glucose, and a variety of other tests. Not only that, he would also have to assess her eating behaviors, including how often her family ate meals away from home, how many sweetened beverages she drank, and how frequently she snacked.

After Dr. James discussed all this with Sarah's family, they found it unjustifiably

intrusive into their lives. Sarah was horrified at the idea that she would have to endure so many visits to the doctor and so many questions about her life when she didn't even understand what was wrong.

Commentary

This case poses two important questions. First, do schools have the right (or the duty) to monitor health indices and require action from parents? Second, what is the role of the physician in this context? The overarching issue is, of course, society's responsibility in monitoring and protecting the health of its members.

Should Schools Monitor Pupils' Health?

In our individualistic society based on private health care, there is little tolerance for public health decisions that affect large segments of the population. Health education is based primarily on individual responsibility: for example, to prevent drug abuse, "just say no." In this context, it is not surprising that collective initiatives such as monitoring body mass index (BMI) in schools and informing parents have created controversy. The Emmaus, Pennsylvania, school district was one of the first to implement this measure [1]. In the year 2000, schools in that district measured BMI in all children and sent letters to parents of those with BMI levels above the 85th percentile (also to the few with BMI levels below the fifth percentile, the cutoff for undernutrition). There was a strong negative reaction from parents, similar to the one described in this case.

After the learning experience of the first year, the school district made several important changes in the program. First, it sent a preliminary notice to parents giving them the opportunity to opt out of the BMI letter. Next, it sent the BMI results to all parents, not just to those with BMI above or below the acceptable range, transforming the "bad report card" concept of the program to an information- and education-based one. Third, the BMI measurement activity was preceded by an intense educational campaign that involved parents, teachers, health care providers, and community organizations. Finally, major initiatives were introduced at schools, including revision of the school menus, promotion of physical activity, and creation of a health coordinating committee. In two years, the number of families participating in the program increased dramatically, and less than 2 percent of parents chose not to receive the BMI results [1].

The key lesson is that informing parents should not be simply a means to shift responsibility from the school to the home, but rather an invitation to join school and community officials in dealing with the problem of obesity. For this, parents must see that multiple efforts are being made to educate kids and their families and help them maintain a healthy lifestyle and body weight.

Physicians' Responsibilities

The second issue, the role of the physician and other health care professionals, is more complex. Our health care system exhibits a substantial disconnect between

public health and private practice. Doctors may not be well informed about the public health issues in their communities or their state. Their perception of the prevalence of diseases in their community may be largely based on their own experience with patients, which can vary substantially from one practice to another. Medical school provides limited training on prevention assessment and intervention, and most insurers' compensation policies discourage prevention activities during office visits. Furthermore, insurers usually do not cover weight loss programs, unless associated disorders such as high blood pressure or dyslipidemia are already present.

Several organizations have proposed recommendations on how the primary care physician should approach a child with high BMI [2]. The ideal method should consider not only BMI but the presence of comorbidities such as high blood pressure and dyslipidemia and should check for parental obesity. Management can range from simple observation to dietary counseling or weight management. Serious weight problems should be handled by a team with experience in pediatric obesity, which usually includes a dietitian, a behavioral therapist, and a physical therapist. Involvement of the whole family is crucial.

Due to the high cost and low long-term success rate of treatment, the response to the obesity epidemic should be prevention. For this we must refocus our health care system toward preventive care and expand opportunities for healthy behaviors in the workplace, schools, and the community. In this context, as the experience of the Emmaus district shows, a "BMI letter" should be regarded not as an intrusion but as an invitation to join the general efforts to improve health and prevent obesity among our children.

References

1. Johnson A, Ziolkowski GA. School-based body mass index screening program. *Nutr Today*. 2006;41(6):274-279.
2. Himes JH, Dietz WH. Guidelines for overweight in adolescent preventive services: recommendations from an expert committee. *Am J Clin Nutr*. 1994;59(2):307-316.

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Related in VM

[Obesity in Kids: When Appeals to Vanity Fail](#), October 2006

[Obesity as Medical Neglect: Should Doctors Report?](#) August 2003

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CLINICAL CASE

Smoking and Medicaid Benefits

Commentary by Cindy Tworek, PhD, MPH, and Kimberly Horn, EdD, MSW

Dr. Smith's spirits fell as soon as he noticed Jack fidgeting uncomfortably in the waiting area of his small private practice office. Jack usually dreaded even the thought of seeing a doctor.

Upon his first visit to Dr. Smith's office several years ago, Jack was diagnosed with diabetes and high blood pressure. As a result, Dr. Smith placed him on four different medications, one of which was insulin.

Whenever Jack came in for a checkup, Dr. Smith would repeat his pleas that Jack quit smoking and adopt healthier lifestyle choices. Jack's usual response to the former: "Why the hell should I stop smoking when I've done it for 20 years now?" His response to the latter: "Doc, I eat what I like and what I can afford. That's it. I'm not going to waste money on stuff I won't eat."

On this visit, Dr. Smith hoped things would be different. He reminded Jack, who received Medicaid benefits, that he had signed a contract with the state of West Virginia entitling him to additional health benefits—such as weight-loss and anti-smoking programs, mental health services, diabetes management classes, and cardiac rehabilitation—if he kept his medical appointments, took his medications, and followed health improvement plans. If he reneged on these obligations—and so far, Jack had—Dr. Smith would be forced to report this noncompliance to the state. Jack would still get basic Medicaid services but would only get four free drug prescriptions per month, among other limitations.

"So this is what happens when there's a crunch for taxpayer money," Dr. Smith thought to himself. "You end up doling out service based on compliance." What really worried Dr. Smith was that if Jack ever got sick with an infection, for example, one that required antibiotic treatment, and the prescription exceeded the dollar limit, there would be no telling what would happen to Jack or his kids.

Commentary

In July 2006 three West Virginia counties adopted a pilot Medicaid program that promotes personal responsibility for positive health behaviors [1-3]. The program includes basic and enhanced benefits. The enhanced plan provides, in addition to all mandatory services, age-appropriate wellness services and has no monthly

prescription limit (the basic Medicaid plan covers only four prescriptions per month). To qualify for enhanced benefits, members must sign a binding Medicaid Member Agreement valid for 12 months. The agreement essentially requires that members make reasonable efforts to stay healthy.

Incentives for Tobacco Cessation

Specifically, the program promotes patient responsibility for lifestyle choices (e.g., developing healthy eating habits, maintaining healthy weight, exercising, and quitting tobacco use) and adherence to physician advice (e.g., keeping appointments, taking required medications). The program rewards those who sign and adhere to the agreement with enhanced benefits [1]. If patients fail to follow the agreement, however, the state enrolls them in basic benefits for a year. The goal is to encourage patients with unhealthy lifestyles to practice responsible self-care and take advantage of free health improvement programs. In turn, the theory holds that health is improved and dollars are saved.

Significantly for the case study at hand, West Virginia monitors patient adherence to recommended screenings and health improvement programs, appointment schedules, and medication regimens and tracks patient compliance to the agreement using claims data. So the question arises: Who is responsible for reporting patient noncompliance? In the current scenario, the physician who receives reimbursement from the state for Jack's care, Dr. Smith, would be obligated to report.

Opponents of the plan believe that this requirement competes with current models of the patient-doctor relationship [3, 4]. Physicians feel conflicted between legal obligations and reporting situations that may harm their patients or their relationships with patients. In fact, the scenario faced by Dr. Smith creates tension between principle III ("A physician shall respect the law...") and principle VIII ("A physician shall, while caring for a patient, regard responsibility to the patient as paramount") of the AMA Principles of Medical Ethics [5].

Advocates assert that the plan promotes personal responsibility for health, an effective and necessary behavior change agent [6, 7]. The Health Belief Model identifies two convictions that influence a person's decision to adopt recommended preventive health actions: (1) perception of personal threat by a disease and recognition of its serious or severe consequences; and (2) recognition that the benefits of taking preventive action outweigh perceived barriers and costs of such action [8]. If patients hold these beliefs or convictions, they may well comply.

It may also be said that the redesigned Medicaid plan puts increased responsibility and accountability on the shoulders of the physician. The literature demonstrates that a less-than-ideal percentage of physicians counsel patients or provide them with appropriate referrals for unhealthy behaviors such as obesity and cigarette smoking [9-11]. A 2006 study in New York by Brissette, Gelberg, and Grey [12] found that, despite mandatory reporting laws, underreporting of disease conditions to public health authorities was extensive. Reporting chronic disease conditions has legal and

public health impacts [12]. An increased sense of responsibility and accountability on the part of both the patient and the physician may be our best assurance that patients will receive the treatments and services they need. Supporters of the West Virginia plan believe that the state has taken a bold and unprecedented step forward.

Noncompliance and Negotiation with a Patient

What makes each case challenging is that physicians like Dr. Smith are empowered to define compliance and noncompliance on a patient-by-patient basis. The physician must determine the difference between desirable behaviors and achievable ones for any given patient. Failure to achieve a goal does not necessarily define patient noncompliance; it may simply lead to renegotiation between the patient and physician. Negotiation is a critical aspect of behavior change and may require repeated efforts [13], allowing for physician flexibility in determining a patient's true desire to comply with health care advice.

In Jack's case, we can ask: Is a patient who received tobacco cessation information and who has not quit, but is closer to making a quit attempt, considered "noncompliant"? What cessation tools were initially recommended—are other services available that may be more effective for this patient? Is the patient aware of and educated concerning all cessation tools and programs that are viable options? These types of cases demand unique tailoring of patient services, including the collaboration of various providers involved in a patient's health care.

Physicians have an obligation to promote the well-being of their patients. The second part of Principle III of the AMA code of ethics states that "A physician shall...recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient" [5]. Is West Virginia's proposed Medicaid change in the patient's best interest? Or does it threaten patients' interests? If a physician concludes that this or any other plan jeopardizes the health of the patient, he or she must advocate for change.

Regardless of the Medicaid redesign pilot, an aggressive approach to interactive patient-physician health behavior monitoring is urgently needed in West Virginia and many states. A state that consistently ranks among the worst in the nation in health disparities [14, 15] must take measures for change and then assess those measures to foster and promote healthy behaviors among its residents. The West Virginia pilot program is undoubtedly controversial and in need of evaluation for many reasons. Only by giving the plan a fair try and providing appropriate feedback, will physicians be able to judge whether, on balance, it furthers patients' interests. Physicians participating in this pilot program have the opportunity to take part in unprecedented Medicaid reform and promote necessary change.

References

1. Steinbrook R. Imposing personal responsibility for health. *N Engl J Med.* 2006;355(8):753-756.

2. Centers for Medicare and Medicaid Services. Approval of West Virginia's Medicaid plan amendment. Letter from Dennis G. Smith, Director, CMS. http://www.wvdhhr.org/bms/oAdministration/bms_admin_WV_SPA06-02_20060503.pdf. Accessed November 5, 2007.
3. Inglehart JK. Medicaid revisited—skirmishes over a vast public enterprise. *N Engl J Med*. 2007;356(7):734-740.
4. Solomon J. West Virginia's Medicaid changes unlikely to reduce state costs or improve beneficiaries' health. *Center on Budget and Policy Priorities*. May 31, 2006. <http://www.cbpp.org/5-31-06health.pdf>. Accessed November 5, 2007.
5. American Medical Association. Principles of medical ethics. <http://www.ama-assn.org/ama/pub/category/2512.html>. Accessed November 5, 2007.
6. George T. Using law to facilitate healthier lifestyles. *JAMA*. 2007;297(18):1981-1982.
7. Minkler M. Personal responsibility for health? A review of the arguments and the evidence at century's end. *Health Educ Behav*. 1999;26(1):121-140.
8. National Cancer Institute. Theory at a glance: A guide for health promotion practice, Part II: Theories and applications. Bethesda, MD: National Institutes of Health; 2005:13-14. Publication No. 05-3896.
9. Bertakis KD, Azari R. Determinants of physician discussion regarding tobacco and alcohol abuse. *J Health Commun*. 2007;12(6):513-525.
10. Ellerbeck EF, Ahluwalia JS, Jolicoeur DG, Gladden J, Mosier MC. Direct observation of smoking cessation activities in primary care practice. *J Fam Pract*. 2001;50(8):688-693.
11. Alexander SC, Ostbye T, Pollak KI, Gradison M, Bastian LA, Brouwer RJ. Physicians' beliefs about discussing obesity: results from focus groups. *Am J Health Promot*. 2007;21(6):498-500.
12. Brisette I, Gelberg KH, Grey AJ. The effect of message type on physician compliance with disease reporting requirements. *Public Health Rep*. 2006;121(6):703-709.
13. May C, Allison G, Chapple A, et al. Framing the doctor-patient relationship in chronic illness: a comparative study of general practitioners' accounts. *Sociol Health Illn*. 2004;26(2):135-158.
14. West Virginia Health Statistics Center. West Virginia Bureau of Public Health. *West Virginia 2005 Vital Statistics*. <http://www.wvdhhr.org/bph/oehp/hsc/pubs/vital05/index.htm>. Accessed November 5, 2007.
15. West Virginia Bureau of Public Health. *West Virginia Healthy People 2010*. July 2001. <http://www.wvdhhr.org/bph/hp2010/objective/contents.html>. Accessed November 5, 2007.

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[The Ethics of Requiring Employees To Quit Smoking](#), January 2007

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CLINICAL CASE

Communicable Disease and Immigration Fears

Commentary by Sonal S. Munsiff, MD

Joseph had been feeling sick for a few weeks, with a severe cough and poor appetite. He even started losing weight. Despite his condition, Joseph did not seek medical care because if he called in sick at the construction company where he worked (either to visit the doctor or to stay home after being diagnosed) his paycheck would be docked. Joseph had a family of five to support: himself, his wife, and three small boys. A few years earlier with the help of some distant relatives, the family had managed to cross the border from Mexico—where Joseph had worked as a farmer and earned a few dollars a day—to California.

In America Joseph was earning nearly 10 times the amount of money he made in Mexico. Still, he couldn't afford a loss in his daily pay. One morning, Joseph woke up coughing violently and eventually spit up blood. He decided to go to work anyway. When he arrived at work, his condition drew the attention of his boss, who sent him to the community health clinic where he saw Dr. Monroe. After hearing how long Joseph had had the cough, Dr. Monroe ordered a chest X-ray which showed that Joseph had active tuberculosis (TB).

When Dr. Monroe talked to Joseph about the test results, he cautioned him that his tuberculosis was highly infectious, imposing special restrictions on his life. He would have to isolate himself to limit the exposure of others. The public health department would also have to be notified, an idea which terrified Joseph. He pleaded with the doctor not to take this step, citing fears that he would be arrested and sent back to Mexico. Dr. Monroe assured Joseph that deportation would be a highly unlikely outcome, although he was unable to guarantee it would not happen. Dr. Monroe added that the health care system in the United States operated outside of immigration law enforcement. Still, Joseph was not reassured. He tried to bargain with Dr. Monroe, repeatedly promising to isolate himself voluntarily so long as neither he nor anyone else alerted the authorities.

