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The Community as Patient: Ethical Principles for the Practice of Population Medicine

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What Is a Preventive Medicine Physician, Anyway?

In 1988, Suzanne Dandoy, a past president of the American College of Preventive Medicine (ACPM), published a seminal article in the *Journal of the American Medical Association*, "Have You Ever Practiced Medicine?" [1] In the article, Dandoy wrote,

> *That same question has been asked of me in many ways since I graduated from medical school 28 years ago. Sometimes the words are "When did you decide to leave medicine and go into public health?" "Do you miss never having practiced medicine?" or "What made you decide to go into public health?"*

Dandoy continued,

> *Even now, most physicians involved in clinical practice have only a vague comprehension of what a physician who is board certified in preventive medicine/public health does.*

Readers of this article are likely to have a clearer understanding of preventive medicine. Preventive medicine physicians are trained in both clinical and population medicine; they straddle the worlds of dyadic, patient-physician medicine and the more broadly based practices of health policy, epidemiology, economics, insurance, management, the environment, and other population-oriented approaches to healthcare. Practicing population medicine is one form of the practice of medicine. [1]

Clinical vs Population Medicine

Clinical and population medicine physicians have many similarities. Both require an understanding of evidence-based literature, comfort with interpreting clinical research studies, the ability to diagnose and prescribe courses of action, and knowledge of how to communicate the risks and benefits of those courses of action. In clinical medicine, a course of action is a *treatment,* whereas in population medicine it is a *program.*

Clinical and population medicine differ substantially. Clinical medicine establishes diagnoses through the history and physical examination of the individual. Population medicine determines diagnoses through the evaluation of patterns in populations. Clinical medicine treats the individual through medical, surgical, or rehabilitative means, sometimes having to choose between what is best for the individual vs for the community as a whole. Population medicine uses programs to treat defined population groups, with an emphasis on choosing the best course of action for the community vs any particular individual. This can create moral discomfort in trying to mediate the balance between the community and the individual.

Although population medicine requires clinical skills, it also requires certain competencies, actions, and skills not used in typical individual-oriented clinical environments, such as:

- appreciating the transmission of disease within defined populations;
- contact tracing;
- knowing how to gather, analyze, and evaluate data of groups;

- evaluating the effectiveness of health services delivery;
- being familiar with legal, ethical, and regulatory issues in public health;
- evaluating worker safety and health and environmental risk conditions; and
- managing the establishment and ongoing provision of healthcare and prevention services, including financial and budgeting controls and resource allocation.

Conflicts Between the Good of the Individual and the Good of the Community

Many conflicts in medicine, both clinical and population, result in moral dilemmas for physicians. For example, patient privacy and confidentiality in clinical medicine are sometimes violated for government-mandated disease reporting or suspected child abuse. Benatar and Upshur [2] nicely summarize this tension:

> *...these questions and dilemmas fall into 2 main categories: how universal principles of medical ethics are to be implemented in diverse circumstances and how the tensions between professional responsibility to individuals and professional responsibility to society and the common good can be resolved.*

The population medicine physician's primary responsibility is to the population or community while being mindful and considerate of individual liberties. This is the opposite of dyadic clinical medicine, where the focus is on loyalty to the individual patient while being mindful of the population's needs and concerns.

It is this major distinction -- primary responsibility to communities vs individuals -- that governs the ethical principles under which population medicine physicians must work. Clinical physicians generally operate under the well-established guidelines of the American Medical Association's Code of Ethics, [3] which is primarily patient-focused. Until recently, however, other than broad principles proposed for the practice of public health in general, [4] population medicine physicians have not had a distinct code of ethics to guide their professional conduct.

ACPM's Code of Ethics

Within the organized field of medicine, population medicine is encompassed in the American Board of Medical Specialties-recognized medical specialty rubric of preventive medicine. [5] In 2009, ACPM adopted a Code of Ethics for the practice of preventive medicine. [6] This code was developed after surveying the membership for ethical concerns and dilemmas, reviewing the literature, consulting other specialty society codes of ethics, and discussing with the membership the implications of various drafts of the code. The code was adopted by the Board of Regents and ratified overwhelmingly by a vote of the ACPM membership.

The Code of Ethics provides standards of professional conduct for population medicine physicians. It also provides preventive medicine residency training programs with a professionalism training guide, and it gives the public at large a sense of understanding and trust in the level of professionalism that they can expect from population medicine physicians.

The 12 principles of the ACPM's code of ethics encompass the primary issues involved in the proper conduct of a physician engaging in population medicine. Throughout these principles, the emphasis is on the physician's primary responsibility to the population, while recognizing the tensions that this can produce within organized structures such as local, state, and federal governments (including the military) or companies that provide insurance or other worker benefits.

