

New developments in physics-based technology are greatly improving medical diagnosis and treatment. But they are also contributing to the current crisis in the U.S. health care system — i.e., its intolerable cost. Our health care expenditures are about twice as high per capita as those of other advanced countries and are rising at a rate that will soon threaten the viability of the federal budget and already imperil the survival of employer-based insurance. Rising costs prevent extension of coverage to the uninsured, whose numbers continue to increase. Despite exorbitant expenditures, we are not getting our money's worth. Even insured people often don't receive optimal treatment and our public health statistics place us only in the middle of four international peers who spend much less.

Among these several explanations offered for this paradox one stands foremost: The U.S. has allowed—even encouraged—its health care system to become a commercialized market, dominated by entrepreneurial institutions (“for-profit” and “not-for-profit”) and by entrepreneurial physicians who are motivated as much by income-generation as by the altruistic ethic of providing appropriate medical care to those who need it. Although about half of health expenditures are publicly funded, most of the insurance and delivery of medical services is controlled by the private health sector, much of which functions like businesses focused on generating income. In other countries, by contrast, health insurance and medical care are largely controlled by public agencies, and private investments are not nearly as prevalent.

Health economists agree that increased use of technology accounts for a major share of the higher medical expenditures in our system, and that physics-based instrumentation is a large contributor to this disparity. In other countries there is greater access to doctors and hospitals, but less use of expensive technology. There is much evidence that in the U.S. we greatly overuse technology, and there are at least four reasons: 1) Profits for those who invent, sell, prescribe and supervise it; 2) Inadequate evaluation of its cost-effectiveness; 3) Popular demand for new technology, generated in large part by the enthusiasm of the vested professional interests, by marketing and advertising, and by hype in the media; and 4) the willingness of insurers to reimburse for most technology that is approved by the FDA and recommended by physicians.

If our health care system is to meet the urgent needs of U.S. society, we will have to enact reforms that ensure the continued introduction and availability of worthwhile new technology, but weed out technology that does not meet rigorous scientific standards of cost-effectiveness, usefulness and safety. This will require broad-based reforms in our whole system, including the insurance, funding and organization of medical care. (Proposals are outlined in my recent book: "A Second Opinion. Rescuing America's Health Care." Public Affairs, 2007) We already spend enough money; we need only the political will to initiate the necessary reforms. Will AAPM read the handwriting on the wall and be part of the solution, or will it resist change?