Commentary

We are presented with the case of a young man with a communicable form of TB who does not want his doctor to notify the local health department of his condition. Joseph is afraid that he will be arrested and sent back to Mexico. We assume that he is in the United States as an undocumented immigrant and fears that the health department, a government entity, will discover his status and notify the U.S.

Immigration and Customs Enforcement (ICE), or the Department of Homeland Security (DHS).

The case poses many challenges for Dr. Monroe. It is clear that he has to report Joseph to the local health department, which is responsible for ensuring that the family members and appropriate worksite contacts are identified and evaluated. Tuberculosis is a reportable disease in all jurisdictions in this country, and the diagnosing or treating physician is required to notify the local health departments [1]. Dr. Monroe also has to clearly explain Joseph's rights and responsibilities to him, the public health need for reporting, and the consequences of nonadherence [2, 3].

The physician also has a direct responsibility to the patient—to treat him and “do no harm.” By reporting Joseph, Dr. Monroe risks damaging Joseph's trust in him and in the health care system, and Joseph may not continue follow-up or adhere to treatment, which can further endanger the public. Effective treatment will render most TB patients noninfectious quickly, and also prevent further morbidity and possible death.

Directly Observed Therapy

Health departments usually follow up with clinicians and the patient to ensure adequate treatment is being given, and, in the case of TB, they offer or arrange for directly observed therapy (DOT), a program in which a health care worker ensures all doses of the treatment are ingested. A health department worker interviews the patient to identify his or her routine activities and elicit contacts in home, work, leisure and other settings in order to evaluate them or follow up on the evaluation done by other clinicians. Exposed contacts in worksites and congregate settings such as schools or shelters usually have to be investigated by the health department [4]. Most health departments offer free screening and treatment for active TB cases and for their contacts.

Patients are often diagnosed and managed at different facilities or by different clinicians, so it is possible that no single person or clinic has all the relevant information on a given patient. Patients themselves may not recall or provide key information to each health care entity. The health department plays an important role by having complete records of evaluation and treatment given at all facilities.

Many jurisdictions have a double reporting system for communicable diseases: both the clinician and the laboratory are required to report the results of specified tests [2]. Double reporting regulations are based on the practical fact that the clinician and the laboratory have information on different aspects of a patient's condition, and the patient may not be with the same clinic or physician by the time these lab results are available. *Mycobacterium tuberculosis*, for example, is a slow-growing bacteria and results of cultures usually return after 2 to 6 weeks of specimen collection. Furthermore, drug susceptibility testing of the isolate takes at a minimum 1 to 2 weeks.

In the case we are discussing, Joseph is more than 75 percent likely to have had a positive sputum smear for acid-fast bacilli (AFB), and eventually a positive culture for *M. tuberculosis*, and the laboratory will have to report these results to the health department. But the laboratory usually has no clinical information and often no address for the patient, so the report from the physician with the necessary clinical and demographic information is essential for public health actions.

Protecting the Patient and the Public

The patient has a right to privacy and confidentiality, *and* the individuals who have been in contact with Joseph have a right to know that they have been exposed to TB and to be offered appropriate evaluation and treatment. Though release of medical information about reportable communicable disease to a public health entity is exempt from patient consent requirements under the Health Insurance Portability and Accountability Act (HIPAA) of 1996, the information cannot be passed on to others. Patients are told during their first encounter that their privacy will be protected to the fullest extent possible [5]. Health departments usually have stringent confidentiality requirements for staff who handle patient data. In New York City, for example, it is made clear to staff of the city's Bureau of Tuberculosis Control that the *name* of the person not be provided to contacts when they are told that they were exposed, except in very unusual circumstances, even after the death of the patient. If a contact asks directly whether he or she was exposed through a specific individual, staff are instructed to state that they cannot confirm or deny this information. If there are no alternatives to identifying potentially exposed people at worksites, managers are asked for contact information and are clearly advised that the name must be kept confidential.

Joseph's Immigration Status

Two New York City mayoral orders direct city employees not to ask about the immigration status of an individual when providing city services [6]. And if information is obtained for work-related needs, it can be considered "confidential information." There is no need to know the legal status of a patient who needs evaluation and treatment for TB. All services in the city's health department chest clinics are free to all who go there. Patients who refuse to take their treatment may be detained under the health code, and civil detention takes place in a hospital ward with 24-hour security [7, 8]. Over the last several years 338 patients have been detained to complete TB treatment in the city, according to unpublished data from Department of Health and Mental Hygiene [9]. Many have come before judges who decide whether their detention is justified. Even so, immigration status is neither revealed nor addressed, because it is not considered relevant to the decision.

That said, it is often easy to tell whether a patient's status is undocumented. The information gathered from patients during routine interviews often reveals the complex routes they have taken to get into the country. Thus we know many TB patients in the city are undocumented immigrants with backgrounds and fears of deportation as seen in our story. In the last 15 years, however, no TB patient in New York City has been jailed or deported because of notification by a health department

staff to ICE or DHS. Sharing these data with Joseph should go far toward easing his mind.

On the other hand, there has been much publicity about requiring various types of health care professionals to report all undocumented individuals they come across in their daily work to the INS. A recent Georgia case involved a teen who was jailed for refusing TB treatment and who is now awaiting deportation hearing because he was undocumented. That can only increase the fear among such desperately ill and insecure individuals [10, 11]. The Georgia case is an exception, however. The health departments in certain instances may be able to work closely with ICE or DHS and Health Resources and Services Administration (HRSA) to try and ensure completion of treatment for TB cases—and delay deportation proceedings. Policies differ from place to place, though, and physicians should check the policy within their practice jurisdictions.

Joseph's Other TB-Related Worries

TB patients have many concerns and fears other than the fear of deportation. In this country TB is most often a disease of the poor, socially marginalized, or unstably employed people [12]. Being asked to stay at home or remain in isolation at a hospital for long periods of time usually means a significant loss of income for anyone who does not have paid sick leave or disability or workers' compensation benefits through an employer. Health departments do not compensate for lost income of TB patients, and the incentives that some health departments provide to promote treatment adherence are not sufficient to make up for lost income.

Joseph has a family of four and he is the principal breadwinner. Though he will have to forgo some income, his time away from work will depend on how fast his disease responds to treatment and the type of work he does [13, 14]. Someone like Joseph, who is working in an outdoor setting with little close human contact, can return to work while his sputum smear is still positive for AFB as long as he is improving clinically, has completed two weeks of treatment, and further treatment is ensured via DOT. Dr. Monroe may have to tell the worksite manager to assign Joseph to work that minimizes contact with others for a while. Since workers at the site will have been tested following the report of Joseph's case to the health department, the manager should understand the necessity of the special assignment for Joseph.

Joseph should also be made aware of social services that he or his family may be eligible for, such as food pantries, WIC (women, infants, and children) programs, and soup kitchens. In some states emergency Medicaid will cover medical expenses that may not be provided by the health department. Inpatient care is usually covered by Medicaid, regardless of immigration status. Most infectious TB patients do not need to be hospitalized and have their full diagnosis and evaluation conducted as an outpatient.

Dr. Monroe has a responsibility to educate Joseph about the disease and what can be done to treat it and to develop a plan for follow-up and return to work. It is equally

important for Dr. Monroe to make sure Joseph understands the impact of this disease on the public and his (Dr. Monroe's) responsibility to the public, not just the patient. Dr. Monroe cannot shun that responsibility and, since it is unlikely that he can fulfill all the roles of patient care, contact evaluation, and social service provision, he must work closely with his local public health department to cure the patient and protect the community.

Conclusion

Health departments need to have funds to hospitalize infectious individuals who may be refusing treatment, rather than putting them in jail where undocumented status is much more likely to be revealed. Once the individual is known to the correctional system, it is no longer possible to keep immigration status secure or confidential. The health department has a mandate to protect the public, but it is not responsible for implementing immigration laws and should be separated from the correctional system. If they are separate there is much less chance of deportation being an issue in TB treatment. The patient can be reassured by the physician and the health department that his or her TB can be treated without ICE involvement.

Patients who fear and avoid treatment could infect many more people; it is in all of society's interest to ensure that all patients with TB are fully and confidentially treated. While one conversation will not reassure most patients, ongoing reassurance and support can usually gain their commitment. Most patients want to get well and get on with their lives and are willing to follow necessary instructions to ensure their cure. Both the provider and the local health departments need to work together to assist the patient to develop the least restrictive and efficient plan that also protects the public.

References

1. Willis BM, Schwartz LP, Knowlton SB. Tuberculosis control laws—United States, 1993. Recommendations of the Advisory Council for the Elimination of Tuberculosis (ACET). *MMWR Recomm Rep.* 1993;42(RR-15):1-28.
2. Annas GJ. Control of tuberculosis—the law and the public's health. *N Engl J Med.* 1993;328(8):585-588.
3. Harris J, Holm S. Is there a moral obligation not to infect others? *BMJ.* 1995;311(7014):1215-1217.
4. Taylor Z, Nolan CM, Blumberg HM. American Thoracic Society; Centers for Disease Control and Prevention; Infectious Diseases Society of America. Controlling tuberculosis in the United States. Recommendations from the American Thoracic Society, CDC, and the Infectious Diseases Society of America. *MMWR Recomm Rep.* 2005;54(RR-12):1-81.
5. New York City Bureau of Tuberculosis Control. *Contact Investigation and Management Protocol.* <http://www.nyc.gov/html/doh/downloads/pdf/tb/tb-cpm-contact.pdf>. Accessed Oct 23, 2007.
6. The City of New York Office of the Mayor. Executive Order No. 41. City-wide privacy policy and amendment of Executive Order No. 34 relating to city policy concerning immigrant access to city services. 2003.

http://www.nyc.gov/html/imm/downloads/pdf/exe_order_41.pdf. Accessed November 2, 2007.

7. Ball CA, Barnes M. Public health and individuals rights: tuberculosis control and detention procedures in New York City. *Yale Law Policy Rev.* 1994;12(38):38-67.
8. New York City Bureau of Tuberculosis Control. *TB and the Law*. <http://www.nyc.gov/html/doh/downloads/pdf/tb/tb-law.pdf>. Accessed Oct 23, 2007.
9. Gasner MR, Maw KL, Feldman GE, Fujiwara PI, Frieden TR. The use of legal action in New York City to ensure treatment of tuberculosis. *N Engl J Med.* 1999;340(5):359-366.
10. Associated Press. Mexican teen jailed for refusing tuberculosis treatment gets released, awaits deportation. *San Diego Union Tribune*. September 27, 2007. <http://www.signonsandiego.com/news/mexico/20070927-2336-tuberculosis-youth.html>. Accessed November 8, 2007.
11. WHDH-TV, Associated Press. Teen jailed in Georgia over tuberculosis care will be deported with mother, officials say. <http://www3.whdh.com/news/articles/national/BO61418>. Accessed November 8, 2007.
12. Centers for Disease Control and Prevention. *Reported Tuberculosis in the United States, 2006*. Atlanta, GA: U.S. Department of Health and Human Services, CDC; September 2007.
13. Centers for Disease Control and Prevention. Guidelines for preventing the transmission of Mycobacterium tuberculosis in health care settings, 2005. *MMWR Recomm Rep.* 2005;54(RR-17):1-141.
14. New York City Bureau of Tuberculosis Control. *Guidelines for Hospitalization and Returning Tuberculosis Patients to the Community*. <http://www.nyc.gov/html/doh/downloads/pdf/tb/tb-protocol-discharge.pdf>. Accessed Oct 23, 2007.

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The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental.

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CONLEY CONTEST WINNING ESSAY

On the Road: A Physician's Response to a Call for Voluntary Service

James E. Kelley, PhD

The tightly-packed SUV roared down Interstate 35 through the bright Oklahoma sun. The warmth and promise of the day masked the dilemma left several miles north in Wichita. Dr. Matthew Green, a young family physician sitting behind the wheel, glanced over at his wife, who was rearranging her maternity blouse under the seat belt in a futile attempt to get comfortable, and then looked in the rear-view mirror at his son enthralled with a cartoon playing on the back-seat DVD console. Matthew still felt pangs of guilt about his decision from last night, but watching over his family eased him. He felt contentment and self-assurance about his choice.

In order to realize his personal responsibilities as both a husband and a father, Dr. Green regretfully had to turn aside his professional obligations leaving his patients without their physician and a pandemic looming on the horizon. A killer flu was en route to Kansas—a nasty character that, while possibly treatable, would require those who fight it to be quarantined and put directly in its path. It had already killed thousands in other states, mainly the elderly and children: the danger was well established and was heading to his town. Dr. Green had been asked to champion this cause, to fight this impending disease, by his partner and mentor Dr. Harris. Yesterday, Matthew faced the decision whether to quarantine himself in the hospital with his patients or to carry his family well outside the path of this terrible infection. “Every doc in the city has some reason to leave,” he recalled Dr. Harris saying. “And we can’t all go, so let’s work this out.”

Treating those the flu attacked would mean a separation from his family and the possibility of succumbing to the disease’s wrath himself, although prophylaxis should certainly reduce that risk. Dr. Green had a young family and a new career. Both of those could be destroyed by his choice to take on this pandemic. If he were to become ill from this flu, does fighting this one specific battle justify the potential loss of years of helping others? Isn’t the first priority of any parent to care for his family? Are his pregnant wife and young son vulnerable to such a disease? What would happen to his wife, his son, and their child on the way if something happened to him? Who would treat the long list of patients he can help in the future? Then again, without appropriate medical treatment, what would become of his current patients suffering from this horrible flu? These are some of the questions Dr. Green wrestled when he and Dr. Harris sat down in their clinic yesterday to devise a plan of action.

“I’ll tell you Matt,” his mentor instructed with a calm and guiding voice. “It’s difficult. Those are all valid questions you raise, but ethics and theory can be funny things. You can pick and choose different arguments or ask different questions to justify most anything you want to do. But you’re simply justifying what you want to do—taking the angle that helps you feel better about yourself and your decision. I know you care for your patients, and I know you love your family. It’s hard. I was planning a camping trip to Yellowstone with my wife and grandsons, but this flu came up. And being an old man, I know getting in the middle of this thing isn’t the best for my health either. But my patients, those in this community I’ve treated and watched grow for years, need me. They need you too. Sometimes doing what’s right isn’t the same thing as doing what’s right for you.”

