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LECTURE

TWENTY-FIRST CENTURY CHALLENGES FOR LAW AND PUBLIC HEALTH*

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I feel deeply honored and thrilled to receive the McDonald-Merrill-Ketcham Award and to deliver this lecture.

This is my third trip to Indiana in the past eighteen months. I continue to be greatly impressed by the public health activities here at Indiana University and throughout the state.

In preparing for this presentation, I recognized that much of my career has involved legal and legislative aspects of public health—as the state epidemiologist in Minnesota, as director of the Occupational Health Program at the University of Massachusetts Medical School, as a relief worker in a Cambodian refugee camp in Thailand, as a researcher and educator in Central and Eastern Europe, and as a consultant to attorneys on toxic tort cases. In these roles and others, I have been impressed with the importance of the law in public health.

Before addressing some of the specific challenges and opportunities that confront law and public health, I will make some general statements concerning the subject of my presentation.

I. PUBLIC HEALTH

I am often asked, "What is public health?" I respond by describing typical daily activities that have been impacted by public health to make our lives safer and more healthful: drinking clean (and often, fluoridated) water, eating more nutritious meals (even with "Nutrition Facts" printed on packages of processed foods), driving safer and less polluting cars, regularly exercising, working in safer and more healthful workplaces, and, for many of us, having access to high quality, comprehensive health care, including preventive clinical services. All

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of this, and more, is the result of public health. Public health has accounted for about twenty-five of the thirty years of increased life expectancy in the United States since the turn of the century. Most people take all of this for granted—unless there is an outbreak of disease, an increase in the occurrence of some disease or injury, an outbreak of domestic or community violence, or a natural disaster.

When public health is most successful, public health activities—in public health practice, education, research, policy development and implementation, and administration and finance—are all almost invisible.

As stated in a landmark report of the Institute of Medicine in 1988,[1] public health is "what we, as a society, do collectively to assure the conditions in which people can be healthy." It takes a society to practice public health—not just public health professionals. Therefore, we need to assure that the public is in public health. We need to engage the public—a public that is largely ignorant and complacent about public health. However, as a 1996 Harris Poll demonstrated, the vast majority of Americans strongly support public health goals, like control of communicable disease, clean air, clean water, control of toxic wastes, and promotion of healthy lifestyles.

II. THE LAW

Laws concerning public health, at the national, state, and local level, are designed primarily to protect and promote health, and, at the same time, to ensure the rights of individuals. In various situations, different laws take precedence. Public health legal powers derive from the United States Constitution and the state constitutions. Many states have reasonably well-defined codes of public health that provide a basis for public health practice. Many state and local health officers are not fully aware of all the public health powers that they have—powers that can enable them to take necessary actions. For example, in a city in Massachusetts recently, the public health council realized existing laws enabled it to take actions to support a needle exchange program to prevent transmission of HIV and other pathogens. Many public health laws are enacted and enforced under the state's police powers—something that can cut both ways. Many of us public health professionals do not see ourselves as police officers; indeed when we come across as police officers, we may be undermining the public trust that is so essential for our work.

A prominent textbook on public health[2] outlines eight areas of public health law:

1. Environmental Health Laws.—These deal with food, workplace safety, wastewater disposal, and air pollution. Issues often arise concerning right of entry and compensation—not only compensation to victims who may have been harmed, but also compensation to those whose property may have been taken as

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1. INSTITUTE OF MEDICINE, REPORT BY THE COMM. FOR THE STUDY OF THE FUTURE OF PUBLIC HEALTH (1988).

2. F. DOUGLAS SCUTCHFIELD, M.D. & C. WILLIAM KECK, M.D., M.P.H., PRINCIPLES OF PUBLIC HEALTH PRACTICE (1997).

a result of public health measures.

2. Laws and Regulations on Reporting (Surveillance) of Disease and Injury.—These enable public health workers to track disease, to identify disease outbreaks, to identify disturbing disease and injury trends, and to provide the basis for intervention to control disease and injury. Many of these laws and regulations transcend an individual's or a patient's right to privacy. Even though physicians are mandated to report specific diseases and injuries of public health importance, most do not; much disease and injury reporting rests on reporting from state laboratories or other sources of data.