Principles for the Practice of Preventive Medicine

Many nuances of wording were considered during the development of the following principles for the practice of

preventive medicine. Additional notes that elaborate on the principles or describe exceptions for special circumstances can be found in the complete document. [6]

Principle 1. *Population medicine physicians will maintain an honest and forthright relationship with patients and communities, providing services, interventions, and information that reflect the best available level of scientific evidence. When the evidence is ambiguous, population medicine physicians will attempt to articulate a clear understanding of the ambiguity as appropriate and feasible so that individuals, community representatives, and policymakers can make fully informed decisions.*

In addressing population health concerns, physicians must be scrupulously honest about what is known about any particular situation at any given time. Early in public health emergencies, for example, uncertainty often is present about an emerging disease, its cause, or how to control it. The population medicine physician may be tempted to advocate a certain position on the basis of the physician's own perspective about balancing population anxiety with ambiguity, but that could preclude elected or appointed community decision-makers from developing fully informed policies and courses of action. Hence, ambiguity, when present, should be clearly articulated.

Principle 2. *Population medicine physicians will respect the law. Where they believe a law to be unwise, they will actively work to modify it. Where they believe a new law is needed, they will work toward its creation.*

Population medicine physicians often work hand-in-hand with lawmakers and administrators to implement healthcare programs. Sometimes they are placed in a position of having to comply with laws that are ill-advised for the public's health, a situation that can occur during public health emergencies. The population medicine physician needs to learn how to work within the legislative and regulatory environment, a competency that is rarely taught in typical clinical medicine residencies. That environment sets the stage for what is possible for a population medicine physician to do to protect the public's health. Therefore, it is incumbent upon a population medicine physician to initiate action to change, add, or abolish laws that inhibit optimal health practices or produce unjust results.

Principle 3. *Population medicine physicians will work actively to identify and eliminate actual or potential conflicts of interest, commitments, or conscience ("conflicts") that may prohibit or limit their abilities to provide objective, effective, and efficient services for their populations or patients. Population medicine physicians will fully disclose such conflicts to the parties that may be affected.*

Individual biases arise often in our lives. Frequently these biases arise out of financial interests, but they also may be a consequence of trying to maintain the integrity of our intellectual, emotional, and moral commitments. Hence, this principle requires disclosure not just of financial conflicts, but also of commitments and conscience that may inhibit the physician from providing objective advice for the population served.

Physicians often believe that they are immune to biases, that they can "put on their physician hats" and maintain a purely objective view of a problem and its solutions. They may feel that they can in some way disengage the bias side of their brains. This has been shown to be false and is even self-delusional. [7] In this respect, physicians think and act no differently from others. [8] They need to be particularly aware about allowing their biases to improperly influence their analyses and advice to communities or policy-makers.

Principle 4. *Population medicine physicians will respect the privacy and dignity of individuals and maintain health information as confidential and private except as required by law.*

Public and private institutions should be transparent in their decision-making processes when it involves information relevant to the health and welfare of patients and communities. Sunshine/open meeting laws should be respected. Unless it hinders the good-faith reporting of known risks to individuals or the public's health, population medicine physicians will respect the privacy of opinions expressed during the decision-making activities of organizations as well as intellectual property rights.

This principle reaffirms the necessity of individual privacy whenever possible. It also affirms the need for open and transparent public health-related deliberations and decision-making so that the populations affected will be able to see and trust the process and provide input where appropriate.

This principle also recognizes the need for individuals who practice population medicine to respect the rights to confidentiality of private organizations' deliberations and intellectual property. Yet the priority is clear: Such organizations' rights are secondary to the health of individuals and communities. Let us call this the "health priority," which this principle explicitly identifies as being higher than an organization's preference for confidentiality for financial or reputation purposes. For example, an occupational medicine physician working for a company that is polluting an aquifer that feeds into a community's water supplies would be obligated to disclose (or make sure the company discloses) the health hazards to the affected community.

This principle, like most of the others, does not detail *how* population medicine physicians (or their companies) must go about informing affected populations. But given the clear need for a competency in risk communication, population medicine physicians should counsel their companies to divulge information in a way that conforms with good risk-communication practices. [9,10]

Principle 5. *Population medicine physicians will respect international and national standards governing individual and population research. When the research rights and expectations of communities differ from those of individuals, population medicine physicians have the obligation to inform decision-makers.*

Many population medicine physicians conduct community-based research. As with clinical research, good research practices are important, particularly being mindful of the ethical issues associated with respecting cultures as well as international research guidelines and ethical principles. Recognizing some of the nuances of interpretation and controversies surrounding various guidelines evolving from or defined in the Belmont Report, [11] the Declaration of Helsinki, [12] and the Council for International Organizations of Medical Sciences, [13] researchers should be in compliance with the substance of these documents and are responsible for ensuring that the organizations with which they work also are in compliance.

Principle 6. *Population medicine physicians will strive to exhibit positive health behaviors and to be health role models for their communities and colleagues.*

In the "practice what we preach" vein, this principle tries to align theory with practice (orthodoxy with orthopraxy). [14,15] If population medicine physicians, who often espouse improved lifestyle choices in nutrition, exercise, avoidance of toxic substances, vaccinations, etc., are unable to comply with prevention advice, how can we expect individuals in the communities where we practice to do so? [16] At the same time, physicians who comply with good prevention practices are known to counsel patients more frequently to conform with healthy lifestyles. [17]

This was perhaps the most controversial of the principles proposed by the committee that developed the code of ethics. As originally proposed, this principle was more forceful:

> *Population medicine physicians will [incorporate/display] positive health attributes so as to be health role models for their communities and colleagues* .