Both physicians were clearly burdened as the governor appeared on the six o’clock local news. She reported the first cases appearing in a local hospital. The governor had decided not to enact any mandate requiring physicians to work; she simply asked each individual (doctors, nurses, pharmacists, and staff) to help those they serve. The governor expressed her faith in the health care professionals of the state. She believed that professional responsibility and compassion for helping others would not need an act of government to occur.

Dr. Green sighed deeply as he switched off the TV, visibly distraught by her comments. While the governor’s request for him, and others, was appropriate, she was not the only one making demands. Dr. Green’s cell phone had been flooded with messages from his wife and from his mother urging him to hurry home and pack. The governor’s appeal was noted, but she was not the most influential woman in Dr. Green’s life.

“It’s easy to make decisions and be selfless when they only affect you, but once you’re married and have a family, decisions aren’t yours alone to make anymore. My wife wants me to leave,” Matthew reflected. “What do I tell her? That my patients are more important than she is? More important than my family?”

“This is such a tough situation. I didn’t realize how much pressure you had at home,” Dr. Harris empathized. “What if it was your wife or your son with this flu? Would you want their doctor to leave town? Everyone in society has a role to play even when it’s inconvenient. That’s what keeps us running as a people. And the role you chose was to help those that are ill. You’re a doctor Matthew, and your patients need you.”

“I just don’t know It’s so hard. My patients or my wife?”

Dr. Harris smiled at the young man. “Medicine certainly is challenging, but that is part of what makes it is such a privilege to practice. I’ll see you tomorrow Matt.” Dr. Green sat in the office, looking at a pile of charts from patients hurting and hoping he can help them, from patients that Dr. Green knew believed and trusted in him. He wished he had his mentor’s confidence that he would show up the next day, but he

knew other priorities waited for him at home. “Balancing personal and professional responsibilities,” he thought, “is far more challenging than any board exam.” Still conflicted, Matthew prayed, locked up the office, and headed home.

Matthew’s left arm started to feel a slight sun burn from resting against the window as several hours passed in the trip. Wichita was now far behind him so Dr. Green blocked from his mind the thought of leaving patients to suffer. Texas was just beyond the horizon, and his family would be safe at his parent’s farm. He understood what his future could offer his fellow man and more importantly what his future meant to his family. He toyed with the idea of asking his wife to take their son on to his parents’ house alone while he stayed behind at the clinic, but she did not want the family separated. She did not want him to risk catching the flu. After all, he concluded, the lack of one man prioritizing professional duty over personal responsibility would not disrupt society as we know it. While the impact of a lifetime of healing is significant, an absence from a few days of work would not have much consequence.

Matthew Green, his wife, and son drove up the gravel track leading to his parents’ farm house. Finally, they arrived. His mother flung open the screen door and waved a big hello. “Look at that handsome boy. You’ve gotten so big,” she teased with her grandson. “And you, you’ve gotten skinny. All that stress at work. Not eating probably,” she continued while secretly thinking what a poor cook her son married. She knew her daughter-in-law was hopeless in the kitchen, but, of course, she could never say that. “Honey, I was going to make an orange mandarin cake, you’re favorite, but I’m out of flour. Before you get settled, run to the store and pick some up for me.”

“Mama, I don’t know where the new store is since they moved, and I’m kind of tired.”

“Nonsense. I’ll ride with you and show you where the new store is,” his cheerful mother replied. “Dear, you wouldn’t mind keeping an eye on the stove for me? I have a few things already cooking. Come on my gorgeous boy; take a ride with your daddy and grandma.”

Matthew Green rolled down his window and noticed heavy black smoke floating over the trees in the direction of his mother’s house. As he turned down the gravel drive, the flashing lights of the big red fire truck came into view, and panic set into his mind.

There was his mother’s house, thundering in flames. The fire seemed to engulf the whole structure, raging wildly; his wife surely got out. A deep sickening pulled at his stomach as he slammed on the brakes and ran towards the firemen.

“Where’s my wife?” he panted, looking frantically around the yard for her.

“Oh, um, sir, we think there may be a woman inside, but we’re not absolutely sure. That’s why we’re trying to get the fire put down a bit” replied a fireman sheepishly, uncomfortable at the confrontation he knew was about to occur.

“Well, why hasn’t someone gone in to pull her out?!” Dr. Green barked in disbelief, his adrenaline kicking.

“The fire’s dangerous right now sir, and while going in could save the lady, there’s a chance one of us wouldn’t make it back out. We have a responsibility for our own safety too.”

“But you’re a *fireman* it’s your *job*!”

“This is a small town sir. We only have two firemen; if something happened to one of us, who would watch out for the rest of the town? I honestly wish I could help, but you can’t expect us to risk our lives. That’s not fair to us. We have personal resp....”

“I can’t believe this,” Dr. Green interrupted as he stomped about the two men. “Can’t expect a firemen to save lives? You’re only firemen when it’s convenient for you, huh?”

“I mean, I’m really sorry sir,” the other fireman replied, “but I have a wife and little girl at home. I just can’t risk it. We’ll get the fire put down as much as possible really soon, and get your wife. Let’s just hold on a minute and hope for the best,” he continued as the flames seemed to grow hotter and more intense.

“I just can’t wait for that,” Dr. Green said as he sprinted up toward the house shielding his face from the heat.

“Sir! Wait! *Sir!*” screamed the firemen trying to stop him from running into the burning house.

Dr. Green could only think of his pregnant wife and the help she needed. Help that these firemen refused to deliver just to save their own skins. Help they were paid to do. Help they swore to do! He glanced back over his shoulder through the smoke as he heard them yell and watched the two men step back to a safer distance away from the expanding danger of the fire. As Matthew stepped into the flames, he couldn’t understand how any professional could turn his back on someone in need, someone whose life was threatened.

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JOURNAL DISCUSSION

Convincing Physicians to Report Communicable Diseases

Sarah Lusk

Brissette I, Gelberg KH, Grey AJ. The effect of message type on physician compliance with disease reporting requirements. *Public Health Rep.* 2006; 121(6):703-709.

The lecturer stands at the podium presenting his newest and most exciting research findings to a room full of eager medical students. Ten hands shoot into the air, and every mind in the room turns over the ideas that have been put before them. What you will find at medical schools across the country on any given morning—an eagerness to question authority and think beyond what is presented—is a quality that physicians have in common with other human beings, but one that is often more highly rewarded in medical education. The ability to question those who present absolutes before us will be our greatest strength when new discoveries are sought and our greatest weakness when it comes time to contributing to the common body of knowledge by reporting to a disease registry.

When I think about my fellow medical students and myself, I wonder whether our questioning and challenging of everything we are told is motivated by a desire to know as much as possible about specific disease processes or by some implicit understanding that cultivating this skepticism for its own sake will benefit our patients in the long run. In a 2006 article in *Public Health Reports*, the authors of “The Effect of Message Type on Physician Compliance with Disease Reporting Requirements” looked at the physician’s noncompliance with reporting requirements in a similar light. They wanted to know whether it was the expectation of the law’s enforcement that drove their reporting habits or their desire to contribute to the collective knowledge about a particular disease. They undertook to answer this question by contacting 368 physicians in New York who had not complied with the state reporting laws [1].

The authors sent study participants one of three types of correspondence regarding each patient for whom a report was outstanding, asking that the report be filed and including report forms that could be submitted via mail or fax. The three types of correspondence, sent between September 2003 and March 2004, framed the request for the delinquent report as a statement about (1) the legal obligation to report occupationally acquired lung disease to the New York State Occupational Lung Disease Registry, (2) public health benefits of reporting, or (3) a combination of rationales (1) and (2) for reporting those specific diagnoses to the proper authorities.

The replies from these correspondents were evaluated on the bases of response rate, timeliness, and completeness of the reports and were compared to the number and completeness of unprompted reports sent in during the same time period by New York physicians who were not part of the study [2]. Just over half of the physicians who were contacted sent in the requested forms. More responses were received from those whose communication informed them of the legal obligation to report than from those whose communication discussed the public health benefits of reporting. No statistically significant difference was seen between the response rates of those in the legal obligation group and those in the group that received information on both the legal and public health aspects of reporting, but the reports received from the latter group were considered on the whole to be more complete and more informative [3]. This evidence convinced the authors of the importance of seeking wider understanding among physicians, not only of the legal requirements of reporting, but also of the public gains to which those who report are contributing.

In looking at these results, we wonder why half of the group that received requests for reports did not reply. They received personalized requests for information on specific patients, and yet they did not supply it. The authors mention this but do not explore in any great depth why it may have occurred. They speculate that physicians might have felt that reporting would be a disservice to their patients, putting them at risk of losing their jobs, but there is no way to know whether this is a valid explanation without asking the specific physicians. The authors hint that their findings may represent the tip of the iceberg when it comes to the concerns many physicians have about jeopardizing patient confidentiality. To understand the phenomenon, it is important to consider the context within which disease is reported.

This study looked at one particular set of reporting conditions, but each specific type of illness and patient population has its own set of ethical concerns and legal ramifications of reporting. To address that topic, the authors bring in two other studies, one in Rhode Island on the reporting of adverse drug reactions [4] and another that looked at the reporting of communicable diseases in Los Angeles County [5]. In these studies the factors that contributed to differences in reporting rates included whether the disease was acquired at work, whether it was an STD, and the demographics of the population most affected by the disease. Constants in physicians' decision to report or not report were their dedication to the relationship with the patient and their commitment to maintaining patient trust.

Physicians are privy to a great deal of personal information, and a good medical interviewer is one who can make patients feel at ease about confiding the most intimate details of their lives. This relationship is what allows physicians to diagnose the conditions that they are then asked to report, making public something that was once very personal, and in many cases very sensitive, information. Some physicians endeavor to put the best interest of their patients ahead of required disease reporting, especially if legal and public health benefits of reporting have not been satisfactorily communicated to them.

As I return to thinking about the future physicians currently sitting in medical school auditoriums across the country, I believe that their aggressive questioning of their instructors may stem from the same factors that motivate ethical physicians to question reporting of disease. The authors of “Effect of Message Type on Physician Compliance” conclude that, to maximize physician reporting, it is critical to present both the legal requirements and the public health benefits of disease reporting [6]. Our desire as students to question and understand everything we are told in the context of what it will mean for each of our future patients is not unlike the desire we will have as physicians to understand where disease reporting fits into the bigger picture of patient care. By making both the legal requirements and the possible public good of disease reporting more transparent to physicians and patients, public health authorities foster physicians’ desire to promote the health of the community.

References

1. Brissette I, Gelberg KH, Grey AJ. The effect of message type on physician compliance with disease reporting requirements. *Public Health Rep.* 2006;121(6):703-709.
2. Brissette, Gelberg, Grey, 703.
3. Brissette, Gelberg, Grey, 705.
4. Scott HD, Thacher-Renshaw A, Rosenbaum SE, et al. Physician reporting of adverse drug reactions. Results of the Rhode Island Adverse Reaction Reporting Project. *JAMA.* 1990;263(13):1785-1788.
5. Weiss BP, Strassburg MA, Fanin SL. Improving disease reporting in Los Angeles County: trial and results. *Public Health Rep.* 1988;103(4):415-421.
6. Brissette, Gelberg, Grey, 708.

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CLINICAL PEARL

Diagnosing and Managing Pulmonary Tuberculosis

David Pitrak, MD

The correct diagnosis and appropriate management of tuberculosis (TB) are important, not only for the individual patient but for the health of the public. Unfortunately there can be diagnostic pitfalls and management difficulties, including patient fears and ethical dilemmas like those illustrated in this month's *Virtual Mentor* case of an [immigrant worker with TB](#). It is important to make an etiologic diagnosis because other infections and certain noninfectious conditions can mimic TB. The classic presentation for TB is a subacute or chronic illness characterized by constitutional symptoms, including:

- Fever
- Chills
- Night sweats
- Anorexia
- Weight loss

These symptoms occur along with respiratory complaints in patients with pulmonary TB, including:

- Chronic productive cough
- Hemoptysis
- Pleuritic chest pain
- Dyspnea

Extrapulmonary TB also occurs, and its symptoms and signs depend on the particular organ system that is involved. Those diagnoses can be even more difficult. Full examination of those conditions is beyond the scope of this discussion, but most patients with extrapulmonary TB are noncontagious, so respiratory isolation is not required, although there are exceptions. These include patients with tuberculous otitis media, laryngitis, and any open wound or draining sinus tract, all of which have been associated with person-to-person transmission even in the absence of pulmonary infection.

Chest X-ray alone cannot make the diagnosis. Although there are findings that would indicate primary TB (mid-lung infiltrates with hilar lymphadenopathy) or reactivation TB (upper lobe fibro-cavitary disease), nonspecific or atypical radiographic findings occur. Microbiologic testing is essential to prove the patient

has TB and help determine the best course of treatment. There has been great progress in the field of mycobacteriology that has helped clinicians make a laboratory-confirmed diagnosis earlier than previously possible. Most labs now use fluorescent acid-fast stains (such as auramine/rhodamine) for evaluating sputum smears. This increases the sensitivity and reduces lab technician time, inasmuch as the entire slide can be evaluated at low power magnification by fluorescent microscopy. If three consecutive early morning expectorated or induced sputum samples are smear-negative, the likelihood of active TB or risk of person-to-person transmission is low. Other tests to consider when TB is still strongly suspected despite negative sputum smears would be an early morning (before breakfast) gastric lavage, or a bronchoalveolar lavage or transbronchial biopsy obtained by bronchoscopy.

Culture remains the gold standard in diagnosis and is even more sensitive than smear. Although agar slants are still set up, most labs now inoculate broth media specifically formulated for mycobacteria. All specimens can be inoculated into broth, including sputum. The time to a positive culture has been greatly reduced to an average of about 10 days for most cases. Once there is growth in liquid media, enough organisms are usually present in a few days for speciation using gene probes or sequencing. This is a great advance over speciation by culture characteristics and biochemical reactions, which were cumbersome and took a long time to complete. So decisions about isolation and initial therapy based on whether the patient has TB or a species of mycobacterium other than TB can be made much earlier in the course of disease. Even drug sensitivity results come back faster now that susceptibilities are set up in liquid media as well.

Polymerase chain reaction (PCR) is a rapid test that has been evaluated for diagnosis of TB. Currently, however, there are problems with sensitivity and specificity, and the best use of PCR is for speciation on a sputum that is smear-positive. The value of this is that patients with a nontuberculous mycobacterial infection need not be isolated, and a drug regimen designed for the species isolated can be initiated.