3. Laws Pertaining to Vital Statistics.—Birth and death records provide an important basis for much public health work, despite frequent inaccuracies, especially in the cause of death recorded on death certificates.

4. Disease and Injury Control.—These laws often focus on prevention of disease and injury at the community level. Many policies and programs on such issues as tobacco and alcohol control—like preventing teenagers from drinking and smoking—pertain to this area of public health law.

5.. Involuntary Testing.—These laws provide a basis to determine disease prevalence, such as prevalence of HIV/AIDS in a given community, and to identify those who need treatment or restriction from work. In many jurisdictions, food handlers are tested on a regular basis to determine if they have certain infections that might be spread through food preparation.

6. Contact Tracing.—Voluntary in nature, contact tracing has proven to be a very effective and efficient way of controlling diseases, such as tuberculosis and sexually transmitted diseases. It played an important role in the worldwide eradication of smallpox.

7. Immunization and Mandatory Treatment.—The book *How Can I Help?*[3] describes a dramatic episode in India during the smallpox eradication campaign: An international immunization team invaded a household in the middle of the night to forcibly vaccinate a family against their will. This episode raises many interesting legal, sociocultural, and public health questions.

In the United States and many other countries, laws that mandate certain immunizations exempt people who have religious objections to immunizations.

We need also recognize that even safe and efficacious immunizations can be fatal to some people who receive them. Approximately one in a million people who receive polio vaccine may actually contract and die from polio.

8. Personal Restrictions.—Public health authorities have the right to restrict a person carrying salmonella bacteria from working as a food handler. In the past, public health workers often quarantined people who had contagious diseases of public health significance, such as tuberculosis, before effective drugs were available. Quarantine is a form of isolation; while we believe that we are well beyond the age of quarantine, some people believe that we will need to quarantine in the future those infected with resistant infectious agents that pose public health threats. While quarantine is seldom used in the United States

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3. RAM DASS & PAUL GORMAN, HOW CAN I HELP?: STORIES AND REFLECTIONS ON SERVICE (1985).

today, Cuba has quarantined (isolated from the rest of society) people infected with HIV.

III. THE FUTURE

I am often asked, "What will the future of public health be like?" I do not know. None of us know. None of us has a crystal ball.

The reality is that we create the future. The future will be determined by our efforts—collectively, as a society. As Dr. Bill Foege, former director of the Centers for Disease Control and a former president of American Public Health Association, has said, humankind now has the capability to create the kind of future we want. Much, of course, depends on the political and popular will to do so.

IV. CHALLENGES FOR LAW AND PUBLIC HEALTH

For the rest of my presentation, I will focus on twelve important challenges that will affect law and public health as we move into the Twenty-first Century.

In Chinese, the word for "crisis" has two symbols: One symbol stands for danger, and the other symbol stands for opportunity. In many ways, each of the twelve challenges that I will discuss has dangers and opportunities. How we, as a society, address these challenges will determine what happens in the future concerning law and public health.

A. The Genetics Revolution

Perhaps the most profound impact on law and public health in the Twenty-first Century will be as a result of the genetics revolution. The Human Genome Project, which is determining where all of the 75,000 to 100,000 human genes are located, will be completed ahead of schedule—before the year 2005. Not only will we know where all human genes are located, but we will be well on our way to knowing what many of these genes do—and identifying genes that cause disease or confer a high risk of disease to people who carry these genes. There are many important legal, ethical, social, and other questions related to the genetics revolution that are not being addressed adequately.

In about ten years, it may be easy for many of us to learn the make-up of our genome. It is predicted that each of us will have five to forty abnormal genes that confer a high risk of disease. Who should have access to this information? Your employer? Your state or federal government? Your life insurance company? Your health plan? Family members?

I recently attended a conference where a leading government scientist presented a paper on the interaction of a genetic deficiency with an environmental exposure in causing disease. It was a wonderful presentation from a scientific perspective, but neither the presenter nor anyone in the audience addressed the legal and ethical dimensions of this work. Scientists can no longer just perform research; they must be concerned with the relevant policy and practice issues that evolve from their work.

