THE FUTURE

ALBERT EINSTEIN HEALTHCARE NETWORK
REPORT

WE'D LIKE TO

INVITE YOU ALONG.

SHOULD WE LIVE FOREVER?

by a distinguished panel

Technology is going to change your mortality. But can it alter the core questions in medicine?

In the coming decades, we will prolong life in astounding ways, maybe even doubling current life spans. Genomics will allow us to reverse the characteristics of diseased tissue and to suppress illness- and aging-related genes altogether. Stem cell transplants may permit us to simply replace problem areas. Transplantation of mechanical, cultured, cloned or bioengineered organs, such as hearts, lungs and livers, will allow us to replace not only diseased organs but also those that have worn out.

The Star Trek version of medicine will indeed come to fruition in many ways. Few medical interventions will be invasive. Total, multimodality body imaging from a hand-held device is not such a conceptual leap. Small, wearable gadgets that monitor and administer drugs are here already.

In the future, nanomedicine will give us invisibly small devices that combine the features of medications, surgical tools, robots and diagnostic probes. Designer drugs will target specific organs or cells that are diseased without affecting other organs or non-diseased cells. Such tools will find and fix problems at the cellular and molecular levels. In addition, microsensors in prostheses will approximate and, in some ways, improve upon human limbs.

But high tech won't help us much if we can't fight off the oldest of challenges: infectious diseases. We may have to completely rethink our strategy for suppressing microbes, perhaps even letting the body resume more of its natural role in fighting infections.

Along each step of the way, we will have to ask, "What have we wrought?" Heavy moral and ethical dilemmas are the handmaiden of clinical advances and may define the limitations we impose upon medicine. As we face the confines of human viability and cost, we will be forced to find answers to questions like, "Who gets what kind of treatment and when?" Will those who self-inflict damage on their bodies, for instance, warrant the same resources? Physicians will have to rely on – and play active roles in defining – agreed-upon treatment pathways for guidance.

We must also overcome the biggest social restriction to state-of-the-science healthcare: access. Fairly providing everyone the care they need is something we must all address.

Partly, the politics of funding will dictate which research projects we address first. Still, no matter how much we feel we've conquered disease, we will never be in total control. New diseases will emerge. So whether the therapy we wield is that of the shaman or the scientist, the most important job left for us may still be holding a patient's hand. Nothing replaces that. ■

(From left) *Robert Quigley, MD, PhD, Chairman, Cardiothoracic Surgery; Hallam Hurt, MD, Chairman, Neonatology; Cosme Manzarbeitia, MD, Chairman, Transplant Surgery; Elliott Kulakowski, PhD, Director, Research and Technology Development; Vincent Young, MD, Chief, Ophthalmology, Board Member, Albert Einstein Healthcare Network.*

WHO'S TAKING

For the future of our neighborhoods and the human beings who live in them, we need a national health policy. Here's what it will and must address:

The environment, in the broad sense of that term, will define much of our health in the coming millennium. From how to respond to environmental terrorism to traditional pollution concerns, we need preparedness, we need safeguards. The population my office services, for instance, is subjected to industrial air plumes and heavy auto emissions. Meanwhile hospitalizations and deaths for asthma sufferers have risen faster than for any other major, chronic disease. We have taken things like our air, water and soil for granted. We must reverse that.

Can we define our community as going beyond national boundaries? If so, then AIDS remains a horrific epidemic. Even at home, HIV continues to spread fastest among women, African Americans and adolescents. Only a cure will right this.

And what *about* minorities and the poor? Yes, we have unaddressed pockets of our population right in our backyards. The disparity in health outcomes for them is striking. Yet, we remain the only developed western nation without national health insurance – at least for now.

Our office already has fatality review teams that look at deaths in young people and other groups. Our healthcare system now needs to figure out how to address the causes to prevent loss of life. This means increasing awareness.

For a long time, it has seemed that all the healthcare news for our area has been in the business section. I believe that many of the necessary business and organizational changes have already occurred in this city and that we will

ESPONSIBILITY?

by Estelle Richman

soon be left with stronger, more financially stable healthcare providers. The City Health Department must now partner with these providers for any of us to succeed.

We have to define and influence the issues together. When we raise up our cities and disenfranchised, everyone gains.

Estelle Richman is the Health Commissioner for the City of Philadelphia.

CAN WE BALANCE COST AND QUALITY?

by Martin Goldsmith

Healthcare providers will be under even greater economic pressure in the beginning of the new century than in the past few years. We will be driven to strengthen our business systems and efficiently practice high quality medicine. At the same time, we in the charitable, nonprofit sector will be expected to uphold our long-standing tradition of caring for the needy, educating the next generation of doctors and advancing the frontier of knowledge.

We will have to preserve an environment where creativity flourishes – an atmosphere in which we can develop new ideas for how to care for all people, especially our most vulnerable citizens.

As nonprofit organizations, we will have to work hard to guard our special status and protect our traditional values.

Over the long haul, the influence of publicly traded, healthcare insurance companies will diminish. For them, it will become too hard to generate an adequate profit. Employers simply will not be willing and able to pay the premium increases demanded by the "middleman."

Most employers will want to continue offering insurance coverage to their employees in the future. But rising costs will make this difficult, leaving many uninsured or underinsured. Taking over the role of insurance companies, providers will more actively manage patient care and more directly receive payment for their services. Einstein is already moving in this direction; we share ownership of several innovative healthcare plans.

While the community's most vulnerable individuals will benefit from our increasing responsibility to manage healthcare finances, it won't be enough. With our population aging – and much of it uninsured – government will have to help fill the void. Together, we have already worked to enhance healthcare access for uninsured children. We must now continue to advocate for coverage of others in need.

All of these steps will enhance our ability to continue to make healthcare cost-effective, while keeping it compassionate – and to deliver it in the places and facilities that make the most sense. We'll do this in partnership with the many physicians who are already lending their leadership and expertise to address today's important healthcare issues.

To be socially and fiscally responsible, we need to shape the future, rather than letting it shape us. We must keep care affordable while preserving human values.

Martin Goldsmith is President and Chief Executive Officer of Albert Einstein Healthcare Network.