Although TB can occur in anyone, certain groups are more likely to have been exposed to TB, including individuals who are:

- Foreign-born
- Members of an ethnic minority
- Residents of prisons, shelters, nursing homes, and other long-term facilities
- Health care workers
- Intravenous drug users
- From regions that are medically underserved

The chances that someone acquires infection depends on:

- Infectiousness of the index case (somewhat related to the organism load observed on sputum smears)
- Duration of the exposure
- Environment (crowding, poor ventilation)
- Virulence of the organism

Once an individual is exposed or latently infected (asymptomatic, but with a positive skin test indicating specific immune system activation), certain conditions increase that person's risk of developing clinical disease:

- Diabetes mellitus
- Chronic renal failure
- Malabsorption or malnutrition
- Intravenous drug use
- Cancer
- Corticosteroids and other immunosuppressive drugs
- HIV-positive status

Of all the risk factors, infection with HIV is associated with the highest risk. HIV testing is appropriate in patients with HIV-associated, although not AIDS-defining, conditions. The management may be different for patients with HIV/TB co-infection, especially those with advanced immune deficiency from HIV.

Treating TB

Treatment of TB can also be difficult; it requires taking multiple drugs for prolonged periods of time, and the medications all have side effects. The number of medications, duration of therapy, and tolerability all impact compliance. Three drugs are indicated for initial therapy in geographic areas with low incidence of multidrug-resistant TB (MDR-TB) and with patients who do not have risk factors for drug resistance (e.g., do not come from a country with a high-rate of drug resistance such as Mexico). The three drugs most frequently initiated are isoniazid (INH), rifampin (RIF), and pyrazinamide (PZA)—the components of a “short course” regimen that can be completed in 6 months.

The emergence of multidrug-resistant TB and extreme drug-resistant (XDR-TB) strains have been a major obstacle to effective therapy. These strains are a far greater problem in the developing world, but in the 1980s many urban areas in the U.S. had high rates of MDR-TB. Fortunately, with restored efforts toward TB control—mainly through public health programs—rates of MDR-TB have decreased. There are still some urban areas with high rates of MDR-TB, but many cities have rates that are well below the 4 percent level, the threshold at which initial therapy consists of at least four drugs to cover strains that would be resistant to both INH and RIF, the most common pattern of MDR resistance. The fourth drug usually added to INH, RIF, and PZA is ethambutol (EMB).

In the hospital setting, all patients with suspected pulmonary TB are placed in respiratory isolation. As for the patient in this case, isolating him from family and other contacts may not be necessary. At this point, with initiation of therapy, the risk of spread to household members or close contacts at work is lower than the risk of spread that was present prior to diagnosis and therapy. If there are very young children at home, there may be a decision to isolate the patient from them in order to limit the risk of transmission, but most children receive prophylaxis until repeated skin testing assures they have not been infected. We usually consider patients to be noninfectious in about 2 weeks, unless they have advanced HIV or do not have a prompt clinical response with resolution of fever, resolution of other constitutional symptoms, and improvement in cough. Otherwise restrictions can usually be lifted at that time.

Mandatory Reporting of TB

TB cases must be reported, and it is usually not even up to the physician to do so. Hospital labs and infection control have reporting responsibility, and they often directly report to health departments. Public health plays an extremely important role. Studies done in the 1980s showed that only 20 percent of patients completed the course of TB therapy, and this helped fuel the increased incidence of TB and increased rates of drug resistance. Directly observed therapy (DOT), with public health personnel often serving as observers, helps assure that adequate therapy is carried out, which is important for both the patient's outcome and for limiting transmission. Although medical staff can skin-test household contacts, most physicians do not have the ability to do a home visit or adequately assess potential exposures at the patient's place of employment to determine who else may be at risk. Public health professionals will complete this assessment, determine which contacts are at risk, plan how to test contacts, supply the meds, and, in most cases, deliver DOT.

In summary, TB is a disease that still occurs in the U.S., with some areas and populations being disproportionately affected. Microbiologic diagnosis is extremely important, and recent advances allow earlier diagnosis, institution of appropriate infection control efforts, and initiation of effective therapy. Public health personnel can be a great help to physicians and health care professionals by assessing the risk of transmission and identifying at-risk contacts, as well as by supplying medications and offering DOT in many cases. TB reporting is essential and greatly benefits patients as well as society as a whole.

Further Reading

American Thoracic Society, CDC, and Infectious Diseases Society of America. Treatment of tuberculosis. *MMWR Recomm Rep*. 2003;52(RR-11):1-77.

Taylor Z, Nolan CM, Blumberg HM; American Thoracic Society; Centers for Disease Control and Prevention; Infectious Diseases Society of America. Controlling tuberculosis in the United States. Recommendations from the American Thoracic

Society, CDC, and the Infectious Diseases Society of America. *MMWR Recomm Rep.* 2005;54(RR-12):1-81.

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HEALTH LAW

Liability for Failure to Report Child Abuse

Lee Black, JD, LLM

Physicians are obligated by ethical and legal standards to preserve patient confidentiality, but the requirement is not absolute. Confidentiality can be breached ethically when the safety of the patient or an identifiable third party is at risk or when the law requires. There are many legal exceptions to preserving patient confidentiality—statutory and court-made. Physicians are required by law to report communicable diseases, to impose quarantine or isolation, and to report suspected violent acts such as gunshot wounds. Mandating that physicians breach confidentiality forces them to act as agents of the state, rather than solely as agents of the patient. In many of these reporting roles, physicians are acting on behalf of third parties or the public in general. Some of the reports, however, serve the patient directly, and the failure to report may lead to legal action brought on behalf of the patients who allege harm.

Indirectly mandatory child abuse reporting laws serve the public by attempting to reduce the incidence of abuse and thereby protect a sizeable portion of the population, but their main purpose is to protect the patient. To comply with them, physicians must report suspected abuse to law enforcement agencies. What happens, though, if a physician does not report abuse to the proper authorities and the child is victim of further injuries?

Statute as Basis for Liability

In *Landeros v. Flood*, the California Supreme Court was faced with the question of whether a physician could be held liable for failing to diagnose battered child syndrome (BCS) and reporting the diagnosis to law enforcement authorities. An 11-month-old child was taken to the hospital and examined by the defendant physician, Dr. Flood [1]. Baby Landeros had a fracture in her leg that appeared to be have been caused by a twisting force, bruises covering her back, and a fracture of the skull (that was undiagnosed by Dr. Flood). The infant's mother had no explanation for the injuries. Baby Landeros exhibited other symptoms of BCS: in addition to the injuries, she became fearful and apprehensive when approached by Flood.

Dr. Flood did not take additional actions that a diagnosis of suspected BCS would have initiated. He did not X-ray Baby Landeros's entire skeletal structure, which would have revealed the skull fracture. Furthermore, Flood did not report the injuries to law enforcement, as required by a recently enacted law. Subsequent to his inaction, Baby Landeros was admitted to another hospital for a later injury where a

different physician immediately diagnosed her condition and reported it to the authorities. Landeros's mother and stepfather were convicted of child abuse.

Landeros's guardian ad litem (a guardian appointed to appear in court on behalf of a child) brought suit against Dr. Flood and the hospital alleging that, as a result of the defendants' negligence, the infant had suffered permanent physical injuries, including the possible loss of use or amputation of her left hand. The plaintiff (Landeros's guardian) claimed that Flood's failure to report the injuries to law enforcement as required by statute had contributed to the baby's later injuries.

In malpractice actions, the standard of care is always at issue. BCS had been tentatively identified in the 1950s, and numerous medical studies further supported the syndrome as a valid diagnosis. A California court admitted the testimony of a physician who identified elements of BCS in 1971, further legitimizing the diagnosis. In this case, would a reasonably prudent physician examining Baby Landeros have suspected she was a victim of BCS, confirmed the diagnosis through further testing, and reported to appropriate authorities [2]? The trial court was asked to decide this question.

Proving only that the physician's treatment did not meet the standard of care is insufficient; a plaintiff must prove further that the failure to provide standard care caused the injuries received after the original examination. In this case, did Dr. Flood fail to treat according to the standard of care, and was it reasonably foreseeable that his failure to properly diagnose BCS would lead to the eventual injuries? Given that "the assault on the victim is not an isolated, atypical event but part of an environmental mosaic of repeated beatings and abuse that will not only continue but will become more severe....," a physician should foresee future abuse if BCS is properly diagnosed [3].

All states have mandatory child abuse reporting laws, but whether a physician is civilly liable for a violation of the statute, rather than for negligence or malpractice, varies from state to state. The majority of states provide only criminal and not civil liability for failure to report. California, however, has a law that presumes lack of due care if the violation of any *other* state statute leads to an injury. If a California plaintiff can prove at trial that the defendants in the case violated *any* state statute—such as the mandatory abuse reporting statute—and that the violation caused injury, the plaintiff has established a basis for civil liability.

Statute as Evidence of Negligence

In other cases, the existence of the statute may itself be used to illustrate the standard of care. A recent Minnesota case distinguished between use of a statute to prove a breach of the standard of care and its use (as in *Landeros*) as an independent basis for physician liability. In *Becker v. Mayo Foundation*, a 22-day-old child, Nykkole, was taken to the hospital with bruises and an arm fracture [4]. When her father was questioned about the injuries, he told the physician and other hospital employees that

she fell out of his arms. Because the father's story was told consistently a number of times, no one reported the injuries as child abuse.

Less than a month later, Nykkole was taken back to the hospital with multiple injuries. Her mother claimed Nykkole had hit her head on the bathtub, but this time no one believed the story and she was diagnosed with shaken baby syndrome.

Unlike the California law introduced in *Landeros*, no Minnesota statute created general civil liability for failing to perform a statutory duty, nor did the child abuse reporting statute provide monetary damages for failure to report. Because the child abuse reporting statute had no provision for civil penalties, the *Becker* trial court did not allow that statute to be introduced. The Minnesota Supreme Court likewise determined that there was no statutory duty owed by the hospital to Nykkole for which she could recover directly under the statute. This decision, though, did not end the analysis.

As noted in the discussion of *Landeros*, plaintiffs in medical negligence actions must prove a standard of care—the “degree of skill and care possessed and exercised by practitioners engaged in the same type of practice under like circumstances” [4]. The plaintiff in *Becker* had to prove that other physicians would have properly diagnosed shaken baby syndrome and reported the case to authorities. In some states, the existence of a statute designed to prevent such injuries and to punish those who cause them can be used as evidence of the standard of care. Under this theory, the Minnesota Supreme Court reversed the trial court, holding that the statutory reporting requirement could be introduced as evidence of what a physician of ordinary skills would do if abuse were suspected. Of course, the plaintiff still had to prove that the physician should have suspected abuse, but the statute was admitted as evidence of a common law (non-statutory) duty.

Conclusion

The liability that a physician may have for failing to diagnose and report suspected child abuse depends on the physician's practice location. Most states provide criminal sanctions without providing patients an opportunity to recover damages. Some states, such as New York [5] and Colorado [6], expressly allow recovery for a willful and knowing failure to report (which raises the question of what constitutes “willful and knowing”). Other states, as *Becker* illustrates, do not allow recovery of damages under a statute, but permit the statute to be used as evidence in a negligence lawsuit of what the physician should have done.

When a physician is faced with possible cases of child abuse, that physician must report the injuries to the proper authorities. The failure to do so may lead to criminal sanctions, as well as claims of negligence if the child is further injured. It is important to note that physicians who report in good faith, even if investigation determines that there was no abuse, are generally immune from liability for any damages (loss of custody, defamation, etc.) that the report may have caused.

Physicians should be familiar with their states' laws to know what requirements exist for reporting abuse and should, as always, follow legal guidelines.

References

1. *Landeros v Flood*, 17 Cal 3d 399 (Cal 1976).
2. *Landeros*, 409.
3. *Landeros*, 412.
4. *Becker v Mayo Foundation*, 737 NW2d 200 (Minn 2007).
5. NY Soc Serv sec 420 (Consol 2007).
6. Colo Rev Stat sec 19-3-304 (2007).

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POLICY FORUM

Should Human Papillomavirus Vaccination Be Mandatory?

Raphael P. Viscidi, MD, and Keerti V. Shah, MD, DrPH

The recognition that invasive carcinoma of the uterine cervix is the end result of some genital tract human papillomavirus (HPV) infections and the development of prophylactic vaccines to prevent these infections are major recent achievements of public health medicine.

The quadrivalent Gardasil HPV vaccine from Merck & Co., Inc., was licensed by the Food and Drug Administration (FDA) in June 2006 and was subsequently recommended by the Advisory Council on Immunization Practices (ACIP) for vaccination of adolescent girls and young women. Gardasil is designed to protect against infections with four of about 40 genital tract HPVs, types 16, 18, 6, and 11. HPV 16 and HPV 18 are responsible for about 70 percent of invasive cervical cancers and for a larger majority of the HPV-related cancers at other sites [1, 2]. Worldwide, about 500,000 cervical cancers annually and about 100,000 cancers at other sites, including vulva and vagina, anus, penis, and oropharynx, are attributable to genital tract HPV [1].

HPV 6 and HPV 11 account for over 90 percent of genital warts, which are very common, with millions of cases annually worldwide, and for nearly 100 percent of a rare disease, recurrent respiratory papillomatosis of juvenile or adult onset. A second HPV vaccine, Cervarix, is expected to be available in the U.S. in the near future. Cervarix, from GlaxoSmithKline, is a bivalent vaccine designed to prevent infections with the oncogenic HPV types 16 and 18 [3].

Both vaccines have been shown to be well tolerated, safe, and highly immunogenic in clinical trials [1-3]. Over a 4- to 5-year period of observation, they have been nearly 100 percent effective in preventing incident persistent infections and cervical intra-epithelial neoplasia by HPV types in the vaccine. Gardasil was also nearly 100 percent effective in preventing genital warts associated with HPV 6 and HPV 11. It is not yet known whether the vaccine will provide decades-long protection over the sexual life of a woman immunized when young, or a girl immunized in her preteen years.

It is anticipated that vaccinated women will have significantly fewer Pap smear abnormalities and therefore less need for treatment of cervical precursor lesions. Pap smear screening will still be required, but at lengthier intervals.

Because HPV is sexually transmitted, the vaccine is recommended for use in early adolescents prior to the initiation of sexual activity. The effort by several state legislators and aggressive lobbying by Merck to make the Gardasil vaccine mandatory for school attendance produced a backlash. The controversy has been comprehensively described in a recent issue of *CQ Researcher* [4].

Mandating vaccination as a public health policy measure has a long history in the U.S., dating back to the middle of the 19th century, and it invariably creates tension between public health policy and individual rights [3]. In the past 30 years, every state in the union has mandated vaccines for school-aged children. The most compelling case for doing so can be made when the vaccine prevents a serious infectious disease that is spread by casual contact in the age group for which it is mandated, and when that disease can be effectively controlled only by vaccination of a high proportion of the population. Examples of vaccines in this category are those that protect against polio, measles, mumps, rubella, diphtheria, and pertussis. Exemptions are available, but, if widely used, exemptions result in a lowering of what is called “herd immunity” and a resulting increase in disease incidence [4].