There are other issues here as well. Should workers be genetically screened before entering certain jobs? Should any such screening be voluntary or

involuntary? Should such screening be mandated in any circumstances? Many difficult questions are not now being adequately addressed.

In this week's issue of *Newsweek*, the feature article reports:

> [R]outine genetic screening early in the next century will [identify] the health risks specific to each individual. . . . [T]hose born in the future will probably not have to sit through so many public-service exhortations about fitness. . . . Instead, doctors will tell them which particular risks they run, and what they have to do to stay alive—including, for example, the nutritional supplements that will do them the most good.[4]

We need to provide public health leadership for this brave new world.

B. Access to Quality Health Care

In the United States, we now have a market-driven system of health care—a system where "services" have been replaced by "products," compassion has all too often been replaced by cost containment, and stakeholders have been replaced by stockholders. As market-driven health care is sweeping the country, access to quality health care is being imperiled. Forty-four million people are uninsured, and one million more people are added to this number each year. And most of the rest of us Americans are underinsured. Look carefully at your own health insurance policy—if you are fortunate enough to have one—and see what it covers and what it does not cover. I will bet it does not cover much, if anything, in dental care, care for mental health disorders, vision care, or podiatric care. It probably limits coverage for many other types of care.

In many other ways, our health care system is also in crisis. People covered by Medicare or Medicaid watch their coverage shrink. For-profit managed care organizations seem not to be interested in serving certain populations once they have amassed one-time windfall profits. The United States is the richest country in the world, but ranks twenty-eighth in infant mortality. Our nation is the only Western democracy without any kind of national health plan or system to assure health care coverage for all.

C. Access to Reproductive Health Services

An important part of ensuring the conditions in which people can be healthy is access to reproductive health services, from sex education to abortion. Access to abortion services is not a reality for many women in this country. In addition, abortion service providers are often harassed—and sometime killed. Access to a wide range of reproductive health services will continue to be an important issue as we move into the Twenty-first Century, involving in part, not only the passage of laws and regulations, but also their full implementation.

D. Alternative Health Care

One-third of the U.S. population uses a variety of services and products in

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4. Jerry Adler, *Tomorrow's Child*, NEWSWEEK, Nov. 2, 1998.

the arena of alternative and complementary health care each year—ranging from chiropractic and massage therapy to vitamins and minerals. These services and products are generally not evaluated for safety or efficacy. The Journal of the American Medical Association recently published a report evaluating therapeutic touch, written by an eleven-year-old girl, to make this point.[5] On a positive note, the relatively new Office of Alternative Medicine at the National Institutes of Health, though woefully underfunded, is striving to evaluate the safety and efficacy of these modalities. In 1997, it held a consensus conference on acupuncture, which promulgated helpful information to practitioners and the public at large. Developing and disseminating this kind of information needs to be done on a much broader scale.

E. Population Changes

The U.S. population is become more diverse and, on average, older. In the United States, diversity has always been our strength. Now we are more culturally diverse than ever before. There are over 100 languages spoken in the schools in Los Angeles, and a surprising number spoken in schools here in Indianapolis and many other places across the country. We need to ensure that health services are available—geographically and culturally—to all people in this country, even people who may be classified as illegal aliens.

The United States has an aging population, as is true in many countries. We need to ensure that health services are available to people of all age groups. The fastest growing age group in the United States is eighty-five and older. By the year 2050, there will be one million people in this country over the age of 100.

Migration between and within countries is another important population issue worldwide. In many of the less-developed countries, young men, in search of jobs, migrate from rural to urban areas, often leaving behind their wives and children at home in the countryside. This type of migration often puts women under great physical and sociocultural stress. Men, who may or may not find jobs in the city, are at high risk of substance abuse, sexually transmitted diseases, and other health problems.

There is also much migration of people between countries—people who often give up their rights as they move from one country to another. Worldwide, fifty million refugees have been uprooted, approximately half of them within the borders of their own countries—as "internally displaced persons," without easy access to food, clothing, shelter, or medical care and other human services. We should be very concerned about the legal issues—global and international legal issues—regarding refugees and their health.