Some physicians worried that if they were overweight or occasionally smoked a cigarette, they would be out of compliance with the Code. That was not the intent; hence we changed the wording. Furthermore, competencies [18] for prescribing good lifestyle behaviors for patients and populations are important for clinicians.

Principle 7. *Consistent with their personal circumstances, population medicine physicians have an obligation to serve as necessary in the face of population health threats, even when inherent personal risk exists.*

During the outbreaks of severe acute respiratory syndrome (SARS) in Canada, China, and elsewhere in 2003, concern was considerable about healthcare professionals withdrawing from care of patients because they were

worried about personal risk. This did not materialize to a worrisome level despite some colleagues contracting the disease. [19] The question was hotly debated afterwards: What is the level of risk to which physicians must subject themselves? Those who practice population medicine must recognize that emergency public health circumstances could arise in which they will need to take on a higher level of risk than during normal practice. Whereas the area of contagious disease has been the primary controversial concern, [20] other public health disasters are just as relevant, such as earthquakes, terrorist attacks, and hurricanes. [21]

Meanwhile, the ACPM Code recognizes that some circumstances may permit physicians to relieve themselves of this special obligation, as has been recognized by spiritual care advisers as well. [22] Such justifiable limits on the duty to care may include the need for an individual physician to care for his or her own children or elderly parents (assuming he or she is the sole caregiver), or a pregnant physician needing to safeguard her fetus from exposure. Generally not justifiable for withdrawal from care participation is the individual physician's heightened level of risk, except to the extent that such risk would place the physician at significant risk for death or disability.

Principle 8. *Where population medicine physicians identify areas of injustice in healthcare and public health, they will work toward resolving such injustices.*

Such injustices can be related to the way groups or individuals are treated with respect and kindness, finite resource distribution, attribution of cause and effect (for example, with Chinese populations related to SARS or influenza [21]), ease of provision of services, and choice of priorities given to studying problems or assessing needs.

Charter on Medical Professionalism

Several of the principles for practicing population medicine have evolved from the Medical Professionalism Project, [23] which also is incorporated into the ACPM Code of Ethics. These principles are called "a set of professional responsibilities" in the charter and are primarily clinically oriented. One of these responsibilities is the principle of openness and honesty, as mentioned above in Principle 1. Others, modified in some circumstances to reflect the uniqueness of population medicine practice, were teased out from broader professionalism principles. They include the following:

Principle 9. *Population medicine physicians will not discriminate against individuals or groups except where scientifically valid distinctions require different approaches to reducing morbidity and mortality.*

Banning discrimination (making decisions on the basis of relevant patient characteristics) would be nonsensical in medicine. Often, patient or population characteristics *are* relevant to courses of action. For example, we discriminate on age and sex when we recommend mammography screening only for women 50-74 years of age. [24] Although some would disagree with the exact age requirements (some say ages 40-74 years), all would agree that some age discrimination is appropriate. We use high-risk justifications for most screening and preventive treatments (eg, use of emtricitabine-tenofovir to prevent transmission of HIV). [25] Hence, the Code of Ethics permits discrimination when it can be justified scientifically.

Cornerstones of Being a Professional

The final 3 principles derived from the Charter are components of the practice of any profession: maintaining competence, recognizing limitations, and monitoring to ensure self-regulation of the quality and integrity of our colleagues.

Principle 10. *Population medicine physicians will be committed to professional competence through means of lifelong learning and skills development and maintaining such skills and competencies in the areas of their scopes of practice.*

Principle 11. *Population medicine physicians will identify limitations in their own skills and competencies and collaborate with other providers to strengthen the full-service capability for the health and welfare of individuals and*

populations for whom they provide services.

Principle 12. *Population medicine physicians have an affirmative duty to monitor ethical behavior and competency of their fellow population medicine physicians and others who practice population medicine, and to report to ACPM or another appropriate governing body any unethical or incompetent behavior.*

The Core of Proper Conduct

These 12 principles for the ethical practice of population medicine form the core of proper conduct for individuals involved in advising groups or communities, whether they work in public agencies (local, state, federal), insurance administration, the military, or schools. Balancing group loyalty and individual liberties is an important foundation of these principles, and the nuances are not always easily translated from clinical to population medicine. The practice of population medicine requires skills and competencies not typically learned in medical school or most residency programs. Physicians moving from clinical to population medicine should review these ethical principles and consistently affirm their compliance with them, just as we require yearly affirmation of members and fellows of ACPM.

Population medicine physicians do practice medicine, just not on individual patients. To quote Dandoy [1] one last time:

> *What led me into this field [of public health] was an awareness that I could affect the lives of people in large numbers, by preventing disease rather than by treating it. I realized that there are two types of patients: the individuals seen by most physicians and the groups of people at risk for some disease or condition. The community became my patient.*

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