HPV vaccine does not meet the high threshold for mandating. HPV is spread by intimate sexual contact and therefore is not an epidemic infectious disease among school-aged children. Most infections are harmless, and screening methods (Pap smear and HPV testing) are available to identify individuals who are at risk of cervical cancer, which occurs 10 to 20 years following initial infection. Treatment of precursor lesions by minor surgical procedures is completely effective in preventing cervical cancer. Thus, there is no compelling public health rationale for mandating HPV vaccine in school-aged children.

Because vaccines are an economical and effective way to prevent many infectious diseases, mandates have sometimes been used more broadly, as in the instances of tetanus and hepatitis B. While a case for mandating HPV vaccine can be made on grounds of good medical and public health practice, the arguments against its use also have merit. The autonomy of the individual to make his or her own decisions about medical care can be disregarded only when the public health is threatened. While this might be the case during an influenza epidemic, for example, it is certainly not the case for HPV. Moreover, when the public health is not threatened, vaccine safety is of paramount importance.

Despite the promising results from clinical trials, the number of vaccinated individuals is still too small to exclude rare serious adverse effects, and more experience with the HPV vaccine is advisable before its mandatory use comes up for consideration. The availability of alternative strategies for detection and control of cervical cancer, discussed above, must also be factored in to the recommendation for the HPV vaccine. But these strategies are less economical than vaccination, potentially less effective, and medically and psychologically more burdensome for women.

The controversy surrounding the HPV vaccine has also raised questions about the appropriate procedures for making vaccination against a given illness or disease mandatory and about possibly restricting lobbying on the part of the manufacturer. While laws mandating vaccine use have to be passed by legislatures, and while manufacturers should be free to make the case for their product, recommendations are best made by state health departments after soliciting input from diverse sources.

The high cost of Gardasil is a deterrent for its use for many families. It has been suggested that Merck would profit substantially even if it cut the cost of Gardasil by 90 percent [5]. In any case, economic considerations should not drive the decision. Many existing government programs provide needed vaccines to children at low cost or no cost. Vaccines that are either mandated or “officially recommended” are covered by the federally funded Vaccines for Children program in the United States.

HPV vaccine provides us an opportunity to reduce the cancer burden for women in all parts of the world, however. We think the widespread use of the vaccine by men and women and availability of the vaccine in the developing world will be the best use of this resource.

References

1. Parkin DM, Bray F. Chapter 2: the burden of HPV-related cancers. *Vaccine*. 2006;24(Suppl 3):S11-S25.
2. Future II Study Group. Quadrivalent vaccine against human papillomavirus to prevent high-grade cervical lesions. *N Engl J Med*. 2007;356(19):1915-1927.
3. Paavonen J, Jenkins D, Bosch FX, et al. Efficacy of a prophylactic adjuvanted bivalent L1 virus-like-particle vaccine against infection with human papillomavirus types 16 and 18 in young women: an interim analysis of a phase III double-blind, randomised controlled trial. *Lancet*. 2007;369(9580):2161-2170.
4. Bristol N. HPV vaccine: should it be mandatory for school girls? *CQ Researcher*. 2007;17(18):409-432.
5. Malone KM, Hinman AR. Vaccination mandates: the public health imperative and individual rights. In: Goodman RA, Rothstein MA, Hoffman RE, et al, eds. *Law in Public Health Practice*. New York, NY: Oxford University Press; 2003: 262-284.
6. Offitt PA. Fatal exemption. *Wall Street Journal*. January 20, 2007:A10.
7. McGee G. How much should Gardasil cost? *Scientist*. 2007;21(8):26.

Disclosure

Keerti V. Shah, MD, DrPH, served in a scientific capacity on expert committees for GlaxoSmithKline and Merck that met one time each.

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POLICY FORUM

Mandatory Reporting of Noncommunicable Diseases: The Example of The New York City A1c Registry (NYCAR)

Clarissa G. Barnes, Frederick L. Brancati, MD, MHS, and Tiffany L. Gary, PhD, MHS

Diabetes imposes a major public health burden on patients and the health care system. Today, 21 million Americans have diabetes, and an estimated 6 million of them are unaware of it [1]. One in three people born in the United States in 2000 will develop diabetes at some point in their lives [2]. In New York City, 500,000 people have diabetes, corresponding to an overall prevalence of 8 percent, ranging from 5.9 percent in Manhattan to 10.9 percent in the Bronx [3].

Complications of diabetes include heart disease, stroke, kidney failure, blindness, and lower extremity amputations. Nationwide, diabetes is the sixth leading cause of mortality [1]. Large-scale efficacy studies show that tight control of HbA1c (that is, the component of hemoglobin to which glucose is bound) produces a 20 to 50 percent reduction in microvascular complications [4]. Unfortunately, tight control (HbA1c < 7 percent) has been hard to achieve: 28 percent of New York City (NYC) patients with commercial insurance and 37 percent of those with Medicaid have “poor control” (A1c >9 percent) [5]. In fact, only 10 percent of patients even know what their A1c measurements are [6]. As more and more people are diagnosed, the cost of diabetes increases, both in dollars required to provide care and in hours devoted to care by health care professionals. The Centers for Disease Control and Prevention estimated in 2002 that the U.S. spent at least \$132 billion annually on diabetes [1].

The New York City A1c Registry (NYCAR)

To help combat the rising incidence of type 2 diabetes, NYC’s Department of Health and Mental Hygiene (DOHMH) adopted a plan in December 2005 to monitor hemoglobin A1c. This new plan requires laboratories with electronic reporting capacity to upload data on hemoglobin A1c measurements to the NYC Department of Health [7]. Physicians and clinics that measure hemoglobin A1c in their offices are exempt. The DOHMH uses those results to create a hemoglobin A1c registry that contains: (1) A1c (date and result), (2) patient contact information and date of birth, and (3) clinician contact information [7]. In addition to the registry, which just maintains records, the DOHMH began a pilot project in the South Bronx in mid-2007 that follows the model of the Vermont Diabetes Information System [8]. In this model, clinicians will receive daily notifications of A1c levels >8.0 percent, quarterly updates of patients in their caseload stratified by A1c, and best practice

recommendations; patients will receive letters and educational materials when their A1c level exceeds 8.0 percent [7].

The purpose of the registry is twofold. First, the health department can use the aggregate A1c information to map patterns of glycemic control and, since the registry records patients' dates of birth, the department will also be able to examine the emerging epidemic of type 2 diabetes in children [7]. Second, the pilot program will provide information to clinicians and their patients when patients' A1c control is poor [7]. Physicians must participate in the registry, but patients are sent a letter that gives them an opportunity to opt out of the registry.

Why Diabetes Reporting?

While appealing from a public health perspective, NYCAR has sparked controversy. At the core of the debate is the tension between public health benefits and privacy of personal health information.

The contrast between diabetes and communicable infectious diseases is illustrative. There is broad consensus on reporting for communicable diseases: for example, all 50 states mandate reporting of tuberculosis, syphilis, and smallpox. Even the staunchest of privacy advocates have little argument with identifying and treating people who have tuberculosis to prevent transmission. Unlike tuberculosis, however, diabetes is not communicable, and some patients believe that the NYCAR is an unjustified invasion of privacy [6]. One patient went so far as to describe the program as the "Big Brother approach to diabetes management" [6].

Proponents of NYCAR say that it is certainly within public health's purview to obtain information vital to tracking this emerging "epidemic"; the rapidly increasing occurrence of diabetes has been called an epidemic in the broad sense of that term. The policy makes provisions to help ensure patient privacy, such as allowing patients to opt out and promising that information obtained through the reporting system is accessible to no one but the patient, the clinician, and database supervisors. Moreover, NYCAR advocates can point to the precedent created by cancer registries. The New York State Cancer Registry contains data such as tumor location, cell type, stage, and some treatment information. This registry is not voluntary, requiring hospitals to report all new cancer diagnoses and patient names under penalty of law [9].

Granted, part of the rationale for the cancer registry is to try to discover whether there are environmental exposures that cause or increase the risk for cancer. But the registry requires reporting of any cancer, whether or not an environmental cause is suspected. In the past, cancer registries have been relatively noncontroversial [10]. Recently, however, the Veterans Administration (VA), which is not subject to the same reporting obligations as other hospitals, announced that they will no longer report cancer data to state registries due to privacy concerns, even though they had been reporting since 1974 [11]. Concerned about patient privacy, the VA is requiring all states to sign a directive mandating that patient information be encoded so that

unauthorized people cannot gain access to it. Authorized researchers must either (1) get permission from the VA's Under Secretary of Health to gain access to the data, or (2) find a VA researcher with whom to collaborate and get permission from that researcher's VA hospital board of ethics [11].

NYCAR supporters acknowledge the risk of invasion of privacy that the registry poses. Historically, privacy concerns are not uncommon when health departments require reporting of patient information. When tuberculosis reporting was introduced in New York in 1897, physicians resisted on the basis that patient privacy might be violated [11]. NYCAR supporters point out that the confidentiality controls for A1c data are more stringent than those for communicable diseases and that the growing crisis calls for bold action. Given the gravity of the diabetes-related public health threat, many believe that monitoring A1c levels is justified.

Implications of the Registry

Whether or not one thinks mandatory reporting of A1c measurements is an appropriate use of public health authority, the important question is: will the policy make a significant impact on this growing health problem? Immediate A1c feedback at patient points of care seems to help improve control [12, 13]. Research has also shown that feedback and reminders to clinicians and increased information to patients help improve diabetes control [14, 15]. For example, Intermountain Health Care in Salt Lake City developed a Diabetes Care Management System that included the creation of a registry of A1c, cholesterol, and urine microalbumin results, feedback to providers about how their patients' lab values compared to others in the region, educational materials to patients and providers, and alerts to providers when testing was overdue. Over 4 years, the average A1c decreased from 8.1 percent to 7.3 percent [14]. Perhaps the registry will provide the impetus for managing individual patients differently and for overcoming clinical and systemic hurdles to making therapy changes when they are indicated.

And perhaps poor diabetes control is more communicable than originally thought. A recent study shows that obesity may be contagious to three degrees of separation [16]; that is, it can be "transmitted" through social interactions among friends and even friends of friends. If so, then obesity's sequelae, including diabetes, can also be transmitted. Population-wide dispersion of A1c data into multiple social networks might magnify the benefits of patient and provider feedback beyond what has been detected in clinic-based studies.

NYCAR is not a solution to the diabetes epidemic: it is purely informational; it does not facilitate treatment to achieve control; and it does not identify individuals with undiagnosed diabetes or prediabetes. What NYCAR does is establish a novel framework for public health monitoring and decision making that has already begun to raise awareness of the diabetes epidemic. Epidemics require bold public health action. This is a worthwhile experiment for the nation to watch, and if successful, to emulate.

References

1. Centers for Disease Control and Prevention. *National Diabetes Fact Sheet 2005*. http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2005.pdf. Accessed September 30, 2007.
2. Narayan KM, Boyle JP, Thompson TJ, Sorenson SW, Williamson DF. Lifetime risk for diabetes mellitus in the United States. *JAMA*. 2003;290(14):1884-1890.
3. New York State Department of Health Diabetes Prevention and Control Program. *The State of Diabetes in New York State: A Surveillance Report-2007*. http://www.health.state.ny.us/statistics/diseases/conditions/diabetes/surveillance/docs/report_1997-2004.pdf. Accessed September 30, 2007.
4. Gaede P, Videl P, Larsen N, Jensen GV, Parving HH, Pedersen O. Multifactorial intervention and cardiovascular disease in patients with type 2 Diabetes. *N Engl J Med*. 2003;348(5):383-393.
5. New York State Department of Health. *Managed Care Plan Performance-2006*. http://www.nyhealth.gov/health_care/managed_care/qarrfull/qarr_2006/qarr2006.pdf. Accessed September 20, 2007.
6. *Public Hearing on Intention to Amend Article 13 of the New York City Health Code*. (August 16, 2005).
7. Silver LD, Berger DK. *Improving Diabetes Care for All New Yorkers*. New York, NY: City Department of Health; 2005. <http://www.nyc.gov/html/doh/downloads/pdf/diabetes/diabetes-presentation-a1c-registry.pdf>. Accessed September 30, 2007.
8. Maclean CD, Littenberg B, Gagnon M, Reardon M, Turner PD, Jordan C. The Vermont Diabetes Information System (VDIS): study design and subject recruitment for a cluster randomized trial of a decision support system in a regional sample of primary care practices. *Clin Trials*. 2004;1(6):532-544.
9. New York State Department of Health. *About the New York Cancer Registry*. Revised February 2007. <http://www.health.state.ny.us/statistics/cancer/registry/about.htm>. Accessed September 20, 2007.
10. Bayer R, Fairchild AL. Public health: surveillance and privacy. *Science*. 2000;290(5498):1898-1899.
11. Kolata G. States and V.A. at odds on cancer data. *New York Times*. October 10, 2007. http://www.nytimes.com/2007/10/10/health/10cancer.html?pagewanted=2&_r=1&ref=health. Accessed October 13, 2007.
12. Cagliero E, Levina EV, Nathan DM. Immediate feedback of HbA1c levels improves glycemic control in type 1 and insulin-treated type 2 diabetic patients. *Diabetes Care*. 1999;22(11):1785-1789.
13. Miller CD, Barnes CS, Phillips LS, et al. Rapid A1c availability improves clinical decision-making in an urban primary care clinic. *Diabetes Care*. 2003;26(4):1158-1163.

14. Larsen DL, Cannon W, Towner S. Longitudinal assessment of a diabetes care management system in an integrated health network. *J Manag Care Pharm.* 2003;9(6):552-558.
15. Philips LS, Ziemer DC, Doyle JP, et al. An endocrinologist-supported intervention aimed at providers improves diabetes management in a primary care site: improving primary care of African Americans with diabetes (IPCAAD) 7. *Diabetes Care.* 2005;28(10):2352-2360.
16. Christakis NA, Fowler NH. The spread of obesity in a large social network over 32 years. *N Engl J Med.* 2007;357(4):370-379.

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MEDICINE AND SOCIETY

Doctors, the State, and the Ethics of Political Medical Practice

Dorothy Porter, PhD

The social institutions of medicine and the state have a complex history of interaction in which doctors have been the originators of political ideals, goals, and social change but have equally found themselves instruments of political authority. Here I briefly chart some significant moments in what might be termed the political history of medicine, looking at doctors both as actors structuring and as agents implementing the operations of modern democratic states.

Idealists and Actors in Political and Social Change

The 18th-century English physician and political radical Thomas Beddoes considered medicine and social morality to be inherently bound in an ethics of corporal existence.

Without accurate ideas of the causes that affect the personal condition of mankind, how is it possible to conceive any progress in genuine morality? And will not every addition to this branch of knowledge necessarily tend to purify morals—that is, to introduce into the social compact covenants more beneficial to the parties? Physiology—or more strictly biology—by which I mean the doctrine of the living system in all its states, appears to be the foundation of ethics and pneumatology [1].