F. The Emergence and Re-emergence of Infectious Diseases

In this area, there are very many important issues, such as issues concerning disease reporting, contact tracing, and confidentiality of information; safety of food and water; increasing resistance of microorganisms to antibiotics; screening

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5. Linda Rosa et al., *A Close Look at Therapeutic Touch*, 279 JAMA 1005 (1998).

of individuals, such as screening pregnant women and/or infants for HIV infection; and imposition of control measures that may infringe on individuals' freedom or corporate profits.

G. The Information and Communication Revolution

There are many opportunities here, such as improved communication with other professionals and the public at large and better ways of gathering, analyzing, and disseminating data. But there are also dangers, such as breaches of confidentiality. For example, my wife, children, and I receive our health care from one of the best health maintenance organizations ("HMOs") in the United States. But three years ago, the *Boston Globe* reported that any employee of that HMO could access by computer any patient's medical data, including psychiatric records. This deficiency was very quickly corrected, but I wonder how many other HMOs across the country have similar lapses in protecting confidential data. These developments raise concerns for the law and public health. We could see a backlash on confidentiality such that public health practitioners and researchers do not have necessary access to data of public health importance.

We in public health and in the law should be concerned about this possible backlash. On one hand, we should ensure appropriate confidentiality of data, but not such confidentiality that people who need access to these data in order to protect the public's health do not have such access.

H. Tobacco

The law has a profound set of impacts on tobacco policies and programs as they pertain to the public's health. Each day, more than 1000 Americans die of tobacco-related disease. Each day, 3000 people begin smoking in the United States—most of them teenagers, some of them fourth-graders. In Indiana, forty-two percent of high school seniors smoke—and the percentage is higher in subgroups of this population. While the overall level of smoking in this country has decreased from about forty percent to about twenty-five percent in the past few decades, the smoking rate has been increasing among teenagers and other subgroups of the population.

For every person in the United States who quits smoking, approximately three people in other countries start smoking American tobacco. No surprise then that the tobacco industry is willing to agree to settlements of lawsuits here in the United States, as long as these settlements do not interfere with tobacco sales abroad. In Vietnam and some countries in the Middle East and Central and Eastern Europe, more than two-thirds of adults smoke. Thailand, recognizing the human and economic adverse effects of cigarettes, resisted for many years the import of American tobacco. Under great pressure from the United States and ultimately the World Trade Organization, Thailand was forced to relent and to import American tobacco. Tobacco will clearly continue to be an important public health issue in the Twenty-first Century on which those of us in law and public health need to continue to work closely together.

I. Violence

The United States has the highest rate of gun-related fatalities in the world—more than four times higher than the country with the second highest rate. Gun-related violence is both a public health issue and a legal issue.

There are approximately twenty-five civil wars taking place during 1998, as there have been in each year of the 1990s. During this decade, civilian deaths have accounted for 90 percent of all war-related fatalities—many of them women and children. There are a number of international legal issues here, such as when it is right for the global community to intervene in a civil war. We said that we learned a lesson from the Holocaust: Never again. Then came the Cambodian genocide, the Rwandan genocide, and other mass killings in which no external force intervened until it was too late.

J. Chemical Hazards in the Workplace and the Ambient Environment

There are approximately 80,000 chemicals in commercial use, with about 1000 more added each year. Approximately 15,000 of these are in widespread commercial use. In this arena, development and implementation of laws and regulations has led to important progress. As a result of the Toxic Release Inventory, for example, companies provide to the public information on what they are emitting into the air and water in their communities. Right-to-know legislation at the state and federal level, starting in the 1970s, has had a profound impact on enabling workers and community residents to know to what substances they are being exposed. Yet relatively few of the approximately 80,000 chemicals in commercial use have been adequately evaluated for adverse health effects. Relatively little research has been performed on protecting vulnerable populations from chemical hazards. Many laws and regulations are designed to protect most people in the community—but not necessarily infants and children, senior citizens, pregnant women, people who are immunocompromised, those with certain health conditions, those on certain medications, and those who are at heightened risk of adverse health effects from chemicals for other reasons. We need to improve how we control chemical hazards in both the workplace and the ambient environment.