Beddoes' link between the needs of the body *natural* and the social morality of the body *politic* has underwritten a moral justification for medicine's playing a role in constructing modern democratic states since the 19th century [2]. In 1848, political reformer, medical doctor, and founder of cellular pathology, Rudolph Virchow, articulated that the moral goal of the political role of medicine was to become an active agent in eliminating social inequality [3]. This sentiment was given concrete practicality by John Simon, the mid-Victorian chief medical officer in Britain, whose philosophy of state medicine viewed the state as provider of the basic conditions needed for subsistence (without interfering in the iron law of wages) through sanitary reform of the environment, prevention of epidemic diseases, and the regulation of unadulterated food and drugs [4].

Doctors have represented medicine as political actors in social change in a wide range of historical, social, and ethical contexts and have played major roles in central theatres of power. Philadelphia physician Benjamin Rush was a cosigner of the Declaration of Independence. Rush believed that despotism bred physiological and

psychological disease and that democratic citizenship produced politically emancipated mentalities that would institutionalize the value of healthy bodies for the benefit of the commonwealth [5].

Doctors have served as elected political representatives, such as Virchow himself and the British Victorian parliamentarian Lyon Playfair, who believed that the time had come for public policy to be shaped by scientific and medical knowledge rather than the interests of dominant social and economic interests or classes [6]. It is in the context of establishing scientific reasoning as the transcendent moral foundation for the processes and organization of political and social governance that doctors have played the most profound role as “statesmen in disguise” and made the most significant contributions to historical discourses on social ethics.

At one level individual doctors have contributed abstract philosophical justifications for the need for scientifically trained experts to formulate public policy. The 19th-century French medical reformer Desirée Magloire Bournville used Comtean positivism to argue that scientific social governance was an inevitable outcome of social evolution and that this meant, in particular, that the grip of clerical power on social institutions in France should be eliminated, especially from the control of health and medical provision [7]. Though doctors made extensive contributions to the political actions of modern states by promoting scientifically based social policy, it is perhaps in such policy’s rationalistic implementation that they have played their most important role. Here too a huge range of sociomedical philosophies and practices have flourished historically from the highly technocratic to minimally interventionist.

Agents of Policy Implementation

Before the rise of Stalinism, doctors in post-revolutionary Soviet society invented a form of political medicine they called social hygiene, wedded to the principles of socialist egalitarianism and dedicated to improving the people’s health rather than curing or preventing disease alone [8]. The new sociomedical philosophy was founded nevertheless on a technocratic vision that included, for example, demographic engineering through the strategic use of expertise in abortion.

Less technocratically ambitious but just as influential socially have been the interventions implemented by doctors in the cause of public or population health in the modern era. The founder of the British public health system, Edwin Chadwick, was a lawyer who hated doctors—he thought that those who provided medical services to patients under the system of poor-law relief swindled local taxpayers by prescribing food for the therapeutic restoration of the malnourished destitute. Hence Chadwick believed that the newly created public health officers in mid-Victorian Britain should be engineers. All, however, who became employed as medical officers of health were medically qualified, even if some had never practiced therapeutic medicine.

In their capacity as public health officers, British Victorian physicians fought relentless battles with local political interest groups, slum landlords, factory owners, and local elected government authorities to implement new public health laws aimed at demolishing housing unfit for human habitation, providing effective sewage and garbage removal, eliminating river, soil, and air pollution, and giving universal access to clean water supplies [9].

Doctors engaged in sanitary reform in the United States and throughout the rest of the industrializing world faced the same social conflicts in acting as agents of change on behalf of the community, often, however, at the expense of the liberty of individuals. Nowhere is this more starkly demonstrated than in the administration of vaccination against notifiable infectious diseases and isolation of patients with those diseases.

The advantages of Edward Jenner's discovery in the reduction and prevention of smallpox were sufficiently persuasive to convince national governments and local authorities throughout the industrializing world not only to fund dissemination of the vaccine but even to make vaccination a compulsory act of citizenship. Smallpox vaccination became legally compulsory in numerous western European states before the end of the 19th century and was made a compulsory qualification for the entrance of children to public schools in the United States. Fines and, in some cases, imprisonment were imposed as punishments for failure to comply with the law in different national contexts. The implementation of compulsory smallpox prevention, however, stimulated local, national, and international mixtures of antivaccination resistance.

The rationales underlying antivaccination opinions were as different as the many places in which they were expressed and included fear of subjecting offspring to deliberate exposure to a disease of cattle; fear of the spread of additional diseases such as syphilis; and, most pervasive of all in booming *laissez faire* industrial societies such as Britain, fear of government and medical encroachment on individual liberty [10].

Doctors given the responsibility for implementing compulsory vaccination laws faced fierce ideological opposition to legitimation of the procedure, which they sometimes lost, paradoxically, when the incidence of smallpox outbreaks significantly decreased as the blanket vaccination of populations took effect over time. When epidemics did occur they were often in themselves the most serious counterforce against antivaccinationism. Such was the case during a severe epidemic that took place in Jenner's home town of Gloucester in 1896. Gloucester had been a target of the British Anti-Vaccination League specifically because it was the place of vaccination's origin, and, at the outset of the epidemic, the local medical officer of health met with ridicule, false accusations of self-interest and incompetence, and widespread resistance to his attempts to vaccinate the local population. As case numbers and mortality rose, however, antivaccination resistance diminished. Indeed

one of the first adults to volunteer for vaccination was the local leader and nationally renowned antivaccinationist [11].

Doctors working for the state in the field of epidemic disease prevention and the establishment of public health often incurred the hostility of their clinical colleagues who saw them as a threat to private medical practice, especially when public health bacteriological testing began to supplement practitioner diagnosis of infectious diseases [10]. But as the role of the state in disease prevention expanded, private practitioners themselves became increasingly obligated to serve the cause. Perhaps the most significant juncture at which this occurred followed the passing by all industrial societies by the end of the 19th century of “notification of diseases laws.” These laws, which remain in force today, required practitioners who discovered patients with an infectious disease that was listed as “notifiable” to report the details of the case to local public health authorities. The patients who were reported became subject to compulsory removal to a locked hospital isolation ward to receive treatment, being released only after having been declared cured or having succumbed to the disease itself [12].

This law presented private practitioners with an almost irresolvable dilemma. The Hippocratic Oath bound the doctor to the interest of his or her patient, but the notification laws legally compelled the doctor to serve the needs of the community as a priority regardless of whether this was in the interests of the individual patient or not. While treatment may have been in the best interest of the patient, the right to refuse it was eliminated, as was physical liberty until the patient was cured.

Historic Legacies and Contemporary Dilemmas

These historical examples of the range of material and ideological relationships of doctors with modern states continue to have profound resonance for medical practice in contemporary times. As mentioned above, the notification laws remain on the statute books in all industrial and late industrial societies and include a wider range of diseases than the virulent contagions and infections rapidly spread through social contact. Tuberculosis is a case in point. While it is spread through social contact, its distribution is haphazard and correlated with immediate environmental conditions and the stage or virulence of the disease. How, therefore, should a private practitioner or practitioner working in a public medical center act in relation to the epidemic surges in new strains of tuberculosis in a diverse range of population groups? Are the tubercular homeless to be interned in locked hospital wards or prisons, and homeowners allowed to maintain their liberty while they undertake their course of treatments that may anyway prove ineffectual? These dilemmas remain unresolved both within and beyond the profession itself.

Similarly, what should be the responsibility of practitioners with regard to furthering the public understanding of the contemporary therapeutic world, especially when the scientific basis of Asclepian authority is challenged or when new technologies and forms of evidence conflict with or confuse patient expectations? The normal process of analytical critique through which science and medicine progress has exacerbated

skepticism and confusion within the arena of public debate. This skeptical view of science has reconfigured the political role of medicine in recent times. Fierce scientific conflict, aired during the British panic surrounding the appearance of a tiny number of cases of Creutzfeld-Jakob disease, placed the British Medical Association in the role of a key public arbitrator.

Perhaps the most profound political role which medicine filled in the 20th century was as advocate for or opponent to the replacement of the medical market with tax-funded systems of health care and medical service delivery governed by political states [13]. During the establishment of state-run, tax-funded health systems throughout the world professional medicine was often deeply divided, leading to multiple forms of universal nonmarket health care in different national contexts. In this milieu, medicine could often be seen as being overtly linked to party politics rather than the transcendent politics of specialist expertise in policy making. The history of the medical profession's participation in the United States' struggles with health services provision has been no exception to this rule, regardless of the extent to which market-driven or nonprofit systems currently dominate. The era of the next federal administration promises to expand this aspect of the political role of medicine in which messages offered by individual and collective medical voices are likely to take on increasing public significance.

References

1. Beddoes T. *Contributions to Physical and Medical Knowledge, Principally from the West of England*. London, England: T. Longman and O. Rees; 1799:3, 4.
2. Porter D. *Health Civilization and the State. A History of Public Health from Ancient to Modern Times*. London, England: Routledge; 1999.
3. Virchow R. *Public Health Reports*. Rather LJ, ed. Vol 2. Maryland: Science History Publications; 1986:307-319.
4. Simon J. *English Sanitary Institutions*. London, England: Churchill; 1890.
5. Rosen G. Political order and human health in Jeffersonian thought. *Bull Hist Med*. 1952;26(1):32-44.
6. Hardy A. Lyon Playfair and the idea of progress. In: Porter D, Porter R, eds. *Doctors, Politics and Society: Historical Essays*. Amsterdam, Netherlands: Rodopi; 1993:46-81.
7. Brais B. Desire Magloire Bournville and French anticlericism during the Third Republic. In: Porter D, Porter R, eds. *Doctors, Politics and Society: Historical Essays*. Amsterdam, Netherlands: Rodopi; 1993:82-107.
8. Solomon SG, Hutchison JF. *Health and Society in Revolutionary Russia*. Indianapolis, IN: Indiana University Press; 1990.
9. Porter D. Stratification and its discontents: professionalization and conflict in the British Public Health Service, 1848-1914. In: Fee E, Acheson RM, eds. *A History of Education in Public Health. Health that Mocks the Doctors' Rules*. Oxford, England: Oxford University Press; 1991:44-83.
10. Porter D. Health care and the construction of citizenship in civil societies in the era of the Enlightenment and industrialisation. In: Cunningham A, Grell O,

Jutte R, eds. *Health Care and Poor Relief in 18th and 19th Century Northern Europe*. London, England: Ashgate; 2002:15-31.

11. Porter D, Porter R. The politics of prevention: anti-vaccinationism and public health in nineteenth-century England. *Med Hist*. 1988;32(3):231-252.
12. Porter D, Porter R. The enforcement of health: the English debate. In: Fee E, Fox D, eds. *AIDS: The Burdens of History*. Los Angeles, CA: University of California Press; 1989:97-121.
13. Fox D. *Health Policies, Health Politics. The British and American Experiences*. Princeton, NJ: Princeton University Press; 1986.

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OP-ED

Mandatory Reporting of Injuries Inflicted by Intimate Partner Violence

Carolyn J. Sachs, MD, MPH

State law requires physicians and other health care workers to report certain subsets of patients to governmental or law enforcement authorities. Injured or neglected individuals comprise the largest group of these patients. Health care personnel currently accept these policies for the reporting of child abuse and elder abuse as an enhancement of patient care [1]. Much of the literature on child abuse and elder abuse assumes that reporting to the authorities increases the safety of these victimized populations, although that literature does not specifically test the assumption [2]. All 50 states currently mandate that health care workers report child abuse to state authorities [3], and 47 states require that elder abuse be reported to state authorities or local law enforcement [4]. Mandatory reporting (MR) of injuries in elders and children seems warranted in an effort to decrease the risk of further injury and death in these vulnerable populations.

Civil codes in most states also mandate that medical personnel notify law enforcement when any patient presents with injuries due to a firearm or other deadly weapon. In many states the mandate extends to other severe injuries, sexual assaults, and “injuries that result from a criminal act” [5]. Intimate partner violence (IPV) injuries are “criminal acts” in every state, and, as such, are included under many state assault reporting laws; several states require health personnel to report injuries sustained in the violent incidents [5].

State statutes in Colorado and California include reporting of IPV victims’ injuries in their mandate for reporting of all injuries that result from assault and violence. For example, the penal code of California, which mandates reporting of patients with injuries from “assaultive or abusive conduct,” is not specific to IPV but covers patients with all suspicious injuries. California enacted an amendment to the long-standing penal code in 1995 which clarified the need to report IPV patients with injuries, provided immunity for good-faith reporting, increased penalties for not reporting, and broadened the type of health care workers mandated to report. This amendment became known as the Domestic Violence Reporting Law, but this term reflected the broad misunderstanding of the true requirements of the amendment [6]. The amendment did not change the penal code, which always required doctors to report *all* patients with injuries from assaultive or abusive conduct. Nevertheless, the concept of reporting *any* patient who is a competent adult to police or other authorities without his or her consent remains a controversial topic [7].

Views on Reporting of Partner Violence Injuries

Possible negative consequences of mandatory reporting include the possibility that injured patients avoid seeking medical care out of fear of police involvement and that police intervention could anger a perpetrator to increased aggression. Reporting against the wish of an adult patient also violates confidentiality and may be interpreted as stripping power from an already weakened person. Several medical organizations, including the American College of Emergency Medicine and the American Medical Association, oppose mandated IPV reporting by health care personnel [8, 9].

A review of the literature to date fails to isolate any substantial data to support the premise that mandatory reporting laws improve the situation for those it intends to protect. Nor could I find data that support the contention that the laws endanger victims. Mandatory reporting has been shown to increase detection of other types of abuse; large increases in reports of child abuse and elder abuse were observed after the enactment of mandatory reporting legislation pertaining to those groups [1, 10]. In the absence of outcome data on the utility of mandatory reporting of IPV, several investigators have sought the opinion of those potentially affected.

Surveys of victim advocates and focus groups of battered women reveal ambivalence about medical professionals' reporting of patients with injuries from IPV [11, 12]. Coulter and Chez found that 49 percent of the victims surveyed were concerned that reporting would increase their partner's anger [11]. Similarly, Rodriguez and colleagues concluded from their focus group study of battered women that mandatory reporting could create barriers "to seeking help and communicating with health-care professionals" [12].

Rodriguez and his co-authors also surveyed a stratified random sample of California physicians concerning their attitudes toward laws that mandate reporting of domestic violence [13]. The majority of physicians felt that this legislation possibly introduced barriers to patient care, had the potential to escalate violence, and violated patient confidentiality. Seventy-one percent of the surveyed physicians said they would not comply with the law if a patient objected to their reporting the injury, although the majority said they supported mandatory reporting of patients who presented with injuries. As mentioned, it is only patients with injuries that must be reported under California law. Hence, this study actually demonstrated that the majority of sampled California physicians supported the current mandatory reporting law.

Other survey studies of both abused and nonabused patients in the medical setting have found that a clear majority in each group supports mandatory IPV reporting, and this majority would not be deterred from seeking medical care in the context of mandatory reporting [14, 15]. And a large population-based study of both abused and nonabused women demonstrated the same majority support for mandatory reporting, but with a substantial minority opposed [16].

Some positive consequences of mandated reporting have been documented. Reporting laws increase physician detection and documentation of injuries from abuse and thus may aid in referring victims to appropriate services. The fact is that intimate partner violence is a crime, and police reporting may increase victim safety by providing immediate access to restraining orders and swift perpetrator arrest. Over the last few decades law enforcement organizations have implemented special programs that link responding patrol officers and local advocates to provide immediate services for victims whom police encounter, and this extends to response in medical areas that may not have access to onsite services (physician offices or remote clinics). Most states have domestic abuse response team (DART) programs in which victim advocates may ride on patrol with law enforcement officers or respond to patrol calls.

As in many controversial situations where little outcome data is available to support a specific action, our society must decide the age-old question: Does the potential good justify the restriction of individual rights necessary to achieve it? Our medical community has accepted the concept of mandatory reporting for child abuse, elder abuse, and assault victims because most state legislatures (representative of their constituents, we hope) have decided that the ultimate safety of these populations is an end worth the means. If we accept mandatory reporting for these populations, would we do a disservice to injured IPV victims by excluding them? If we specifically excluded IPV victims with injuries from reporting then, in many states, a man with facial fractures from involvement in a weekend beer brawl would require police reporting, but not a wife strangled unconscious by her husband.

The real ethical dilemma about mandatory reporting involves all patients with injuries. Should physicians be required to serve as crime informants to police? Will this help the victimized patient with increased protection and access to help, or will it merely aid in crime detection? In view of the paucity of data available regarding the safety and efficacy of any mandatory reporting law and the large number of patients and professionals who are affected by them, there is a pressing need for victim outcome data to shape future health policy and legislation in this area.

References

1. Reiniger A, Robison E, McHugh M. Mandated training of professionals: a means for improving reporting of suspected child abuse. *Child Abuse Negl.* 1995;19(1):63-69.
2. Chalk R, King P. Health care interventions. In: Chalk R, King PA, eds. *Violence in Families: Assessing Prevention and Treatment Programs.* Washington, DC: National Academy Press; 1998:223-224.
3. Howe R-A, Katz SN, McGrath M, et al. Child neglect laws in America. *Fam Law Quartr.* 1975;9(Spring):1-372.
4. Brewer RA, Jones JS. Reporting elder abuse: limitation of status. *Ann Emerg Med.* 1989;18(11):1217-1221.
5. Houry D, Sachs CJ, Feldhaus KM, Linden J. Violence-inflicted injuries: reporting laws in the fifty states. *Ann Emerg Med.* 2002;39(1):56-60.

6. Sachs CJ, Peek C, Baraff LJ, Hasselblad V. Failure of the mandatory domestic violence reporting law to increase medical facility referral to police. *Ann Emerg Med.* 1998;31(4):488-494.
7. Gupta M. Mandatory reporting laws and the emergency physician. *Ann Emerg Med.* 2007;49(3):369-376.
8. American Medical Association. H-515.965 Family and intimate partner violence. http://www.ama-assn.org/apps/pf_new/pf_online?f_n=browse&doc=policyfiles/HnE/H-515.965.htm. Accessed October 26, 2007.
9. American College of Emergency Physicians. Mandatory reporting of domestic violence to law enforcement and criminal justice agencies. <http://www3.acep.org/practres.aspx?id=29564>. Accessed October 26, 2007.
10. Daniels SR, Baumhover LA, Clark-Daniel CL. Physicians mandatory reporting of elder abuse. *Gerontologist.* 1989;29(3):321-327.
11. Coulter ML, Chez RA. Intimate partner violence victims support mandatory reporting: for others. *J Fam Violence.* 1997;12(3):349-356.
12. Rodriguez MA, Craig AM, Mooney DR, et al. Patient attitudes about mandatory reporting of intimate partner violence; implications for health care professionals. *West J Med.* 1998;169(6):337-341.
13. Rodriguez MA, McLoughlin E, Bauer HM, Paredes V, Grumbach K. Mandatory reporting of intimate partner violence to police: views of physicians in California. *Am J Pub Health.* 1999;89(4):575-578.
14. Houry D, Feldhaus K, Thorson AC, Abbott J. Mandatory reporting laws do not deter patients from seeking medical care. *Ann Emerg Med.* 1999;34(3):336-341.
15. Rodriguez MA, McLoughlin E, Nah G, Campbell JC. Mandatory reporting of domestic violence injuries to the police: what do emergency department patients think? *JAMA.* 2001;286(5):580-583.
16. Sachs CJ, Koziol-McLain J, Glass N, Webster D, Campbell J. A population-based survey assessing support for mandatory domestic violence reporting by health care personnel. *Women Health.* 2002;35(2-3):121-133.

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HISTORY OF MEDICINE

Privacy and Public Health Surveillance: The Enduring Tension

Amy Fairchild, PhD, MPH, Ronald Bayer, PhD, and James Colgrove, PhD, MPH

The discovery that cases of paralytic polio in 1955 were caused by a single manufacturer of Salk vaccine, the linkage of toxic shock syndrome to tampons in 1979, the identification of the sentinel cases of AIDS on the East and West coasts in the early 1980s, the recognition of West Nile, SARS, and avian flu at the turn of the twenty-first century—were all the result of surveillance systems, through which alert and troubled physicians could communicate with public health officials, thus enabling emerging patterns to be identified. In each instance, such vigilance made it possible to initiate measures that could limit the human toll.

Surveillance serves as the eyes of public health. Name-based reporting of cases has provided the foundation for planning, intervention, and prevention and has been critical for epidemiological research into patterns of morbidity and mortality for a wide variety of diseases and conditions. Registries have been essential for tracking individuals and their conditions over time. Surveillance has also served to trigger the imposition of public health control measures, such as contact tracing, mandatory treatment, and quarantine. The threat of such intervention and long-term monitoring has provoked alarm and rendered surveillance suspect for those concerned about the unwarranted exercise of state authority in the name of public health. Thus the history of surveillance has been bounded by a promise and a specter.

Over the course of the 20th century, public health officials reiterated the importance of surveillance, arguing that without the name and location of diseased individuals they worked “in the darkness of ignorance” and might “as well hunt birds by shooting into every green bush” [1]. It was the prospect of what surveillance might offer that raised hopes—for the delivery of services, for lifesaving knowledge, and for protection of individuals and communities.

Hermann Biggs, a titanic figure in the history of public health, who was perhaps the most important late 19th- and early 20th-century architect and philosopher of U.S. public health surveillance, made it clear that names of the diseased were never collected “in order to keep clerks or adding machines busy” [2]. Toward the end of the 20th century, Surgeon General David Satcher would state the value of surveillance as plainly as had Biggs: “In public health, we can’t do anything without surveillance...that’s where public health begins” [3]. When surveillance opened the doors to vital services and knowledge, its subjects could well become among its most

ardent advocates, thus underscoring a politics that goes beyond the politics of privacy.

In the late 19th and early 20th centuries, as public health was extending the ambit of surveillance, the medical community reacted with hostility, particularly when it came to tuberculosis surveillance and seemingly threatened to intrude on the sanctity of the clinical relationship, over which the physician was guardian. *Medical Record* editor George Shrady thus complained of TB surveillance,

The compulsory step taken is a mistaken, untimely, irrational, and unwise one.... The real obnoxiousness of this amendment to the sanitary code is its offensively dictatorial and defiantly compulsory character. It places the Board [of Health] in the rather equivocal position of dictating to the profession and of creating a suspicion of an extra bid for public applause [4].

“Already,” he continued, “the profession as a whole has watched with jealous eye the encroachments of the Board upon many of the previously well-recognized privileges of the medical attendant” [4].

Over time, disease reporting was extended to chronic, noncontagious conditions such as cancer, birth defects, and occupational illnesses. Not only physicians but laboratories were often required to report cases to local health authorities. The surveillance of chronic diseases, of course, differs because these conditions do not represent a direct threat to the health of others. And, indeed, when state and local health departments first began tracking conditions like congenital malformations and cancers in the first half of the 20th century, these initiatives typically served epidemiological or research purposes only. These reporting efforts, critically, also became linked to the assessment and improvement of clinical care. Tumor registries, for example, emphasized patient care improvement since the 1950s and, currently, data from the National Cancer Institute’s SEER program (Surveillance, Epidemiology, and End Results Program) are routinely used for quality improvement initiatives.

It was not until the AIDS epidemic that activists challenged the long-standing tradition of name-based reporting. Even so, as AIDS has become a more treatable disease, resistance to reporting has all but vanished. In the 1990s, the promulgation of national standards to safeguard the privacy of medical records, as dictated by HIPAA (the Health Insurance Portability and Accountability Act), provoked intense public debate. But there was virtually no opposition to carving out an exception in the guidelines for the reporting of diseases to public health agencies. While there was initial uncertainty among physicians and researchers about whether hospitals could continue to provide cancer data to state registries, the Department of Health and Human Services made clear that HIPAA did not serve as an obstacle to reporting.

In the early 20th century it was physicians who spearheaded opposition to surveillance; since the 1970s, patients have often been at the forefront of challenges

to reporting diseases. Parents of children with disabilities, for example, successfully changed the terms of birth defects surveillance in Minnesota, requiring the state to allow unwilling parents to opt out of reporting. Patient advocates within the American Diabetes Association forced New York City health officials to place limits on an initiative to track cases of diabetes.

But just as often, patients with serious illnesses have pushed for better tracking of their conditions. Breast cancer survivors have emerged as the most ardent defenders of universal name-based cancer reporting, recognizing how important surveillance and the research it makes possible is to their own well-being. Similarly, communities concerned about “cancer clusters” and environmental threats have demanded access to the data that only cancer registries can accumulate. Patients expect their privacy to be protected, of course, but also maintain that a rigid commitment to privacy could hobble the usefulness of registries. In these instances, public health officials, committed to the paramount importance of surveillance, have been extremely wary about disclosing any data that could potentially compromise individual privacy.

There is, then, an enduring tension between privacy and public health surveillance [5]. This tension is sometimes expressed in bitter controversies. On other occasions, those who believe that their needs require greater surveillance have themselves decided to trade some degree of privacy.

Enduring tension, however, produces neither inevitable nor unending conflict. Just as the emergence of disputes is historically contingent, so too are the conclusions of those disputes. On occasion, debates about disease notification have come to an end because one side has triumphed over the other. In other instances compromise has, at least temporarily, removed the source of contention. Finally, conflicts have come to an end when opponents’ interests have shifted to what they considered other more urgent matters such as access to treatment. Thus, for example, the bitterly contested issue of HIV name reporting in California came to a close in 2006 when advocates recognized that without name-based reporting they would lose critically important funding for AIDS programs [6]. But the end of conflict does not foreclose the possibility of renewed debate. Even apparently settled matters involving surveillance may be subject to challenge.

References

1. Trask J. Vital statistics: a discussion of what they are and their uses in public health administration. *Public Health Rep.* 1915;30(Suppl. 2):97-137.
2. Biggs H. The public health. *Monthly Bulletin of the Department of Health of the City of New York.* 1913;3:150.
3. Porter R, O’Hara J. Better health through better data. *San Diego Union-Tribune.* June 22, 2001:B-8.
4. Shradly GF. The health board and compulsory reports. *Medical Record.* 1897;51:126; Regular meeting of the Philadelphia County Medical Society. November 14, 1900. *JAMA.* 1900;35:1426.

5. Ingelfinger JR, Drazen JM. Registry research and medical privacy. *N Eng J Med*. 2004;350:1452-1453; and McKenna MT, Wingo P, Gibson JJ. Letter to the editor. *N Engl J Med*. 2004; 351(6):613.
6. Ornstein C. California may start tracking HIV patients by name. *Los Angeles Times*. January 18, 2006.

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Suggested Readings and Resources

Alexander SC, Ostbye T, Pollak KI, Gradison M, Bastian LA, Brouwer RJ. Physicians' beliefs about discussing obesity: results from focus groups. *Am J Health Promot.* 2007;21(6):498-500.

American College of Emergency Physicians. Mandatory reporting of domestic violence to law enforcement and criminal justice agencies. <http://www3.acep.org/practres.aspx?id=29564>. Accessed October 26, 2007.

American Medical Association. H-515.965 Family and intimate partner violence. http://www.ama-assn.org/apps/pf_new/pf_online?f_n=browse&doc=policyfiles/HnE/H-515.965.htm. Accessed October 26, 2007.

American Medical Association. Principles of medical ethics. <http://www.ama-assn.org/ama/pub/category/2512.html>. Accessed November 5, 2007.

American Thoracic Society, CDC, and Infectious Diseases Society of America. Treatment of tuberculosis. *MMWR Recomm Rep.* 2003;52(RR-11):1-77.

Annas GJ. Control of tuberculosis—the law and the public's health. *N Engl J Med.* 1993;328(8):585-588.

Associated Press. Mexican teen jailed for refusing tuberculosis treatment gets released, awaits deportation. *San Diego Union Tribune.* September 27, 2007. <http://www.signonsandiego.com/news/mexico/20070927-2336-tuberculosis-youth.html>. Accessed November 8, 2007.

Ball CA, Barnes M. Public health and individuals rights: tuberculosis control and detention procedures in New York City. *Yale Law Policy Rev.* 1994;12(38):38-67.

Bayer R, Fairchild AL. Public health: surveillance and privacy. *Science.* 2000;290(5498):1898-1899.

Becker v Mayo Foundation, 737 NW2d 200 (Minn 2007).

Beddoes T. *Contributions to Physical and Medical Knowledge, Principally from the West of England.* London, England: T. Longman and O. Rees; 1799:3, 4.

Bertakis KD, Azari R. Determinants of physician discussion regarding tobacco and alcohol abuse. *J Health Commun.* 2007;12(6):513-525.

Biggs H. The public health. *Monthly Bulletin of the Department of Health of the City of New York.* 1913;3:150.

Brais B. Desiree Magloire Bournville and French anticlericism during the Third Republic. In: Porter D, Porter R, eds. *Doctors, Politics and Society: Historical Essays.* Amsterdam, Netherlands: Rodopi; 1993:82-107.

Brewer RA, Jones JS. Reporting elder abuse: limitation of status. *Ann Emerg Med.* 1989;18(11):1217-1221.