K. The Export of Hazards

The United States and other more-developed countries export to less-developed countries many hazardous substances, including pesticides, tobacco, and dangerous pharmaceutical products. Many of these substances have been banned for sale in the United States and other more-developed countries, which have limited, if any, restriction on their export and sale elsewhere.

I have consulted to plaintiffs' attorneys on an international situation involving the export of the pesticide dibromochlorpropane ("DBCP") from the United States to many less-developed countries. DBCP was banned in the United States in the late 1970s because it was then demonstrated to cause sterility in men. For the purpose of a lawsuit against American companies that had been exporting DBCP to those countries after it was banned in the United States, these attorneys identified more than 26,000 men in these countries who had evidence

of sterility or reduced fertility. Although the companies were fully aware of the hazards of DBCP, these men, who applied DBCP on banana and pineapple plantations, were not at all aware of these hazards. The adverse health impacts of the export of hazardous substances on people in less-developed countries, I believe, are widespread and serious. But these problems are rarely detected for a number of reasons—inadequate access to medical care; inadequate or nonexistent systems for surveillance of disease and for research; workers so desperate for jobs and nations so desperate for economic development that they are willing to overlook health hazards; and the presence of even more serious health problems, like malaria, AIDS, and waterborne diarrheal disease, in these countries.

The United States even exports entire hazardous industries. For example, some U.S. industries have moved their plants a short distance from southern states across the border to Mexico, where occupational and environmental laws and regulations are less stringent, and where workers' pay and benefits are far less than they are in the United States.

L. Global Public Health Issues

These issues, including global warming and the depletion of the stratospheric ozone layer, deal with how well we protect the global commons.

Vice President Al Gore would like the United States to launch a satellite that would constantly beam a televised image of the earth in order to constantly remind us of the preciousness and fragility of our planetary environment and our need to conserve nonrenewable resources and to reduce pollution of our air, water, and soil.

International agreements on global environmental protection, such as the 1997 Kyoto Agreements to limit emissions of greenhouse gases and thereby reduce global warming, offer some hope. But the euphoria that accompanied the signing of the agreements ten months ago has dissipated as nations now contemplate the challenges of implementing them.

The world of the Twenty-first Century is likely to be heavily impacted by trade agreements. The ability of national governments to regulate air pollution, water pollution, and occupational health and safety may be seriously weakened as regional and global trade agreements are developed and implemented.

V. RELATED ISSUES

These twelve sets of challenges should not overwhelm us. We need not become experts in all twelve areas. But we must understand the dangers and the opportunities that these challenges represent for law and public health as we move into the Twenty-first Century.

There are other important issues intimately connected with the twelve challenges.

A. Campaign Financing

On Election Day, next Tuesday, we may elect the best Congress that money can buy. Not only does money too often buy election victories, but also our

legislators are spending increasingly more time fundraising. The average Congressperson attends three fundraising events daily—just to raise money for the next election campaign. Campaign finance reform at the national and state level is a critically important issue for the law and public health.

B. Control of the Mass Media

Should a tobacco company own a newspaper chain? Should a firearms company own a television station? There are important legal, ethical, and public health issues concerning ownership and control of the mass media. The current situation in which a few large conglomerates control the mass media in the United States can be inimical to the goals of public health.

C. Underlying Factors

Virtually all public health problems have underlying social and cultural factors and abrogations of human rights that contribute to their causation. This is the fiftieth anniversary year of the signing of the Universal Declaration of Human Rights ("UDHR"). One of the thirty articles in the UDHR states that people should have their basic health rights protected. The late Dr. Jonathan Mann, founding director of the Global Program on AIDS of the World Health Organization, concluded that the AIDS pandemic was a result not only of HIV transmission, but also the abrogation of human rights. In championing the relationship between health and human rights, he asserted that the UDHR provides a coherent framework and systematic approach to identify and ensure the conditions in which people can be healthy—in other words, a framework and approach to ensure the goal of public health.