Brissette I, Gelberg KH, Grey AJ. The effect of message type on physician compliance with disease reporting requirements. *Public Health Rep.* 2006;121(6):703-709.

Bristol N. HPV vaccine: should it be mandatory for school girls? *CQ Researcher.* 2007;17(18):409-432.

Cagliero E, Levina EV, Nathan DM. Immediate feedback of HbA1c levels improves glycemic control in type 1 and insulin-treated type 2 diabetic patients. *Diabetes Care.* 1999;22(11):1785-1789.

Centers for Disease Control and Prevention. Guidelines for preventing the transmission of Mycobacterium tuberculosis in health care settings, 2005. *MMWR Recomm Rep.* 2005;54(RR-17):1-141.

Centers for Disease Control and Prevention. *National Diabetes Fact Sheet 2005.* http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2005.pdf. Accessed September 30, 2007.

Centers for Disease Control and Prevention. *Reported Tuberculosis in the United States, 2006.* Atlanta, GA: U.S. Department of Health and Human Services, CDC; September 2007.

Centers for Medicare and Medicaid Services. Approval of West Virginia's Medicaid plan amendment. Letter from Dennis G. Smith, Director, CMS. http://www.wvdhhr.org/bms/oAdministration/bms_admin_WV_SPA06-02_20060503.pdf. Accessed November 5, 2007.

Chalk R, King P. Health care interventions. In: Chalk R, King PA, eds. *Violence in Families: Assessing Prevention and Treatment Programs.* Washington, DC: National Academy Press; 1998:223-224.

Christakis NA, Fowler NH. The spread of obesity in a large social network over 32 years. *N Engl J Med.* 2007;357(4):370-379.

City of New York Office of the Mayor. Executive Order No. 41. City-wide privacy policy and amendment of Executive Order No. 34 relating to city policy concerning immigrant access to city services. 2003.

http://www.nyc.gov/html/imm/downloads/pdf/exe_order_41.pdf. Accessed November 2, 2007.

Colo Rev Stat sec 19-3-304 (2007).

Coulter ML, Chez RA. Intimate partner violence victims support mandatory reporting: for others. *J Fam Violence*. 1997;12(3):349-356.

Daniels SR, Baumhover LA, Clark-Daniel CL. Physicians mandatory reporting of elder abuse. *Gerontologist*. 1989;29(3):321-327.

Ellerbeck EF, Ahluwalia JS, Jolicoeur DG, Gladden J, Mosier MC. Direct observation of smoking cessation activities in primary care practice. *J Fam Pract*. 2001;50(8):688-693.

Fox D. *Health Policies, Health Politics. The British and American Experiences*. Princeton, NJ: Princeton University Press; 1986.

Future II Study Group. Quadrivalent vaccine against human papillomavirus to prevent high-grade cervical lesions. *N Engl J Med*. 2007;356(19):1915-1927.

Gaede P, Videl P, Larsen N, Jensen GV, Parving HH, Pedersen O. Multifactorial intervention and cardiovascular disease in patients with type 2 Diabetes. *N Engl J Med*. 2003;348(5):383-393.

Gasner MR, Maw KL, Feldman GE, Fujiwara PI, Frieden TR. The use of legal action in New York City to ensure treatment of tuberculosis. *N Engl J Med*. 1999;340(5):359-366.

George T. Using law to facilitate healthier lifestyles. *JAMA*. 2007;297(18):1981-1982.

Gupta M. Mandatory reporting laws and the emergency physician. *Ann Emerg Med*. 2007;49(3):369-376.

Hardy A. Lyon Playfair and the idea of progress. In: Porter D, Porter R, eds. *Doctors, Politics and Society: Historical Essays*. Amsterdam, Netherlands: Rodopi; 1993:46-81.

Harris J, Holm S. Is there a moral obligation not to infect others? *BMJ*. 1995;311(7014):1215-1217.

Himes JH, Dietz WH. Guidelines for overweight in adolescent preventive services: recommendations from an expert committee. *Am J Clin Nutr.* 1994;59(2):307-316.

Houry D, Feldhaus K, Thorson AC, Abbott J. Mandatory reporting laws do not deter patients from seeking medical care. *Ann Emerg Med.* 1999;34(3):336-341.

Houry D, Sachs CJ, Feldhaus KM, Linden J. Violence-inflicted injuries: reporting laws in the fifty states. *Ann Emerg Med.* 2002;39(1):56-60.

Howe R-A, Katz SN, McGrath M, et al. Child neglect laws in America. *Fam Law Quartr.* 1975;9(Spring):1-372.

Ingelfinger JR, Drazen JM. Registry research and medical privacy. *N Engl J Med.* 2004;350(14):1452-1453

Inglehart JK. Medicaid revisited—skirmishes over a vast public enterprise. *N Engl J Med.* 2007;356(7):734-740.

Johnson A, Ziolkowski GA. School-based body mass index screening program. *Nutr Today.* 2006;41(6):274-279.

Kolata G. States and V.A. at odds on cancer data. *New York Times.* October 10, 2007.

http://www.nytimes.com/2007/10/10/health/10cancer.html?pagewanted=2&_r=1&ref=health. Accessed October 13, 2007.

Landeros v Flood, 17 Cal 3d 399 (Cal 1976).

Larsen DL, Cannon W, Towner S. Longitudinal assessment of a diabetes care management system in an integrated health network. *J Manag Care Pharm.* 2003;9(6):552-558.

Maclean CD, Littenberg B, Gagnon M, Reardon M, Turner PD, Jordan C. The Vermont Diabetes Information System (VDIS): study design and subject recruitment for a cluster randomized trial of a decision support system in a regional sample of primary care practices. *Clin Trials.* 2004;1(6):532-544.

Malone KM, Hinman AR. Vaccination mandates: the public health imperative and individual rights. In: Goodman RA, Rothstein MA, Hoffman RE, et al, eds. *Law in Public Health Practice.* New York, NY: Oxford University Press; 2003:262-284.

May C, Allison G, Chapple A, et al. Framing the doctor-patient relationship in chronic illness: a comparative study of general practitioners' accounts. *Sociol Health Illn.* 2004;26(2):135-158.

McGee G. How much should Gardasil cost? *Scientist.* 2007;21(8):26.

McKenna MT, Wingo P, Gibson JJ. Letter to the editor. *N Engl J Med*. 2004;351(6):613.

Miller CD, Barnes CS, Phillips LS, et al. Rapid A1c availability improves clinical decision-making in an urban primary care clinic. *Diabetes Care*. 2003;26(4):1158-1163.

Minkler M. Personal responsibility for health? A review of the arguments and the evidence at century's end. *Health Educ Behav*. 1999;26(1):121-140.

Narayan KM, Boyle JP, Thompson TJ, Sorenson SW, Williamson DF. Lifetime risk for diabetes mellitus in the United States. *JAMA*. 2003;290(14):1884-1890.

National Cancer Institute. *Theory at a Glance: A Guide for Health Promotion Practice, Part II: Theories and Applications*. Bethesda, MD: National Institutes of Health; 2005:13-14. Publication No. 05-3896.

New York City Bureau of Tuberculosis Control. *Contact Investigation and Management Protocol*. <http://www.nyc.gov/html/doh/downloads/pdf/tb/tb-cpm-contact.pdf>. Accessed Oct 23, 2007.

New York City Bureau of Tuberculosis Control. *Guidelines for Hospitalization and Returning Tuberculosis Patients to the Community*. <http://www.nyc.gov/html/doh/downloads/pdf/tb/tb-protocol-discharge.pdf>. Accessed Oct 23, 2007.

New York City Bureau of Tuberculosis Control. *TB and the Law*. <http://www.nyc.gov/html/doh/downloads/pdf/tb/tb-law.pdf>. Accessed Oct 23, 2007.

New York State Department of Health Diabetes Prevention and Control Program. *The State of Diabetes in New York State: A Surveillance Report-2007*. http://www.health.state.ny.us/statistics/diseases/conditions/diabetes/surveillance/docs/report_1997-2004.pdf. Accessed September 30, 2007.

New York State Department of Health. *About the New York Cancer Registry*. Revised February 2007. <http://www.health.state.ny.us/statistics/cancer/registry/about.htm>. Accessed September 20, 2007.

New York State Department of Health. Managed care plan performance—2006. http://www.nyhealth.gov/health_care/managed_care/qarrfull/qarr_2006/qarr2006.pdf. Accessed September 20, 2007.

NY Soc Serv sec 420 (Consol 2007).

Offitt PA. Fatal exemption. *Wall Street Journal*. January 20, 2007:A10.

Ornstein C. California may start tracking HIV patients by name. *Los Angeles Times*. January 18, 2006.

Paavonen J, Jenkins D, Bosch FX, et al. Efficacy of a prophylactic adjuvanted bivalent L1 virus-like-particle vaccine against infection with human papillomavirus types 16 and 18 in young women: an interim analysis of a phase III double-blind, randomised controlled trial. *Lancet*. 2007;369(9580):2161-2170.

Parkin DM, Bray F. Chapter 2: the burden of HPV-related cancers. *Vaccine*. 2006;24(Suppl 3):S11-S25.

Philips LS, Ziemer DC, Doyle JP, et al. An endocrinologist-supported intervention aimed at providers improves diabetes management in a primary care site: improving primary care of African Americans with diabetes (IPCAAD) 7. *Diabetes Care*. 2005;28(10):2352-2360.

Porter D. Health care and the construction of citizenship in civil societies in the era of the Enlightenment and industrialisation. In: Cunningham A, Grell O, Jutte R, eds. *Health Care and Poor Relief in 18th and 19th Century Northern Europe*. London, England: Ashgate; 2002:15-31.

Porter D. *Health Civilization and the State. A History of Public Health from Ancient to Modern Times*. London, England: Routledge; 1999.

Porter D. Stratification and its discontents: professionalization and conflict in the British Public Health Service, 1848-1914. In: Fee E, Acheson RM, eds. *A History of Education in Public Health. Health that Mocks the Doctors' Rules*. Oxford, England: Oxford University Press; 1991:44-83.

Porter D, Porter R. The enforcement of health: the English debate. In: Fee E, Fox D, eds. *AIDS: The Burdens of History*. Los Angeles, CA: University of California Press; 1989:97-121.

Porter D, Porter R. The politics of prevention: anti-vaccinationism and public health in nineteenth-century England. *Med Hist*. 1988;32(3):231-252.

Porter R, O'Hara J. Better health through better data. *San Diego Union-Tribune*. June 22, 2001:B-8.

Public Hearing on Intention to Amend Article 13 of the New York City Health Code. (August 16, 2005).

Regular meeting of the Philadelphia County Medical Society. November 14, 1900. *JAMA*. 1900;35:1426.

Reiniger A, Robison E, McHugh M. Mandated training of professionals: a means for improving reporting of suspected child abuse. *Child Abuse Negl.* 1995;19(1):63-69.

Rodriguez MA, Craig AM, Mooney DR, et al. Patient attitudes about mandatory reporting of intimate partner violence; implications for health care professionals. *West J Med.* 1998;169(6):337-341.

Rodriguez MA, McLoughlin E, Bauer HM, Paredes V, Grumbach K. Mandatory reporting of intimate partner violence to police: views of physicians in California. *Am J Pub Health.* 1999;89(4):575-578.

Rodriguez MA, McLoughlin E, Nah G, Campbell JC. Mandatory reporting of domestic violence injuries to the police: what do emergency department patients think? *JAMA.* 2001;286(5):580-583.

Rosen G. Political order and human health in Jeffersonian thought. *Bull Hist Med.* 1952;26(1):32-44.

Sachs CJ, Koziol-McLain J, Glass N, Webster D, Campbell J. A population-based survey assessing support for mandatory domestic violence reporting by health care personnel. *Women Health.* 2002;35(2-3):121-133.

Sachs CJ, Peek C, Baraff LJ, Hasselblad V. Failure of the mandatory domestic violence reporting law to increase medical facility referral to police. *Ann Emerg Med.* 1998;31(4):488-494.

Scott HD, Thacher-Renshaw A, Rosenbaum SE, et al. Physician reporting of adverse drug reactions. Results of the Rhode Island Adverse Reaction Reporting Project. *JAMA.* 1990;263(13):1785-1788.

Shrady GF. The health board and compulsory reports. *Medical Record.* 1897;51:126.

Silver LD, Berger DK. *Improving Diabetes Care for All New Yorkers.* New York, NY: City Department of Health; 2005.
<http://www.nyc.gov/html/doh/downloads/pdf/diabetes/diabetes-presentation-a1c-registry.pdf>. Accessed September 30, 2007.

Simon J. *English Sanitary Institutions.* London, England: Churchill; 1890.

Solomon J. West Virginia's Medicaid changes unlikely to reduce state costs or improve beneficiaries' health. *Center on Budget and Policy Priorities.* May 31, 2006. <http://www.cbpp.org/5-31-06health.pdf>. Accessed November 5, 2007.

Solomon SG, Hutchison JF. *Health and Society in Revolutionary Russia.* Indianapolis, IN: Indiana University Press; 1990.

Steinbrook R. Imposing personal responsibility for health. *N Engl J Med*. 2006;355(8):753-756.

Taylor Z, Nolan CM, Blumberg HM. American Thoracic Society; Centers for Disease Control and Prevention; Infectious Diseases Society of America. Controlling tuberculosis in the United States. Recommendations from the American Thoracic Society, CDC, and the Infectious Diseases Society of America. *MMWR Recomm Rep*. 2005;54(RR-12):1-81.

Trask J. Vital statistics: a discussion of what they are and their uses in public health administration. *Public Health Rep*. 1915;30(Suppl. 2):97-137.

Virchow R. *Public Health Reports*. Rather LJ, ed. Vol 2. Maryland: Science History Publications; 1986:307-319.

Weiss BP, Strassburg MA, Fanin SL. Improving disease reporting in Los Angeles County: trial and results. *Public Health Rep*. 1988;103(4):415-421.

West Virginia Bureau of Public Health. *West Virginia Healthy People 2010*. July 2001. <http://www.wvdhhr.org/bph/hp2010/objective/contents.html>. Accessed November 5, 2007.

West Virginia Health Statistics Center. West Virginia Bureau of Public Health. *West Virginia 2005 Vital Statistics*. <http://www.wvdhhr.org/bph/oehp/hsc/pubs/vital05/index.htm>. Accessed November 5, 2007.

WHDH-TV, Associated Press. Teen jailed in Georgia over tuberculosis care will be deported with mother, officials say. <http://www3.whdh.com/news/articles/national/BO61418>. Accessed November 8, 2007.

Willis BM, Schwartz LP, Knowlton SB. Tuberculosis control laws—United States, 1993. Recommendations of the Advisory Council for the Elimination of Tuberculosis (ACET). *MMWR Recomm Rep*. 1993;42(RR-15):1-28.

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