Article 25 of the UDHR states all people should have their basic human rights protected:

> Everyone has a right to a standard of living adequate for the health and well-being of [oneself] and [one's] family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond [one's] control.

If we use Article 25 of the UDHR as a yardstick to assess how our global society is doing, we are falling way short.

Legal and public health professionals can do much to assure that basic human rights are protected and, in turn, that we as a society, assure the conditions in which people can be healthy.

VI. WHAT WE NEED TO DO

A. Listen

We need to think globally but act locally. First, however, we need to go out and listen to the people in the communities that we serve in order to understand their needs better.

B. Educate

We need to educate ourselves and our colleagues, and people throughout society on the issues discussed today and other important issues of law and public health, because it takes a society—an informed and educated society—to practice public health.

C. Advocate

We need to advocate for assuring the conditions in which people can be healthy. If we do not advocate for these conditions, and the basic human rights on which they are based, perhaps no one else will. We need to be more effective advocates for public health.

D. Collaborate

We need to collaborate to form broader partnerships between ourselves and others in the community in order to achieve the goal of public health. We need to ensure that the public is engaged in public health.

VII. WHO WE NEED TO BE

A. Values

Values are what brought many of us into the careers for which we are studying or in which we are practicing at the present time. Values such as equity, integrity, human dignity, prevention of disease and injury, and protection of human rights—these and other values are essential for public health. They are the basis of many public health laws and regulations. They are the basis of our state and national constitutions. If we do not articulate these values, perhaps no one else will.

There is a crisis of values in our nation today, as poet and author Marianne Williamson and others have asserted. She has stated that we, as a nation, "comfort the comfortable and afflict the afflicted." Data show that the rich are getting richer, and the poor poorer. The richest one-fifth of people worldwide own eighty-five percent of the wealth; the poorest one-fifth of people own one percent of the wealth. The gaps between the rich and poor countries have doubled in the past thirty years. The gaps between the rich and the poor in this country are as wide as they have ever been.

We need to articulate our public health values and assure that they are embodied in laws and regulations that are passed and implemented.

B. Vision

Also critical to the future of law and public health is vision. Were it not for people with visions fifty years ago, we would not be on the brink of worldwide polio eradication today. Were it not for people with visions twenty-five years ago, we would not have progressive smoking policies today—we might not be meeting in a smoke-free facility. We need to have visions—even seemingly

impossible visions. As Robert Kennedy said, "Some people see things as they are and ask, 'Why?' I dream things that never were and ask, 'Why not?'" We need to dream things that never were and ask, "Why not?"

C. Leadership

We need to have leadership to translate these values and visions into reality. Each and every one of you and your colleagues are leaders in law and public health—leaders with expertise, commitment, and courage—leaders who not only do things right, but who also choose to do the right things.

I recently told a visiting professor from England to Tufts Medical School, where I have an adjunct faculty appointment, that we in public health in this country are having a difficult time getting a seat at the managed care table. He laughed and said, "We in public health in England see ourselves as the table." We in the law and public health in the United States need not always fight to get a seat at the table where decisions are being made. Instead, we need figuratively to be the table. We often have the legal and legislative mandate to be the table. We must ensure that public health decisions should be made in a public health framework—a framework that includes participation by people from not only the law and from the public health professions, but from all of society. We in the law and public health should be framing issues, obtaining and analyzing relevant data, and bringing people from all segments of society together to discuss issues and make societal decisions—decisions about public health. Being the table is a key element of leadership.

We leaders may not see the impact of our leadership during our lifetimes, and we may not receive the appreciation and acknowledgment that we may think we deserve. But our true acknowledgment ultimately will be in how well the goals for which we are striving are adopted by our communities, locally and globally. As is stated in a wonderful poem, which was written 2500 years ago by Lao Tsu:

> Go to the people,
> Learn from them,
> Love them,
> Start with what they know,
> Build on what they have;
> But of the best leaders,
> When their task is accomplished,
> Their work is done,
> The people will remark,
> "We have done it ourselves."

The values, vision, and leadership that we in the law and in the public health professions provide will help bring about the true goal of public health—assurance of the conditions in which people can be healthy.